Final Environmental Impact Statement

BRIGHTWATER REGIONAL WASTEWATER TREATMENT SYSTEM

November 2003

Brightwater
TREATMENT SYSTEM

King County
Department of Natural Resources and Parks
Wastewater Treatment Division

VOLUME 13

Responses to Comments on the Draft EIS
(Groups, Organizations, and Businesses)

A large map of the system alternatives evaluated in this Final EIS can be found in the inside back cover of Volume 1.

This information is available in alternative formats upon request by calling 206-684-1280 (voice) or Relay Service 711 (TTY).

King County Brightwater TREATMENT SYSTEM

Final Environmental Impact Statement for the Brightwater Regional Wastewater Treatment System

Volume 13

November 2003

Prepared in compliance with the State Environmental Policy Act (SEPA) (RCW 43.21C), the SEPA Rules (WAC 197-11) and Chapter 20.44 King County Code, implementing SEPA in King County procedures.

King County

Department of Natural Resources and Parks

Wastewater Treatment Division
King Street Center, KSC-NR-0503
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Seattle, WA 98104

Overview of Contents in Each Volume

Volume	Contents
1	Chapter 1, Summary Chapter 2, Background Chapter 3, Description and Comparison of Alternatives
2	Chapter 4, Earth Chapter 5, Air Chapter 6, Water Resources Chapter 7, Plants, Animals, and Wetlands Chapter 8, Energy and Natural Resources Chapter 9, Environmental Health Chapter 10, Noise and Vibration
3	Chapter 11, Land and Shoreline Use Chapter 12, Aesthetics Chapter 13, Light and Glare Chapter 14, Recreation Chapter 15, Cultural Resources Chapter 16, Transportation Chapter 17, Public Services and Utilities
4	Appendices for Chapter 2 (2-A – 2-D)
5	Appendices for Chapter 3 (3-A – 3-F)
6	Appendices for Chapter 3 (3-G – 3-L)
7	Appendices for Chapter 4 (4-A – 4-D)
8	Appendices for Chapter 5 (5-A – 5-C) and Chapter 6 (6-A – 6-D)
9	Appendices for Chapter 6 (6-E – 6-J) and Chapter 7 (7-A – 7-F)
10	Appendices for Chapter 10 (10-A, 10-B), Chapter 11 (11-A), Chapter 13 (13-A, 13-B), Chapter 15 (15-A), and Chapter 16 (16-A, 16-B)
11	Responses to Comments on the Draft EIS (Federal Agencies, State Agencies, Native American Tribes, Snohomish County)
12	Responses to Comments on the Draft EIS (Cities and Towns, Sewer and Water Districts, Other Governmental Entities)
13	Responses to Comments on the Draft EIS (Groups, Organizations, and Businesses)
14	Responses to Comments on the Draft EIS (Individuals: A-H)
15	Responses to Comments on the Draft EIS (Individuals: I-Z)
16	Summary of the Brightwater Summer 2003 Technical Seminars, Including Comments Received

Contents of Volumes 11-15

Acronyms and Abbreviations xiii

Volume 11

Federal Agencies
National Oceanic and Atmospheric Administration (F1) 1
U.S. Army Corps of Engineers (F2) 5

State Agencies
Washington State Department of Ecology (W5) 25
Washington State Department of Fish and Wildlife (W4) 61
Washington State Department of Health (W1) 95
Washington State Department of Natural Resources (W3) 97
Washington State Department of Transportation (W2) 195

Native American Tribes
Suquamish Tribe (T1) 205

Snohomish County
Snohomish County Fire District (S1) 221
Snohomish County Planning and Development Services (S3) 223
Snohomish County Public Works (S2) 359

Volume 12

Cities and Towns

City of Bothell (C2) 363
City of Bothell—Transportation Division (C8) 371
City of Edmonds (C9) 373
City of Kenmore (C3) 437
City of Lake Forest Park (C4) 509
City of Lake Forest Park—Economic Development Commission (G1) 575
City of Medina (C1) 577
City of Mountlake Terrace (C11) 579
City of Seattle (C10) 607
City of Shoreline (C6) 625
City of Woodinville (C5) 669
Town of Woodway (C7) 763

Sewer and Water Districts

Cross Valley Water District (D3) 783
Lake Forest Park Water District—Public Hearing Comments (D4) 833
Lake Forest Park Water District—Public Hearing Comments (D5) 835
Lake Forest Park Water District—Written Comments (D1) 839
Lake Forest Park Water District—Written Comments (D6) 841
Olympic View Water & Sewer District (D2) 863

Other Government Entities

Port of Edmonds (G3) 917
Puget Sound Clean Air Agency (G5) 935
Seattle & King County Public Health (G4) 941

Volume 13

Groups, Organizations, and Businesses

228th Street Coalition (O5) 945
Archdiocese of Seattle (O1) 947
Bear Creek Water Combine (O2) 949
Chevron Texaco (O6) 951
Davis Wright Tremaine LLP (O12) 955
Just the Facts (O19) 963
Lake Forest Park Stewardship Foundation (O9) 1059
Lane Powell Spears Lubersky (O4) 1063
Little Bear Creek Protective Association (O10) 1067
Maltby Neighborhood Alliance (O18) 1077
McCullough Hill Fisko Kretschmer Smith (I375) 1091
Northshore Education Association (O3) 1101
Point Edwards, LLC (I343) 1105
Richmond Beach Community Council/Bannister (O8) 1119
Richmond Beach Community Council/Girmus (O7) 1139
Save Little Bear Creek Coalition (O15) 1143
Sno-King Environmental Alliance/Gray (O16) 1161
Sno-King Environmental Alliance/Joseph (O17) 1209
Unocal Corporation (O13) 1249
Upper Bear Creek Unincorporated Area Council (O11) 1257
Washington Tea Party (O14) 1265

Volume 14

Individuals (A-H)

Last Name Beginning with A

Aagaard (I147) 1533
Adamson (I76)....1535
Albert (E1)....1537
Altman (I202)....1539
Anderson (I1) 1541
Anderson (I23) 1543
Apsitis (I294)....1545
Arger (I2)....1547
Ash (I295) 1549

Last Name Beginning with B

Baird (I30)....1551
Baker (I24) 1553
Baker (I84) 1555
Baldwin (K8)....1557
Balsalobre (I3)....1559
Barber (I29). 1561
Barker (E2)....1563
Batts (I271)....1565
Beers (I191)....1569
Bender (I351) 1571
Bender (I352) 1573
Berg (I4) 1575
Berglund (I64)....1577
Binder (I31)....1579
Birch (I312)....1581
Bishop (I272)....1583
Blaine (I273) 1585
Block (I178) 1589
Blumenthal (I353) 1591
Boatsman (I296)....1593
Boehm (I297) 1595
Boeve (I249)....1597
Bolin (I25)....1599
Bonthuis (I108) 1601
Borkart (I129) 1603
Bourgoin (I298)....1605
Bowen (I14)....1607
Boyle (I219) 1609
Brainerd (I5)....1611
Briggs (I200) 1613
Brock (I32) 1615
Brooks (I77) 1617
Brown (I33) 1619
Brown (I190) 1621
Brown (I65) 1623
Browning (I210)....1625
Burnham (I15)....1627

Last Name Beginning with C

Call (I233) 1629
Camden (I85)....1631
Campbell (I34) 1633
Campos (I26)....1635
Cannon (I299) 1637

Cannon (I300) 1639
Carey (I27) 1643
Ceis (I301).....1645
Cerf (I302).....1647
Chamberlin (I28) 1649
Chapple (I252).....1651
Chaput (I130). 1653
Chase (E16) 1655
Chase (E19) 1659
Christensen (I303). 1661
Christensen (I55) 1663
Christy (I354) 1665
Clos (I414).....1667
Clousten (I56).....1669
Cohen (I253) 1671
Cole (E3) 1673
Collins (I35) 1675
Collins (I57) 1677
Collins (I194) 1679
Combley (E4) 1681
Combs (I203).....1683
Compton (I304). 1685
Condit (I305) 1687
Corlett (I355).....1689
Cottingham (I16) 1691
Coyle (I58) 1693
Crain-Thoreson (I356).....1695
Croffit (I59) 1697
Crouch (I306) 1699
Currie (I357).....1701

Last Name Beginning with D

Dahatt (I275) 1703
Dailey (I74). 1705
Daily (I95) 1707
Dalby (I96) 1709
Danishek (I307).....1711
D'Arcy (E5).....1713
Day (I22) 1715
De Young (I131) 1717
Deliganis (I36).....1719
Denushi (I201).....1721
Derment (I37) 1723
DeRoche (I358) 1725
Dibble (E23).....1727
Dick (I179) 1729
Dickey (I250) 1731
Dillan (E6).....1733
Divorkin (I359). 1735
Doennebrink (I78) 1737
Dolezal (I254) 1739
Donaldson (I6).....1741
Drake (E20) 1743
Dressler (I413).....1747
Dunaway (I66).....1765
Duncan (I228) 1767
Duncan (I308) 1769
Dunnigan (I97) 1771
Dyer (I360).....1773
Dyer (E7).....1775

Last Name Beginning with E

Edlund (E8) 1777
Ehrlichman (I361) 1779
Eklund (I309) 1781
Eklund (I362) 1783
Ellerman (E26) 1785
Ellerman (I248) 1787
Erickson (K4) 1791
Erwin (I180) 1793
Erwin (I274) 1795
Evans (I98) 1797

Last Name Beginning with F

Farris (I407)....1799
Farris (I415)....1811
Feetham (I75) 1813
Festa (I38) 1815
Fisher (I105)....1817
Flanagan (I83) 1819
Fleming (I276)....1823
Fleming (I314)....1825
Fleming (I410)....1831
Forsyth (I99)....1837
Foss (I100)....1839
Foxley (I234)....1841
Freeman (E21)....1843
Freeman (E22)....1847
Freeman (I416)....1849
Friend (I363) 1851
Funk (I101)....1853

Last Name Beginning with G

Galloway (I109) 1855
Garratt (I364)....1857
Gates (I7)....1859
Gerrard (I313). 1861
Ghormley (I255)....1863
Gilliland (I148)....1865
Gilliland (I417)....1867
Gladstone (I90)....1873
Goldsmith (I86) 1875
Goold (I315)....1877
Gordon (I208)....1879
Grabner (I256)....1881
Graf (I316)....1883
Grant (I317)....1887
Gray (B5)....1889
Gray (I277)....1891
Green (I195) 1895
Grieve (I205) 1897
Grimes (I278) 1899
Grimes (I318) 1903
Grimes (I418). 1905
Grodzins (I229) 1907
Gruenewald (I246) 1909

Last Name Beginning with H

Hagel (I110) 1911
Hagstrom (I365) 1913
Hall (I241) 1917
Hall (I257) 1919
Hallam (I111) 1921
Hamel (E29) 1923

Hanken (I132) 1925
Hansen (I258).....1927
Hansen (I39).....1929
Hanson (I40).....1931
Harbert (I41).....1933
Harris (I112).....1935
Hart (I42).....1937
Hartstock (I319) 1939
Hartzell (I320).....1941
Hatch (I366) 1943
Hawkey (I321).....1945
Hawkins (I106).....1947
Haxton (I367) 1949
Heady (E9) 1951
Helser (B2) 1953
Henderson (E18) 1955
Henderson (I368).....1957
Henderson (I113).....1959
Hensley (I215).....1961
Hensley (I408).....1965
Hermsmeier (I369) 2147
Hibbert (E25).....2149
Hibbert (E24).....2151
Hill (I322).....2153
Hill (I419).....2155
Hineman (I242) 2157
Hoffman (I323) 2159
Holman (I259).....2161
Holt (I324).....2163
Hooker (I137).....2165
Hoover (I370).....2167
Horch (I91).....2169
Houchin (I371).....2171
Houck (I325).....2173
Hovancy (I260) 2175
Hovita (I372).....2177
Hughes (I114).....2179
Hulbert (I102).....2181
Hungar (I326).....2183
Hungar (I327).....2185
Hutchins (I87) 2187
Hutton (I328).....2189

Volume 15

Individuals (I-Z)

Last Name Beginning with I
Ii (I43) 2191
Iseman (I230) 2193
Isler (I394) 2195

Last Name Beginning with J
Jacobson (I92) 2197
Jahng (I405) 2199
James (I67) 2201
Jennings (I115) 2203
Johnson (I116) 2205
Johnston (I197) 2207
Jones (I182) 2209
Jones (I311) 2211
Jones (B7) 2213
Jones (I279) 2217
Jones (I411) 2221
Jones (I183) 2241
Jorgensen (I44) 2243
Joseph (I280) 2245

Last Name Beginning with K
Kane (I45) 2249
Kaysner (I117) 2251
Keefe-Martin (I93) 2253
Kelly (I88) 2255
Kelly (I118) 2257
Key (I373). 2259
Kioebge (I211) 2269
Klatterbaugh (K2) 2271
Klippsten (I329) 2273
Koehler (I138) 2275
Kolbo (B4) 2277
Kolbo (I281) 2279
Korten (I119) 2281
Kostner (I120) 2283
Kovarik (I330) 2285
Kuhn (I331) 2287

Last Name Beginning with L
LaMarche (I121) 2289
Lance (I154) 2291
Latourelle (I261) 2293
Lazenby (I122) 2295
Lease (I282) 2297
Lease (I409) 2299
Leland (I123) 2309
Lemonds (I149) 2311
Lenox (I206) 2315
Lewis (I124). 2317
Linder (I332) 2319
Little (I125) 2321
Littlefield (B3) 2323
Littlefield (I283) 2329
Livingston (I126) 2333
Lloyd (I198). 2335

Lobe (I133) 2337
Locke (I403) 2339
Long (I127). 2343
Longoni (I284) 2345
Longoni (I374) 2349
Longstaff (E10) 2353
Loo (I60) 2355
Lucas (I333) 2357
Lupo (I128) 2359

Last Name Beginning with M

Macellari (I153) 2361
Macellari (I262) 2363
Mackenzie (I184) 2365
MacRae (B1) 2367
MacRae (I341) 2371
Mahoney (I150) 2377
Mallon (I79) 2379
Malmgren (I404) 2381
Manning (I143) 2385
Marson (I263) 2387
Maurer (E11) 2389
Maurer (I334) 2391
Mayer (I139) 2397
McAdam (I264) 2399
McCallum (I231) 2401
McCallum (I151) 2403
McCennachie (I406) 2405
McEvoy (I68) 2407
McGinnis (I103) 2409
McGinnis (I376) 2411
McHarg (I377) 2413
McKeown (I335) 2415
Megorden (I336). 2417
Merget (I134) 2419
Miceli (I154) 2421
Micheline (I428) 2423
Mikus (I378) 2427
Miskulin (I155). 2429
Mitchell (I145) 2431
Moehrke (I337) 2433
Mohar (I235) 2435
Mohs (I265). 2437
Moore (I338) 2441
Morgan (I61) 2443
Morgan (I46) 2445
Morgan (I135) 2447
Morris (I8) 2449
Moss (I156) 2451
Moulton (I285) 2453
Mulkey (I209). 2457
Munson (K1) 2459

Last Name Beginning with N

Nank (E12) 2461
Nash (I136) 2463
Nebel (I157) 2465
Nelskog (I146) 2467
Nelson (I199) 2469
Newquist (E27) 2471
Nicholson (I47) 2473
Nilson (I236) 2475
Niolu (I339) 2479
Nord (I158) 2483

Noreen (I9) 2485
Northcutt (I69)....2487

Last Name Beginning with O
O'Driscoll (I204)....2489
O'Hanlon (I17)....2491
Ohrenschall (I227)....2493
Olmsted (I379) 2495
Olson (I159) 2501
Olson (G2)....2503
O'Morrison (E13)....2507
O'Morrison (I266)....2511
Ordway (I94) 2513
Orians (I380). 2515
O'Rourke (E28)....2517
O'Rourke (I342)....2519
Orvis (E17)....2523
Orvis (I251) 2527
Oswalt (I70)....2541
Ottele (I18) 2543
Owen (I80). 2545

Last Name Beginning with P
Pal (I10)....2547
Parker (I216) 2549
Patterson (I196)....2551
Paul (I181)....2553
Pearson (I222) 2555
Penhollow (I89)....2557
Perdue (I207)....2559
Perigo (I381) 2561
Perry (I160) 2563
Petersen (I382) 2565
Phillips (I383)....2567
Plemons (I161) 2569
Poole (I162)....2571
Porter (K7)....2573
Potter (I267) 2575
Potter (I384) 2577
Powers (I11). 2579
Preston (I81)....2581
Prickett (I163). 2583
Prouty (I237) 2585

Last Name Beginning with Q
None

Last Name Beginning with R
Rainer (E14) 2587
Rainey (I344)....2589
Rapoport (I385) 2591
Reagan (I71)....2593
Reber (I82) 2595
Reed (I386)....2597
Rendahl (I72)....2599
Renshaw (I185) 2601
Renshaw (I310) 2603
Renshaw (I345) 2607
Rethke (I226)....2609
Rettig (I186) 2611
Rew (I164)....2613
Reynolds (I212)....2615
Reynoldson (I346)....2619
Rhodes (I387)....2623

Rice (I268).....2625
Richardson (I221).....2627
Ridlon (I243).....2629
Robbins (I388).....2631
Robles (I347).....2633
Rogers (I389).....2635
Rogers (I19).....2637
Rogers (I48).....2639
Rosner (I20).....2641
Ross (I49).....2643
Roundhill (I187).....2645
Roundhill (I287).....2647
Rubstello (I62).....2649
Ruddy (I152).....2651
Rush (I192).....2655
Rutherford (I412).....2657
Ryan (I50).....2667

Last Name Beginning with S

Sakura (I270).....2669
Sakura (I288).....2671
Salerno (I232).....2675
Sallomi (I165).....2677
Salmon (I166).....2679
Sampson (I11).....2681
Sanderson (I348).....2683
Sather (I349).....2685
Saunders (I225).....2687
Schaffler (I167).....2689
Scham (E15).....2691
Schmied (I238).....2693
Schneider (I168).....2695
Schneider (I390).....2697
Schulte (I213).....2705
Schurman (I169).....2707
Scollard (I391).....2709
Seet (I244).....2711
Shapiro (I170).....2713
Shebilske (I171).....2715
Shebilske (I289).....2717
Sheehan (I421).....2719
Shofstall (I172).....2721
Shreve (I392).....2723
Simard (I393).....2725
Simmons (I422).....2727
Sloan (I173).....2729
Smith (I290).....2731
Smits (I152).....2733
Snell (I21).....2735
Snyder (I220).....2737
Soll (I53).....2739
Soltesz (I217).....2741
Songy (I73).....2743
Start (I140).....2745
Stephensen (I141).....2747
Stepper (I193).....2749
Stewart (I423).....2751
Stone (I174).....2753
Stuckey (K3).....2755
Surabian (I175).....2757
Swaim (I395).....2759
Sweeney (I12).....2761
Swinney (I396).....2763
Symington (I424).....2765

Last Name Beginning with T
Tatman (I63).....2769
Tatman (I291).....2771
Thomas (I425).....2773
Thompson (I176).....2775
Thompson (I188).....2777
Tonkin (I397).....2779
Tradel (I398).....2781
Treiber (I107).....2783
Trocano (I245).....2785
Turpin (I247).....2787

Last Name Beginning with U
None

Last Name Beginning with V
Van Dyke (I224).....2789
Vercelli (I292).....2793
Verdan (I239).....2795
Verhei (I144).....2797
Virgin (I426).....2799

Last Name Beginning with W
Wambolt (I420).....2803
Ward (I189).....2805
Warden (I402).....2807
Watson (I104).....2813
Watson (I177).....2815
Weaver (I427).....2817
Westergaard (I13).....2819
Weston (I293).....2821
Weston (I399).....2825
Whitacre (I218).....2869
Witney (I400).....2871
Wiggins (K5).....2875
Willett (B6).....2877
Withers (I401).....2881
Woodard (I269).....2883
Woodfield (I214).....2885

Last Name Beginning with X
None

Last Name Beginning with Y
Youngblood (I223).....2887

Last Name Beginning with Z
Zhong (I142).....2889
Zyskowski (I240).....2891

Acronyms and Abbreviations

AAF	average annual flow
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ADR	Architectural Design Criteria
ADWF	average dry-weather flow
ADT	average daily traffic
ANSI	American National Standards Institute
APT	advanced primary treatment
AR	aquatic resource
ASIL	ambient source impact level
ASP	amnesic shellfish poisoning
ASTM	American Society for Testing and Materials
AWDT	average weekday traffic
AWT	advanced wastewater treatment
AWWF	average wet-weather flow
BACT	best available control technology
BASTE	Bay Area Sewage Toxics Emission model
BETX	Xylenes (benzene, ethyl benzene, toluene, and zylene)
bgs	below ground surface
BMP	best management practice
BNSF	Burlington Northern-Santa Fe (railway)
BOD	biochemical oxygen demand
BPA	Bonneville Power Administration
BRHL	Bothell Registry of Historic Landmarks
bsp	atmospheric particles (by nephelometer)

CAA	Clean Air Act (federal)
CAO	Critical Area Ordinance
CATAD	computer augmented treatment and disposal system
CAS	conventional activated sludge
CCTV	cable connected television camera
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfm	cubic feet per minute
CFR	Code of Federal Regulations
cfs	cubic feet per second
CFU	coliform units
City Light	Seattle City Light
CO	carbon monoxide
COD	chemical oxygen demand
COE	U.S. Army Corps of Engineers
CPP	Countywide Planning Policy
CSO	combined sewer overflow
CU	conditional use
CUP	conditional use permit
CVSSA	Cross Valley Sole Source Aquifer
CVWD	Cross Valley Water District
CWA	Clean Water Act (federal)
cy	cubic yard
CZMA	Coastal Zone Management Act
DAF	dissolved air flotation
dBA	decibel, A-weighted
DDES	King County Department of Development and Environmental Services
DEQ	detailed evaluation question
DNRP	King County Department of Natural Resources and Parks

DO	dissolved oxygen
DOH	Department of Health (Washington State)
DPS	distinct population segment
D/T	dilution to threshold
du	dwelling unit
EAC	Executive Advisory Committee
Ecology	Washington State Department of Ecology
ECDC	Edmonds Community Development Code
EEM	estuarine emergent wetland
EFH	Essential Fish Habitat
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
EPF	essential public facility
ESA	Endangered Species Act
ESC	erosion and sediment control
ESI	Eastside Interceptor
E2EM	intertidal emergent
ETS	Effluent Transfer System
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FPA	Forest Practices Act
FS	freeway service
FTA	Federal Transit Administration
FTE	full-time employee
FWPCA	Federal Water Pollution Control Act
GBT	gravity belt thickener
GIS	geographic information system
GMA	Growth Management Act (Washington State)

GMA Board	Central Puget Sound Growth Management Hearings Board
gpd	gallons per day
gpm	gallons per minute
H_2S	hydrogen sulfide
HABS/HAER	Historic American Buildings Survey/Historic American Engineering Record
HAP	hazardous air pollutant
HCP	Habitat Conservation Plan
HDPE	high density polyethylene
HI	heavy industrial
HMP	Habitat Management Plan
HMMP	Hazardous Materials Management Plan
HOV	high occupancy vehicle
hp	horsepower
HPA	Hydraulic Project Approval
HPO	high purity oxygen
HVAC	heating, ventilation, and cooling
HWTM	Hazardous Waste Technical Memorandum
IBC	International Building Code
IDA	International Dark-Sky Association
IDLH	Immediately Dangerous to Life or Health
IESNA	Illuminating Engineering Society of North America
I/I	infiltration/inflow
IPS	influent pump station
IRIS	Integrated Risk Information System
ISO	International Organization for Standardization
ITE	Institute of Transportation Engineers
KCC	King County Code
KCLL	King County Landmarks List

kV	kilovolt
kWh	kilowatt-hour
L_{eq}	maximum hour continuous equivalent level
L_{50}	mean value of a noise level over a 1-hour monitoring period
LI	light industrial
LID	low-impact development
L1OW	lacustrine limnetic open water
LOS	level of service
L2OW	lacustrine littoral open water
MACT	maximum achievable control technology
MBR	membrane bioreactor
Metro	Municipality of Metropolitan Seattle or King County Department of Metropolitan Services
mgd	millions gallons per day
mg/L	milligrams per liter
MLLW	mean lower low water
MMPA	Marine Mammal Protection Act
MOSS	Marine Outfall Siting Study
MPA	Marine Protected Area
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSL	mean sea level
MTBM	microtunnel boring machine
MTCA	Model Toxics Control Act
MTP	Metropolitan Transportation Plan
MVM	million vehicle miles
MW	megawatt
MWh	megawatt hour
MWPAAC	Metropolitan Water Pollution Abatement Advisory Committee
MWWF	maximum wet weather flow

NAAQS	National Ambient Air Quality Standards
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NGVD	National Geodetic Vertical Datum
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration (formerly NMFS—National Marine Fisheries Service)
NOC	Notice of Construction permit
NO_x	nitrous oxides
NPDES	National Pollutant Discharge Elimination System
NPPC	Northwest Power Planning Council
NRDA	Natural Resource Damage Assessment
NRHP	National Register of Historic Places
NTP	north treatment plant
NTU	nephelometric turbidity unit
O_3	ozone
OAHP	Office of Archeology and Historic Preservation (Washington State)
OCD	Washington State Department of Natural Resources
OHW	ordinary high water mark
OMP	RWSP Operational Master Plan
OSHA	Occupational Health and Safety Act
PAH	polycyclic aromatic hydrocarbon
PBT	persistent, bioacculmulative, and toxic
PCB	polychlorinated biphenyl
PEEP	Pooled Emission Estimation Program
PEM	palustrine emergent wetland

PFO	palustrine forest wetland
PHS	Priority Habitats and Species Program
PM	particulate matter
POTW	publicly owned treatment works
POW	palustrine open water wetland
ppbV	parts per billion by volume
ppm	parts per million
PPV	peak particle velocity
PSA	portal siting area
PSAMP	Puget Sound Ambient Monitoring Program
PS Clean Air	Puget Sound Clean Air Agency
PSD	Prevention of Significant Deterioration permit
PSE	Puget Sound Energy
psi	pounds per square inch
psig	pounds per square inch gauge
PSP	paralytic shellfish poisoning
PSRC	Puget Sound Regional Council
PSS	palustrine scrub shrub wetland
PSWQAT	Puget Sound Water Quality Action Team
PUD	public utility district
QA/QC	quality assurance/quality control
RCE	residential customer equivalent
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
R4SB	riverine intermittent
RI	remedial investigation
RI/FS	remedial investigation/feasibility study
RMS	root mean square
ROV	remotely operated vehicle

ROW	right-of-way
RTA	Regional Transit Authority
R3SB	riverine upper perennial
R2UB	riverine unconsolidated bottom
R2SB	riverine lower perennial
RWQC	King County Regional Water Quality Committee
RWSP	Regional Wastewater Services Plan
SARS	severe acute respiratory syndrome
SCADA	Supervisory Control and Data Acquisition System
SCC	Snohomish County Code
SCCRI	Snohomish County Cultural Resources Inventory
SCHRI	Snohomish County Historic Resources Inventory
SCS	Soil Conservation Service
SCT	Snohomish County Tomorrow
SEPA	State Environmental Policy Act
the Services	NOAA Fisheries and U.S. Fish and Wildlife Service
SGMP	Seattle Area Geologic Mapping Project
SIP	State Implementation Plan
SLS&E	Seattle, Lake Shore and Eastern (railroad)
SMA	Shoreline Management Act
SMP	Shoreline Master Program
SMS	Sediment Management Standards (Washington State)
SPCC	Spill Prevention, Control, and Countermeasures
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SPT	Standard Penetration Test
SPU	Seattle Public Utilities
SQER	small quantity emission rate
SR	state route
SS	suspended solids
SSO	sanitary sewer overflow

SWD	Seattle Water Department
SWIFZ	South Whidbey Island Fault Zone
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
TAP	toxic air pollutant
TBM	tunnel boring machine
TMDL	total maximum daily loading
TMP	Traffic Management Plan
TPH	total petroleum hydrocarbon
tpy	tons per year
TSP	total suspended particulate matter
TSS	total suspended solids
$\mu g/m^3$	micrograms per cubic meter
UFC	Uniform Fire Code
UBC	Uniform Building Code
UGA	Urban Growth Area
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
USWB	U.S. Weather Bureau
UV	ultraviolet light
VOC	volatile organic compound
VS	volatile solid
WA DNR	Washington State Department of Natural Resources
WAC	Washington Administrative Code

WARM	Washington Ranking Method
WDFW	Washington State Department of Fish and Wildlife
WHO	World Health Organization
WHR	Washington Heritage Register
WISHA	Washington Industrial Safety and Health Act
WLA	wasteload allocation
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation
WTD	King County Wastewater Treatment Division
WWHM	Western Washington Hydrological Model
WWTP	wastewater treatment plant
ZID	zone of initial dilution

FINAL
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IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

GROUPS, ORGANIZATIONS, AND BUSINESSES

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Brightwater
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COMMENTS AND RESPONSES

O5
228TH STREET COALITION

RECEIVED
JAN 21 2003
ENVIRONMENTAL
PLANNING DIVISION

Name and Address:
John Bush
22631 12th Place West
Bothell, WA
98021

Comment:

O5-1

We are strongly opposed to any construction of Brightwater or the conveyance route along 228th Street in Bothell.

We have organized and made countless appearances to express our opposition. We have proposed alternatives and have provided documents to support our case.

We do support the construction of Brightwater at either Edmonds or Route 9 site. We support a conveyance route from the coast to the Route 9 site so long as it follows the route along 195th Street and NOT along 228th Street.

...John Bush, Coordinator, 228th Street Coalition

Response to Comment O5-1

Thank you for your comment.

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Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

O1
ARCHDIOCESE OF SEATTLE

RECEIVED
DEC 9 2002
ENVIRONMENTAL PLANNING DIVISION

December 5, 2002

Environmental Planning
KSC-NR-0505
King County Wastewater Treatment Division
201 South Jackson St.
Seattle, WA 98104-3588

Re: Brightwater Treatment System and proposed siting of portal and pump station #27 in the vicinity of NE 205th St./244th St. SW & 1st Ave. NE

Dear Sir or Madam:

O1-1 Recently the Archdiocese of Seattle received the *Draft Environmental Impact Statement Summary* concerning King County's Brightwater Treatment System. This summary opens with a letter from Mr. Ron Sims, King County Executive, to the community at large. In part, Mr. Sims states: "This is your opportunity to share information or ask questions about the Brightwater systems before I make my final decision in 2003." Due to the potential adverse impact to one of the ministries of the Catholic Archdiocese of Seattle by the possible site location of portal and pump station #27, we expect that this letter will be included with other formal comments concerning the Brightwater project.

O1-2 In reviewing the information in the *Draft Environmental Impact Statement Summary* as well as information concerning this project found on King County's web site, we find that the Route 9 - 195th Preferred Alternative[1] indicates a proposed portal and pump station #27 in the vicinity of NE 205th St./244th St. SW & 1st Ave. NE. This location corresponds with the northeast corner of Holyrood Catholic Cemetery. We must assume that Brightwater is considering locating all or part of the site for this portal and pump station on property that is currently owned by the Archdiocese of Seattle. In addition, the corridor shown for the conveyance piping system will run along NE 205th Street. This corridor runs along the highway directly adjacent to Holyrood Cemetery on its northern property line. The cemetery office facility is located in this vicinity. In addition, the long-term plans for the cemetery land in this vicinity include development of burial sites.

The Archdiocese of Seattle shares King County's commitment to protect water quality. We support efforts to continue to provide safe environmentally sound water treatment in the central Puget Sound region. However, the proposed location of the portal and pump station #27 and the possible location of the conveyance piping along NE 205th St. could adversely affect the future burial needs of members of the Catholic community. While your web site states that "the actual area needed will be only 1 to 2 acres",[2] this acreage represents a significant amount of land at Holyrood Cemetery which would be lost to future generations of Catholics to meet their burial needs.

[1] *Draft Environmental Impact Statement Summary*, p. 4.
[2] http://dnr.metrokc.gov/wtd/brightwater/env/maps-atlas/page-r14.htm, September 23, 2002.

O F F I C E O F T H E A R C H B I S H O P
Archdiocese of Seattle ◆ 910 Marion Street ◆ Seattle, Washington ◆ 98104-1299

Response to Comment O1-1

Thank you for your comment.

Response to Comment O1-2

Portal 27 at NE 205th St and 1st Ave NE is considered a secondary portal for the Route 9-195th Street Preferred Alternative; secondary portal sites are not expected to be required based on existing geotechnical analyses. However, they may be needed if additional geotechnical analysis performed during final design indicates that a shorter tunnel reaches are required. A decision on the need for secondary portals will not be made until final design is completed. If needed, secondary portals may also be used for ancillary ventilation, ground improvement, and/or grouting supply. After a final decision is made on the location for the Brightwater System, King County will work with local jurisdictions to determine mitigation strategies and solutions to the construction and operational impacts. Chapter 3 of the Final EIS contains an updated description of project alternatives.

acreage represents a significant amount of land at Holyrood Cemetery which would be lost to future generations of Catholics to meet their burial needs.

O1-3 Our religious tradition holds that land set aside for the burial of the faithful and blessed for that purpose is sacred.[3] Holyrood Cemetery has been established and blessed for this purpose and is, therefore, a sacred place. Our Catholic cemetery exists as a tangible sign and statement of our belief system including the sacredness of the human person, respect for the body, and faith in the resurrection of Jesus Christ. The Catholic cemetery is an extension of the Church.

Since Holyrood Cemetery has been set aside for burial needs of our Catholic community, we recognize our role as stewards for future generations. Land not currently used for burials does not represent underutilized land. Our cemetery does not merely hold the mortal remains of those who have gone before us. Nor will it simply meet the burial needs of this current generation. We hold this land as stewards for the burial needs of future generations of Catholics yet unborn.

O1-4 Since the land held at Holyrood for future cemetery development is finite, the value of the land when used for cemetery purposes far exceeds the simple real estate value of the property. We estimate that the value of one acre of Holyrood when used for cemetery purposes exceeds five million dollars.[4]

O1-5 Given the sacred nature of Holyrood Cemetery and in recognition of our responsibility as stewards for the burial needs of future generations, the Archdiocese of Seattle will not consider any overture from King County for purchase or easement of property at Holyrood Cemetery for a portal or pump station or for the corridor necessary for the placement of the pipeline.

Sincerely yours,

+ Alex J. Brunett

Most Rev. Alex J. Brunett
Archbishop of Seattle

[3] *The Code of Canon Law*, #1205.
[4] 2002 cemetery retail prices.

Response to Comment O1-3

Thank you for your comment.

Response to Comment O1-4

Thank you for your comment.

Response to Comment O1-5

Thank you for your comment.

O2
BEAR CREEK WATER COMBINE

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Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

RECEIVED
JAN 6 2003
ENVIRONMENTAL PLANNING DIVISION

Doug DeMeerleer
Bear Creek Water Combine
21310 65th Ave. SE
Woodinville, WA 98072

December 30, 2002

Environmental Planning
King County Waste Water Treatment Division
201 S. Jackson Street
Seattle, WA 98104-9972

Dear Sir:

O2-1 I write with regard to the Brightwater Sewer Project and its close proximity to our Class B water system (#18788M). Our concerns are possible contamination and/or depletion of our water supply.
The aquifer that supplies the five households on our system is only 49 feet deep. How deep it is in other places is not known to me. It is under a great deal of pressure. We don't have to pump the water out of the ground into our holding tank; we have a valve to stop the natural flow when our tank is at capacity. This artesian aquifer is supplying other wells all over the valley as well. If during construction of the proposed facility, the aquifer was seriously punctured by large earth moving equipment, pilings for footings, or whatever, it is conceivable that we, and the other well owners in the valley, would loose our water. Additionally, the proposed project calls for many miles of tunneling under all natural and man made obstacles. How deep would this tunneling be, for example, under Little Bear Creek? Are we risking a wonderful natural resource because it is an easy solution politically? After all, in rural South Snohomish County almost anything goes from wrecking yards to seventeen acres of paved school bus parking to a 90 acre sewer plant.
Our hope is that these concerns will be taken seriously. Clean water is, and will always be, man's most important natural resource.

Sincerely,

Doug DeMeerleer
System Manager
Bear Creek Water Combine

CC: Snohomish Health District
3020 Rucker Ave, Suite 300
Everett, WA 98201-3971

Response to Comment O2-1

In response to this comment, as well as other individual and agency comments, the conveyance tunnel is being designed to avoid impacts to aquifers along the alignment. One option would be the use of a multiple-pass liner system in some aquifer areas. The first-pass liner would be a precast bolted and gasketed segmental concrete liner. The second-pass liner would be installed inside the first liner. Materials for the second-pass liner would be welded steel pipe, fiberglass, or cast-in-place concrete. The tunnel lining system will be designed to prevent groundwater from leaking into the tunnels. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS for additional discussion of this issue.

The Route 9-195th Street System alternative would cross under Little Bear Creek with a vertical separation of over 150 feet. The Route 9-228th Street System would be at 50 feet below the creek, while the Unocal System would not cross the creek.

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FINAL
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IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

O6
CHEVRON TEXACO

ChevronTexaco Business and Real Estate Services
A Division of Chevron U.S.A. Inc.
2613 Camino Ramon / Rm # 2278
San Ramon, CA 94583
Tel 925 973 4458
Fax 925 973 4350

Cynthia Wong
Real Estate Projects Representative

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ENVIRONMENTAL PLANNING DIVISION

ChevronTexaco

January 20, 2003

Environmental Planning
King County Wastewater Treatment Division
201 South Jackson Street
KCS-NR-0505
Seattle, Washington 98104

Re: Comments on Draft EIS on Brightwater Regional Wastewater Treatment System

Environmental Planning Dept,

O6-1 On behalf of ChevronTexaco, I am submitting our written comments on the Draft Environmental Impact Statement (EIS) on the Brightwater Regional Wastewater Treatment System, dated November 2002. Based upon our review of the EIS, we have the following comments or questions pertaining to the project as it may affect our Chevron Richmond Beach Asphalt Terminal property located at Point Wells:

1. The draft EIS refers to our Richmond Beach facility with various names. Such as: Chevron Point Wells facility, Chevron Asphalt and Bulk Fuel Storage Facility, and Chevron Asphalt Plant. For your records, the official name of our facility is "Chevron Richmond Beach Asphalt Terminal", an asphalt and bulk fuel terminal and storage facility.

O6-2

2. General Question - How will the overall design of the outfall at "Point Wells" and the conveyance line of Route 9 crossing our property on Richmond Beach affect the groundwater flow on our property? As you are aware, there is subsurface contamination on the property from the historical (over 100 years) petroleum operations at the site. We are concerned that changes to groundwater flow could adversely affect our efforts to contain and cleanup that contamination.

O6-3

3. Pg. 2-17; Table 2-1 indicates our "Point Wells" site to be 98 acres. We are wondering about the basis for this figure. According to Snohomish County Property Tax records, our site is 80 acres.

O6-4

4. Pg. 3-34; Table 3-8 indicates the Outfall Construction considerations and makes the statement that "Boating lanes offshore could be disrupted by construction, …". ChevronTexaco will need to have access to the boating lanes for commercial vessels, barges and tanker ships to access our dock in order to keep our terminal operations going.

O6-5

5. Pg. 3-99; Table 3-16 mentions Mitigation Measures for the Outfall Zone. A Mitigation Measure for the Outfall Zone mentions "Temporary access routes will be developed to ensure park and beach access are maintained." ChevronTexaco would like to clarify that public beach access through or near our Terminal property is not an option for security and safety

Response to Comment O6-1

Thank you for your comment.

Response to Comment O6-2

The outfall and the associated portal (Portal Siting Area 19) would be designed in a way that would prevent impact to groundwater flow at the Richmond Beach site. The groundwater analyses presented in Appendix 6-B, Geology and Groundwater, of the Final EIS show that groundwater inflow rates will be low for both portal and tunnel construction. Consequently, there should be no adverse effects to Chevron cleanup efforts. However, King County recognizes that additional subsurface investigations will be necessary in cooperation with Chevron to design and construct the conveyance system in a manner protective of ongoing remediation efforts.

Response to Comment O6-3

The Final EIS shows that ChevronTexaco's Point Wells property consists of 80 acres, as per Snohomish County Property Tax records.

Response to Comment O6-4

Barge traffic for construction of the marine outfall would be coordinated so that Chevron traffic is not interrupted. Chapter 16 of the Final EIS has been revised to reflect this new information.

Response to Comment O6-5

Thank you for your comment.

1/20/2003
King County Wastewater Treatment Division
January 20, 2003
Page 2

O6-5 reasons of our Terminal operations. In addition, ChevronTexaco could need beach access, on our property and property contiguous to our property, to ensure timely and effective emergency response in the event of any incidents that may occur during marine transfer operations.

O6-6 6. Pg. 3-133; Table 3-21 mentions Outfall Zone Impacts and "Construction activity near the Chevron Asphalt and Bulk Fuel Storage Facility at Point Wells could conflict with commercial vessel and tribal traffic …". ChevronTexaco will need to have access to the boating lanes for commercials vessels, barges and tanker ships to access our dock in order to keep our terminal operations going.

O6-7 7. Pg. 3-133; Table 3-21 mentions the Outfall Zone Impacts and "Trucks would be used to remove excavated material and delivery of outfall construction materials." ChevronTexaco has concerns about potential truck traffic and how it could impact our Terminal operations. How will these trucks access the outfall construction site? What will the truck traffic schedule be and how will it affect our Terminal operations?

O6-8 8. Pg. 7-77; (Last Paragraph – Route 9 Corridors): This last paragraph mentions that a dechlorination facility may be located along the 195th Street corridor for Route 9 and the Portal Siting Areas may be 19, 23, or 27. The ChevronTexaco property is within the proposed portal area of Portal 19 and we are concerned that the dechlorination facility may be located on our property. It would be unacceptable to have the dechlorination facility located on the ChevronTexaco property due to the size of the dechlorination facility (0.5 acres) and the associated impacts on the ChevronTexaco property and potential interference with our operations.

O6-9 9. Pg. 11-50; (Portal Siting Area 19): The first paragraph mentions that there is only one vacant parcel within this siting area large enough to site a portal. Where is this portal 19 location exactly? In reviewing Figure 11-23, it does not show the exact location where portal 19 will be located. It is unacceptable for portal 19 to be located on the ChevronTexaco property for it would interfere with our terminal operations.

O6-10 10. Pg. 16-10; (Third Paragraph): This paragraph mentions the different types of vessels using the ports along the Puget Sound waterfront. ChevronTexaco would like to mention that oil tankers also use the ports along the Puget Sound waterfront as part of the commercial ship / barge berthing access to our ChevronTexaco property located at Pt. Wells.

O6-11 11. Pg. 16-27; (Zone 7S Paragraph): This paragraph mentions that the "Frequency of marine traffic using the dock varies from one to two barges per week in the summer to one barge every 2 to 3 months in the winter." This statement is not accurate. ChevronTexaco currently receives 3 to 4 barges per week all year and, on average, one tanker ship per quarter.

Response to Comment O6-6

Barge traffic for construction of the marine outfall would be coordinated so that Chevron traffic is not interrupted. To correct Table 3-21 of the Draft EIS, the sentence "Barge traffic for construction of the marine outfall would be coordinated so that Chevron and tribal traffic are not interrupted" has been added to the text of the Final EIS under the Mitigation Measures column.

Response to Comment O6-7

Construction of Portal 19 and the Zone 7S outfall would be adjacent to the existing ChevronTexaco terminal, with the land-based staging area for onshore, nearshore, and offshore construction. Construction trucks would access the site from Richmond Beach Drive NW via North 185th Street and SR-99. Truck operations at the ChevronTexaco terminal are relatively light, so they probably would not expect to have many conflicts with Brightwater construction trucks. However, Brightwater would schedule construction truck trips around the ChevronTexaco truck operations schedule. The construction approach and schedule of the site are summarized in Appendix 3-G, Construction Approach and Schedule, of the Final EIS.

Response to Comment O6-8

Portal Siting Area 19 is no longer a proposed location for the dechlorination facility. For the Route 9-195th Street System, the facility would be constructed at Portal Siting Area 5, while for the Route 9-228th Street System the facility would be at Portal Siting Area 26.

Response to Comment O6-9

The Final EIS describes the location of the candidate parcels within each portal siting area. Please refer to Chapter 3 of the Final EIS for this information.

Response to Comment O6-10

The text of the Final EIS has been corrected as follows: “Vessels using these ports include oil tankers, cargo vessels, commercial fishing vessels, tugs, barges, cruise ships and naval vessels.”

Response to Comment O6-11

The sentence(s) describing the frequency of dock usage in the Final EIS has been edited as follows: “The frequency of marine traffic accessing the dock is currently 3 to 4 barges per week and, on average, one tanker ship per quarter.”

1/20/2003
King County Wastewater Treatment Division
January 20, 2003
Page 3

O6-12 12. Pg. 16-49; (Second Paragraph in Zone 7S): This paragraph mentions that barge traffic would be coordinated with affected tribal governments. The barge traffic also needs to be coordinated with ChevronTexaco's barge traffic and tanker ship traffic for their dock operations and off loading operations as well.

O6-13 13. Pg. 16-49; (Third Paragraph in Zone 7S): This paragraph mentions that "Trucks may also be utilized for removal of excavated material and delivery of construction materials during outfall pipeline installation." ChevronTexaco has concerns about potential truck traffic and how it could impact our Terminal operations. How will the trucks access the outfall construction site? What will the truck traffic schedule be and how will it affect our Terminal operations?

O6-14 Based on our overall review of the Draft EIS, we found the report to be very general and not specific on the technical design of the conveyance lines and the exact locations for the portal locations. We thus can not offer more specific comments.

If you have any questions on our comments above, please contact me at (925) 973-4458. We would be happy to meet with you to discuss our comments if you wish. Thank you for the opportunity to review the Draft EIS.

Sincerely,

Cynthia Wong
ChevronTexaco Business and Real Estate Services
Real Estate Projects Representative

Response to Comment O6-12

Barge traffic for construction of the marine outfall would be coordinated so that Chevron traffic is not interrupted. To correct Page 16-49 of the Draft EIS, the text of the Final EIS has been revised to include the following information: Barge traffic for construction of the marine outfall would be coordinated with affected tribal governments and with Chevron officials so that marine traffic accessing the Chevron dock at Point Wells is not interrupted.

Response to Comment O6-13

Please refer to the response to Comment O6-7 of this letter.

Response to Comment O6-14

The Final EIS provides additional specificity with respect to the location and impacts of portals and conveyance system information in Chapter 3 of the Final EIS.

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Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

O12
DAVIS WRIGHT TREMAINE LLP

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LAWYERS

Davis Wright Tremaine LLP

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January 21, 2003

Ms. Shirley Morroquir
Environmental Supervisor
Environmental Planning and Community Relations
King County Wastewater Treatment Division
201 South Jackson St. Suite 505
Seattle, WA 98104-3855

Re: StockPot and Campbell Soup – Comment on Brightwater Sewage Treatment Facility DEIS

Dear Ms. Morroquir:

We represent StockPot, Inc. and its parent, Campbell Soup Company, (collectively, "StockPot") with respect to the siting, environmental review and acquisition of property for King County Metro's proposed Brightwater Sewage Treatment Facility. On behalf of StockPot, we offer these comments on the Draft Environmental Impact Statement for the Brightwater Sewage Treatment Facility.

1. Introduction

a. Description of StockPot's Culinary Campus. The authentic flavors of StockPot's fresh refrigerated soups and other foods come from fresh stocks and a mirepoix of fresh vegetables, simmered in open kettles. StockPot's Woodinville Culinary Campus is a center for culinary development, attracting chefs and culinary professionals from the nation's top restaurant chains and leading fresh food retailers. StockPot fresh refrigerated soups, stews, sauces and other food products have a national reputation for superior quality, authentic cooking standards, minimally processed ingredients, and proprietary seasoning blends. About half of StockPot's sales come from custom products, made to the proprietary standards of several well known national and local restaurants. StockPot prepares custom proprietary recipes for many of the top names in the foodservice industry including: the top 100 casual chains;

Ms. Shirley Morroquir
January 21, 2003
Page 2

the top ten steakhouses; luxury cruise lines; the leading quick-service restaurants; the leading US grocery chains; membership club fresh deli's; fine dining and family dining groups; and national parks, casinos, and ski resorts.

An average of 50 customer tours and chef-to-chef culinary development sessions are conducted each year at StockPot's Culinary Campus, which is also the site for "Spooniversity" training for Campbell Away From Home sales, marketing, and research and development teams. StockPot employs 245 workers (an increase of 50+ jobs in the past six months) with an annual gross payroll expense of $13,000,000.

O12-1 b. *Location of StockPot Culinary Campus with respect to Proposed Brightwater Route 9 Treatment Site.* We understand from the DEIS that the proposed Brightwater Route 9 Sewage Treatment Facility Site (the "Route 9 Sewage Treatment Facility Site") consists of a 109-acre area (approximately 1,000 feet wide by 5,000 feet long) located just east of State Route 9 and just north of Highway 522. The StockPot Culinary Campus is located on an approximately 480 ft. by 700 ft. rectangular shaped property located within a notch on the northeastern portion the Route 9 Sewage Treatment Facility Site that is tantamount to being within the site itself. The StockPot Culinary Campus includes an approximately 100,000 square-foot building that has been specially designed and built as a first class food production and marketing facility. The building is primarily devoted to kitchens and production facilities but also has substantial space devoted to test kitchens and laboratories; sales and marketing space including specialized "show kitchens"; and offices and administrative space. Most of StockPot's 245 workers at the campus drive themselves to and from work. StockPot also averages 65 deliveries to the campus per

O12-2 week and 35 deliveries from the campus per week. StockPot's Culinary Campus and the Route 9 Sewage Treatment Facility will share a common access road. The parcel upon which StockPot's Culinary Campus is located is part of a 5-lot commercial subdivision know as Woodinville North Business Park, the plat for which was recorded on November 2, 1999. All

O12-3 five of the parcels within this commercial subdivision are subject to certain conditions, covenants and restrictions (CC&R's) designed to protect the property owners and to assure that the other properties are used for purposes consistent with a first class business park. Among these restrictions is an express prohibition upon using any of the properties for a sewage treatment plant. The CC&R's also assure each of the property owners that it will have adequate use of the common road system. StockPot's lease assures that StockPot will enjoy all of the benefits of the CC&R's. The CC&Rs and the lease provisions granting StockPot the benefits of the CC&R's – particularly the covenant prohibiting use of the property for a sewage treatment plant – are critical to StockPot. StockPot specifically negotiated for the inclusion of this sewage treatment restriction because StockPot realized that the use of any of the other properties in the Woodinville North Business Park for sewage treatment purposes would destroy its tens of millions of dollars investment in the Culinary Campus.

SEA1314180v1

Response to Comment O12-1

In the Draft EIS, the StockPot property had been excluded from the treatment plant site. However, the site design in the Final EIS includes the StockPot property. If the Route 9 site is selected and the final site layout for the proposed Brightwater Treatment Plant at the Route 9 site requires the use of Lot 1 of the Woodinville North Business Park (StockPot property), then King County would acquire that property and relocate the tenant, consistent with the terms of King County's acquisition and relocation policies and procedures and applicable laws.

Response to Comment O12-2

Increased traffic, competing access, and new roadways would not be an issue for StockPot, Inc. The StockPot Culinary Campus would be acquired through King County's property acquisition process.

If the Route 9 site is selected, and the final site layout for the proposed Brightwater Treatment Plant at the Route 9 site requires use of Lot 1 of the Woodinville North Business Park (StockPot Culinary Campus), then King County would acquire that property and relocate the tenant, consistent with the provisions of King County's acquisition and relocation policies and procedures and applicable law. Assuming the StockPot Culinary Campus is acquired through King County's property acquisition process, as currently planned, increased traffic, competing access, and new roadways would not be an issue for StockPot, Inc.

Response to Comment O12-3

Thank you for your comment.

Ms. Shirley Morroquir
January 21, 2003
Page 3

2. Summary of Comments.

O12-4 StockPot believes that the DEIS fails to describe adequately or accurately impacts to StockPot facilities. StockPot also believes that the proposed Route 9 Sewage Treatment Facility will have probable, significant adverse impacts upon the following elements of the environment:

O12-5 a. *Air Quality*: Construction of the Route 9 Sewage Treatment Facility will cause fugitive dust and other impacts that will significantly and adversely affect StockPot's operations. Operation of the Route 9 Sewage Treatment Facility will cause odors and other air quality emissions that will significantly affect the quality of StockPot's products and substantially affect StockPot's marketing and product development activities.

O12-6 b. *Environmental Health*: Construction of the Route 9 Sewage Treatment Facility will cause excessive dirt and mud to be tracked into StockPot's Culinary Campus from StockPot's customers, employees and vendors that will contaminate StockPot's products. Operation of the Route 9 Sewage Treatment Facility may cause contamination of StockPot's products as spillage and leakage from biosolid sludge trucks deposit contaminated materials on the common access roads and such materials are tracked into the StockPot Culinary Campus by StockPot's customers, employees and vendors.

O12-7 c. *Access and Transportation*. During the six year construction period of the Route 9 Sewage Treatment Facility, the 1,049 average daily trips to the site over the common access road with the StockPot Culinary Campus will significantly affect StockPot's normal flow of employee, customer and vendor traffic. Similarly, continued substantial traffic disruption will occur with the 216 additional daily trips over the common access road during operation.

O12-8 d. *Noise and Vibration*. During construction, additional noise and vibration will have a substantial, negative affect on StockPot's marketing and product development activities.

3. Detailed Discussion of Impacts.

a. *Odor and Other Air Quality Impacts*

O12-9 Construction of the Route 9 Sewage Treatment Facility will cause fugitive dust impacts that will significantly and adversely affect food production at the StockPot Culinary Campus. StockPot operates its Culinary Campus with a slightly positive internal air pressure in order to manage contamination from outside air. This requires StockPot to draw in tremendous quantities of outside air through its ventilation systems. This air is filtered, but the Culinary Campus was simply not designed to filter the volume of fugitive dust likely to be generated by construction of

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Response to Comment O12-4

The Final EIS contains substantial new information on the affected environment, impacts during construction and operation, and mitigation. This new information includes additional evaluations on air quality, environmental health, transportation, noise, and other elements of the environment of concern to StockPot, and other surrounding businesses and residents. Please refer to the various chapters and appendices of the Final EIS.

Response to Comment O12-5

Please refer to the response to Comment O12-2 in this letter.

Response to Comment O12-6

As described in Chapter 6 of the Final EIS, specific mitigation measures would be implemented to protect adjacent properties from mud and other material that could be tracked off the site. Wheels of construction vehicles would be washed before the vehicles exit the site. Chapter 9 of the Final EIS addresses biosolids transport and handling, noting that biosolids transport would comply with King County's *Biosolids and Grit Haul Contingency Handbook*, which outlines procedures to prevent impacts of the spill of biosolids on sensitive areas or adjacent properties.

Response to Comment O12-7

Please refer to the response to Comment O12-2 in this letter.

Response to Comment O12-8

Construction noise and vibration impacts to StockPot, Inc. would primarily occur during weekday hours between 7 a.m. and 10 p.m. Construction during these hours is exempt from regulation, although King County would employ a number of noise management measures to minimize noise and vibration impacts Mitigation of construction noise and vibration is described in the Final EIS in greater detail than in the Draft EIS and is proposed to protect residences near the site.

Although StockPot, Inc. is closer to construction activities than these residences, StockPot would benefit from mitigation and possible restricted hours for certain construction activities. Daytime construction noise and vibration impacts near the Route 9 site would not be as noticeable as in quieter zones because the ambient noise and vibration levels at the Route 9 site are dominated by traffic on SR 522.

Response to Comment O12-9

Please refer to Chapter 5 and Appendix 5-A, Odor and Air Quality: Treatment Plant, for information about dust control during construction. The Route 9 site design in the Final EIS includes the StockPot property. Please refer to the response to Comment O12-2 in this letter.

Ms. Shirley Morroquir
January 21, 2003
Page 4

O12-9 the Route 9 Sewage Treatment Facility. Also, during the initial decontamination of the auto wrecking facilities on the south end of the lot, soil contaminants could become airborne and cause a potential health risk.

O12-10 Operation of the Route 9 Sewage Treatment Facility will cause even greater air quality impacts on StockPot. The DEIS states that operation of the plant at the 54-mgd level will produce H2S emissions of 0.0022 ppm V occurring at the eastern property line. DEIS odor modeling also concluded that "maximum offsite concentration of hydrogen sulfide for the Route 9 site operating … at 54-mgd is 0.0022 ppm V occurring at the eastern property line." The human nose can detect hydrogen sulfide at a level of 0.0005 ppmV. Detectable levels of hydrogen sulfide will likely be experienced at the StockPot Culinary Campus and by other immediate neighbors, especially during inversion conditions and prevailing winds from the south. Such emissions are incompatible with food cooking and food ingredients because the emissions will affect the quality of food product cooked and presented at the StockPot Culinary Campus. The most odiferous elements of the Brightwater plant ("influent pump station, headworks and primary clarifiers" and "solids handling facilities" – see pp. 5-20, 21) are located closest to the StockPot Culinary Campus (see site map, figure 3-3). Because the StockPot Culinary Campus is effectively within the Route 9 Sewage Treatment Facility site and because the most odiferous elements are closest to the StockPot Culinary Campus, the odor impacts are likely to be substantially greater than indicated.

O12-11 What is more, while StockPot believes the DEIS as written clearly shows that the odor impacts are probable, significant and adverse to StockPot, StockPot believes that the DEIS fails to describe adequately or accurately all the probable, significant adverse impacts. The DEIS completely fails to discuss the odor impacts for peak flow of 170-mgd, although the DEIS states (page 3-2) that the Sewage Treatment Facility "must able to accommodate a peak flow of 170-mgd."

O12-12 In addition, many conclusory statements in the DEIS regarding odor impacts are either or both unsubstantiated or inaccurate, including:

i. Page 5-10, "The distance between an emission source and the property line allows emissions to disperse to acceptable levels before they reach a potential receptor such as a person standing by the facility's fence line." As discussed above, StockPot does not believe the emissions will be at an "acceptable level" when they reach the StockPot Culinary Campus.

ii. Page 5-32,"Odor Modeling Results. The maximum offsite concentration of hydrogen sulfide for the Route 9 site operating a 36-mgd is 0.0016 ppmV, occurring on the eastern property line. The maximum concentration of hydrogen sulfide for the Route 9 site operating at 54-mgd is 0.0022 ppm V, occurring on the eastern property line. These levels of hydrogen sulfide are extremely low, and there should be no detectable odor outside of the property line of the Route 9 facility." Again, StockPot

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Response to Comment O12-10

The initial detection threshold for hydrogen sulfide (H_2S) is 0.0008 ppmV. For the Final EIS, the proposed biofilter design at the Route 9 site was replaced with a three-stage chemical scrubber system. The odor emissions were remodeled, and the maximum offsite H_2S impact for peak odor conditions was 0.00005 ppmV. The maximum impact near the StockPot Culinary Campus was 0.00002 ppmV. All these impacts are well below the initial detection threshold for H_2S.

If the proposed Brightwater Treatment Plant were located at the Route 9 site, King County would relocate the StockPot facility. Please refer to the response to Comment O12-2 in this letter.

Response to Comment O12-11

The amount of odor that would be emitted from the Brightwater Treatment Plant under worst-case conditions was modeled on 99.99 percent hydrogen sulfide removal. The property line concentrations would be below the detection threshold for odor, hydrogen sulfide and ammonia.

Response to Comment O12-12

The results of the dispersion modeling indicate that there will be no detectable odors beyond the property line of the facility. Please refer to Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS, for details on the engineering and scientific procedures used to establish this conclusion.

Ms. Shirley Morroquir
January 21, 2003
Page 5

believes the odor will be detectable and unreasonable at its Culinary Campus.

iii. Page 5-37, "…the facility would comply with all applicable air quality regulations. … Therefore, the air emissions from the facility as proposed would not cause substantial harm to human health or the environment." There is no "bright line" odor standard within the applicable air quality regulations. PSCAA Regulation I, Article 9.11(a) (implementing RCW 70.94 and WAC 173-400-040(4) and (5)) makes it unlawful to cause or allow air emissions including odor as is or is likely to be injurious to human health or property or which unreasonably interferes with enjoyment of life and property. The regulation allows the PSCAA to take enforcement action at and above the "level 2" odor scale. Level 2 "odor is distinct and definite, any unpleasant characteristics recognizable." StockPot believes odor emissions from the Brightwater plant will exceed this standard at the StockPot Culinary Campus.

iv. Page 5-39, "There are no significant unavoidable adverse impacts to air quality associated with the project since dispersion modeling indicates that there will be no adverse impacts from odors and air toxics, and combustion sources will meet current emission standards." StockPot believes there will likely be significant odor and fugitive dust impacts. O12-12

StockPot has occasionally been notified by area residents, and recently by the Puget Sound Clean Air Agency, about cooking odors from StockPot's Culinary Campus. However, these cooking odors are not incompatible with the sensory evaluation of foods, and are a natural outcome of food cooking anticipated by StockPot's customers and prospects. StockPot is working with the Puget Sound Clean Air Agency to address these cooking odors and will fully comply with all applicable regulatory requirements. On the other hand, the odors that will be generated by the Route 9 Sewage Treatment Facility are wholly inconsistent with food processing and are likely to physically contaminate StockPot's products and to severely tarnish the high quality reputation that StockPot has worked hard to establish. O12-13

b. *Environmental Health Impacts*

O12-14 Construction of the Route 9 Sewage Treatment Facility will cause excessive dirt and mud inevitably deposited by Sewage Treatment Facility construction vehicles using the common access roads to be tracked into StockPot's Culinary Campus from StockPot's customers, employees and vendors. The DEIS confirms property within the Route 9 Sewage Treatment Facility site has been listed on the State of Washington Department of Ecology's Model Toxic Control Act list of suspected and confirmed contamination sites. Thus, the dirt and mud likely contain Hazardous Materials and pose a significant threat of contaminating StockPot's food products. Operation of the Route 9 Sewage Treatment Facility may cause contamination of

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Response to Comment O12-13

Please refer to Chapter 5 of the Final EIS for evaluation of odor impacts. The wastewater treatment plant has a design criterion of no odors beyond the property line, which has been demonstrated with dispersion modeling. The Route 9 site design in the Final EIS includes the StockPot property. Please refer to the response to Comment O12-2 in this letter.

Response to Comment O12-14

Please refer to the response to Comment O12-6 in this letter, for a discussion of biosolids handling and measures to minimize the tracking of mud off of the project site. With respect to contaminated soils, as described in the Draft and Final EIS, construction specifications will address monitoring of contaminated soil during excavation activities and handling, and disposing of contaminated soils, if encountered. Specific measures to minimize potential impacts to adjacent properties include inspection and washing of all trucks transporting contaminated soils before exiting the construction site, and transporting contaminated soils using trucks with covered and secured loads to prevent spilling during transport.

Ms. Shirley Morroquir
January 21, 2003
Page 6

O12-14 StockPot's products as spillage and leakage from biosolid sludge trucks deposit contaminated materials on the common access roads and such materials are transported on tires and bottoms of shoes to StockPot's parking lots and into the StockPot Culinary Campus by StockPot's customers, employees and vendors. For refrigerated food products such as StockPot produces at the Culinary Campus, the concern is real. StockPot's employees today follow extensive good housekeeping procedures to avoid product contamination (shop coats, boots, walking through a foot bath before entering the production area). The DEIS discusses the care with which King County will handle biosolids as such will be applied to farm and forest lands many miles away from the site in order to protect the general public from contamination. For example, at page 9-20, the DEIS states, "For Class B biosolids, [good biosolids management practices] require agronomic application rates, public access restrictions, crop and livestock waiting periods, and buffers and setbacks from water bodies and other sensitive areas. These measures are designed to protect the public and the environment from potential negative impacts associated with poor management of biosolids." Yet, the DEIS utterly fails to discuss any impacts from, or mitigation for, possible biosolids contamination of a food production facility that is essentially within the sewage treatment plant site and that shares common access roads.

c. *Transportation Impacts*

O12-15 As discussed above, the StockPot Culinary Campus and the Route 9 Sewage Treatment Facility will share the same access road. (See Figure 3-3.) StockPot relies on this access road for access for its employees, deliveries to the site, shipping product from the site, and visits by customers to StockPot's showrooms. Currently, StockPot generates approximately 500 trips per day by its employees, customers and vendors on these access roads. The DEIS states that during construction, daily trips along the access road for the Route 9 site will increase by 1,049 and that during operations daily trips will increase by 216 (Table 16-16). This additional traffic will significantly interfere with StockPot's operations. The DEIS fails to analyze or describe the transportation impacts of construction or operation of the Route 9 Sewage Treatment Facility on the StockPot Culinary Campus. Correspondingly, it fails to propose mitigation for such impacts.

d. *Noise and Vibration.*

O12-16 The noise and vibration from construction of the Route 9 Sewage Treatment Facility will significantly and adversely affect StockPot's soup production. Construction of the Sewage Treatment Facility will likely cause vibration such as from pile driving and blasting. Such vibration will significantly interfere with StockPot's operation of its Culinary Campus. The effects of these operations may be similar to that which would be experienced during the construction of a large building such as a hotel with a multi-level garage under the hotel. The long construction period of six years, however, would unreasonably prolong the effects of these operations.

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Response to Comment O12-15

Please refer to the response to Comment O12-2 in this letter.

Response to Comment O12-16

Please refer to the response to Comment O12-8 in this letter.

Ms. Shirley Morroquir
January 21, 2003
Page 7

Thank you for this opportunity to comment upon the Brightwater DEIS. Please do not hesitate to contact me if I or representatives of StockPot can provide you with additional
O12-17 [information. Also, please include me on the list of contacts for the project.

Very truly yours,

Davis Wright Tremaine LLP

James A. Greenfield

Cc: Bart Freedman, Preston, Gates & Ellis, counsel to King County
David Nash, Vice President, Finance and Supply Chain, Campbell Soup Company
Robert Zane, Group Director, Real Estate Operation, Campbell Soup Company

SEA1314180v1

Response to Comment O12-17

We have added your name to our mailing list. Please refer to the response to The Washington Tea Party, Comment O14-31, for a summary of public involvement activities that have been completed to date.

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

O19
JUST THE FACTS

February 24, 2003

RECEIVED
FEB 24 2003
ENVIRONMENTAL
PLANNING DIVISION

Environmental Planning
King County Wastewater Treatment Division
201 South Jackson Street, KCS-NR-0505
Seattle, WA 98104

Dear Mr. Theiler,

Thank you for the opportunity to present my comments on the Brightwater Draft Environmental Impact Statement. I have received prior authorization by your department for an extension to February 24th, 2003 to present my comments due to medical conditions.

The first portion addresses specific comments to various chapters which are self explanatory. I have included my scoping comments because many of the questions have not been adequately addressed within the DEIS.

The other sections have not been identified by the DEIS chapters but are relevant to issues needing explanation of the DEIS. These sections are as follows:

(1) Glossary - Biosolids
(2) Eminent Domain
(3) Scoping Questions for Route 9 Site Concerning Plant Security/community's Safety
(4) Conserving Salmon, Protection of Little Bear Creek Waterways, Howell Creek Wetland E- Fish Rearing Pond and other Significant Wetlands on or near the SR9 site
(5) Emergency Flow Management, Brightwater Conveyance System
(6) Noise Impacts
(7) Julie Sakura comments
(8) Odor Control
(9) Snohomish County Ordinance No 03-006 (Amending Snohomish County Code to Implement an Essential Public Facility Siting Process; Adding Chapter 30.42D SCC; Amending Chapter30.22.020.

O19-1

(8.1) Explain in detail how this new ordinance will affect the siting and Snohomish County requirements to the Brightwater Project.
(8.2) Explain how Brightwater will proceed with the Conditional Use Permitting Process (CUP) for the SR9 site.
(8.3) Explain why Brightwater opposed this legislation since it always maintained it will be a good neighbor and environmental impacts would all be addressed effectively and satisfactory to the community and Snohomish County.

(10) E-mail Letter to Mitch Seaman of the Building Trades Council regarding SB6366 and HB2340.
(9.1) **Please address the comments made on this e-mail for the DEIS.**

1 of 70

Response to Comment O19-1

Please refer to the response to the City of Edmonds, Comment C9-5.

(11) E-mail letter from Mario Miller from Puget Sound Clean Air Agency regarding **Stockpot Foods Odor Complaints from 12/2/99 to date: 238 complaints.**

O19-2 **(10.1) Explain how much of an impact to odor control is attributed to proper siting of a wastewater treatment facility as evidenced by numerous other wastewater treatment facility managers.**
(10.2) explain why SR9 site was deemed adequate for odor control since one of the primary community concerns were surrounding odor issues.

(12) The Enterprise newspaper article "Brightwater drilling in LFP (Lake Forrest Park) causes spill near creek.

O19-3 **(11.1) Explain why the 240 test drilling was not part of the DEIS. A supplemental EIS is requested for this new technical data.**
(11.2) Explain why the contractor failed to keep the slurry from entering a stream. Detail the Best Management Practice for future drilling.
(11.3) If artesian water pressure is encountered during test drilling, how will the conveyance and or the portals are dug to protect the ground water and prevent aquifer depletion?

(13) VA Puget Sound Health District Letter from Dr. Lesa Morrison on behalf of Mark Sakura regarding concerns for his health if SR 9 site is selected due to the Cross Valley Sole Source Aquifer.

(14) Letter by Mark Sakura to City of Milwaukee WI regarding the 1993 drinking water contamination from the wastewater treatment plant causing 4000 illness and 104 deaths.

(15) King County SSO Report compiled from KC reports to DOE from 5/1995 thru 6/2002.

O19-4 **(14.1) Explain why the DEIS states minimal spills occur or "in an unlikely event of a spill" SEPA requires addressing worse case scenarios. These SSO reports clearly show significant amount of spills do occur on a regular basis within the King County Wastewater System. Brightwater Contends the conveyance piping will be new and so will the facility thus spills will not likely happen. At the same time, they concede Inflow and Infiltration (I&I) is a more serious problem and wastewater flowcharts show approx. 7% per year for I&I.**

O19-5 **(14.2) A Supplemental EIS to detail these spills so agencies would know how to best respond to them in the future.**

O19-6 **(14.3) What is the service life expectancy for seals, grouting and other gasket material in the piping and pumps?**
(14.4) Are maintenance procedures scheduled to replace likely leak points prior to the end of service life as part of the Best Management Practice?

(16) The last section will deal with thoughtful recommendations to the Brightwater project and King County Wastewater system.

2

Response to Comment O19-2

For information on odor control issues at the proposed Brightwater Treatment Plant sites, please refer to Chapter 5, and Appendix 5-A, Odor and Air Quality: Treatment Plant, and to the response to the City of Kenmore, of the Final EIS, Comment C3-112.

Response to Comment O19-3

The 240 feet of test drilling referenced in the Enterprise news article was one of numerous new test borings being drilled along the 195th Street alignment for use in the Final EIS and as part of pre-design work being undertaken by King County design teams. The information from this boring was not available in time for the Draft EIS and was therefore not included in that document. However, information from the referenced boring and from 27 other new borings will be included in Chapter 6 and Appendices 4-B, Geotechnical Progress Report: Conveyance, and 6-B, Geology and Groundwater, of the Final EIS.

An incident occurred at the location of Boring E-113 as reported in the Enterprise news article. A small amount of groundwater associated with artesian conditions emerged from the borehole and over a weekend flowed across the ground surface to the local storm drain. As the water flowed, it carried some suspended soil and/or drilling fluids to the drain. Washington State Department of Ecology was notified, and several actions were taken so that this type of incident would not recur. Most of these actions were incorporated in a Spill Response and Contingency Plan prepared for Ecology.

Please refer to the response to the Washington State Department of Ecology, Comment W5-9, for more information on how the conveyance lines and portals will be constructed under either artesian or water table conditions to protect groundwater and prevent aquifer depletion.

Response to Comment O19-4

Please refer to the response to the Washington State Department of Ecology, Comment W5-35, and to the Washington State Department of Natural Resources, Comments W3-117 and W3-121. Compared to King County's 2 other regional treatment facilities and its existing conveyance system, Brightwater would result in a lower risk of spills from pipeline breaks and overflows for several reasons. As described in the project description in Chapter 3 of the Final EIS, the project would incorporate a number of options to minimize the risk of overflows, including options to store flows in the system, or to convey flows to the West Point or South Treatment Plant. In addition, all new conveyance facilities would be designed to comply with applicable Washington State Department of Ecology standards. These standards would also help to minimize the introduction of new inflow and infiltration (I/I) into the system. For a discussion of King County's Regional I/I Control Program, please refer to Chapter 2 of the Final EIS.

Response to Comment O19-5

The EIS has been revised in response to comments on the Draft EIS. The Final EIS provides a more refined project description, a concise evaluation of significant impacts, and additional information and technical data in the appendices. A discussion of emergency flow management procedures is included in the Final EIS. Please refer to Chapter 3 and the discussion of impacts in Chapters 6, 7, 8, and 9.

Response to Comment O19-6

The service life of the seals, gaskets, and grout in the pipeline will match the 100-year design life of the rest of the tunnel to eliminate the need for routine maintenance inside the tunnel. Generally, seals and gaskets in the pumps will last several years, with the exact service life varying as a function of the size and type of pump. The County has an inspection schedule to evaluate the condition of the seals and gaskets. Maintenance will be scheduled for any leaky joints found during an inspection, with the repair priority corresponding to the severity of the leakage.

O19-7 **I believe Brightwater staff has placed King County Executive Ron Sims in the same position as in the "Emperors New Clothes". They are either afraid to tell him the real truth, or content on being the "Yes" man concerning Brightwater, or Mr. Sims is simply ignoring the facts. I believe professional expertise from many agencies and from technical staff will clearly show there are legitimate concerns about the entire Brightwater Project. I look forward to the responses from Brightwater regarding my questions and issues.**

Sincerely,

Mark Sakura
7630-229th St. SE
Woodinville, WA 98072
(425) 481-7622
msakura@ix.netcom.com

3

Response to Comment O19-7

Thank you for your comment.

NO ACTION Recommendations
Brightwater DEIS
Comments by Mark Sakura and Just the FACTS & SKEA

O19-8 (1) **NO ACTION ALTERNATIVE: There are fatal flaws with both the Unocal site and SR9 site along with all alternatives of the conveyance system. Specifically with the SR9 site, it does not meet with the majority of the planning objectives within the King County RWSP. The DEIS failed to meet the WAC 197-11-650 which states in part…" (1) Ensure the use of concise, high quality environmental documents and information in making decisions. (2) Integrate the SEPA process with other laws and decisions. (3) Encourage actions that preserve and enhance environmental quality, consistent with other essential considerations of state policy."**

(1.1) "*Maximize existing public investment*" – has already been discussed earlier.

O19-9 **(1.2) *"Reduce wastewater flow and solids through demand management programs, conservation and coordination of services with other* regional *utilities"* There is little evidence to support effective coordination with affected agencies, local municipalities and local communities other than a count of a number of times meetings were held. However, Brightwater controlled the meeting to their agenda, and often times presented misguided or incomplete technical data.**

O19-10 **(1.3) *"Locate wastewater facilities designed to serve new growth where growth is occurring."* If this statement were true, SR9 would never have been picked since the surrounding south Snohomish County area of SR9 residents are all on septic tanks, and there are only "72" hookups to the Cross Valley Water/Sewer district, all within the UGA. This area is primarily zoned rural and rural conservation. The Snohomish County GMA does not allow sewer hookups unless it is a UGA. This means nearly all residents living within the "so called" service area of SR9 in South Snohomish County and parts of North King County that is unincorporated cannot receive any benefit of the Brightwater waste water treatment facility.**

O19-11 **(1.4) *"Ensure the wastewater system is designed and constructed to meet regulatory requirements".* Brightwater DEIS has failed to list and recognize all of the regulatory requirements that will be imposed by affected permitting local, state, and federal agencies.**

O19-12 **(1.5) *"Design the wastewater system to preserve and enhance water quality and protect public health".* The DEIS has failed to recognize the fragile Cross Valley ~~Sole Source~~ Aquifer and point source contamination to the aquifer, and adjacent and underlying aquifers, wetlands, and streams. The newest built West Point Treatment plant has a dismal record of wastewater overflows that has entered Puget Sound. Having an inland wastewater treatment plant would seriously call to question "protection of public health and enhancement of water quality" if the number and volume of overflows occur on site,**

4

Response to Comment O19-8

The Draft and Final EIS note other planning documents issued prior to the EIS related to the proposal and describes how objectives of the documents are met. They also note which permits and approvals are required and describe how WAC 197-11-650 is satisfied.

Response to Comment O19-9

King County has worked closely with affected agencies, local municipalities, and local communities on the siting and environmental review of the Brightwater proposal. Please refer to the Final EIS Chapter 2, attachments to the Final EIS and responses to comments from agencies on the Draft EIS.

Response to Comment O19-10

Wastewater treatment service is only provided within designated Urban Growth Areas (UGAs) with few exceptions. These areas are designated as part of the state Growth Management Act (GMA) and local comprehensive plans. The Route 9 treatment plant site is in the UGA, as are the customers who would be served.

Population and employment forecasts in north King County and south Snohomish County and how those forecasts are used to calculate wastewater flows are discussed Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Response to Comment O19-11

The applicable regulatory requirements are listed in Chapters 4 through 17 for each element of the environment and are either summarized in the Final EIS text or included in the appendices to the chapters of the Final EIS.

Response to Comment O19-12

Evaluations of the Cross Valley Sole Source Aquifer and of adjacent and underlying aquifers, wetlands, and streams have all been performed and are included in Appendix 6-B,

Geology and Groundwater, and Chapters 6 and 7 of the Final EIS. The West Point Treatment Plant is a combined sewer plant with much larger peak flows (with a higher potential for overflows) and a greater fluctuation between average and peak flows. The Brightwater Treatment Plant would not be a combined sewer plant and therefore would have a smaller peaking factor.

O19-12 or into receiving waters such as Little Bear Creek, and Lake Washington.

(1.6) *"Plan a wastewater system that provides maximum flexibility to respond to changes in growth projections and regulations."* The DEIS fails to prove the SR9 site is the optimal central area of where the new growth projections will be given the fact that the GMA recognizes the SR9 site area as predominately rural and rural conservation. The DEIS fails to support maximum flexibility to respond to changes in regulations due to the fact Brightwater intends to treat the wastewater flow to only secondary treatment, and very little of tertiary treatment, and also process only to Class B Biosolids instead of minimum of Class A. Best available science already have processing of both biosolids and wastewater treatment to a much higher quality resulting in environmentally safer outflow for the State of Washington for its receiving waters and land application. Significant costs to marine outflows could be minimized, and alternatives to outflow into Lake Washington would also greatly reduce conveyance system costs.

O19-13

(1.7) *"Design a wastewater system that minimizes impacts on rate payers and provides reasonable equity".* The DEIS fails to address new hookup charges believed to in excess of $15,000 for new homeowners after January 2002, and recent comments by Christie True regarding King County assumption that all homeowners on septic systems will soon hook up the Brightwater sewer system. If this is a true statement, then Brightwater failed to address the GMA and its allowance to only let sewer hookups within UGA boundaries. Additionally, King County failed to seek federal funding for the Brightwater project to provide reasonable equity for its ratepayers. Brightwater failed to address the uncertainty of a deep tunnel construction alternative for its conveyance system. A deep tunnel may reduce impacts to the aquifers to a point however it also increases the uncertainty of environmental health to workers, fire and medical expertise and handling of emergencies, and maintenance repairs.

O19-14

O19-15

O19-16 It has been reported King County has spent nearly 30 million dollars so far on the Brightwater project and much more technical studies must be completed for the FEIS. It is strongly suggested King County Council re-evaluate this project and stop all funding until Brightwater staff and King County Executive Ron Sims can support the project with technical facts.

O19-17 The NO ACTION ALTERNATIVE should consider the following actions:

(1) Accelerate plans to eliminate I&I throughout the King County system. A ZERO tolerance to I&I would ensure quality recommendations and actions. Recent studies have identified the I&I problem areas and extent. Pilot projects such as pipe bursting should be fast tracked and implemented for the most

5

Response to Comment O19-13

The area of the Route 9 site proposed for treatment plant facilities is located within the Snohomish County Urban Growth Area. The current proposal detailed in Chapter 3 of the Final EIS calls for membrane bioreactor with ballasted primary treatment, which will produce substantially reduced loadings to Puget Sound, compared with conventional secondary treatment. Please refer to the response to Comment O19-57 in this letter for a discussion of biosolids treatment options for the Brightwater Treatment Plant.

Response to Comment O19-14

King County will not require anyone to connect to the new Brightwater System. Local wastewater agencies collect wastewater from homes and businesses and contract with King County to convey and treat the wastewater at one of our regional treatment plants. The decision of where and when to build or extend service lines rests with the local wastewater districts and agencies. These decisions are based on local land use decisions. However, King County must anticipate and build the capacity to treat the wastewater from the local agencies that we contract with, using locally adopted land use plans as the basis for projections into the future.

Wastewater treatment service is only provided within designated Urban Growth Area (UGA), with few exceptions. These are designated as part of the state Growth Management Act and local comprehensive plans. Based on these plans, King County expects that homes and businesses within the UGA are likely to have sewer service within the next two decades, but the exact timing would be up to the local agencies. Local agencies may not require a home to hook up to the sewer system if the septic system is working properly. Under the best conditions, the life of a septic system is approximately 20 to 30 years. Depending on the individual circumstances it can be less expensive to hook up to the sewer than it is to build a new septic system or replace a failed system. Septic systems can be very expensive to repair

and an entire system replacement can cost in the range of $10,000 to $40,000. Being hooked up to the sewer system can also increase the overall value of a home.

Response to Comment O19-15

King County and other agencies have successfully constructed several tunnels within the area including King County, Renton Effluent Transfer Line, and Metro's bus tunnel in downtown Seattle. For each tunnel, the risk to workers and response crews has been minimized through both design and construction strategies and safety plans and procedures.

Response to Comment O19-16

The Final EIS and its appendices do contain a reasonably thorough discussion, supported with substantial technical analysis, of the probable significant adverse environmental impacts and reasonable mitigation measures.

Response to Comment O19-17

For information on King County's inflow and infiltration (I/I) program please refer to the Final EIS Chapters 1 and 2, or visit the program Web site at http://dnr.metrokc.gov/wtd/i-i/index.htm. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-9.

environmentally safe methods to resolve the I&I problem. Increasing pipe diameters for pipe bursting would allow for increased storage capacity during wet weather periods. Addressing this single issue effectively will most likely eliminate the need for the Brightwater project by 2010.

O19-17 **(2) Increase storage capacity at strategic locations to minimize overflows.**

O19-18 **(3) Staff training to effectively respond to any equipment failures.** Performance reviews of management to ensure accountability of their respective areas of responsibility. Managers must be held accountable to the performance of their employees with a ZERO tolerance attitude to poor planning or maintenance.

O19-19 **(4) Abandon the Brightwater project.** Re-evaluate going to smaller wastewater treatment plants to handle wastewater to minimum of tertiary treatment quality and class A biosolids processing.

(5) King County and City of Seattle address revamping the Combined Sewer system to separate storm water drainage and sewer system.

(6) Upgrade both the Renton and West Point Treatment plants to tertiary treatment and Class a biosolid processing.

(7) Upgrade of both treatment plants to include education center, stealth facility design, enhance odor control to best available science as planned for the Brightwater project.

O19-20 **(8) Since wastewater treatment is a regional issue, insure all counties and municipalities within the region are equally represented with full public hearings.**

O19-21 **(9) Remove authority for King County Executive Ron Sims from making the "sole" final siting decision for Brightwater or any other future waste water treatment projects.**

O19-22 **(10) Insure all wastewater treatment EIS have joint SEPA lead agency status.**

6

Response to Comment O19-18

Thank you for your comment.

Response to Comment O19-19

The Brightwater project is one element of the Regional Wastewater Services Plan (RWSP), which is a plan with specific actions designed to address our region's long-term wastewater treatment needs through 2030. The RWSP resulted from an 8-year planning effort and was adopted by the King County Council in November 1999. The RWSP recognizes that King County will reach its wastewater capacity in 2010. A number of alternatives were looked at to find out how King County's capacity could be increased, including the expansion of its two regional facilities, construction of smaller satellite facilities, and construction of a new regional wastewater facility. It was determined that a new regional facility would best meet the regions long-term wastewater needs. The RWSP calls for the construction of such a facility by 2010 to accommodate growth in the northern portion of our wastewater service area, including a large portion of south Snohomish County. For over 40 years, King County has been treating the wastewater from this area at its treatment plants in Seattle and Renton.

In addition to acknowledging the need for a third regional treatment plant, the RWSP also calls for expansion at the South Treatment Plant in Renton by 2029. In order to handle increased wastewater flow from the southern and eastern portion of the King County Service Area, the South Treatment Plant's capacity will be increased from its current 115 million gallons per day (mgd) to 135 mgd. The remaining land available at the South Plant in Renton will be needed to add new facilities to improve odor control, new solids handling technologies, energy generation, and water reclamation.

The RWSP also addresses reducing the amount of stormwater and groundwater that gets into the sewer system through

inflow and infiltration (I/I). This clean water uses up valuable capacity needed to treat wastewater. Although reducing the stormwater and groundwater getting into the sewer system will not preclude the need for a new regional wastewater facility, it may help reduce the size and cost of facilities in the long term. Improving the reliability of King County's system of pipes and pumps, and accelerating efforts to reduce storm-related overflows, also known as combined sewer overflows (CSO), is part of the RWSP as is the practice of recycling biosolids. For additional information, please refer to the Final EIS Chapter 2 or the RWSP, which can be found at area libraries, at http://dnr.metrokc.gov/wtd/brightwater/library.htm, or on CD by contacting the Brightwater project at 206-684-6799 or toll-free at 1-888-707-8571.

Response to Comment O19-20

King County will work with local jurisdictions and neighboring residents to keep people informed of the construction and operation of the Brightwater System. To do this, the County will use a variety of strategies that may include community meetings, a construction hotline, Web page updates, e-mail updates, and newsletters. Please refer to the response to The Washington Tea Party, Comment O14-31, for a list of public involvement activities that have been completed to date. For additional information, please refer to the response to the City of Shoreline, Comment C6-5, regarding mitigation suggestions.

Response to Comment O19-21

Thank you for your comment.

Response to Comment O19-22

The State Environmental Policy Act (SEPA) states in WAC 197-11-759 that the lead agency is the agency with the main responsibility for complying with SEPA procedural requirements. SEPA also states in WAC 197-11-926 that when a governmental agency initiates a proposal, it is the lead agency for that proposal. If two or more agencies share in the implementation of a proposal, the agencies must determine which agency will be the lead agency. King County is the governmental agency initiating the Brightwater proposal, and while other federal, state, and local agencies will issue permits for the Brightwater proposal, they are not sharing in the implementation of the Brightwater proposal. Thus, in accordance with the SEPA Rules, King County is the lead agency.

*Resubmitted because the DEIS failed to adequately address issues raised per SEPA.

Mark Sakura
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June 27, 2002

King County BrightWater Wastewater Treatment Facility Scoping Questions for SR 9 proposed site:

As urban growth continues, wastewater treatment facilities are required to maintain a sanitary and healthy environment for the people to live. My scoping questions are as follows:

O19-23 Sole Source Aquifer:
The Snohomish County Growth Management Act defines a Sole Source aquifer as "An EPA designated area that provides 50 percent or more of its drinking water from a definite aquifer, and contamination of the aquifer would pose a significant hazard to public health, and there are no economically feasible alternative sources of drinking water."
(1) Does the EPA designate Cross Valley Aquifer as a "sole source Aquifer?"
(2) What are the EPA regulatory protections for a sole source aquifer particularly in siting a wastewater treatment plant?
(3) Please provide the following information as shown in the Snohomish County GMA Comprehensive plan NE3 (e). "As a component of the groundwater management program, delineate, classify, and designate areas with a critical recharging effect on aquifers used for potable water pursuant to Chapter 365-190 WAC.
(4) What regulatory requirements and impacts does the Brightwater project have with the SR9 site regarding this issue?

O19-24 King County RWSP under Water quality protection states: "King County is committed to protecting water quality. The Regional Wastewater Services Plan is designed to resolve regional water quality issues, protect public and environmental health, and protect the public's investment in wastewater facilities and water resource management. As part of implementing the RWSP, King County will participate in identifying and resolving water quality issues pertaining to public health and ecosystem protection in the region to ensure that the public's investment in wastewater facilities and water resource management programs is protected. King County will also protect water quality by: evaluating the impacts and benefits of actions that affect regional water quality and identify measures to meet and maintain water quality standards. Forecasting aquatic resource conditions that may affect wastewater decisions..."

7

Response to Comment O19-23

The Draft EIS identified the Cross Valley Aquifer as a sole source aquifer. The Sole Source Aquifer Protection program is summarized in the Draft EIS and Final EIS. Snohomish County is in the process of developing a Critical Aquifer Recharge Area ordinance under the state Growth Management Act, and that information is included in Chapter 6 of the Final EIS. Studies and reviews conducted by King County for the Final EIS meet the substantive regulatory requirements for the Sole Source Aquifer Protection Program. For additional details, please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O19-24

For additional information on how the Brightwater Treatment Plant would meet the needs of the regional community, please refer to Chapters 1 through 3 of the Final EIS, and the response to Comment O19-19 in this letter for additional information.

The Snohomish County GMA also states: "The County should develop regulations that protect aquatic ecosystems using the best available scientific information, the most recent regulatory standards, and informed public opinion."

O19-24 (5) How would the Brightwater wastewater treatment plant meet the spirit and intent of this protection as described?

The Snohomish County GMA defines Aquifer recharge areas as "Areas where surface water is able to permeate the soil and is conducted to aquifers for storage. The existing land use area is a car junk yard and there are contaminated soil from the oils and other fluids from cars.

O19-25 (6) Describe the process of the removal of contaminated soils from the SR9 site?
(7) What adverse affects would result when excavating over 150 ft deep for the conveyance system lines for the pump station on site?

Snohomish County GMA Comprehensive plan describes a Wellhead protection area as: "The surface and subsurface area surrounding a well or wellfield that supplies a public water system through which contaminants are likely to pass and eventually reach the water well or wellfield."

(8) What risks would deep drilling on site for the conveyance system pipes have if spills occur?

O19-26 (9) What risks and adverse impacts would occur when excavating for the facilities construction?
(10) What would be the maximum depth be for facilities construction?
(11) What adverse impacts would occur with the construction of the primary clarifiers, aeration basins, secondary clarifiers, and disinfection basins?
(12) How would King County address adverse impacts if it's found during construction phase, excavation cause surrounding wells to dry up? (This occurred at the nearby HOS Bros. Gravel pit in Maltby when they dug and had a blowout of water.)

O19-27 (13) Would King County post a bond to insure the Cross Valley Aquifer will not be compromised in any way?

In 1993, the city of Milwaukee Wisconsin experienced a catastrophic health problem when it was later found contamination from a wastewater treatment plant entered the potable water treatment facility. Thousands got gastro infections and over 104 people died. These were children, senior citizens, and an immunosuppressed people that had AIDS or organ transplants. Although the wastewater contaminants entered downstream from Lake Michigan, the proximity of the wastewater treatment facility to the potable

O19-28 water facility was close enough to adversely affect the drinking water system.
Any concentrated spills from leaky pipes, storm overflow, or treatment basins located over or near the Cross Valley Aquifer would cause Point Source pollution and become a dangerous risk to public health. On a personal note, I had a liver transplant over six years ago. I fear for my life and know it would be far too late for myself and other people at a high risk such as children and senior citizens before a viral or other infections associated with the Brightwater wastewater treatment facility is detected.

8

Response to Comment O19-25

The process to remove contaminated soils at the Route 9 site, should they be found to exist, will consist of conducting a subsurface evaluation to determine presence of potential contamination based on known site past use (also known as Phase 2 Environmental Site Assessments). The findings from these evaluations will be incorporated into the construction documents such that if potential soil or groundwater contamination is encountered during excavation, the contaminated material will be managed and disposed in accordance with applicable regulations.

No adverse effects are anticipated when excavating for the conveyance pipelines on the site to depths of 150 feet. Standard proven construction and dewatering techniques (slurry [diaphragm] walls) will be used to construct the necessary Influent Pump Station shaft that will connect the conveyance pipelines to the treatment plant. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS for a description of this construction technique.

Response to Comment O19-26

It is assumed that "deep drilling" is referring to shafts needed for conveyance tunneling at the Route 9 site. Normal drilling procedures provide measures to seal off various geologic strata that are penetrated vertically such that existing contamination or spills do not migrate downward and impact deeper water-bearing zones. These types of typical drilling and construction approaches are described in Appendix 6-B, Geology and Groundwater, of the Final EIS under the topic of portal construction.

Negligible impacts from excavation are anticipated. Negligible to no impacts are anticipated from construction of clarifiers and basins at the Route 9 site, as described in Appendix 6-B. At the Route 9 treatment plant site, the influent pump station could be built as deep as 300 feet below existing ground surface. The other facilities would be nearer

the ground surface, with an estimated maximum foundation depth of 55 feet below ground surface for the aeration basins.

King County is committed to mitigating significant adverse environmental impacts that result from construction of the project and will implement a Potable Water Replacement Program as needed for wells that are impacted.

Response to Comment O19-27

Please refer to the Final EIS Chapter 6 for updated information on the impacts and associated mitigation involving the aquifer. For information on mitigation issues, please refer to the response to the City of Shoreline, Comment C6-5.

Response to Comment O19-28

Compared to many other treatment facilities in the U.S., Brightwater will utilize advanced technologies to minimize the risk of spills and leaks and the potential for contamination of groundwater supplies.

Revisions to the EIS have expanded the discussions of potential contamination from the treatment plant to the environment. Please refer to the response to the Washington State Department of Ecology, Comment W5-43, for a summary of these discussions, and to Appendix 6-B, Geology and Groundwater, of the Final EIS for details.

O19-29 BIOSOLIDS:
King County ordinance 13680, section 9 under Biosolids policies (BP) states "...to continue to produce and market class B biosolids. The county will also continue to evaluate alternative technologies so as to produce the highest quality marketable biosolids. This would include technologies that produce class A biosolids."
(14) If new technologies are available to produce class A biosolids, a feasibility study for costs, future strict regulatory requirements should be discussed and strongly considered. This quality end product would be more marketable for forestry growth, agriculture and other uses.

O19-30 "Ordinance 13680, BP-3 King County shall consider new and innovative technologies for wastewater solids processing, energy recovery, and beneficial uses brought forward by public or private interests. King County shall seek to advance the beneficial use of wastewater solids, effluent, and methane gas through research and demonstration projects."
(15) US Filter and other such private companies should be able to respond to the emerging technologies alternatives to increase the quality of the effluent and biosolids to class A within the scope of this EIS.
(16) Would Brightwater use Ultraviolet light disinfection process including additional treatment to a cleaner effluent?
(17) Is there technology available to treat the effluent to a potable water quality level?

O19-31 (18) If such technology is available, wouldn't options for the marine outfall be increased to include lakes, and salmon spawning streams?
(19) Would such options as above minimize construction costs for the marine outfalls?

O19-32 SITING CRITERIA:
Snohomish County GMA Comprehensive Plan, Appendix B states "...The following criteria will be utilized by all county and city review authorities in evaluating siting proposals made by sponsoring agencies seeking to site an essential public facility (EPF) in Snohomish County. The sponsor shall provide the information needed for the reviewing body to evaluate a site(s) and make a recommendation or decision on a specific proposal."...
"...Consistency with Other Plans. The proposal must demonstrate the relationship of the project to local, regional and state plans. The proposal should be consistent with the comprehensive plan and other adopted plans of the prospective host community."...
"...Relationship of Service Area to Population. The facility's service area population should include a significant share of the host community's population, and the proposed site should be able to reasonably serve its over-all service area population."
(20) How does Brightwater meet the above Snohomish County GMA comprehensive plan siting criteria when the service area of North King County and South Snohomish County is located west and south of the SR9 site?
(21) How does Brightwater meet the above Snohomish County GMA comprehensive plan siting criteria when the service area of North King County and South Snohomish County is located east of the Unocal Site?

9

Response to Comment O19-29

Please refer to the response to Comment O19-57 in this letter, for information on biosolids production at the Brightwater Treatment Plant.

Response to Comment O19-30

The Brightwater Treatment Plant would provide enhanced secondary treatment of wastewater, preceded by preliminary and primary treatment, for discharge to Puget Sound and advanced (tertiary) treatment of a portion of the effluent to produce Class A reclaimed water for non-drinking water uses such as irrigation, industrial cooling, and industrial process water. US Filter, Zenon, and Kubota are all vendors of membrane bioreactor (MBR) equipment that have been involved in the Brightwater project. Additional information on the proposed treatment plant processes can be found in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS. For information on Class A biosolids, please refer to the response to Comment O19-57 in this letter.

Ultraviolet disinfection would be used at both sites for reuse, and at the Unocal site for disinfection of the MBR effluent. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-131, for information on UV disinfection. The MBR process would produce high quality secondary effluent, but would not treat the wastewater to achieve potable water quality. Additional treatment, such as reverse osmosis or other processes, would be required to achieve potable water quality. An analysis was performed that looked at treating the effluent to provide for discharge to Lake Washington, but this option was not pursued further. Please refer to Brightwater Siting Project, Phase 3 Technical Memorandum *Overview of reuse planning to date and considerations for discharging highly treated effluent into Lake Washington from the Route 9 location of the Brightwater Treatment Plant* (King County, 2002). The

cost of the additional treatment processes required are typically greater than the cost to build conveyance lines and marine outfalls. Please refer to the response to Comment O19-96 in this letter, for information on effluent quality.

Response to Comment O19-31

The technology exists to treat wastewater to potable drinking water but the costs are prohibitive. Selling the potable water to recoup the cost is not a viable option because other water sources are available or can be developed (groundwater) that are much cheaper. If the water was treated to potable standards, augmenting streamflow or lake discharge could still be problematic due to differences in pH and temperature and the limited ability of streams to convey the added volume.

Response to Comment O19-32

Please refer to the response to the City of Edmonds, Comment C9-5.

O19-33 (22) What existing and future economic or commercial impacts would be affected within the SR9 site?

Snohomish County GMA defines Urban Growth Areas (UGAs) as "Areas designated by the county after consultation with cities, where urban growth will be encouraged and supported by public facilities and services..." "Urban growth...when allowed to spread over wide areas, urban growth typically requires urban governmental services."
"Urban governmental services: ...Those governmental services historically and typically delivered by cities include the storm and sanitary sewer systems, domestic water systems, street cleaning services, fire and police protection services, public transit services, and other public utilities associated with urban areas and normally not associated with rural area."
"Rural land: All land located outside of UGAs and not designated as agricultural forest lands of long-term commercial significance with existing or planned rural services and facilities such as domestic water systems (generally systems without fire flow), rural fire and police protection services..."
"Concentration of Essential Public Facilities. "In considering a proposal, the local review agency will examine the overall concentration of essential public facilities within Snohomish County to avoid placing an undue burden on any one community."
"Consistency with Local Land Use Regulations. The proposed facility must conform to local land use and zoning regulations that are consistent with the County-wide Planning Policies...."
"Compatibility with Surrounding Land Uses. The sponsor's documentation should demonstrate that the site, as developed for the proposed project, will be compatible with surrounding land uses."

O19-34 (23) How would King County characterize the public service and infrastructure currently surrounding the SR9 site?
(24) How would King County insure funding of the urban level of public service required to Snohomish County?
(25) What effects of King County budget constraints have on maintaining such public services?

O19-35 (26) Why did the King County March 2001 Siting the Brightwater Treatment Facilities under Environmental Constraints fail to include Presence of Sole Source Aquifers or other public water resources?
(27) Why did the King County March 2001 Environmental site screening criteria under Biological resource protection fail to include the Presence of Sole Source Aquifer?
(28) Why does the King County March 2001 Candidate Sites Recommended for Advancement to Phase 2 Analysis Table 6 under Proposed Candidate Sites show Route 9 total Area at 108 acres when it is 111 acres? And estimated Useable Area as 104 acres when only 72.5 acres are within the urban growth boundary and 38.5 acres are outside of the urban growth area? (The 72.5 acres includes the newly built Stockpot Foods facility.)
(29) If the above errors were not made for the SR9 site, would King County have left only the SR9 and Unocal site per the Ordinance 14278 which states "...To keep this critical project on schedule and limit public expenditures it is reasonable and necessary to select for further consideration and review as action alternatives two NTF systems."?

10

Response to Comment O19-33

Cost and economic impacts are not topics analyzed under SEPA, and therefore are not addressed in the Brightwater EIS. “SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers” (WAC 197-11-448(1)).

However, once a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to Brightwater construction and operational impacts. As part of the overall decision process, King County is revising the cost estimates (dated November 2002) for the Brightwater alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

Response to Comment O19-34

Please refer to Chapter 17 for a description of the public services and infrastructure currently surrounding the Route 9 site. In the event levels of service for public services and utilities are affected or potentially reduced by the construction and operation of the Brightwater System, King County would be responsible for mitigating impacts to established service levels.

Response to Comment O19-35

The Phase 1 process identified 95 land areas. These areas were validated by applying a broad set of engineering and environmental constraints to identify problems that would seriously limit the construction or operation of a treatment

plant. These constraints are identified in the Phase 1 materials and the results of the analysis can be found in Appendix J of the Phase 1 materials, *Brightwater Treatment Plant Siting Process-Phase 1 Engineering and Environmental Constraint Analysis***.** The presence of Cross Valley Sole Source Aquifers or other public water resources were not considered as a fundamental environmental constraint; however, policy siting criteria that were adopted by the King County Council by Ordinance 14043 and Ordinance 14107 included criteria relating to water resources protection. Ordinance 14043 does include the following criteria related to water resources protection:

1. King County shall select NTF sites where it is feasible to construct and operate facilities in a manner that protects municipal drinking water wells and potable groundwater resources.
2. King County shall seek NTF sites that can be developed and mitigated to minimize adverse effects to local surface waters.
3. King County shall seek NTF sites where it is feasible to construct and operate facilities that will not be at risk during a flood event.

For updated information on the sizing of the Brightwater Treatment Plant, please refer to the Final EIS Chapter 3, Description and Comparison of Alternatives, and the associated appendices.

For more information on the No Action Alternative, please refer to the response to the Washington State Department of Natural Resources, Comment W3-58, and Appendix 3-J, Evaluation of the No Action Alternative, of the Final EIS. Additional information regarding Ordinance 14043 and Ordinance 14107 as well as Phase 1 and 2 Siting Selection materials can be found at area libraries, at http://dnr.metrokc.gov/wtd/brightwater/library.htm, or upon request by contacting the Brightwater project at 206-684-6799 or toll-free 1-888-707-8571.

O19-35 (30) What would the "No Action Alternative" effect be if neither final two sites are found to be suitable for the Brightwater project?
(31) Please include all Phase 2 Site Selection Criteria and Detailed Evaluation Questions for both Unocal and SR9 sites as shown in Table 6 of the September 2001 Phase 2 Siting the Brightwater Treatment Facilities - Site Selection and Evaluation Activities.

ODOR:
There was very little odor from the Vancouver Wastewater treatment facility noticed during a King County sponsored visit. There were no reported incidents of odor complaints since the new facility opened nearly 10 years ago. However, that facility did not process biosolids. It was processed at another location.

O19-36 (32) Would the initial stage of biosolid processing be housed completely in a negative pressure atmosphere building to keep odor within?
(33) Would the end product of biosolids be stinky?
(34) What kind of odor control will the biosolids have during removal at the facility?

LAND USE ZONING:
The northern portion of the SR9 site is not within an urban growth zone.
King County Ordinance 14043 states in part; King County shall select NTF sites in a manner consistent with the Growth Management Act.
Snohomish County adopted the Growth Management Act which superseded the

O19-37 Cathcart/Maltby/Clearview (CMC) Comprehensive Plan.
(35) How does Brightwater meet the spirit and intent of this mostly rural area?

Brightwater project will take at least 5 years causing long term construction impacts. I

O19-38 believe King County must address such impacts as if were part of the normal operation.
(36)How will Brightwater insure "All" public services and infrastructure be upgraded to an urban level and maintained?

TRAFFIC IMPACTS:
The Seattle Times printed June 4, 2002 headlines read "Sticker shock: Cost estimates for highway projects skyrocket" indicate lack of money for Washington State road construction and improvement. Many projects are being delayed for years. The expansion of SR9 improvements was not even mentioned because of the "mega projects" with probable higher priority.
(37) How will King County insure funding will be available to complete widening of the 2 lane SR9 north of SR522?

O19-39 (38) How will Brightwater mitigate traffic flow on SR9 south of SR522 particularly going northbound during afternoon peak periods?
(39) With the rural road grid system in the CMC area, how will Brightwater insure fire, medical emergency response services during peak times within a 10 mile area of the site?

The NE 195th Street off ramp northbound from SR522 needs to have a northbound on ramp to help mitigate traffic flow north of SR9 and NE 195th.

O19-40 (40) Would this be included in traffic mitigation?

11

Response to Comment O19-36

Please refer to the response to The Washington Tea Party, Comment O14-85.

Response to Comment O19-37

Please refer to the response to the Upper Bear Creek Unincorporated Area Council, Comment O11-12. Brightwater has been evaluated in the context of the zoning and comprehensive plans of Snohomish County, as well as the City of Woodinville. The Cathcart/Maltby/Clearview area is a subarea plan within Snohomish County.

Response to Comment O19-38

Please refer to the response to Comment O19-34 in this letter.

Response to Comment O19-39

Please refer to the response to the U.S. Army Corps of Engineers, Comment F2-7. The project to widen SR-9 is a WSDOT planned and designed project. Questions related to the funding of the "SR-9, SR-522 to SR-524 Widening" project should be directed to the WSDOT design team. Try http://www.wsdot.wa.gov/projects/ for a link to this project or to contact WSDOT. The traffic analysis in the Final EIS has now been conducted assuming the WSDOT SR-9 projects would not be completed to show a worst-case scenario.

Impacts to SR-9 related to the Route 9 site traffic operations would be minimal for AM and PM peak hours because the treatment plant would displace land uses that currently generate more trips than the proposed project. Additional AM peak-hour traffic analyses were conducted for the concurrency analysis. Please refer to Appendix 16-A, Transportation Concurrency: Route 9 Plant Site, of the Final EIS for the concurrency analysis.

Project construction traffic for the Route 9 site is not expected to use the SR-522/195th Street interchange or

Woodinville-Duvall Road. Additional detailed analyses of construction traffic related to specific portal locations have been included in Chapter 16 of the Final EIS and construction traffic routes and traffic impacts were identified. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for greater detail.

A traffic plan addressing mitigation measures would be prepared for all agencies affected by construction and is included as a mitigation measure in the Final EIS. This plan would include time-of-day restrictions, necessary improvements to the roadway network, types of closures, pedestrian and bicycle detours, traffic routing/circulation management, and traffic control measures for safety on the affected roadways. These measures would be finalized by King County and would be coordinated with affected agencies during permitting. The Traffic Management Plan (TMP) would include a plan for monitoring and restoration of streets to pre-existing conditions, access for emergency services, and safe access for pedestrians and bicyclists, and would direct the movement of employees, equipment, and materials to reduce impacts along project traffic corridors. Final plan approval would be coordinated with the affected local agency, including the City of Kenmore. All roadways and non-motorized facilities impacted by the development of the Brightwater project would be restored to pre-existing or better conditions. King County would work with each local jurisdiction to determine the method that would be used to inventory street conditions prior to construction and the level of improvements for restoration during the permitting process. The intent of the TMP is to keep traffic disruptions caused by the project to a minimum. Vehicles responding to incidents at the Route 9 site during construction and operations would be able to respond to incidents or emergencies via normal routes. Also, please refer to Chapter 17 of the Final EIS. This chapter details the public services and utilities within the vicinity of the Route 9 site.

Response to Comment O19-40

A northbound SR-522 on-ramp from NE 195th Street would not be considered for mitigation because project construction traffic for the Route 9 site is not expected to use the SR-522/195th Street interchange. Please refer to the previous response to Comment O19-39 in this letter.

Snohomish County Code (SCC) 26B has been revised into the Snohomish County Unified Development Code, Chapter 30.66B. Requests related to “inadequate road conditions” and “extent of improvements” should be directed to Snohomish County Planning and Development Services or the Department of Public Works. Try http://www.co.snohomish.wa.us/govern.htm for a link to contact Snohomish County.

Snohomish County Code 26B "Road Ordinance"
(41) Request Snohomish County designate SR9 north of SR522 under SCC 26B.70 as "Inadequate road condition" for the Brightwater SR9 site Project as part of the Snohomish County Director of Public Works recommendation under SCC 26B.55.010 "Determination of developer obligations."
(42) Request the Snohomish County Director of Public Works utilize SCC 26B.55.095 "Extent of improvements" along the proposed Brightwater conveyance pipeline system when addressing the 5+ years of construction delays and impacts. O19-40

ELETRIC POWER SUPPLY:
The majority of power lines within the CMC area are on wood poles. Numerous power outages occur from vehicles knocking over the poles, or storms knocking over power lines. Recent new development has gone to underground utilities however the above ground power poles leading to the new developments are still prone to damage.
O19-41 (43) What kind of backup power supply will be at the treatment plant?
O19-42 (44) What kind of backup power supply will be at each conveyance pumping station?
O19-43 (45) How many power outages has Puget Power had within a 10 mile area of the site?
O19-44 (46) What anti-terrorist plans are being considered for the complete Brightwater wastewater system? (Contingency plans are being made ever since the 9/11 terrorist attack at utilities, and infrastructure facilities within the U.S.)

In conclusion, I believe it's important to review the King County Operational Master Plan, appendix A - Developing the RWSP.
O19-45 "Using a set of criteria developed during stakeholder workshops, the range of feasible alternatives was narrowed from over 60 to 14:
+ minimize cost to ratepayers: ...favors service strategies with reasonable Construction and maintenance costs, and with relatively low increase on The existing sewer rate.
+ Minimize risk and uncertainty: can likely be completed on time and within budget, and can further allow for the most reliable construction and operation technologies.
+ Minimize impacts to the natural environment: ...cause least impact on Environmental quality during construction and long-term operation of Facilities. Factors considered include the location of treatment Facilities and outfalls, construction impacts, treatment technology, Land use impacts, traffic, parks and existing utilities.
+ Maximize public health and safety: Preference is given to service Strategies that feature optimum locations and technologies for CSO Control and wastewater treatment outfalls.
+ Maximize equity and fairness: provide the widest distribution of Facilities throughout the service area...and to place facilities closer To the growth that requires them.

12

Response to Comment O19-41

Please refer to the response to the City of Edmonds, Comment C9-74.

Response to Comment O19-42

The new pump station for the Unocal conveyance alternative would have dual-feed electric power supplies (i.e., power from two separate substations) and a backup generator.

Response to Comment O19-43

Although it is expected that short-term outages could occur on a regular basis, the frequency of electrical outages during large storm events is difficult to predict. Localized outages during storm events could occur every few years. Outages on larger high voltage regional supply (transmission mains) are more on the order of 1 every 10 or more years. King County, as currently done in existing facilities, would provide a redundant regional power supply and/or standby power generation at the treatment plant and each conveyance pump station.

The Snohomish PUD would serve the Brightwater treatment plant. The substations that would serve the treatment plant sites are very reliable. More information on their reliability can be found in Chapter 8 of the Final EIS. Snohomish PUD has provided reliable power in the past in the vicinity of both treatment plant sites and there is no reason to speculate that they will not in the future. SEPA regulations require that probable impacts be addressed, but not those that merely have a possibility of occurring, but are remote or speculative (WAC 197-11-782).

Response to Comment O19-44

Please refer to the response to the City of Kenmore, Comments C9-126 and C9-127, for a discussion of emergency response plans and security measures employed at King County wastewater facilities.

Response to Comment O19-45

Both the Unocal site and the Route 9 site can accommodate the requirements necessary to satisfy the policy siting criteria adopted by the King County Council on May 15, 2001 in Ordinance 14107. More information on Ordinance 14107 can be found at http://dnr.metrokc.gov/wtd/brightwater/library.htm or by contacting the Brightwater project at 1-888-707-8571 (toll-free), or 206-684-6799 (local).

O19-45 I firmly believe if the above criteria are seriously considered, SR9 site will not make the final cut. The King County Executive and Council may want to re-evaluate the siting criteria before spending more public money on a expensive EIS site that may ultimately be turned down by regulation or permits from an authorizing agency.

Respectfully submitted,

Mark Sakura
E-mail msakura@ix.netcom.com

13

1

SCOPING QUESTIONS FOR ROUTE 9 SITE CONCERNING PLANT SECURITY/COMMUNITY'S SAFETY:

What security measures must be designed and installed at the Route 9 site to protect the plant, the perimeter of the site and the surrounding community against a potential bioterrorist attack?

If an electronically monitored fence were required with a guard on duty at the front gate; if buffering trees and shrubs have to be eliminated because they block views of doors and windows; if night lighting were essential as outlined in **AMSA's Asset Based Vulnerability Checklist,** how does
19-46 Brightwater plan to incorporate 1) the necessary security measures needed to protect the plant and community; and 2) design an aesthetically-pleasing sewage treatment plant with user-friendly, park-like surroundings?

Are these security measures budgeted for in the current estimated plant costs for Route 9? If not, where will they be obtained from? King County Councilman Larry Phillips has stated that as of May 1, 2002, there is an estimated shortfall of approximately $4.15 million dollars needed to fund anti-terrorist activities in Seattle-King County .

Background Information:

On June 12, 2002, President Bush signed **bioterrorism legislation** that devotes $4.6 billion to stockpiling vaccines, improving food inspections and boosting security for water systems, calling it his "urgent duty" to prevent germ warfare ... It would provide $1.6 billion in grants to states for hospital preparedness and **assessments of vulnerability of local water systems**.

Since September 11, 2002, the US Environmental Protection Agency's Water Protection Task Force and the National Infrastructure Protection Center have been studying ways to protect the Nation's water infrastructure and agreed to support the **AMSA, a national trade association representing over 270 of the nation's publicly-owned wastewater utilities** (of which King County is a member) in their decision to undertake several initiatives intended to guide and support public wastewater utilities in their efforts to prevent, prepare for and respond to potential crisis situations.

AMSA (Association of Metropolitan Sewerage Agencies) developed the **Asset Based Vulnerability Checklist for Wastewater Utilities**; a checklist specifically designed to help utility managers and their staffs identify and evaluate a wide range of vulnerabilities that could place their assets - physical plant, people, knowledge base, information technology and customers - in jeopardy.

The Vulnerability checklist asks, for example, if the *physical plant* has ...

1) physical barriers such as a fence or wall around the perimeter;
2) locking perimeter gates; and
3) a perimeter electronically monitored or patrolled by guards.

On the issue of *Surveillance,* the checklist asks if ...
1) overgrown trees and shrubs are blocking views of doors and windows;
2) night lighting is available throughout the facility;
3) the site is monitored by CCTV.

On the issue of *Hazardous Material Control*, the checklist asks if ...
1) hazards from process chemicals and other acutely hazardous materials are identified;
2) gas detection equipment is available;
3) information available to employees or others responding to hazardous chemicals or toxins that may be introduced into the sewer system or treatment plant.

14

Response to Comment O19-46

Please refer to the response to the City of Kenmore, Comment C9-127, for a discussion of security measures employed at King County wastewater facilities. Such security measures will be incorporated into the Brightwater project and will be included in the project budget.

Sources:

6/12/02 Associated Press (Washington DC) "Bush signs $4.6 Billion Bioterror Bill"
http://story.news.yahoo.com/news?tmpl=story&u=/ap/20020612/ap_on_go_pr_wh/homeland_security_28

US Environmental Protection Agency's Water Infrastructure Security
http://www.epa.gov/safewater/security/

National Infrastructure Protection Center, Information Bulletin 02-001, January 30, 2002
"Terrorist Interest in Water Supply and SCADA Systems (used in wastewater management practices)"
http://www.nipc.gov/search?NS-search-page=document&NS-rel-doc-name=/publications/infobulletins/2002/ib02-001.htm&NS-query=wastewater&NS-search-type=NS-boolean-query&NS-collection=NIPC&NS-docs-found=2&NS-doc-number=1

"A computer that belonged to an individual with indirect links to USAMA BIN LADIN contained structural architecture computer programs that suggested the individual was interested in structural engineering as it related to dams and other water-retaining structures ... In addition, U.S. law enforcement and intelligence agencies have received indications that Al-Qa'ida members have sought information on Supervisory Control and Data Acquisition (SCADA) systems ... they specifically sought information on water supply and wastewater management practices in the U.S. and abroad."

AMSA Asset Based Vulnerability Checklist for Wastewater Utilities, January 2002
http://www.amsa-cleanwater.org/pubs/2002avcheck.pdf

5/1/02 King County News Release "Bio-Terrorism Readiness putting strain on King County Resources"
http://www.metrokc.gov/MKCC/News/2002/0402/bioterrorism_readiness.htm

AM
6/2002

15

Brightwater
King County TREATMENT SYSTEM

Draft Environmental Impact Statement Comment Form

King County issued a Draft Environmental Impact Statement (EIS) on the Brightwater Regional Wastewater Treatment System, effective November 6, 2002. The Draft EIS analyzes the environmental impacts of siting, building, and operating the Brightwater system. Members of the public are invited to review and comment on the Draft EIS. Please tell us whether additional information or analysis needs to be considered. All comments are welcome, but detailed comments on the analysis allow us to respond more effectively. The King County Wastewater Treatment Division will respond to comments in a Final EIS, which is scheduled for publication in mid-2003.

To be considered in the Final EIS, comments must include a name and address and be postmarked no later than January 21st, 2003.

Please address these ~~situations~~ concerns below.

19-47 If our aquafer becomes contaminated where would the homeowners affected get their water supply?

19-48 My husband is imune deficient - if he becomes ill or even dies what would be the responsibility of the county? Will they pay for my loss? The medical bills?

19-49 If the value of our homes decline - would Snohomish County reduce our taxes?
If the water is contaminated will the county purchase the homes and locate the homeowners affected? And what would they pay for the value of our home and the move?
There is no address on the livelyhood of the homeowners affected.
The smell of stockpot is nauseating, what would be done to make sure there are no odors?

19-50 I smell the onion odor at Woodinville High School. How will the odor ~~effect~~ of sewage affect the students?

Name: Julie Sakura
Address: 7630 229th St SE
City, Zip: Woodinville WA 98072

16

Response to Comment O19-47

In the unlikely occurrence of drinking water supplies becoming contaminated as a result of the construction or operation of the Brightwater System, King County will implement its Potable Water Replacement Program for the affected water users. Please refer to Chapter 17 of the Final EIS for more information.

Response to Comment O19-48

As set forth in detail in Chapter 6 of the Final EIS, if the Route 9 System Alternative is selected, then reasonable mitigation measures, appropriate construction techniques and operational practices would be employed to avoid contamination and other potential significant adverse impacts to aquifers and other drinking water resources. Numerous federal, state, and local agencies have jurisdiction to issue permits and approvals before construction of any facilities and to regulate the operation of Brightwater facilities after construction so that there is no violation of water quality standards or detrimental impacts to drinking water sources. In the unlikely event of contamination, King County would ensure adequate water supply for homeowners.

Response to Comment O19-49

Chapters 6 and 9 of the Final EIS provide a discussion of the possible impacts to water quality and drinking water, respectively, and possible reasonable mitigation measures that could address these impacts of Brightwater facilities in the vicinity of the proposed Route 9 treatment plant site. Overall, studies conducted since issuance of the Draft EIS show that project construction can largely avoid any impacts to drinking water supply. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS.

The Environmental Impact Statement analyzes environmental impacts. Property values were not an element discussed in the Draft EIS and will not be addressed as part of the Final EIS. Please refer to the Uniform Relocation Assistance and Real

Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation Web site at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

Response to Comment O19-50

For information on the odor prevention program and the monitoring that will be performed on the odor control system, please refer to the response to the Washington State Department of Transportation, Comment W2-5. Additional information about the wastewater treatment process and the odor control technology selected is provided in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

My name is Mark Sakura. I have recently seen a portion of a documentary on the 1993 drinking water contamination causing thousands of gastro illness and over 104 deaths of high risk persons. Please verify if the report was factual:
Contamination of the municipal water system in South Milwaukee was ultimately found to have come from a storm overflow from a waste water treatment plant north of the municipal water plant. During a heavy storm, untreated waste water containing human fecal matter was able to enter the inflow pipe from Lake Michigan leading to the municipal drinking water system.

19-51 (1) Gastro intestinal infections were found to be caused by human fecal matter. What was the name of the disease the people contracted?
(2) Were there over 100 deaths attributed to this problem?
(3) Were both Centers for Disease Control (CDC) and EPA involved in solving this health problem?
(4) The wastewater treatment plant outfall was extended and the municipal drinking water inflow pipe was relocated to minimize another occurrence. Has there been other overflow discharges from the waste water treatment facility?
19-52 (5) The wastewater treatment plant is apparently using the "Blending" method when storm water runoff causes overflow conditions and putting the wastewater treatment plants beyond full capacity. EPA has approved this method of mixing untreated wastewater with secondary treated wastewater to dilute the untreated mixture through the outflow into Lake Michigan. Have there been any detrimental effects to the municipal water quality during such occurrences?
* (6) How often does Blending occur?
(7) Please have the Health department respond to this question:
(a) During the 1993 municipal water contamination as described above, describe did groups of people were at lethal risk to this problem include elderly, infants, people with AIDS, and people who had undergone solid organ transplants or (immunosuppressed) from medications?.
19-53 (b) What were the first reported symptoms, and how did the symptoms progress? How long did it take for these at risk people to die?
(c) What health alerts were given to the public at that time?
(d) If diagnosed and treated properly, would there have been fewer fatalities?
* (e) What measures are in place for public awareness and alerts if such an event occurs again in the future?
* (f) Is there a protocol available to treat immunosuppressed people? If so, please detail.

19-54 There is a wastewater treatment plant handling both biosolids and wastewater being proposed over an EPA designated "Sole Source Aquifer" Given its 1993 experience, would the City of Milwaukee attempt to build a wastewater treatment facility directly over an Artesian Aquifer water supply? There are many rural residents drawing water directly from their wells. I am one of the "fortunate" persons to have survived a liver transplant over 6 years ago, and my medication has seriously compromised my immune system. This is why I am so concerned over my source of drinking water.

Your response is greatly appreciated. If you have any material that may assist me, please forward them to my address:

Mark Sakura
7630-229th St. SE
Woodinville, WA 98072
((425) 481-7622

* Please answer in the DEIS.

17

Response to Comment O19-51

In accordance with the SEPA rules, WAC 197-11-550, responses to comments in this Final EIS focus on those comments that address either the adequacy of the EIS, the merits of the alternatives, or both.

Response to Comment O19-52

Brightwater Treatment Plant would not blend stormwater with secondary treated effluent, as it would not be a combined stormwater/wastewater system. The plant would be designed to handle wastewater flows slightly higher than average wet weather flow through the secondary process (membrane bioreactor). Sustained influent flows above the average wet weather flow would be treated in the ballasted sedimentation process and the effluent from that process would be blended with the membrane bioreactor effluent. This blending would occur approximately 25 times a year. Please refer to Appendix 3-L, Preliminary Working Draft Facilities Plan, of the Final EIS for more information.

Response to Comment O19-53

During operation of Phase 1 of the Brightwater Treatment Plant, flow splitting and blending would be used when sustained flows were in excess of 38 mgd. During Phase 2, split flow would be used above sustained flows in excess of 56 mgd. Overall, an average of 25 split flow events is anticipated annually. All blended flows would be disinfected and discharged to Puget Sound through the proposed deep water outfall.

Consistent with the requirements of SEPA, King County has responded to comments directly pertaining to the alternatives, affected environment, impacts, mitigation measures or other aspects of Brightwater Draft EIS. Comments pertaining to the specific history of health issues in the Milwaukee, Wisconsin drinking water system are not considered directly related to the Brightwater EIS.

As noted in Chapters 3 and 9 of the Final EIS, there would be little opportunity for either treated or untreated Brightwater effluent to come into contact with drinking water supplies. As discussed in Appendix 6-B, Geology and Groundwater, of the Final EIS extensive evaluations of geologic conditions and potential impacts from construction and operation have determined that there is little potential for treatment plants or conveyance facilities to impact groundwater used for drinking water supply or to result in impacts to immuno-suppressed people from contamination of drinking water supply. Emergency relief points for overflows would discharge either to Puget Sound or to the Sammamish River and would similarly not affect any surface drinking water supplies. Therefore, there is little risk that Brightwater would result in contamination of any drinking water supplies.

Response to Comment O19-54

As noted in Appendix 6-B, Geology and Groundwater, of the Final EIS and the response to the Washington State Department of Ecology, Comment W5-15, extensive subsurface data gathering and groundwater analyses have been conducted for this Final EIS; these analyses indicate that the risk of adversely affecting drinking water supplies would be negligible.

DEPARTMENT OF VETERANS AFFAIRS
Puget Sound Health Care System
1660 South Columbian Way
Seattle WA 98108-1597

American Lake Division
Tacoma WA 98493-5000

Seattle Division
Seattle WA 98108-1597

In Reply Refer To:
Mark Sakuna
Jan 13, 2002

To Whom It May Concern:

19-55 I am writing on behalf of my patient, Mr. Mark Sakuna who is petitioning against Project: Right Water. Mr. Sakuna is immunosuppressed chronically due to his post-liver transplant status and he remains at high risk for infections because of this. Currently, his house is situated near an aquifer that is in danger to becoming contaminated if a sewage processing system is put in place there.

I support Mr Sakuna's petition against this on his behalf. This would put him at increased risk for infection. Please do not hesitate to call with any questions.

Sincerely,

Elizabeth Monson, MD.

18

Response to Comment O19-55

As set forth in detail in the Final EIS Chapter 6, if the Route 9 System Alternative is selected, then reasonable mitigation measures, appropriate construction techniques, and operational practices would be employed to avoid contamination and other potential significant adverse impacts to aquifers and other drinking water resources. Numerous federal, state, and local agencies have jurisdiction to issue permits and approvals before construction of any facilities and to regulate the operation of Brightwater facilities after construction so that there is no violation of water quality standards or detrimental impacts to drinking water sources.

Glossary
Brightwater DEIS Comments
By Mark Sakura
"Just the FACTS" community group
and SKEA

1. **The DEIS defines Biosolids as** …**"The** *treated organic material (solids) derived from the wastewater treatment process that can be beneficially recycled for soil amendment or other uses. Class B biosolids are processed according to federal regulations (40 CFR Part 503) to significantly reduce pathogens to levels that are safe for beneficial use in land applications with required site management and access restrictions in place."*

   1.1 The DEIS definition of biosolids greatly underscores the significant adverse impacts of "biosolids". A more accurate definition from *Harper Collins Dictionary of Environmental Science* names it "sludge" and it is defined as a "viscous, semisolid mixture of bacteria – and virus-laden organic matter, toxic metals, synthetic organic chemicals, and solids removed from domestic and industrial waste water at a sewage treatment plant"

   1.2 **To clarify the use of "biosolids" instead of "sludge", the *Toxic Sludge Is Good For You* written by John Tauber, published in 1995 explains the history of the name change. In 1928, the "Federation of Sewage Works Association" was formed. 1950, the name was changed to "Federation of Sewage and Industrial Waste Association". 1960, the name was changed again to the cleaner sounding "Water Pollution Control Federation". In 1977, the federation director, Robert Canham criticized EPA's enthusiasm for land application of sludge because he feared it could introduce viruses into the "food chain". In the 1990's, lack of land for sludge spreading became a problem. So, the WPCF organized a contest among its members to coin a nicer-sounding name for "sludge". The proposal to create a "Name change task force" was originated by Peter Machno, manager of Seattle Sludge program, after protesters mobilized against his plan to spread "sludge" on local tree farms. Members came up with names such as "The end product", "humanure", "hu-doo", "bioslurp", "geoslime", "sca-doo", "urban biomass", "R.O.S.E. (Recycling Of Solids Environmentally)" etc. June, 1991, the task force picked "biosolids" which it defined as the "nutrient-rich, organic byproduct of the nation's wastewater treatment process". April 24, 1994, *PR Newswire* wrote an article headlined "Water group plans Earth Day launch for National Campaign on Biosolids Recycling".**

   1.3 **Stephen Lester of the "Citizens Clearinghouse for Hazardous Wastes" compiled from researchers at Cornell University and American Society of Civil Engineers found there were "OVER 60,000 TOXIC SUBSTANCES AND CHEMICAL COMPOUNDS IN SEWAGE SLUDGE".**

19

O19-56 **1.4 Explain what Class B Biosolids are according the EPA and its restrictions to human health in land application.**

1.5 Explain what Class A Biosolids are according to the EPA and its restrictions to human health in land application.

O19-57 **1.6 Explain why a new wastewater treatment facility will only produce Class B Biosolids when Class A biosolid processing is technically feasible.**

O19-58 **1.7 Explain how King County will address future restrictions for land application of biosolids if the affected counties require Class A biosolids.**

1.8 Explain how the West Point Treatment wastewater treatment facility which went on line around 1990 has digester problems and capacity problems in processing Class B biosolids so soon.

O19-59 **1.9 The DEIS needs to discuss the environmental impacts of producing and applying Class B and Class A biosolids.**

20

Response to Comment O19-56

For information on Class A and B biosolids and their restrictions to human health in land application, please refer to the response to Comment O19-61 in this letter.

Response to Comment O19-57

King County has a successful biosolids program where all of the Class B biosolids from both the South and West Point Treatment Plants are beneficially reused (land application or composting). The biosolids from the Brightwater Treatment Plant will become part of the same beneficial reuse program. The Brightwater Treatment Plant will be designed for Class B biosolids production. However, the design will include provisions for expansion to Class A biosolids, if desired or required in the future.

The King County Council adopted King County's current biosolids policies in November 1999, as part of the Regional Wastewater Services Plan, Ordinance 13680. The policies are intended to guide King County to continue to produce and market Class B biosolids. They state that King County shall strive to achieve beneficial use of wastewater solids. A beneficial use can be any use that proves to be environmentally safe, economically sound, and utilizes the advantageous qualities of the material. King County will also continue to evaluate alternative technologies so as to produce the highest quality marketable biosolids, including technologies to produce Class A biosolids, if they are economically sound.

Response to Comment O19-58

For information on how King County will address future restrictions for land application of biosolids if the affected counties require Class A biosolids, please refer to the response Comments O19-62 and O19-64 in this letter.

Solids digestion facilities at both the West Point and South Treatment Plants are operated at aggressive loading rates

during peak solids production and during periods when digestion tanks are taken out of service for cleaning. This is done to reduce the cost and size of digestion facilities. While there have been no digester problems experienced at the South Treatment Plant, one of the digesters at the West Point Treatment Plant has exhibited clear signs of instability on three occasions (twice in 2002). The other five West Point digesters continue to operate without problems.

King County staff has been conducting tests and collecting data on the under-performing digester to determine the cause of the occasional instability and will make final recommendations for mechanical modifications to the digester and/or feed system this summer. Given the extremely stable performance of the digestion system at South Plant and all but this one digester at West Point, it is believed that the modifications will restore peak solids handling capacity. A memo detailing the West Point digester instability issue is available upon request by calling the Brightwater project team at 206-684-6799, toll-free at 1-888-707-8571, or via e-mail at brightwater@metrokc.gov.

Response to Comment O19-59

The environmental impacts of producing and applying Class B biosolids are considered in the Final EIS. The Brightwater Treatment Plant will be designed for Class B biosolids production. The site will include space to accommodate the production of Class A biosolids, should that be required in the future. All environmental impacts associated with Class A biosolids would be identified as part of the permitting process with the Washington State Department of Ecology. Please refer to the response to Comment O19-57 in this letter.

CHAPTER 2
SECTION 2.2.4.2 BIOSOLIDS RECYCLING
BRIGHTWATER DEIS COMMENTS
Mark Sakura and Just the FACTS & SKEA

O19-60 2.1. **Section 2.2.4.2 on Biosolid Recycling is incomplete and inadequate because it only discusses producing Class B Biosolid. Why would Brightwater only consider the outdated 1960's technology production of Class B Biosolid as used in Renton and West Point treatment plants?**

O19-61
2.2. **The DEIS footnote #5 for Class B Biosolid** ... *"contain greatly reduced amounts of disease-causing microorganisms (pathogens) and can safely applied to land with limited public access such as forest and agricultural sites."*
- 2.2.1. **How can Class B Biosolid be considered "safe" for the forests and agriculture?**
- 2.2.2. **What is the EPA definition and restrictions to human contact with Class B Biosolid land application?**
- 2.2.3. **What is the EPA definition and restrictions to human contact with Class A Biosolid land application?**
- 2.2.4. **Wouldn't it pose a higher degree of contamination to the streams and surface waters causing health risks to aquatic life, fowl, and mammals living within the forest habitat?**
- 2.2.5. **Could this cause additional health risk to people (especially more sensitive due to being immunocompromised) who hunt, fish, and hike in the forest lands without their knowledge?**
- 2.2.6. **What is grown on the agriculture land where the class B Biosolid is used?**
- 2.2.7. **Have there been any long term health risk assessment studies conducted by an approved medical institution or University?**
- 2.2.8. **What were the results?**
- 2.2.9. **What other safeguards and restrictions must be applied not addressed in this section when applying Class B Biosolid in both forest and agriculture lands?**
- 2.2.10. **Are there any stinky odors present on application of this product?**
  - 2.2.10.1. **When some of the forests and agriculture lands are harvested**
  - 2.2.10.2. **Or rezoned to make room for urban sprawl**
  - 2.2.10.3. **Would the past application of Class B Biosolid present future health risks from the contaminated soils?**

2.3. **This section states** *"Revenues from these two markets allow the County to recover a portion of processing and distribution costs."*

O19-62
- 2.3.1. **How would Brightwater recover costs to produce Class B Biosolid when in the future, Department of Ecology or EPA determines it is necessary to require Class A Biosolid?**

O19-63
- 2.3.2. **What will King County do after** ... *"This 50-year agreement provides for use of biosolid on working forests in King County to enhance wildlife habitat and generate long-term income from selective timber harvests."* **It appears there will only be approximately 10 years before this contract needs renewing.**

21

Response to Comment O19-60

Please refer to the response to Comment O19-57 in this letter.

Response to Comment O19-61

The Environmental Protection Agency (EPA) considers the land application of Class B biosolids to be safe when it is used in accordance with regulatory standards. The EPA was required by the federal Clean Water Act to develop regulations to "adequately protect human health and the environment from all reasonably anticipated adverse effects" of pollutants, including pathogens. Similarly, the Washington State Legislature directed the Department of Ecology (Ecology) to implement a state biosolids rule and permit program to meet federal requirements and maximize beneficial use.

The EPA designates biosolids as Class B if pathogens are detectable, but have been reduced to levels that do not pose a threat to public health or the environment. Because Class B biosolids may contain some pathogens, requirements for land application include site restrictions for a period of time until environmental factors (heat, sunlight, desiccation) reduce pathogens to concentrations that are not expected to cause adverse effects. Public access to land with a low potential for public exposure (such as farmland) is restricted for 30 days, while public access to land with a high potential for public exposure (public parks) is restricted for one year after application of Class B biosolids. The EPA designates biosolids as Class A if pathogens are below detectable levels. There are no restrictions for human contact. Class A treatment is required for biosolids used in lawns and home gardens. As with many lawn or home garden products, such as topsoil or compost, good hygiene practices are encouraged when using biosolids.

The site management practices required by state and federal rules include a minimum buffer zone (where biosolids are not applied) between application sites and streams to prevent

biosolids or their constituents from entering surface water. Site-specific guidance, based on local forest research results, is published in Ecology's Biosolids Management Guidelines. Research has shown improvements in wildlife habitat and nutrient content of forage following biosolids application in forests (reference below). The National Oceanic and Atmospheric Administration (NOAA) Fisheries reviewed King County's forest application program and determined that it did not pose a risk to endangered salmon, and that biosolids may improve habitat by increasing the amount of vegetation in the forest.

Class B biosolids have been treated to significantly reduce pathogen levels. The EPA rules and site management practices were developed to "adequately protect human health and the environment from all reasonably anticipated adverse effects." Signs are posted at forest sites to notify the public of the access restriction, to prevent inadvertent exposure to biosolids before remaining pathogens die off. A review of the use of biosolids in food crop production by the National Research Council (NRC) concluded that there are a great many sources of infectious disease agents other than reuse of biosolids. The potential added increment of pathogen exposure due to biosolids land application is miniscule compared to everyday exposure to pathogens from other sources. King County biosolids are used to fertilize wheat, canola, hops, corn, and perennial grasses.

The NRC reviewed the use of biosolids and reclaimed water in food crop production. They concluded that, although limited, epidemiological studies in the U.S. on wastewater treatment plant workers indicate that exposure to these materials is not a significant risk factor.

The EPA and Ecology rules include standards for the amount of metals allowed in biosolids applied to land and additional site management practices, including:

- Use of an agronomic rate of biosolids application—the amount of biosolids applied to sites must be based on the nitrogen needs of the crops or vegetation,
- Crop harvest restrictions—depending on the opportunity for biosolids to contact the harvested portion of the plant, varying amounts of time are required based on type of crop.
- Grazing restriction—animals are not allowed to graze on pastureland for 30 days after application.
- Minimum distance to surface water (buffers) of 10 meters (33 feet) is required.

Biosolids have odors of ammonia and sulfur compounds. Some describe the odor as musty or similar to low tide. Field and lab tests conducted show that odors dissipate as biosolids dry. Odors are very temporary and do not last until the crop or timber harvest.

Past applications of Class B biosolids would not present future health risks due to contaminated soils. Biosolids applied in accordance with regulatory requirements will not result in contaminated soils. Pathogens remaining in Class B biosolids after treatment will not survive long due to environmental factors; some pathogens will die off within days, most will not survive longer than 1 or 2 months.

References:

Section 405(d) Clean Water Act

40 CFR 503 Standards for the Use of Disposal of Sewage Sludge, EPA, 1993

Chapter 70.95J RCW Municipal Sewage Sludge - Biosolids

WAC 173-308, Biosolids Management, Department of Ecology, 1998

EPA. 1992. *Control of Pathogens and Vector Attraction in Sewage Sludge*. EAP/625-R-92-013.

C.L. Henry and R.B. Harrison, editors. *Effects on Wildlife and Domestic Animals from Biosolids Application*. 1997. Northwest Biosolids Management Association Literature Review:

May 4, 2000 letter from Steven W. Landino, Washington Habitat Branch Chief, National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service.

National Research Council. 1996. Use of Reclaimed Water and Sludge in Food Crop Production.

1996. Use of Reclaimed Water and Sludge in Food Crop Production. [Cooper, R.C. 1991. *Disease risk among sewage plant operators: a review*. Sanitary Engineering an Environmental Health Research

Laboratory Report No. 90-1. UC Berkeley - referenced in NRC, 1996.]

EPA. *Guide to the Biosolids Risk Assessments for the EPA Part 503 Rule*. EPA832-B-93-005. 1995. This document explains the 10-year long risk assessment conducted by EPA. Results were used to develop standards for biosolids treatment and recycling as promulgated in 40 CFR 503 regulations.

National Research Council (NRC). *Biosolids Applied to Land: Advancing Standards and Practices*. 2002. National Academy Press. To help address the requirement for periodic reassessment of the Part 503 rule, EPA asked the National Resource Council to review the technical basis of the regulations, focusing on public health. NRC recommendations include research needs and using newly developed approaches for pathogen risk assessment. As a result of the NRC report, the University of Arizona Water Quality Center is conducting pre-planned exposure assessment studies on pathogens in biosolids. This data will be used in risk assessment.

Rosenfeld, P.E., and C.L. Henry. 2001. *Characterization of odor emissions from three different biosolids*. Water Soil and Air pollution. Vol. 127 Nos. 1-4, pp. 173-191

P. Rosenfeld. 1998. *Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil*. Doctoral Thesis. University of Washington College of Forest Resources.

Response to Comment O19-62

To King County's knowledge, neither agency is considering a requirement for Class A biosolids. However, solids processing for Brightwater are being designed for flexibility in biosolids production, depending on market conditions and regulations at the time Brightwater is built. The system that will initially produce Class B biosolids will be sized so that conversion to Class A production can be accomplished with minimal engineering and capital costs.

Response to Comment O19-63

This 50-year agreement is the Biosolids Forestry Agreement between King County, the Washington State Department of Natural Resources, the Weyerhaeuser Company, the Mountains to Sound Greenway Trust, and the University of Washington. Approximately 20 to 25 percent of the county's annual production of biosolids is applied to local forests under this agreement. The agreement expires in the year 2046, but will be reviewed in 2003 and every 10 years thereafter. These reviews will allow the partners to examine the price and application rates of biosolids and make appropriate adjustments for price, schedule, and changes in technology. As there will be many changes in wastewater treatment and technology in the next 40 years, it is not reasonable or practical to make biosolids management plans beyond 2046.

O19-64 2.3.3. **What would King County do when stricter environmental laws take place to preserve a safe and healthy human habitat?**

O19-65 2.3.4. **Does King County consider it fiscally responsible to build a new "state of the art" waste treatment plant using old technology when there is new technology available to build and process Class A biosolid?**

O19-66 2.3.5. **Would there be a more significant long term benefit in cost recovery and a wider customer base if Class A Biosolid is produced?**

O19-67 2.3.6. **What are the health risk difference between producing Class A and Class B Biosolid?**

O19-68 2.3.7. **Has there been a market study to determine if users would prefer and pay the additional costs to purchase Class A biosolid instead of Class B?**

2.3.7.1. **Explain why the Brightwater project fails to meet its own RWSP when it states**…"*King County will continue… produce Class B biosolids…and will implement the same process at the Brightwater Treatment Plant." "King County continues to assess biosolids processing technologies that have the potential to improve biosolids quality, increase the efficiency of existing digesters, reduce truck traffic, and otherwise minimize the potential impacts of solids processing at the wastewater treatment facilities."* **The technology is available now King County has produced small amounts and proven that Class A Biosolids are** *" "exceptional quality" biosolids (marketed as Groco) that have no detectable pathogens and can be used for landscaping and home gardens."*

22

Response to Comment O19-64

The EPA considers the land application of Class B biosolids to be safe and protective for human health and the environment when it is used in accordance with regulatory standards, as in King County's program. If the EPA or the state changes the regulations or standards for biosolids use, then King County will respond as needed to remain in compliance. Please refer to the response to Comment O19-61 in this letter for additional information.

Response to Comment O19-65

Please refer to the response to Comment O19-57 in this letter, for additional information on biosolids production at the Brightwater Treatment Plant.

Response to Comment O19-66

The level of biosolids treatment (Class B) and the recycling program currently being planned for Brightwater are cost effective and reliable, involving relatively few users and large tracts of agricultural and forest land. Depending on the Class A alternative selected, Class A biosolids may offer additional markets in the Puget Sound area and a wider, local customer base.

Response to Comment O19-67

King County knows of no risk assessment of Class A versus Class B production. However, for use of these two categories of biosolids, the EPA designed the standards for the use or disposal of sewage sludge (biosolids), 40 CFR Part 503, to be protective of human health and the environment regardless of level of treatment. Class A biosolids may be used without restriction; Class B biosolids are assumed to have an equivalent level of safety when crop harvest and public access restrictions are followed.

Response to Comment O19-68

A telephone survey conducted November 16–18, 1999 (among King County residents more than 18 years old) was the most recent survey to address the issue of biosolids recycling alternatives. Among the respondents, 79 percent favored the recycling of biosolids in general, 72 percent favored the continued use of biosolids in agriculture and forestry, and 76 percent favored making biosolids soil mix available as compost for home garden and lawn use. A majority of King County residents (56 percent) said that they would be likely to use biosolids compost for home gardens and lawns, if it was available at local garden centers.

King County is consistent with the biosolids policies in the Regional Wastewater Services Plan (RWSP) ordinance, specifically BP-6, which states, in part: "The county shall continue to provide Class B biosolids and also to explore technologies that may enable the county to generate Class A biosolids cost-effectively or because they have better marketability. Future decisions about technology, transportation and distribution shall be based on marketability of biosolids products." It is true that GroCo is a Class A product and that composting is a proven and long-established technology. But King County maintains a diverse end use program (consistent with RWSP policy BP-4), and GroCo is just one of several end uses in the current biosolids recycling program. Composting and producing GroCo is more expensive than land application of Class B biosolids. Since the current and foreseeable demand for Class B biosolids in eastern Washington is high, King County is focusing its marketing and distribution efforts on those customers. However, King County continually evaluates the regulatory climate and the markets for biosolids, so Brightwater is being designed with the flexibility to produce a Class A product, should that become more desirable or necessary. For additional information, please refer to the response to Comment O19-62 in this letter.

Reference:

November 1999. King County Department of Natural Resources Water Quality Survey.

Chapter 4
EARTH AND GROUNDWATER
Brightwater DEIS
Mark Sakura and Just the FACTS & SKEA

4.1.1.1 Federal Regulations – Sole Source Aquifer Designation – "Projects that use federal funding are subject to evaluation by EPA to determine the potential for contamination of the aquifer in recharge zones, or areas in which the aquifer is replenished by rainfall."

O19-69 **(1) Brightwater has indicated it will not seek federal funding thus it effectively avoids EPA evaluation. How would Brightwater address all issues EPA may request or impose on the project?**

(2) Describe the EPA evaluation for sole source designation area projects.

O19-70 **(3) What would be the cumulative impacts be for ground water contamination with the Brightwater project, and other point source contamination in the vicinity?**

(4) "The review requires a full evaluation of the groundwater impact of a project in accordance with procedures of the National Environmental Policy or Protection Act. The evaluation must demonstrate "whether the proposed project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health". EPA includes potential for contamination of the aquifer in recharge zones, or area in which the aquifer is replenished by rainfall. Brightwater appears to consider the SR9 site to be a discharge area due to artesian water pressure and existence of Little Bear Creek.

O19-71 **a. Could the SR9 site area be considered both a discharge and recharge area if the Cross Valley Aquifer is combined with the underlying Intercity Plateau Aquifer?**

b. There is a Interim Groundwater Protection checklist that Snohomish County currently has in effect. Would Brightwater comply with all of the protection and conduct the necessary studies as defined?

O19-72 **c. The Critical Aquifer Recharge Area Ordinance for Snohomish County has yet to be adopted as part of the GMA. It is anticipated by Snohomish County that it may be adopted within a few years. Since Brightwater will still be in the planning stages if it selects SR9, and the sewage treatment plant is being designed for a "100 year" life span, how would Brightwater comply with any additional regulations that may be imposed by the CARA?**

d. Would Brightwater seek to grandfather the project to avoid the stricter regulations that may be imposed in the Snohomish County CARA ordinance? If so, explain how this action would enhance the environmental quality of life for the affected residents using the Sole Source Cross Valley Aquifer.

23

Response to Comment O19-69

The EPA evaluation for projects to be constructed over a Cross Valley Sole Source Aquifer is described in Appendix 6-B, Geology and Groundwater, of the Final EIS. Based on the description of the evaluation in the sole source aquifer regulation guidance, the review would be similar to that done for the National Environmental Policy Act (NEPA). King County expects that Environmental Protection Agency would have similar issues and requirements on the project as those presented by the Washington State Department of Ecology.

Response to Comment O19-70

SEPA case law defines cumulative impacts as the impacts of the proposal along with the impacts of other actions that are virtually compelled or made inevitable as a result of the proposed action. The Draft EIS identified a number of potential impacts to groundwater associated with the construction and operation of Brightwater facilities. That analysis of impacts has been supplemented and refined in the intervening months, and an updated analysis of impacts and reasonable mitigation measures is set forth in the Final EIS. Any contaminated soil and / or groundwater encountered during construction would be cleaned up in accordance with applicable regulations such that groundwater quality would be improved as a result of construction of the Brightwater System. The potential for groundwater contamination from the Brightwater System is discussed in Appendix 6-B, Geology and Groundwater, of the Final EIS. This discussion indicates that planned construction techniques and, in some cases, structure underdrain systems are expected to result in minimal risk of contamination from the system. As a result, Brightwater would not contribute to cumulative groundwater impacts.

Response to Comment O19-71

King County has conducted additional studies to evaluate groundwater conditions at the Route 9 site. It has been

determined that the site is situated in a discharge area for both the shallow (water table) aquifer as well as the deeper, underlying regional aquifer. This indicates that the downward component of groundwater flow that recharges deeper aquifers is very small. King County is working closely with the Snohomish County Groundwater Planning Department to meet all current and anticipated future criteria for protection of groundwater resources.

Response to Comment O19-72

Please refer to the response to the Sno-King Environmental Alliance/Gray, Comment O16-75.

EARTH AND GROUNDWATER CHAPTER 4
BRIGHTWATER DEIS COMMENTS
Mark Sakura and Just the FACTS & SKEA

4.1..1.3 **Local regulations:** **the DEIS states**... *"Cities and counties in the project area have classified and mapped geologic hazards for their respective communities as part of developing critical areas regulations for building and development and to comply with the requirements of the Growth Management Act."*

O19-73 **(1) How would Brightwater meet the new regulation Snohomish County intends to pass on the Critical Aquifer Recharge Area (CARA) Ordinance for fiscal year 2003?**
(2) How would Brightwater meet the new regulation Snohomish County intends to pass on the Essential Public Facility Ordinance for fiscal year 2003?
(3) Would Brightwater seek to not comply with the above ordinances if the ordinances are not approved prior to a completed application?
(4) If so, explain how this would meet with its own Regional Wastewater ....

O19-74 **(5) Identify the** ..."*local agencies regulating groundwater discharge into storm and sanitary sewers during dewatering removal of groundwater to facilitate construction.*" **What are to key regulation issues related to the Route 9 site and Little Bear Creek?**

4.1.2.3 Regional Groundwater Regime

O19-75 **(1) Describe where the locations and boundaries of all of the affected regional aquifers, lakes, rivers, streams, and wetlands within the Brightwater treatment system and service area. The DEIS fails to show this detail.**

4.1.3.2 Route 9 Site

O19-76 **(1) The DEIS is incomplete because it fails to address the Geology and Soil Types as noted in the Stockpot Soups, OPUS, and other related technical documents supplied by Snohomish County Public Works. There is considerable information regarding unstable soils, and artesian springs on the sites and the eastern slopes of the project footprint.**

(2) The ... *"five soil borings drilled on the Route 9 site (CH21M HILL, 2002)*" **is grossly inadequate to address environmental impacts on a 106 acre project footprint. The DEIS fails to note the shallow depth of approximately 50 feet on four of the five borings and only about 100 feet on the fifth one.**

(3) Groundwater:
The DEIS states..."*Groundwater elevations beneath the site were measured during December 2001 and January 2002 in five wells installed in the geotechnical borings (CH2M HILL, 2002) and continue to be measured periodically to evaluate seasonal groundwater changes in elevation.*"

(a) What are the results of the additional "measured" data since January 2002?

24

Response to Comment O19-73

Please refer to the response to the Sno-King Environmental Alliance/Gray, Comment O16-75, regarding the CARA Ordinance. Also, please refer to the response to the City of Edmonds, Comment C9-5.

Response to Comment O19-74

In general, discharge to surface water bodies is regulated by the Washington State Department of Ecology under the NPDES program. Snohomish County reviews and assesses impacts to sensitive areas, including creeks and their buffers.

The wastewater service provider regulates discharge to sanitary sewers. In the Route 9 site area, the Cross Valley Water District provides sewer service and conveys effluent to the King County treatment system. Cross Valley Water District and King County would issue a permit for sanitary sewer disposal with limits for both water quality and water quantity.

Response to Comment O19-75

Surface water bodies are described in Chapters 6 and 7 of the Final EIS. For groundwater, this level of detail is now described in Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O19-76

The Final EIS does include borings and soil condition interpretations from the Opus and StockPot properties. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS. As part of the Final EIS, King County drilled 7 additional borings at the Route 9 site, with 3 of the borings drilled to 90 feet and 1 boring drilled to 500 feet below the ground surface. Multiple levels of groundwater monitoring devices were installed to measure groundwater pressures at various depths beneath the ground. In addition, for the 500-foot boring, continuous coring drilling methods were used to

get the best sample possible to evaluate soil layers with depth.

Water-level data continue to be gathered and are reported in Appendix 4-A, Geotechnical Data Report for Proposed Route 9 Treatment Plant Site, of the Final EIS. Water level data is now being gathered on a monthly basis; however, the frequency may be adjusted based on the changes observed in the data trends. Drought conditions are not discernible from the water levels gathered to date.

The definition of “wellhead protection area” has been corrected in the Final EIS.

Appendix 6-B, Geology and Groundwater, of the Final EIS summarizes detailed analyses of groundwater effects during construction and operation of the Brightwater System at the Route 9 site with respect to the Cross Valley Water District’s private wells, the Woodinville Water District wells, and, by inference, the Crystal Lake Community Association. As you note, the Crystal Lake Community well is located to the east of the Woodlane well; the groundwater analyses indicate negligible impact to the Woodlane well at its distance from the treatment plant eastern boundary.

To our knowledge, the Woodinville Water District has not submitted a wellhead protection plan with the Washington State Department of Ecology. As described in Appendix 6-B, Geology and Groundwater, of the Final EIS additional design, construction, and operational measures have been included in the treatment plant design that would further minimize the unlikely occurrence of major spills into the underlying groundwater aquifers. These measures consist of underdrain systems beneath all major treatment process facilities, underdrain flow monitoring ports, and an underdrain routing/piping system that discharges into a lined stormwater canal. This system is in addition to the normal water resistant design, construction, and testing procedures that would be implemented.

As part of the Final EIS, and in acknowledgement of Robinson & Noble’s background on hydrogeology in the Brightwater System area, King County and its consultants met with Robinson & Noble on three separate occasions to present and discuss draft subsurface findings along the Brightwater System and to obtain Robinson & Noble’s technical input. Technical input received has been incorporated into this Final EIS and specifically into Appendix 6-B, Geology and Groundwater.

Abandoned and decommissioned wells were specifically omitted from the tally of domestic wells because these wells are no longer in use and because abandoning and decommissioning procedures call for concreting these wells shut from bottom to top.

Potential point source contamination that may exist has been included in the evaluation of existing affected earth and groundwater environment. Please refer to Appendix 4-D, Phase 1 Environmental Site Assessment-Route 9 Parcels, of the Final EIS. Provisions would be included in the construction specifications for addressing in accordance with applicable regulations any contamination encountered.

Erosion hazards describe at-surface erosion of soil that can reach surface water bodies and cause adverse turbidity. Slopes are typically cited as having potential for at-surface erosion since water running down the slope can mobilize surface soil in its runoff if not protected by vegetation or some other surface. Erosion hazards are not related to slope stability.

Information from the design and construction of the Opus and StockPot facilities has been reviewed and incorporated into the findings and evaluations of the earth and groundwater environment. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS.

(b) **How many times and when has it been "periodically" been evaluated?**

(c) **Do the measurements reflect the impact of draught conditions this region has experienced during the spring and summer of 2002, for both the "***upper aquifer***" and the "***deeper confined aquifer" (Cross Valley sole source Aquifer"***?**

(d) **The DEIS inaccurately defines the Cross Valley Aquifer by only recognizing the Cross Valley Sole Source Aquifer (CVSSA)'s** *"wellhead protection area"," the portion of the aquifer from drinking water is pumped to users".*

(e) **The DEIS fails to consider significant impacts to private well owners who are not connected to the CVSSA. It grossly misrepresents potential significant impacts by attempting to address only the footprint area of the plant site.**

(f) **The DEIS fails to consider the potential significant impacts to other private community owned wells such as the one serving the Crystal Lake Association community just east of the Woodland well.**

(g) **The DEIS fails to consider the potential impacts to PW-1 and PW-2 wells within the Woodinville water district.**

(h) **Does the Woodinville water district have a wellhead protection plan submitted to Department of Ecology? Even though the wells are further southeast of the SR9 site, how would a significant spill from the effluent, influent, or chemicals on site impact the wellhead protection area if the it is not known what the area is?**

(i) **The DEIS fails to consider a recent study commissioned by the City of Everett completed by Robinson and Noble on the Intercity Plateau Aquifer. How could Brightwater adequately evaluate the negative environmental impacts along the conveyance corridors and both the Unocal and SR9 site? How would it impact the decision for the different alternatives of the conveyance routes and depth?**

(j) **The DEIS states…"***Records for abandoned/decommissioned wells were not included in the tally."* **Such omission of data is critical to determine significant unavoidable impacts caused by overflows, mechanical or power failure at the Route 9 site, and leakage in pipes or storage tanks for chemicals or wastewater in the event of an earthquake.**

(k) **The DEIS fails to address the negative impacts of point source contamination to the Cross Valley Aquifer and or Little Bear Creek that is "down gradient" from the above scenarios mentioned above.**

(4) <u>Erosion Hazards:</u>

The DEIS states... *"Erosion hazards are restricted primarily to the slope located along the easterly boundary of the site, to the east of the railroad tracks, that ranges from 10-30 percent in grade"…."The potential for erosion increases when vegetation is removed".*

(a) How would stability be insured if the rail spur is built in this erosion hazard area?

O19-76

25

O19-76 (b) The phase three technical document volume two refers to 5 different options with Burlington Northern Santa Fe (BNSF) railroad recommending the 4th option with their changes. How much technical information regarding erosion hazards, land slide hazards, liquefaction hazards, presence of artesian springs, numerous stream flows leading to Little Bear Creek in the vicinity as evidenced by the construction of Stockpot Soup Company and OPUS buildings provided to BNSF engineering?

O19-77 (c) The DEIS fails to show BNSF on the distribution list for receiving and responding to the DEIS.

(5) Land slide Hazard:

The DEIS states... *"A moderate landslide hazard exists at the far eastern boundary of the site, east of the railroad tracks"... "Landslides may be caused or exacerbated by poor or improper surface water drainage or be induced by a seismic event."*

O19-78
(a) How would the proposed rail spur be stabilized with the above known conditions?
(b) How would the construction and use of a rail spur by removing the trees and vegetation on the easterly slopes of the route 9 site "improve and enhance per the DEIS" the numerous stream flows passing through the site area?
(c) How much silt and turbidity and contaminated oils and construction related material flow into Little Bear Creek through the existing stream flows in the event of a major storm?
(d) If a sediment pond is used to divert storm water flow during a significant rainfall, what effect would it have on the stability of the SR9 roadbed?
(e) How would the sediment pond impact the existing underground utilities adjacent to the SR9 route? What impacts could occur if the sediment pond is inadequate to handle a major rainfall?

O19-79 (f) How would the construction be phased to move the utility lines, build storm detention ponds and widen SR9 to the proposed 5 lane wide project along the site area?

O19-80
(g) Referendum 51 failed this last election in November 2002. What impact will widening the SR9 have Brightwater since funding was dependent on passing of this referendum?
(h) Would Brightwater fund the SR9 expansion? If not, how would it change the site design and impact the construction and timing of the site?

O19-81 **(6) Soil and Groundwater Contamination:**

The DEIS states... *"Oily stained surface soil was observed in various locations around the site; however, field screening did not indicate the presence of contamination in any of the cuttings or samples."... "Nevertheless, because of the oily appearance of these samples and knowledge of auto-related land uses*

26

Response to Comment O19-77

The Burlington Northern-Santa Fe Railway (BNSF) and Hanson-Wilson Incorporated, consulting engineers for BNSF, were listed under Groups, Organizations, and Businesses on the Distribution List in Appendix A of the Draft EIS. Both received a notice of availability and a CD of the Draft EIS in response to a scoping letter received from Hanson-Wilson Incorporated, dated July 8, 2002. Neither responded with a comment letter.

Response to Comment O19-78

A rail spur is no longer being considered for the Route 9 Site. Were it part of the proposal, the railroad spur would not be anticipated to need stabilization considering the short time-frame of its use during construction in relation to the re-occurrence interval of seismic events.

Existing runoff quality from the Route 9 site is reflective of the land cover and land use. With the existing developed portions of the project site characterized by extensive pavement and compacted gravel, and large quantities of wrecked vehicles, all the items mentioned in the question are likely to be discharged during storm events.

Sediment ponds are temporary stormwater storage facilities that are typically only used during construction. In or nearby to steep slope areas, sediment ponds have the potential to cause roadway instability, particularly if they are up-gradient of the roadway and have not been designed to assure stability. There are no nearby steep slopes that are up-gradient of Route 9 in the project area.

Consistent with the response above, sediment ponds are unlikely to effect existing underground utilities at Route 9. Requirements for the design of stormwater impoundment facilities (i.e., per the Ecology Manual) include the need for storage, in addition to that required for the design storm event (freeboard), and the identification of stable overflow paths,

both of which effectively provide a factor of safety in the sizing of these facilities.

Response to Comment O19-79

Construction of the expansion of SR-9 is the responsibility of the Washington State Department of Transportation (WSDOT). If the project to expand SR-9 moves forward, coordination would occur between King County and WSDOT to stage the construction of the road expansion and the treatment plant, so as to mitigate construction effects to the extent possible. The storm detention ponds for the Route 9 site would not interfere with the expansion of SR-9 and neither would relocation of utilities, should that be required.

Response to Comment O19-80

Information on how the Brightwater Treatment Plant will affect SR-9 and other roadways, can be found in the Final EIS Chapter 16 and Appendix 16-B, Transportation Impact: Plant Sites and Conveyance.

Response to Comment O19-81

As part of redeveloping any site, it is necessary to establish a baseline of the existing level of chemical constituents in the soil and groundwater, so that it is known whether soil and groundwater remediation is needed at the site and to protect construction workers from exposure to contamination. The statements that the commenter is referring to were included in the Draft EIS to document that this type of baseline chemical evaluation would be necessary at the site because of its past use.

A treatment plant of the size and type of Brightwater will come under significantly more stringent regulatory requirements than the businesses currently operating at the site with respect to monitoring and reporting requirements. In addition, the treatment plant will be designed with many architectural features and vegetative screening that will improved the visual aesthetics resulting in a more “environmentally friendly enhancement” that the present site uses.

on the site, it should be assumed that some quantity of contaminated soil, and potentially contaminated groundwater, would be encountered during large scale excavation."

(a) How much more significant would the contamination of soils and groundwater of "knowledge of auto-related land uses" be in comparison to "knowledge of waste water treatment and biosolid related land use?

O19-81 **(b) Brightwater has repeated stated to the community that the project would be less contaminating, and would become a more environmentally friendly enhancement than the present "auto junk yards". On what facts and technical information support this assertion.**

O19-82 **(c) List in detail what kind of oils, chemicals, and other solids used during construction and operation of the Brightwater system. Include quantities and level of toxicity to the Cross Valley Sole Source Aquifer groundwater and streams. (Use known data from either the South or WestPoint wastewater treatment plant that most closely resembles the proposed Brightwater facility at its maximum stage of production.)**

(d) List in detail contaminants and pathogens usually found in the influent waste water.

O19-83 **(e) List in detail contaminants and pathogens usually found in the untreated biosolids.**

O19-84 **(f) Describe the remaining toxins or pathogens after the secondary treatment when it enters into the effluent.**

(g) Describe what the remaining toxins or pathogens are after UV treatment if this is the final stage of treatment.

(h) Describe what the remaining toxins or pathogens are after chemical treatment if this is the final stage of treatment. What chemical will be used and how many in gallons?

O19-85 **(i) Describe what the remaining toxins or pathogens are left after biosolids has been treated to Class B level.**

(j) Describe what the remaining toxins or pathogens are left after biosolids has been treated to Class A level.

O19-86 **(k) Explain why Brightwater is not seriously considering the Class A level treatment of Biosolids to meet future strict regulations?**

O19-87 **(l) Describe what the remaining toxins or pathogens are left after effluent is treated to "potable water" quality.**

O19-88 **(m) Explain why Brightwater has not considered this level of "potable water" treatment.**

O19-89 **(n) Provide MSDS sheets for public services to adequately comment on for permitting. There is insufficient information for Fire and Safety to comment on in case of a hazmat spill, or other medical emergencies.**

O19-90 **4.1.4 Conveyance Corridors**

(a) The DEIS failed to adequately show existing King County wastewater treatment system corridors and how they will connect with the Brightwater conveyance system.

27

Response to Comment O19-82

A list of chemicals used during construction and operation of the Brightwater Treatment Plant can be found in Chapter 9 of the Final EIS. A list of chemicals with the potential to volatilize can be found in the influent wastewater can be found in Chapter 5 of the Final EIS. Pathogens in the influent wastewater include viruses, bacteria, and other microorganisms (as indicated in a fecal coliform count) that are removed in the treatment process to levels in compliance with secondary discharge standards for treated effluent and biosolids standards for Class B biosolids. Anticipated effluent quality is discussed in Chapter 6 and Appendix 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System, of the Final EIS.

Response to Comment O19-83

Regulations do not require extensive testing of raw solids. There could be a variety of substances present in raw sewage but their concentration would be greatly diluted by the volume of wastewater. King County has extensive data, however, on treated biosolids. King County's latest annual report, 2002 Biosolids Quality Summary, is available upon request by calling the Brightwater project team at 206-684-6799, toll-free at 1-888-707-8571, or via e-mail at brightwater@metrokc.gov.

Response to Comment O19-84

In general, secondary treatment processes with disinfection are 48 to 96 percent effective in removing viruses from the wastewater. At the South Plant in Renton, greater than 99 percent of the fecal coliform in wastewater influent is removed. Studies conducted for advanced wastewater treatment technology, used to achieve reclaimed water, indicate even higher removal rates. Additional information on toxins and pathogens is included in Chapter 9 of the Final EIS.

The dechlorination system using sodium bisulfite would be used infrequently. For the Route 9 site, sodium hypochlorite would be used for disinfection of the effluent for discharge to Puget Sound. It is anticipated that the long travel time from the treatment plant to outfall would consume any chlorine residual that would require dechlorination prior to discharge into Puget Sound.

For effluent from the Unocal site discharged to Puget Sound, ultraviolet light would be used for the membrane bioreactor effluent (no sodium bisulfite would be required) and sodium hypochlorite would be used for the effluent from the ballasted sedimentation process. The ballasted sedimentation process would only be used a few times a year during the winter with the higher flows (please refer to Appendix 3-A, Project Description: Treatment Plant, of the Final EIS for more information) and dechlorination would be required using sodium bisulfite. The amount of chemicals used at both sites is included in Appendix 3-A.

Response to Comment O19-85

The primary difference between Class B and Class A would be the lack of detectable pathogens in Class A biosolids. For additional information, please refer to the response to Comment O19-83 in this letter.

Response to Comment O19-86

Please refer to the response to Comment O19-57 in this letter, for additional information on biosolids production at the Brightwater Treatment Plant.

Response to Comment O19-87

King County does not propose to treat wastewater to produce potable water. Please refer to the response to The Washington Tea Party, Comment O14-17, for information.

Response to Comment O19-88

Please refer to the response to the Sno-King Environmental Alliance/Gray, Comment O16-13, for information on water reuse.

Response to Comment O19-89

Chapter 3 of the Final EIS provides a more detailed description of the project. At this stage of the facility design, there are no MSDS sheets available for components of the project. Such detailed level of design is not appropriate for a SEPA evaluation. Additional design detail will be developed following the completion of the SEPA process.

Response to Comment O19-90

The locations of the existing King County conveyance system and the connections between the system and the Brightwater influent tunnel is noted in Chapter 3 of the Final EIS. Please refer to Appendix 2-A, Population and Flow Analysis, of the Final EIS for information regarding existing and projected flows in the Brightwater Service Area.

King County is making every effort to maximize the use of existing conveyance and treatment facilities. All existing facilities will still be used when the Brightwater System becomes operational in 2010.

The 7 percent annual increase in inflow and infiltration (I/I) is included as a conservative estimate on pipe degradation in the local agency collection systems that connect to the King County conveyance system. The goal of the King County I/I Control Program is to reduce I/I throughout the system. While areas of high groundwater pressures offer some technical challenges, these conditions are considered in the selection of the tunnel lining system and construction methods.

(b) The DEIS failed to adequately show the wastewater flow of existing corridors within the King County system.

(c) The DEIS failed to logically meet the RWSP planning objective of "Maximize existing public investment" where it states…"Making the most of the components of the current wastewater system is logical and financially responsible, and should be a factor in all system alternatives considered."

(d) The DEIS failed to adequately meet the RWSP planning objective of "Reduce wastewater flow…" where it states…"*There are a number of ongoing and proposed programs that are designed to reduce the volume of wastewater, e.g., I&I control…*". How does Brightwater accomplish this when it factors in 7% of I&I in the new conveyance system?

(e) Brightwater technical documents clearly show they are concerned with I&I due to artesian pressure when drilling through and tunneling the conveyance pipes. Isn't there a serious flaw in reasoning when Brightwater knowingly recommends installing a conveyance system and a treatment facility in a high probability area for I&I?

O19-90

28

Figure 4-6
Cross Valley Aquifer Features Route 9 Site
Brightwater Draft EIS
Mark Sakura and Just the FACTS & SKEA

O19-91

(1) Figure 4-6 fails to adequately show the SR9 site is bisected by the federally designated Sole Source Aquifer Boundary.
(2) Figure 4-6 fails to show the Crystal Lake community water well.
(3) Figure 4-6 fails to show the PW-1 and PW-2 wells from the Woodinville Water District.
(4) Define where the wellhead protection area is for PW-1 or PW-2 according to Department of Ecology.
(5) Show existing private wells being used, and unused wells in the Cross Valley aquifer.
(6) Define the total boundary of the Cross Valley Aquifer.
(7) Illustrate and describe the underlying Intercity Plateau Aquifer.
(8) Define the "inferred groundwater flow direction in the Cross Valley Aquifer". How would the "inferred" flow be affected by the geology and aquitards underground?
(9) Describe what effect wellhead draw would have on the "inferred flow" from surrounding wells and amount of draw.
(10)Describe how the wellhead protection area for Cross Valley Sole Source Aquifer would change due to significant dewatering throughout the construction site. It has been reported as much as 5,000gpm may be drawn due to dewatering.
(11) Describe all dewatering source points and anticipated amounts of dewatering may be expected at each location during construction phase at the SR9 site.
(12) Describe all dewatering source points and anticipated amounts of dewatering that may be expected at each location during the operation phase at the SR9 site.
(13) Describe how each dewatering source points could affect wetlands, Little Bear Creek, other creeks, within the Cross Valley Sole Source Aquifer.
(14) Is the 5,000gpm a cumulative number for possible dewatering on site?
(15) How much dewatering volume is anticipated along the conveyance corridor?
(16) What effect would this significant amount of dewatering volume have on the Cross Valley water table?
(17) Could the dewatering volume cause contaminants from spills or leakage of wastewater to be drawn into the aquifer?
(18) Could the dewatering volume cause contamination to other underlying aquifers or adjacent aquifers?
(19) Describe what impacts to the Woodlane Well regarding yearly and 5 year time of travel flow patterns if significant dewatering in encountered?
(20) Explain if the Wellhead Protection area will be changed to a more westerly area encompassing the SR9 site due to significant dewatering?

29

Response to Comment O19-91

This figure has been revised in the Final EIS and now accurately shows the Cross Valley Water District's Cross Valley Sole Source Aquifer boundaries with respect to the Route 9 site. The Crystal Community Lake community well is to the east of Cross Valley Water District's Woodland well, which was used as a benchmark for groundwater impact analyses which show no effects beyond the Woodlane well. Therefore, it was judged to not be necessary to show extraneous wells beyond this distance. A figure has been revised in the Final EIS to show these wells.

To our knowledge the Woodinville wells do not have wellhead protection areas and are not currently in use.

Wells registered with the Washington State Department of Ecology are shown in Appendix 6-B, Geology and Groundwater, of the Final EIS along with analytical analyses indicating that wells up-gradient of the Route 9 site are not expected to have any significant adverse impacts as a result of construction and operation of the Brightwater System.

There is no "total boundary of the Cross Valley Aquifer." This aquifer has not been fully characterized nor has its extent been mapped. To our knowledge, the Inter-City Plateau is another name for the aquifer that the Cross Valley Water district uses for its water supply. The inferred groundwater flow directions of the Cross Valley Aquifer are shown in a figure in Appendix 6-B. Flow direction is developed by evaluating pressure heads between various point monitoring locations (wells) screened within an aquifer. The different pressure heads indicate the direction of groundwater flow (from areas of high pressure to low pressure). The term "inferred" is used because establishing flow direction by this method, which is an industry standard, is not a direct measurement but an indirect one. It is unclear what the commenter is referring to in point 9. Appendix 6-B summarizes detailed groundwater impacts evaluations for both construction and operational phases of the Brightwater

Treatment Plant. These analyses show the effect (drawdown) as a result of groundwater withdrawal during both of these phases. Please refer to Appendix 6-B for a summary of detailed groundwater impacts evaluations for both construction and operational phases of the Brightwater Treatment Plant. Impacts to the wellhead protection area (negligible if measurable) are shown and discussed.

The data requested in points 11 and 12 are shown in tables and figures presented in Appendix 6-B.

Dewatering effects as described in Appendix 6-B indicate that no significant adverse impacts to the groundwater or surface water environment are expected as a result of construction and operation of the Brightwater System at the Route 9 site. The 5,000-gpm dewatering value has been significantly reduced as a result of more site specific subsurface data, more definition to the plant site layout (depth of burial of structures), and more detailed analytical analyses. The expected construction dewatering flows are estimated to range between 80 and 380 gallons per minute for a duration of about 3 years. Conveyance corridor dewatering volumes are summarized in Appendix 6-B and vary along the alignment depending on geology and groundwater levels. The appendix also summarizes dewatering flows for the various individual portals. The effect to the Cross Valley Water District water table is expected to be one of or less of drawdown measured at their closest well (the Woodlane well) to the treatment plant site. The dewatering volume would not cause contamination to be drawn down into the aquifers, because the Route 9 site is down-gradient of the water district aquifer, and the shallow unconfined aquifer at the Route 9 site is not connected to the aquifer used by the water district. The dewatering volume would not cause contaminants to underlying or adjacent aquifers. Dewatering is expected to influent the Woodlane well at insignificant if measurable levels of one off or less of drawdown. Dewatering does not influence wellhead protection areas. A wellhead protection area is a regulation-driven, somewhat arbitrary, boundary. The commenter may be confusing the term “wellhead protection area” with the capture zone of well systems. Either way, dewatering would not affect either.

Figure 4-7
Ecology Well Records in the Route 9 Site Vicinity
Brightwater Draft EIS
Mark Sakura and Just the FACTS & SKEA

O19-92

(1) Figure 4-7 is inadequate because it fails to show the SR9 site footprint.
(2) Figure 4-7 is inadequate because it fails to note any other well logs east of township 27 5 and 26 5.
(3) Figure 4-7 is inadequate because it fails to note other known well logs as shown in the Golder and Associates, and USGS GIS documents provided to Brightwater by both Snohomish County and Cross Valley Water Association.
(4) Figure 4-7 is incorrect because it fails to properly identify the SR9 site.

Figure 4-8
Surficial Geology in the project Area

O19-93

(1) **Figure 4-8 fails to show wetlands within the SR9 site.**
(2) **Figure 4-8 fails to define the Unocal and SR9 site area.**
(3) **Figure 4-8 legend fails to define what the surficial geology means by footnote or further description.**

Figure 4-9
Topography and Mapped Hazards in the Project Area

O19-94

(1) Figure 4-9 fails to show the Unocal site and SR9 site.
(2) Figure 4-9 fails to show townships as featured in figure 4-10 for quick reference.
(3) Figure 4-9 fails to show the erosion hazard, liquefaction hazard, and landslide hazard as provided by Snohomish County for the OPUS developments and Stockpot Soups within the SR9 footprint.
(4) Figure 4-9 fails to show two flood plain locations within the SR9 site area according to FEMA.
(5) Figure 4-9 fails to identify the influent and effluent corridors of the conveyance system for the SR9 site and influent corridor for the Unocal site.

30

Response to Comment O19-92

The figure, which now appears in Chapter 6 of the Final EIS, has been revised as follows to show the Route 9 site:

Wells east of township 27 and 26 are not pertinent to the evaluation of risks to domestic wells because groundwater analyses show the area of dewatering impact to be about 1,700 feet east of the site, well within the township 27 and 26 boundaries. The intent of the figure is to show the wells that are in the Washington State Department of Ecology's database. The text acknowledges that additional wells are likely to be present and provides a precautionary mitigation measure (King County's Potable Water Supply Program) should any well be adversely impacted by construction or operation of the Brightwater System.

Response to Comment O19-93

This figure has been revised for the Final EIS. The description of the surficial geology is included in the text and not the figure.

Response to Comment O19-94

This figure has been revised for the Final EIS and incorporates these suggestions.

Figure 4-10
Groundwater Features in the Project Area
Brightwater Draft EIS
Mark Sakura and Just the FACTS & SKEA

O19-95

(1) Approximate location of selected existing local wells are insufficient to determine groundwater features because it fails to note the Wood lane Well, PW1, PW2 wells in Woodinville Water district.
(2) Figure 4-10 fails to show the description and significance of the Intercity Plateau, Central Incline, and Eastern Lowland.
(3) Figure 4-10 fails to show Intercity Plateau Aquifer as described in the U.S. Geological Survey Water-Resources Investigations Report 96-4312, "*The Ground-Water System and Ground-Water Quality in Western Snohomish County, Washington*."
(4) Figure 4-10 fails to show the USGS well logs as provided by Snohomish County and Cross Valley Water District in the township, Range, and Sections;27- 5- 27; 27- 5- 26; 27- 5- 34; 27- 5- 35; 27- 05- 03; 27- 5- 25; and 27- 5- 36.
(5) Figure 4-10 fails to show any private or industrial use wells south of the SR9 site that may be impacted by dewatering or contamination.

31

Response to Comment O19-95

This figure has been revised in the Final EIS. The Woodlane well is shown and established in the groundwater impact analyses as the "benchmark" location to evaluate impacts since it is the closest water supply well to the Route 9 treatment plant site. The currently unused wells of the Woodinville Water District are also shown.

Showing these features is not pertinent to the groundwater impacts analyses conducted for the Brightwater site. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS that summarizes detailed pertinent regional and site-specific information for the Brightwater System area.

The Inter-City Plateau is a term that was once used for the Cross Valley Aquifer, which has become the currently accepted name.

The townships listed are beyond the area of influence of the dewatering effects estimated for the Brightwater System, and therefore, were not considered applicable to the issues at hand. Wells that have been registered with Ecology are shown. If the Route 9 site is selected, King County will conduct a well inventory in areas that could potentially be affected by groundwater dewatering to determine the locations and conditions of other wells in these areas.

CHAPTER 9
ENVIORNMENTAL HEALTH
BRIGHTWATER DEIS
Mark SAKURA and Just the FACTS & SKEA

9.1.1 Regulatory Environment

(1) Brightwater appears to only treat effluent to secondary treatment with a small amount possibly further treated to tertiary level.

O19-96

(1.1) How does Brightwater meet the "best science possible" if it has not considered treatment level of effluent to potable water quality?

(1.2) What constraints does the present Brightwater design make it improbable to treat to the potable water quality?

(1.3) Discuss how smaller wastewater treatment facilities within the existing conveyance system handling storm water drainage makes it more feasible to treat effluent to potable water quality.

O19-97

(2) "The intent of WAC 173-308 is to protect human health and the environment when biosolids are applied to land, to encourage the maximum beneficial use of biosolids, and ***to conform to all applicable federal rules adopted under CWA as it existed on February 4, 1987."***

(2.1) Discuss why Brightwater intends to comply with Federal rules adopted under the Clean Water Act as "it existed on February 4, 1987"?

(2.2) Since Brightwater is being built to meet the waste water treatment needs for the next 100 years as stated by Brightwater staff, and the current year is 2003, explain why facility designs do not reflect the most updated and future Federal requirements to process biosolids to Class A or better and effluent treatment to potable water quality. "Best science possible" makes it technically feasible.

(3) The DEIS states… "Section 105 of the Uniform Fire Code (UFC) defines requirements for the use and storage of materials that have the potential to produce conditions hazardous to life and property, including potentially explosive materials stored or used at waste water treatment facilities. Article 80, Hazardous Materials, defines the regulatory requirements for storing, dispensing, using and handling hazardous materials. The UFC includes a list of materials and accompanying "permit amounts". Quantities above the permitted amounts require obtaining a permit from local fire authority. Regulated materials would include chlorine, other disinfectants such as sodium hypochlorite or sodium hydroxide, and other chemicals used in the treatment process."

O19-98

(3.1) The DEIS fails to describe all of the chemicals that will be used in the SR9 site since there appears to be differences between the design of the Unocal site and SR9 site. The existing Renton and West Point waste water treatment plants appear to be different too because of the age, technology, treatment, and odor control.

(3.2) The DEIS fails to describe the following chemicals and quantities as shown in the phase III technical appendix:

32

Response to Comment O19-96

The proposed treatment system for Brightwater involves a membrane bioreactor (MBR) process that would produce extremely high quality effluent from the MBR, with typical BOD5 and TSS averaging approximately 2 mg/L and ammonia nitrogen typically below 1.0 mg/L. This would reduce the annual discharge of pollutants by 75 percent or more when compared to a conventional activated sludge process.

Cost and space are the major constraints when considering treatment level of all wastewater to potable water standards.

Response to Comment O19-97

The Brightwater Treatment Plant would comply with all applicable federal rules adopted under the Clean Water Act and all of its amendments, as it exists at the time of permitting. Please refer to the response to Comment O19-30 in this letter.

Response to Comment O19-98

Chapter 9 of the Final EIS includes estimated chemical usage quantities for each site. The majority of the chemicals used would be used equally regardless of which site is chosen for Brightwater. However, there are a few differences. Sodium hypochlorite and sodium bisulfite would not be used at the Unocal site for the effluent from the membrane bioreactor because ultraviolet (UV) light would be used for disinfection.

Hypochlorite (for disinfection, odor control, prechlorination and post chlorination at Rt.9 for 36mgd: 2,172,000 gal/yr
For 54mgd: 3,748,500 gal/yr

Sodium hydroxide: for 36mgd: 720,000 gal/yr
For 54 mgd: 1,080,000 gal/yr

Sulfuric acid: for 36mgd: 30,000 gal/yr
For 54mgd: 45,000 gal/yr

Ferric Chloride (for advanced primary clarification)
For 36mgd: 626,000 gal/yr
For 54mgd: 939,000 gal/hr

Sodium Bisulfate: For 36mgd: 63,000 gal/yr
For 54mgd: 94,000 gal/yr

Calcium Nitrate (Bioxide):
For 36mgd: 120,000 gal/yr
For 54mgd: 180,000 gal/yr

Dewatering polymer:
For 36mgd: 80,000lbs/yr
For 54mgd: 120,000lbs/yr

Thickening polymer:
For 36mgd: 100,000lbs/yr
For 54mgd: 150,000lbs/yr

Carbon: For 36mgd: 28,000lbs/yr
For 54mgd: 28,000lbs/yr

(3.3) Describe the chemical use differences between the Unocal Site from the SR9 Site when there are different system designs due to:
(3.2.1) Physical layout of facilities
(3.2.2) Secondary Treatment of using Ultra Violet at the Unocal site
O19-98 **(3.2.3) SR9 site has effluent corridor**
(3.2.4) Odor control system at SR9 site uses charcoal biofilters.
O19-99 **(3.4) The Chemical list and quantities is a significant omission in the DEIS. DOE, health departments, fire and safety may not have adequately responded to this fact. A supplemental EIS should be required.**
O19-100 **(3.5) How will fire and safety respond to deep tunneling emergencies?**
(3.6) Who would be responsible for special training of fire and medical personnel? And costs? Would this be paid from mitigation money?
O19-101 **(3.7) Explain the Best Management Practice for chemical spills on the facilities.**

33

Response to Comment O19-99

Appendix 3-A, Project Description: Treatment Plant, of the Final EIS contains additional information on chemical use at the treatment plant sites and provides a comparison of the types and quantities of chemicals that would be used at each site. In terms of fire and safety response, please refer to the response to the City of Edmonds, Comments C9-126 and C9-148. For chemical spills on the sites, please refer to the response to the Washington State Department of Ecology, Comment W5-77.

Response to Comment O19-100

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

Response to Comment O19-101

Please refer to the response to the Washington State Department of Ecology, Comment W5-77, for a discussion of spill prevention and emergency cleanup procedures. Please refer to Chapter 17 of the Final EIS for a discussion of coordination with Fire District 7.

O19-101 (3.8) Explain the Best Management Practice for chemical spills within the deep tunnel and or portals.

(3.9) Explain the Brightwater staff response to emergency spills with local fire district. Have any of these responses been discussed with the Snohomish County Fire District 7?

O19-102 (3.10) Explain how"rural" type coverage of the Snohomish County Fire District 7 will be able to respond adequately with an "urban" use facility.

O19-103 (3.11) Explain how Brightwater conforms to the RWSP planning objective of ..."protect public health"?

O19-104 (3.12) A Supplemental EIS needs to discuss this section in more detail.

O19-105 (3.13) Mitigation recommendation: Prior to issuance of applicable permits, Brightwater agrees to conduct a full emergency procedure with affected agencies i.e. health department, DOE, Snohomish County Fire District 7, and local community to demonstrate how it intends to respond to spills, medical evacuation, deep tunnel medical and spill emergencies.

34

Response to Comment O19-102

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

Response to Comment O19-103

In late 1999, the King County Council adopted the RWSP to build a new treatment plant in the north end by 2010. This decision occurred after lengthy debate over whether to maximize the existing two-plant system by expanding the West Point and South Treatment Plants in 2010. The consequences of delaying new capacity or downsizing our facilities based on uncertain projections or inadequate temporary facilities are unacceptable for public health, the environment, and the economy. Replacing or delaying new facilities by constructing interim storage facilities or alternative technologies for solids have very short-term benefits compared to their costs. For more information on the RWSP please refer to our Web site http://dnr.metrokc.gov/wtd/rwsp/rwsp.htm or call the general information line at 206-684-6799. Chapter 1 of the Final EIS contains additional information.

Response to Comment O19-104

The EIS has been revised in response to comments on the Draft EIS. The Final EIS provides a more refined project description, a concise evaluation of significant impacts, and additional information and technical data in the appendices. A discussion of emergency flow management procedures is included in the Final EIS. Please refer to Chapter 3 and the discussion of impacts in Chapters 6, 7, 8, and 9, of the Final EIS.

Response to Comment O19-105

An Emergency Response Plan addressing construction and operation safety issues and response procedures to emergency situations will be prepared prior to the onset of the construction phase. King County will coordinate with local

fire and emergency service providers to ensure they have the necessary training and equipment to assist in any emergency response related to the Brightwater System. In addition, construction contractors will provide safety personnel at construction sites in accordance with the Occupational Safety and Health Administration requirements. Safety personnel will be trained to respond to construction-related emergencies. In the event of an emergency at a Brightwater construction site, the contractor would be the first responder and local fire/emergency service providers would be contacted for backup support as needed.

A Spill Prevention Plan that outlines specific procedures construction workers and emergency service providers would follow in the event of an accidental hazardous materials spill will be prepared in accordance with Ecology standards.

FIGURE 17.1
FIRE AND POLICE DISTRICTS
Brightwater DEIS comments
Mark Sakura and Just the FACTS & SKEA

O19-106

(1) Figure 17.1 is incomplete and inadequate because it does not show all fire stations as described in section 17.1..2.2 under "Fire Protection and Emergency Medical" particularly surrounding the Route 9 site.
(2) Fire station locations fail to show primary emergency routes and response time from each station to the Route 9 site. (This information would clearly define potential traffic impacts during the construction period so proper mitigations could be evaluated.)
(3) The Bear Creek Fire station is shown however section 17.1.2.2 states it is "*...voluntary and not staffed during the day*". Since this fire station appears on Figure 17.1, along with the Maltby fire station, it can easily mislead the community to believe they can count on immediate emergency services. Either the section 17.1.2.2 or an attached technical document should show the response time under a voluntary staffed situation.
(4) Figure 17.1 is incomplete and fails to include Fire Protection and Emergency service available from the Woodinville fire district and nearby stations within King County. Primary emergency routes and response times should be evaluated for construction period and during peak traffic hours to the Route 9 site.
(5) Figure 17.1 is inadequate since it does not show all emergency medical facilities within a 5 mile radius of the Route 9 site such as Evergreen Hospital and to clearly show the rural level of emergency services available in south Snohomish County.
(6) Figure 17.1 is inadequate because it only shows a 2 mile distance east of the Route 9 site. It should show at least 5 mile radius of the site because of the rural level of services for both fire and police protection.
(7) Figure 17.1 is inadequate because it fails to show the south Precinct of Snohomish County Sheriff base station located in Mill Creek as described in 17.1.2.2 "Law Enforcement".
(8) Figure 17.1 is inadequate because it should identify all police stations and fire station numbers. These would be important to note for added technical document to describe number of personnel and their level of expertise for special emergencies such as hazardous Material spill response or anti-terrorist trained personnel.
(9) The DEIS fails to describe the service area and rural level of fire protection within Snohomish County Fire District 7.
(10) The DEIS fails to show it is incompatible with the current level of service of Fire protection for such an urban intensive use facility.
(11) The DEIS fails to adequately define special training, number of additional firemen, and specialized equipment, and additional funding to handle all catastrophes anticipated for a wastewater treatment facility and deep level of the conveyance tunnel.

35

Response to Comment O19-106

Figure 17.1 has been modified to include any additional public facilities previously not shown that could be affected by the construction and operation of the Brightwater System.

FIGURE 17.2
SCHOOLS WITHIN THE VICINITY OF THE ROUTE 9 AND UNOCAL SITES
BRIGHTWATER DEIS COMMENTS
Mark Sakura and Just the FACTS & SKEA

(1) Figure 17-2 is incomplete and fails to show the Monroe School District east of Route 9 site and Maltby Elementary School.

O19-107 (2) Figure 17-2 is incomplete and fails to show the following Northshore School District schools that have probable impacts. They are Leota Jr. High, Wellington Elementary, Woodin Elementary by (Woodinville High)

(3) Figure 17-2 is inadequate and fails to show each school district bus barns and bus routes to the schools that may be impacted during construction, and additional traffic impacts along the conveyance system, outfall area, and proposed sewer treatment sites.

(4) Figure 17-2 is incomplete and inadequate because it only shows @ ½ mile to the eastern border of the Route 9 site.

FIGURE 17-3
LOCAL WASTEWATER AGENCIES IN THE PROJECT AREA

O19-108 (1) Figures 17-1, 17-2, 17-3 maps are not consistent in scale to clearly address impacts for Public Services and Utilities under Chapter 17. This issue has been previously addressed during the site design public meetings held by Brightwater. The same engineering firm produced all three of these maps.
(2) Figure 17-3 fails to show existing main wastewater system trunk lines that may be connected to the Brightwater conveyance system.

36

Response to Comment O19-107

Figure 17-2 has been modified to include any additional public fire and police facilities previously not shown that could be affected by the construction and operation of the Brightwater System. Woodin Elementary has been added to the figure showing potentially affected schools. However, Leota Jr. High ad Wellington Elementary are located east of the project area and would not be affected by the construction or operation of the Brightwater Treatment Plant.

Response to Comment O19-108

Many of the Figures in the Final EIS have been revised to correct errors and provide more consistency. In many situations the scale of the graphics vary depending upon the information they are trying to convey such as system-wide versus site-specific information. At this time, no specific mapping has been done to show the existing wastewater system trunk lines that may be connected to the Brightwater conveyance system. This level of detail will be coordinated during the design phase of the project after a Brightwater system is selected. At that time, King County will be coordinating directly with local sewer utilities and jurisdictions to determine connection locations.

ODOR CONTROL
CONVEYANCE SYSTEM
Phase Three Technical Document November 2002
BRIGHTWATER DEIS COMMENTS
Mark Sakura and Just the FACTS & SKEA

(1) Brightwater Conveyance System Phase 3 Technical Reports states... *"Portals and pump stations located east of I-405 in the Bothell/Woodinville are would be subject to frequent inversions. Emissions at these facilities in this area will have a slower dispersal rate during an inversion."*

Questions:

O19-109 **(a) Wouldn't this omitted fact be critical for commenting on the DEIS?**
(b) **What are the merits of the** ... *"variety of odor and emission controls at its treatment plants and offsite facilities (portals and pump stations)"?*

O19-110 **(c)** *"The most prevalent emissions at offsite facilities are those from diesel generators."... "that are classified as low emission units where* required *for these locations."* **What impact would this have on noise and vibration?**

O19-111 **(d) What fuel storage capacity will the diesel generators have and how long would the generators run?**

O19-112 **(e) How would any fuel leakage be contained?**
(f) Would there be monitoring instruments for leakage of any chemicals or wastewater?

O19-113 **(g) What additional safety measures would be implemented for pump stations and portals within the Intercity Plateau Aquifer and aquifers, streams, and wetlands above it?**

(2) During the Orange County Sanitation District Treatment Plant expansions, the South Coast Air Quality Management District (SCAQMD) had specific requirements to be met "prior" to a "Permit to Construct" was to be issued.

O19-114 **(a) Detail the SCAQMD requirements.**
(b) How would such requirements differ between the Orange County facilities in air dispersal with the SR9 site?
(c) How would such requirements differ between the Orange County facilities in air dispersal with the Unocal site?

O19-115 **(d) Describe the various odor control systems proposed throughout each portion of the Conveyance system and through the waste water flow stream within the plant site for both SR9 and Unocal site.**
(e) How would Brightwater resolve typical corrosion and structural problems associated with fully enclosing the tanks?
(f) How will the material to resist corrosion be applied for the structures?
(g) How will the material to resist corrosion be applied for the various tanks used?

37

Response to Comment O19-109

The frequency of air inversions at portal sites is mentioned in Section 5.1.3 of the Draft EIS, last paragraph. Due to the level of removal at the stack, dispersion is not relied upon for odor abatement. For additional information, please refer to Chapter 5 and Appendices 5-A, Odor and Air Quality: Treatment Plant, and 5-B, Odor Analysis: Conveyance, of the Final EIS.

Response to Comment O19-110

"Low emission" diesel generators at offsite facilities would be designed to the operational noise level criteria specified by the applicable jurisdiction's code for nighttime operation. The code noise level limits apply at the nearest residential land use and if the nearest site is other than residential then higher noise levels would be required. Diesel generators would not normally operate during nighttime hours and would primarily be used from 7 a.m. to 10 p.m., thus minimizing noise impacts on nearby residences. Vibration-isolating engine and generator mounts and massive foundations would be used, resulting in no discernible vibration transmission to nearby residences.

Response to Comment O19-111

One standby diesel generator of approximately 250 kW output would be provided for backup power to serve essential life and safety needs, including critical lighting and ventilation, and to start the cogeneration turbines. Approximately 1,000 gallons of diesel fuel will be stored onsite to provide 48 hours of operation.

Response to Comment O19-112

Fuel leakage would be contained in the secondary containment system that would be constructed around the fuel storage facilities. Chemicals would be contained in the same manner. A monitoring plan will be developed during start-up to monitor the groundwater collected in the

underdrain system of the treatment basins. While unlikely, any wastewater contamination in this groundwater would indicate a leak in one of the tanks.

Response to Comment O19-113

Safety measures beyond what has been described in the Final EIS, if required, will be agreed upon by King County and the local agencies and jurisdictions once the King County Executive selects an alternative.

Response to Comment O19-114

The SCAQMD does not regulate the Puget Sound area. All applicable regulations under the jurisdiction of the Puget Sound Clean Air Agency will be complied with during construction and operation of the treatment plant.

Response to Comment O19-115

In general, the odor control technologies under consideration are chemical scrubbers, carbon adsorption systems, bioscrubbers, and combinations thereof. Each portal would have different odor loadings. Liquid phase treatment would also be included at each portal. At the treatment plant, all liquids processes would be covered and all buildings enclosed. The process air would be treated in three-stage chemical scrubbers followed by carbon. For additional information please refer to Chapter 5 and Appendices 5-A, Odor and Air Quality: Treatment Plant, and 5-B, Odor Analysis: Conveyance, of the Final EIS.

Corrosion considerations would be addressed in the design phase by providing adequate ventilation under the covers to prevent dead air zones and buildup of corrosive gasses and by providing protective coatings on the concrete basins and concrete covers. The corrosion would not occur in the same locations as wear from abrasion. Corrosion would occur in the headspace and in the areas that are wet and dry. Abrasion would occur in the areas that are exposed to grit and other abrasive materials. The corrosion protection would be inspected annually when each tank is taken out of service. If the coatings need repair, it would be done at that time.

O19-115 (h) What is the long term life expectancy for the corrosion preventive material applied in the tanks especially in an abrasive environment from the waste water treatment flow?

O19-116 (i) A Supplemental EIS needs to be completed on all issues to odor control from new data collection of air flows within specific to SR9 site and Unocal site.

O19-117 (j) Brightwater staff has repeated numerous times the odor control will be "state of art" and best in the nation. How will Brightwater improve on odor control technology if odor issues exist once in operation?

O19-118 (k) Offering mitigation as a "surety bond" will NOT solve odor issues.

O19-119 (l) Would Brightwater agree "Site Location" of waste water treatment facilities is considered the single most significant factor in dealing with potential odor problems?

38

Response to Comment O19-116

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts beyond that characterized in this comment. Since issuance of the Draft EIS in late 2002, considerable additional analysis has been conducted, as is the case on any large project, to further define and develop the proposal and to respond to Draft EIS comments. Additional analysis that has been conducted that relates to probable significant adverse impacts that will be mitigated or regulated into non-significance is included as part of the Final EIS analysis. This includes additional analysis regarding impacts to air quality and water resources in Chapters 5 and 6. There is no practical or legal need under SEPA to include this additional work in the form of a Supplemental Draft EIS. There is no SEPA case law calling for such an action. Moreover, it is the principal task of the Final EIS to respond to questions and comments on the Draft EIS and, if appropriate, to revise alternatives, analysis of the probable significant adverse environmental impacts, and discussion of reasonable mitigation measures. This Final EIS both addresses each comment made to the Draft EIS, and contains revised analysis in many areas, that takes into account the new information available through the ongoing review by King County, as well as the information drawn from comments and additional studies conducted since issuance of the Draft EIS. This type of work is what SEPA contemplates is the function of a Final EIS.

Response to Comment O19-117

For information on the odor prevention program and the monitoring that will be performed on the odor control system, please refer to the response to the Washington State Department of Transportation, Comment W2-5. The design of the treatment plant also reserves space in the first stage of the scrubber to potentially add biotowers or other

technologies in the future as new technologies are developed and proven. Additional information about the wastewater treatment process and the odor control technology selected is provided in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Response to Comment O19-118

For more information on mitigation suggestions, please refer to the response to the City of Shoreline, Comment C6-5.

Response to Comment O19-119

Site location is not the single most significant factor in dealing with potential odor problems. The selection of the proper odor control technology is more important.

From: Mario Miller [mailto:MarioM@pscleanair.org]

Subject: RE: details from StockPot Soups

Hi Linda,

In order to give a complete breakdown of how many times each specific complainant filed complaints would take an extensive records search. A request for information in that format would have to go to our records administrator, Stella Nehen. Her phone number is 206-689-4011.

What I can give you is a list of everyone who has complained and their addresses. I will send this information by fax this afternoon.
According
to our complaint records we began receiving odor complaints on Stockpot
on
12/2/99 and to date have received a total of 238 complaints. I hope
you
fine this information useful.

Mario

39

NOISE IMPACTS
BRIGHTWATER DEIS
Mark SAKURA and Just the FACTS & SKEA

A leading wastewater treatment consultant states …"Noise mitigation must be addressed as part of the initial design concepts and not as an "add-on" at the end of design or during construction."

O19-120

(1) Explain operation related noise mitigation methods in relationship to building orientation, equipment selection, and room layout at the SR9 site.
(2) How will Brightwater address noise impacts between ambient background noises during daylight hours versus during late evening/early morning periods in a rural area?
(3) How will Brightwater address noise impacts during the construction phase along the conveyance system and SR9 site?
(4) How will Brightwater address noise mitigation if the affected communities in Snohomish County strongly opposes its effort to operate construction periods for "two" shifts? per day?
(5) Where in the DEIS does Brightwater refer to operating two shifts to keep up with construction schedules?
(6) How will Brightwater address noise impacts if the Snohomish County residents oppose any permitting for a "two shift operation" during its construction phase at the treatment site and conveyance lines?
(7) What will be the hours of construction operation proposed by Brightwater to mitigate noise impacts?
(8) What is the maximum decibel level in the rural area of SR9 site be for the construction phase?
(9) What is the maximum decibel level in the SR9 site is for the treatment plant operation?
(10)What are the current results of noise studies conducted at the SR9 site for the DEIS?
(11) What are the current results of noise studies conducted along the conveyance system points where the greatest noise can occur during the construction phase?

Reference:
Carollo Engineers RFP E13035E dated October 2001

40

Response to Comment O19-120

Chapter 10 of the Final EIS includes a number of specific noise mitigation measures for construction and operation of both treatment and conveyance systems. Also, please refer to the response to The Washington Tea Party, Comment O14-422. Construction noise is exempt during daytime hours, as defined by each jurisdiction's codes; Snohomish County defines these hours as between 7 a.m. and 10 p.m. Non-exempt (i.e., nighttime) construction noise would be mitigated to code requirements, if construction outside of exempt times is permitted by the applicable jurisdiction or if a variance is secured by the construction contractor. The Draft EIS did not specifically refer to two construction shifts, but stated that construction could occur outside of daytime hours if approvals or variances were obtained.

The existing ambient maximum noise level at the Route 9 site and the maximum decibel level for the treatment plant on that site were stated in the Draft EIS as 64 dBA and 50 dBA, respectively. The maximum existing ambient level occurs during peak traffic periods on SR 522. The treatment plant noise level during operation would meet Snohomish County's nighttime noise level requirements for residential receptors. Construction noise levels at the nearest residences west of the site are likely to be a maximum of 83 to 85 dBA.

Please refer to the Final EIS, Chapter 10 and Appendix 10-A, Noise and Vibration: Treatment Plant, for further detail on construction and operation noise levels for the treatment plant at the Route 9 site. Appendix 10-B, Noise and Vibration: Conveyance, addresses ambient noise levels, impacts, and mitigation for construction and operation of the conveyance system.

Conserving Salmon
Protection of Little Bear Creek
Waterways, Howell Creek
Wetland E - Fish Rearing Pond
And other Significant Wetlands
On or near the SR9 site
Brightwater DEIS Comments
Mark Sakura and Just the FACTS & SKEA

Reference Source: ***Conserving Salmon*** King County Accomplishments and Action Plan August 2002.

O19-121

(1) "Putting Conservation In Action"
"King County will continue to act upon its salmon conservation strategy, set forth in March 1999 in Return *of the Kings: Strategies for the Long Term Conservation and Recovery of the Chinook Salmon*. Return of the Kings defined the Executive's initial response to then-pending ESA species listing. The County's conservation management goals include the following:

- **Do no harm**. Reduce and **prevent harm by** modifying, mitigating, or **"abandoning existing programs, projects, and activities."** (emphasized)
- **Conservation.** Protect key watersheds, landscapes, and habitats by acquisition, regulation, or voluntary action.

Questions:

(a) How will the Brightwater Project meet and comply with King County Executive Ron Sims Action Plan for Conserving Salmon for the SR9 site which is over a Sole Source Aquifer, adjacent to Little Bear Creek, including identified "nine watercourses which replenish Little Bear Creek, Howell Creek, a category 3 wetland, "five other wetlands, "Fish Rearing Pond, unnamed creek crossing over the northerly part of the site flowing into Little Bear Creek, Upland Forest Impact Area approx. 9.4 acres north of the waste water treatment plant footprint, and Upland Forest Impact Area approx. 3.8 acres located on the easterly boundary of the SR 9 site.
(b) How would the relocation of Howell Creek, Watercourse 1, 2, 3, 4, 5, 6, 7, 8, to accommodate the waste water treatment plant cause less harm to Little Bear Creek?
(c) How would the rail spur construction insure protection of the affected watercourses, Howell Creek, and Upland Forrest Impact Area?
(d) What impacts would the rail spur construction have on the stability of the slopes, potential for landslides, liquefaction, and effects of a seismic action?
(e) Would the rail spur be used to transport Class B biosolids?
(f) How would a spill from a rail car impact the watercourses, since Brightwater proposes to "daylight" the watercourses by bringing them up to the surface?
(g) If water temperature is critical to salmon habitat, and the watercourses are proposed to be brought to the surface as an enhancement, how would the

41

Response to Comment O19-121

The project design for the Route 9 site has been refined and additional studies have been conducted since the Draft EIS was published. Refer to Chapter 7 for an updated description of sensitive area impacts and mitigation. Project construction, including stormwater treatment systems, will be located on already developed areas on the Route 9 site. Wetland and stream mitigation areas on the north and south portions of the site will enhance and create higher quality wetland and stream systems, improving habitat quality in these areas of the Little Bear Creek basin.

Howell Creek and other watercourses on the site will be daylighted, relocated, and restored to increase stream functions including water quality on the site. Currently, stormwater and open watercourses flow untreated through the south portion of the Route 9 site and into Little Bear Creek. Watercourses would be consolidated and flow into Howell Creek on the south portion of the site and 228th Street Creek/Unnamed Creek on the north portion of the site. The site also includes 22 acres of reforestation and use of low impact development to retain stormwater and provide habitat. Please refer to the mitigation measures section of Chapter 7 and to Appendix 6-D, Permanent Stormwater Management and the Treatment Plant Sites, of the Final EIS for more detail on how water will be routed through and stormwater will be treated on the site.

The rail spur is no longer part of the project description.

The banks and buffers of daylighted watercourses would be planted with native trees and shrubs to provide shade for habitat and temperature control. Please refer to the mitigation measures section of Chapter 7 of the Final EIS for more detail about enhancement and restoration plans. The site's new stream channels will be sized to accommodate the new flows, including projected storm flows. The north mitigation area will include several ponds designed for fish rearing. Though not specifically designed to reduce sedimentation

from upstream sources, the mitigation areas would serve this function with their meandering channels, ponds, and vegetated wetlands. The mitigation areas would also be designed to meet state Water Quality Standards.

Brightwater will meet current seismic control standards. Please refer to Chapter 4 of the Final EIS for more information about the seismology of the site, and the response to the Snohomish County Fire District No. 7, Comment S1-2, for a description of the emergency response plan.

Development of the Route 9 site is anticipated to have a positive effect on salmon habitat in the long term. The new, decentralized stormwater treatment facilities, low impact development, and stream and wetland mitigation areas planned for the site are intended to improve onsite habitat and the water quality of flows to Little Bear Creek. Please refer to Chapters 6 and 7 of the Final EIS for more information about these new systems.

The federal, state, and local permitting agencies determine the level of mitigation that is required for protecting sensitive resources such as Little Bear Creek, tributaries, and wetlands. The type and amount of mitigation proposed by King County will be reviewed by the permitting agencies once the final treatment site has been selected.

Brightwater would be designed with the best technologies for safety and spill prevention. The plant would meet the goals of preventing and reducing harm, and of conservation. Please refer to Chapter 3 of the Final EIS for a description of the emergency response system, which includes measures and features to protect against both chemical and sewage spills.

temperatures is kept at acceptable levels @55 degrees Fahrenheit? Would these watercourses be tree lined?

(h) Are any of the watercourses identified for relocation planned to be consolidated?

(i) If so, how would the issue of stream flow and turbidity be addressed particularly during a heavy storm event? Would there be a storm water retention pond with filtration to insure turbidity remains within allowed limits?

(j) In the event of an earthquake, is it probable for waste water to spill over the aeration basins, clarifiers, and leakage from the various chemical storage units?

(During the last earthquake in Alaska less than a month ago, it was reported a swimming pool shook so much that it spilled many gallons of water from it here in the Seattle area).

(2) **The Chinook Stock Status and Distribution** shows Little Bear Creek as "*River/Stream with Critically Depressed Native Chinook Stock*".

(a) How would the Brightwater Treatment plant at SR9 impact the long range Salmon habitat?

(b) Brightwater is considering mitigation for protection of Little Bear Creek by purchasing land within the Little Bear Creek Basin for Habitat Acquisition and Restoration. How does Brightwater determine if this kind of mitigation will be adequate to protect Little Bear Creek, tributaries, and wetlands by building a plant which cannot guarantee spills, leaks, Storm water overflows, and chemical contamination into the ground? Preventive measures are only good if there is "no" human error.

(c) How does Brightwater meet the goal of "DO NO HARM' when there is an Inflow and Infiltration (I&I) and SSO plan for the waste water treatment plant and conveyance systems? O19-121

O19-122 *(3)* **Land Use Planning and Critical Areas Protection** *"The Growth Management Act requires local governments to consider the* **best available science** *when developing policies and regulations to designate and protect critical areas, such as wetlands, steep slopes, and fish and wildlife habitat conservations areas."*

(a) How does Brightwater comply with the GMA when the DEIS does not adequately consider "best available science" for the overall waste water treatment plant when processing the effluent to secondary treatment with a small amount of tertiary treatment instead of effluent being treated to potable water quality and biosolids to only Class B when Class A and better is considered "best available science"?

***(b)* Requiring Brightwater waste water treatment plant to meet and exceed "best available science" for its end product, would this program alone offer significant long term benefits towards land use planning and Critical Areas Protection?**

***(c)* Wouldn't "best available science" include best environmental evaluation of sites and alternatives to the existing King County waste water treatment system?**

42

Response to Comment O19-122

The Growth Management Act requires local jurisdictions to adopt critical areas ordinances that implement best available science. King County would be required to comply with the critical area ordinances of the jurisdictions in which the selected Brightwater System crosses.

Please refer to Chapter 7 of the Final EIS for a discussion of designated critical areas associated with the Route 9 site, potential impacts and mitigation measures that would be implemented for the Route 9 System.

Please refer to Chapter 2 of the Final EIS for a discussion of the site selection process for Brightwater. Chapter 11 discusses land use plans in the vicinity of proposed Brightwater facilities. Chapter 16 discusses transportation facilities and the potential impacts of Brightwater facilities.

(d) **Based on best available science how would either the SR 9 sites or the Unocal site be considered viable for the Brightwater waste water treatment plant?**
(e) **How would Brightwater address the Snohomish County land use planning surrounding the SR9 site when it is mostly considered Rural Conservation?**
(f) **How would King County address the rural level of public services and road system within this rural south Snohomish County area?**
(g) **Does Brightwater consider such a project more suited for an urban level of services and within the service area based on "best available science" criteria?**
(h) **Explain why SR 9 was considered a "preferred" site by King County Executive Ron Sims with so many identified Critical Areas within the site and surrounding the site? How does this siting comply with the "spirit and intent" of the "Conserving Salmon" King County Accomplishments and Action Plan? Or is it intended only for King County instead of Snohomish County?** O19-122

O19-123 (4) *According to the King County Journal dated January 30, 2002, an article titled "State grant to help Bothell check pollution" reported ...Bothell – Pollution problems in North Creek and its tributaries will be attacked with the help of a $498,000 state grant, city officials announced Wednesday. News of the "Centennial Clean Water Fund" grant – the largest grant by the state Department of Ecology in 2002 – was cheered by Bothell public works director Dave Zabell."..."Because of failing septic systems North Creek was listed as exceeding maximum levels of bacterial pollution...by the Environmental Protection Agency and state ecology department...."stormwater runoff also contributed to the problem."*

(a) ***How will the DEIS address Brightwater conveyance line impacts to North Creek and its tributaries when the portals and conveyance tunneling will cross through the North Creek basin.***
(b) ***Has Brightwater bothered to check with EPA or Washington state DOE or local communities of any such grant projects within the Brightwater Project area?***
(c) ***The Cross Valley Water District comments particularily with comments from Robinson and Noble stress critical concerns with dewatering issues, and conveyance tunneling and its probable impacts to the water quality. How could the city of Bothell comment on such a critical issue since Brightwater failed to express there may be significant adverse impacts regarding this issue?***
(d) ***A supplemental EIS to address dewatering and water quality issues must be addressed by Brightwater on behalf of the City of Bothell, EPA, DOE, King and Snohomish county residents.***
(e) ***Furthermore, the Brightwater project must be put on hold in the area of the North Creek and its tributaries until such studies are completed per the Washington State DOE grant to the City of Bothell is completed. The main purpose of this delay is to complete...*** *" the monitoring program, where continuous water sampling will occur to determine the extent of the problem and its exact location;...A community outreach and public education program teaching residents and businesses about the water quality issue and what can* ***be***

43

Response to Comment O19-123

Impacts to all creeks potentially impacted by Brightwater conveyance construction, including North Creek, are discussed in Chapter 6 of the Final EIS. King County would work with local communities as well as the Environmental Protection Agency and the Washington State Department of Ecology relating to water quality protection efforts. Additional discussion of dewatering and water quality issues is included in Chapter 6 and Appendix 6-B, Geology and Groundwater, of the Final EIS. King County has addressed these issues as part of the Final EIS and will not prepare a Supplemental EIS. King County would coordinate with the City of Bothell regarding any ongoing monitoring and outreach programs.

done to eliminate the problem." Upon completion of the study, a base line could be established so if the Brightwater project is built, continued monitoring would be able to determine if Brightwater is definitely causing contamination.

O19-123 f) A supplemental EIS needs to be completed to address all issues to protection of Little Bear Creek.

44

EMERGENCY FLOW MANAGEMENT
BRIGHTWATER CONVEYANCE SYSTEM
Phase Three Technical Document November 2002
DEIS COMMENTS
Mark Sakura and Just the FACTS & SKEA

O19-124 *(1) "The Brightwater Treatment Plant conveyance system will be sized to accommodate flows up to 170mgd, the peak flows generated in the service area in a 20-year, 24-hour storm event in 2050."…."when storm-influenced flows exceed either the capacities of the treatment plant or conveyance system," …."one of three following flow management strategies to reduce the probability of sanitary sewer overflows (SSO's):"*

(a) Will the 170mgd peak flow include existing daily wastewater flows?

(b) Is this peak flow design only for the influent line or does it include effluent lines? If so, what are differences in impacts between the SR9 site and Edmonds site due to the extreme difference of the conveyance system lengths?

(c) "During extreme flow events or operational emergencies where the use of flow management procedures does not reduce the wastewater flow rates to manageable levels, the system design goals are to have wastewater SSO's occurring into selected natural receiving waters, rather than causing backups into local systems. Conveyance system criteria will seek to have any overflows occur first in highly mixed marine waters (Puget Sound), then to large freshwater water bodies like Lake Washington, and finally to local rivers and creeks."…"When King County's emergency flow strategies have been fully utilized and high flow conditions persist, overflows may occur at individual pump stations. When they must occur the following priority, from first to last, is followed for the Brightwater conveyance system overflows: (1) highly mixed marine waters (Puget Sound). (2) Large freshwater bodies (Lake Washington). (3) Tributaries (Sammamish River, North Creek, Bear Creek)"

(1.1) In reference to the Brightwater Conveyance System Phase 3 Technical Reports, where is it accurately detailed within the DEIS of worse case scenario from the influent corridor to the proposed Route 9 site?

(1.2) *In the event the SR 9 site treatment plant goes offline due to:*

(a) major or multiple mechanical failure
(b) extended power failure and backup power supply becomes inadequate
(c) Influent conveyance line exceeds maximum capacity flow greater than the designed and storage capacity
(d) Storm water or I&I exceeds the 24hour, 20 year flood events
(e) Flow diversion to other waste water treatment plants, and conveyance exceeds the designed 17mgd capacity
(f) All other planned wastewater treatment emergency methods fails

Questions:

45

Response to Comment O19-124

The 170-mgd peak flow does include the existing daily flows. Both the Route 9 and Unocal influent and effluent conveyance systems will be designed to accommodate the 170-mgd peak flow. There will be no difference in impacts between the two treatment plant sites due to the peak flow.

The worst-case scenario for the Route 9 and Unocal influent systems would be a result of high flows combined with an extended power outage at the treatment plant that could fill available storage in the north Lake Washington area and potentially result in a discharge of diluted wastewater from the safety relief point in Kenmore or a bypass of diluted wastewater past the treatment process at the plant site to the effluent conveyance system for discharge into Puget Sound. Please refer to the Final EIS, Appendix 3-E, Flow Management and Safety Relief Point, for more specific information.

A discharge from the safety relief point would occur into the Sammamish River approximately 3,800 feet upstream of Lake Washington. Overflows would occur at either the safety relief point into the Sammamish River in Kenmore or the outfall into Puget Sound. The goal is to first have emergency overflow discharges occur from the outfall into Puget Sound since the large water body provides greater dilution. If an outfall discharge is not possible, a discharge will be initiated from the safety relief point to Sammamish River to prevent uncontrolled overflows from occurring through manholes or sewer backups. Please refer to Appendix 3-E for more specific information.

The conveyance system has been designed to accommodate approximately 6 hours of storage before a discharge could potentially occur. The two potential receiving waters are Puget Sound and the Sammamish River. Please refer to Appendix 3-E for a discussion of overflow volumes for the worst-case scenario and conveyance system criteria for the Brightwater Treatment Plant. Discussion of potential impacts

from and cleanup measures due to a sanitary sewer overflow (SSO) are included in Chapters 6, 7, and 9 of the Final EIS.

During the conditions listed previously, it is anticipated that no aquifers would be impacted by an SSO since the discharge would occur into the Sammamish River or Puget Sound. King County has established a standard policy for emergency notification. The extent of notification varies as a function of the nature of the emergency. Local cities and agencies are already on the notification list. Interested community groups would need to contact the King County Department of Natural Resources and Parks Public Outreach office to be added to this list. Please refer to Chapter 9 for additional discussion regarding public notification and cleanup procedures.

(1.3) How far offshore will any influent overflow from the end of the influent conveyance line be from Lake Washington?

(1.4) Where will the overflow (SSO) occur in the influent lines from each affected pump stations and or portals?

(1.5) Describe the "*system design goals to have the wastewater SSO occur into selected natural receiving waters".*

(1.6) Where in the DEIS does it describes the program per the *"Brightwater Conveyance System Criteria" which states…."will seek to have any overflows occur first in highly mixed marine waters (Puget Sound), then to large freshwater water bodies like Lake Washington, and finally to local rivers and creeks"?*

(1.7) How long would it take before the SSO begins to be discharged into Natural receiving waters?

(1.8) What is the worst case scenario amount of gallons of SSO per hour into each of the three above types of "natural receiving waters"?

(1.9) Identify "all" natural receiving waters that may be impacted throughout the Brightwater wastewater system from the outfall to the proposed sites.

(1.10) Detail the environmental damage for short and long term effects. Include human health risks.

(1.11) Describe how such cleanup would occur at each SSO point sources.

(1.12) Identify all aquifers that may be impacted including the Intercity Aquifer.

(1.13) Describe how agencies would be notified, problem solved, cleanup completed, short term and long term damage assessed.

(1.14) Identify all agencies, public works, fire and police jurisdictions and any other relevant parties King County needs to have an interlocal agreement with to handle any Brightwater emergencies outside of King County.

O19-124 (1.15) Describe how King County will establish emergency notification to the community and interested community groups.

(1.16) Describe how a surety bond to cover all costs from King County in a worse case scenario will be analyzed with all affected agencies, Department of Ecology, local health districts, VA hospitals where veterans and families have health benefits, communities, cities, and Snohomish County and community groups to determine a reasonable amount to be held prior permitting.

O19-125 (1.17) How would King County agree to cover all related costs of medical and loss of life?

(1.18) How would King County agree to cover all related medical costs or compensation for domestic animals? Many of the Snohomish County residents have livestock or domestic pets they depend on for therapy and medical related assist.

O19-126 (1.19) "Route 9 Influent Tunnel Alternative"…"The Route 9 influent portion of the conveyance system has an estimated 24.4 mg of available

46

Response to Comment O19-125

As set forth in detail in Chapter 6 of the Final EIS, if the Route 9 System Alternative is selected, then reasonable mitigation measures, appropriate construction techniques, and operational practices would be employed to avoid contamination and other potential significant adverse impacts to aquifers and other drinking water resources. Numerous federal, state, and local agencies have jurisdiction to issue permits and approvals before construction of any facilities and to regulate the operation of the Brightwater facilities after construction so that there is no violation of water quality standards or detrimental impacts to drinking water sources. King County is not required to, and does not in this EIS, address hypothetical legal liability questions.

Response to Comment O19-126

The overflow referred to in the comment was a unique situation. At any one time, three influent pumps are sufficient to pump the maximum volume of effluent that could move through the West Point Treatment Plant. There had been a pump modification planned that was important to implement and planned for some time. The weather was predicted to be dry, so the fourth pump had been isolated (taken out of service) so that the work could be done first thing the next day. This was not routine maintenance. Routine maintenance is only scheduled during low flow periods. Unfortunately, heavy rains did occur that evening, and while the three pumps were pumping flow into the plant, at 3:10 a.m., one of the three running pumps signaled that it was experiencing extreme vibration and automatically shutdown and failed to respond to efforts to restart. High flows entered the plant causing a series of events that led to a plant bypass automatically to protect the plant systems from serious or permanent damage. When the fourth pump could be removed from isolation and restarted, at 5:30 a.m., the overflow was terminated.

There was a very serious overflow of sewage from the West Point Treatment Plant, where 41 MG of untreated sewage and 91 MG of primary treated effluent was discharged on October 12, 1998 (not September 8, 1998, as noted in the comment). This overflow occurred because of the failure of the main electrical supply feed to the plant. While the plant equipment operated properly to switch automatically to the backup power feed, the other electrical feed failed to function properly and was unable to support the voltage needed to run the plant. Since that incident, Seattle City Light has replaced the majority of the underground, main cable that provides the main service to the plant. They have also rehabilitated the backup feed line and have installed additional capacitors at West Point so that the backup line, when it must be in use, can reliably provide the voltage needed to run the plant. Further, King County and Seattle City Light have agreed to confirm the condition of the lines by performing “switch-over” tests every 2 years, and to inform each other when any change to plant operations will involve new power requires or when the backup feeder line’s load from other customers changes significantly. These repairs and communications between the agencies have corrected the conditions that lead to the October 1998 overflows and should maintain a reliable primary and back-up power supply to the plant on into the future.

This particular event did not have any association with a rain event. This bypass of untreated sewage was a consequence of unexpected movement of the emergency bypass gate, which opened the gate 1 percent for 18 minutes. This gate opening occurred when maintenance was being performed on the hydraulic supply values connected to the gate. At the time of this occurrence, it was not expected that working on the hydraulic supply would affect the gate in this way. A further investigation was undertaken to determine why this occurred and changes to the electronic logic control of the system were made to prevent such an occurrence in the future. There was not any sampling done in association with this event; however, it is now common practice for receiving water samples to be taken whenever there is an overflow of untreated sewage from any facility. Samples are taken every day until the bacteria levels return to a normal range.

As described above, while there have been overflows in the past from the current King County treatment plants, in each particular occurrence there were extenuating circumstances, either mechanical or power failures, that resulted in some discharge of untreated or partially treated wastewater. In each case, King County has undertaken measures to correct the mechanical problems or has provided additional redundancy in the power or other systems to reduce or eliminate the potential for such occurrences in the future. It is King County’s policy to continue to avoid overflow of untreated waste from the plants. The construction and operation of the new Brightwater Treatment Plant will further assist in protecting the current plants from waste loads or mechanical stresses that could cause more frequent future overflows.

storage, which translates to 3.4 hours of storage time." **Where would the untreated influent waste water flow into if mechanical failure or power outage exceeds the available storage? According to King County SSO report at the West Point Plant on 6/11-19/2002, the "*influent bypass gates malfunction, leak from bottom of* emergency *marine outfall*" resulted in 1800gpm for 9 days equaling 23 million,328 thousand gallons overflow before repairs were completed.**

(1.20) There was a sewage overflow again at West Point treatment plant on 1/4/00 due to an "*effluent pump was down for routine maintenance, the 2nd pump failed during high flows due to rain*" causing 18 million gallons of overflow. What kind of Best Management Practice was in place to allow scheduling a routine maintenance of an effluent pump during a wet weather season?

(1.21) There was another sewage overflow at West Point treatment plant on 9/8/98 due to a "*main electrical feeder failed from Seattle City Light and backup feeder also failed to provide enough power*" causing"41 million gallons of untreated overflow, and an additional 92 million gallons of primary treatment only" What changes in the BMP was initiated to prevent this in the future?

(1.22) Still another sewage overflow at West Point treatment plant on 3/23/98 due to a "*opening hydraulic supply to emergency bypass gate caused gate to open about 1%*" causing 100 thousand gallons of overflow. What kind of spill monitoring plan was in place as part of the BMP?

(1.23) Hmmm, sewage overflow at West Point treatment plant on 10/3/97 due to a "*Control power loss part of a larger influent control structure power outage. UPS failed to maintain the 120 VAC control power causing the fail-safe sequence to initiate*" causing 625 thousand gallons of overflow.

(1.24) Oh Gawd, more sewage overflow at West Point treatment plant on 7/19/95 due to an "*emergency bypass gate bumped open during hydraulic leak repair*" causing 800 thousand gallons of overflow.

(1.25) Yikes, yet another sewage overflow at West Point treatment plant on 6/7/95 due to a "*outfall gate structure cover not completely sealed, caused cover to leak*" causing only 2-300 gallons overflow on the west end of the ground of the treatment plant. Whew.

(1.26) OH, no, what a bad year…sewage overflow at West Point treatment plant on 5/2/95 due to a "*flow meter manhole cover left open, will recap pipe even if its open only for short period*" causing 5 thousand gallons of overflow inside West Point plant.

(1.27) How does Brightwater explain so many spills and millions of gallons of volume at King County's newest waste water treatment plant?

O19-126

47

O19-127

(1.28) How can the local community and affected agencies is have any confidence in Brightwater when it is staffed by the same King County Department of Natural Resources, Waste water division?

(1.29) A supplemental EIS needs to be conducted to address spills within the waste water treatment plant.

(1.30) The King County SSO has numerous other spills within the conveyance system and pump stations throughout the King County waste water system.

48

Response to Comment O19-127

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts including the expected frequency of the use of the safety relief point. This is discussed in Appendix 3-E, Flow Management and the Safety Relief Point, of the Final EIS. The frequency of emergency overflows from Brightwater is expected to be very low. There is no practical or legal need under SEPA to include this additional analysis in the form of a Supplemental Draft EIS. There is no SEPA case law calling for such an action. Moreover, it is the principal task of the Final EIS to respond to questions and comments on the Draft EIS and, if appropriate, to revise alternatives, analysis of the probable significant adverse environmental impacts, and discussion of reasonable mitigation measures.

SECTION 14

KING COUNTY SSO Report compiled from KC reports to DOE 6/2002-5/95

Description	Date	Plant	Spill dumped to	Leak	volume-gallons	cause	Commments
West Point Plant Emergency Sewage Bypass	6/11-19/2002	West	Puget Sound	x	1800gpm for 9 days	influent bypass gates malfunction,Leak from bottom of emergency marine outfall	= 23,328,000 gal.
Sewer overflow Henderson Pump Station	7/24/02	East	overflow from manhole in parking lot of QFC into Seattle storm drains	x	unk	blockage in Seattle private sewer line	information provided to DOE as a courtesy since overflow to a receiving water did not occur
Sewage bypass Fremont Siphon Relief	2/27/02	West	Canal St. Relief - Ship canal	x	250,000	leak in bypass gate that opened to CSO outfall line	
sewage overflow of Secondary Effluent Vashon Treatment Plant	2/13/02	East	outfall manhole into Gorusch Creek, Vashon treatment plant	x	500	high flow surge- failure to open bypass valve while draining chlorine contact tank	
Sewage overflow at Hidden lake pump station	12/16/01	West	entered outfall pipe		41,000	no upstream storage for storm events - design in progress	
Overflow of Secondary Effluent Vashon Treatment Plant	12/13/01	East	overflowed the chlorine contact channel into Gorsuch Creek, Vashon Treatment plant	x	9,000	Rain Storm - high flows. Hydralic limitations of outfall pipe, plan to expand plant in next 3-5yrs	
Peak Flow Capacity-West Point Treatment Plant, gear box replacement w/sewage pump 2	12/3/01	West	repair			danger of complete failure if not fixed, reroute to South tx plant	
Sewage overflow due to blocked line	11/21/01	West	Duwamish waterway near 1st avenue bridge	x	80,000	blockage where line transistions from 12-10" diameter	
Primary treatment Sewage flow diverted around secondary process	10/30/01	West	diversion around secondary process		1,100,000	hydraulic gate failure	
Sewage Overflow at Murray Pump Station	10/4/01	East	outfall pipe in Puget Sound contained in pipe with 169,000gal capacity		10,000	power failure cause by traffic accident 2hrs to get power back	
Sewage Overflow at Wilburton Siphon Construction site	10/1/01	East	Kelsy Creek	x	1,500	plug failed	
sewage Overflow at Juanity Dr SE	8/19/01	East	Juanita Bay Park and Creek	x	25,000	broken 1" line connecting to force main	
Overflow King Street Regulator Station	6/29/01	West	Elliott Bay	x	1,000	trunk level sensor failure	
Overflow at 10700-27th Ave S manhole	4/10/01	East	contained in manhole	x	100	Air bleed unit seeping effluent	
Sewage bypass at Carkeek Park Pump station	4/3/01	West	Puget Sound	x	1,600,000	power outage, emergency generator installed for pump stat	
Murray Pump Station Sewage Overflow	3/20/01	East	Puget Sound	x	56,000	local power outage	

49

Sewage overflow Heathfield Pumping Station	1/9/01	East	City of Bellevue storm drain	x	1-3,000	power bump, Progammable Logic Controller failure, to be fixed 4th qtr 2001	
Sewage overflow Wilburton Siphon	12/12/00	East	Mercer Slough	x	0.5L/m for unk duration	21" siphon leak	
Loss of Disinfection South Treatment Plant Renton	10/18/00	East	Puget Sound	x	8,000,000	Failure of planned power outage/plant shutdown. Influent pumps dropped offline	Hope to have regular chlorine system back on line 11/2000
Sewage bypass and overflow Hidden Lake pump station	10/2/00	West	Puget Sound	x	66,324	power bump, protective relay failed, UPS moved to dedicated circuit	
Sewage bypass and overflow Hidden Lake pump station	9/16/00	West	Puget Sound	x	7,900	power bump, protective relay failed	
Sewage Bypass and overflow Kenmore pump station	8/29/00	West	Sammamish River near Kenmore boat launch	x	80,000	gate failed to shut during planned power outage drill	
Yarrow Bay Pumping Station sewage overflow	5/4/00	East	Yarrow Bay area of Lk Washington	x	67,000	electrical component failure in 3 phase monitor	
Overflow of Secondary Effluent, Vashon Plant	2/1/00	East	Gorsuch Creek	x	35,000	flow in excess of outfall capacity due to heavy rainfall	
Sewage overflow West Point treatment plant	1/4/00	West	Puget Sound	x	18,000,000	1effluent pump down for routine maint, 2nd pump failed during high flows due to rain	
Overflow of Secondary Effluent, Vashon Plant	12/15/99	East	Gorsuch Creek	x	25,000	heavy rain and outfall flow limited	
overflow of influent from Interbay pump station at Denny regulator	11/12/99	West	Elliott Bay	x	3,800,000	hydraulic valve malfuction caused influent gate to close and stop functioning. Heavy rains also a factor	
Barton Pump station overflow	10/8/99	East	Puget Sound	x	48,000	Power outage, plan to install standby gen by 2001 or 2002	
Iinterurban pumping station forcemain sewage leak	4/21/99	East	Green River Footbridge Ft. Dent Park, Tukwila	x	3,500	Force main px, 2 check valves cracked on brass casings due to hydraulic transient in forcemains	
Sewage overflow Carkeek Pump Station	3/3/99	West	Puget Sound	x	416,000	Power outage at pump station emergency gen does not carry the pump station load, emergency gen in design stage, heavy rains also a factor	
Sewage overflow Hidden Lake Pump station	3/2/99	West	Puget Sound	x	152,000	extended rain storm flows exceeded force main capacity, attempts to run 3rd pump unit to min overflow caused manholes on force main to surcharge causing unsafe conditions	
Sewage overflow 30th Ave pump station	1/31/99	West	Union Bay Lake Washington	x	30,000	power outage caused switch to emergency power and 30th Ave failed due to overheating	
Chemical Discharge Alki Stormweather Plant	1/19/99	East	Puget Sound	x	43,760 diluted bleach	rainwater from roof activated the float starting the pump	

50

Mill Creek Trunk sewage overflow	12/28/98	East	Mill Creek	x	40,000	mod-severe rains caused excess capacity
Black Diamond Pumping Station sewage overflow	12/11/98	East	Ginder Creek which eventually flows by stream to Lake Sawyer	x	152,000	Electrical transformer failure caused slow drop in voltage, generator started, pumps did not, plan to install UPS
West Point Plant and Collection System sewage overflow	10/16/98	West	Puget Sound	x	41,000,000 untreated, 92,000,000 primary treatment only	main electrical feeder failed from Seattle City Light and backup feeder also failed to provide enough power
Lakeland Hills Pumping Station Sewage Overflow	9/8/98	East	White River - hosed down sidewalk with water to clean	x	8-12,000	Wetwell level bubbler turned down too low(2 pump control failures), alarm system failed to notify main control. Designing upgrade for controls to prevent in future
63rd street Pumping Station sewage overflow	7/14/98	East	Puget Sound Duwamish waterway	x	approx 200	emergency bypass gates leaking due to rotting at Alki plant
Sewage overflow Hidden Lake Pump station	6/24/98	West	Puget Sound	x	81,858	pump station #4 overflowing due to insufficient discharge from Hidden Lake Pump stationwhen instrument air accidently shut off
York/Hollywood Transfer line sewage overlow	4/22/98	East	Roadside ditch tributary to Sammamish River	x	3,000	broken drain line between York and Hollywood pumping stations
Sewage overflow West Point Treatment Plant	3/23/98	West	Puget Sound	x	100,000	Opening hydraulic supply to emergency bypass gate caused gate to open about 1%
Sewage overflow Interbay Pump Station	3/22/98	West	Puget Sound Elliott Bay	x	13,300,000	High wetwell relay failure caused emergency closure of pump station influent gate
Sewage overflow York Pumping Station forcemain	2/5/98	East	JB Instant Lawn's yard eventually in ditches to Sammamish River about 1 mile away	x	780,000	Vacuum relief valve failed on pump station's forcemain. Valve stuck open
Sewage overflow Hidden Lake Pump station	1/19/98	West	Puget Sound	x	204,000	Power bump at station, emergency generator did not pick up the station due to burnt relay in the auto transfer system
Sewage Overflow Murray Ave and 53rd St. Pumping stations	10/30/97	East	Puget Sound	x	250,000	heavy rainfall resulted in high flows to Alki System and failure of a temporary gate installed during modifications to 63rd St. Pumping Station
Sewage Overflow Ballard Regulator	10/5/97	West	Salmon Bay	x	300,000	bad interceptor level sensor preventing regulator gate from reopening after interceptor level had dropped below its setpoint

51

Sewage Overflow - West Point Treatment Plant	10/3/97	West	Puget Sound	x	625,000	Control power loss part of a larger influent control structure power outage. UPS failed to maintain the 120 VAC control power causing the fail-safe sequence to initiate
Sewage Overflow Freeway interceptor, Tukwila	8/27/97	East	Storm drain retention basin, Gillian Creek	x	172,800	DOT work at new manhole
Sewage overflow Carkeek Pumping station	7/14/97	West	Puget Sound	x	550,000	Seattle City Light power outage no UPS
Sewage overflow at West Seattle Pump Station	5/31/97	East	Alki Area	x	6,000,000	heavy rainfall combined sewer influent to 63rd flooded pumping station's drywell
Sewage overflow Medina Pumping Station	3/20/97	East	Lake Washington	x	40,000	stormwater pump shut down due to false vibration alarm
Sewage overflow Cascade Siphon, Renton	3/19/97	East	Ground near Cedar River Wetlands	x	unk	CSO highflows, construction working on installing parallel line
Sewage overflow Bryn Mawr System	3/19/97	East	Lake Washington	x	unk	CSO highflows, construction working on installing parallel line
Sewage overflow Medina Pumping Station	3/18/97	East	Lake Washington	x	42,000	power bump causing larger stormweather pumps to fail
Overflow of reuse water Alki plant	3/10/97	East	Waterworks park wetlands C-4 water containing chlorine residual of 0.1mg/L, and resuse plant effluent turbidity below 1NTU	x	320,000	broken connection at c-4 meter box just north of anaerobic digesters
Sewage Overflow at Bryn Mawr siphon	12/10/96	East	Lake Washington	x	unk	siphon inlet surcharged due to lack of capacity. Project underway to increase downstream conveyance system
Sewage Overflow South Mercer Island Pumping Station	11/19/96	East	Lake Washington	x	126,000	Station lost primary and secondary power due to storm, plan to have stationary generator
Sewage overflow 63rd st. Pumping Station	10/13/96	East	Puget Sound	x	750,000	Electrical storm blew fuse on one of three lines that supply power. Single phasing undected thru night. Plan to install alarm to notify of single phasing
Sewage overflow Harbor Regulator	7/18/96	West	West Duamish waterway	x	14,000	Plugged bubbler which controls operation of outfall gate.
Sewage overflow Henderson Street Pumping Station	5/12/96	East	Lake Washington	x	1,500	Heavy rain, one pump out of service
Sewage overflow Denny Way Regulator	5/7/96	West	Puget Sound	x	170,000	Intense rain caused trunk level to go up 7ft and overflowed station

52

Sewage overflow 53rd st. Pumping Station	2/9/96	East	Puget Sound	x	166,000	Main Circuit breaker tripped during storm. Flows in excess of 50,000,000 pumped thru station	
Sewage overflow Kenmore Pump station	2/8/96	West	flow from upstream 68th Ave manholes to Sammamish River	x	20,000	heavy rain taxed capacity of Kenmore after it received 10,000,000 gal extra flow from Ballinger and Hollywood pump stations	
Sewage Overflow Mill Creek Interceptor	2/8/96	East	from Manhole R18F into Mill Creek	x	unk	south interceptor full to capacity due to storm. Plan to reduce incoming sewage flow	
Sewage overflow Cascade Sipon	2/8/96	East	from manhole R10-33 at S 259th in Renton to Cedar River	x	unk due to remoteness of line	sipon surcharged due to rainstorm. Lasted 3 days	
Sewage overflow Interurban Pumping Station	1/17/96	East	storm drain to Green River	x	2,000	Leaking forcemain. Station will be decommissioned 1/20	
Sewage Overflow West Point Treatment Plant	7/19/95	West	Puget Sound	x	800,000	emergency bypass gate bumped open during hydraulic leak repair	
Sewage Spill Report - West Point Treatment Plant	6/7/95	West	Ground west end of Treatment Plant	x	2-300	outfall gate structure cover not completely sealed, caused cover to leak	reported as courtesy to DOE since no bypass or overflow
Sewage Overflow West Point Treatment Plant	5/2/95	West	Inside West Point Plant	x	5,000	flow meter manhole cover left open, will recap pipe even if its open only for short period	

53

EMINENT DOMAIN
BRIGHTWATER DEIS
COMMENTS BY MARK SAKURA
Member of Just the FACTS
Member of Snohomish King County Environmental Alliance
February 20, 2003

O19-128

(1) The DEIS does not adequately define or address the issue of eminent domain for homeowners or property owners along the proposed conveyance system deep tunneling.

(2) Would eminent domain be exercised along the entire conveyance system as a "*utility right away*" if access to a portal is not possible for construction or maintenance through a designated portal?

(3) Would Cross Valley Water District be defined as a "district" in the context of RCW 57.08.005? If not, what agency or entity has the power to be the "district" on behalf of Cross Valley Water district?

***(4)* RCW 57.08.005 POWERS**. *"A district shall have the following powers: ...(3) To construct, condemn and purchase, add to, maintain, and supply waterworks to furnish the district and inhabitants thereof and any other persons, both within and without the district, with an ample supply of water for all uses and purposes public and private with full authority to regulate and control the use, content, distribution, and price thereof in such a manner as is not in conflict with general law..." ...for the purpose of constructing or laying aqueducts or pipelines, dams, or waterworks or other necessary structures in storing and retaining water or for any other lawful purpose such district may occupy the beds and shores up to the high water mark of any such lake, river, or other watercourse, and may acquire by purchase or condemnation such property or property rights or privileges as may be necessary to protect its water supply from pollution.*

(4.1) If Cross Valley Water District primarily serves water within Snohomish County, could King County declare eminent domain)on the auspices of "Regional" wastewater treatment?

O19-129

(4.2) Does Snohomish County GMA refer to a regional wastewater treatment plant to be built within Snohomish County?

(4.3) If there are no references to such a wastewater treatment plant within Snohomish County, how could such a plant be consistent with the GMA?

(4.4) Would King County be denying "Due Process" to Snohomish County and its residents since there were no public hearings regarding constructing a wastewater treatment facility in the GMA within Snohomish County?

O19-130

***(5.* RCW 57.08.005** *..." (5) ...or privileges necessary to be had to protect any lakes, rivers, or watercourses and also other areas of land from pollution from its sewers or its sewage treatment plant."*

54

Response to Comment O19-128

King County does have legal authority to exercise eminent domain for its Washington facilities. However, this comment essentially calls for legal analysis, as opposed to environmental information, which SEPA requires be addressed in an EIS. Moreover, non-environmental information such as the acquisition of property is ordinarily entirely exempt from SEPA evaluation. Please refer to WAC 197-11-800(5). You should direct any legal inquiries, including this comment, to the King County Prosecuting Attorney's Office. SEPA does require evaluation of land and shoreline issues, including "relationship to existing land use plans" WAC 197-11-444(b). A discussion of the relevant Snohomish County GMA provisions was set forth in the Draft EIS in Chapter 2 and Chapter 11, and is also found in Chapter 11 of the Final EIS.

Response to Comment O19-129

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-6.

Response to Comment O19-130

These comments do not address environmental impacts. RCW 57.08.005 applies to the legal powers of certain water districts. King County does have the legal authority to condemn property and disagrees with the statement that King County would be a "significant polluter … of an aquifer." Please refer to Chapter 6 of the Final EIS, which discloses substantial new information regarding potential impacts to aquifers during construction and operation.

O19-130 **(5.1) Can King County claim eminent domain in spite of knowingly becoming a significant polluter or degradation of an aquifer(s)?**

O19-131 *(6.* **RCW 70.54.010 Polluting water supply – Penalty.** *Every person who shall deposit or suffer to be deposited in any spring, well, stream, river or lake, the water of which is or may be used for drinking purposes, or on any property owned, leased or otherwise controlled by any municipal corporation, corporation or person as a watershed or drainage basin for a public or private water system, any matter or thing whatever, dangerous or deleterious to health, or any matter or thing which may or could pollute the waters of such spring, well, stream, river, lake or water system, shall be guilty of a gross misdemeanor."*

(6.1) Does "every person" mean each single hookup to the King County Wastewater Treatment system that would be guilty of a gross misdemeanor if it pollutes the Cross Valley Sole Source Aquifer and other impacted aquifers within the Brightwater system?

(6.2) Since "every person" cannot be held accountable for King County wastewater system actions, could a class action suit be brought forward to compensate injured parties relying on their respective aquifers within Snohomish County?

(6.3) Would "every person" hooked up to the King County wastewater system be considered one count of a gross misdemeanor each, with King County being the sole one penalized?

55

Response to Comment O19-131

The comment calls for legal interpretations on how state law may be applied in the future, based on numerous assumptions posed by the commentator. It is not the role of an EIS to analyze the possible application of state law under various hypothetical scenarios. The commentator is encouraged to direct such legal inquiries to the state Attorney General's Office or the King County Prosecutor's Office.

O19-132

Hello Mitch Seaman,
I understand your group, Building Trades Council opposes the SB6366 and HB2340 regarding the Brightwater Waste water treatment project. I belong to an active community group opposed to the Brightwater Project because of the following reasons:
(1) King County has denied Snohomish County residents "Due Process".
(2) King County intends to use the "eminent domain" for residents in Snohomish County at the conveyance system portals where the locations have not been decided on and may change due to deep tunneling construction problems.
(3) The Brightwater DEIS has many significant issues related to environmental health, construction worker safety, sole source aquifer affecting drinking water for a whole community, inadequate and incomplete traffic studies, etc.
(4) The siting process has been grossly flawed.
(5) King County failed to adequately consider more effective waste water treatment options which would generate significantly more construction jobs and improve the waste water system by:
(a) Rebuilding existing conveyance corridors and waste treatment pipes for both the Renton treatment plant and West point treatment plant to eliminate the Inflow and Infiltration (I&I) flow into leaking pipes.
(b) Build storm water treatment facilities to "best science available" at existing pump stations to treat storm water to "potable water" quality to maximize use of reclaimed water and preserve our drinking water quality.
(c) By treating the storm water to potable water quality, the outfalls could be directed to rivers and lakes with no human or aquatic life health risks.
(d) Major costs associated with building the deep tunnel for the conveyance system and outfalls which may exceed $800,000,000 currently could be spent for more construction related jobs using conventional methods of construction instead of only a few specialized contractors that may be brought in from out of state to construct the deep tunnel and marine outfall.
(e) King County has already contracted $11,000,000 for an out of state consultant to design the Brightwater project to include responding to the FEIS.

So, why would the Washington Building Trades want to support a project that your group may not get much of the contracting work?

Our community groups are working to having Brightwater abandon the mega waste water treatment project which is 1960's technology with effluent treated only to secondary level and biosolids only treated at Class B which is known to be harmful the environment. We strongly feel waste water facilities must be built to handle growth, however the alternatives which I described to build smaller facilities would generate many more needed jobs for our State and at the same time, protecting our water quality and environment.

A response is requested.
Sincerely,
Mark Sakura
Just the FACTS
E-mail msakura@ix.netcom.com
(425) 481-7622

56

Response to Comment O19-132

Thank you for your comment.

Mark Sakura

From: linda gray [newtl@msn.com]
Sent: Wednesday, February 19, 2003 6:23 PM
To: 'D5SnoCo'; 'Jim Hammond'; Bob Drewel
Cc: Mark Sakura; 'Gary Hajek'; 'Randy Sleight'; 'Susan Banel'; 'Gerald Ferris'; AlO'Brien; 'Christopher Schwarzen'; 'James MacRae'; Stuart Heady; Bill Stankus 3; nixon_to@leg.wa.gov; Charley Blaine; 'Tim Joseph'; Corinne Hensley; rhel461@ecy.wa.gov; tfit461@ecy.wa.gov; jay.inslee@mail.house.gov; Jeanette Knutson; 'Jim Willett'; 'Stephen Dickson'; CoachDrake@aol.com; Patricia Weston
Subject: Need for BW supplemental and recent Brightwater Lake Forest Park article

Dear Honorable Snohomish County Executive Bob Drewel, Snohomish County Councilman Jeff Sax, Mr. Jim Hammond, and Mr. Tom Fitzsimmons:

This email is to request again that you strongly urge King County to submit a supplemental DEIS for Brightwater. We need help. When is someone in government going to quit waiting around and demand King County stop their flagrant disregard of SEPA rules, due process, the rights of public citizens and do the job they are required to by law? I know my frustration is showing, but I want to know why this is ok. This process has been flawed from the beginning. A recent Everett Herald article spoke of how Ron Sims discounted the Edmonds site as no longer an official site in August 2002 before the DEIS was even written. This brings up very clearly that "reasonable alternatives" were never an issue with KC, only one site was clearly on their minds regardless of the environmental impacts and consequences. This "public process" is a mockery.

The attached Lake Forest Part Article highlights our communities' fears. How can Christie True, King County(responsible for Brightwater/reports directly to Ron Sims)chide her contractors - "...They are required to have a number of things in place to insure this doesn't happen…" when this same kind of information, and much more like it is missing from King County's own documents(Brightwater DEIS)??? This missing information is a requirement of the SEPA process and *SEPA substantive authority gives all levels of government the ability to condition or deny a proposal based on environmental impacts(WAC 197-11-660) These are some of the missing facts:*

- In the RWSP King County states they will reduce I/I when it becomes cheaper than building a new plant – where is this study?
- KC expected the public to comment on its plant design for BW yet did not include any drawings or plans for the Plant at Route 9..
- KC provided 14 (70 acre) portal designations for the 23 miles of conveyance for Route 9 but did not identify the specific 2 acres they plan to use for each portal. How can they expect the public to comment when the public doesn't know if it will be their house which is condemned or affected or not?
- KC only reported on the 5 soil borings they preformed at the Route 9 site. They excluded the many other borings given to them by Snohomish County Planning. But did include all 170 borings they were given for the Unocal site. The borings they excluded from Route 9 were the ones by OPUS and StockPot soups. These clearly show soils subject to liquefaction, lateral slide, slumping, artesians, perched ground water, etc. Why did they leave this important information out??
- KC used a bogus air modeling configuration from Payne field rather than data from the sites. This possibly allowed them to erroneously declare the air shed safe from accumulations of toxic fumes, chemicals, pathogens and odors.
- KC did not identify the SSO site for Lake Washington and the Sammamish River meaning those affected did not know to comment.
- KC used an erroneous baseline to determine that dumping an additional 36MGD of secondary effluent to Puget Sound would not have a damaging effect on an already compromised water way.
- KC Did not identify their odor recommendations or exactly what 99.9% removal of H2S means or why they are leaving the secondary clarifiers uncovered?
- KC did not identify all of the down gradient private wells to the south and West of Route 9 which will be adversely(drained or contaminated in a spill) affected by Brightwater.

O19-132

2/21/2003

57

- KC did not identify how much water would have to be pumped from the Route 9 site for construction and operation raising strong fears the CVWD wells might go dry. These wells support 5400 connections and nearly 13,000 residents. There is also no backup water supply for this water district.
- KC did not use real information to justify their " no impact" conclusion of BW's effect on traffic at Route 9 – they assumed Route 9 was already widened and paid for which is not true. They used 2010 as the year to illustrate construction traffic - 2010 is the beginning of operation not construction, used PM traffic figures only – when AM is the time when more traffic occurs, excluded railroad crossings, and excluded most of the key bottleneck intersections..
- KC left out how the safety relief valve will work at Route 9 but included it for Unocal. Check out the Phase III drawings - there is nothing there for Route 9 and it is the preferred alternative
- KC coincidently stopped the Whidbey fault line short of the Route 9 site in their maps
- KC included subsurface geology maps with question marks in the middle indicating they don't what's there.
- Etc

King County's contractor is being paid $3,000,000 dollars for 240 soil borings, they just started and are already facing possible DOE violations and fines(see David Bricklin's comments in bold below). How are we as the citizens who have to live around this potential site ever going to feel comfortable that anyone is doing their job????? If you really want to get nervous – please see the attached SSO (uncontrolled sewage overflow) report - note the volumes of raw sewage and the reasons for the sewage overflow. This was compiled from King County's own reports to the Department of Ecology.

The net of this is - if King County didn't do a good job with their part of the process, how can they expect it of their contractors?? We have to live here. We do not vote for Ron Sims or anyone else in King County. There is also the case of double standards at work here. Ron Sims does not want any "outside" entity imposing the rules and regulations on the Light Rail System, but he has no qualms imposing his law on the legal residents of Snohomish County. And finally , who do we turn to when this project fails???

We do have many reasons to fear this project and I go back again to the following comments which describe King County, Christie True and Ron Sims' Brightwater DEIS. Please note they've spent $30Million of our tax dollars to date on this all the while closing libraries, parks, pools, etc..

- *Robinson & Noble DEIS comments 1/21/03,* "...It is our opinion that the document's failure to generate a full disclosure of impacts, its propensity to understate or disregard very real impact potential, and its offer of vague mitigation all make it unsatisfactory to the SEPA process..."

Comments from David Bricklin, Attorney at Law, "In general, the DEIS suffers numerous deficiencies in violation of Washington law. These deficiencies involve core SEPA requirements, including: failure to analyze the full range of impacts of the project under WAC 197-11-060; use of incomplete information and failure to fill information gaps in relevant information or scientific uncertainty concerning impacts under WAC 197-11-080; failure to make the DEIS "concise, clear, and to the point" under WAC 197-11-400(3); failure to provide detail commensurate with the importance of environmental impact under WAC 197-11-402; failure to study an adequate number of sites under WAC 197-11-440(5)(c)(vii); **failure to show compliance with the requirement that contractor work has been adequately reviewed under WAC 197-11-420(2);** and failure to provide enough discussion of impacts versus the project itself under WAC 197-11-425(3)."

Faith Lumsden, Director Planning and Development, DEIS cover letter dated Jan 21, 2003
"...Snohomish County has reviewed the Draft EIS
(DEIS) in its entirety and has concluded that it is inadequate under Ch. 43.21C RCW and Ch. 197-11 WAC for the reasons set forth in this letter. In particular, the DEIS is inadequate in that it fails to analyze in sufficient detail the probable direct, indirect and cumulative adverse environmental impacts that will result from the construction and operation of the Brightwater Wastewater Treatment Plant and its conveyance systems. In addition, the DEIS fails to specify the specific, reasonable mitigation

O19-132

measures that will be used to avoid or minimize the anticipated impacts from this project or enhance environmental quality. (See, WAC 197-11-400)... The Draft EIS admits that the analyses provided to date are insufficient to evaluate the adverse impacts associated with this project.[1] Finally, the "No Action" alternative analyses throughout the DEIS appear to be based on speculation without supporting data or documentation, and seem to be justification for the project itself, rather than assessments of the significant adverse environmental impacts (or benefits) on the sites that would fall within the project boundaries. Such analyses are insufficient under WAC 197-11-402(10).

Accordingly, Snohomish County strongly urges King County to prepare a Supplemental DEIS to cure the inadequacies described below, so that the document will meet the minimum requirements of the law and form a strong basis from which permitting decisions can be made..."

Ron Sims and his staff at Brightwater must provide the public with a supplemental DEIS. They have been dancing around this issue ever since the comments were submitted 1/21/03. Do they think if they delay long enough we will forget?? *Per Robinson & Noble* "…we believe the document's reliance on BMPs and "following the regulations" as a method of dismissing identified impacts is unacceptable for a project of such magnitude and potential impact."

King County is not ready to propose siting their Sewage on top of our untreated drinking water(aquifer recharge area), right next to an endangered Salmon bearing stream and much, much more. Please require that King County do the job they should have **from the beginning**, comply with "due process" by providing a Supplemental DEIS to "…cure the inadequacies described…" and state now when it will be delivered. We the public must have a chance to comment on King County's plans or lack thereof in a Supplemental DEIS not FEIS. We want more than litigation as our only option.

Thank you

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http://enterprisenewspapers.com/index.cfm?Action=story&StoryID=200321315541492

Brightwater drilling in LFP causes spill near creek

By Pamela Brice
Shoreline / Lake Forest Park Enterprise editor

Contributed photo
Brightwater drilling in Lake Forest Park caused a spill of Bentonite clay and water into a storm drain that leads to Lyon Creek on Feb. 8.

LAKE FOREST PARK -- Brightwater test drilling in Lake Forest Park caused a slurry spill into a tributary that feeds into Lyon Creek on Feb. 8. The Department of Ecology is investigating the matter.

Gregory Drilling was doing geotechnical borings this past week at several locations in Lake Forest Park in which a drilling rig drills 700 feet under the ground in order to look at the soil and water conditions, said Christy True, King County's

O19-132

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Published: Friday, February 14, 2003

Brightwater drilling in LFP causes spill near creek

By Pamela Brice
Shoreline / Lake Forest Park Enterprise editor

Contributed photo
Brightwater drilling in Lake Forest Park caused a spill of Bentonite clay and water into a storm drain that leads to Lyon Creek on Feb. 8.

LAKE FOREST PARK -- Brightwater test drilling in Lake Forest Park caused a slurry spill into a tributary that feeds into Lyon Creek on Feb. 8. The Department of Ecology is investigating the matter.

Gregory Drilling was doing geotechnical borings this past week at several locations in Lake Forest Park in which a drilling rig drills 700 feet under the ground in order to look at the soil and water conditions, said Christy True, King County's Brightwater project manager. The drilling will help King County determine what materials it may have to tunnel through and how to protect the water aquifer.

The drilling team that was drilling at NE 195th St. and 32nd Ave. NE encountered water. The surge in water caused a spill of Bentonite clay mixed with water. The slurry spilled into a storm drain that feeds into a small stream tributary that flows into Lyon Creek.

Glenn Milner, a concerned neighbor, noticed the murky

Out & About

Romance by the seat of your pants

So you've just come to the realization that today, February 14, is Valentine's Day. This revelation may prove fatal when you arrive home empty handed at the end of the day.

Sports

O19-132

60

Opinion
Editorial Cartoon
Forums
Just a Thought
Letters to the Editor
Photo Gallery

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water flowing into the drain and called the Department of Ecology's 24-hour hotline.

"I'm a construction worker and it looked to me like concrete slurry," Milner said.

Several people from the Department of Ecology came out that day and determined it was a mixture of Bentonite clay and water, commonly used to lubricate and cool drilling equipment, said Ecology spokesman Larry Altose.

Most of the time Bentonite is used in a "closed cycle" meaning it's recycled, not released to the drains. And if a spill should occur, the drilling company should have hay bales or silt fencing around to catch the spill, Altose said.

"We don't want anything silty going into our creeks where fish and other organisms live," Altose said. "In the case of fish, water with high silt content interferes with their breathing, it damages their gills. it also will interfere with the ecology of the steam bed and could become choked."

In this case the driller did not have in place silt fencing and hay bales to keep the site clean so that no sediment gets into the stream. Luckily, because it wasn't raining, the spill did not reach Lyon Creek, Altose said.

The Department of Ecology is still taking action.

"We directed them to clean up the Bentonite left on the ground and entered the storm drain," Altose said. The slurry that is in the gravelly stream bed will remain there because to remove it would cause more damage than to leave it in place, he said.

"We've also directed King County to make sure all contractors are prepared for a spill and have a plan to collect it or stop it from entering a storm drain," Altose said. "We expect drillers to have contingencies when using Bentonite to contain it if it spills over, in a tank or if on the ground, have ground cover so the spill doesn't enter streams or storm water drains."

The investigation is continuing to determine whether and what type of enforcement action is required. Enforcement

Nicholas doesn't give up hoops dream

SHORELINE -- About this time last year, Sunri Nicholas was hawking hardware at an office supplies store, trying to stash away some funds for the future.

Six T-birds heading to regionals

SHORELINE -- When George Malinovsky first went out for wrestling two years ago, he was noticeably undersized even for the lightest division.

District rivals wind up tied at second annual Shoreline Cup

SHORELINE -- The odds must be crazy.

could range from a letter to the contractor, a notice of violation to the county, or a fine of up to $10,000, Altose said.

True said King County is also investigating the matter.

"This is unacceptable to any of our contractors and we will take action to make sure it doesn't happen again," she said. "We are investigating the contractor right now. They are required to have a number of things in place to insure this doesn't happen."

Chris Gregory, with Gregory Drilling, declined to comment on the event. Cascade Drilling, the subcontractor responsible for prepping the drill sites with silt fencing, could not be reached for comment.

On Monday, a vacuum truck was on the site vacuuming up the storm drain line, True said.

The county will be conducting drilling at NE 178th St. and 44th Ave. NE, and at NE 195th St. and 38th Ave. and 47th Ave. NE over the next several weeks. Gregory Drilling is conducting the geotechnical borings for the entire conveyance system, 240 holes in total, at a cost of $3 million, she said.

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O19-132

62

SNOHOMISH COUNTY COUNCIL

Snohomish County, Washington

ORDINANCE NO. 03-006

Amending Snohomish County Code to Implement an Essential Public Facility Siting Process; Adding Chapter 30.42D SCC; Amending Chapter 30.22.020

WHEREAS, RCW 36.70A.200 requires counties and cities planning under the Growth Management Act (hereinafter "GMA") to include a process for identifying and siting essential public facilities in county and city comprehensive plans and development regulations; and

WHEREAS, the county-wide planning policies adopted by Snohomish County under RCW 36.70A.210, Ordinance No. 93-004, as amended, provide for a siting process for essential public facilities through the interjurisdictional planning process known as Snohomish County Tomorrow (hereinafter "SCT"); and

WHEREAS, a siting process for essential public facilities was developed cooperatively by the county and its cities through SCT; and

WHEREAS, this siting process was incorporated into the county's Comprehensive Plan as Appendix B of the General Policy Plan by Amended Ordinance No. 95-117; and

WHEREAS, this ordinance would establish a new chapter in Title 30 of the county code to address the siting of essential public facilities;

NOW, THEREFORE, BE IT ORDAINED:

Section 1. The county council adopts and incorporates the foregoing recitals as if fully set forth herein.

Section 2. The county council makes the following additional findings of fact and conclusions:

The GMA, chapter 36.70A RCW, requires Snohomish County to adopt a comprehensive plan to accommodate the next 20 years of population and employment growth and to include a process for siting essential public facilities.

In February 1993, the County adopted Countywide Planning Policies as required by the GMA, including Policy CF-1, which

O19-132

63

required the formulation of a common siting process to be used by the County and its cities in siting essential public facilities of a countywide or statewide nature.

In June 1995, the County approved Amended Ordinance No. 94-125 adopting the Snohomish County GMA Comprehensive Plan (hereinafter "GMACP"). The GMACP includes General Policy Plan Policy CF 11.A.1 which reaffirmed the County's commitment to the common siting process for essential public facilities developed through SCT.

In October 1995, after over 2 years of collaboration through the SCT process, including public discussion by the Community Advisory Board and deliberation by the Executive Committee and Steering Committee, the SCT Steering Committee accepted a conceptual design for the common siting process for essential public facilities of a countywide or statewide nature.

In January 1996, the county council adopted Ordinance No. 95-117, which amended the County's GMACP to incorporate as Appendix B the common siting process for essential public facilities as accepted by SCT.

The common siting process described in Appendix B is consistent with the Countywide Planning Policies and complies with the GMA directive requiring adoption of a siting process for essential public facilities.

During 2001, Snohomish County executed interlocal agreements with many of its cities that reaffirmed a collective commitment to adopt and implement the common siting process for essential public facilities.

Amending the county's development regulations to reflect and incorporate this common siting process is necessary and appropriate at this time to ensure consistency with the Countywide Planning Policies, fulfill commitments in the interlocal agreements, and implement Appendix B of the County's GMACP.

9. Following the preparation of an environmental checklist, staff issued a determination of non-significance on April 6, 2001 for this proposed action, in accordance with the State Environmental Policy Act and Title 23 SCC.

10. On April 24, 2001, the Snohomish County Planning Commission was

O19-132

64

initially briefed on the common siting process. Following public notification on _____, the planning commission was briefed again on May 28, 2002 on the siting process and on specific code amendments proposed to implement the process. After this public hearing, the planning commission voted to recommend adoption of those amendments.

11. The Snohomish County Council considered the proposed code amendments at a public hearing held on _____, 2002, following public notification in accordance with public participation requirements set forth in the GMA and county code. This public notice was provided on _____.

Section 3. A new chapter is added to Title 30 of the Snohomish County Code to read:

Chapter 30.42D

SITING PROCESS FOR ESSENTIAL PUBLIC FACILITIES

30.42D.010 Purpose and applicability.

(1), This chapter establishes a siting process for essential public facilities (EPFs) that are difficult to site.

(a) An EPF is defined for the purposes of this chapter as any facility owned or operated by a unit of local or state government, a public utility or transportation company, or any other entity under contract to a unit of local or state government to provide an essential public facility. ~~that provides a public service as its primary mission.~~ Examples of EPFs include those facilities listed in RCW 36.70A.200, and any facility that appears on the list maintained by the state office of financial management under RCW 36.70A.200(2), except as provided to the contrary in subsection (1)(c) of this section.

(b) An EPF is defined as may be difficult to site if it requires a unique type of site, is perceived by the public as having significant adverse impacts, or is of a type that has been difficult to site in the past.

O19-132

65

(c) The siting process described in this chapter does not apply to "secure community transition facilities" as that term is defined in Chapter 71.09 RCW, nor to residential health and social service facilities protected by state or federal law as residential uses permitted in residential zones.

(2) This siting process is intended to ensure that EPFs, as needed to support orderly growth and delivery of public services, are sited in a timely and efficient manner. It is also intended to provide the county with additional regulatory authority to require mitigation of impacts that may occur as a result of EPF siting. Finally, it is intended to promote enhanced public participation that will produce siting decisions consistent with community goals.

30.42D.020 Conditional use permit required.

(1) Any EPF that is determined to be difficult to site shall be a conditional use in all zones in which it is listed as a permitted or conditional use in the use matrix, chapter 30.22 SCC. In the event of a conflict with chapter 30.22 SCC, the provisions of this section shall govern.

(2) An EPF that is difficult to site must satisfy the requirements of chapter 30.42C SCC and the requirements of this chapter.

30.42D.030 Siting process initiation.

The siting process required by this chapter may be initiated by the project sponsor or by the department.

(1) Sponsor initiation.

(a) Before applying to site an EPF, a project sponsor ~~may~~ shall request review under this siting process by submitting a letter to the department that describes the project proposal and why it may be difficult to site.

(b) The department shall transmit the sponsor's letter to the hearing examiner and to Snohomish County Tomorrow (SCT), who may prepare an advisory recommendation on the issue of whether the EPF is difficult to site.

(c) Within 90 days of receiving the sponsor's letter, the hearing examiner shall hold a hearing to determine whether the facility is difficult to site, using the criteria contained in SCC 30.42D.010~~(1)(b)~~. If the examiner determines that the proposed EPF is difficult to site, the project shall be reviewed under the conditional use permit process established in this chapter.

(2) Department initiation.

O19-132

66

(a) If the department receives a permit application involving an EPF that it believes will be difficult to site, it shall inform the applicant that it cannot accept the application for processing and prepare a memorandum requesting a hearing examiner determination on whether the EPF will be difficult to site.

(b) The department shall transmit this memorandum to the SCT and the hearing examiner, who shall hold a hearing as described in SCC 30.42D.030(1)(c).

(3) If the project sponsor and the department agree that the proposed project will be difficult to site, a hearing under SCC 30.42D.030(1)(c) will not be required, and the proposal may proceed directly to the conditional use permit procedure described in 30.42D.050.

30.42D.040 Optional site consultation process.

Prior to submitting a conditional use permit application, an EPF sponsor may initiate optional site consultation with the SCT Planning Advisory Committee and/or the SCT Infrastructure Coordinating Committee. The consultation process, while not required, is encouraged as a means for will allow project sponsors to present facility proposals, seek information about potential sites, and propose possible siting incentives and mitigation measures for affected jurisdictions.

30.42D.050 EPF conditional use permit procedure.

(1) The approval process for an EPF conditional use permit is a Type 2 process as described in chapter 30.72 SCC, as modified by the provisions of this chapter. Application shall be made according to the submittal requirements checklist provided by the department pursuant to SCC 30.70.030.

(2) The conditional use permit application shall also include a public participation plan designed to encourage early public involvement in the siting decision and in determining possible mitigation measures.

(3) In addition to the conditional use permit application fee, an additional fee of $1000 shall be required for the additional costs associated with review of the permit application under the criteria established in SCC 30.42D.070.

30.42D.060 Independent consultant review.

(1) The department may require independent consultant review of the proposal to assess its compliance with the criteria contained in SCC 30.42D.070.

(2) If independent consultant review is required, the sponsor shall make a deposit with the department sufficient to defray the cost of such review. Unexpended funds will be returned to the applicant following the final decision on the application.

O19-132

67

30.42D.070 Decision criteria.

An application for EPF conditional use permit approval for any essential public facility determined to be difficult to site must comply with conditional use permit requirements, any applicable requirements for the proposed use, and the following site decision criteria:

(1) The project sponsor has demonstrated a need for the project, as supported by an analysis of the projected service population, an inventory of existing and planned comparable facilities, and the projected demand for the type of facility proposed.

(2) If applicable, the project would serve a significant share of the county's population or service area, and the proposed site will reasonably serve the project's overall service population.

(3) The sponsor has reasonably investigated alternative sites, as evidenced by a detailed explanation of site selection methodology, as verified by the County and reviewed by associated jurisdictions and agencies.

(4) The project is consistent with the sponsor's own long-range plans for facilities and operations, as well as the plans of those jurisdictions and agencies that may also be participating in a facilities plan.

(5) The sponsor's public participation plan has provided an opportunity for public participation in the siting decision and mitigation measures that is appropriate in light of the project's scope.

(6) The project will not result in a disproportionate burden of essential public facilities on a particular geographic area.

(7) The project is consistent and compatible with the county's comprehensive plan, county-wide planning policies and local land use regulations as well as consistent and compatible with other land use plans applicable to the host community.

(8) The project site meets the facility's minimum physical site requirements, including projected expansion needs. Site requirements may be determined by the minimum size of the facility, access, support facilities, topography, geology, and on-site mitigation needs. The sponsor shall identify future expansion needs of the proposed facility during the initial environmental review and the phasing of additional needs early in the process.

(9) The project site, as developed with the proposed facility and under the proposed mitigation plan, is compatible with surrounding land uses.

O19-132

68

(10) The sponsor has proposed mitigation measures that substantially avoid, reduce or compensate for adverse impacts on the environment, including but not limited to buffers, impervious surfaces, design elements and other operational or programmatic measures contained in the proposal.

30.42D.080 Permit approval.

If the project sponsor demonstrates compliance with the review criteria listed in SCC 30.42D.070 and satisfies the requirements for a conditional use permit and other applicable requirements, the conditional use permit application shall be approved.

30.42D.090 Reconsideration and optional advisory review process.

(1) Reconsideration of the examiner's ruling may be requested as provided in SCC 30.72.065, except that a project sponsor may also request review by an advisory board appointed by SCT. Such a request shall stay the reconsideration period until SCT review is complete.

(2) The advisory board shall complete its review within 60 days of receipt of the request. The SCT advisory board shall not have the authority to overturn a decision, but if the board finds that the decision does not accurately reflect the evidence provided by the project sponsor, it may remand the decision to the examiner.

(3) Upon receipt of the advisory board's recommendation, the examiner shall have an opportunity to reconsider the decision in accordance with SCC 30.72.065.

30.42D.100 Building permit application.

(1) Any building permit for an EPF approved under this chapter shall comply with all conditions of approval in the conditional use permit. In the event a building permit for an EPF is denied, the department shall submit in writing the reasons for denial to the project sponsor.

(2) No construction permits may be applied for prior to conditional use approval of the EPF unless the applicant signs a written release acknowledging that such approval is neither guaranteed nor implied by the department's acceptance of the construction permit applications. The applicant shall expressly accept all financial risk associated with preparing and submitting construction plans before the final decision is made under this chapter.

Section 4. Snohomish County Code Section 30.22.020, adopted by Amended Ordinance No. 02-____ on _____, is amended to read:

O19-132

69

30.22.020 Categories of uses.

(1) SCC 30.22.100, 30.22.110, and 30.22.120 comprise the use matrix. The use matrix lists uses and indicates whether uses are permitted (P), require conditional use (C) or administrative conditional use (A) approval, or are prohibited in a particular zone.

~~(1)~~(a) **Permitted uses (P)** are those permitted outright. Certain uses have special requirements indicated by footnotes in the use matrices.

~~(2)~~(b) **Conditional uses (C)** are those which required special review in order to ensure compatibility with permitted uses in the same zone. Conditional use permits are granted by the hearing examiner following a review and recommendation from the department and an open record public hearing.

~~(3)~~(c) **Administrative conditional uses (A)** also require special review to ensure compatibility with permitted uses in the same zone. Administrative conditional uses are granted by the department. Uses formally formerly categorized as temporary uses or special uses are now processed as administrative conditional uses.

~~(4)~~(d) **Prohibited uses** are those which are not allowed in a zone. A blank box in the use matrix indicates a use is not allowed.

(2) Essential public facilities that are difficult to site may be conditionally permitted in any zone in which they are listed as a permitted or conditional use if they satisfy the requirements of chapter 30.42D SCC and 30.42C SCC.

O19-132

70

O9
LAKE FOREST PARK STEWARDSHIP FOUNDATION

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

BOARD OF DIRECTORS
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Carol Dahl, *Vice President*
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Lake Forest Park Stewardship Foundation

Helping to preserve the extraordinary natural environment of the City

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David Hutchinson
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RECEIVED
JAN 22 2003
ENVIRONMENTAL PLANNING DIVISION

To: Environmental Planning Section
King County Wastewater Treatment Division
King St. Center: KSC-NR-0505
201 South Jackson
Seattle, WA 98104-38155

From: Carol Dahl, President
Lake Forest Park Stewardship Foundation

Re: Draft DEIS, Brightwater sewer project

O9-1 We urgently request that you postpone the draft DEIS on the proposed 195th Street alignment of the Brightwater project. It appears that you plan *not* to carry out test drilling on the aquifer of the Lake Forest Park Water District until *after* the DEIS is written.

O9-2 One of the many Brightwater impacts to be visited on our community is the high probability of damage to the sole source aquifer that supplies ground water of incomparable quality to residents in the central section of Lake Forest Park. We must be assured that the proposed alignment will not disturb the protected well head area, nor create a new flow path alongside the concrete housing of the effluent pipes, thus changing the flow pattern of this unique and precious water supply.

It is astonishing that you propose to close the DEIS *without* the geological investigations needed to determine these impacts.

17171 Bothell Way NE, PMB 175, Lake Forest Park, WA 98155 (206) 361-7076 www.lfpsf.org

Response to Comment O9-1

Please refer to the response to the City of Lake Forest Park, Comment C4-8.

Response to Comment O9-2

Please refer to the response to the City of Lake Forest Park, Comment C4-8.

O9-3 There are other extremely severe economic, environmental and social implications for our small city, in the massive disruptions created by a two-acre portal and earth removal area in or adjacent to our only shopping center, our only church, our only fire station, our only central park. This project could be terminally disastrous for a small city with the misfortune to be located where you wish to dig.

O9-4 Please slow down the process. Postpone the closure of the DEIS drafting period until these impacts are thoroughly investigated and explained.

Respectfully,

Carol Dahl
President
The Lake Forest Park Stewardship Foundation

Response to Comment O9-3

Impacts to the built environment are analyzed in detail in Chapter 11 of the Final EIS. Chapter 11 also discusses the state and local land use planning policies, objectives, and mandates that King County must follow in siting and building Brightwater facilities. Impacts to aesthetics and visual settings are analyzed in Chapter 12.

Most impacts associated with conveyance construction would be at the portals. Using new geotechnical data that were obtained after the Draft EIS was released in November 2002, engineers have been able to eliminate several portals along the proposed conveyance routes, which will help reduce overall impacts associated with conveyance construction. Portal Siting Area 10 has been eliminated as a primary portal and remains as a secondary portal only for the Unocal System. Secondary portals may not be needed; this will be determined during final design. An updated overview of the conveyance alternatives and tunnel alignments can be found in Chapter 3.

Wherever Brightwater facilities are sited, King County will work with the host jurisdictions before construction begins to identify potential impacts and define appropriate mitigation measures as a condition of permitting. For additional information about permitting and construction, please refer to the response to The Washington Tea Party, Comment O14-329. For additional information about mitigation, please refer to the response to the City of Shoreline, Comment C6-5.

Response to Comment O9-4

SEPA requires that the lead agency provide a 30-day comment period for review of a Draft EIS, with an extension to 45 days upon request. King County provided an initial 75-day comment period and granted extensions ranging from a few days to 2 weeks (and, in one case, 4 weeks) to 23 agencies, organizations, and individuals that requested an

extension. King County received more than 500 responses to the Draft EIS from agencies, organizations, and individuals.

More information on geology, hydrogeology, surface waters, groundwater quality and groundwater use, groundwater/surface water interaction, aquifer protection areas, and the wellhead protection area in and near the Lake Forest Park Water District is provided in Chapter 4, Chapter 6, and in Appendix 6-B, Geology and Groundwater, of the Final EIS.

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O4
LANE POWELL SPEARS LUBERSKY

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

LANE
POWELL
SPEARS
LUBERSKY
LLP

Glenn J. Amster
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January 14, 2003

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Environmental Planning
King County Wastewater Treatment Division
201 South Jackson Street, Suite 505
Seattle, WA 98101-3855

RECEIVED
JAN 17 2003
ENVIRONMENTAL PLANNING DIVISION

Re: Brightwater Draft EIS

Ladies and Gentlemen:

On behalf of our client, Insurance Auto Auctions, Inc. ("IAA"), we are writing to comment on the Draft Environmental Impact Statement ("Draft EIS") on the Brightwater Regional Wastewater Treatment System.

IAA is a publicly traded company and a leading provider of automotive and specialty salvage services in the United States. After several years of searching for a site in the area, permitting and construction, IAA began operations at 23219 State Route ("SR") 9 in Woodinville, Washington, in Fall 2001. This facility represents a significant investment for the Company. Consequently, it is deeply concerned about the County's forced march towards selection of the SR 9 site for development of the Brightwater facility without the requisite "hard look" at the consequences.

O4-1 The purpose of an EIS is to provide a reasonable and objective analysis of the probable environmental impacts of the proposed project and a reasonable range of alternatives. If the Brightwater EIS is to meet this standard, there is significantly more work to be done.

Because development of the Brightwater facility at the SR 9 site would displace our client's business, these comments focus on the failure of the Draft EIS to examine a reasonable range of alternative sites and the inadequacy of the discussion of land use plans, policies and impacts.

Alternatives

1. The EIS must examine a reasonable range of alternatives; two alternatives cannot be said to meet this standard. The Draft EIS suggests the County examined six candidate sites for the treatment plant and eight candidate outfall zones in Puget Sound, but

Anchorage, AK
Olympia, WA
Portland, OR
Seattle, WA

London, England

Response to Comment O4-1

King County is not issuing a Supplemental Draft EIS. Please refer to revisions to Chapter 11 of the Final EIS for a revised discussion of land use plans, policies, and impacts.

The SEPA Rules state that a proposal by a lead agency or applicant may be put forward as an objective, as several alternative means of accomplishing a goal, or as a particular or preferred course of action (WAC 197-11-060(3)). An EIS must describe the proposal, or preferred alternative if one exists, and alternative courses of action. SEPA states that alternatives must be reasonable and that "reasonable" is intended to limit the number and range of alternatives, as well as the amount of detailed analysis for each alternative. The level of detail should be tailored to the significance of environmental impacts. The EIS may discuss a range of alternatives or a few representative alternatives, rather than every possible reasonable variation. In addition, the EIS may indicate the main reasons for eliminating alternatives from detailed study (WAC 197-11-440(5)).

The process used to screen and select alternatives for consideration in the EIS is described in Chapter 2 of the Draft and Final EIS. King County narrowed the number of alternatives for consideration in the EIS in order to avoid unnecessary cost and delay in conducting the environmental review and in siting and constructing the Brightwater system.

The EIS evaluates three action alternatives in addition to the No Action Alternative. King County has identified a preferred alternative, the Route 9-195th Street System. Please refer to the discussion in Chapter 2 of the Final EIS. However, a final selection will not be made until after the Final EIS is published and the Executive has considered the environmental impacts of all of the alternatives evaluated in the EIS. Please refer to Appendix 3-J, Evaluation of the No Action Alternative, of the Final EIS for details.

Environmental Planning
January 14, 2003
Page 2

the Executive decided without explanation to conduct environmental review of only the Unocal and SR 9 sites. Whatever the reason may be for the Executive's decision, it is inconsistent with SEPA to eliminate the four other alternatives from consideration prior to preparation of the Draft EIS. The County must prepare a new Draft EIS with a full range of alternatives before proceeding any further. O4-1

2. A reasonable range of alternatives would not simply focus on one, massive system or plant. The EIS must describe and discuss alternate means of meeting the County's sewage treatment objectives. A system of smaller plants, for example, a potentially less costly alternative, would require less land in one location and open up a broader range of siting opportunities. O4-2

3. In addition to the failure of the Draft EIS to describe and discuss a reasonable range of alternatives, the document fails miserably in its attempt to provide an objective analysis of the two identified alternatives. Virtually every asset of the Unocal site is exaggerated, while the impacts of the SR 9 site are understated. The EIS compounds this error with conclusive, yet unsubstantiated, statements regarding the efficacy of mitigation. Just one example is the failure of the Draft EIS to acknowledge the obvious compatibility of the proposed facility with the historical use of the Unocal site. It is evident that developing a sewage treatment plant on the site of a former oil tank farm, which has now been cleared of structures, makes imminently more sense from an environmental standpoint than displacing a dozen operating businesses. O4-3 O4-4

Land Use

The Draft EIS discussion of land use policies, plans, impacts and mitigation measures is superficial and inadequate. O4-5

1. The Draft EIS mistakenly emphasizes the various comprehensive plan policies for siting essential public facilities. With respect to the SR 9 site, in particular, the Draft EIS mentions the industrial land use designation under the Snohomish County and City of Woodinville comprehensive plans, but neglects equally important and directly related policies of land use allocation and economic development. The County should be well aware of the lengthy, complex process undertaken by all local governments, including Snohomish County and the City of Woodinville, to develop new comprehensive plans under the Growth Management Act ("GMA"). Presumably balancing all of the GMA's goals and objectives, these two local governments agreed on an industrial land use designation for the SR 9 corridor. Local land use policies encouraging maintenance of the industrial land base and development of industrial uses along SR 9 cannot be construed to encourage development of a sewer treatment plant. Brightwater may be an industrial use, but it offers

Response to Comment O4-2

Please refer to the response to the Save Little Bear Creek Coalition, Comment O15-41, for a discussion of the planning process leading to the decision to build Brightwater.

Response to Comment O4-3

Please refer to the response to Comment O4-1 in this letter for a discussion of alternatives. Please refer to the revised analysis of impacts throughout the Final EIS.

Response to Comment O4-4

Both the Unocal and Route 9 sites have historically been used for industrial purposes, which is one of many reasons why these sites were identified as appropriate for siting Brightwater. Please refer to the response to the City of Edmonds, Comment C9-7, to find out more about the siting process and how to get additional information.

Response to Comment O4-5

Please refer to response to the City of Woodinville, Comment C5-24.

Environmental Planning
January 14, 2003
Page 3

none of the attributes and fulfills none of the objectives of the land use designations, plans and policies for the SR 9 corridor. The EIS must describe and discuss the incompatibility of the proposed project at the SR 9 site with local land use plans and policies, which encourage the maintenance and enhancement of a diverse commercial sector in the community generally and in this vicinity, specifically. O4-5

O4-6 2. The Draft EIS seriously understates the impacts on area businesses. To shrug off the displacement of the businesses along SR 9 by reference to a five-year-old survey of industrial land supply in the region is inexcusable. The study itself disclaims any suggestion that it could serve as a substitute for the requisite analysis of the specific industrial sector represented by the individual businesses along SR 9:

> Because of the regional nature of the analysis, the study did not compare supply and demand on a sub-area basis or for specific industrial sectors. The study was not designed to identify supply that is currently for sale or that meets the specific needs of a particular industry sector or user for infrastructure or transportation. The study also did not address other concerns that brokers and buyers consider when negotiating a real estate transaction, such as soil conditions, parcel shape and configuration, opportunities for parcel assembly, cost, marketability, parking, or aesthetics.

Industrial Land Supply and Demand in the Central Puget Sound Region (Puget Sound Regional Council; 1998), at 8. In short, it simply is not adequate for the County to presume the availability of alternative sites for these businesses. The Draft EIS needs to analyze the land use implications in significantly greater detail. At a minimum, it must specifically identify the nature of the individual businesses along SR 9; the availability of properly zoned land in the immediate vicinity for relocation of these businesses; the likelihood of requiring modification of local land use plans and zoning regulations to accommodate these land uses and the probable impacts of such land use actions; the likelihood of obtaining permits at relocation sites; and the County's commitment to business relocation, a necessary component of the facility's overall mitigation plan. Unless the final EIS provides this analysis, the County will have failed to comply with the requirements of SEPA.

If the Draft EIS is any indication, the County is seriously underestimating the costs associated with displacing the businesses along SR 9. Although not essential "public" facilities, these land uses, including IAA's operations, are an essential element of the region's commerce. Like a sewage treatment plant, these land uses are not welcome with open arms in every community. The Draft EIS seriously underestimates the cost and difficulty of relocating these businesses anywhere in the vicinity. If it continues to do so, it

Response to Comment O4-6

Please refer to the response to the City of Woodinville, Comment C5-24. The property acquisition process used by King County Wastewater Treatment Division (WTD) would be followed. Any relocation of uses would be in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act, as it applies to displaced businesses, residential owners, and tenants. WTD's real property acquisition procedures are designed to provide consistent and equitable treatment of all affected property owners and tenants as outlined in the King County Department of Natural Resources and Parks, *Property Acquisition and Relocation Information for residential owners and tenants, and for businesses, farms, and non-profit organizations* (King County, 2003). Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation Web site at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

Environmental Planning
January 14, 2003
Page 4

O4-6 will fail to provide the decision-maker with the information necessary for an informed decision.

O4-7 We look forward to an adequate discussion of these issues in a revised Draft EIS, which will provide our client and the public with the opportunity to comment on a document that meets the requirements of SEPA.

Very truly yours,

LANE POWELL SPEARS LUBERSKY LLP

Glenn J. Amster

GJA:jmb
cc: Insurance Auto Auctions, Inc.
116664.0002/981199.1

Response to Comment O4-7

Please refer to the response to Comment O4-1 in this letter.

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

O10
LITTLE BEAR CREEK PROTECTIVE ASSOCIATION

Little Bear Creek Protective Association
A Washington 501(c)3 Non-profit Organization

January 13, 2003

RECEIVED
JAN 22 2003
ENVIRONMENTAL
PLANNING DIVISION

Environmental Planning
King County Wastewater Treatment Division
King Street Center: KSC-NR-0505
201 S. Jackson St.
Seattle, WA 98104-9972

Subject: Brightwater Draft Environmental Impact Statement (DEIS)

King County Department of Natural Resources:

The Little Bear Creek Protective Association and Board of Directors is appreciative of this opportunity to submit comments on the DEIS for the Brightwater Regional Waste-water Treatment Project. The LBCPA represents the people of the Little Bear Creek sub-basin area of Snohomish and King counties with its mission which is, the preservation and enhancement of the water quality, habitat, fish, and wildlife of Little Bear Creek and its watershed.

Therefore we wish to submit the following general concerns and comments on the Brightwater DEIS:

O10-1

- The DEIS appears to consider only the direct "footprint" of the plant site impacts and those to the conveyance corridors and the outfall zone. There is no analysis done on the long-term indirect and cumulative impacts to the existing service area, but most especially to the currently unsewered areas that will undergo rapid development and growth as a result of sewer availability provided by the construction of the Brightwater plant. This is a violation of the following SEPA rules:

  WAC 197-11-060 Content of Environmental Review

  (4) Impacts

  (c) "Agencies shall carefully consider the range of probable impact, including short-term and long-term effects. Impacts shall include those that are likely to arise or exist over the lifetime of a proposal, or depending on the particular proposal, longer.

  (d) A proposal's effects include direct and indirect impacts caused by a proposal. Impacts include those effects resulting from growth caused by a proposal, as well as the likelihood that the present proposal will serve as a precedent for future actions. For example, adoption of a zoning ordinance will encourage or tend to cause particular types of projects, or extension of sewer lines would tend to encourage development in previously unsewered areas.

  (e) The range of impacts to be analyzed in an EIS (direct, indirect, and cumulative impacts, WAC 197-11-792) may be wider than the impacts for

The mission of the Little Bear Creek Protective Association is the preservation and enhancement of the water quality, habitat, fish, and wildlife of Little Bear Creek and its watershed.

Response to Comment O10-1

In recognition of SEPA provisions, the Final EIS considers more than the immediate footprint of the location of Brightwater facilities in its discussion of cumulative impacts. As one example, Chapter 16 evaluates several roadways and intersections beyond the treatment plant and portal sites. This Final EIS also includes additional detail in the analysis of cumulative impacts where appropriate in all chapters. Finally, refer to the response to Hensley, Comment I408-92.

O10-1

impacts, WAC 197-11-792) may be wider than the impacts for which the mitigation measures are required of applicants (WAC 197-11-660). This will depend upon the specific impacts, the extent to which the adverse impacts are attributable to applicant's proposal, and the capability of applicants or agencies to control the impacts in each situation."

O10-2

- Snohomish County, working with citizen groups, has identified Community-based Mitigation that includes the hydraulic and hydrologic analysis, and planning that would meet the intent of the SEPA requirements for this range of impacts to be analyzed. Snohomish County requires that these community mitigation proposals be "clearly identified" in and included as an EIS mitigation requirement as per the following SEPA requirement:

Response to Comment O10-2

A phone discussion with Steve Dickson (Snohomish County) clarified the community-based mitigation process that will occur for the Brightwater project. Snohomish County will work with interested county residents to identify potential mitigation for the project. This could involve measures such as a Community-Oriented Building and/or trails at the project site, among other things. Snohomish and King Counties will then mutually negotiate these mitigation measures.

WAC 197-11-660 Substantive Authority and Mitigation
(b) "Mitigation measures shall be related to specific, adverse environmental impacts clearly identified in an environmental document on the proposal and shall be stated in writing by the decision maker."

O10-3

- The DEIS does not provide consistency with the Metro Comprehensive Plan. It does not include discussions and analysis of the impacts to the Little Bear Creek watershed when that area is ultimately sewered. The Metro Comprehensive Plan considers flows from the entire Bear Creek Basin. References below:
  DEIS 2.4.3.3 Snohomish County Essential Public Facilities Siting Process, Factor 2: *"the facility must be consistent with the sponsor's long range plans for facilities and operations. Here the RWSP is regional in scope, and elaborates on the need for Brightwater and its consistency with King County's long range plans."*
  The Cross Valley Water District Sewer District Comprehensive Plan:
  Section 3.2 Long Term vs. Short Term Planning: *"While the GMA requires planning for a 20 year period, utility planning typically considers a span of 40 to 60 years for several reasons* (Such as)*:*
  4) "To provide consistency with Metro Comprehensive Plans, which consider flows from the entire Bear Creek Basin."

O10-4

Section 3.9 in Agreements with Adjacent Utility Districts: *"the recently constructed 30" trunk connecting Cross Valley's new system to METRO was built to accommodate the entire drainage basin."*

NOTE: This Cross Valley Water District 30" trunk line is already in place up to the western boundary of the Brightwater facility. The EIS, at a minimum, needs a sub-alternative such as that for Lynnwood (***DEIS I.2***) to discuss potential flows from this future service area.

O10-5

- The DEIS does not address the following environmental concerns about groundwater pollution or premature development raised by Cross Valley Water District:
  The Cross Valley Water District Sewer District Comprehensive Plan
  Section 3.6 ENVIRONMENTAL CONSIDERATIONS *discusses groundwater pollution from septics, then states: "These factors indicate that the provision of public sewer facilities within the sewer planning area is not necessarily inconsistent with the anticipated development trends, particularly beyond the horizon of the existing planning area comprehensive plans. What may be more important, is how sewer facilities will be planned, or managed to achieve those policies dependent on such facilities, without generating the problems associated with premature development. As mentioned in the preceding land use discussion, the principal problem for providing sewer facilities in the region is to achieve the intended results without generating the scattered, premature, urban scale development that often results. Sewer facilities within the Cross Valley sewer planning area could help achieve a number of development objectives of the area. This portion of the county will experience rapid population and housing growth over the next 30 years...such development could have significant impacts on the groundwater resources of the region."*

Response to Comment O10-3

The purpose of the Brightwater System is to provide wastewater service to areas planned by others for growth, including the Little Bear Creek watershed. As noted in Chapter 2 of the Draft EIS, Brightwater has also been planned to specifically implement service strategies identified in the Regional Wastewater Services Plan. Please refer to the response to the Washington State Department of Natural Resources, Comment W3-6.

Response to Comment O10-4

Please refer to the response to the Cross Valley Water District, Comment D3-16.

Response to Comment O10-5

Please refer to the responses to Hensley, Comments I408-92 and I408-374.

O10-6

- The DEIS does not adequately address how it will work with Snohomish County to modify any development regulations or comprehensive plans. Part of the EPF siting process, requires that the citizen based, Community Mitigation proposed to meet SEPA requirements will be included in the EIS to "help insure that the vision of land development within each local jurisdiction is met" per the DEIS:

  DEIS 2.4.3.3 Snohomish County Essential Public Facilities Siting Process, Factor 3: *"The EPF should demonstrate its relationship to local, regional, and state plans, and should be consistent with the adopted plans of the host community…."However, very few local plans contemplate the siting of a regional wastewater treatment plant at present. As part of the siting process, King County will be discussing with the host jurisdiction, such as Snohomish County, any modification to their development regulations or comprehensive plan to achieve the desired consistency…Mitigation will be provided to help ensure that the vision of land development within each local jurisdiction is met, as discussed in this EIS."*

- The DEIS does not demonstrate that the facility will include "a significant" share of the "host community": While the EIS promotes the idea that the "host community" is a large part of South Snohomish County and North King County, it is clear that the citizens of the Maltby area consider themselves the "host community":

  DEIS 2.4.3.3 Snohomish County Essential Public Facilities Siting Process, Factor 4: *"The facility should include a significant share of the host community's population."*

O10-7

- The DEIS process has not had adequate public participation. Although King County conducted a "multiple year series of public participation activities", these activities were always directed towards only three areas: Site Mitigation, Conveyance Mitigation, and Outfall Mitigation. There was no similar effort to engage the public in the regional mitigation required for the indirect and cumulative impacts to the Service Area. Snohomish County has worked with local citizens throughout the host community, and they indicate a desire for sub-area and watershed planning to protect their environment and quality of life. These planning activities need to be included as an integral part of the EIS mitigation requirements for adequate mitigation to occur.

  DEIS 2.4.3.3 Snohomish County Essential Public Facilities Siting Process:
  Factor 8 *– "Sponsors should encourage local public participation*
  Factor 11 *- "Adequate mitigation must be provided."*

O10-8

- The DEIS does not include an analysis of the potential social and economic impacts and benefits to the jurisdictions receiving or surrounding the facilities, this is in violation of the King County RWSP and Comp Plan and could be included with the community mitigation.

  DEIS 11.1.1.4 Regional Wastewater Services Plan (RWSP) *states: "The RWSP, SEPA documents, and other planning documents include analysis of the issues below, also as directed by the King County Comprehensive Plan:*

  -A forecast of the future needs for the Essential public facility
  -An analysis of the potential social and economic impacts and benefits to jurisdictions receiving or surrounding the facilities."

Response to Comment O10-6

Please refer to the responses to the Washington State Department of Natural Resources, Comment W3-6 and City of Edmonds, Comment C9-5.

Response to Comment O10-7

Please refer to response to The Washington Tea Party, Comment O14-31, regarding public participation. For more information on mitigation please refer to the response to the City of Shoreline, Comment C6-5.

Response to Comment O10-8

Please refer to responses to the City of Woodinville, Comments C5-3 and C5-24, and the response to the City of Edmonds, Comment C9-94.

There was a text error in the City of Woodinville Comprehensive Plan that has been corrected in the Final EIS to read as follows: "As part of a subarea plan for this area, the City of Woodinville is currently working with Snohomish County to include the Grace Neighborhood within the City of Woodinville. This would occur through an interlocal agreement for joint planning and annexation."

O10-8

- The DEIS is not consistent with King, Snohomish, or Woodinville Comprehensive Plans by not discussing and analyzing the area as part of the Service Area.. Woodinville discusses annexation, and calls this area "unincorporated urban growth area for Snohomish County" EPF plans are also discouraged in rural areas.

  DEIS 11.1.1.5 Comprehensive Plans; King County Comprehensive Plan, F-221:
  ... 'Siting should consider environmental equity and environmental, economic, technical and service area factors. Essential public facilities that directly serve the public beyond their general vicinity shall be discouraged from locating in the rural area.
  Snohomish County Comprehensive Plan, EPF siting process,
  Factor 4 – The facility should include a significant share of the host community."
  City of Woodinville Comprehensive Plan states: "The majority of the Route 9 site is located within the Maltby unincorporated urban growth area for Snohomish County and the urban growth area for the City of Woodinville…"
  On page 11-14 it states: "as part of a subarea plan for this area, the City of Woodinville is currently working with Snohomish County to include the Grace neighborhood within the Snohomish County UGA. This would occur through the annexation process".

O10-9

- The DEIS does not adequately discuss treatment of future flows from the Little Bear Watershed. This is not consistent with the Alderwood Sanitary Sewer Comprehensive Plan, which calls for the transfer of flows from the Bear (Little Bear) Creek basin to the new treatment plant:

  Alderwood Sanitary Sewer Comp Plan, Vol I
  ***Page 1-2**: "The Alderwood Direct Service Boundary includes approximately 2,000 acres of the Bear (Little Bear) Creek Basin. However, Alderwood has agreed to provide sewer service to only 125 acres located in the Maltby UGA".*
  ***Page 1-8:** "King County, per the 1999 Regional Wastewater Services plan, plans to construct a new North Treatment plant…King County intends to treat Alderwood flows from the Swamp Creek, North Creek, and Bear (Little Bear) Creek basins with flow transfers to the new North Treatment Plant".*
  ***Page 3-1**: "The Alderwood Direct Service Boundary includes approximately 2000 acres of Bear (Little Bear) Creek Basin. However, Alderwood has agreed to provide sewers service to only 125 acres located in the Maltby UGA. Alderwood has no existing sewers in the Bear(Little Bear) Basin. Sewer service is currently being extended to the Maltby UGA. The major water body that dictates the drainage and topography in the vicinity of the Maltby UGA is Little Bear Creek. This Creek flows south into King County".*

Response to Comment O10-9

King County provides wholesale wastewater service to the Alderwood Water and Sewer District. In accordance with the Regional Wastewater Services Plan, King County is designing Brightwater to meet the current and future needs of its wholesale customers. As such, Brightwater would treat all future flows from the Little Bear Creek watershed, transferred to its system by the Alderwood Water and Sewer District. With respect to planning for future service areas in the watershed, those decisions were not under the jurisdiction of King County, but rather the District.

Other considerations:

O10-10
- **DEIS Vol I, Figure 2.3** shows the relationship between base, average dry, and average wet flows for the estimated treatment needs. In 1990 the base flow was 100 mgd, average dry flow was 150 mgd, and average wet flow was 185 mgd. This would indicate that between 30-46% of the capacity of the conveyance and treatment requirements are needed to deal with I & I. While it is mentioned in passing in Chapter one in the No Action Alternative that there is a continuing program to "control the amount of infiltration and inflow," and in Chapter 2 it discusses the 6 year regional I &I Control program, one would expect more extensive discussions and and more major, early-action efforts to reduce flows that represent almost 50% of the treatment volume this Proposal is intended to address.

O10-11
- The **DEIS** does not address Limited Impact Development. Throughout the entire draft, all references to management of stormwater runoff from increased impervious surfaces refer to collection, conveyance, treatment, and discharge. Limited Impact Development BMP Alternatives need to be included for all impervious surfaces.

O10-12
- **DEIS Volume II Appendix "C" Endangered Species Act/Essential Fish Habitat Evaluation for Draft EIS Action Alternatives, 1.4 project and action areas**, defines project area as "project footprint." As previously discussed, the huge impacts to endangered species and essential fish habitat that will result from indirect impacts from development associated with the Brightwater Proposal dwarf the project footprint impacts. Brightwater could have significant positive mitigation effects on these impacts by encouraging LID BMP's throughout the service areas.

O10-13
In conclusion, there is little doubt that the Maltby region is poised to urbanize, and that the necessary infrastructure is available, or soon could be. The Regional Planning, Drainage Inventory, and Hydrologic/Hydraulic Analysis necessary to protect the Little Bear Creek Watershed through the course of such urbanization must be a written mitigation requirement of the Brightwater Proposal EIS. Such mitigation work would be the appropriate foundation for any future development, regardless of the jurisdiction in which it ultimately took place.

Response to Comment O10-10

For a discussion of the regional infiltration and inflow program and its influence on flow volumes, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-6.

Response to Comment O10-11

Please refer to Chapter 3 of the Final EIS, which discusses how low, or limited, impact development strategies have been incorporated into the project design. Chapter 6 of the Final EIS also provides information on Limited Impact Development relative to stormwater runoff. Please refer to the response to the Washington State Department of Natural Resources, Comment W3-196.

Response to Comment O10-12

The Final EIS goes into considerable additional discussion of the impact of construction and operation of Brightwater on threatened and endangered species and essential fish habitat, including a discussion on indirect impacts. Brightwater is being developed in response to the need articulated in the comprehensive plans adopted by jurisdictions in the service area, which were accompanied by environmental review. The impacts of development in those plans were addressed by SEPA review prior to adoption of the respective comprehensive plans. With respect to low impact development, King County does not have a mechanism through its wastewater planning process to require low-impact development from its customers. However, both plant sites incorporate low impact development features and can help provide examples of successful low impact development.

Response to Comment O10-13

Little Bear Creek is an important resource to protect. Siting Brightwater at the Route 9 site offers possibilities for enhancement to Little Bear Creek. All construction and plant

operations will be done in a manner to meet all federal, state, and local requirements to protect water quality and salmon habitat. Please refer to the response to the City of Shoreline, Comment C6-5, for additional information regarding mitigation suggestions.

O10-14

- The LBCPA has great concern that the ground water systems and surface water system of Little Bear Creek must be treated as a hydrologically connected system. The project site is located within the discharge area for the Cross Valley Aquifer, which is the ground water system that feeds Little Bear Creek. The project could impact Little Bear Creek by blocking or diverting groundwater discharge from the aquifer, thereby decreasing stream flow in the creek.
- It should be noted at this time that there is grossly insufficient detail in the DEIS section on dewatering to assess the impacts of the project or to evaluate the proposed dewatering discharge methods. Mitigation of potentially large volumes of water in site construction foundation trenching is not clearly addressed.

O10-15

- The mitigation of huge volumes of water being discharged from dewatering in deep tunnel construction for conveyance lines is not adequately addressed.

O10-16

- The water budget for the entire Little Bear Creek watershed will be affected by the treatment plant construction activities but the resulting impacts to that budget and stream flow are not adequately addressed.
- The DEIS does not adequately show that construction will not deplete or lower water levels in the immediate area affecting local, private wells, wetlands and Little Bear Creek, especially as could be further exacerbated if construction occurs during the dry summer and fall months.

O10-17

- The DEIS does not adequately address the mitigation for potential risk of continuous dewatering or depletion of ground water sources feeding Little Bear Creek due to tunnel or pipe construction at the site or conveyance line.

O10-18

- LBCPA has great concern with the impacts on the water quality and quantity changes to nearby surface waters including Little Bear Creek and wetlands by the discharge of ground water from dewatering activities into those receiving waters. Mitigation for these impacts is not adequately addressed.

O10-19

- The DEIS, in referring to Section 7 - Vegetation Clearing and Grading does not adequately address the changes to local biological conditions on the site that would result from the destruction of the large stand of cedars and other trees on the northern 35-acre part of the site if converted to large detention ponds.

O10-20

- Cumulative impacts will occur as a result of direct and indirect impacts, some of which will occur as the result of plant construction, and some of which will occur or be facilitated as a direct result of the plant operation. These cumulative impacts will occur both to the natural hydrologic and biologic ecosystems of Little Bear Creek watershed and also to the host community and citizens of the Maltby area.

Response to Comment O10-14

Please refer to the response to the Washington State Department of Ecology, Comment W5-15.

Response to Comment O10-15

Since the Draft EIS, additional subsurface explorations and more detailed groundwater impact analyses have been conducted to more precisely estimate tunnel dewatering flows. The additional data and detailed analyses have resulted in expected tunnel dewatering flows to be substantially less than those reported in the Draft EIS. Appendix 6-B, Geology and Groundwater, of the Final EIS provides a summary of the data gathered and the impact analyses. A synopsis of the information contained in Appendix 6-B can be found in Chapter 6 of the Final EIS. As described in these references, dewatering flows that are generated as part of tunneling activities will be pumped to the ground surface and managed in accordance with standard surface water discharge methods and applicable regulations. Dewatering flows are anticipated to be discharged into various receiving water bodies along the tunnel alignment after treatment, if necessary, to meet the surface water discharge requirements. In many cases, the discharge of the dewatering flows to a stream results in a positive impact to the stream.

Response to Comment O10-16

Additional site-specific groundwater impact analyses have been conducted since the Draft EIS that evaluate both construction and long-term operations phases at the Route 9 site. These analyses are summarized in Appendix 6-B, Geology and Groundwater, and Chapter 6 of the Final EIS. Specific effort has been made to emphasize the inter-relationships between groundwater and surface water in the area of the Route 9 site, including water balances, the effects of groundwater dewatering on Little Bear Creek, and mitigation measures to re-introduce dewatering flow back to either the shallow aquifer or directly to Little Bear Creek.

The analyses show that the water balance to Little Bear will not be adversely affected as a result of the construction dewatering due to mitigation measures to re-introduce this groundwater back to the groundwater/surface water system.

Response to Comment O10-17

Please refer to response to the Washington State Department of Ecology, Comment W5-9.

Response to Comment O10-18

Please refer to the response to the Washington State Department of Ecology, Comments W5-9, W5-15, and W5-40. Additional detail is provided in Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O10-19

Mature cedar trees and forested areas on the site will be retained. Portions of this forest may be enhanced with native understory plantings as part of the wetland and stream mitigation plan, and mature trees in these areas will be retained. Approximately 22 acres in other areas of the site will be reforested, as described in Chapter 3 of the Final EIS. Mitigation measures are described in Chapter 7 of the Final EIS.

Response to Comment O10-20

Cumulative impacts to plants and animals are disclosed in Chapter 7 of the Final EIS. Please refer to the response to the Washington State Department of Natural Resources, Comment W3-6, which addresses growth inducing and cumulative impacts.

O10-20 These direct and indirect impacts must be addressed with a land use plan as part of the mitigation for this project, in that the growth that will be enabled by the treatment and sewerage infrastructure that Brightwater brings will affect both the land and the community for the 100 years of projected facility life.

O10-21 Summary:
The DEIS is obviously a spare framework with which to approach the tremendous changes that will be wrought in the Little Bear Creek watershed and host community of Maltby. The areas of great concern to the LBCPA must be addressed with focused mitigation measures to issues stated above. A comprehensive mitigation plan addressing water quality, habitat, fish, and wildlife for Little Bear Creek and its environs may be based on community guidelines such as are proposed in the enclosed Vision for Little Bear Creek Mitigation. Additionally, the Maltby Regional Vision sub-area plan as proposed by the Maltby Neighborhood Alliance provide a basis for addressing concerns and requirements of the citizens of the host community and its watershed to obtain mitigating plans and amenities to help offset impacts upon the quality of life for our ecosystems and our citizens, that will be caused directly and indirectly and cumulatively by the Brightwater facility and the growth that will be enabled over the facility life.

Respectfully,

Greg Stephens - President
Little Bear Creek Protective Association
21926 State Route 9 SE
Woodinville, WA 98072
(425) 486-9221 Home
(206) 419-7761 Cell

Response to Comment O10-21

Chapter 3 of the Final EIS provides a refined project description, a concise evaluation of significant adverse environmental impacts, possible mitigation, and additional information and technical data in the appendices. Please refer to the response to the City of Shoreline, Comment C6-5, for additional information regarding mitigation suggestions. Following issuance of the Final EIS and a decision on which Brightwater System will be implemented, there will be additional analysis and discussion of mitigation as part of the permit review process with host jurisdictions and regulatory agency.

O18
MALTBY NEIGHBORHOOD ALLIANCE

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

MNA
Maltby Neighborhood Alliance

RECEIVED
JAN 28 2003
ENVIRONMENTAL PLANNING DIVISION

January 25, 2003

Environmental Planning
King County Wastewater Treatment Division
201 South Jackson St. Suite 505
Seattle, WA 98104-3855

Subject: Brightwater Draft Environmental Impact Statement (DEIS)

King County Department of Natural Resources:

The Maltby Neighborhood Alliance (MNA) and the MNA Board of Directors thanks King County for the opportunity to provide comments to the Draft Environmental Impact Statement on the Brightwater Regional Wastewater Treatment System (Brightwater). The MNA represents the people of the greater Maltby region and is responsive to the Alliance Charter:

> ***To retain Maltby zoning and land use planning consistent with existing rural conditions. To safeguard the Maltby neighborhood in all matters affecting our quality of life and the character of our community.***

OPENING COMMENTS

O18-1 During the course of the Brightwater site selection process, the local citizens have made certain 'reasonable' requests, including the development of a compact, comprehensive DEIS that succinctly identified issues and provided sound engineering solutions. What was published was a voluminous package high on generalizations and repetitious and weak on presenting feasible solutions. This DEIS fails to comply with SEPA Rule 197-11-425 which states:

> ***(4) The text of an EIS (WAC 197–11–430(3)) normally ranges from thirty to fifty pages and may be shorter. The EIS text shall not exceed seventy–five pages; except for proposals of unusual scope or complexity, where the EIS shall not exceed one hundred fifty pages. Appendices and background material shall be bound separately from the EIS if they exceed twenty–five pages, except if the entire document does not exceed one hundred pages or a FEIS is issued under WAC 197–11–560(5).***

O18-2 We do appreciate King County's response to our request for extension of the comment due date to February 5, as the size of the DEIS and the timing of its release during the holiday season was an unfair obstruction to the community's opportunity for a more thorough examination and subsequent development of comments.

O18-3 An important issue not addressed in the DEIS is the impact that Brightwater would have on the Maltby sub-area. The Growth Management Act and other statutes require a close examination of the impact of an essential public facility, like Brightwater, on the sub-area and regional plans. This important topic

Maltby Neighborhood Alliance (MNA) 1 January 25, 2003

Response to Comment O18-1

The primary purpose of the State Environmental Policy Act's (SEPA) regulatory page limits is to force the drafting of concise, readable environmental review documents, so that they are easy to understand by the decision-makers and the public. EIS length is addressed by the SEPA regulations that have page limitations for complex documents of 150 pages, not including appendices and other background material (WAC 197-11-425(4)). The SEPA rules recognize that the size and complexity of the proposal will be a driving factor in determining how long an EIS must be to adequately address the key issues. "EISs shall be no longer than necessary to comply with SEPA and these rules. Length should relate first to potential environmental problems and then to the size or complexity of the alternatives, including the proposal" (WAC 197-11-402(5) and (6)). While there is little case law in Washington on EIS length, there is an unpublished Court of Appeals opinion that recognizes that the key issue with regard to page limits is whether the EIS is reasonably clear and concise. "[A]s long as the EIS is reasonably clear and concise so that the public has notice of the important facts, the length is not controlling." *Thomas v. Sound Transit* (EIS upheld, although SEPA formatting requirements not entirely complied with). This opinion is consistent with one of the purposes of SEPA, which is to produce clear and readable environmental review documents. In the Brightwater EIS, King County has worked to provide a sensible balance between length and readability, on the one hand, with a thorough evaluation and backup documentation of the probable significant adverse impacts and reasonable mitigation measures of the proposal on the other hand. The County has also worked to be responsive to what those commenting on the Draft EIS asked to have included in the Final EIS.

Response to Comment O18-2

SEPA requires that the lead agency provide a 30-day comment period for review of a Draft EIS, with an extension to 45 days upon request. King County provided an initial 75-day comment period and granted extensions ranging from a few days to 2 weeks (and, in one case, 4 weeks) to 23 agencies, organizations, and individuals that requested an extension. King County received more than 500 responses to the Draft EIS from agencies, organizations, and individuals. MNA was one of 23 agencies, organizations, and individuals who received an extension of the comment period upon request.

Response to Comment O18-3

The Maltby subarea is discussed in Chapter 11 of the Draft EIS under the subsection “Comprehensive Plan Designations” in the Affected Environment and Impacts and Mitigation sections for the Route 9 site. This area is governed by the Snohomish County Comprehensive Plan. Additional text has been added to the Final EIS to provide clarification that this area is a subarea of the Snohomish County Comprehensive Plan.

O18-3 was absent in the document and, as such, it is impossible to provide meaningful comment on impacts and mitigation especially as it relates to population growth and the future of the Maltby region. This is a major deficiency in the DEIS.

SUMMARY OF RESPONSE

Maltby Regional Plan

O18-4 • A regional plan that reflects the needs of the local community to retain their rural character is important to the residences and has not been included in the DEIS.

O18-5 • Brightwater would be a regional growth enabler and the impacts of this anticipated growth particularly along the SR522, SR9 corridors and the Cathcart-Clearview-Maltby sub-area are ill described.

O18-6 • Conversely, it is not possible to glean from the document a comprehensive understanding of the need for a massive facility such as Brightwater. Economic and employment conditions in the region have changed and growth rates significantly reduced. As a result, the need for this facility, as established by King County's Regional Wastewater Services Plan, may no longer be valid.

O18-7 • A regional plan for Maltby must be a contractual mitigation requirement before regulatory permits are granted.

Ground Water/Cross Valley Sole Source Aquifer

O18-8 • Impacts to Cross Valley Aquifer not adequately addressed within context of document. What is the impact to the Cross Valley Aquifer?
- Need quantification of aquifer depletion in vicinity of SR9 site
- How does Brightwater affect residential water budgets in the vicinity of SR9 site?
- Inner city aquifer not mentioned, what about private and/or public wells impact downstream of (aquifer) site?

O18-9 • Description of what is going on with the ground water in vicinity of SR9 site is absent.

O18-10 • Insufficient rational for claims that natural discharge on SR9 site is confined.

O18-11 • Ground water to surface water impact at SR9 site ill described.

O18-12 • Inadequate description of impacts and mitigation for containment of chemicals or break in the inflow line for some catastrophe.

O18-13 • Hazmat management and fire department response not addressed.

Odor Control

O18-14 • Air inversion events in the vicinity of SR9 were never addressed. This major shortcoming is substantial evidence in itself as to the prevailing inadequacies of the document. Please provide outline of impacts and mitigation of air inversions.

O18-15 • The air model for SR9 based on Paine field data is wrong. How is Paine Field air model validated against actual airflows in the vicinity of SR9?

O18-16 • What is baseline for air model used between Edmonds site and SR9 site?

O18-17 • There exists a cumulative odor and toxin affect during periods of air inversion. How is cumulative affect mitigated?

O18-18 • Insufficient evidence given in report of achieving the 99.99 percent odor free goal. What kind of equipment is used to achieve targeted odor level of 99.99 percent?
• To get to 99.99 percent odor removal the plant needs one more stage and design of structures needs to be airtight, how is 99.99 percent odor removal achieved without a description of means to provide?

Maltby Neighborhood Alliance (MNA) 2 January 25, 2003

Response to Comment O18-4

Mitigation measures could help the area preserve its existing rural character and avoid unchecked commercial and industrial development on the site that would not enhance the community. Please refer to the response to the City of Shoreline, Comment C6-5, for additional information regarding mitigation suggestions.

Response to Comment O18-5

Brightwater facilities have been planned within the context of regional and local growth management plans (GMA Plans). Brightwater is not intended to be an impetus for future growth but rather to accommodate and serve growth that has been planned for and approved through the planning processes of the affected jurisdictions.

The purpose of this EIS is not to resolve or re-analyze regional land use planning and coordination that has already occurred but to provide wastewater service to growth, as forecast and approved, in the most environmentally and economically sound manner. Both regional and local land use plans included SEPA review of environmental impacts of 20-year population estimates that were used as the basis for planning under Washington State's Growth Management Act. A discussion of the policy framework under which Brightwater has been planned and coordinated is provided below and in Chapter 11 of the Final EIS.

A number of major land use and development plans and implementing regulations shape the land use policy framework for the Brightwater project. The key state and regional plans include: Washington State's Growth Management Act (GMA), Puget Sound Regional Council's Vision 2020, and King County and Snohomish County Countywide Planning Policies. In general, these documents establish a framework for all other local land use and shoreline comprehensive plans affected by Brightwater.

The basis of regional land use planning in the central Puget Sound area is the Washington State Growth Management Act (GMA) of 1990. The GMA established a structure for all future land use planning in Washington State. The Act required that all planning activities be based upon 20-year population and employment forecasts developed by the Office of Finance and Management (OFM) using 1990 census data. The OFM provided population and employment growth forecasts for each county. Then counties and their cities worked together to accommodate the projected numbers of future residents in their land use plans and policies.

The GMA requires the designation of Urban Growth Areas (UGAs) and adoption of comprehensive plans by the region's counties and cities. Development is encouraged within the UGAs, and adequate infrastructure (transportation, water, sewer, and other urban services) can be provided to accommodate population and employment targets established by the region. Jurisdictions are required to support the concentration of growth within the UGAs by setting standards for concurrency and levels of service. Concurrency means that public facilities and services are provided at levels that keep up with the increased demand of the forecast growth.

In complying with the GMA, King County's facility planning must be consistent with other regional planning efforts so that its regional wastewater treatment and conveyance infrastructure is in place at the time development is available for occupancy and use without decreasing current service levels. The Regional Wastewater Services Plan implements the King County Comprehensive Plan, as it assumes that all planned development in the urban areas will have sanitary sewer service (King County Department of Natural Resources Wastewater Treatment Division, RWSP Final EIS, April 1998).

Response to Comment O18-6

Please refer to the response to the City of Seattle, Comment C10-1, regarding growth rate projections and the need for the Brightwater System.

Response to Comment O18-7

King County welcomes your thoughts and ideas on other activities that could help build trust with the communities that could be affected by the Brightwater facilities. Please refer to the response to the City of Shoreline, Comment C6-5, regarding mitigation suggestions.

Response to Comment O18-8

Please refer to the response to the Washington State Department of Ecology, Comments W5-9, W5-15 and W5-40. Additional detail is provided in Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O18-9

Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS for a detailed discussion of groundwater at the Route 9 site, in the vicinity of the site, and in the region, including the interaction of groundwater with surface water.

Response to Comment O18-10

Please refer to the response to the Washington State Department of Ecology, Comments W5-15 and W5-43.

Response to Comment O18-11

Appendix 6-B, Geology and Groundwater, and Chapter 6 of the Final EIS provide detailed information on the inter-relation between the existing condition of groundwater and surface water at the Route 9 site, and the effects on these inter-related systems as a result of groundwater dewatering during construction and long-term underdrains during the operations phase of the Brightwater Treatment Plant. These analyses show that no significant adverse impact to groundwater and surface water is anticipated as a result of the Brightwater Treatment Plant located at the Route 9 site.

Response to Comment O18-12

Please refer to the response to the Washington State Department of Ecology, Comment W5-43.

Response to Comment O18-13

Please refer to Chapter 9 of the Final EIS for discussion of the materials and chemicals used in the treatment process. A description of the delivery, handling, and storage facilities is also provided in this chapter. Please refer to the response to Chapter 17 of the Final EIS for a discussion of fire department response.

Response to Comment O18-14

King County has provided additional information about the meteorological data used in the odor and air quality modeling in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

As mentioned in the Draft EIS, meteorological data is currently being collected from two monitoring stations, one located at the Unocal site and one located at the Route 9 site. The intent is to collect 12 months of data that will be used in the modeling for the Notice of Construction permit. At the time this document was written, 9 months of data had been collected, which was used for the odor and air modeling for the Final EIS. In addition, 4 years of data from Paine Field has been modeled. The Paine Field data provides the model with additional potential weather patterns to evaluate. Please refer to the Final EIS for additional information on this subject and to the response to the City of Woodinville, Comment C5-36.

Response to Comment O18-15

Please refer to the response to Comment O18-14 in this letter.

Response to Comment O18-16

It is unclear what is meant by “baseline” between Unocal and Route 9 in the dispersion modeling. However, additional information about the dispersion modeling procedures and meteorological data used in the odor and air quality modeling is provided in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the final EIS.

Response to Comment O18-17

The dispersion modeling included periods with air inversions. The ambient air impacts of the facility-wide air emission estimates from the liquids, solids, and combustion sources indicate that all air emissions, except potentially chloroform, would be less than the regulatory requirements and are therefore not expected to have an adverse impact on human health and the environment. For a discussion of chloroform levels, please refer to the response to Hensley, Comment I408-607.

Response to Comment O18-18

There are various methods for constructing a process to be airtight and ensuring complete containment of odors, depending on the type of process. All liquids processes at the Brightwater Treatment Plant would be covered and ventilated to an odor control system. The covers would be operated and maintained according to manufacturer specifications to ensure they are airtight.

Processes that are contained in buildings, such as the headworks and solids handling buildings, would be enclosed within the building and the processes area covered and ventilated to an odor control system. The covered or enclosed areas would be designed with a ventilation system that would keep the area under negative pressure to prevent the escape of odorous air. As the ventilation system is designed to keep the biosolids and screenings loading areas under negative pressure, normal operations would require that the doors be kept closed for proper operation. It is likely that an alarm would be generated within the plant control system whenever one of these doors is open, thus allowing for improper operating conditions to be corrected.

Each odor control system would treat the process air using multistage chemical scrubbers followed by a final polishing stage of carbon adsorption. Each stage treats the process air to a greater degree. The exhaust air from the carbon polishers would be discharged from stacks. In addition to the chemical scrubbers, carbon scrubbers would treat any digester gas that may be discharged through pressure release vents. Additional detail on the odor control systems can be found in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Conveyance

O18-19 • Insufficient justification and inadequate description of proposed egress route. It is not possible to understand the impact on a region when the region affected is not defined.

O18-20 • Insufficient substantiation for proposed 300 feet deep tunnel in lieu of shallow "cut and fill".

O18-21 • Unclear whether ingress or egress flow velocities have been optimized.

O18-22 • Excavation dirt (tunneling) and millions of gallons water (dewatering) disposal unspecified, and ongoing aquifer depletion.

O18-23 • Where is de-chlorination station, why is it needed and how are the hazards mitigated? It had been presumed, due to participation in the public process, that ultra violet light would be employed for decontamination.

Treatment

O18-24 • It was not clearly stated that secondary clarifiers at the SR9 site shall be covered. Please describe intent.

O18-25 • If chlorine is used for decontamination, the risks and mitigation of it is not addressed. Insufficient data in the trade-off between UV and chlorine.

Outfall

O18-26 • The document provides evidence that the outfall plume would make it to beach in the summer. How is this impact mitigated?

O18-27 • Potential water quality impacts of the outfall have not been demonstrated.

O18-28 • Similar to the cumulative odor impacts, the discharge plume cumulative affect during winter months have not been addressed.

DETAILS OF RESPONSE:

Maltby Regional Plan

In 1987, the Cathcart-Maltby-Clearview (C-M-C) was designated as a sub-area but a plan was never funded or fully written. The result has been piecemeal development and rezoning actions with the cumulative effect of changing the rural character and replacing it with fragmented urban development.

O18-29 The cities of Woodinville, Bothell, and Mill Creek plan to annex piecemeal portions of the Maltby UGA and develop according to their urban growth plans rather than what is wanted by the local residents surrounding the UGA. Brightwater would be an enabler that would accelerate growth along the SR-522 and SR-9 corridors. The Maltby area citizens are concerned without an understanding of a comprehensive long-range regional vision and plan. Such a plan will meet the tenets of the GMA while retaining its rural character, perhaps requiring innovative solutions and approaches.

A world class plan for the Maltby region is proposed which could serve a model for King and Snohomish Counties as a better approach to implementing the GMA throughout the Puget Sound Area. This must be a Snohomish County permitting requirement in order for Brightwater to be located here.

O18-30 **Ground Water/Cross Valley Aquifer Protection**

The Cross Valley Aquifer is designated a Sole Source Aquifer under the Federal Clean Drinking Water Act. As the only source of water for most residences in the Maltby area, any actions that would pose potential threats to the aquifer's quality and quantity is a major concern to the MNA.

Maltby Neighborhood Alliance (MNA) 3 January 25, 2003

Response to Comment O18-19

A description and evaluation of the proposed conveyance routes are included in Appendix 3-B, Project Description: Treatment Plant, of the Final EIS. The evaluation of the proposed conveyance route has been expanded in Chapters 4 through 17 of the Final EIS.

Response to Comment O18-20

Please refer to the response to the Sno-King Environmental Alliance/ Joseph, Comment O17-70.

Response to Comment O18-21

Preliminary flow velocity optimization was conducted in determining the size of force mains and pump stations. Additional optimization would be conducted in the preliminary and final design phases of the conveyance system.

Response to Comment O18-22

This information will be included in Chapters 4 and 6 of the Final EIS.

Response to Comment O18-23

For the Route 9-195th Street System, if chlorine is used for disinfection, chlorination would occur at the treatment plant, and the dechlorination facility would be located at Portal Siting Area 5. Disinfection with ultraviolet radiation would eliminate the need for a dechlorination facility.

Chlorination (if used) would also occur at the treatment plant for the Route 9-228th Street System, but the dechlorination facility would be located at Portal Siting Area 26. UV disinfection would again eliminate the need for a dechlorination facility.

The Unocal System would have both chlorination and dechlorination systems at the treatment plant, if chlorination

is used. Again, if ultraviolet radiation were used for disinfection, the dechlorination facility would not be required.

The dechlorination facility would dose the chlorinated-treated effluent with sodium bisulfite to remove any free chlorine residual and to remove the potential for free chlorine to enter Puget Sound. The facility would be constructed in accordance with state and local fire codes and would include safety features such as secondary chemical containment, shutoff valves, and spill alarms.

Response to Comment O18-24

Secondary clarifiers are no longer required and all liquid processes are covered at the Brightwater Treatment Plant. For more information on membrane bioreactors (MBR) in the secondary process at the Brightwater Treatment Plant, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-54.

Response to Comment O18-25

The tradeoffs between UV and chlorine disinfection are described in Appendix 3-K, Treatment Plant Disinfection Alternatives, of the Final EIS. Sodium bisulfite would be added to the plant effluent for dechlorination.

Response to Comment O18-26

By the time the effluent reaches the shoreline, it would have undergone substantial dilution, on the order of 2000:1. The diluted effluent would pose no measurable impact, and therefore no mitigation is required. Complete details of the analysis and conclusions can be found in *Phase 3 Brightwater Marine Outfall Water Quality Investigations* (Parametrix and Intertox, 2002).

Response to Comment O18-27

The water quality effects of the outfall have been adequately analyzed and considered. A majority of the scientific investigations completed by King County were focused on evaluating the potential impacts of the proposed outfall on the biological resources of Puget Sound and the people that frequent the shorelines. Eliminating or significantly reducing the possibility that people may become sick or aquatic life harmed as a result of the new outfall has been the primary consideration of the outfall siting study. As a result, the Final EIS contains an analysis of these investigations. King County has identified what will be discharged from the outfall (effluent characterization reports), the dilution and transport of the effluent within the Puget Sound (oceanographic modeling and plume modeling), and the potential pathways for contact with the discharge (biological investigations and human use survey). All of these studies increase the confidence in the determination that the outfall and effluent constituents are not expected to be harmful to people and aquatic life.

Response to Comment O18-28

Cumulative impacts generally refer to the build-up of material in the receiving waters from all sources over a period of several years and are not examined on a seasonal scale. Plume dynamics and dilution during winter months are analyzed in Appendix 6-H, Predesign Initial Dilution Assessment. Winter represents a period of weak stratification in Puget Sound. The dilution modeling results indicate initial dilutions during strongly stratified conditions would be about 35 percent smaller than during conditions with weak or no stratifications.

Response to Comment O18-29

Mitigation measures can help the area preserve its existing rural character and avoid unchecked commercial and industrial development on the site that would not enhance the community. More information on mitigation suggestions can be found in the response to the City of Shoreline, Comment C6-5.

Response to Comment O18-30

Appendix 6-B, Geology and Groundwater, of the Final EIS provides detailed summaries of the existing groundwater conditions at the Route 9 site and the inter-relation between the site, Little Bear Creek, and the Cross Valley Aquifer. Groundwater impact analyses have been conducted for both the construction and long-term operations phases of the treatment plant. The analyses indicate that there would be negligible, if measurable, effects to the closest Cross Valley Water District supply well (the Woodlane well). This is primarily because the Cross Valley

Aquifer is up-gradient of the site and also because the aquifer that the Cross Valley Water District uses for its water supply is not the same aquifer that underlies the area where the majority of the treatment plant structures would be located. The treatment plant structures (except the Influent Pump Station) would be sited in the shallow unconfined aquifer that is not hydraulically connected to the Cross Valley Aquifer. Also, slope stability issues at the Route 9 site are discussed in Chapter 4 of the Final EIS. The Unocal alternative has a more detailed summary of slope stability because significant cuts up to 130 feet in height would need to be made into an existing hillside to develop this site for the treatment plant.

The proposed Brightwater Waste Treatment project including both the processing plant facilities and the influent/effluent conveyance lines if located at the SR-9 site would cover at least 30 acres of the Cross Valley Sole Source Aquifer (CVSSA) which has been characterized as :

- Multi zone aquifer consisting of 2 layers: 1) an upper layer 0 - 20 feet with depths to 50 feet, and 2) a lower layer 35-75 feet with depths up to 100 feet.
- Ground water generally flows from northeast to southwest down gradient to the Brightwater site.

The DEIS identified several risks to the CVSSA but doesn't provide solutions that would convince the MNA that Brightwater can ensure the water quality and continued supply of drinkable water. Further, impacts on slope stability and mitigation measures for excavations at the SR-9 plant site are not addressed in the DEIS as they are for the Unocal site. The impacts and mitigations for the potential of excavations to encounter both the identified near surface, perched aquifer and the deeper confined aquifer at the SR-9 plant site are not adequately addressed in the DEIS. O18-30

Issue

O18-31 From the MNA's perspective, the integrity of the CVSSA includes water quality/purity and quantity, with loss of either or both being considered unacceptable. The MNA has three issues with the DEIS regarding the aquifer:

1. Has not substantiated that construction excavation for the plant and conveyance pipes in the vicinity of CVSSA will not:
   - Deplete or lower water table levels affecting wells, wetlands and creeks and potentially reducing the drinking water supply, all of which could be further exacerbated if construction occurs during the dry summer/fall months.
   - Pollute the groundwater from contaminants used in tunnel drilling and plant construction
2. Has not substantiated that chemical and sewage spills from ongoing treatment plant operations or massive sewage overflows resulting from dramatic rainfall and subsequent runoffs will not pollute the groundwater and adversely affect the CVSSA.
3. Has not substantiated that the conveyance system will not continuously dewater or deplete the aquifer, resulting from passageways or voids between the concrete tunnel sections and the tunnel wall.

Discussion

1. Construction Phase—Plant and Conveyance Pipes

The DEIS states that construction of plant structures will take place below the groundwater table, necessitating groundwater control and disposal during construction. However, there is no quantification of the impact on area residences from lowering the CVSSA water table and the resultant loss of water supply. Additionally, there is mention of potential chemical spills (e.g. Fuel and lubricants), with the unsatisfactory answer that it will be addressed in accordance with local, state and federal regulations (i.e. no specific solutions or plans presented). There is a similar risk from conveyance construction in or near the CVSSA.

2. Pollution From Chemical And Sewage Spills From Treatment Plant Operations

The DEIS states that any chemical or sewage spill would have little impact on the ground water quality. This conclusion based on the assumption that the aquifer under the plant site is primarily artesian (i.e. discharge area). Upward pressures would be expected to "severely or completely inhibit" migration of dissolved contaminants with only contaminants denser than water overcoming the upward pressures. The DEIS appears less than certain about their assessment that contaminants will not reach the aquifer.

Maltby Neighborhood Alliance (MNA) 4 January 25, 2003

Response to Comment O18-31

Since the Draft EIS, a substantial amount of additional subsurface data gathering, soil testing, geologic interpretations, groundwater level monitoring, and groundwater impact analyses has been conducted for the various Brightwater System alternatives. The additional data gathering and refinement of the project description has enabled more accurate and detailed groundwater impact analyses to be conducted. For both the construction and operations phases, the analyses indicate that no significant adverse effects to groundwater resources are anticipated as a result of the Brightwater System using the assumed design and construction methodologies currently planned. Please refer to the responses to the Washington State Department of Ecology, Comments W5-9 and W5-15, for summaries of the groundwater impact analyses conducted for the conveyance corridors and treatment plant locations, respectively. Appendix 6-B, Geology and Groundwater, of the Final EIS presents the detailed evaluations from which these summary responses were developed.

The MNA is concerned that studies have not been done to date nor will be done prior to the final EIS that would insure:

a) No chance of polluting the CVSSA, and
b) No chance of dewatering or depleting the CVSSA

And would disregard the Washington State Department of Ecology anti-degradation policy which states present water quality levels can not be compromised (WAC 173-200-050) and Special Protection Areas (WAC 173-200-090) that extends special protection to designated ground water area, which includes sole source aquifers.

3. On-Going Dewatering Or Depletion From The Conveyance System
The DEIS identifies the risk of continuous dewatering or depleting of the CVSSA from broken or leaking pipes/tunnels and from voids along the tunnel base that would cause a zone of "preferential flow" that might deplete the aquifer. Additionally any leaks in the influent pipes could result in the migration of contaminates into the CVSSA. Again there are no hard data or quantification of the impacts of depletion or contaminates and no mitigation solutions presented.

Recommendation
In summary, the DEIS has identified many of the risks/impacts that the Brightwater project would have on the CVSSA from both the construction and on-going operating phases. However, the assurances in the DEIS are often not supported with hard data and good engineering solutions that provide confidence that the integrity of the CVSSA would be maintained. The construction phases should not begin until comprehensive studies are completed, sound engineering solutions developed and quantification on any remaining potential risks. This would include sufficient research on all the chemicals, viruses and other contaminates that could come into play and their capabilities to pollute under all conditions present in the aquifer region, including up gradient migration toward the Cross Valley Wells, with Wellstone being the closest. If the studies should conclude that the conditions of the CVSSA couldn't be maintained at today's levels, Brightwater must consider other siting proposals.

The MNA recommends that the Washington State Department of Ecology perform an exhaustive study of the impact of Brightwater on the groundwater system for Plant and Conveyance systems, with particular emphasis on the impact to the CVSSA. The expectations are development of data and resultant solutions that fully protect the CVSSA. It is understood that if Federal funding is used that the EPA would also be involved. O18-31

Odor Control
Use of models for dispersion is not necessary when the stated criterion is an absolute of 99.99% removal. In this case, need to design for worst-case scenario:

O18-32 With a removal criterion of 99.99%, the design of the structures to be "air-tight" and the relationship between air changes per hour and removal efficiency needs to be evaluated, neither of which have been addressed at this time.

Basis of design values are not given: concentrations of various odor-causing compounds, application rates to various odor-removing processes, and relationship between air changes and percent removal.

Conveyence
O18-33 Basis of design values have not been provided (e.g., low flow rates, slopes, d/D) -- only tunnel diameters on the order of 10 to 14 feet have been stated. Meeting minimum velocities under current low flow and future low flow conditions is not demonstrated for the tunnels.

Maltby Neighborhood Alliance (MNA) 5 January 25, 2003

Response to Comment O18-32

The sizing of vapor phase odor control systems is based on anticipated worst-case concentrations of odorous compounds and specified ventilation rates (required air changes per hour). Both the design air changes per hour and odor concentrations are included in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS. The odor control system would be designed for peak odor and would also use chemicals in the influent conveyance system and at the influent pump station during the summer, when odors are most significant. For a discussion of airtight structures, please refer to the response to Comment O18-18 in this letter.

Response to Comment O18-33

Information in the Draft EIS illustrated some of the many engineering criteria used to design the outfall and conveyance system. This information is not intended to be a formal presentation of the basis of design for either Brightwater component. This formal presentation will be part of the final Brightwater conveyance system preliminary design report, which will be completed after the Final EIS has been completed and the King County Executive has selected an alternative to be constructed.

O18-34 Optimization of conveyance and treatment (e.g., via flow equalization) has not been detailed or described nor has a procedure to evaluate optimization been defined.

O18-35 Deep tunnel construction can be hampered by flooding, accidents, mechanical failures, or large scale rock, and these extreme conditions and their mitigations are not addressed. A contingency plan is needed.

O18-36 No plan is provided for line repair or cleaning of deep tunnels during ongoing operation.

O18-37 Mitigation of potentially huge volumes of dewatering water for deep tunnel construction is not addressed, nor for the on-going operational effect on the CVSSA.

O18-38 **Treatment**
Optimization of treatment processes as coordinated or coupled processes has not been detailed or described nor has a procedure to evaluate optimization been defined.

O18-39 Evaluation of process variation to improve treatment or reduce cost is not provided. For example, if the activated sludge process were covered, then it would make sense to evaluate a pure oxygen system because considerable cost is already incurred in covering the tanks for odor control.

O18-40 **Outfall**
The diffuser would produce an initial dilution in excess of 250, and the plume would remain trapped below the thermocline during the summer, when the Puget Sound is stratified.

O18-41 The dissolved oxygen impact may have been underestimated and may be greater than the .2 mg/l allowable in AA waters.

O18-42 Shortcomings of the DEIS include the following:
1) Dissolved oxygen impact may be underestimated, and may exceed the standard.
2) Cumulative impacts are minimally addressed.
3) Sediment impacts are not sufficiently characterized.

SUMMARY/RECOMMENDATIONS

In Summary, the MNA is most concerned about the following issues:

O18-43 Maltby Regional Plan - Request implementation of Maltby Regional Plan that will include the participation of local community. Mitigation funding must be established to insure resources for a world class planning process.

O18-44 Groundwater/Aquifer Protection - Initiate Federal and/or State study confirming safety of the aquifer.

O18-45 Odor - Air inversion model must be validated for the SR-9 site and a trust fund established should operational odor goals are not achieved so that funds will be immediately available for new odor mitigation/solutions that may be available at a later date.

O18-46 Conveyance – need to ensure that dewatering of the aquifer during construction and during on-going operation will not cause harm to regional water supplies.

Maltby Neighborhood Alliance (MNA) 6 January 25, 2003

Response to Comment O18-34

Flow equalization to optimize conveyance and treatment has been evaluated during the predesign process. The influent tunnel would be designed to be used for emergency storage during high flow events. The technology selection process is described in Appendices 3-A, Project Description: Treatment Plant, and 3-L, Preliminary Working Draft Facilities Plan, of the Final EIS.

Response to Comment O18-35

A contingency plan would be submitted by the contractor to King County prior to construction as part of the contract documents for County review and comments. The contractor would be selected after the King County Executive's selection of a Brightwater alternative for construction and after the final design of the Brightwater System is completed.

Response to Comment O18-36

Although the tunnel would be designed such that periodic repair and cleanings of the influent and effluent pipelines would not be required, the Brightwater conveyance facilities will be integrated into the County's Wastewater Asset Management and Inspection program, and a schedule appropriate for each facility will be developed.

If emergency repair would be required, then the flow diversion strategies discussed in Chapter 3 of the Final EIS would be implemented to dewater the system during low flows, thereby allowing repair crews to enter the conveyance system.

Response to Comment O18-37

Conventional dewatering wells are no longer being considered for groundwater control during conveyance system construction, as described in Appendices 3-B, Project Description: Conveyance, and 6-B, Geology and Groundwater, of the Final EIS. The estimate of groundwater volume discharged from the tunnels during construction has

been refined and is now anticipated to range up to a maximum sustained flow of 150 gpm, with short term peaks of 250 gpm, compared to the maximum of 4,250 gpm reported in the Draft EIS. These are not flows derived from construction "dewatering" but from seepage into the tunnel during construction. Please refer to response to Washington State Department of Ecology, Comment W5-9, for a summary of updated evaluation of tunnel construction and operational effects on groundwater elevations and flow. The on-going operational effect of the Route 9 site on the Cross Valley Sole Source Aquifer is addressed in Appendix 6-B of the Final EIS.

Response to Comment O18-38

Optimization of treatment processes was performed during predesign. The technology selection process is described in Appendices 3-A, Project Description: Treatment Plant, and 3-L, Preliminary Working Draft Facilities Plan, of the Final EIS.

Response to Comment O18-39

Optimization of treatment processes was performed during predesign. The technology selection process is described in Appendices 3-A, Project Description: Treatment Plant, and 3-L, Preliminary Working Draft Facilities Plan, of the Final EIS. A high purity oxygen system was evaluated during predesign, but was not selected. Even though the aeration basin would be covered, other factors showed the membrane bioreactor to be preferred above the high purity oxygen system.

Response to Comment O18-40

Thank you for your comment.

Response to Comment O18-41

Please refer to response to the Snohomish County Planning and Development Services, Comment S3-354, and Appendix 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System, for an updated analysis of dissolved oxygen.

Response to Comment O18-42

Please refer to the response to the Snohomish County Planning and Development, Comment S3-354, for a dissolved oxygen analysis. There will be no cumulative impacts to Puget Sound surface water as a result of the construction and operation of the Brightwater Treatment Plant and outfall. More complete discussion of the cumulative impacts is provided in Chapter 6 of the Final EIS.

In the examination of potential impacts to surface water, King County added Brightwater contribution to loadings to existing conditions in Puget Sound to examine cumulative impacts. It is believed that this is a reasonable approach because there are no known plans for additional point source discharges in the area, and there are concentrated efforts in the region to improve the water quality of Puget Sound. King County and other municipal governments in the area are continuing efforts to increase the quality of their discharges in response to stricter regulatory requirements of the Endangered Species Act, Growth Management Act, and other environmental regulations. For example, there are planned improvements to combined sewer overflows; other capital improvement projects would vastly improve stormwater management infrastructure, which would reduce the loadings to Puget Sound. Both the City of Edmonds and King County have plans to improve the performance of some of the existing outfalls in Puget Sound. Similarly, King County is proposing to use membrane bioreactor treatment technology for the Brightwater System in an effort to minimize the loadings to Puget Sound.

King County and other regional governments are committed to improving the water quality of Puget Sound through the improvement of existing infrastructure and using the best available technology for new systems.

Chemical contamination of Puget Sound sediments has been extensively studied by National Oceanographic and Atmospheric Administration (NOAA) and the Washington State Department of Ecology (Ecology) (2000). Ecology has identified contaminated sediment sites that warrant further investigation and/or cleanup (Ecology, 2001). The majority of the contaminated sediment sites identified by Ecology are associated with past industrial activities, with no contaminated sediment sites associated with outfalls for secondary treated effluent. King County (Striplin et al., 2001) has studied chemical constituents near its existing outfalls for secondary treatment and found little or no differences

relative to ambient conditions. King County believes that there would be no impact to sediments near the Brightwater outfall.

References:

NOAA and Washington State Department of Ecology, 2000. *Sediment Quality in Puget Sound: Year 2-Central Puget Sound.* NOAA Tech Memorandum No. 47 and Ecology Pub 00-03-055

Washington State Department of Ecology 2001 Sediment Cleanup Status Report. Striplin Environmental Associates and King County 2001. *Potential effects to Benthic organisms associated with King County Secondary Treated Effluent Discharges to Puget Sound.* December 2001.

Response to Comment O18-43

Please refer to the response to the City of Shoreline, Comment C6-5, regarding mitigation suggestions.

Response to Comment O18-44

King County believes that its groundwater impact analyses, as summarized in Appendix 6-B, Geology and Groundwater, of the Final EIS adequately represent the existing conditions of the groundwater regime and the potential effects to the groundwater as a result of the construction and operation of the Brightwater System. The information presented is of sufficient detail for the evaluation of alternatives as included in this Final EIS. In addition, several state and federal agencies are reviewing the Final EIS and as such, King County does not intend to have one of these agencies conduct a separate groundwater impacts evaluation.

Response to Comment O18-45

For updated air modeling information, please see Chapter 5 and Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS. Please refer to the response to the City of Shoreline, Comment C6-5, for information regarding mitigation plans and policies.

Response to Comment O18-46

Please refer to the response to the Washington State Department of Ecology, Comment W5-9.

Respectfully:

Michael Renzelmann, President
21430 78th Ave SE
Woodinville, WA 98072
360-668-4622

Bill Schink, Secretary
21211 82nd Ave SE
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21926 State Route 9 SE
Woodinville, WA 98072
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FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

I375
McCULLOUGH HILL FISKO KRETSCHMER SMITH

McCULLOUGH HILL FIKSO KRETSCHMER SMITH
G. Richard Hill
2025 First Ave., Suite 1130
Seattle WA 98121-2100
206-448-1818
206-448-3444 fax
rich@mhfks.com

RECEIVED
JAN 22 2003
ENVIRONMENTAL PLANNING DIVISION

A Professional Service Corporation

January 21, 2003

Environmental Planning
King County Wastewater Treatment Division
201 South Jackson Street, KCS-NR-0505
Seattle, WA 98104

Re: Brightwater Regional Wastewater Treatment System
Draft Environmental Impact Statement

Dear King County Environmental Planning:

This letter is on behalf of Mark and Jill Gauthier ("the Gauthiers"), and comments on the Brightwater Regional Wastewater Treatment System ("Brightwater Project") Draft Environmental Impact Statement ("DEIS"). The Gauthiers appreciate the opportunity to participate in the DEIS process.

I375-1 The Gauthiers live at 805 NW 205th Street in Shoreline, WA. Their home is in the center of Portal Siting Area 22, and in the immediate vicinity of Portal Siting Area 23.

The Gauthiers' home is new. It was completed slightly over a year ago. They purchased it for over $600,000. At the time of their purchase, they were given no notice of the Brightwater Project and they had no idea that their home might be taken by the Project or adversely affected by Project construction and long term impacts.

I375-2 The Gauthiers' home is part of a recently completed subdivision known as Highland Park Estates. Photographs of the Gauthiers' home and their neighbors' homes are included with this letter. The subdivision includes an environmentally critical steep slope and wildlife sanctuary. The photographs depict this critical area as well.

The Gauthiers' comments follow:

I375-3 1. Figure 11-22. Figure 11-22 depicts Portal Siting Area 22. The Gauthiers' home is located at the southwest corner of NW 205th St and 8th Ave NW. Figure 11-22 incorrectly depicts their property, and the property of their neighbors to the west, as vacant. In fact, all of the property depicted as vacant is now occupied by single family homes. Figure 11-22 should be corrected.

I375-4 2. Land Use Mitigation. The DEIS states at 11.3.4 that "portals and any permanent aboveground facilities would be sited to avoid displacing existing land

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Response to Comment I375-1

Portals 22 and 23 are considered secondary portals in the Brightwater Final EIS. Portal 22 is on the 228th Street alignment and Portal 23 is on the 195th Street alignment King County expects to build primary portals along the chosen alignment and believes it is unlikely that secondary portals would be needed. As Brightwater goes through further design, it will be decided definitively if and which secondary portals would be needed. In addition, the Final EIS does show the specific parcels being considered for portal candidate sites and the subject property in question is not being considered.

Response to Comment I375-2

Thank you for your comment.

Response to Comment I375-3

Recent Level 2 portal screening that was conducted as part of the Brightwater conveyance predesign identified candidate sites to carry forward for further screening. These sites met engineering needs and minimized environmental and community impacts. The Brightwater Conveyance Predesign Level 2 Portal Screening process is described in Chapter 2 of the Final EIS. Chapter 11 of the Final EIS has been revised to discuss the potential impacts associated with proposed construction and operation activities at candidate sites. Figures showing the candidate portal sites are located in Appendix 3-B, Project Description: Conveyance, of the Final EIS.

Portal 22 is now a secondary portal; construction is not anticipated to be required at this portal. However, this may change due to the relatively long length of the tunnels. A final decision on the need for secondary portals will be made during final design. There are four scenarios that may result in the use of secondary portals: temporary ventilation,

standby emergency egress, deep ground improvement, and supply of backfill grout.

Response to Comment I375-4

Please refer to the response to Comment I375-1 in this letter. In addition, in the unlikely event that a secondary portal was to be needed, surface construction activities are significantly less than those planned for primary portals. King County will work with communities and adjacent neighbors on minimizing impact and implementing appropriate mitigation for every portal construction site.

January 21, 2003
Page 2

I375-4 uses when feasible." Since the Gauthiers and their neighbors are currently occupying their homes, they request that the County identify other locations for portals, consistently with this mitigation policy, so that they will not be displaced from their homes.

I375-5 3. Noise. The DEIS states that construction noise could be expected to last from 2 to 5 years at portal sites. DEIS 10.2.3.1. In the event a portal is built in the vicinity of the Gauthiers' property, a two to five year period of construction noise will be unacceptable. Please identify the extent to which construction noise will impact the Gauthiers' property, and the specific steps that will be taken to mitigate it. If it is too early in the planning process to identify those impacts, please confirm that additional environmental review will be conducted and mitigation will be identified at such time as those impacts can be identified.

I375-6 4. Critical Areas. Figure 11-22 and the attached photographs depict the critical area on the property owned by the Gauthiers and their neighbors in the center of Portal Siting Area 22. That critical area includes steep slopes and quality habitat for wildlife. Please identify whether that critical area will be impacted by the Project, and how the impacts on steep slopes and wildlife habitat will be mitigated. If it is too early in the planning process to identify those impacts, please confirm that additional environmental review will be conducted and mitigation will be identified at such time as those impacts can be identified.

I375-7 5. Vibration. The DEIS acknowledges that construction of the portals and tunneling for the Project will likely create vibration that could affect the structural stability of buildings in the vicinity. As shown in the attached photographs, the Gauthiers' home is built adjacent to a steep slope, and is designed to withstand potential movement of the slope. However, the Gauthiers have no reason to believe their home was designed to withstand the addition of the Project's vibrations to the existing steep slope. Please confirm how the Project will ensure that the structural stability of the Gauthiers' home will be protected during construction.

I375-8 6. Odors. The DEIS confirms that odor emissions could occur at tunnel portals. DEIS 5.2.3.2. The DEIS states that the level of odor control and specific type and amount of equipment installed at each facility would depend upon nearby land uses and their sensitivity to odor. Id. Obviously, a single family residential neighborhood is highly sensitive to odor. Please confirm what level of odor control and what type and amount of equipment will be used to control odor adjacent to tunnel portals in such neighborhoods, and what monitoring will take place to ensure that odor is adequately controlled.

I375-9 7. Traffic. The DEIS acknowledges that the area adjacent to 244th Street SW (also known as NW 205th Street), where the Gauthiers' home is located is

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Response to Comment I375-5

If the property referred to in the comment is close to a portal construction site, the noise impact during daytime hours defined by the jurisdiction' s noise code can be significant. For example, within 130 feet of the Unocal site, it is anticipated that a maximum increase of 23 dBA over the maximum daytime ambient level of 59 dBA could occur as a result of construction activities. Similar daytime maximum ambient levels and impacts are expected near the portal sites. Construction outside of exempt daytime hours, if permitted, would be required to meet the jurisdiction' s code requirements for hours outside of the exempt periods. Mitigation for conveyance system construction noise impacts is described in Appendix 10-B, Noise and Vibration: Conveyance, of the Final EIS.

Response to Comment I375-6

It is, as suggested, too early in the process to identify specific slope stability issues. Slopes that will be impacted by construction of a portal will be addressed in design, and mitigation will be identified and implemented. Depending upon the slope (soils, inclination, etc.), the mitigation could range from imposing setbacks, to construction of retaining walls, to monitoring the slope during construction, to reducing the inclination of the slope.

Response to Comment I375-7

The potential effect of vibration on structures in the vicinity of any portal or tunneling operation will be analyzed during the design phase and mitigation measures would be established to protect those structures.

Response to Comment I375-8

Odor control facilities would be installed at locations with the potential odor concerns. Chapter 5 of the Final EIS includes descriptions of the types of odor control methods that will be implemented along the conveyance system and Appendix 5-

B, Odor Analysis: Conveyance, of the Final EIS provides additional discussion of this issue.

All King County facilities outside of the treatment plants are routinely inspected with maintenance conducted on a quarterly to yearly schedule, depending on the size and nature of the facilities. Additional work is conducted whenever King County receives public concerns regarding a specific facility.

Response to Comment I375-9

A discussion of transportation impacts at primary portals is included in Chapter 16 of the Final EIS, including a discussion of impacts at Portal 19. Portals 22, 23, and 27 are secondary portals that may not be needed. However, if they are needed, few project construction trips are expected to travel on 244th/205th past SR-99 because construction activity would be concentrated at the primary portals. The secondary portals, if required, would generate an average of three trucks per day during construction, and would not affect peak-hour traffic operations. Operational impacts at all portal sites would be limited to periodic maintenance checks occurring on average once per day plus two truck trips per week. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for greater detail on construction impacts. Please refer to the response to the City of Kenmore, Comment C3-16. A traffic management plan (TMP) has been included in the Final EIS that includes specific mitigation measures that would reduce traffic impacts along construction access routes.

January 21, 2003
Page 3

I375-9 primarily residential, and states that the projected truck volume (about 200 vehicles per day) on this roadway will be nearly 10 percent of background traffic levels. DEIS 16.2.4.1. This amount of increased traffic by large trucks on a narrow, two lane roadway (see attached photographs) in a residential neighborhood where children are often playing is significant and adverse. Please evaluate in greater detail impacts on level of service, pedestrian and traffic safety in this corridor. Please identify what mitigation measures will be taken to address those impacts. In addition, please evaluate alternative routes that will avoid 244th Street SW entirely.

I375-10 In addition, truck traffic may, we understand, also use 8th Ave NW. There are many school children who attend Syre Elementary and Einstein Junior High that walk on 8th and must cross at several cross walks. The cross walks are marked with painted lines across the road, but are not readily apparent. Large trucks pulling trailers may not see or be able to stop in time for these cross walks. This could create a significant public safety risk. Please evaluate, and explain how the Project will mitigate these impacts.

I375-11 8. Groundwater. The DEIS acknowledges that construction of the portals poses a risk of groundwater contamination and groundwater depletion. DEIS 4.3.2.2. With respect to contamination, please identify all mitigating measures that will be taken to protect public health in the Gauthiers' residential neighborhood. With respect to groundwater depletion, the Gauthiers are concerned that dewatering will destabilize their home. Please explain how the Project will ensure that destabilization of their home does not occur, and how the Project will monitor the impacts of dewatering.

I375-12 9. Compensation. Please confirm all steps that will be taken to assist and to compensate the Gauthiers in the event their home is taken for a portal site. Please also confirm all steps that will be taken to assist and to compensate the Gauthiers in the event construction and maintenance of the portal site constitute a partial taking and a nuisance.

Thank you for this opportunity to comment on the DEIS.

Sincerely,

G. Richard Hill

GRH:grh

Enclosure

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Response to Comment I375-10

Please refer to the response to Comment I375-9 in this letter.

Response to Comment I375-11

The portal near the Gauthiers' home (Portal 22) has been eliminated as a primary portal, and retained only as a secondary portal. This means it is not intended to be used except for ancillary purposes. If it were to be used, construction methods would be used that limit the withdrawal of groundwater and that protect groundwater quality. Engineering studies would be completed to evaluate potential settlement associated with groundwater withdrawal, and construction groundwater withdrawal criteria would be set at a level protective of nearby structures. Further information on portal construction methods is included in Appendix 6-B, Geology and Groundwater, in the Final EIS.

Response to Comment I375-12

Compensation is developed based on criteria established by federal law by way of the Uniform Relocation and Real Property Acquisition Policies Act (The Uniform Act, or simply the Act). Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation Web site at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

January 21, 2003
Page 4

cc: Mark and Jill Gauthier

Looking SW w/ King Co. street signs

825 NW 205th St.

Looking South on 8th Ave NW

Highland Park Estates sign & house

Looking W down NW 200th w/ trees

833 NW 205th St.

looking E from Gully at 805 NW 205th St

829 NW 205th St

817 NW 205th St

Pines looking SW

Shows house on corner of 8th NW & NW 205th

805 NW 205th St

Gully from house

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FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

O3
NORTHSHORE EDUCATION ASSOCIATION

12/10/02 TUE 13:50 FAX 2062960194 KC EXEC OFFICE 001

NSEA

Northshore Education Association • 7104 N. E. 181st Street, Suite 106 • Kenmore, Washington 98028-2733 • (425) 486-7101

2 pages

RECEIVED
DEC 27 2002
ENVIRONMENTAL PLANNING DIVISION

December 2, 2002

Dear Ron Sims,

O3-1 The Brightwater treatment facility could be designed and built in a way to provide an educational opportunity that would benefit all members of the community and the Puget Sound region.

This Letter is to inform you that the 1,238 Educators of the Northshore Education Association support the creation of an Environmental Center for Brightwater, irrespective of where the eventual treatment facility is built. The attached motion was passed unanimously at the November 18, 2002 meeting of the Northshore Education Association's Representative Council.

I, and members of our staff, would like to arrange a time when we could speak with you about this opportunity. Jennifer Clements, NSEA Administrative Assistant will contact your staff in December to arrange a mutual time to address this issue.

#1202-026

Your support in this matter is greatly appreciated.

Sincerely,

FAX Direct to Christie True at 684-1741

Aaron Feik
President, Northshore Education Association

cc: Brightwater Committee
Brightwater Educator's Committee

RECEIVED DEC 10 2002
KING COUNTY EXECUTIVE OFFICE
TO: DNR/Christie True & Annie Kolb Nels
DUE DATE: 12-24-02
AUTHOR: FELX, H.
SUBJECT: Brightwater
ACTION
___ RESPONSE FOR EXEC. SIG.
X RESPOND FOR EXECUTIVE
REVIEWED BY ___
___ F.Y.I

Affiliated with the National Education Association and the Washington Education Association

Response to Comment O3-1

King County appreciates your support of the educational aspect of the Brightwater Treatment Plant and looks forward to meeting with you at your convenience. For more information on mitigation suggestions, please refer to the response to the City of Shoreline, Comment C6-5.

NSEA

Northshore Education Association • 7104 N.E. 181st Street, Suite 106 • Kenmore, Washington 98028-2733 • (425) 486-7101

RECEIVED
JAN 8 2003
ENVIRONMENTAL PLANNING DIVISION

January 3, 2003

Environmental Planning
King County Wastewater Treatment Division
King Street Center K-NR-505
201 South Jackson Street
Seattle, WA 98104-9972

O3-2 The Brightwater treatment facility could be designed and built in a way to provide an educational opportunity that would benefit all members of the community and the Puget Sound region.

This Letter is to inform you that the 1,238 Educators of the Northshore Education Association support the creation of an Environmental Center for Brightwater, irrespective of where the eventual treatment facility is built. The attached motion was passed unanimously at the November 18, 2002 meeting of the Northshore Education Association's Representative Council.

We would like to know how this would be implemented and addressed during the construction of Brightwater. We are also extremely interested in linking this educational facility with other educational projects in Snohomish and King County in order to benefit students and the public.

Sincerely,

Aaron Feik
President
Northshore Education Association

nea Affiliated with the National Education Association and the Washington Education Association WEA

Response to Comment O3-2

King County appreciates your support of the educational aspect of the Brightwater Treatment Plant and looks forward to meeting with you at your convenience. For more information on mitigation suggestions, please refer to the response to the City of Shoreline, Comment C6-5.

NSEA

Northshore Education Association • 7104 N.E. 181st Street, Suite 106 • Kenmore, Washington 98028-2733 • (425) 486-7101

A MOTION BY THE NORTHSHORE EDUCATION ASSOCIATION REPRESENTATIVE COUNCIL

The educators of the Northshore Education Association hereby unanimously support the construction and permanent staffing of an Environmental Education center as part of the mitigation actions for the Brightwater Treatment Facility.

We support the creation of an educationally friendly Treatment Facility and grounds.

We also support the creation of a transportation system that will allow students to visit this facility as part of the mitigation.

We support this action irrespective of the final siting of the plant.

PASSED November 18, 2002 In Bothell, Washington

nea Affiliated with the National Education Association and the Washington Education Association WEA

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I343
POINT EDWARDS LLC

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

Point Edwards LLC

RECEIVED
JAN 21 2003
ENVIRONMENTAL
PLANNING DIVISION

January 21, 2003

Hand Delivered

Environmental Planning
King County Wastewater Treatment Division
201 South Jackson Street, KCS-NR-0505
Seattle, WA 98104

Re: Comments on BrightWater Draft Environmental Impact Statement (DEIS)

To Whom It May Concern:

Please accept these comments on the BrightWater DEIS.

A. Overall Comments

I343-1 In general, the DEIS provides inadequate analysis of impacts from the proposal. The document contains cursory review of many issues and numerous unsupported statements and conclusions. For a project of this magnitude, an Environmental Impact Statement should provide in-depth analysis and detailed information about the project and its impacts, with adequate data and supporting documentation. Instead, the document provides a shallow explanation and examination of impacts and defers far too much of the analysis of key issues related to the proposed action until a later, indeterminate time. In too many instances, the document recites conclusions of no or minor impacts without providing the underlying data and analyses to justify these conclusions. Significant revisions and re-issuance are necessary to provide an adequate level of environmental review.

B. General Comments

I343-2 1. Inadequate Analysis of Co-Location of Treatment Plant with Multimodal Facility. A portion of the Unocal Site has been planned for the Edmonds Crossing multimodal facility, with provisions for a relocated ferry terminal, access to commuter rail and buses, and adequate parking. The planning concept also features associated mixed-use development. While planning for the multimodal facility is not yet complete, the importance of that project to the City of Edmonds and its intended development is well documented through the inclusion of the project in the city's comprehensive plan and the Downtown/Waterfront Plan, a subarea component of the City-wide Comprehensive Plan. The Edmonds Crossing multimodal development plan is thoroughly addressed in these elements of the City's Comprehensive Plan and is the subject of ongoing review and planning activity by the City, notably the City's environmental review process for Edmonds Crossing.

2801 Alaskan Way, Suite 107
Seattle, WA 98121

206-374-0414 phone
206-374-0415 fax

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Response to Comment I343-1

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts beyond that characterized in this comment. Since issuance of the Draft EIS in late 2002, considerable additional analysis has been conducted, as is the case on any large project, to further define and develop the proposal and to respond to Draft EIS comments. Additional analysis that has been conducted that relates to probable significant adverse impacts that will not be mitigated or regulated into non-significance is included as part of the Final EIS analysis.

Response to Comment I343-2

Please refer to response to the Port of Edmonds, Comment G3-3.

King County Wastewater Treatment Division - 2 - January 21, 2003

I343-2 The BrightWater DEIS makes an assumption that the Edmonds Crossing project can be built on the Unocal site along with the treatment plant by construction of a "lid" over portions of the treatment facilities. However, the analysis provided in the DEIS is inadequate to determine whether, in fact, this is feasible and to truly understand the impacts and necessary mitigation for such co-location of two large, complex, and potentially inconsistent developments on adjoining and overlapping development sites. See, e.g., DEIS pages 1-11, 1-12, 12-12, 3-19, 3-23, 3-109, 5-27, 11-38, 11-57, 11-61, 12-13, 12-24, and 16-10.

I343-3 The County must produce an environmental analysis that truly evaluates the impacts and feasibility of a wastewater treatment plant at the Unocal site constructed along with co-location of the Edmonds Crossing project. In other words, it is inadequate to provide a limited evaluation of the impacts of the "lid" as a "sub-alternative." Instead, the county must assume the co-location of the sewage treatment facilities and the multimodal facility using the available information on the Edmonds Crossing project. A reissued or supplemental DEIS must then provide detailed information on whether the two projects can actually be built compatibly and what elements of each project might be eliminated or need to be significantly modified to accommodate the other. The analysis must also evaluate how the two projects could be operated concurrently, the limitations that would need to be placed on either or both projects, the impacts from such co-location, and the mitigation requirements generated as a result of such co-location.

I343-4 2. Inadequate Evaluation of Alternatives. The DEIS covers the impacts of only two alternative sites and a no-action alternative. Yet, the DEIS acknowledges that of the seven candidate sites, "four sites . . . were found to be consistent with the policy site selection criteria and feasible alternatives for future environmental review." DEIS at 2-19. The DEIS should have considered the impacts from the Point Wells alternative and the Gravel Quarry alternative in addition to the two sites evaluated.

I343-5 The claim that the Unocal Site offered "significant opportunities for intergovernmental partnerships" and provided "multimodal options" as a reason why this site "rose above the rest" appears to be disingenuous. See DEIS at 2-19. In fact, location at the Unocal site has the significant potential for disrupting, delaying or severely impacting the development of the Edmonds Crossing multimodal project at this location. As noted above, the DEIS does not adequately consider the multimodal facility as a planned use and development at this location that must be accommodated. Had King County truly considered the Unocal site as an alternative because of the importance of the site for multimodal opportunities, the DEIS should have incorporated the Edmonds Crossing project into the presumptions of the project and more clearly analyzed the treatment plant in light of the objective of providing the multimodal project at this site.

I343-6 3. Inadequate Analysis of Compatibility with Surrounding Uses and Applicable Land Use Plans and Policies. The DEIS states broadly that a treatment plant development at the Unocal site would be sufficiently compatible with established land uses in the immediate vicinity of the project and would be made as consistent as feasibly possible with pre-existing plans, policies,

Response to Comment I343-3

The Draft EIS did evaluate the potential environmental impacts associated with the co-location of the Brightwater project and the Edmonds Crossing project at the Unocal site in Chapters 3, 4, 5, 8, 10, 11, 12, 13, and 16. The impacts of this co-location and the lid sub-alternative are also evaluated in further detail in Chapters 4 through 17 of the Final EIS.

Response to -Comment I343-4

The SEPA Rules state that a proposal by a lead agency or applicant may be put forward as an objective, as several alternative means of accomplishing a goal, or as a particular or preferred course of action (WAC 197-11-060(3)). An EIS must describe the proposal, or preferred alternative if one exists, and alternative courses of action. SEPA states that alternatives must be reasonable and that "reasonable" is intended to limit the number and range of alternatives, as well as the amount of detailed analysis for each alternative. The level of detail should be tailored to the significance of environmental impacts. The EIS may discuss a range of alternatives or a few representative alternatives, rather than every possible reasonable variation. In addition, the EIS may indicate the main reasons for eliminating alternatives from detailed study (WAC 197-11-440(5)).

The process used to screen and select alternatives for consideration is described in Chapter 2 of the Final EIS. King County narrowed the number of alternatives for consideration in the EIS in order to avoid unnecessary cost and delay in conducting the environmental review and in siting and constructing the Brightwater System.

Response to Comment I343-5

Please refer to the response to the Comment I343-3 in this letter.

Response to Comment I343-6

Please refer to the response to the City of Edmonds, Comment C9-5.

King County Wastewater Treatment Division - 3 - January 21, 2003

I343-6 and guidelines in the City of Edmonds' Comprehensive Plan documents and development regulations. These pronouncements are based on non-specific assertions and very generalized, but unsubstantiated conclusions, however, and the document does not contain any meaningful supporting detail or analysis. Such detail and analysis must be set forth in the DEIS.

I343-7 The DEIS acknowledges that "a treatment plant at the Unocal site would have the greatest potential for construction and operating impacts because the site is smaller and affords less opportunity for buffers and internal landscaping, the volume of excess excavation is much greater than at the Route 9 site, and the site is a prominent location in an active and densely populated area near downtown Edmonds," and further acknowledges that the Unocal site "itself is a major landmark due to its visibility as a prominent hillside above the Point Edwards shoreline and Edmonds Marsh . . .." DEIS at 1-10 and 12-4; see also DEIS at 12-12 and 12-13, and Figures 12-20 through 12-26. Nonetheless, the DEIS goes on to assume and summarily conclude that despite the topography, size, and highly visible location of the Unocal site, the proposed treatment facility would be appropriately designed and adequately buffered from its nearby neighbors. DEIS at 1-10, 12-22, and 12-23 (see also discussion below concerning buffering of the site).

I343-8 The general evaluations in the DEIS are insufficient to support such sweeping conclusions and much more extensive and detailed review of land use, aesthetics, and design considerations is required in Chapters 11, 12, and elsewhere in the document. For example, the DEIS fails to adequately review and evaluate potential impacts on the single family residences in the Town of Woodway immediately to the south of the site or how the proposed project, in fact, can be made compatible in light of the many conflicting provisions in the City's Comprehensive Plan documents.

I343-9 Even the County's admitted need to rezone the site to "P" to allow development of a regional public facility is inconsistent with the Comprehensive Plan and would not be allowed absent significant revision of that Plan. Nowhere in the DEIS is this reality addressed in terms of the nature and extent of such amendment of the Comprehensive Plan, how this would be accomplished, timing considerations, and the impact on the County's entitlement process for its project.

I343-10 The DEIS discussion assumes or states perfunctorily that the Unocal site will be adequately buffered, that reasonable mitigation will be provided, and that the project somehow will be completed in a manner reasonably compatible with the City's long-established and currently inconsistent vision for land development in the area. See, e.g., DEIS pages 11-35, 11-36, 11-57, 11-58, 2-24, 3-19, and 12-12. While noting that the treatment plant is out of step with the City's Comprehensive Plan designation for the site, the uses envisioned by the City for the area in question as extensively described in the Downtown/Waterfront Plan, and the City's plan policies and zoning requirements for siting regional public facilities (DEIS 11-37, 38), the document concludes that the project would be designed in compliance with applicable policies, guidelines, and regulations through closely coordinated planning among the County, the City, and the City's staff and Architectural Design Board. With all due respect, this is unsupported wishful thinking on the County's part, and it ignores a multitude of issues under the City's plans and ordinances.

Response to Comment I343-7

The Unocal site would provide sufficient buffers from the nearby residences and businesses. A 50- to 75-foot setback between the treatment process units and the southern property line would provide a buffer to residents to the south; greater buffers would be provided between treatment facilities and Willow Creek. The layout of the Unocal site is shown in greater detail in Chapter 3 and Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

Response to Comment I343-8

Please refer to the response to the City of Edmonds, Comments C9-5, C9-86, and C9-89. Please refer to Chapter 11 of the Final EIS for a discussion of Brightwater's impact on adjacent land use and consistency with the plans and policies for the City of Edmonds. In addition, the impact of Brightwater on adjacent land use is evaluated as it relates to air quality, noise, aesthetics, light and glare, and transportation as discussed in Chapters 5, 10, 12, 13, and 16 of the Final EIS respectively.

Construction and operation of the Brightwater System are not expected to significantly impact the adjacent single-family residents in the City of Woodway. Air quality impacts during construction at the Unocal site relate to the emissions of contaminants present in groundwater or soil at the site. As discussed in Chapter 5 these contaminants could volatilize or disperse into the air if the soil or groundwater containing them were disturbed. Cleanup of the contamination at the Unocal site would be required prior to the construction of Brightwater. Please refer to Chapter 5 for more detail regarding site cleanup options and associated air quality impacts.

Odor impacts related to treatment plant operations are typically from hydrogen sulfide as well as ammonia, amines, and mercaptan-based compounds. The goal for odor control at the Brightwater Treatment Plant is to prevent offsite odors

from occurring by using a combination of design, operational, and maintenance practices and procedures. The Brightwater odor control system would have the highest degree of odor control equipment and strategies currently available for municipal wastewater plants in the United States. To achieve this goal, the Brightwater Treatment Plant odor control system would be designed to remove 99.99 percent of the hydrogen sulfide that is present in the process air. Any residual hydrogen sulfide emissions after treatment will be non-detectable to most noses.

Noise impacts to receptors near the Unocal site relate to construction equipment and facility operations. The kinds of noise that might be audible include the sounds of heavy earth-moving equipment, pile-driving equipment, concrete trucks, dump trucks, cranes, and other types of heavy construction equipment. Some vibration would also occur as a result of heavy construction equipment operation. The closest residence is about 130 feet south of Noise Monitoring Location 1 (NML-1) for the Unocal site shown in Chapter 10 of the Final EIS. As indicated in Chapter 10, construction activities during daytime hours on weekdays are exempt from maximum noise levels in all jurisdictions within the project area. Traffic noise on public roads is also exempt from the maximum levels. Noise levels at the nearest residences are likely to be a maximum of 81 to 83 dBA. Noise level reduction with distance could be greater depending on the effects of terrain and line-of-sight barriers such as berms, retaining walls, and buildings.

Treatment plant operations are not expected to result in an increase of existing noise levels at the nearest noise-sensitive receptors (residences and fish hatchery noise monitoring locations). Nighttime operational noise could increase the existing minimum noise levels at these receptors by up to 5 dBA, which is a perceptible increase to most people. However, the higher noise level still would not exceed the most stringent regulated levels applicable to sensitive receptors under the Edmonds Municipal Code. Treatment plant noise sources with tonal qualities, such as fans and blowers, can be designed with extra attenuation of pure tones that will mask the tone, making it more difficult to identify during nighttime hours when the ambient noise level is low.

As discussed under the Affected Environment section of Chapter 12, tall trees along the ridgeline that borders the Unocal site buffer the residential neighborhoods to the south. Outward views from these residences are primarily oriented to the west over Puget Sound. Illustrations that present a series of possible mitigation approaches to fully screen or hide the facility are included in Chapter 12 of the Final EIS.

Construction of the Brightwater Treatment Plant could cause significant temporary increases in light and glare levels during periods of construction after dark. This would occur particularly during winter months. These impacts would be limited to the construction period and would be minimized by the use of downcast lighting fixtures and other measures to shield light sources from sensitive receptors. Operation of the treatment plant would introduce new light sources to areas that presently have numerous sources of artificial illumination. Light and glare would be visible by neighbors that view the site from the north and east, at levels similar to the Unocal tank farm, which was operational until recently.

Traffic impacts associated with construction of the Brightwater Treatment Plant at the Unocal site relate to increased traffic volumes associated with earthwork and material delivery. As part of the construction effort, Pine Street would need to be realigned to maintain access to neighborhoods in the Town of Woodway. The street would be realigned to the south along the Unocal property line. Construction work for this realignment would take approximately 4 to 6 months to complete. The primary transportation access to the Unocal site would be off of SR-104 thereby minimizing potential impacts to residential streets. Few operational impacts are anticipated, as the project would result in a minimal increase in the total traffic along the routes used to access the site.

Response to Comment I343-9

Please refer to the response to the City of Edmonds, Comment C9-5.

Response to Comment I343-10

Please refer to the responses to the City of Edmonds, Comment C9-5, and to Comment I343-8 in this letter. Chapter 11 of the Final EIS acknowledges that the Unocal site would need to be rezoned to the public use (P) zone and that public uses are subject to extensive review by the City's Architectural Design Board. The minimum development standards for the public use zone are discussed in Chapter 11, as well as in Chapter 12, of the Final EIS.

King County has directed its design team for the Unocal site to apply the appropriate City of Edmonds aesthetic and community design standards to the project site and facility design. Chapter 3 of the Final EIS describes the principal features of the Unocal System. The aesthetic and visual analysis contained in Chapter 12 evaluates the type, location, general shape, height, and mass/bulk of the proposed facilities. Illustrations are provided that present a series of possible mitigation approaches that range from fully screening or hiding the facility, to partial screening and allowing some of the interior elements of the site to be visible, to fully presenting or exposing the facility as a composition of structures and process facilities.

King County Wastewater Treatment Division - 4 - January 21, 2003

The document does not discuss in detail the applicable design criteria established in the City's Community Development Code, and does not even mention, let alone evaluate, the City's Urban Design Guidelines, which are an adopted element of the Comprehensive Plan applicable to development at this site. All such applicable criteria and guidelines must be thoroughly evaluated and reviewed in connection with the County's assessment of land use and zoning issues and compatibility of the project under consideration in the DEIS. The discussion of these issues must be significantly expanded in order to form the basis for real conclusions about the feasibility and compatibility of the proposal from a land use and development perspective. I343-10

4. Relocation of Pine Street. There are several instances in the DEIS where the document simply states that Pine Street will be relocated. See, e.g., DEIS pages 3-19, 3-20, 3-21, and 16-36. Pine Street is an existing public roadway and its current location provides a route up and around a significant slope. Pine Street as it presently exists is at elevation 110 at the eastern edge of the bend and at elevation 172 at the western edge of the street after its curvature to the south. The DEIS contains no analysis of the feasibility of relocating Pine Street and does not even conceptually depict the assumed relocation. The County has failed to explain the affects of relocating Pine Street, the magnitude of the cut required, the size of the retaining wall, the slope of the relocated roadway and the impact this would have on various elements of the environment including earth, water, traffic, aesthetics, land use and vegetation. All such issues must be reviewed and assessed in detail in a supplemental or re-issued DEIS document. I343-11

As discussed below, Pine Street would be improved and upgraded and other public amenities would be provided as part of the proposed development of a portion of the Unocal site under a pending land use application for a residential condominium project that has been submitted to the City of Edmonds by Pt. Edwards LLC and is currently under review. The proposed residential development is not discussed in the DEIS. The DEIS should acknowledge the pending land use application and should take specifically into account the feasibility, impact, and cost of relocating an upgraded Pine Street and eliminating or modifying other public amenities proposed as part of the condominium project.

5. Inadequate Noise Analysis. Neither the general DEIS document nor the technical appendices provide any detailed information to justify the conclusions in the noise analysis, DEIS Chapter 10. The DEIS contains only cursory and generalized discussion of potential noise generation and reception associated with the treatment plant development as a basis for the stated conclusion that "No significant impacts associated with . . . noise are expected to affect nearby residences, businesses, or recreation uses." See DEIS at 11-43. There is no documentation of the specific noise generating sources or the expected unmitigated levels of noise from each source. There is no evaluation of the mitigating affect buildings or other measures would have to reduce noise levels. There is no modeling presented to show the means by which conclusions were drawn regarding compliance with noise standards. Without the crucial data and analysis, the evaluation and conclusions concerning noise impacts are unsupportable. I343-12

Response to Comment I343-11

Pine Street would need to be realigned in order to maintain access to the Woodway neighborhood during and after construction on the Unocal site. The street would be realigned to the south along the Unocal property line and would continue west from the intersection of SR-104. The existing curve in the roadway that extends into the Unocal site would be eliminated. Retaining walls would be constructed to stabilize the slope after excavation. The roadway section and grade requirements would be constructed to Snohomish County and the City of Edmonds roadway design standards. The relocation of Pine Street is further described in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

All proposed modifications to Pine Street and other public amenities would be undertaken in close coordination with the City of Edmonds, consistent with all applicable requirements. King County would provide appropriate mitigation for impacts directly related to the Brightwater project. The costs associated with the Pine Street relocation would be allocated during final design, and are not incorporated into this SEPA evaluation. As noted in WAC 197-11-450, a cost analysis is not required by SEPA.

Response to Comment I343-12

The statement from the Draft EIS Chapter 11 cited in this comment still applies in the Final EIS with respect to operation noise impacts. Brightwater facilities would meet the applicable jurisdiction's codes for operational noise level limits. Chapter 10 of the Final EIS includes an expanded description of specific operation noise sources and the specific mitigation methods that would be used to achieve code compliance. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-132.

King County Wastewater Treatment Division - 5 - January 21, 2003

C. Specific Comments

I343-13
- Section 1.5.3.1, Page 1-7; Section 11.32.2, Page 11-57; Section 12.3.1.1, Page 12-23. The DEIS states that (i) "This site also provides room for buffers, though they would be relatively narrow compared to those at the Route 9 site," (DEIS at 1-7), (ii) buffers would be implemented to minimize visual impacts and exposure of the treatment plant and related facilities from surrounding developed areas (DEIS at 11-57), and (iii) the project as developed would exceed standards for setbacks, screening, and buffering (DEIS at 12-23). Figure 3-8 shows major sewage treatment facilities located only 50 feet north of the southern property line, immediately adjacent to the single-family neighborhood in the Town of Woodway. Rather than use subjective terms such as "relatively narrow," the DEIS should have described the width of the buffers at each of the proposed alternative sites and compared these buffers to those at other existing treatment facilities, rather than provide the ambiguous conclusion that there would be "room for buffers," particularly when it is expressly acknowledged that the Unocal site "affords less opportunity for buffers and internal landscaping" and therefore might result in greater development and operational impacts than other candidate sites considered by the County. The DEIS should make a more detailed and thorough showing of how, where, and to what extent buffering would be utilized, and also should address in greater detail the noted tension between site conditions/restrictions, proximity of existing residential development, and buffering requirements, in the discussion of potential buffering and screening at this site.

I343-14
- Section 2.4.3.3, Page 2-24. The discussion of Factor 7 states, in regard to the concentration of essential public facilities, that "neither community proposed for a plant has an undue concentration of regional essential public facilities." The County should identify the essential public facilities in these communities, explain how the County interprets the term "undue concentration" and evaluate this term in light of the concentration of population affected by essential public facilities, not the mere number of such facilities within a jurisdiction.

I343-15
- Section 3.5.1.3, Page 3-21. In discussing the barge dock option, the relationship of the proposed barge to proposed work under the Edmonds Crossing project must be evaluated. How would timing for the Edmonds Crossing project be affected?

I343-16
- Section 3, Figure 3-8. The figure should accurately depict the proposed relocated Pine Street and show its relationship to the larger project and its key connection toward SR 104. The arrow drawn for the Realigned Pine Street fails to show how it is proposed to be relocated.

I343-17
- Section 4.1.3.1, Pages 4-10 and 4-11. The DEIS discussion of geologic hazards for the Unocal site is incomplete and inadequate, particularly in regard to steep slope hazard areas as defined in ECDC Section 20.15B.060. SSHAs are known to exist on portions of the site, but are not mentioned among the identified geologic hazards. SSHAs must be identified and discussed as part of the evaluation of site conditions, and the discussion of other geologic hazards should be expanded and made specific to this site and currently available conditions and data. It should be noted that the City's critical areas ordinance

Response to Comment I343-13

Chapter 12 has been revised to provide additional analysis and refined design concepts for both the Unocal and Route 9 sites. This includes a comparative analysis of the sites relative to aesthetics.

In addition, Chapter 12 includes a discussion of impacts and mitigation associated with proposed buffer areas. The conceptual design for the Unocal site provides for landscape buffers from 20 to 30 feet in width along the site's perimeter, including the southern boundary with the Town of Woodway. A 20-foot landscaped buffer combined with a screen wall would fully screen treatment facilities along this southern boundary.

Response to Comment I343-14

Chapter 11 of the Final EIS indicates essential public facilities (EPFs) in the vicinity of the Unocal and Route 9 sites. Please refer to the response to the City of Edmonds, Comment C9-5.

Response to Comment I343-15

The barge dock was identified in the Draft EIS as a potential measure to mitigate traffic impacts; however, it is no longer included as a proposed project element for the Unocal site and is not included in the Final EIS. It is an optional mitigation measure that could be considered to reduce traffic impacts on surface streets. Should the barge dock be reconsidered for implementation at some future time, an evaluation would be conducted on the fate of the existing Unocal dock. If the temporary barge dock were not constructed, the existing Unocal dock would not be demolished, as it would be beyond the project scope of Brightwater.

Response to Comment I343-16

Please refer to the response to Comment I343-11 in this letter.

Response to Comment I343-17

The discussion of geologic hazards, including steep slope hazard areas, is included in Chapter 4 of the Final EIS.

King County Wastewater Treatment Division - 6 - January 21, 2003

I343-17 has been revised since 1990 when much of the data referenced in the DEIS was generated. Accordingly, The DEIS must be supplemented and updated to include necessary mapping and location of all geologic hazards, including SSHAs, assessment of impacts of the proposed project on these and other critical areas on and in the immediate vicinity of the site, and recommended mitigation of adverse impacts to such critical areas attributable to the construction and operation of the treatment facilities.

I343-18
- Section 11.1.2.1, Page 11-10. As noted above, there now is a pending application for development of 295 residential condominium units and associated improvements and amenities on the upper portion of the Unocal site. The application has been made by Point Edwards, LLC, the purchaser of the that portion of the site, in coordination with the property owner, Union Oil Company of California, and in accordance with a Master Plan for the entire site and the existing MP1 zoning for the affected portion as both were approved by the City last summer. Construction of the condominium project is expected to begin by the spring or summer of 2003. The impacts of later redevelopment of the Unocal site for a sewage treatment plant should be evaluated in the DEIS. These impacts include relocation of the residences and occupants, demolition of the condominium units and related improvements, and associated pecuniary and other costs.

I343-19
- Same Page. As noted above, the discussion of the Edmonds' Downtown/Waterfront Activity Center and the Downtown/Waterfront Plan is inadequate. The detailed provisions of the Downtown/Waterfront Plan relating to development at the Point Edwards site should be discussed and the sewage treatment facility's consistency or inconsistency with the policies and criteria of that Plan should be thoroughly and comprehensively addressed. Similarly, as noted above, more detailed discussion is needed showing how the proposal relates and conforms to, or would be proposed to be made compatible with, the design criteria set out in ECDC 20.10.070 and the City's adopted Urban Design Guidelines. The discussion in the DEIS omits entirely any reference to or evaluation of the City's Urban Design Guidelines as they would apply to the proposed project and how the project would be designed in conformity with the Guidelines.

I343-20
- Section 11.2.2.1, Page 11-37. See comment above regarding Section 11.1.2.1, Page 11-10.

I343-21
- Same page. Further detail is needed to explain, analyze and justify the conclusions stated regarding Snohomish County's buildable lands report and accommodation of population and employment to meet growth targets.

I343-22
- Same Section, Page 11-38. A rezone to "P" would be facially inconsistent with the City's existing Comprehensive Plan and planning for the Unocal site and the Edmonds Crossing Project. The County should discuss this inconsistency, explain the need for a substantial amendment of the City's Comprehensive Plan in order to allow consideration of a rezone of the site to "P", and discuss the timing of the amendment process in relation to the project schedule.

Response to Comment I343-18

The discussion of impacts of the proposed development of the Unocal site was included in Chapter 11 of the Draft EIS and the Final EIS.

Response to Comment I343-19

Please refer to the responses to the City of Edmonds, Comment C9-5, and to Comments I343-8 and I343-10 in this letter.

Response to Comment I343-20

Please refer to the response to Comment I343-18 in this letter.

Response to Comment I343-21

Please refer to the response to the City of Edmonds, Comment C9-92.

Response to Comment I343-22

Please refer to the response to the City of Edmonds, Comment C9-5.

King County Wastewater Treatment Division - 7 - January 21, 2003

I343-23 • Section 11, Figure 11-1. The map contains several errors. First, it shows the Unocal Site as zoned for Commercial Waterfront. The text of the DEIS correctly explains that the zoning of the site was changed to MP1 and MP2 and should be labeled as such on this figure. Moreover, the rezone was adopted as a contract rezone in conjunction with a Master Plan that shows specific use categories for the site. The DEIS should show the Master Plan concept plans. The DEIS also should acknowledge, as pointed out in the preceding comments, the pending development application for a residential condominium project on the upper portion of the site as contemplated in the approved Master Plan for the Unocal site and the City's Comprehensive Plan documents.

I343-24

I343-25 • Section 12.2.2.2, Pages 12-12 through 12-14. There should be discussion of the specific aesthetic standards presented in the Downtown/Waterfront Plan and aesthetic/design guidelines included in the City's Urban Design Guidelines, and whether the project is consistent with those provisions. Further, there needs to be expanded discussion and explanation of the statement on page 2-12 that the proposed treatment plant would be inconsistent with four, and apparently only four, of the identified Architectural Design Review criteria contained in ECDC Section 20.10.070, and, by implication, that it would be consistent with all other design criteria. The DEIS should address each of the criteria enumerated in the ECDC, as well as the applicable guidelines for the site set out in the Urban Design Guidelines. The DEIS also should show how the proposed project meets or fails to meet each criterion/guideline, proposed mitigation of related impacts, and necessary amendment or revision of the City's adopted design standards to accommodate the County's treatment plant proposal.

I343-26 • Section 12.2.5.1, Page 12-19. This section should discuss the current remediation of the site and the post remediation grades and contours as proposed, rather than presenting only pre-remediation conditions. Here again, the pending land use application for a 295-unit residential condominium project on the upper (MP1-zoned) portion of the site should be identified, rather than a hypothetical future development, as the contemplated development and use of the site.

I343-27 • Section 12.3.1.1, Page 12-22. The DEIS merely states that the Design Review criteria specified in the City's development regulations will be "addressed", without demonstrating or discussing how this may be accomplished. That vague term does not indicate compliance and does not suggest any measure of mitigation. Instead, as noted above, the County should examine each of the criteria and discuss whether any of the criteria could be met and how such compliance might provide aesthetic mitigation. Also there are inadequate details provided to explain how these broadly suggested variations in length, relief, depth, spacing, etc., as well as "adjustments" to lower building/structure height, actually could be accomplished and how they would affect aesthetics. There should be quantification of these elements and dimensions so that there is some means by which to measure and judge the extent and effectiveness of proposed mitigation. A comparison to accepted design review standards would be a helpful means to assess how significant these proposed mitigation measures would be to provide mitigation of aesthetic impacts. These same corrections are needed in the discussion continuing on page 12-23.

Response to Comment I343-23

Chapter 11 figures showing the zoning at the Unocal site are consistent with the City of Edmonds current adopted zoning map. The specific uses as intended by the Master Plan development are described in the EIS text.

Response to Comment I343-24

Please refer to the response to the Port of Edmonds, Comment G3-40.

Response to Comment I343-25

Chapter 12 of the Draft EIS and Final EIS evaluates the design criteria contained in the City of Edmonds Urban Design Guidelines and identifies 4 of 17 design criteria that the proposed Unocal facility would impact. The other 13 design criteria, such as those directed at specific colors, materials, signs, and street furniture, as stated in the EIS, are to be addressed in more detail during the design and permitting phase of the project when this level of technical design detail is being formulated with the local permitting jurisdiction. This evaluation also includes a discussion of the Downtown/Waterfront Plan relative to the overall goals related to aesthetics (e.g., character and scale,).

Response to Comment I343-26

Chapter 12 of the Draft EIS and Final EIS identifies, analyzes, and records the affected environmental conditions and characteristics of both onsite and offsite areas based on early 2002 project information. These characterization of the existing aesthetic conditions of the Unocal site as an "industrial" and remnant "tank farm" landscape is derived from the remaining terraces, spills basins and conveyance structures visible on the sites' exposed hillside slopes and shoreline. These remnants are clearly expressive and reflective of its 70-year Unocal industrial and tank farm past. Information in this chapter of the Final EIS has been revised

to reflect the condominium proposal at the Unocal site. As indicated in Chapter 11, any new construction at the Unocal site that is not being considered as part of the Unocal System would be displaced.

Response to Comment I343-27

Please refer to the response to Comment I343-25 in this letter.

King County Wastewater Treatment Division - 8 - January 21, 2003

I343-28 • Chapter 16. This Chapter must provide much more detailed discussion of the proposed multimodal facility and the impacts of this project on that planned facility.

I343-29 • Section 16.2.3.1, Page 16-37. There is inadequate detail provided on the likely location for parking of 350 construction workers. The potential parking sites and the impacts of using such sites for the parking of 350 construction workers must be included in the analysis.

I343-30 Thank you for the opportunity to provide comments on this DEIS. As the proponent of the pending development application and a directly interested party, Point Edwards, LLC requests that it be added to the distribution list for the BrightWater EIS process and all related actions and receive copies of all documents and notices pertaining to King County's review and decision making process. Please send all such materials, documents, and notices to the address shown above, to the attention of the undersigned.

Very truly yours,
Point Edwards, LLC

Ross W. Woods

Ross Woods, agent

cc: Richard E. Gifford

Response to Comment I343-28

Please refer to the response to the Washington State Department of Transportation, Comment W2-19. Chapter 16 of the Final EIS contains more detail describing the transportation analysis and impacts to the proposed multimodal facility in Edmonds.

Response to Comment I343-29

A detailed analysis of three possible remote offsite parking locations with shuttle bus service for Unocal site construction workers and the resulting impacts is included in Chapter 16 of the Final EIS. Two of the candidate sites are within the vicinity of the Interstate 5/SR-104 Interchange. The third site is located along 236th Street SW near SR-99. The impact analysis is also included in Chapter 16. The locations of the sites and access routes between the Unocal site and these lots are identified. No existing park-and-ride locations were considered. Please refer to Appendix 16-B, Transportation Impacts: Plant Sites and Conveyance, of the Final EIS for greater detail.

Response to Comment I343-30

We have added your name to our mailing list.

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O8
RICHMOND BEACH COMMUNITY COUNCIL/ BANNISTER

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

RICHMOND BEACH
COMMUNITY COUNCIL
P.O. Box 60186 – Richmond Beach, WA 98160-0186

RECEIVED
JAN 21 2003
WASTEWATER DIVISION

January 20, 2003

SEPA Responsible Official
Environmental Planning
KSC-NR-0505
King County Wastewater Treatment Division
201 Jackson Street
Seattle, WA 98104-3588

Re: Response to Brightwater Draft EIS - [REVISED]

Dear Sir or Madam:

O8-1 This letter will respond to the information and determinations presented in the Draft Environmental Impact Statement regarding the proposed Brightwater plant. We appreciate the presentations made by Brightwater staff and have found the information helpful in evaluating the impacts to the Richmond Beach neighborhood.

O8-2 However, a comment should be made with respect to the announcement of "Preferred sites" last August, before all of the technical data had been properly digested. As a process, it seems somewhat fruitless to present an EIS, or draft in this case, if the decision has already been made. It does not seem likely that the conclusions presented in an EIS would contradict the chosen system, even when there is conflicting information showing the preferred system sites to be less desirable, and more costly when compared with alternatives. Not to mention a comparison with inexplicably dropped alternatives. Examples of conflicts between consultants's reports and determinations made in the EIS will follow.

O8-3 That being said, the Richmond Beach council is submitting its comments commensurate with the information provided, attached hereto as Sections A-H, for review and consideration by the appropriate King County officials. Not enough information has been provided yet to determine if there can be appropriate or effective mitigation, but we have provided comments on possible options. As such, we request that King County provide the Richmond Beach Community and City of Shoreline the right to review and adjust current and developing mitigation measures as subsequent phases of the Brightwater project move forward.

The issues addressed are as follows:

Response to Comment O8-1

Thank you for your comment.

Response to Comment O8-2

Please refer to the response to Lane Powell Spears Lubersky LLP, Comment O4-1. The purpose of the comment process following issuance of a Draft EIS is, in part, to address any identified inconsistencies in the document. The Brightwater Final EIS responds to comments on the Draft and corrects any identified inconsistencies. The SEPA Rules do not require the evaluation of costs in an EIS. However, cost is one of the factors that the Executive will consider when making his decision.

Response to Comment O8-3

Chapter 3 of the Final EIS provides a refined project description, a concise evaluation of significant impacts, possible mitigation, and additional information and technical data in the appendices. Please refer to the response to the City of Shoreline, Comment C6-5, for additional information regarding mitigation suggestions. For more information on how King County will work with local jurisdictions please refer to the response to The Washington Tea Party, Comment O14-329.

Response to Brightwater DEIS
January 20, 2003
Page 2

A. GROWTH PAYS FOR GROWTH/PROJECT FINANCED BY NEW HOOK-UPS

O8-4 Question: What happens when growth doesn't pay for Growth? If there are fewer new hookups than projected by the model how will Brightwater be funded? What will the new and current user rates look like?

O8-5 The projection, based upon 270,00 new hookups, suggests that the entire cost of Brightwater will be borne by these new hookups. Recently, however there has been an exponential shift in the dynamics of real estate. There are actually more people *leaving* the Puget Sound area than *moving here*. No one knows if that trend will continue. The projected 270,000 new hookups equates to approximately 1,000,000 people. On what model was this projection based? Were potential building sites actually evaluated? And was any consideration given to: the Growth Management Act's Urban Growth Boundaries; wetlands in vacant areas; stream and salmon habitat; topography (steep hills; slide areas, etc.); and municipal zoning regulations?

Of equal importance, does the model presume that the facilities to accommodate growth will be in place? We are facing a crisis on our highways with near gridlock conditions. Attempts to ameliorate this serious problem have been overwhelmingly rejected by the voters. Even a modest population increase will have a significant impact on our infrastructure.

O8-6 The DEIS does not discuss any studies conducted to arrive at growth projections. We request that King County make available the study that the 270,000 new hookups are predicated on.

B. BRIGHTWATER ECONOMIC ISSUES

O8-7 Questions: With ever increasing utility rates in electricity and water, what impact on families will result from a huge monthly sewer rate? Can fairness be achieved among user groups when establishing capacity charges and monthly sewer rates? Why are statements of projected costs and revenues in 1998 dollars, thus drastically understating the actual costs that will be the basis for calculating user rates?

The purpose of this section is to review the issues of fairness and transparency in the financing of the Brightwater project and the *Regional Wastewater Service Plan* (RWSP).

BACKGROUND
Since 1998 the Richmond Beach Community Council, the Shoreline community and City Council have been involved in analyzing the King County Executive's proposed *Regional Wastewater Service Plan* (RWSP). King County is requesting comments on a Draft EIS that relates to the final site selection process for the third sewer plant, Brightwater. The Brightwater Draft EIS contains two comments on the economic impacts and Growth Paying For Growth.

O8-8 Section 2.3 notes the Regional Wastewater Services Plan is estimated to cost $1.8 billion in 2002 dollars. Page 2-14 of Section 2.3 discusses the need for "more flexibility in applying the capacity charge so that growth pays for its appropriate share of improvements to the system."

O8-9 The EIS process addresses only environmental issues. Economic issues or fiscal impacts are not discussed in the Brightwater EIS, as per guidelines provided in State of Washington W.A.C. regulations (see WAC 197-11-148). Due to the significant fiscal impact (**$5 billion**) of the

Response to Comment O8-4

For information on how new and current facilities are financed, please refer to the response to the Richmond Beach Community Council/Girmus, Comment O7-3.

Response to Comment O8-5

The Puget Sound Regional Council (PSRC) models take into consideration occupied and vacant buildable land, as well as unbuildable lands. Please refer to the response to the City of Seattle, Comment C10-1, for information on how King County develops growth forecasts.

Response to Comment O8-6

Please refer to the response to Comment O8-5 in this letter.

Response to Comment O8-7

Cost and economic impacts are not topics analyzed under SEPA and, therefore, are not addressed in the Brightwater EIS. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

However, once a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to Brightwater construction and operational impacts. As part of the overall decision process, King County is revising the cost estimates (dated November 2002) for the Brightwater alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at

brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

The capacity charge is similar to a connection or hookup fee for newly connecting customers to King County's wastewater treatment system. The purpose of the charge is to pay for building wastewater treatment capacity to serve newly connected customers and ensures that all customers pay their share of the cost of capital improvements to provide them with wastewater treatment service. For more details on the capacity charge, please refer to the financial policies in Ordinance 13680, adopting the RWSP, and King County Code Chapter 28.86. Information on King County Wastewater Treatment Division's capacity charge program is available at http://dnr.metrokc.gov/wtd/capchrg/.

Response to Comment O8-8

Please refer to the response to Comment O8-7 in this letter.

Response to Comment O8-9

Please refer to the response to Comment O8-7 in this letter.

Response to Brightwater DEIS
January 20, 2003
Page 3

O8-9 RWSP it seems appropriate to include fiscal issues as our local comments to the Brightwater EIS. It is proposed that these fiscal issues be part of an *economic overview* provided by the Metro King County Council either as an amendment to the present EIS or in a stand alone document.

O8-10 The purpose of this draft is to discuss the adequacy of "capacity charges" and monthly Metro sewer rates to achieve the Executive's economic commitment that "Growth Pays For Growth." Capacity charges are the amounts levied against property owners for connecting to sewers that feed Metro treatment plants. Capacity charges are intended to finance capital construction. An additional connection charge is collected by "local" sewer districts.

O8-11 CURRENT CONDITIONS
The Metro King County Council on June 12, 2002 adopted Ordinance No.12353 as amended which prescribes a sewerage treatment capacity charge of $17.60 in 2003. The capacity charge amount was based on a formula that subtracts existing customer and new customer user fee revenue from total system costs, divided by the number of new customers. However, the Wastewater Treatment Division staff and in other written statements disclose that the capital costs (debt service, principle and interest payments) of Brightwater will be financed from three sources:

- New customer rate revenue;
- Five percent of existing customers rate revenue; and
- Capacity charges

O8-12 The capacity charge formula calculations are to be performed by the Metro King County Council each year prior to June 30th. The formula appears rather obscure in isolating the amount of Brightwater debt service costs; establishing rate revenues that assure the existing customers that their monthly rate only covers operating costs for existing plants; and that new customers capacity charges are based only on the Brightwater plant and related conveyance construction debt service costs.

O8-13 The characteristics of a desirable public rate setting process should contain some of the following components:

- Public process
- Assumptions of King County available to citizens
- Legislative policy accompanies adopted rate
- Objectives of project consistent with legislative policy
- Historical and projected revenue provided
- Formula cost or revenue drivers available
- Method of costing is consistent between project segments
- Actual costs in addition to net present value method is available
- Total project costs including debt service is presented
- Long range projections of revenue and costs are presented

O8-14 CONCERNS
The Regional Wastewater Service Plan has at times presented a challenge to citizens attempting to analyze the proposal. The data contained in the public documents is not consistent. Growth projections were originally projected to be one million. These estimates were reduced in half

Response to Comment O8-10

Please refer to the response to Comment O8-7 in this letter.

Response to Comment O8-11

Please refer to the response to Comment O8-7 in this letter, for more information on capacity charges. For information on how new and current facilities are financed, please refer to the response to the Richmond Beach Community Council/Girmus, Comment O7-3.

Response to Comment O8-12

Please refer to the response to Comment O8-7 in this letter for more information on capacity charges. For information on how new and current facilities are financed, please refer to the response to the Richmond Beach Community Council/Girmus, Comment O7-3.

Response to Comment O8-13

King County incorporates most, if not all, of these components in its rate setting process.

Response to Comment O8-14

King County uses population and employment forecasts from the Puget Sound Regional Council (PSRC), measured wastewater flow at its facilities and modeling to more accurately determine wastewater flow in the future. As these values and flow projections adjust, King County's growth forecasts are also adjusted to ensure that decisions and policies are made with the most accurate data possible. More information on growth forecasts and how wastewater flow projections are developed can be found in the response to the City of Seattle, Comment C10-1.

Response to Brightwater DEIS
January 20, 2003
Page 4

O8-14 when the Executive presented the Preferred plan. Corresponding reductions in sewer liquid (mgd) volumes also occurred.

O8-15 It never has been clear whether the original growth projections were based on population or Residential Customer Equivalent (RCE) numbers. [One RCE (750 cubic feet) represents the average amount of water a single-family residence would generate in one month.] When measuring rate impact for individual subscribers, there are substantial differences in using population rather than RCE. For instance the current growth projections between 2005 and 2035 project 272,000 new RCES. Currently it is estimated there are 702,580 RCE equivalents in 2002. Population growth rate would be at least twice the RCE estimates.

O8-16 The King County Wastewater Treatment Division currently estimates that: "the capacity charge needs to generate $403 million in revenue (1998 dollars, without inflation), which in conjunction with $551million in rate revenues (1998 dollars without inflation) will meet the policy of providing 95% of growth related costs incurred during the 30 year period ending in 2030." The Division has indicated that the numbers will be updated in 2003. If the new customers rate revenue is used to finance new Brightwater construction, all operating costs of Brightwater will be charged to existing customers, greatly inflating present monthly rates. This policy does not meet the Executive's commitment to the public that "Growth Pays For Growth."

O8-17 The following Table "Adequacy of Proposed Capacity Charges Rates" displays the three rates discussed in present King County documents. The highest rate in column four of $46.50/ month covers only 57% of total Brightwater new plant and conveyance construction, **not 95%**. None of the King County rates meet the Executive's commitment that Growth Pays for Growth. The rate in the 5th column, $81.70 /month, would pay for growth but could impose an extreme burden on households. Consequently a more updated capacity charge collection process must be considered by the Metro King County Council for funding Brightwater. New construction (developers) should be assessed a one-time fee that recovers their prorated share of the Brightwater debt service costs.

ADEQUACY OF PROPOSED CAPACITY CHARGE RATES
(Only Brightwater Plant and Conveyance System Costs)

Description	*BW Current Legislation*	*BW Proposed 10 Year Update @ 3%/yr*	*BW 11/6/02 Estimate*	*"Growth Pays For Growth"*
BW Construction Costs	2. billion	2 billion	2 billion	2 billion
Debit Service Interest	2.1 billion	2.1 billion	2.1 billion	2.1
Total BW Capital Costs	**4.1 billion**	**4.1 billion**	**4.1 billion**	**4.1 billion**
Capacity Charge (monthly)	*$17.60*	*$22.31*	*$46.50*	*$81.70*
15 year Recovery	$3,168	$4,016	$8,370	$14,706
% of Total Capital Cost	22%	27%	57%	100%
Total Capacity Charge Revenue	.8 billion	1.1 billion	2.2 billion	4 billion
Capacity Charge Short-Fall	**3.3 billion**	**3 billion**	**1.9 billion**	**NONE**

Response to Comment O8-15

King County does not base wastewater projections on Residential Customer Equivalents (RCE), which are more commonly used to determine revenues. Please refer to the response to Comment O8-14 in this letter, and the response to the City of Seattle, Comment C10-1, for more information on how King County develops growth forecasts and flow projections.

Response to Comment O8-16

Please refer to the response to Comment O8-7 in this letter for more information on capacity charges. For information on how new and current facilities are financed, please refer to the response to the Richmond Beach Community Council/Girmus, Comment O7-3.

Response to Comment O8-17

Please refer to the response to Comment O8-7 in this letter for more information on capacity charges. For information on how new and current facilities are financed, please refer to the response to the Richmond Beach Community Council/Girmus, Comment O7-3.

Response to Brightwater DEIS
January 20, 2003
Page 5

O8-17 **Capacity charges in the current estimates are forecasted to cover only 57% of new construction costs for Brightwater, not 95%. An additional $2 billion of debt service costs are not reflected in these estimates.**

O8-18 REALISTIC COST ESTIMATING
As mentioned before, the expenditure and revenue estimates do not appear realistic considering the size and complexity of the Regional Wastewater Service Plan. Only a portion of total costs was included in recent projections. The public cannot intelligently measure the fiscal impact unless the County presents all actual costs. A more recent update of Brightwater capital costs to a 2002 basis is double the 1998 figure. The County has never recognized the existence of debt service costs from the sale of 35-year revenue and general obligation bonds. Interest expense on the bonds could equal or exceed construction costs.

The continued statement of costs and revenues in 1998 dollars drastically understates the actual costs, which will be the basis for calculating user rates.

Other costs that have not been considered in a total cost approach are the following:

- Addition to Renton Plant
- Combined Sewer Overflows
- Inflow and Infiltration
- Biosolids
- Water Reuse
- Annual Inflationary Cost Increases to Construction

Including these items would result in a conservative estimate of construction and other costs, before bond interest, of more than $2.5 billion. When bonding interest is added, the total cost of the Executive's Regional Wastewater Service Plan could exceed $5 billion. **Brightwater's share could run to 4.1 billion**. These dollars if not recovered in capacity charges will automatically fall into the existing customer monthly RCE rate.

O8-19 RECOMMENDATION
The state guidelines for EIS preparation do not require an economic overview. However, the significant total cost of the RWSP in billions of dollars should raise a question whether there is a further obligation of King County Council to more adequately inform the public. They should be afforded an opportunity, through a complete *economic overview*, to measure the feasibility of the tremendous new rate burden and inadequacy of the proposed capacity charge policy.

C. Transportation And Safety

O8-20 O8-21 O8-22 Questions: When will timeline appropriate transportation studies be provided? Where are the impact studies pertaining to non-arterial streets where construction trucks are expected to be 10% of all traffic? What concessions will be made so that small residential neighborhoods will not be destroyed by construction traffic? Where is the Safety Factor?

O8-23 Studying the transportation patterns in the Brightwater System communities should serve two purposes: moving construction traffic Efficiently and Safely. Because the Brightwater project

Response to Comment O8-18

For more information on how new and current facilities are financed, please refer to the response to the Richmond Beach Community Council/Girmus, Comment O7-3.

Response to Comment O8-19

For more information on cost and economic impacts, please refer to the response to Comment O8-7 in this letter. Comments and concerns regarding financing are important and are being addressed separately by the King County Executive and Regional Water Quality Committee as part of updating the Regional Wastewater Services Plan.

Response to Comment O8-20

The Draft EIS analysis assumed all portal sites would be under construction at the same time. This effectively established a worst-case scenario for portal site construction traffic impacts. Additional detailed analyses of construction traffic related to specific portal locations have been included in Chapter 16 of the Final EIS and construction traffic routes and traffic impacts were identified. The current proposed construction schedule would be from 2005 to 2009. Please refer to Appendix 3-G, Construction Approach and Schedule, regarding schedule and sequence of construction. Refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, for greater detail. Based on peak construction periods for portal construction, the detailed analyses of construction traffic used 2007.

Response to Comment O8-21

Additional detailed analyses of construction traffic related to specific portal locations, including impacts to arterial streets, have been included in Chapter 16 of the Final EIS and construction traffic routes and traffic impacts have been identified. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, for greater detail.

Response to Comment O8-22

A traffic management plan (TMP) has been identified in the Final EIS that includes specific mitigation measures that would reduce traffic impacts along construction access routes and through small residential neighborhoods. The TMP includes safety measures, which would take the “Safety Factor” into account. Please refer to Chapter 16 of the Final EIS for more detail.

Response to Comment O8-23

Please refer to the response to Comment O8-22 in this letter.

Response to Brightwater DEIS
January 20, 2003
Page 6

O8-23 will be constructed throughout communities, careful consideration should be given to routes and methods with the least impact on the small, non-arterial communities. The traffic analyses provided in the DEIS were lacking any detail in construction routes through the western portion of the 195th Street corridor. And further, the analyses provided were for the years 2010 and 2040. This is woefully inadequate considering the conveyance construction is slated to start in 2004. We request that appropriate traffic analysis and planned construction routes be detailed on or before the final EIS.

O8-24

O8-25

Worker trips and construction trucks trips varied by table in the DEIS. More accurate trip information (how many workers, 24 hour shifts or 12 hour shifts), truck hauling information (lessened by the use of barge/rail) should be provided for the communities to assess potential impacts. Also lacking was impact analysis of concurrently constructing two portals and an outfall in a neighborhood that shares one road out (i.e. Richmond Beach).

O8-26

O8-27

Safety was never a considered Factor for determining conveyance routes, but it should be a top consideration when implementing construction plans for portals 19, 22, 23. The Richmond Beach community is made up of narrow roads, substantial foot traffic, and very few sidewalks on residential streets. The majority of the roads, Richmond Beach Drive in particular, were not designed to be used for anything other than a residential community. Chapter 16, DEIS, p.46 states "In addition, truck operations would be incompatible with land uses and general activities along the truck routes." Yet, the DEIS indicates that construction trucks will leave the portal at Pt. Wells approx. every 5 minutes, in effect, sharing the narrow, sidewalk-less roads with school children, dog walkers, recreationalists. Richmond Beach Road is most dangerous by the Metro Pump Station, with no shoulder, blind corners, and poor lighting. Safety should be a top priority when it comes to potential mitigation. Richmond Beach road is the only road to service the community in emergency situations for fire, police or ambulance needs. It is important that it remain accessible as well as safe.

O8-28

O8-29

If Pt. Wells remains the chosen portal site, then safety should dictate alternative methods of debris removal and construction hauling. Debris should be removed in covered hauls by using rail and/or barge. If that does not become feasible, then alternative road access should be constructed to provide the Richmond Beach community traffic relief, especially since the portals and the outfall construction will occur in the same small community, thus multiplying the impacts. Chapter 16.4.2.1 states "construction vehicle access to portal siting areas for the Route 9 alternative will be disruptive and incompatible with local neighborhood streets." The old Haberlein Road through the town of Woodway could be re-opened for construction purposes. A barge dock is being considered for construction at the Unocal site; one should be considered for portal and outfall construction at the Pt. Wells/Chevron facility. If none of these mitigation measures can be accomplished, then a different location should be considered for the portals and the outfall.

O8-30

O8-31

O8-32

O8-33

Table 16-10 shows the serious degradation of traffic at these major intersections on 205th, the study calls the delays "unacceptable". This poses a serious problem throughout Shoreline, as the lack of east-west streets removes the option of detour routes within a distance of 30 blocks from the 205th Street congestion. Construction delays surrounding the I-5 on and off ramps and the Aurora Village shopping center (home to Home Depot, Costco, etc.) would cause economic hardships on the City of Shoreline, as these are a major sales tax source.

O8-34

O8-35

Response to Comment O8-24

Please refer to the response to Comments O8-20 and O8-21 in this letter. The traffic analysis for the Route 9-195th Street conveyance route has been revised to represent the peak construction traffic condition that is expected to occur in 2007. It includes the western portion of this corridor. The analyses of operating conditions of the treatment plant would remain at 2010 and 2040.

Response to Comment O8-25

Please refer to the response to Comment O8-21 in this letter.

A more detailed local Traffic Management Plan (TMP) addressing very specific mitigation measures would be prepared for all jurisdictions affected by construction and is included as a mitigation measure in the Final EIS. This plan would include time-of-day restrictions, necessary improvements to the roadway network, types of closures, pedestrian and bicycle detours, traffic routing/circulation management, and traffic control measures for safety on the affected roadways. These measures would be finalized by King County and would be coordinated with affected jurisdictions during permitting. In addition, the TMP would include a plan for monitoring and restoration of streets to pre-existing conditions, access for emergency services, and safe access for pedestrians and bicyclists, and would direct the movement of employees, equipment, and materials to reduce impacts along project traffic corridors. Final plan approval would be coordinated with the affected local jurisdictions. All roadways and non-motorized facilities impacted by the development of the Brightwater project would be restored to pre-existing or better conditions. King County would work with each local jurisdiction to determine the method that would be used to inventory street conditions prior to construction and the level of improvements for restoration during the permitting process. Construction truck access

routes through the City of Shoreline would be identified and approved through the local permitting process.

Response to Comment O8-26

Tables in Chapter 16 of the Final EIS showing construction worker and truck trips have been completed for each treatment plant and portal site. The rail and barge options have been removed from consideration. All concrete and materials would be transported by single-unit trucks and all earthwork by double-unit truck-and-trailers. Construction work between single (8-hour) and double (16-hour) shifts is expected depending on the type of activity. Also, work weeks are expected to be either five or six days in length depending on the controlling jurisdiction's requirements. Work schedules would be finalized during the local permitting process. Please refer to Appendix 3-G, Construction Approach and Schedule, of the Final EIS for greater detail on construction work activities and schedules.

Response to Comment O8-27

Only one portal site at Portal Siting Area 19 would be constructed with the outfall, not two. Impacts were evaluated for the proposed single portal and impacts from outfall construction were included in this analysis. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for greater detail on construction impacts and construction access routes.

Response to Comment O8-28

Portal Siting Areas 22 and 23 are secondary portals and few project construction trips are expected to travel on 244th/205th past SR-99 because construction activity would be concentrated at the primary portals. The secondary portals, if required, would generate an average of three trucks per day, and would not affect peak-hour traffic operations.

Safety is a top priority for the Brightwater project. Adequate safety measures will be incorporated into construction plans.

A traffic plan addressing mitigation measures would be prepared for all agencies affected by construction and is included as a mitigation measure in the Final EIS. This plan would include time-of-day restrictions, necessary improvements to the roadway network, types of closures, pedestrian and bicycle detours, traffic routing/circulation management and traffic control measures for safety on the affected roadways. These measures would be finalized by King County and would be coordinated with affected agencies during permitting. The Traffic Management Plan (TMP) would include a plan for monitoring and restoration of streets to pre-existing conditions, access for emergency services, and safe access for pedestrians and bicyclists, and would direct the movement of employees, equipment, and materials to reduce impacts along project traffic corridors. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for greater detail on construction impacts and mitigation measures.

Response to Comment O8-29

Please refer to the response to Comment O8-28 in this letter. Emergency vehicle access on Richmond Beach Road would be maintained at all times during all construction phases of the Brightwater project. No access modifications or detour routes would be required for emergency vehicles. Please refer to Chapter 16 of the Final EIS.

Response to Comment O8-30

Please refer to the response to Comment O8-28 in this letter. All concrete and materials would be transported by single-unit trucks and all earthwork by double-unit truck-and-trailers. Although, King County is evaluating the possibility of barge access to the Portal Siting Area (PSA) 19 site for transport of construction materials and earthwork spoils. Alternative road access would not be constructed for access to PSA 19. Re-opening Haberlein Road is not possible because of the steep grade of the roadway and extending 205th is not possible because of topographic constraints. Scheduling the construction of the outfall and PSA 19 at different times to reduce impacts to the Richmond Beach area would be possible.

Response to Comment O8-31

Please refer to the response to Comment O8-28 in this letter. Re-opening Haberlein Road has been removed from consideration due to the steep grades of the roadway.

Response to Comment O8-32

A barge dock is no longer being proposed. If a dock is required, supplemental analysis will be completed. The existing barge dock at Point Wells could be potentially used for construction.

Response to Comment O8-33

Please refer to the response to City of Shoreline, Comment C6-5, regarding mitigation suggestions and Chapter 14 of the Final EIS for updated information regarding possible impacts and mitigation at the portal and outfall locations.

Response to Comment O8-34

Updated intersection and segment PM peak-hour levels-of-service can be found in Chapter 16 of the Final EIS. Intersections on 244th/205th currently operate at acceptable conditions according to the controlling jurisdiction's (City of Shoreline and WSDOT) level-of-service standards. Level-of-service standards are created by each jurisdiction and it is these standards that determine acceptability. Future growth in background traffic, not Brightwater project traffic, causes congested but acceptable conditions at intersections on 244th/205th. If an intersection were to operate at a level-of-service in excess of the jurisdiction's LOS standard, then resolution of the condition would be determined by the responsible jurisdiction. Please refer to Chapter 16 for more details on level-of-service by jurisdiction and mitigation measures.

Response to Comment O8-35

King County will be working with local jurisdictions on permitting issues in their communities and will be implementing traffic mitigation measures as required by the appropriate jurisdictions.

Response to Brightwater DEIS
January 20, 2003
Page 7

D. CONVEYANCE CORRIDOR - 195TH STREET

O8-36 O8-37 O8-38 Question: Why is the 195th Street Corridor the preferred alternative? How will Richmond Beach residents be compensated for the taking of their property? How will easements be obtained? When will a complete inventory be done on Richmond Beach waterways?

O8-39 The DEIS seems to focus on outfall zone 7S (Pt. Wells), and thus all corridor studies are in concert with that outfall. Page 19, *PRE-DEIS Conveyance Evaluation Summary* states "Route 9 plant effluent conveyance route could connect to any of the 3 zones." No reason was given for not considering a 228th Street Corridor to an outfall at Zone 6 (Edmonds), when independently, both corridor and outfall have favorable analyses. This gives the appearance that the announcement of a "Preferred system" is dictating the determinations in the DEIS, rather than the facts determining the outcome.

O8-40 The corridors should be chosen on a factual and cost-benefit analysis, not because it sounds fair to distribute impacts of the Brightwater project to both counties. The shortest distance between two points is always a straight line, and that should be heeded in the conveyance route. The 228th corridor shows bigger lots with more open usable space, while 195th street corridor has more critical areas, particularly to the west, and very densely populated neighborhoods. Table 3.8 of the DEIS summarizes the constrictions of building several of the portals on the 195th Street corridor. No such restrictions were listed for the 228th Street corridor.

O8-41 The 195th Street corridor has distinct characteristics that make it a poorer choice than 228th Street corridor, particularly when you consider a better outfall location than 7S (to be discussed next). Page 25 of the *Phase 3 PRE-DEIS Conveyance Evaluation Summary* shows the 195th Street corridor to require about 13 more acres of land acquisition, at least 6 more wetland crossings, and 4 more stream crossing, than the 228th Street corridor. This assumes that all of the wetlands and streams are known.

O8-42 There are at least two significant creeks that cross Richmond Beach Drive underground near Pt. Wells and daylight east of the BNSF tracks, that King County has not identified or documented. The southernmost of the two flows into a sizeable wetland. A survey should be done on all waterways and wetlands in the community.

O8-43 Construction sites that need dewatering should be identified in the EIS along with an estimate of volume to be pumped, so proper mitigation can be evaluated.

O8-44 The listed impacts of corridor construction were too general and broad for any meaningful analysis. Presumably the impacts will be different for areas where tunneling is 200' deep from areas where tunneling can only be 50', due to high water tables, rocky terrain, etc. The Draft EIS, being an overview and general, is consequently difficult to comment on in regard to specific impacts. For example, while Chapter 16 identifies specific construction corridors, Chapter 3 states that the pipeline/tunnel alignment corridors represent a 1,000 foot wide path. Additionally, portal locations are referenced by intersection, and would generally be two acres in size. However, per Chapter 3, the final two-acre site could vary in size - up to four acres for Portal 19 - and would be located somewhere within a larger undefined 72-acre circle, the center of which is the approximate street intersection(s) noted. This means the actual portal location for a two-

Response to Comment O8-36

Although the 195th Street corridor was designated as the preferred corridor, both the 195th and 228th Street corridors are being carried forward into the Final EIS. Alignment corridors are evaluated on a number of criteria, including engineering, environmental, community, and land factors. The 195th Street corridor does have the advantage of providing more opportunity for combining influent and effluent pipelines into one tunnel. The 195th Street corridor is also more of a direct alignment to the preferred outfall location.

Response to Comment O8-37

There are two types of property that will be needed for the Brightwater conveyance system: acquisition of 1 to 2 acres for the construction of each portal site, and underground easements along the pipeline/conveyance line.

Acquisition of any portal site property involves a written offer of "just compensation" from the King County Wastewater Treatment Division (WTD) to the property owner. The value is determined by an independent real estate appraiser based on fair market value. Each appraisal report is also reviewed by an independent review appraiser to assure that appraisal standards are met. The property owner will be provided opportunity to consider and respond to the offer. Once an agreement is reached and the purchase and sale agreement is signed, the property owner will be paid when ownership transfers at the close of escrow.

Along the conveyance alignment where King County will be using tunnel boring machines, surface property impacts would be minimal. Nonetheless, King County will be obtaining underground easements. For properties directly above where the tunnel would be located, property owners will receive an offer of "just compensation" for the determined impacts from WTD. The subsurface value is determined by an independent real estate appraiser and is also

reviewed by an independent review appraiser. Once an agreement is reached, legal documents (which detail the rights and responsibilities of both parties) are drafted, reviewed, signed, and recorded. After completion, the property owner is paid accordingly. Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation Web site at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

Response to Comment O8-38

Chapters 6 and 7 of the Final EIS include more detailed evaluations of potential impacts to waterways from construction and operation of the treatment plant sites and portals. Consistent with SEPA, the inventory information in the EIS focuses on those known waterways that would be impacted during construction and operation. Inventory information for portal sites was obtained from available documentation and databases, while streams on treatment plant sites have been qualitatively evaluated in the field. The level of detail provided in the EIS is intended to provide enough information to allow a meaningful comparison of potential impacts for decision makers. During the permitting process, King County will work with applicable local, state, and federal permitting agencies to conduct the necessary field surveys for permits and approvals. At that time, any small waterways not currently mapped will be identified and the characteristics of potentially impacted waterways evaluated in greater detail.

Response to Comment O8-39

Although the 195th Street corridor was designated as the preferred corridor both 195th and 228th Street corridors are being carried forward into the Final EIS. Alignment corridors are evaluated and compared using a number of criteria, including engineering, environmental, community, and land factors. The 195th Street corridor does have the advantage of providing more opportunity for combining influent and effluent pipelines into one tunnel. Although the 228th Street corridor can access outfall site 7S, the 195th Street corridor is a more direct alignment to the preferred outfall location although it would be possible to connect the 228t Street corridors to outfall Zone 6 as well. The more detailed conveyance screening documentation is shown in Appendices 2-B, Portal Screening Level 1 and 2 Documentation, and 2-C, Portal 19 Screening Level 3 Documentation, of the Final EIS.

Response to Comment O8-40

Cost is considered as one of the factors in developing alternative alignments. To further reduce construction impacts, tunnel drive lengths have been extended and Portal Siting Areas 23 and 45 mentioned in Table 3-8 of the Draft EIS as having “greatest disruption” have been re-classified as secondary portals. As they are secondary portals, it is less likely that significant construction would be associated with these portal siting areas. The 195th Street corridor does have the advantage of combining the eastern sections of influent and effluent pipelines into one tunnel. As a result, the 195th Street alternative has only five primary portals, versus seven primary portals for the 228th Street corridor. The more detailed conveyance screening documentation is shown in Appendices 2-B, Portal Screening Level 1 and 2 Documentation, and 2-C, Portal 19 Screening Level 3 Documentation, of the Final EIS.

Response to Comment O8-41

Parts of the proposed tunnel alignments have been significantly revised since the preparation of the *Phase 3 Pre-DEIS Conveyance Evaluation Summary* (King County, 2002) referenced in your comment. The revised proposed Route 9-195th Street System now includes common tunnels for the two of the easternmost 195th Street influent and effluent conveyance segments. The numbers of primary portals for the Route 9-195th Street System has been reduced to five versus seven for the Route 9-228th Street System. Therefore, the 195th Street corridor will now likely require less land acquisition than the 228th Street corridor. Wetlands and streams will be crossed using tunneling methods and fewer portals will reduce the potential impacts to surface streams and wetlands. Both of the updated 195th and 228th Street conveyance systems are being evaluated and compared in the Final EIS.

Response to Comment O8-42

Please refer to the response to Comment O8-38 in this letter.

Response to Comment O8-43

Please refer to the response to the Washington State Department of Ecology, Comments W5-9, W5-15 and W5-40. Additional detail is provided in Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O8-44

Chapter 3 of the Final EIS describes the location of the candidate parcels within each portal siting area. Please refer to this chapter for the information.

Response to Brightwater DEIS
January 20, 2003
Page 8

O8-44 acre site could be approximately 1,000 feet +/- from the referenced intersection. More precise details should be provided in the EIS for meaningful review.

O8-45 The DEIS fails to spell out the process of securing private property for construction sites, obtaining easements for tunneling rights, or any mediation or appeal rights a property owner may have. Fair offers need to be made and careful consideration should be given to a fair process that does not create any more undue burden, economic or otherwise, on residents in the targeted areas.

O8-46 O8-47 Construction hauls from the conveyance corridor should be covered to protect persons and properties along the truck route. Other mitigation requests will be forthcoming to address noise, dust, pollution from generators, road closures, traffic and transit disruption as subsequent phases of the Brightwater project move forward.

E. OUTFALL

O8-48 O8-49 Questions: Why is King County considering involvement at Pt. Wells for both a construction portal (19) and outfall zone (7S) when the property had been red-flagged by the EPA? Why is Zone 7S the target outfall when 6 seems viable, without all of the contamination considerations? Why did Zone 7N get dropped from the DEIS, when the consultant's reports showed it a viable, non-invasive option?

O8-50 The Chevron asphalt plant that has been operating at Pt. Wells for several decades and is listed in the CERCLIS-NFAP database, see Table 3, Technical Appendix, *Preliminary Hazardous Materials and Waste Assessment*. The property is also on several EPA "watch" lists, including Washington State's Confirmed and Suspected Contaminated Sites List (CSCSL), *Appendix B*. This information was not detailed in the DEIS and the risks of digging up to 4 acres on the Pt. Wells property were not addressed. No comments were made in the DEIS on the disposal of all of these contaminated spoils.

O8-51 With all of these contamination designations applying to the Chevron site: **CSCSL, CERCLIS-NFAP, FINDS, UST, GNRTR, ERNS, LUST,** how can the author of the *Preliminary Hazardous Materials Waste Technical Memorandum*, (Page 3) say with confidence that "... there is low potential of encountering large or persistent contaminated sites."?

O8-52 And why does King County refer by name to contaminated sites that are in the Unocal system (which is not the preferred system), but omits the name "Chevron" (which happens to be the "Preferred" outfall site) from the discussion of the CSCSL sites in the DEIS? King County simply refers to the "one site awaiting assessment", page 4-26, DEIS, without any specificity.

O8-53 The hazards have been downplayed in the EIS, and for the most part, ignored. Specific information was laid out on Page 4-13 of the DEIS regarding the contamination and required phases of cleanup of the Unocal site. It is safe to assume that since similar operations were occurring at Unocal, the magnitude of contamination, contaminated materials and remedial cleanup action required would be similar on the Chevron/Pt. Wells property. Yet, King County has totally avoided any conversation about those similarities and has not addressed the contamination occurring at the "Preferred" Outfall and Portal site, Pt. Wells.

Response to Comment O8-45

Please refer to the response to Comment O8-37 in this letter.

Response to Comment O8-46

The request to require covers for trucks hauling conveyance related equipment or soils is noted. Specific requirements for trucking would be developed as part of the permitting process through the City of Shoreline, depending on which alternative is selected.

Response to Comment O8-47

Please refer to the response to City of Shoreline, Comment C6-5, regarding mitigation suggestions and Chapter 16 of the Final EIS for updated information regarding possible impacts and mitigation.

Response to Comment O8-48

The Chevron facility located at Point Wells is a Model Toxics Control Act site due to contamination of the groundwater. While the potential presence of hazardous wastes presents a consideration in construction planning and methodology, it is not a factor that in any way prohibits the safe construction of Brightwater facilities. Additionally, it is likely that the construction of the Brightwater facilities would remove some of the contaminated materials out of the environment.

Response to Comment O8-49

The pairing of the treatment plant site alternatives with marine outfall zones was based on a variety of scientific, engineering, and cost considerations. For the Route 9 alternatives, Zone 7S represents the recommended outfall zone largely because it entails a shorter conveyance system than would be needed to travel to Zone 6 and because construction of Portal 19 would have substantially less community impacts at Point Wells than at Edwards Point. In addition, a marine outfall in Zone 7S would have a shorter

nearshore segment than in Zone 6, which limits impacts to the sensitive nearshore, and there is a lower intensity use of the shoreline in Zone 7S relative to Zone 6.

For the Unocal System, the added costs of conveying the treated effluent to Zone 7S, and the associated impacts of this conveyance, is not justified by differences in nearshore segment lengths or public use of the shoreline. Conveyance of the treated effluent from the Unocal site to Zone 7S would entail construction of a tunnel, with a tunnel shaft at Point Wells that would not be required if the treated effluent were discharged at Edwards Point in Zone 6.

Zone 7N was dropped from consideration because the extensive eelgrass beds limited the nearshore construction methods to tunneling. The risks associated with tunneling make it likely that a portal would need to be constructed in the existing eelgrass beds, severely impacting this sensitive habitat.

Response to Comment O8-50

King County agrees that conveyance construction at the Chevron property could encounter contaminated soils, sediment, or groundwater, and that additional investigations and evaluations are needed to reduce any risks associated with the contamination. Most of the detailed investigations would be undertaken during the design phase, after the King County Executive has selected an alternative. In the interim, preliminary discussions are underway between King County and Chevron regarding site conditions, and several geotechnical borings were drilled in mid-summer. Specific comments on the disposal of contaminated “spoils”, groundwater, or sediment are therefore premature, as are specifics for construction mitigation. However, King County will continue to work closely with Chevron, if either of the Route 9 System alternatives is selected, to minimize the potential for encountering contamination. It may even be possible to achieve some of the site cleanup through conveyance construction. Ecology would be involved in any discussions and negotiations related to the site. More information on the Chevron property is now included in Chapter 4 and Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O8-51

Please refer to the response to Comment O8-50 in this letter.

Response to Comment O8-52

Chevron is now referred to specifically in the Final EIS and in Appendix 6-B, Geology and Groundwater.

Response to Comment O8-53

Please refer to the response to Comment O8-50 in this letter.

Response to Brightwater DEIS
January 20, 2003
Page 9

O8-53 It would seem King County is trying NOT to draw attention to the fact that Chevron is a CSCSL property. King County and the EIS process should address the very real possibilities of expensive cleanup and the significant risks to the neighboring community, workers, and wildlife and the environment. Certain contamination assumptions could fairly be made based on the Unocal findings. Turbidity and construction may release hazardous materials into the environs, and the contaminated debris would require special handling. The dewatering that would be required because of the high water table would be of contaminated water.

O8-54 These exorbitant costs need to be factored into the budding project costs, as well as extra mitigation necessary to minimize impact of local contaminates. And adequate information should be given to the public for a fair analysis of contamination risks and costs associated with the "Preferred" outfall site.

O8-55 Outfall Zone 7N (Woodway) was left out of the evaluation process, even though it qualified on the bathymetric standards. A 228th Street corridor could keep moving in a straight line, westerly, until it reaches Zone 7N. This alternative was never discussed in the DEIS and no explanation was given as to why it was dropped from consideration. The preferred deep tunnel method would work best for Zone 7N, even though the outfall construction would take a little longer due to the longer stretch of shallow water. However, this outfall would require less property acquisition if a offshore access portal is used, and less contamination to cleanup, and the straight line, 228th Street conveyance route, has some benefits over the other considered options.

O8-56 Boulders were found at Zone 7S, page 56, *Marine Outfall Conceptual Design Report* but yet it is still the preferred outfall zone, even though, page 55, *Marine Outfall Conceptual Design Report* states "Therefore, it is critical to assess the probability of encountering boulders... …areas with a high probability of encountering cobbles and boulders **should be avoided**." (emphasis added).

O8-57 Any dechlorination plant at Pt. Wells, should be underground. The information provided in the DEIS was mixed on the proposed, and then required, dechlorination facility. It was not clear when a determination of the need for the facility would be made, but it was clear that portal 19, Pt. Wells, was the target for the housing of the facility. Once the need for this facility is verified (and its location at Pt. Wells), significant mitigation will be necessary to cover operating sounds, auxiliary lighting, additional traffic needed to supply and maintain the facility.

O8-58 Lacking in the DEIS was the fact that the beach area to the south of Pt. Wells is privately owned. Also lacking was the understanding that the stretch of beach from the Chevron facility south to the pump station is very heavily used, and very popular on days of low tide. Even though there is currently no public beach access near Pt. Wells, beach walkers, sailboarders, windsurfers, fishermen, etc. make their way down the slope to enjoy the pristine shoreline. An outfall at 7S would negatively impact the ongoing recreational activities. If 7S remains the selected site, then mitigation should be commensurate with the loss of activity.

Response to Comment O8-54

For more information on cost and economic impacts, please refer to the response to Comment O8-7 in this letter. For updated analysis on contamination risks associated with the preferred outfall site, please refer to Chapters 6 and Appendix 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System, of the Final EIS.

Response to Comment O8-55

Outfall Zone 7N was dropped from consideration because of the high potential for impacts to the extensive eelgrass beds in the nearshore area and because of the costs and risks associated with tunneling that distance under Puget Sound. The preferred alignment at Point Wells offers the best opportunity to construct the outfall. The narrow shelf, limited eelgrass, and industrial site onshore offer the best opportunity to cross the nearshore environment with minimal impact to the biology of Puget Sound and surrounding communities.

Response to Comment O8-56

The evidence for boulders located at Zone 7S was confined to the northern area. This region is no longer under consideration due to the inadequate dilution associated with the shallow diffuser location. The preferred alignment at Zone 7S in the Final EIS is located south of evidence of boulders.

Response to Comment O8-57

The dechlorination facility for the Route 9 effluent conveyance system would be located at Portal 5. The dechlorination facility would likely be aboveground, but noise, light and traffic mitigation would be included in the design and operation of the facility in accordance with all applicable permitting requirements.

Response to Comment O8-58

Construction of the outfall at Zone 7S would not permanently impact long-term shoreline use. The preferred alignment begins on the property of the Chevron Richmond Beach Asphalt Terminal and crosses the nearshore off the southern tip of Point Wells, avoiding impacts to beach use south of the Chevron property. Please refer to the responses to Borkart, Comment I129-2, and Rosner, Comment I20-1.

Response to Brightwater DEIS
January 20, 2003
Page 10

F. NOISE AND VIBRATION

Question: What are the impacts to surrounding neighborhoods of 24 hour a day construction? Would impacts be felt the duration of the construction project, or only at critical times of the project? What are the boundaries of the noise, vibration, dust, odor, glare from lighting? And how, exactly do you control such things?

O8-59 If tunnel construction takes place 24 hours a day, then substantial impacts will be felt and heard in the surrounding areas, continuously. Information needs to be made available regarding which of these impacts are most easily controlled and which have the greatest, longest, farthest impact. A substantial amount of well-designed mitigation will be required in the Richmond Beach area to alleviate the noise from pile drivers, dump trucks, bulldozers, on and offshore. Plus any artificial lighting aiding the workers on or offshore during their 24 hour shifts.

O8-60 Please also be aware that the Richmond Beach community has numerous retired couples, and construction work schedules should take that into consideration.

G. WILDLIFE AND ENVIRONMENT

O8-61 O8-62 Question: Does King County know that colonies of 60-70 Terns nest during breeding season at the south end of the Chevron property? Will King County evaluate the reported shipwrecks in Zone 7S prior to outfall construction?

O8-63 Last summer they could be easily observed from the end of Richmond Beach Road. Terns were seen by the yellow fence and on the sand when the beach was exposed to the south. They had molting young, indicating nesting and breeding at the Point Wells site. The terns are expected to return next May. The Migratory Bird Treaty Act protects these birds.

O8-64 The DEIS did not identify the Terns, or the Great Blue Herons who nest above the Pt. Wells property. The area around portal 19 is inhabited by several species of Hawks, Owls, Eagles, Heron. Any construction around the area needs to be sensitive to the habitats and have a restoration plan that encourages displaced wildlife to return to this habitat. Suggested mitigation measures are for King County to release the Pt. Wells portal site to Shoreline after it has been cleaned up and covered for use as a nature preserve and possible public beach access.

O8-65 Any artifacts to be found in the four shipwrecks recorded off Point Wells would be of interest to the Community and the Shoreline Historical Museum. The community would like assurances that a side scan sonar survey would be conducted in unsurveyed areas in zone 7S (as specified in the draft EIS) to identify known and unknown shipwrecks.

Response to Comment O8-59

In response to comments regarding construction impacts, King County conducted a study to examine and quantify the nature of impacts that will be produced at a construction site, the extent of these impacts, as well as the appropriate mitigation measures that would be used to reduce the impacts on surrounding communities. The results of the study are incorporated into Chapters 5, 6, 10, and 13 of the Final EIS.

Response to Comment O8-60

Allowable construction work periods will be determined as part of the permitting processes through the City of Shoreline and numerous federal and state regulatory agencies.

Response to Comment O8-61

King County was unaware that colonies of terns nest at the south end of the Chevron property. Terns were not included as special status species in the Draft EIS because they are not classified as threatened, endangered, or candidate. Terns are designated as State Monitor species by the Washington State Department of Fish and Wildlife. State monitor species are currently not in danger of becoming threatened or endangered. However, terns and their nests are protected under the Migratory Bird Treaty Act of 1918 and appropriate measures will be taken to protect their nests during construction.

Response to Comment O8-62

If a Route 9 System is selected for Brightwater, King County will sponsor an underwater survey to identify and evaluate shipwrecks in Zone 7S in the design and predesign phase for the outfall.

Response to Comment O8-63

Please refer to the response to Comment O8-61 in this letter.

Response to Comment O8-64

King County is aware that forested areas in the vicinity of Portal Siting Area 19 provide habitat for several species of birds. Hawks, owls, eagles, and heron were identified as in the Plants, Animals, and Wetlands Technical Appendix of the Draft EIS. In the Final EIS, three candidate portal sites are identified in Portal Siting Area 19. Candidate portal site selection involved avoiding impacts, to the extent feasible, to mature upland forests, wetlands, and stream/wetland buffers that provide valuable habitat for these and other bird species.

Bald eagles are listed as threatened under the Endangered Species Act (ESA). In accordance with Section 7 of the ESA, a Biological Assessment (BA) will be conducted for the project, which will present baseline studies for habitat that supports fish and wildlife species listed as threatened (e.g., bald eagles), endangered, or candidate. The BA will also present an analysis of impacts and how they will affect listed species. The BA will present mitigation measures and best management practices necessary to insure that the project is not likely to adversely affect listed species. At Portal Siting Area 19, it is likely that construction timing restrictions will be necessary to protect wintering bald eagle activities, which will also be beneficial for other bird species in the area. To some extent, bird species are expected to be temporarily displaced to nearby suitable habitat away from the construction noise. After construction, bird species are expected to recolonize habitats that were not impacted during construction. King County will consider releasing the Portal Siting Area 19 site to the City of Shoreline for management as a nature preserve/public beach access. Please refer to the response to Comment O8-61 in this letter, regarding impacts to terns.

Response to Comment O8-65

Most of Zone 7S has been surveyed with side-scan sonar. The small portion that was not surveyed will be surveyed by SCUBA divers to assess eelgrass distribution; any shipwrecks will be noted at the time of the survey.

Response to Brightwater DEIS
January 18, 2003
Page 11

H. CONCLUSION

O8-66 It is our hope that answers or solutions to the above-mentioned inconsistencies will be forthcoming in the next EIS, if not before, and that some of the alignment configurations will be reconsidered. We would be happy to discuss any of our comments with King County staff or representatives, and would invite your response either written in person, perhaps at a Richmond Beach Community Council meeting.

Thank you for your time and consideration of the above. We hope that it serves as a guideline for issues to be more clearly addressed in the final EIS.

Sincerely,

David R Bannister

David R. Bannister
President
Richmond Beach Community Council

Cc: King County Executive Ron Sims
Mayor Scott Jepsen, City of Shoreline
Representative Carolyn Edmonds, King County Council
Christie True, King County Wastewater Division

Response to Comment O8-66

The EIS has been revised in response to comments on the Draft EIS. Please refer to the revised project description in Chapter 3, the revised analyses in Chapters 4-17, and additional technical information in the appendices. To invite a speaker to talk with your group, please call the project at 206-684-6799 or toll-free at 1-888-707-8571.

O7
RICHMOND BEACH COMMUNITY COUNCIL/ GIRMUS

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

RECEIVED
JAN 21 2003
WASTEWATER DIVISION

Attn: SEPA Responsible Official
Environmental Planning
KSC-NR-0505
King County Wastewater Treatment Division
201 South Jackson Street
Seattle, WA 98104-3855

Dear SEPA Responsible Official:

Thank you for the opportunity to comment on the scope of the Brightwater Project Environmental Impact Statement.

O7-1 **The following areas need to be addressed:**

1. **Accuracy of information provided:**
2. **Appropriateness of the methodologies used:**
3. **Need for additional study:**

My background: A former Realtor I am now the manager for HouseMaster Home Inspection Service. I'm an active member of both Seattle/King County and Snohomish/Camano Association of Realtors and serve on the Government Affaires Committee for both. A considerable amount of our time is spent working on the buildable lands issue.

O7-2 At the last meeting of the Richmond Beach Community Council each of us agreed to submit a comment on a specific area of concern. My concern is the concept of "Growth pays for Growth". This projection, based upon 270,000 new hookups, suggests that the entire cost of Brightwater will be borne by these new hookups. Recently however there has been an exponential shift in the dynamics of real estate. There are actually more people *leaving* the Puget Sound area then *moving here.* No one knows if that trend will continue.

Response to Comment O7-1

The Draft EIS comment process was very helpful in assisting King County in providing the most accurate data currently available on the impacts of each alternative. Experts in various disciplines who helped work on the EIS used what each deemed to be appropriate methodologies. Additional study has been conducted since the issuance of the Draft EIS, much of which is contained in the chapters and the technical appendices of the Final EIS.

Response to Comment O7-2

King County uses population and employment forecasts from the Puget Sound Regional Council (PSRC), measured wastewater flow at its facilities, and modeling to more accurately determine wastewater flow in the future. The PSRC models take into consideration occupied and vacant buildable land, as well as unbuildable lands. Please refer to the response to the City of Seattle, Comment C10-1, for more information on how King County develops growth projections. Chapter 16 of the Final EIS has updated information on how the transportation system around the Brightwater site and tunnel portal would be affected by the project. For updated information on wetlands, streams and salmon habitat; topography; and municipal zoning regulations, please refer to Chapters 7, 4, and 11, respectively, of the Final EIS.

King County's siting and mitigation processes for wastewater facilities are consistent with the Growth Management Act (GMA) and SEPA. At each step in the siting process, King County has gathered additional information about the proposed sites, pipeline routes, and marine outfall zones, and in each subsequent step in the process, a select number of alternatives were picked for further consideration. A number of siting studies are available online, at http://dnr.metrokc.gov/wtd/brightwater/library.htm, including the Phase 1 and Phase 2 siting process documents, and the Phase 3 technical documentation. Other technical

documentation gathered for the siting process is available, but the files are too large for the Web site. Hard copies are available at area libraries and CDs are available upon request by calling the Brightwater project team at 206-684-6799, toll-free at 1-888-707-8571, or via e-mail at brightwater@metrokc.gov.

270,000 new hookups equates to approximately 1,000,000 people. On what model was this projection based? Did you actually evaluate potential building sites? And, did you consider any or all of the following issues?

The Growth Management Act's Urban Growth Bonderies
Wetlands
Stream and Salmon habitat
Topography (steep hills, slide areas etc.
Municipal zoning regulations

O7-2 Of equal importance does the model presume that the facilities to accommodate this growth will be in place? We are facing a crisis on our highways with near gridlock conditions. Attempts to ameliorate this serious problem have been overwhelmingly rejected by the voters. Even a modest population increase will have a significant impact on our infrastructure.

O7-3 The question therefore is this: If there fewer new hookups then projected by the model how will Brightwater be funded?

O7-4 We would like to review the study that the 270,000 new hookups are predicated upon. I will be the lead on this request. You may contact me at my home address, by phone at home, on my cell phone or by e-mail.

Thank you in advance for your time and consideration.

Gerald A. Girmus

Gerald A Girmus
Vice President
RICHMOND BEACH COMMUNITY COUNCIL

2128 NW 199th
Shoreline, WA 98177

206-546-5529 Home
206 510-3786 Cell Phone

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Response to Comment O7-3

For information on how new and current facilities are paid for, please refer to the financial policies in King County Code Chapter 28.86.160 and Ordinance 13680 adopting the Regional Wastewater Services Plan (RWSP). This information can be requested from the Metropolitan King County Council by calling (206) 296-1000 or through their website at http://www.metrokc.gov/mkcc.

Cost and economic impacts are not topics analyzed under SEPA and therefore are not addressed in the Brightwater EIS. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

However, once a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to Brightwater construction and operational impacts. As part of the overall decision process, King County is revising the cost estimates (dated November 2002) for the Brightwater alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

Response to Comment O7-4

Please refer to the response to Comment O7-2 in this letter, for more information.

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O15
SAVE LITTLE BEAR CREEK COALITION

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

Save Little Bear Creek Coalition
c/o Charles G. Blaine Jr.
23102 61st Avenue SE
Woodinville, Wa., 98072
February 5, 2003

Mr. Donald Theiler
Manager and SEPA Responsible Official
King County Department of Natural Resources
King Street Center
201 South Jackson Street
Seattle, Washington, 98104-3855

RECEIVED
FEB 5 2003
ENVIRONMENTAL PLANNING DIVISION

CC: Christy True
Michael Popiwny
Ron Sims
J. Richard Aramburu

Dear Mr. Theiler

Save Little Bear Coalition, an organization of residents of the Route 9 neighborhood, is pleased to offer its comments to the Draft Environmental Impact Statement on the Brightwater Regional Wastewater Treatment System.

Our comments come in the context of trying to understand how the project will affect both the Route 9 and Edmonds sites as well as the other alternatives listed in the draft EIS.

O15-1 In addition, all comments submitted by other interested parties, along with all documents referenced therein, are hereby incorporated by reference as if set forth in this document in their entirety – including but not limited to those comments submitted by:

The Cross Valley Water District	Woodinville Water District
Snohomish County Fire District 7	The City of Woodinville
City of Edmonds	Snohomish County
Corinne Hensley	Linda Gray
Sno-King Environmental Alliance	Patricia Weston
Gerald Farris	Mark Sakura
James McRae and Clayton Fleming	Megan Rutherford
Michael Renzelman	City of Edmonds
City of Mountlake Terrace	Burlington Northern Railroad

O15-2 We are most concerned about how the treatment plant will affect:

Response to Comment O15-1

Thank you for your comment. Each of the referenced comment letters is responded to in this Final EIS.

Response to Comment O15-2

Subsequent comments in this letter will address issues related to air quality and water quality in Little Bear Creek and the Cross Valley Aquifer.

King County will work with affected communities to develop mitigation measures for environmental impacts created by the construction, operation, and maintenance of the Brightwater facilities. Long-term and short-term impacts for wastewater facilities will be mitigated within the communities where they are located. King County's goal will be to construct regional wastewater facilities that enhance the quality of life in the region and in the local community and are not detrimental to the quality of life in their vicinity. Once a final decision is made on the location for the Brightwater System, King County will work with local jurisdictions to determine mitigation strategies.

Increases or decreases in business revenues, tax revenues and property values are not environmental impacts, and are not addressed in the EIS. Before construction begins, King County will work with local jurisdictions to gain permits and will work to address concerns associated with the construction and operation of Brightwater facilities.

- Air quality in the Route 9 neighborhood and on the adjoining City of Woodinville.
- Water quality in Little Bear Creek and in the Cross Valley Aquifer
- Overall quality of life in the Route 9 neighborhood and the adjoining City of Woodinville and north King County
- Property values in the surrounding neighborhood

Degradation of points 1 through 3 poses a direct threat to point 4. If that is the case, King County will have failed in its promises to be a good neighbor with Brightwater. O15-2

O15-3 Specifically, our comments are addressed to the adequacy of the DEIS to treat on the topics of

- Odor control and air quality in the Little Bear Creek Basin
- Water quality in Little Bear Creek
- Dewatering requirements and their impacts on the Cross Valley Aquifer.
- Traffic impacts on Route 9 between Woodinville and Snohomish.
- The assumptions used to justify the size and complexity of the treatment plant system.
- Alternatives to the Route 9 and Edmonds sites in the DEIS

Our general comment on the overall quality of the draft is that it is deficient in so many areas that one can not reasonably judge what impact the treatment plant will have on the Route 9 neighborhood or Edmonds. It is our opinion that the DEIS is so highly deficient in these critical areas alone that we believe King County would do much to enhance its credibility on Brightwater by having a supplemental DEIS prepared. At the very least, it would offer much deeper detail and analysis of

- Air and odor control issues.
- The impact of the treatment plant on surface and subsurface water quality at and around Route 9 and Edmonds
- The impact on the neighborhood of traffic and growth pressures that result from the presence of a treatment plant at the Route 9 site.
- A thorough examination of the faulting system underneath the Route 9 site and the potential for environmental damage from earthquake liquefaction.

Given the unsupported and shallow analysis provided, waiting for a final EIS to be completed does not offer adequate protections for the people most affected by a treatment plant at either site – residents in and around Woodinville and Edmonds.

For those who live near Route 9, the situation is complicated by the Department of Natural Resources' decision to recommend that the Executive recommend a preferred alternative before the DEIS was even published. One result is that the DEIS is built essentially to ratify the Executive's decision. Therefore, its value as a draft of real science is deeply suspect.

Response to Comment O15-3

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts beyond that characterized in this comment. The Draft EIS was issued at a point in time when a certain level of information was known relating to the probable significant adverse impacts of the proposal and possible ways to reasonably mitigate those impacts. In areas where there was uncertainty in relation to impacts in one respect or another, the Draft EIS presented, following SEPA Guidelines, a worst-case analysis of impacts,. In other areas, the Draft EIS indicated that ongoing analysis was under way and that additional information would be forthcoming. Since issuance of the Draft EIS in late 2002, considerable additional analysis has been conducted, as is the case on any large project, to further define and develop the proposal and respond to Draft EIS comments.

Many of the details raised in this comment letter, which are described as necessary for an EIS, relate to information either that does not involve significant adverse impacts or that is important prior to issuance of actual permits but may not be essential to include in an EIS. Such information may not be included in the Final EIS because it is not required and King County is mindful of the need to keep the Final EIS as readable as possible. Any additional analysis that has been conducted that relates to probable significant adverse impacts that will not be mitigated or regulated into non-significance is included as part of the Final EIS analysis. The Final EIS provides additional specificity with respect to conveyance and portal, traffic, air quality, and water resources issues.

We say this in deep sadness given the effort we have spent since 2001 trying to understand the Brightwater concept and give a fair assessment of the project. We appreciate that a Draft Environmental Impact Statement is, in fact, a draft. But many of our members have studied draft statements in the past. And, frankly, we expected much more in terms of the quality of the data and rigor of the analysis. There are places where the benefits the project are supposed to bring to the neighborhood look more like detriments.

O15-3 Given the enormous size of the investment involved, we expected more -- much more -- than King County has provided.

Odor control and air quality in the Little Bear Creek Basin

Of all the issues raised by neighbors west and north of the proposed site, odor and related impacts are probably the most important.

O15-4 Without truly excellent odor control, Brightwater poses a real and permanent threat to the quality of life both Edmonds and to the immediate neighborhood around the Route 9 site as well as to Woodinville to the south. For those of us who live near the site, the quality of life question immediately translates into one of how bad the economic harm will be from this project.

In order to judge whether King County understands this question, one must examine chapter 5 closely.

The chapter lists the various laws and permitting agencies that will be involved and the standards the treatment plant must face.

O15-5 It also describes the two sites topographically. But then it chooses to base all meteorological observations on conditions at Paine Field in Everett. Paine Field is north and east of Everett and north of the Route 9 site. Given that King County has been looking at both sites for several years – at least since 1998 – the tardiness in studying the two sites is extraordinary.

Indeed, this decision calls into question the validity of the entire chapter and more than justifies repeated calls for a supplemental environmental impact statement PRIOR to the preparation of a final EIS.

In addition, the chapter raises these questions:

O15-6 1. Why would the topography at an airport with wide open flat expanses bear any relationship to:

- Edmonds, which slopes down into Puget Sound?
- Route 9, which is at the bottom of a valley prone to air inversions, as the statement properly notes?

Response to Comment O15-4

Updated information on air quality and odor control technologies planned for Brightwater can be found in Chapter 5 and Appendices 5-A, Odor and Air Quality: Treatment Plant, and 5-B, Odor Analysis: Conveyance, of the Final EIS.

Response to Comment O15-5

Typically, detailed air dispersion modeling with onsite data is performed during the permitting phase, and 1 year of onsite data, if available, is typically used. At times, screening-level air dispersion modeling using the best available data is done for the EIS. For a screening-level analysis, meteorological data from the nearest offsite meteorological station are used, as no onsite meteorological data are typically available. This is a routine procedure and is accepted by the Washington State Department of Ecology and the U.S. Environmental Protection Agency.

For the Brightwater Final EIS, the meteorological data used in the air dispersion modeling analysis were above and beyond what is typically used. Meteorological stations were installed at both the Route 9 and Unocal locations in July 2002 to gather site-specific data. Nine months of data were gathered prior to the preparation of the Final EIS (1 year of data was not yet available when the modeling was performed). In addition, 4 years of meteorological data from Paine Field were analyzed. Two separate model runs were conducted for each site, one using the site-specific data and one using the Paine Field data. Both data sets were used to model the worst-case data from each meteorological station. Again, this is more analysis than is typically performed for an EIS.

By utilizing both the site-specific data and the Paine Field data, the model predicted worst-case maximum impacts for any single hour of meteorological data from the combined data set. The Paine Field had a greater frequency of very stable or worst-case conditions than the site-specific data. All

the meteorological data was modeled including these worst-case meteorological conditions. The model will typically overpredict worst-case impacts, so by using the Paine Field data (which has more worst-case days) with the site-specific data, an extra degree of conservatism was incorporated into the modeling. Please refer to the Final EIS, Appendix 5-A for further details on the meteorological data.

Response to Comment O15-6

Topography data from Paine field were not used for the Unocal or Route 9 sites. Site-specific topography data were used in the Draft and Final EIS for both of those sites.

O15-7 2. The statement notes that four months of data were available at publication from. What does that data indicate in terms of how the two air sheds work?

- Kindly detail the results as of March 31, 2003. As well, please detail how odor control plans for both sites would be adjusted to the new data.

O15-8 3. The DEIS should note that the two sites have different microclimates than that at Paine Field.

- Please describe the microclimates at each site and how the air sheds compare and contrast with Paine Field.

O15-9 4. The DEIS suggests that the treatment facility will "have the highest degree of odor control equipment and strategies currently available for municipal treatment facilities in the United States."

- Please define the state of the art in odor control and specify which treatment facilities reflect the state of the art. Compare and contrast those facilities with the treatment plant at Vancouver, Washington. Please answer this question in the context of the differences in topography and microclimates at Edmonds and Rte. 9.

O15-10

- Specify what odor control strategies will be used at both Edmonds and Route 9. Please describe how they would reflect the state of the art and how they compare with strategies used at facilities now believed to state of the art. In addition, please describe whether the odor control strategies anticipated mean one can smell the treatment plant from distances of

100 yards	1,600 yards
200 yards	2,400 yards
400 yards	4,000 yards
800 yards	8,000 yards

O15-11

- An air quality issue at the West Point facility is that doors to treatment facilities are frequently left open. Thus people visiting Discovery Park have to smell the odors from the treatment facility. Of special concern to residents of Edmonds and the Route 9 neighborhood is how the solid materials will be removed. Please specify how the materials will be removed and the measures the treatment plant will employ to ensure that odors do not escape? Does King County expect to load trucks in sealed facilities? Will the loading systems be automated so that they won't work unless the doors are shut?

O15-12

O15-13 5. On page 5-20, under odor emissions, the DEIS states, "For this analysis, the odor control system that was modeled at each site includes covering, collection, and treatment of air from: influent pump station wet well, headworks (screening and grit) removal facilities, primary clarifiers, aeration basins, secondary clarifiers (covered at Unocal only).

Response to Comment O15-7

Please refer to the response to Comment O15-5 in this letter.

Response to Comment O15-8

Please refer to the response to Comment O15-5 in this letter. Also the Final EIS used actual meteorological data from the two sites in addition to the Paine Field data. Wind roses for Paine Field, Unocal, and Route 9 sites are shown in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS. A wind rose is a graphical representation of wind speed and direction over a discrete period of time and allows the reader to make a comparison of the data collected for each site.

Response to Comment O15-9

Brightwater's odor prevention strategy focuses on proven state-of-the-art odor control approaches and best available technology and equipment to provide large safety factors. The three-stage chemical scrubbers followed by activated carbon were sized for peak conditions. Redundant scrubber systems would be used when primary scrubbers are shut down for routine servicing and repairs. In addition, there would be scrubbers assigned to ventilate areas during routine maintenance activities (e.g., tank cleaning).

King County is committed to operating the Brightwater Treatment Plant without odors. To this end, stringent design and performance criteria have been established for odor prevention at the Brightwater Treatment Plant. Brightwater's goals for odor prevention are currently among the most stringent in the United States and include application of best available control technology. Other such stringently controlled plants have much higher design levels than Brightwater and are allowed to exceed their selected criteria for up to 100 hours each year.

Differences in the topography and microclimates at each site and comparisons to other wastewater treatment facilities are

discussed in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS and were discussed in the technical workshop.

Response to Comment O15-10

To remove odors, the process air collected from the covered process units, enclosed buildings, and loading areas would be routed to the odor control systems. All process units would be covered, including the influent wet well, screenings and grit handling units, primary clarifiers, aeration basins and membrane tanks, and disinfection units. Building such as headworks and solids handling (thickening and dewatering processes) would have the process air and equipment fully enclosed. There would be separate odor control systems for each of the following areas:

- Influent pump station
- Headworks and primary treatment
- Secondary treatment and disinfection (if onsite) (may be two systems)
- Solids handling building and biosolids truck staging
- Digester gas pressure relief emergency vents (carbon only)

Each odor control system would treat the process air using multistage chemical scrubbers followed by a final polishing stage of carbon adsorption. Each stage treats the process air to a greater degree. The exhaust air from the carbon polishers would be discharged from stacks. In addition to the chemical scrubbers, carbon scrubbers would treat any digester gas that may be discharged through pressure release vents. Multistage scrubbers are considered state-of-the-art in odor control technology. Brightwater would use multistage scrubbers followed by carbon for additional odor control.

King County is committed to providing an odor prevention and control system such that there will be no detectable odors beyond the property line of the treatment plant site. Additional comparison to other wastewater treatment facilities can be found in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Response to Comment O15-11

At the Brightwater Treatment Plant, biosolids would be transferred into trucks inside an enclosed and ventilated loading/scale area. This area would be equipped with doors that would be closed after the truck enters, and the doors would not be opened again until the truck is covered. The biosolids loading area would be designed with a ventilation system that would keep the area under negative pressure to prevent the escape of odorous air. The air removed from this area would pass through odor prevention systems to treat the air before it is discharged to the atmosphere. Because the ventilation system is designed to keep the area under negative pressure, normal operations would require that the doors be kept closed for proper operation. It is likely that an alarm would be generated within the plant control system whenever one of these doors is open, thus allowing for improper operating conditions to be corrected.

Biosolids would either be directly loaded into the trucks from the dewatering devices (centrifuges), or stored in an enclosed tank to allow for loading into trucks independent of the dewatering operation. This loading may occur via an enclosed and ventilated conveyor system, or by means of an overhead hopper system. In all cases, the entire process would be ventilated and the air treated in the odor prevention system before discharge. The biosolids haul trucks have covers that are designed to limit odors from escaping. Any trucks located at the treatment plant site and not inside the ventilated loading area would be hooked up to ducts that would pull air from under the covers on the empty trucks and treat this air inside the odor prevention systems.

Response to Comment O15-12

Please refer to the response to Comment O15-11 in this letter.

Response to Comment O15-13

Please refer to the response to Comment O15-5 in this letter.

O15-13 • Please explain how the modeling specified at each site squares with the fact that meteorological data was from Paine Field only.

O15-14 6. On page 5-21, the DEIS discusses the concentrations of hydrogen sulfide in controlled and uncontrolled situations. At the bottom of the page, the statement says, "As plant flows increase from 36-mgd to 54-mgd, concentration values will remain the same; however, mass discharge will increase as more surface area in the discharge tanks is exposed to ventilation air."

• Please describe whether this means that more hydrogen sulfide will be noticeable to anyone at or near the site.

O15-15 7. Please justify why the Route 9 site should be saddled with higher predicted hydrogen sulfide emissions than at the Edmonds site.

O15-16 8. For the purposes of understanding odor control, Route 9 is blessed with daily evidence of odor emissions from the Stock Pot soup plant. The emissions are famed for their ability to disperse AND BE NOTICED not only around the immediate Route 9 site but north and south for several miles. Indeed, on the morning of February 5, you could smell the soup plant to the South Woodinville interchange of SR 522. Please explain:

- Why the DEIS does not attempt to understand the dispersal patterns of emissions from Stock Pot around the neighborhood and into the city of Woodinville and north to Clearview?
- Why the DEIS does not attempt to quantify, characterize and compare the known emissions from Stock Pot with projected emissions from the Route 9 site?

O15-17 9. Please explain why section 5.4, which concludes there will be adverse impacts from the treatment plant, has any validity given that the dispersion models are based on Paine Field?

Water quality in Little Bear Creek and dewatering impacts

O15-18 The Route 9 site is across the highway from the creek; indeed the creek runs up against the highway at 228th street, making especially vulnerable to problems from plant construction and operation.

A major selling point for Brightwater has been that it would provide ways to improve the quality and quantity of water in Little Bear Creek, which empties into the Sammamish River in Woodinville.

O15-19 This is a laudable goal; the stream is prolific as a breeding ground for a native strain of sockeye salmon and Kokanee salmon and limited quantities of Chinook and Coho salmon. The stream has come under increasing pressure from encroaching urbanization.

Response to Comment O15-14

Hydrogen sulfide would be below detection thresholds outside of the plant property line for the 36-mgd and 54-mgd, as well as at the 72-mgd for the Unocal sub-alternative, even during peak odor events.

Response to Comment O15-15

The Route 9 site no longer has higher predicted hydrogen sulfide emissions than the Unocal site. The odor control systems at the Route 9 site have been revised for the Final EIS to include covering all liquid processes and providing the same odor control system as at the Unocal site (three-stage chemical scrubbing plus carbon).

Response to Comment O15-16

Dispersion modeling of emissions from the Route 9 site has been included in the Final EIS. Site-specific meteorological data from the Route 9 site were used in the odor dispersion modeling performed for the Final EIS, as described in Appendix 5-A, Odor and Air Quality: Treatment Plant.

The emissions from StockPot are far greater than predicted emissions from the treatment plant. This is based on the fact that StockPot has no odor control system in place and emits process air that can be detected at varying distances from the site. The emissions from the Brightwater Treatment Plant would have extensive odor control systems (three stages plus a carbon scrubber). The system would treat the process air so that the odor is nondetectable at the plant's property line.

Response to Comment O15-17

For information on the meteorological data used in the odor and air quality analysis, please refer to the response to Comment O15-5 in this letter and Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Response to Comment O15-18

Please refer to the response to the Washington State Department of Ecology, Comments W3-27 and W3-113.

Response to Comment O15-19

King County acknowledges the resource value of Little Bear Creek and is committed to implementing measures to improve water quality and flows in these waters. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-56.

O15-20

1. Chapter 6 of the DEIS, however, suggests that the construction of the treatment facility at Route 9 could threaten the stream's viability. The issues that need to be addressed in detail are these:

- Estimate the potential siltation from dust and ground cover removal at the Route 9 site. The prime breeding grounds on the creek are below the bridge at 228th Street and Route 9.
- Specify the mitigation measures that would be employed to prevent damage to the creek and the spawning grounds.

O15-21

2. The plant site is located within the 100-year flood plain, and residents report that Little Bear Creek has a history of coming out of its banks and spilling over the highway.

- Please specify how the combination of the treatment plant design and the dynamics of the creek will interact in a 100-year-flood.
- What mitigation measures will be employed to protect the creek?

O15-22

3. The DEIS envisions that excess storm runoff will be collected and ultimately discharged into the creek. This action creates several questions.

- What standards will be used to ensure that the flows into the creek will not disrupt the spawning grounds downstream from the site?
- What mitigation measures will be employed if there are 100-year rain events?

O15-23

4. The DEIS indicates that construction will require substantial dewatering not only at the Route 9 and Edmonds sites but elsewhere along the conveyance systems.

- Please specify the mitigation measures to be employed so that the Little Bear, Swamp and North Creek basins are not drained or otherwise put at risk.

O15-24

5. The Cross Valley Aquifer is a sole source aquifer serving residents from Woodinville to Clearview and beyond.

- Please specify the mitigation measures that will be employed to ensure that the aquifer is not threatened either by influent to the site or by effluence away from the site.

O15-25

6. Please detail any and all commitments King County has made to any individuals or organizations that specify how lands north and east of the Route 9 site will be:

- Purchased and developed with specific conservation plans outlined.
- Please detail the commitments made by King County, Snohomish County or any sub agency to owners of these properties to extend sewer lines from the treatment plant at the Route 9 site.

Response to Comment O15-20

The statement referred to impacts of a possible, but unlikely, release of untreated construction water from the project site. Extensive use of best management practices and monitoring would make this a very unlikely event. Please refer to the response to the City of Kenmore, Comment C3-46, regarding quantification of sedimentation impacts, and the response to the City of Woodinville, Comment C5-70, regarding sedimentation control and monitoring.

Response to Comment O15-21

The closest project facility would be situated 250 feet from the 100-year floodplain of Little Bear Creek. Stormwater detention facilities would be located outside of the 100-year floodplain and would not be impacted by creek flooding. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-67.

Response to Comment O15-22

The project would be guided by the stormwater treatment and detention guidelines of the Washington State Department of Ecology's *Stormwater Management Manual for Western Washington* (August 2001) and Snohomish County Code Title 30.63A (Drainage). Project runoff would be detained up to the 50-year storm event. No flow control is proposed beyond this level. Please refer to the response to the Washington State Department of Natural Resources, Comment W3-41, regarding stormwater control.

Hydrologic modeling performed for the Brightwater project indicates that stormwater detention at the site would reduce existing 100-year peak flows in Little Bear Creek by about 4 percent. This would slightly lower flood effects and the potential for channel scour and would protect fish habitat. For more information, refer to Appendix 6-E, Route 9 Site Runoff Effects on the Geomorphology of Little Bear Creek.

Response to Comment O15-23

Please refer to the responses to the Snohomish County Planning and Development Services, Comment S3-25, and the Washington State Department of Ecology, Comment W5-9.

Response to Comment O15-24

Please refer to the responses to the Washington State Department of Ecology, Comments W5-15 and W5-43.

Response to Comment O15-25

Decisions about when, if, or how land at the Route 9 site is developed would be made by the local jurisdictions and local property owners. Decisions to extend service lines or expand wastewater treatment areas are made by local wastewater districts and agencies, and are based on local land use decisions in the jurisdictions that these agencies serve. For details on how mitigation is determined, please refer to the response to the City of Shoreline, Comment C6-5.

O15-25
- Please detail how these transactions will go toward mitigation of the impact of the treatment plant on water resources in the immediate Route 9 area.

O15-26
7. The DEIS assumes the primary service areas for the treatment plant will be south Snohomish County and eastern King County. Nonetheless, the existence of a treatment plant in exurban Woodinville could easily prove a lure for extensive development of new subdivisions and properties north along the Route 9 corridor or out SR 522 toward Monroe.

- Please detail any commitments to any sub agencies in these areas about bringing sewage services.
- Please cite legal authorities that allow King and Snohomish counties to approve such relationships.
- Please analyze the potential impact of such development on water flows to the Little Bear Creek Basin and neighboring water resources.

Traffic impacts on Route 9 between Woodinville and Snohomish.

O15-27
The Route 9 site is located just north of the intersection of SR 9 and SR 522. SR9 turns into the Woodinville-Snohomish Road as it goes into Woodinville. It is a two-lane highway all the way into Woodinville. At the same time, Route 9 north is a two-lane highway with some turning lanes going north into Clearview. Last fall, Referendum 51, a measure designed to pump billions into highways across Washington, failed. As a result, plans to widen Route 9 were put on hold.

O15-28
In the meantime, the DEIS notes that upwards of 1,000 truck trips a day will be needed at either site at peak construction That means approximate 125 trucks an hour over an 8-hour period.

These realities lead to these comments and questions.

O15-29
1. What mitigation measures will King County take to ensure traffic congestion at the Route 9 site will not worsen because of construction?

O15-30
2. Will King County pay for extra traffic control to alleviate the pressures between the SR 522 junction and Maltby Road?

O15-31
3. Please detail how traffic will be affected by construction at the Route 9 site and construction of the proposed Costco development on the south side of the SR 522 interchange.

O15-32
4. Will King County pay for needed improvements to the 522 interchange to handle the expected weekend traffic?

O15-33
5. The DEIS states in section 16.2.6.1 that only incremental growth in and around Route 9 will occur from Brightwater. This assertion deserves some detailed examination. The presence of a sewage treatment plant in an exurban area is likely to promote a cancerous growth in subdivision development.

Response to Comment O15-26

Brightwater facilities are being built to address the projected needs for additional wastewater capacity identified in comprehensive plans in the service area. The impacts of new development, which may follow the construction of Brightwater, have already been addressed in the context of the SEPA review conducted earlier in conjunction with the adoption of local comprehensive plans in the jurisdictions included within the Brightwater Service Area. This includes impacts to water resources in the Little Bear Creek basin. In addition, local comprehensive plans designate the proposed general distribution and general location and extent of land uses, including population densities, building intensities, and estimates of future population growth. These plans also outline the general location, proposed location, and capacity of all existing and proposed utilities. (RCW 36.70A.070). The end result is that under the Growth Management Act, state-generated population projections drive local land use planning processes; those processes control the location and type of new development, which in turn dictate the general location and size of wastewater treatment facilities as well as other utilities. Moreover, if the Brightwater Treatment Plant is located at the Route 9 site, it would be providing wastewater services to urban areas within the King County Service Area. Chapter 2 of the Draft EIS provided a list of jurisdictions with which King County has wastewater service agreements. No commitments have been made to any agencies outside King County's service area. It is not anticipated that Brightwater will result in any new cumulative impacts relating to growth which have not already been addressed as part of the SEPA review for the earlier comprehensive plans which are now in place, as well as the EIS for the Regional Wastewater Services Plan.

Response to Comment O15-27

Please refer to the response to the U.S. Army Corps of Engineers, Comment F2-7, for status of the SR-9 widening

project. Chapter 16 of the Final EIS has been revised to assume that SR-9 would remain as it currently exists. Impacts from the development of the Brightwater project would be mitigated using the Snohomish County concurrency requirement guidelines. Temporary traffic control during construction would be addressed in the Transportation Management Plan during the project permitting process as described in Chapter 7 of the Final EIS.

Response to Comment O15-28

The Draft EIS projected 990 daily and 110 peak-hour construction truck trips for the Unocal site and 1,049 daily and 346 peak-hour construction trips for the Route 9 site. Out of the total Route 9 site construction trips, an estimated 249 daily and 26 peak-hour trips would be truck trips. The remaining trips would be related to construction workers with these trips expected to occur during the morning and afternoon peak traffic hours. Chapter 16 of the Final EIS includes updated estimates of construction trips for each proposed treatment plant site.

Response to Comment O15-29

Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-158.

Response to Comment O15-30

Impacts from the development of the Brightwater project would be mitigated using the Snohomish County concurrency requirement guidelines. A Traffic Management Plan (TMP) has also been included in Chapter 16 of the Final EIS for specific mitigation measures including traffic control that would minimize traffic conflicts along SR-9 during construction.

Response to Comment O15-31

Please refer to the response to the City of Woodinville, Comment C5-147.

Response to Comment O15-32

Please refer to the response to Comment O15-30 in this letter. TMP proposed mitigation and Route 9 site operations mitigation has been directly related to Brightwater project impacts. Only those mitigation measures directly related to project impacts would be provided by the proposed Brightwater project.

Response to Comment O15-33

Please refer to the responses to Comment O15-26 in this letter, to Hensley, Comments I408-92 and I408-374, and to the U.S. Army Corps of Engineers, Comment F2-17.

- Please explain why Brightwater would not generate growth above and beyond what might be expected in a no-alternative mode.
- What plans has King County made with Snohomish County and related political subdivisions to provide water and wastewater treatment facilities to subdivisions to be developed north and east of the site?
- Please explain how these impacts are ignored in this DEIS. O15-33

Assumptions used to justify the size and complexity of the treatment plant system.

O15-34

Brightwater was conceived because planners believed that concentrating wastewater treatment at Renton and West Point could not be sustained. The planning went forward at a time when the Seattle experienced extraordinary growth thanks to the emergence of a technology industry centered on such companies as Microsoft, Adobe, Amazon, Nintendo of America and others. At the same time, it appeared that Boeing, long the dominant force in the local economy, would continue to grow, thus providing pressure for additional growth both north and south of Seattle.

Then came the technology bust and the Sept. 11 terrorist attacks.

Most economists believe Seattle's economy has bottomed, but no one expects a resumption of rapid growth in the technology sector that approaches what Seattle experienced in the 1990s. Indeed, one can not assume rapid growth in this sector until demand for big technology infrastructure investments rebuilds and capital to make these investments becomes available.

At the same time, Boeing has stated it will be 2004 or 2005 at the earliest before their commercial airplane business will start to recover.

It is not enough to base population and growth estimates on the data of the 1990s. The models won't work. And the City of Seattle has noted it no longer believes there is a need for a facility at all before 2010.

Please explain the current state of growth and demand assumptions used to develop the Brightwater plans.

In particular, please provide details on:

- Flow trends into the King County system from all sources. In the last few years, the flow data indicate the flows into the system are flat. That suggests more efficient use of water and better planning for wastewater treatment systems.
- How economic trends are interacting with the population projections of the Puget Sound Regional Council. It is not enough to say, well, these are the growth trends. Growth projections not tested constantly can lead to excess demand projections. They can saddle a community with a huge public investment with strained resources to pay the capital costs. Just ask anyone in the telecom world.

Response to Comment O15-34

The most current information about growth, planning, and wastewater flow projections can be found in Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS. For a detailed response to questions concerning population growth forecasts and wastewater flow projections, please refer to the response to the City of Seattle, Comment C10-1.

The most current information on local plans and projections can be obtained from the planning departments of the affected jurisdictions at http://www.psrc.org/index.htm.

- Expected development of communities and in eastern King and Snohomish counties, the number and location of projected of housing units and commercial structures for each project, the timing of development of land, and their financial status.
- The relationships recently negotiated with any and all sub agencies such as the Alderwood Water District to handle treatment of wastes that normally would flow to King County's facilities. O15-34

While one may argue that these questions are beyond the specific scope of the DEIS, they are, in fact, critical elements of the process. **To judge the real environmental impact of a project as large and potentially costly as Brightwater requires a thorough examination of the assumptions.** The DEIS, however, provides no such examination. It merely assumes. Because it assumes, it is inadequate. O15-35

Brightwater now looks like a $1.5 billion to $2 billion project, including conveyance systems, outfall and the treatment facility itself. A FINAL EIS should have as an appendix detailed estimates of the project in Edmonds and Route 9. O15-36

- These estimates should try to match costs at each site as closely as possible.
- The costs should assume the sale elements at each site, including covering primary and secondary clarifiers at both sites.

What's been maddening in trying to understand the costs is that the project is not held to a common standard. O15-37

Alternatives to the Route 9 and Edmonds sites in the DEIS

SEPA requires that two viable alternatives be considered with essential public facilities. It is quite possible that, at this writing, there is only one alternative on the table. Edmonds may well argue that it can not be included in the analysis because its only relationship to Brightwater is its willingness to treat some wastes from Shoreline. If a court sustains this position, then the process is fatally flawed and must be restarted. O15-38

The possibility that one or two of the primary candidates would fall off was known as early as November 2001, but King County declined to consider additional sites for Brightwater.

At the same time, the no-alternative option is flawed itself. Among the critical questions here are: O15-39

- Under what criteria did King County and Snohomish County decide that smaller facilities can't be developed?
- What criteria did King County use to decide that expanding West Point or Renton was not viable?
- Please provide environmental and technical documentation on why Edmonds was rejected as a preferred alternative O15-40

Response to Comment O15-35

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts beyond that characterized in this comment.

Response to Comment O15-36

Cost and economic impacts are not topics analyzed under SEPA and therefore are not addressed in the Brightwater EIS. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

However, once a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to Brightwater construction and operational impacts. As part of the overall decision process, King County is revising the cost estimates (dated November 2002) for the Brightwater alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

Response to Comment O15-37

The King County Council is responsible for approving the budget for costs related to Brightwater.

Response to Comment O15-38

At this time there is no basis for concluding that the Unocal site is not a feasible location for a Brightwater Treatment

Plant. It is not at all uncommon, when dealing with large controversial essential public facilities (EFPs), for a local jurisdiction to initially express its opposition, citing one or more technical, factual, or legal reasons. It is only later in the process when permits, or, in some instances, legislative amendments are actually put forward to the jurisdiction that specific opposition may have a tangible effect. King County has every reason to believe that it has ample factual and legal basis to site a regional EPF in the City of Edmonds at the Unocal site. The feasibility of alternatives in an EIS is not governed by speculative scenarios of what a future court may or may not rule on one or many asserted reasons of project opponents. The environmental, technical, and legal actions needed to site a treatment plant at the Unocal site are fully identified in the EIS.

Response to Comment O15-39

The Regional Wastewater Services Plan (RWSP) and its related appendices present documentation showing the need for Brightwater and other capital facilities across the region. The RWSP, adopted by the King County Council in 1999, outlined the wastewater treatment capital improvements needed to serve our growing region and protect public health and the environment over the next 30 years. During the planning process, a number of options were considered to meet our regional wastewater treatment needs, including a decentralized system that would require the construction of multiple smaller full-service wastewater treatment plants. King County found that the option of multiple small treatment plants was not practical or cost-effective for core wastewater management needs. For example, replumbing to direct flows to a number of small-scale plants would be very difficult and expensive; smaller plants also have a higher unit cost for treatment than larger plants. An option to build smaller satellite facilities was studied in the RWSP, which is incorporated into this EIS in its entirety by reference. Please refer to the response to Comment O15-41, for further discussion on centralized wastewater treatment options. The RWSP does include a plan to expand the South Treatment Plant in Renton in 2029.

Executive Sims identified the Route 9-195th Street System as the Preferred Alternative for a number of reasons, which are outlined in Chapter 1 of the Final EIS.

Response to Comment O15-40

Please refer to Chapter 1 of the Final EIS for a discussion of why the Route 9-195th Street System was selected as the preferred alternative. Please refer to Chapter 2 of the Final EIS for information on the siting process, and Chapter 3 and Appendix 3-A, Project Description: Treatment Plant, of the Final EIS for updated information on the proposed treatment plant sites.

O15-41 • Please provide details on smaller options and why they were rejected.
• Please provide environmental and technical documentation and explanation on why other alternatives were rejected. The alternatives I care to have discussed are:

O15-42
- No alternative
- Point Wells
- Gun Range
- Expansion of Renton and/or West Point

O15-43 Again, I repeat my call for a Supplemental EIS to start to address some of the shortcomings of the DEIS in its existing form. Since many agencies, including Snohomish County and the City of Woodinville, have demanded a supplemental DEIS, failure to do so represents a dangerous and potentially costly position for King County.

Thank you for your time. If you have questions, please write at the above address. I may also be reached at 425-705-9688 or at home 425-424-2498.

Sincerely,

Charles G. Blaine Jr.
Save Little Bear Creek Coalition

Response to Comment O15-41

Nearly a decade ago, King County began preparing for the eventuality that our wastewater treatment system would run out of capacity by 2010 due to rapid population growth in the Puget Sound region. In November 1999, as a result of nearly 8 years of planning and study, the King County Council adopted the Regional Wastewater Services Plan (RWSP), a comprehensive 30-year plan to meet our region's wastewater treatment needs. The Final EIS for the RWSP can be found online at http://dnr.metrokc.gov/wtd/rwsp/FEIS/toc.htm. The ordinance adopting the RWSP can also be found online at http://dnr.metrokc.gov/WTD/rwsp/documents/13680.pdf.

During the planning process, a number of options were considered to meet our regional wastewater treatment needs, including a decentralized system that would require the construction of multiple smaller full-service wastewater treatment plants. King County found that the option of multiple small treatment plants was not practical or cost-effective for core wastewater management needs. For example, replumbing to direct flows to a number of small-scale plants would be very difficult and expensive. Smaller plants also have a higher unit cost for treatment than larger plants.

When Metro was created in 1958, there were 25 small treatment plants in operation. A comprehensive sewage and drainage survey conducted that year by Brown and Caldwell (Brown & Caldwell, 1958) recommended that Metro adopt a centralized wastewater system to realize the economy of scale benefits of large treatment plants. This survey noted that for a metropolitan area it is economically and operationally beneficial when sewage from the entire area is delivered to a single point or a relatively few points for treatment and disposal. In 1985, another study (Lewis & Zimmerman Associates, 1985) to address how Metro should meet secondary treatment requirements recommended the system be further centralized, resulting in the two-regional-

plant configuration in use today. For urbanized areas, centralized wastewater treatment continues to be the norm, as it is much more cost effective. As an example, the Massachusetts Water Resources Authority provides wastewater treatment for nearly half the state's population through a regional plant configuration. This regional system provides wastewater treatment to 43 communities in the metropolitan Boston area.

References:

Brown and Caldwell. 1958. *Metropolitan Seattle Sewerage and Drainage Survey.* May 19, 1958. Adopted by the Council of the Municipality of Metropolitan Seattle on April 22, 1959.

Lewis and Zimmerman Associates. 1985. *Residual Solids Management Analysis.* Metro. June, 1985.

Response to Comment O15-42

At each step in the siting process, King County has gathered additional information about the proposed sites, pipeline routes, and marine outfall zones, and in each subsequent step in the process, a select number of alternatives were advanced for further consideration. Please refer to Chapter 2 of the Final Eis for a discussion of the siting process, as well as to the response to the City of Edmonds, Comment C9-7. A number of siting studies are available online at http://dnr.metrokc.gov/wtd/brightwater/library.htm, including the Phase 1 and Phase 2 siting process documents and the Phase 3 technical documentation. Other technical documentation gathered for the siting process is available, but the files are too large for the Web site. Hard copies are available at area libraries and CDs are available upon request by calling the Brightwater project team at 206-684-6799, toll-free at 1-888-707-8571, or via e-mail at brightwater@metrokc.gov.

Response to Comment O15-43

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts beyond that characterized in this comment. The Draft EIS was issued at a point in time when a certain level of information was known relating to the probable significant adverse impacts of the proposal and possible ways to reasonably mitigate those impacts. In areas where there was uncertainty in relation to impacts in one respect or another, the Draft EIS presented, following SEPA Guidelines, a worst-case analysis of impacts. In other areas, the Draft EIS indicated that ongoing analysis was under way and that additional information would be forthcoming. Since issuance of the Draft EIS in late 2002, considerable additional analysis has been conducted, as is the case on any large project, to further define and develop the proposal and respond to Draft EIS comments.

Many of the details certain commentators are describing as necessary for an EIS relate to information either that does not involve significant adverse impacts or that is important prior to issuance of actual permits but may not be essential to include in an EIS. Such information may not be included in the Final EIS, because it is not required and King County is mindful of the need to keep the Final EIS as readable as possible. Any additional analysis that has been conducted that relates to probable significant adverse impacts that will not be mitigated or regulated into non-significance is included as part of the Final EIS analysis.

There is no practical or legal need under SEPA to include this additional analysis in the form of a Supplemental Draft EIS. There is no SEPA case law calling for such an action. Moreover, it is the principal task of the Final EIS to respond to questions and comments on the Draft EIS and, if appropriate, to revise alternatives, analysis of the probable significant adverse environmental impacts, and discussion of reasonable mitigation measures.

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O16
SNO-KING ENVIRONMENTAL ALLIANCE/ GRAY

FINAL ENVIRONMENTAL IMPACT STATEMENT

Brightwater Regional Wastewater Treatment System

COMMENTS AND RESPONSES

February 5, 2003

Environmental Planning
King County Wastewater Treatment Division
201 South Jackson Street
KCS-NR-0505
Seattle, WA 98104

RECEIVED
FEB 5 2003
ENVIRONMENTAL
PLANNING DIVISION

Dear Sir or Madam:

O16-1 The following comments and attached information constitutes my(as a member of Sno-King Environmental Alliance) response to the Draft Environmental Impact Statement (EIS) issued by King County's Department of Natural Resources for the proposed Brightwater sewage treatment plant, conveyance system and outfall issued November 6, 2002. This response also adopts by reference all documentation and testimony submitted on this issue. Additionally, I wish to put into the record the following URL's, and any press publications concerning Brightwater, attached King County SSO report 1995-2002, and SKEA's petition to Snohomish County to adopt CARA maps, etc.

O16-2 Robinson & Noble did a great job of summarizing their findings in regards to water resource related topics. I believe their summary also applies to SKEA's questions about the entire DEIS(question 119). *Review of Water Resource Related Aspects of the King County Brightwater Project DEIS for CVWD, Robinson & Noble, January 2003*, "…Though the DEIS document presents appreciable information describing settings and discussing the implications of those settings to the project itself, it falls short of the needed detail and analysis of potential environmental impacts and in its assessment of the project in the context of the environment within which it must be placed and ultimately function. In all too many instances, it appears as if statements concerning impacts are merely opinions inserted into an existing document. Impact analyses are not explained or even acknowledged as having been done in many cases."

"… Since most impacts are merely identified as existing and not discussed in relation to the investigation identifying them, their relative importance to the District or the proponent cannot be determined. The document reader is apparently expected to trust the proponent's claim to properly identify future impacts and deal with mitigation responsibly at that time. As technical reviewers charged with assessing the DEIS in terms of protecting the District's interests, we believe the document's reliance on BMPs and "following the regulations" as a method of dismissing identified impacts is unacceptable for a project of such magnitude and potential impact.

The generic nature used to describe the geology and the hydrogeology is insufficient to establish that the proponent accomplished the needed groundwater impact analysis. An adequate definition of the geologic setting is not given in the document, and surface geology is only grossly presented on a few site maps and as a trace along the top of

Response to Comment O16-1

Thank you for your comment.

Response to Comment O16-2

Please refer to Cross Valley Water District's (CVWD's) comment letter (letter D3) and to specific responses to comments from their consultant, Robinson & Noble. Since the Draft EIS, significant additional subsurface data gathering and groundwater impact analyses specific to CVWD's water supply system have been conducted and are summarized in Appendix 6-B, Geology and Groundwater, of the Final EIS. These analyses show minimal, if measurable, impact to CVWD's well system and source of water.

conveyance route profiles. Likewise, an adequate definition of the hydrogeologic setting is not given in the document. Suburface geology is represented only by the logs of a few test holes along pipeline route profiles, and no interpretation of hydrostratigraphy, recharge, discharge or flow directions is given. As written, the DEIS does not afford sufficient understanding to assess groundwater resource impacts or determine how such impacts relate to surface waters. Neither does the DEIS support how the few groundwater impact statements given represent scientific conclusions."

If the District is to buy off on this project and accept the risks it carries, it must be given the opportunity to do so with all necessary information. It is our opinion that the document's failure to generate a full disclosure of impacts, its propensity to understate or disregard very real impact potential, and its offer of vague mitigation all make it unsatisfactory to the SEPA process..". O16-2

O16-3 King County did not do it's job. This DEIS document must be rejected.

Sincerely,

Linda Gray, SKEA
425-398-8788
22629 78th Ave SE
Woodinville WA 98072

http://seattlepi.nwsource.com/opinion/100332_orcalisting18.shtml
http://www.pugetsound.org/releases/r2002/release0410b.html
http://www.co.snohomish.wa.us/publicwk/swm/reports/newsletters/salmon%20newsletter.pdf
http://seattlepi.nwsource.com/specials/sound/
http://seattletimes.nwsource.com/text/134615874_brightwater15e.html
http://seattlepi.nwsource.com/local/103591_waste10.shtml
http://seattletimes.nwsource.com/text/134624565_dunphy30.htmlhttp://seattletimes.nwsource.com/text/134624235_brightwater30.html
http://seattletimes.nwsource.com/text/134624235_brightwater30.html
http://seattletimes.nwsource.com/text/134621630_brightwater25m.html
http://www.heraldnet.com/Stories/03/1/28/16428862.cfm

Response to Comment O16-3

The EIS has been revised in response to comments on the Draft EIS. The Final EIS provides a more refined project description, a concise evaluation of significant impacts, and additional information and technical data in the appendices.

Brightwater DEIS chapter critique

Name Linda Gray, Sno-King Environmental Alliance(SKEA)
Phone number 425-398-8788
Email address(es) newtl@msn.com

Pages starting with 1-12

Enter your comments here. Please number the comments and cite the pages. Box will expand with your comments.

O16-4
1. *Explain how the Brightwater DEIS is a valid document when it violates the code listed below by exceeding the maximum allowed 150 pages? WAC 197-11-425*
2. ***1.9.2** You state Edmonds and Lynnwood are outside of King County's service area. Absent willing sellers – which Unocal and Edmonds have been for over **two** years, explain how King County expected to justify Unocal as the valid alternative when it prepared it's DEIS in the Fall of 2002.* WAC 197-11-786, 197-11-440

O16-5
3. *How was King County going to condemn the Unocal property for Brightwater if it were selected.*

O16-6
4. *If Unocal is a valid alternative and "undo burden" is an issue why isn't King County looking at the expansion to 54 mgd sooner?*

O16-7
5. *How can sooner than 2040 which is nearly 40 years from now be descriptive enough? What do you mean by sooner? Describe how King County would expect this "sooner than 2040" be satisfactory in court when GMA clearly states particular sites cannot be expected to accept "undo" burden??*

O16-8

O16-9
6. *Why doesn't the DEIS contain information about conveyance between Lynnwood and Edmonds if Unocal is a valid alternative?*

O16-10
7. *How can King County expect the public and permitting agencies to make comment if consolidation of Lynnwood and Edmonds to the Unocal site is not completely understood?*

O16-11
8. *Explain how the 72MGD is a valid option valid if information about the conveyance is not complete?*

O16-12
9. ***1.9.4** How much clean water is Brightwater going to require during construction and how much is going to be required for operations?*
10. *Brightwater has stated they will use 5MGD to serve the needs of the treatment plant site – until reclaimed water is available, where will Brightwater obtain 5MGD of clean water?*

O16-13
11. *There are no firm mandates to produce reclaimed water today? No contracts have been signed - why is reclaimed water such a benefit when King County has no customers?*
12. *What will King County do with the reclaimed water if they never get the customer base they are projecting? Where will this water be dumped?*

Response to Comment O16-4

The primary purpose of SEPA's regulatory page limits is to force the writing of concise, readable environmental review documents that decision-makers and the public can easily understand. The SEPA Rules (WAC 197-11-425(4)) establish a limit of 150 pages for proposals of unusual scope or complexity, not including appendices and other background material. However, the SEPA Rules also recognize that the size and complexity of a proposal will be a driving factor in determining how long an EIS must be to adequately analyze significant impacts. WAC 197-11-402(5) states, "EISs shall be no longer than necessary to comply with SEPA and these rules. Length should relate first to potential environmental problems and then to the size or complexity of the alternatives, including the proposal." And WAC 197-11-402(6) states, "The basic features and analysis of the proposal, alternatives, and impacts shall be discussed in the EIS and shall be generally understood without turning to other documents…."

In writing the Brightwater EIS, King County has worked to provide a sensible balance between length and readability, on the one hand, and a thorough evaluation and supporting documentation of probable significant impacts and reasonable mitigation measures, on the other. King County has also worked to be responsive to comments on the Draft EIS that requested additional information and analysis in the Final EIS.

In regard to the absence of a willing seller for the Unocal site, SEPA requires an analysis of a limited number of reasonable alternatives that could feasibly attain or approximate a proposal's objectives. The Unocal and Route 9 System Alternatives are reasonable alternatives. If King County requires property for which there is no willing seller, then King County may use its authority of eminent domain. Like other governmental agencies, King County has the authority to condemn private property in order to make necessary

public improvements and provide necessary public services as long as the County provides just compensation for the property.

Response to Comment O16-5

Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-144. King County will follow applicable federal and state laws and King County policies and procedures in acquiring property for the project. Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation Web site at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

Response to Comment O16-6

Based on population forecasts and wastewater flow projections, King County does not anticipate the need to expand Brightwater to 54 mgd until 2040. Chapter 11 of the Final EIS has been revised to reflect Brightwater in the context of other regional public facilities in the vicinity. The discussion under Impacts and Mitigation Common to All Systems has been revised to include more detailed discussion of how Brightwater meets the Essential Public Facilities siting criteria and process established by Snohomish County and adopted by the City of Edmonds.

Response to Comment O16-7

Page 1-12 of the Draft EIS indicated that around approximately 2040, capacity would be expanded at the Unocal site. Capacity could be expanded sooner than 2040 if Edmonds and/or Lynnwood decide to close their plants and transfer flows to the Brightwater Treatment Plant. The decision about whether or not to close these plants and transfer flows is not under the control of King County. In addition, any decision about whether or not to expand the facility, and when, must consider other factors such as regional population growth, which can vary over time. As a result, predicting when, or if this would happen, is not foreseeable at this time. The intent of the comment is to convey that the site would offer the flexibility to expand capacity to meet regional wastewater treatment needs over time, if necessary.

Response to Comment O16-8

Please refer to the responses to the Washington State Department of Natural Resources, Comment W3-6 and Chapter 2 of the Final EIS for a discussion of updated flow forecasts. Please refer to Chapter 11 and Appendix 11-A, Land Use Plans and Policies: Brightwater Regional Wastewater Treatment System, of the Final EIS for a discussion of Brightwater's relationship to state and local plans and policies for siting essential public facilities.

Response to Comment O16-9

Please refer to the response to Comment O16-10 in this letter.

Response to Comment O16-10

King County is not proposing to transfer Lynnwood and Edmonds flows to the Brightwater System, thus such a proposal is not described or evaluated in the Brightwater EIS. The Cities of Lynnwood and/or Edmonds may choose to evaluate the benefits of transferring flows to Brightwater in the future. If they were to make such a proposal, they would be required to undertake environmental review of the proposal, consistent with the SEPA Rules. Please refer to Chapter 3 of the Final EIS for more details on this sub-alternative.

Response to Comment O16-11

Please refer to Chapter 3 and Appendix 3-A, Project Description: Treatment Plant, of the Final EIS for a detailed discussion of the 72-mgd option for the Brightwater System.

Response to Comment O16-12

The 5 mgd stated in the Draft EIS is the amount of reclaimed water that will be produced at plant start-up. The majority of this (up to 3 mgd) would be used for in-plant use. The potable water required would be approximately 350 gpm or 0.5 mgd.

Response to Comment O16-13

While there are no firm mandates for the Brightwater Treatment Plant to produce reclaimed water, the treatment plant will produce up to 5 mgd of reclaimed water for use on the site, including landscape irrigation and

process water, whether the facility is located at Route 9 or at Unocal. In addition, Ordinance 14107, which establishes policy site selection criteria for evaluating potential treatment plant sites, states that King County shall select sites that provide “room for reclamation of all wastewater flows.” Room would be provided on both the Route 9 and Unocal sites to reclaim up to 54 mgd of wastewater. However, decisions on whether or not to actually reclaim all flows from the plant will be made subject to Water Reuse Policies (WRP) 1 through 15 in Ordinance 13680, which adopts the Regional Wastewater Services Plan.

Whether or not a demand for reclaimed water develops in the future, the treatment technology currently being planned for Brightwater, membrane bioreactors (MBR), would produce an effluent that meets reclaimed water standards (with additional disinfection), thus there would be no excess reclaimed water that would need to be “dumped.”

If a market for reclaimed water develops in the future, there would be relatively small additional cost for treating reclaimed water if MBR is used at Brightwater. The only additional cost for making reclaimed water available to customers would be the cost of disinfection and to convey the water from Brightwater to the user. Please refer to Appendix 3-D, Reclaimed Water Technology Review and Evaluation of Potential Water Reuse Opportunities, of the Final EIS for a discussion of potential reclaimed water projects.

O16-13 13. *...the Brightwater system will be designed so that additional reclaimed water and necessary distribution pipelines can be installed to meet demand" Where is the cost and design for this in the DEIS?*

O16-14 14. *Why is King County looking to Brightwater to supply reclaimed water when King County's current plans already include a recycling facility in the Sammamish Valley. Doesn't this demonstrate water reuse can be provided without constructing a treatment facility at Route 9?*

15. ***1.9.8** "...King County will select the technologies that are best suited to the conditions at the Brightwater plant and for the intended end uses..." How can King County make this determination? What data will KC use – Payne field is not valid and they just installed the site monitor in May?*

O16-15 16. *Prove the Paine Field Model is representative of the air shed at Unocal and Route 9 with the following data?* 1. Temperature 2. Wind velocity 3. Wind direction 4. Rainfall 5. Dew point 6. Wind-chill 7. Barometric pressure 8. Snow fall 9. Humidity

17. *If you cannot prove Paine Field represents Unocal or Route 9 - revise your projections and justify your determination of odor control methodologies. How do you plan to guarantee 99.9% H2S removal?*

18. *Explain how King County can guarantee 99.9% removal of H2S if the secondary clarifiers are uncovered at Route 9 and you used the wrong air shed model.*

O16-16 19. *When will the Federal government be requiring all new plants provide tertiary treatment and Class A Biosolids?*

20. *In light of the recent dramatic downturn in Washington's economy justify why King County is rushing to get this plant in place before the Federal regulations are in place? – Relocation Services in Seattle has reported new residents inflow to the Seattle area is half of what is expected. Additionally, they expect that within the next year more people will be leaving Washington than relocating to this state.*

21. *Revise your population/employment statistics to reflect the item in number 20 above and prove that you need to have a plant in place by 2010? Exclude any use of the 2000 Census since the figures where collected prior to the area's "bust" and Boeing plans to leave.* http://seattletimes.nwsource.com/text/134621630_brightwater25m.html

O16-17 22. ***2.2.2.** Explain how King County came up with 60% of the sewage in 2010 coming from Snohomish County when Bellevue, Redmond, Sammamish Plateau, etc will be going to Brightwater and Edmonds/Lynnwood are not?*

23. ***2.2.2**Prove with maps where the 60% of the flow is going to originate in Snohomish County in 2010.*

24. ***2.2.2**Is your definition of RCE valid? 750 cf seems to be too high a volume? Shouldn't it be closer to 100?*

25. *If your definition of RCE is not accurate what effect does the change have on your projections?*

O16-18 26. ***2.2.3.3** How can King County claim an additional 36MGD for secondary effluent will not destroy an already endangered Puget Sound?* http://seattlepi.nwsource.com/specials/sound/

O16-19 27. ***2.2.3.4** Explain why King County isn't looking at Class A for biosolids?*

O16-20 28. *2.2.3.4 What are the plans/methods King County will use to guarantee carcinogenic levels of mercury will not be present in their Class B biosolids?*

Response to Comment O16-14

The Regional Wastewater Services Plan (RWSP), which identified the need for Brightwater and other wastewater improvement projects across the region, also outlines a water reuse plan. There is a potential for up to a 10 mgd agricultural demand in the Sammamish Valley that could be served by the Brightwater Treatment Plant instead of developing a separate Sammamish Reuse Treatment Facility in the valley. For further discussion on water reuse at Brightwater, please refer to Chapter 3 and Appendix 3-D, Reclaimed Water Technology Review and Evaluation of Potential Water Reuse Opportunities, of the Final EIS.

Response to Comment O16-15

Additional information has been provided about the dispersion modeling procedures used and the meteorological data used in the odor and air quality modeling in the response to Save Little Bear Creek Coalition, Comment O15-5, and in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS. The secondary clarifiers at Route 9 are now covered, and the odor control technology for the Unocal site and Route 9 site are the same in the Final EIS.

Response to Comment O16-16

The government requires tertiary treatment only where the receiving water quality mandates tertiary-treated effluent because of existing water quality impairments (wherever surface Water Quality Standards are not being achieved). Currently tertiary treatment is not required for marine water discharges such as the Brightwater Treatment Plant that would discharge to Puget Sound. Discharges into marine waters that meet all water quality standards, such as those from Brightwater, would require secondary treatment under the federal and state rules, promulgated under 40 CFR Part 133 and Chapter 173-221 WAC. Treatment of biosolids to Class A standards are not required by the government, as the level of treatment for biosolids depends on the end use. For

Brightwater, King County intends to continue its current biosolids program for reuse of Class B biosolids. The Brightwater Treatment Plant would be designed with provisions to upgrade the plant to enable the production of Class A biosolids, if so desired in the future.

Response to Comment O16-17

It is not known which federal regulations the commenter is referring to. For a detailed response to questions concerning population growth forecasts and wastewater flow projections, please refer to the response to the City of Seattle, Comment C10-l. Additional information about flow projections, population, and service area can be accessed in Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS. King County does not base wastewater projections on Residential Customer Equivalents (RCE), which are more commonly used to determine revenues.

Response to Comment O16-18

A majority of the scientific investigations completed by King County were focused on evaluating the potential impacts of the proposed outfall on the biological resources of Puget Sound and the people that frequent the shorelines. Eliminating or significantly reducing the possibility that people may become sick or aquatic life harmed, as a result of the new outfall has been the primary consideration of the outfall siting study. King County has identified what will be discharged from the outfall (effluent characterization reports), the dilution and transport of the effluent within Puget Sound (oceanographic modeling and plume modeling), and the potential pathways for contact with the discharge (biological investigations and human use survey). All of these studies increase the confidence in the determination that the outfall and effluent constituents are not expected to be harmful to people and aquatic life.

It was assumed that aquatic life could be exposed to effluent constituents anywhere within Puget Sound (including the effluent plume itself) and along the shoreline. For people, the worst-case scenario for direct exposure (incidental ingestion and skin contact with water and sand) was assumed to be the shoreline scenario. For fish ingestion, it was assumed that people may ingest fish exposed to outfall constituents in any of the locations. Since the outfall will discharge 1 mile offshore and the plume will be retained below 100 feet, it is unlikely that any scuba divers would be exposed to the discharge.

To evaluate the potential future impacts of the proposed outfalls, potential impacts under existing conditions were also evaluated. A key finding was that estimated impacts to people and aquatic life are generally the same under both existing and future conditions.

Response to Comment O16-19

Please refer to the response to Just the Facts, Comment O19-57, for discussion on biosolids production at the Brightwater Treatment Plant.

Response to Comment O16-20

The amount of metals allowed in biosolids is strictly regulated by state and federal rules that were developed to protect public health and the environment. These limits were set by the U.S. Environmental Protection Agency (EPA) following a comprehensive review of scientific data on biosolids and an extensive risk assessment process, including cancer risk. The EPA risk assessment evaluated 12 potential pathways in which humans might be exposed to metals from biosolids and calculated the most protective limits for each metal. The amount of metals in King County biosolids is well below the limits set by EPA. For example, the EPA limit for mercury is 17 parts per million (or mg/kg); in 2002 mercury in King County biosolids averaged 2 ppm. Biosolids produced at a new treatment plant would likely be of similar quality.The federal biosolids rule is contained in 40 CFR Part 503. *A Guide to the Biosolids Risk Assessments for the EPA Part 503 Rule*, EPA 832-B-93-003 or on the Web at http://www.epa.gov/owm/mtb/biosolids/503pe/index.htm.

O16-21
29. ***2.2.4*** *What is King County doing to reduce excess flows of combined sewage overflows today?*
30. *Explain why it will take until 2030 before King County can meet the DOE requirement of 1 CSO per site?*

O16-22
31. ***2.2.4.1*** *Describe how King County can claim there will be no CSOs in the Brightwater service area when the collector systems in the county tie into old networks where combined storm water/sewage occurs?*

O16-23
32. ***2.2.4.1*** *Describe why inflow of artesian water in the aquifers is not a CSO? How will this be managed?*
33. ***3.2.1*** *Where is it written the department of Ecology will absolutely prevent King County from issuing building permits if King County does not build a third sewage plant by 2010?*
34. *Did the DOE specifically state that 2010 was the deadline or was it King County?*
35. *Is 2010 deadline this based on population/employment figures?*
36. *Has King County made any effort to revise these figures since 2001 based on the recent downturn in employment and stock market? Do not include the 2000 census as this does not reflect the area's steep decline – the 2000 census was at the peak of the boom. The real downturn had not yet occurred(see attachment to #21 above).*

O16-24
37. *Please revise your population statistics to understand the effect of Washington's downturn in economy and growth. What effect does this have on the dates 2005 and 2010?*
38. *In the RWSP King County states they will reduce I/I when it becomes cheaper than building a new plant. Where is the document comparing the cost for Brightwater vs reducing I/I? Please make this document available.*
39. *If there was a comparison mentioned in #38 above, was it revised to reflect Phase III documentation and pricing? Why hasn't this information been made available to the public citizens?*
40. *Debra Ross and Christie True confirmed nearly 49% of Magnolia's133MGD and 31% of Renton's 115MGD processing is storm water. Discuss why King County is wasting nearly $2Billion dollars on Brightwater when they could obtain the 36Mgd necessary in 2010 by just eliminating storm water inflow/infiltration at their current plants?*

O16-25
41. *Explain how King County is going to meet the Federal requirement to eliminate/severely reduce I/I in the future.*

O16-26
42. *How does King County plan to pay for the extra sewage capacity they will create with Brightwater?*

O16-27
43. *Which residents of Snohomish County will be using the plant in 2010?*

O16-28
44. *Explain how the Snohomish County usage in 2010 adds up to 60% – include the cities/areas and maps?*

O16-29
45. ***3.2.1.1*** *Explain how King County will prevent additional decline of Puget Sound with secondary effluent when recent publications* http://seattlepi.nwsource.com/specials/sound/ *Seattle PI) and your own DEIS(Lake Washington was improved when secondary effluent was no longer dumped to this body of water) states this contributes to the decline in the water's viability?*

O16-30
46. *Describe how putting a lid on the Unocal site is considered "minor" when the cost*

Response to Comment O16-21

King County is currently nearing completion on two large CSO control projects. The Denny Way/Lake Union project will control the County's largest CSO at Denny Way, as well as the County's remaining CSO into Lake Union. As a joint project with the City of Seattle, it will also provide the final link to control all of its CSOs into Lake Union. King County is also completing the Henderson/MLK/Norfolk project, which will control the County's remaining two CSOs into Lake Washington, as well as one into the Duwamish River. These two projects will decrease untreated CSO from County facilities by one-third.

When those two projects are complete the County will move on to implement 21 additional RWSP CSO control projects. These 21 projects will cost King County over $300 million. These projects will be done over 25 years so as to spread out their cost impact on customer rates, as well as to spread out our demand for consultants and construction contractors. King County has prioritized the projects so that those near public and recreational access are done first, while those in industrial areas are done last.

Response to Comment O16-22

The local conveyance systems in the Brightwater Service Area are separated sanitary sewers. The combined sewer systems referred to by the commenter are located within or adjacent to the City of Seattle limits and are outside of the Brightwater Service Area.

Response to Comment O16-23

Groundwater seepage into conveyance system pipelines, should it occur, are not part of the flows that CSOs are designed to control. Several design methods will be used to minimize groundwater seepage into conveyance pipeline segments based on the site-specific parameters such as soil type, groundwater pressure, and proximity to surface water bodies, for instance. Please refer to Appendix 6-B, Geology

and Groundwater, of the Final EIS that describes pipeline construction methods to reduce infiltration.

Response to Comment O16-24

Under the state Growth Management Act, the adequacy of the King County Comprehensive Plan could be challenged if the capital facilities element, of which the RWSP is part, failed to support the adopted vision and land use in the plan by not accommodating the projected growth or providing an adequate level of service within the Urban Growth Area.

John Glynn, water quality section manager of the state Department of Ecology's Northwest Regional Office, said in a letter dated May 18, 1999, "I wish to take this opportunity to emphasize a point made by our Director in a letter to the County Council on February 10, 1999. If implementation of the plan is delayed, Ecology may be forced to impose a sewer connection moratorium on jurisdictions tributary to those King County facilities in danger of becoming overloaded due to the failure to install adequate transmission and treatment capacity within the time proposed by the RWSP. In view of the profound implications of such a moratorium, it is vitally important to begin the implementation of a plan that will provide adequate capacity as soon as possible." In a Feb. 10, 1999 letter, Tom Fitzsimmons, director of the state Department of Ecology, said, "Since it is natural to ask the consequences of certain decisions, allow me to touch upon the sensitive issue of enforcement in the event of non-compliance with state and federal standards. Should any jurisdiction choose to pursue a treatment option not in compliance with those standards, Ecology would be obliged to seek compliance through the imposition of penalties, sewer connection moratoria and/or through some form of injunctive relief. Such sanctions could also be sought by the EPA or by means of a citizen suit." A building moratorium could be imposed as early as 2005, and would extend to King County's entire wastewater service area, which includes part of Snohomish County.

For a detailed response to questions concerning population growth forecasts and wastewater flow projections, please refer to the response to the City of Seattle, Comment C10-l. Additional information about flow projections, population, and service area can be accessed in Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

The amount of I/I can vary, as storm events vary, so it is expressed in a percentage of the total flow or volume. The infiltration and inflow discussion in Chapter 2 also includes additional discussion of I/I control and its relationship with the need for additional capacity in the King County wastewater system. King County does have an Infiltration and Inflow Program that is currently underway as part of our comprehensive wastewater program improvements. As part of the RWSP, which identified the need for Brightwater and other wastewater improvement projects across the region, King County began the comprehensive 6-year Regional Infiltration and Inflow Control Program to identify sources of I/I into local sewer systems. Ultimately, local agencies and jurisdictions are being held responsible for their I/I. Through sewer rates, each agency pays for conveyance and treatment facilities designed and built by King County. King County has partnered with the 34 local agencies serving areas in King and portions of Snohomish County to develop a plan for the long-term control of increased I/I into the service area and regional system. For updated information about I/I, please refer to the RWSP progress reports in the library section of the RWSP Web site at http://dnr.metrokc.gov/wtd/rwsp/rwsp.htm.

The Infiltration and Inflow Program, in cooperation with local agencies, will determine what amount of I/I reduction is cost-effective. The information will be incorporated into a regional plan for the future control of I/I. The plan is on schedule to be completed in 2005. To what extent the plan will reduce I/I is still undefined and will be based largely on what is cost-effective and what benefits the region.

Cost and economic impacts are not topics analyzed under SEPA and therefore are not addressed in the Brightwater EIS. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

However, once a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to the construction and operational impacts. As part of the overall decision process, King County is revising the cost estimates (dated November 2002) for the Brightwater alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

Response to Comment O16-25

There is no federal I/I control requirement. Since combined sewer overflows can result from I/I, King County is interpreting this question as referring to the federal CSO control requirement. The Washington State CSO control standard of no more than one untreated CSO event per year on average is more stringent than the federal CSO standard of four to six per year. When the County CSO control program is complete in 2030, as described in Comment O16-21 in this letter, King County will have surpassed federal requirements.

Response to Comment O16-26

Information on cost and economic impacts can be found in the response to Comment O16-24 in this letter.

Response to Comment O16-27

Population and employment forecasts in north King County and south Snohomish County and how those forecasts are used to calculate wastewater flows are discussed Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Response to Comment O16-28

Service area overview, maps, and flow projections can be found in Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Response to Comment O16-29

A majority of the scientific investigations completed were focused on evaluating the potential impacts of the proposed outfall on the biological resources of Puget Sound and the people that frequent the shorelines. Eliminating or significantly reducing the possibility that people may become sick or aquatic life harmed as a result of the new outfall has been the primary consideration of the outfall siting study. As a result, the Final EIS contains an analysis of our investigations. We have identified what will be discharged from the outfall (effluent characterization reports), the dilution and transport of the effluent within the Sound (oceanographic modeling and plume modeling), and the potential pathways for contact with the discharge (biological investigations and human use survey). All of these studies increase the confidence in the determination that the outfall and effluent constituents are not expected to be harmful to people and aquatic life. Puget Sound provides for a better receiving basin than Lake Washington because the strong tidal currents promote the dilution of the effluent. Additionally the level of treatment at the Brightwater Treatment Plant would provide a higher quality effluent than was discharged into Lake Washington.

Response to Comment O16-30

The addition of a lid at Unocal is a sub-alternative that would allow the co-location of a multimodal transportation facility at the site. If this mitigation option were developed, it would be in partnership with WSDOT and the local permitting jurisdiction. For a description of the alternatives being studied in the EIS, please refer to Chapter 3 of the Final EIS. For information on Brightwater cost issues, please refer to the response to Comment O16-24 in this letter.

O16-30 *is nearly half the price of the plant itself?*

O16-31
47. *If the odor reduction is supposed to be 99.9% H2S why is the secondary clarifier covered at Unocal and not Route 9? Explain why the air shed at Route 9 would be better able to accommodate less protection? Please reference the recent StockPot Soups odor complaints in your response.*
48. *Document how King County can recommend leaving the secondary clarifier uncovered at Route 9 and guarantee 99.9% removal of H2S in this situation.*

O16-32
49. *Explain how Brightwater will protect the surrounding communities from pathogenic and/or toxic chemicals in the form of an aerosol cloud which would be trapped by the Route 9 air inversions and have a tendency to be cumulative ? What type of monitoring stations will be in place. How will the public be warned?.*
50. *How will King County warn the public and respond to catastrophic release of fumes such as aerosolized pathogens, methane gas, toxic fumes, chlorine gas, etc in our complex air shed? What provisions has King County set aside for victim compensation for illness and/or death? Where are these items mentioned in the DEIS?*

O16-33
51. *Why is King County building a new plant with old technology – Class B Biosolids? What guarantee will King County give that their Class B biosolids produced at Route 9 will not contain concentrations of carcinogens, chemicals, etc which can be passed back to humans thru plants grown on the "soil amendment for agricultural crops? Where is this answer listed in the DEIS?*

O16-34
52. *Where will the Methane gas produced be stored? What are King County's disaster response/recovery measures? Where is this listed in the DEIS?*

O16-35
53. *Can King County guarantee a Methane Gas leak at the Route 9 site will not endanger surrounding communities with the Route 9 air shed's tendency to hold and concentrate odors/gases?*

O16-36
54. *Who will profit from the sale of methane gas to energy suppliers? Will it be King or Snohomish County and how will this "credit" be given to sewer customers?*

O16-37
55. ***3.2.1.1** Describe how the management of storm water runoff proposed for Route 9 will guarantee Little Bear Creek will not be scoured*

O16-38
56. *Explain how building a plant where nearly double the amount of conveyance is required makes sense? How can this be economically feasible since sites on Puget Sound do not require an effluent line?*
57. *Who is paying for the multimodal lid? What other agencies might contribute to the cost? What is their contribution and was that subtracted from the cost of the lid?*

O16-39
58. *What is a sub-alternative structural lid and how does it relate to mitigation or value added component or base price? The lid has been placed in all of these categories by King County – which one is it for comparison purposes to Route 9?*
59. *Explain why isn't King County putting a lid on Route 9 if they are looking at one for Unocal?*
60. *Residents around Route 9 have also asked for a lid. Price and design a lid for Route 9.*

O16-40
61. ***3.2.1.3** – How does testing the plant with clean water suffice as insurance the plant will operate as designed?*

O16-41
62. *Isn't reinforced concrete highly susceptible to the corrosive effects of H2S? Explain how King County will maintain the plant, tanks, conveyance lines to*

Response to Comment O16-31

All processing areas will be covered. The membrane bioreactor technology does not require secondary clarifiers and the odor control technology for the Unocal site and Route 9 site are the same in the Final EIS. StockPot currently does not have any odor controls. The odor control technology chosen for Brightwater has demonstrated its ability to work on wastewater treatment processes in other parts of the country. Information about the wastewater treatment process and the odor control technology selected is provided in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Response to Comment O16-32

Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-256, for a discussion of airborne pathogens. Catastrophic releases of airborne pathogens are highly unlikely, speculative, and presently unforeseeable. In accordance with the SEPA rules, WAC 197-11-402, the Final EIS instead focuses on probable significant adverse impacts.

Response to Comment O16-33

Please refer to the response to Comment O16-20 in this letter.

Response to Comment O16-34

There will be no storage of the methane gas produced by the digesters as the methane will be utilized as it is generated to produce electricity and heat for the plant. In King County, emergencies and disasters are handled according to the provisions of the King County Emergency Management Plan. For more information, please refer to the following link: http://www.metrokc.gov/prepare/. King County's emergency response planning process is discussed in Chapter 9 of the Final EIS. They can be provided upon request by calling the Brightwater project team at 206-684-6799, toll-free at 1-888-707-8571, or via e-mail at brightwater@metrokc.gov.

Response to Comment O16-35

Methane would not be stored onsite. It would be burned in the turbines as it is generated. Methane also rises in ambient air; therefore, a methane leak in the quantities necessary to pose an explosion danger to the neighboring community is very unlikely even considering the area's ability to hold gases.

The U.S. Environmental Protection Agency (EPA) has a list of regulated substances subject to the Chemical Accident Prevention Provisions, Risk Management Planning requirements (40 CFR 68). The Risk Management Plan (RMP) chemicals are toxic and flammable chemicals that EPA has determined pose a threat when they are present above certain threshold quantities. While Brightwater is expected to use sodium hypochlorite, sodium hydroxide, sulfuric acid, and ferric chloride for its various odor prevention and wastewater treatment processes, none of these chemicals are included on EPA's list of regulated substances per 40 CFR 68. As none of the regulated chemicals would be present at the plant, the plant would not need an RMP.

Response to Comment O16-36

Biogas, containing mostly methane and carbon dioxide, is generated during the anaerobic digestion process. The biogas generated by the Brightwater Treatment Plant would be used to generate power onsite for the treatment plant. There would not be sufficient biogas produced to provide power to run the entire treatment plant at average wet-weather flow (AWWF) capacity and no power or biogas generated onsite would be used by offsite facilities or sold back to power company.

Response to Comment O16-37

Please refer to the response to the Save Little Bear Creek Coalition, Comment O15-22.

Response to Comment O16-38

At each step in the siting process, King County has gathered additional information about the proposed sites, pipeline routes, and marine outfall zones. In each subsequent step in the process, a select number of alternatives were picked for further consideration. A number of siting studies are available online, at http://dnr.metrokc.gov/wtd/brightwater/library.htm, including the Phase 1 and Phase 2 siting process documents and the Phase 3 technical documentation. Other technical documentation gathered for the siting process is available, but the files are too large for the Web site. Hard copies are available at area libraries and CDs are available upon request by calling the Brightwater project team at 206-684-6799, toll-free at 1-888-707-8571, or via e-mail at brightwater@metrokc.gov.

Further description and comparison of the alternatives can be found in Chapter 3 of the Final EIS. For a discussion of cost issues, please refer to the response to Comment O16-24 in this letter.

Response to Comment O16-39

A revised project description in Chapter 3 of the Final EIS provides additional detail on the proposed structural lid for the potential multimodal facility at Unocal. For information on Brightwater cost issues, please refer to the response to Comment O16-24 in this letter. If the structural lid were developed at Unocal as King County envisions, The Washington State Department of Transportation (WSDOT), City of Edmonds, and the Brightwater project would share its related costs.

The structural lid is being proposed to accommodate a possible multimodal transportation facility with a ferry terminal. As there is no proposal for such a facility at Route 9, King County is not evaluating a structural lid for this alternative. Although there are no plans for a structural lid at Route 9, the Route 9 Treatment Plant would still be designed so that treatment processes are covered.

Response to Comment O16-40

Clean water testing of the treatment plant would prove that the treatment plant works hydraulically and that the all the equipment operates as intended. The clean water would demonstrate that water flows through the plant according to design and that there are no leaks or spills prior to running wastewater through the plant. Clean water testing would not show whether the plant's wastewater processes will effectively remove contaminants. The plant is also required to undergo performance tests with wastewater to ensure that the design criteria can be met.

Response to Comment O16-41

Concrete is susceptible to corrosion from hydrogen sulfide gas, which produces sulfuric acid that causes corrosion. Corrosion considerations would be addressed in the design phase by providing adequate ventilation under the covers to prevent dead air zones and buildup of hydrogen sulfide gas and by providing protective coatings on the concrete basins and concrete covers. The basins would be designed to be watertight; please refer to the response to The Washington Tea Party, Comment O14-57. Groundwater beneath the tanks would be monitored. In the unlikely event that one of the tanks did leak and a sample of the groundwater showed signs of contamination, the tanks would be drained and repaired. The leak would be identified before the contamination would reach water supplies or salmon-bearing streams.

O16-41 *protect sensitive ground water, salmon bearing streams, water supplies, from leaching effects? What early warning methodologies will be installed to notify the plant and warn the public?*

O16-42 63. ***3.2.2** Will there be pipes inside of each tunnel or will the influent/effluent run in the tunnel itself? If it does run in the tunnel without separate piping describe how King County will guarantee monitoring and repair.*

O16-43 64. *How can King County guarantee 99.9% removal of H2S for all of the various components of the conveyance system when they have not done any studies or modeling?*

65. *How will this be done for manhole covers when the influent/effluent can be quiescent during low flows and gases build up? How will this be done at the individual portal locations?*

O16-44 66. *King County did not do an adequate number of soil borings to understand what types of boring machine and issues must be addressed for the conveyance lines. Explain what will happen when tunneling equipment gets stuck and is irretrievable. Will another parallel tunnel be bored? Will this require another portal? How will the public be notified if more land needs to be condemned?*

O16-45 67. *How much has King County set aside for unexpected events during the digging of the conveyance line? Cross Valley Water District lost a tunnel boring machine this Summer while digging for their Clearview Project. Their tunnel boring equipment got stuck under the Snohomish River this Summer. It is irretrievable and was due to encountering an unexpected soil type – CVWD was using the wrong type of boring machine.*

O16-46

O16-47 68. *Explain how King County can build 23 miles of conveyance lines at Route 9 for less than $1Billion when the big dig in Boston cost $14Billion for 14 miles vs 23miles with Brightwater and was not nearly as deep(greatest depth 150ft vs 455ft) .*

O16-48 69. *Puget Sound is not the ocean. It does not have flushing currents. Describe how adding an additional 36mgd of secondary effluent will not be harmful to an already endangered Puget Sound?* http://seattlepi.nwsource.com/specials/sound/

O16-49 70. *Who makes the decision on whether to use micro-tunneling vs open-cut construction? Does the public have any input/appeal to this process?*

O16-50 71. *Explain how King County expects the public and regulatory agencies to comment adequately on this DEIS when it excludes the vital final corridor/portal designations? We are talking about a corridor 23 miles long 20-100 ft wide, with 14 portals each 1-4acres but for the purposes of the DEIS King County said the corridor could be anywhere within a 1,000 ft wide swath while the portals would be 2 acres somewhere in a 72acre circle.*

72. *Prove the method listed in #71above was not an effort by King County to eliminate the public's involvement and right to know? .*

O16-51 73. *Describe how King County expects the people along the conveyance lines to have any idea when/where these final portal/conveyance portals will be to comment properly?*

O16-52 74. *Is King County going to provide a supplemental EIS to document the final portal and conveyance locations prior to starting on the FEIS? If so when? If not why not?.*

Response to Comment O16-42

One design option for some of the tunnel segments would be to have a pipe or multiple pipes, to convey influent and effluent inside the tunnel. Regardless of the internal lining system, the tunnels will be designed such that repairs would not be required as part of the normal operations. The Brightwater conveyance system will be integrated into King County's Wastewater Asset Management Inspection and Maintenance Program and an inspection schedule appropriate to each facility will be developed.

Response to Comment O16-43

King County conducted a H_2S monitoring program in the summer of 2003 to assess dissolved sulfide and H_2S concentrations within the tributary flow streams. Hydrogen sulfide levels are highest during the summer in the existing system and will provide worst-case scenario data to conservatively design the proposed odor control facilities. Based upon the results of the study, established odor control technologies will be applied within the design to obtain the required H_2S removal. Additionally, all air discharges from the proposed odor control facilities will be continuously monitored to ensure the system is operating optimally and odor control removal efficiencies are being achieved.

For the Route 9 Alternative, the number of portals or potential outgassing areas is limited to 4 along the influent tunnel and 1 along the effluent tunnel. For the Unocal Alternative, the number of portals or potential outgassing areas is limited to 3 along the influent alignment. The only access to conveyance lines will be at permanent portal locations. The volume of air outgassing from the underground structures is relatively small, because the size of the conveyance pipes is large relative to the rate of change of the peak wastewater flow rate. Any portal location where air can be released will have an odor control facility to treat all discharged air. The odor control technologies will be a combination of liquid phase (chemical injection) treatment,

chemical based scrubbing, carbon filtration, and/or biofiltration. These technologies are described in Chapter 5 and Appendix 5-B, Odor Analysis: Conveyance, of the Final EIS. The facilities will be monitored as described previously.

Response to Comment O16-44

Initial borings did provide enough information to determine tunnel boring machine specifics. It is anticipated that closed-face, earth-pressure balance machines (EBPM) will be required due to the presence of groundwater in some of the tunnel segments. Other types of machines (such as open-faced and digger wheel) are not capable of operations in the presence of such groundwater pressures. Additional borings are currently being performed to refine the tunnel design requirements such as optimal tunnel depths, lining system, and additional features of the EPBM.

Response to Comment O16-45

King County follows the condemnation process according to established King County Ordinances and procedures. Condemnation of any property requires consideration and approval by King County Council.

Response to Comment O16-46

King County sets aside a contingency fund for each construction project to cover unexpected conditions, with the amount in the fund varying depending on the size and nature of the project. The size of the Brightwater construction contingency fund will be determined during the final design process as more details for the treatment plant and conveyance system are developed.

Geotechnical investigations for the Brightwater project will provide the required information needed for the proper design and construction of the conveyance system and to minimize the potential (and associated costs) for unexpected conditions. The extent of the project and number of borings planned assure encountering every possible combination of soil and groundwater conditions. The tunnel boring machines will be specified to accommodate all these conditions, essentially eliminating any risk of not being able to handle a soil condition such as experienced in the Cross Valley Water District's Clearview Project.

Response to Comment O16-47

Economic impacts are not topics analyzed under SEPA, and therefore, are not addressed in the EIS. For further information on Brightwater cost issues, please refer to the response to Comment O16-24 in this letter. Boston's "Big Dig," one of the most complex transportation projects in history, included building a tunnel for an underground freeway system. Tunnels that convey wastewater do not have the same engineering requirements as tunnels that provide transportation thoroughfares for people and vehicles, which is one of the reasons there are cost differences between the two projects.

Response to Comment O16-48

The comprehensive oceanographic studies conducted by King County are documented in *Final Report Puget Sound Physical Oceanography Related to the Triple Junction Region*. The Puget Sound has typical estuarine-like circulation. Cold, salty, oceanic water flows in along the bottom and warmer, lower salinity water flows out on the surface. Analysis shows that the effluent would be diluted by a factor of several hundred-fold. Please refer to the response to the Washington State Department of Natural Resources, Comment W3-134.

Reference:

Ebbesmeyer, C.C., G.A. Cannon, B. Nairn, and M. Cawrse. 2002. *Final Report Puget Sound Physical Oceanography Related to the Triple Junction Region*. Prepared for King County Department of Natural Resources. Seattle, WA. October 2002.

Response to Comment O16-49

King County will work with local jurisdictions and agencies as part of the permitting process to select allowable construction methods.

Response to Comment O16-50

The EIS has been revised in response to comments on the Draft EIS. The Final EIS provides a more refined project description, including additional information on conveyance corridors and portal siting areas; a concise evaluation of significant impacts; and additional information and technical data in the appendices.

Response to Comment O16-51

Candidate portal sites are selected based upon a number of criteria related to minimizing community, property, and environmental impacts. Specific candidate portal locations within each of the portal siting areas are described in the Final EIS. More details about the portal site selection screening process are documented in Appendices 2-B, Portal Screening Level 1 and 2 Documentation, and 2-C, Portal 19 Screening Level 3 Documentation, of the Final EIS.

Response to Comment O16-52

King County is not preparing a Supplemental Draft EIS. Please refer to the response to Comment O16-50 in this letter.

O16-53 75. *What effect will excavation of soil at the portal sites have on traffic? Was this part of the DEIS traffic study? If so where?*

O16-54 76. *Where will the soil excavated from the portal sites be dumped and what is the cost?*

O16-55 77. *Where does King County account for twice the conveyance distance with Route 9 in their cost figures as it relates to excavating and dumping of the soil to build the lines?*

O16-56 78. *How does King County determine which portals will be restored to preconstruction condition and what is the cost? Does the public have an input/appeal to their decisions?*

79. *Identify exactly where chlorination and dechlorination(which portal) will occur for Route 9? What is the cost of this facility and where is it in the DEIS?*

80. *What guarantees does King County provide that gaseous chlorine build up will not occur in the effluent line on it's way to the outfall from Route 9? Describe the measures King County plans to use to prevent release of this dangerous gas between the plant site and the dechlorination facility?*

O16-57 *What emergency procedures (including naming the responding fire districts, cleanup, notification to public, etc) are in place in the event of a catastrophe?*

O16-58 81. ***3.3.1.3*** *Where is the equipment, plan and cost for King County to provide odor control and odor control equipment at the influent pump station for Route 9?*

82. *Is there going to be odor control for the Route 9 headworks building? If so what is the goal/plan, cost and where is the equipment?*

83. *If there is no odor control plan for the headworks building at Route 9, explain how King County can guarantee 99.9% odor control of H2S?*

84. *What is the odor control goal for Route 9 as compared to Unocal and why?*

85. *Justify how King County can propose less stringent controls at Route 9 when Unocal has a less complex air shed?*

86. *Where is the equipment, cost and the plan to provide odor control at Route 9 for the solids thickening and dewatering building?*

87. *What is King County basing their odor control criteria on – the site's zoning(light industrial) or the surrounding community which is R5?*

88. *Using the site specific data(15 minute intervals not summary)from Route 9 and Unocal for the same months, justify the use of Paine Field as a valid air shed model for Unocal and Route 9. These are the statistics which must be compared -.*

Temperature 2.Wind velocity 3.Wind direction 4.Rainfall 5.Dew point 6.Wind-chill 7.Barometric pressure 8.Snow fall 9.Humidity

89. *Rerun the toxic chemical emission assumptions made using the Paine Field model with the actual data from Route 9 and Unocal.*

O16-59 90. ***3.6*** *Explain why an aggressive program to reduce I/I in the current plants was not listed as the "no action alternative for Brightwater since half of West Point and 1/3 of Renton is storm water or I/I? There is no need to build a third plant and King County could start on this today.*

O16-60 91. *Explain why King County signed a 36 year agreement with Alderwood and is not considering sharing any excess flow as a valid no action alternative?*

92. *Justify the urgency in preparing for a third plant in light of items 90 and 91 above combined with current population, employment, growth statistics?*

93. *Explain what power the DOE could use to impose this moratorium on building*

Response to Comment O16-53

Additional detailed analyses of construction traffic related to specific portal locations have been included in Chapter 16 of the Final EIS and construction traffic routes and traffic impacts were identified. These analyses include the truck trips related to the excavation of soil at the portal sites. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for greater detail. These truck trips were included in the traffic analysis presented in Chapter 16, Section 16.2, of the Draft EIS.

Response to Comment O16-54

King County has specific policies and requirements regarding appropriate disposal sites for excavated soils and construction waste. Contractors are allowed to use any disposal site of their choosing, as long as King County has confirmed that the site follows the listed policies. Disposal costs are part of the contractors' bid packages submitted to King County in pursuing construction contracts. The costs will vary depending on the rates individual contractors negotiated with disposal site operators in assembling their respective bid packages.

Response to Comment O16-55

Economic impacts are not topics analyzed under SEPA, and therefore are not addressed in the EIS. For information on Brightwater cost issues, including how to obtain updated cost information, please refer to the response to Comment O16-24 in this letter. Please refer to Chapter 3 of the Final EIS for a description and comparison of the alternatives.

Response to Comment O16-56

King County will determine which portals will be restored to pre-construction conditions based on the final design of the conveyance and permanent structures needed at the site. The public would have an opportunity for input through the local permitting process. For the Route 9-195th Street System,

chlorination would occur at the treatment plant, and the dechlorination facility would be located at Portal Siting Area 5. Chlorination would also occur at the treatment plant for the Route 9-228th Street System but the dechlorination facility would be located at Portal Siting Area 26. The Unocal System would have both chlorination and dechlorination systems at the treatment plant. If ultraviolet light (UV) is used for disinfection, the dechlorination facility is not required.

Gaseous chlorine will not develop if UV disinfection is used. For sodium hypochlorite to develop into gaseous chlorine would require a very large overdosing of the chemical to the effluent. This could happen if effluent flow is stopped but chemical injection still continues and is allowed to continue for at least several hours. To prevent such a scenario, King County requires fail-safe controls that automatically stop chemical dosing if flows stop.

The EIS is intended to document the range of environmental impacts of the project, not financial details. For information on Brightwater cost issues, including how to obtain updated cost information, please refer to the response to Comment O16-24 in this letter.

Response to Comment O16-57

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

Response to Comment O16-58

The equipment, plan, and cost to provide odor prevention for the influent pump station and for the solids thickening and dewatering building are included in the overall odor prevention system. A multi-stage system is proposed, similar to the other odor prevention systems onsite. There would be odor prevention for the headworks building, similar to the odor prevention proposed for the influent pump station.

The odor prevention goal is the same for both the Unocal and Route 9 sites (no detectable odor at the property line at either location), and the odor prevention proposed is the same for both the Unocal and Route 9 sites (all liquids processes covered and under negative pressure and all buildings enclosed and under negative pressure). All odor prevention systems would be three-stage chemical scrubbers followed by carbon, with the exception of the digester vents and the biosolids truck staging. These systems would be carbon only. Chemicals would be added to the wastewater at both sites to prevent the formation of odor at the influent pump station and to further reduce odor loading at downstream processes. Please refer to Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS for more information.

The odor prevention criteria are based on the highest level of odor prevention in the United States and are suitable for a residential area.

Meteorological data for both Paine Field and for the Route 9 and Unocal sites were used in the modeling for the Final EIS. In some cases, the Paine Field data were more conservative, because that site experiences more inversions than either Route 9 or Unocal. The results of the modeling are described in Appendix 5-A.

The air toxics modeling was rerun with the site-specific data at both the Route 9 and Unocal sites.

Response to Comment O16-59

King County does have an Infiltration and Inflow (I/I) Program that is currently underway as part of our comprehensive wastewater program improvements. The RWSP, which identified the need for Brightwater and other wastewater improvement projects across the region, outlined a plan for an I/I Control Program. King County has partnered with the 34 local agencies serving areas in King County and portions of Snohomish County to develop a plan for the long-term control of increased I/I into the service area and regional system. For updated information about King County's Regional I/I Control Program, including the status of I/I project construction, please refer to the RWSP progress reports in the library section of the RWSP Web site at http://dnr.metrokc.gov/wtd/rwsp/rwsp.htm. Information on the I/I program can also be found in Chapters 1 and 2 of the Final EIS. Or visit the program Web site at http://dnr.metrokc.gov/wtd/i-i/index.htm. The response to Comment O16-24 in this letter also discusses regional planning related to I/I control.

Response to Comment O16-60

Please refer to the response to the City of Edmonds, Comment C9-36.

throughout the King County Service Area?

O16-61 94. ***Table 3-9*** *Explain how the no action alternative would have any impact on the Cross Valley Aquifer since there are no plans to convert the CVWD users(all of whom are on septic today) to sewer if Brightwater were to be built at Route 9?*

O16-62 95. ***Table 3-12*** *Explain why the no action alternative would be any worse than installing Brightwater at Route 9 since SSO's from Brightwater Route 9 would be routed to Lake Washington and the Sammamish River?*

O16-63 96. ***4.1.4*** *Sensitive critical aquifer recharge areas have not been designated for Snohomish County. Will King County guarantee protections required by local permitting agencies though these protections have not been codified?*

97. ***4.1.4.1*** *– The Groundwater level at Route 9 is 0 – How is King County going to manage and protect the discharge from this CARA - Little Bear Creek?*

98. ***4.1.4.2*** *- .Identify where information came for subsurface soils?*

O16-64 99. *Explain how can King County expect the public or permitting agencies to comment on mitigations for the Route 9 site when they have not identified?.*

O16-65 100. ***4.1.4. 3*** *identify which jurisdictions along the conveyance corridors have developed inventories and maps of geologic hazard areas and adopted those designations in their GMA list of sensitive/hazard areas for regulatory purposes?(this has not been done by Snohomish County for CARA's and one sits right under the Route 9 site – see attached petition to Snohomish County)*

O16-66 101. *How does King County plan to protect areas listed as sensitive/hazards which have not been identified and adopted according to GMA regulations by local jurisdictions?*

O16-67 102. *If there is a conflict with the regulatory agencies protecting these areas, will King County commit to abide by their requests though they have not been codified?*

O16-68 103. *Why haven't these inventories been verified in the field?*

O16-69 104. *How can King county identify hazard/landslide/ground rupture/liquefaction potential, etc with just 27 soil borings and no subsurface maps for the area completed? There is no excuse for not completing the evaluation other than with no data to worry about King County does not have to defend their decisions. King County did not adequately identify the environmental hazards prior to preparing this DEIS, therefore how can the public and permitting agencies be expected to comment on any mitigation.*

O16-70 105. ***4.2.2.2*** *Explain why King County feels it is justified placing a large conveyance corridor in an area highly likely to experience earthquake activity? The DEIS states an earthquake in this area of influent/effluent could contaminate an aquifer during an event.*

O16-71 106. *How will King County deal with the catastrophic consequences of such an earthquake?*

O16-72 107. *Where are the funds set aside by King County to compensate victims in these corridors should an earthquake cause disruption of the conveyance lines and a major spill occur?*

O16-73 108. *How is King County going to protect and monitor against voids along the tunnel bore which could result in consequential depletion of aquifers on or along the conveyance route?*

O16-74 109. *How is King county going to protect against the ground subsiding during*

Response to Comment O16-61

The No Action Alternative is expected to result in an increase in the number of septic systems in the area as development of the area progresses. An increase in the number and density of septic systems is a common reason for development of centralized wastewater treatment facilities because of the potential for impacts to groundwater quality. For example, Spokane County is currently siting and constructing a wastewater treatment system to manage growth and development of septic systems over the Spokane Prairie-Rathdrum Valley Sole Source Aquifer.

Response to Comment O16-62

Please refer to the response to The Washington Tea Party, Comment O14-149.

Response to Comment O16-63

King County has been working with Snohomish County to meet the substantive requirements of Snohomish County's draft critical aquifer recharge area (CARA) ordinance. King County recognizes the importance of groundwater and the shallow aquifer system in the vicinity of the Route 9 site. The groundwater level at the Route 9 site varies across the site from about 3 feet to 10 feet below the ground surface, as well as varying seasonally. Management and protection of the groundwater are discussed in detail in Appendix 6-B, Geology and Groundwater, of the Final EIS.

Information on subsurface soils summarized in the Final EIS for the Route 9 Treatment Plant site and conveyance corridors came from published reports and borings drilled by King County. The Unocal site's existing extensive subsurface data gathered by the site owner as part of the owner's remediation investigation was used as the basis for understanding the Unocal site's subsurface conditions. For updated information, please refer to Appendix 6-B and Chapter 4 of the Final EIS.

Response to Comment O16-64

SEPA requires that the lead agency analyze the significant adverse environmental impacts of a proposal and discuss measures to mitigate identified impacts. Some of the mitigation measures identified in the Brightwater EIS are required by code, and some are not. Mitigation measures in the Final EIS are listed as "proposed" or "potential." In considering the Draft EIS comments and conducting additional analysis, King County has developed additional mitigation measures, which it will include as part of the mitigation measures of the Brightwater proposal. Permitting agencies may determine that other mitigation measures, including those listed as "potential," are needed. For additional information on how mitigation is determined, please refer to the response to the City of Shoreline, Comment C6-5.

Response to Comment O16-65

All the jurisdictions with maps and/or inventories of their geologic hazardous areas, of which we are aware, are included in the reference for Chapter 4 of the Final EIS. King and Snohomish Counties have the most inclusive maps. Most of the other cities, except Edmonds, rely on the county maps. The cities of Kenmore and Bothell, for example, obtain the information for their maps, in part, from the King County sensitive areas folios. For the Final EIS, a field reconnaissance has also been conducted at each proposed primary portal location as a basis for a survey-level assessment of geologic hazards. The results of this work are also included in Chapter 4.

Response to Comment O16-66

Regardless of their regulatory protection by local jurisdictions, King County has minimized or avoided impacts to known sensitive areas wherever feasible in the siting and design of treatment plants, portals, and outfall alignments. During the permitting process, additional evaluations will be completed, including delineations of wetlands and more detailed habitat studies to identify sensitive areas that have not previously been identified. King County will also comply with all applicable local, state, and federal permitting requirements in place at the time that the County files permit applications, including local regulations for critical areas that have been adopted in accordance with the GMA.

Response to Comment O16-67

King County will work with all local, state and federal agencies to ensure sensitive areas are adequately managed, protected, or impacts are mitigated as required by the regulations.

Response to Comment O16-68

Please refer to the response to the Richmond Beach Community Council/Bannister, Comment O8-38.

Response to Comment O16-69

Landslide, ground rupture, and liquefaction potential are hazards that are routinely defined and mapped by various jurisdictions as part of their critical areas ordinances (CAOs). The hazard maps developed by the local jurisdictions and counties are typically developed using existing U.S. Geological Survey (USGS) surficial geology maps, ground contour maps (to quantify steepness of slopes), and information on prior hazard occurrences (such as landslides and liquefaction). The mapping also will include information from soil borings, if it is available, to refine the hazard areas. These CAO maps are published by the jurisdictions as general guidance for projects being developed within the maps' geographic coverage. The information provides a general understanding of the potential hazards and identifies the need to evaluate potential hazards in detail with site-specific explorations, as necessary, as the project is developed. The existing CAO maps have been used as appropriate for the Brightwater EIS evaluation; subsequent detailed site-specific data gathering will be conducted in the design phase to further identify and characterize potential hazards in the system area.

Response to Comment O16-70

Please refer to the responses to Olympic View Water and Sewer District, Comments D2-67 and D2-76.

Response to Comment O16-71

Catastrophic consequences as the result of an earthquake are not anticipated for influent and effluent tunnels. It is well documented the world over, even in areas much more seismically active than Puget Sound, that tunnels are some of the safest, most earthquake-resistant structures.

Response to Comment O16-72

King County has a comprehensive plan in place to address a range of emergencies, and is prepared to take measures to protect worker safety, public health, and continue operating the wastewater system to the extent possible under emergency circumstances.

Please refer to Chapter 3 of the Final EIS under Handling Emergency Overflows for information on the safety relief system for the Unocal site. Additional information is available in Appendix 3-E, Flow Management and Safety Relief Point.

Response to Comment O16-73

Voids can be detected from within the tunnel, as the tunnel is being constructed. Any voids along the tunnel would be filled with grout. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS for additional information.

Response to Comment O16-74

The top of the tunnels would be at least two tunnel diameters below the ground. For a 14-foot tunnel, this separation would be 28 feet between the crown (top) of the tunnel and the ground. Standard tunneling industry practices indicates that a two-tunnel-diameter separation is the most effective distance to minimize the risk of surface impacts, such as surface subsidence.

O16-74 *construction and operation on or near the many regional aquifers?*

O16-75 *110. How is King County going to protect the many CARA zone's it traverses when Snohomish County has not adopted them into their GMA maps?*

O16-76 *111. **4.3.1** – Why doesn't King County using Best Available Science rather than BMP?*

O16-77 *112. Since King County is committed to protecting critical areas, do they plan to use the soon to be released storm water control requirements developed for the NPDES permit?*

113. If not why not, especially since King County has a more strict policy for storm water control than Snohomish County?

O16-78 *114. How does King County plan to protect Little Bear Creek(ESA salmon bearing stream) from destruction from storm water runoff.*

115. King County has not adequately identified if/where/how much perched water is located at Route 9, whether/where the aquifer underlying the site is confined, etc, due to their inadequate 5 boring study. Therefore, what is King County using to provide the public with the follow assurance? "Proven construction methods and technology can mitigate most, if not all, of the impacts from dewatering at the treatment plant sites."

O16-79 *116. What are those mitigations King County plans to use in the question above?*

117. " For most excavations, dewatering (lowering the groundwater table) is needed to enable construction to occur in dry conditions and also to reduce hydrostatic uplift pressures so the foundation soil at the bottom of the excavation is not disturbed" What is King County doing to establish baseline groundwater levels today in the project area?

118. What guarantees/methods will King County provide and use to ensure water will not be drained away from any public/private water supply in the project area when this "dewatering" occurs?

O16-80 *119. SEPA substantive authority gives all levels of government the ability to condition or deny a proposal based on environmental impacts. King County has not done an adequate job of identifying environmental impacts in this DEIS to provide government agencies the information they need to condition or deny Brightwater. WAC 197-11-660 i.e.:*

O16-81 - KC expected the public to comment on its plant design for BW yet did not include any drawings or plans for the Plant at Route 9.

O16-82 - In the RWSP King County states they will reduce I/I when it becomes cheaper than building a new plant – where is this study? And who is KC to make this decision???

O16-83 - KC provided 11 (70 acre) portal designations for the 23 miles of conveyance for Route 9 but did not identify the specific 2 acres they plan to use for each portal. How can they expect the public to comment when the public doesn't know if it will be their house which is condemned or affected or not?

O16-84 - KC only reported on the 5 soil borings they preformed at the Route 9 site. They excluded the many other borings given to them by Snohomish County Planning. But did include all 170 borings they were given for the Unocal site. The borings they excluded from Route 9 were the ones by OPUS and StockPot soups. These clearly show soils subject to liquefaction, lateral slide, slumping, artesians, perched ground water. Etc. KC clearly did not want to reveal what they found because the soil content of the borings near OPUS and the 5 they did include match.

O16-85 - KC used a bogus air modeling configuration from Payne field rather than data from the sites. This allowed them to erroneously declare the air shed safe from accumulations of toxic fumes, chemicals, pathogens and odors.

Response to Comment O16-75

Critical aquifer recharge area (CARA) regulations are identified and discussed in Appendix 6-B, Geology and Groundwater, of the Final EIS. Snohomish County has drafted, but not yet released, its CARA ordinance. As part of preparing this Final EIS, King County met with Snohomish County to discuss its future CARA ordinance and agreed to comply with the substantive requirements of the yet-to-be-released ordinance.

Response to Comment O16-76

Under the "best available science" requirements of the Growth Management Act, local jurisdictions are required to update their codes and policies to protect the functions and values of critical areas by incorporating best available science. Best management practices are frequently used to implement the requirements of these local regulations to protect critical areas. King County is committed to working with local, state, and federal permitting agencies to identify best management practices and other mitigation strategies to protect critical area functions and values. With respect to the impact evaluations contained in the Final EIS, scientific literature has been extensively reviewed and supplemented where appropriate by field work to meet the requirements of SEPA to disclose impacts and provide decision makers with a meaningful level of detail with which to evaluate proposed actions and alternatives.

Response to Comment O16-77

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-115. Also please refer to the response to the Suquamish Tribe, Comment T1-6, regarding the likely need for an Individual NPDES permit from the Washington State Department of Ecology. The requirements of this Individual permit will be more specific to the Brightwater project compared to King County's general NPDES stormwater permit.

Response to Comment O16-78

Stormwater treatment during and after construction at the Route 9 site is designed to meet state Water Quality Standards and to protect Little Bear Creek. Please refer to the response to the Washington State Department of Natural Resources, Comment W3-191, for a discussion of stormwater management during construction, and the response to Comment W3-196, for a discussion of stormwater treatment during operations.

Response to Comment O16-79

As part of the Final EIS, King County drilled seven additional borings at the Route 9 site, with three of the borings going to 90 feet and one boring going to 500 feet below the ground surface. Multiple levels of groundwater monitoring devices were installed to measure groundwater pressures at various depths beneath the ground. In addition, for the 500-foot boring continuous coring drilling methods were used to get the best sample possible to evaluate soil layers with depth. These additional data, along with the data summarized in the Draft EIS, are more than sufficient to characterize the existing affected environment and to conduct groundwater analyses of impacts and mitigations for the Brightwater System.

Mitigation methods that are included in the anticipated construction approaches are described in Appendix 6-B, Geology and Groundwater, of the Final EIS. The primary measures include use of the diaphragm wall construction method for the influent pump station (which requires significantly less groundwater dewatering) and re-infiltration of dewatering water back into the near-surface shallow aquifer.

Currently, groundwater levels are measured each month at multiple depths across the site. King County will monitor drawdown during construction both up-gradient and down-gradient. If any domestic water user is adversely impacted, King County will ensure that they receive potable water and that the impact is corrected.

Response to Comment O16-80

Both the Draft EIS and the Final EIS include a discussion of the probable significant adverse environmental impacts and the reasonable mitigation measures for these identified impacts beyond that characterized in this comment. The Brightwater proposal involves several facilities and significant complexity. The Draft EIS was issued at a point in time when a certain level of information was known relating to the probable significant adverse impacts of the proposal and possible ways to reasonably mitigate those impacts. In areas where there was uncertainty in relation to impacts in one respect or another, the Draft EIS presented, following SEPA Guidelines, a worst-case analysis of impacts. In other areas, the Draft EIS indicated that ongoing analysis was under way and that additional information would be forthcoming. Since issuance of the Draft EIS in late 2002, considerable additional analysis has been conducted, as is the case on any large project, to further define and develop the proposal and respond to Draft EIS comments.

Many of the details described as necessary for an EIS relate to information either that does not involve significant adverse impacts or that is important prior to issuance of actual permits but may not be essential to include in an EIS. Such information may not be included in the Final EIS, because it is not required and King County is mindful of the need to keep the Final EIS as readable as possible. Any additional analysis that has been conducted that relates to probable significant adverse impacts that will not be mitigated or regulated into non-significance is included as part of the Final EIS analysis. This EIS is in fact intended to serve as the SEPA basis for all local and state permits and approvals. It is anticipated in most instances, local or state agencies will simply adopt the EIS.

Response to Comment O16-81

Additional information on the treatment plant processes and specific site layouts for both the Route 9 and Unocal sites are in Appendix 3-A, Project Description: Treatment Plant.

Response to Comment O16-82

The Infiltration and Inflow (I/I) Program, in cooperation with local agencies, will determine what amount of I/I reduction is cost-effective. The information will be incorporated into a regional plan for the future control of I/I. The plan is on schedule to be completed in 2005. To what

extent the plan will reduce I/I is still undefined, and will be based largely on what is cost-effective and what benefits the region.

Information on the I/I program can also be found in Chapters 1 and 2 of the Final EIS. Or visit the program Web site at http://dnr.metrokc.gov/wtd/i-i/index.htm. The response to Comments O16-24 and O16-59 in this letter, discuss regional planning and policy related to King County's I/I program.

Response to Comment O16-83

Candidate portal sites are selected based upon a number of criteria related to minimizing community, property, and environmental impacts. Specific candidate portal locations within each of the portal siting areas are described in the Final EIS. More details about the portal site selection screening process are documented in Appendices 2-B, Portal Screening Level 1 and 2 Documentation, and 2-C, Portal 19 Screening Level 3 Documentation, of the Final EIS.

Response to Comment O16-84

The soil borings provided to King County for the Opus and StockPot properties are included in the geologic and geotechnical evaluation for the Route 9 site in the Final EIS and are discussed in Appendix 6-B, Geology and Groundwater, of the Final EIS. Chapter 4 of the Final EIS discusses potential liquefaction at the Route 9 site and artesian pressures. At the Route 9 site, one or more of the following approaches would be used to effectively mitigate liquefaction: 1) critical structures can be placed outside the potential zone of liquefaction, 2) planned site regrading is expected to remove quantities of the liquefaction susceptible soils, and 3) stable foundation surfaces can be provided by over-excavating potentially liquefiable soils and recompacting them.

Response to Comment O16-85

Please refer to the response to the Save Little Bear Creek Coalition, Comment O15-5, for information.

O16-86
- KC did not identify the SSO site for Lake Washington and the Sammamish River meaning those affected did not know to comment.

O16-87
- KC used an erroneous baseline to determine that dumping an additional 36MGD of secondary effluent to Puget Sound would not have a damaging effect on an already compromised water way.

O16-88
- KC Did not identify their odor recommendations nor exactly what 99.9% removal of H2S means or why they are leaving the secondary clarifiers uncovered?

O16-89
- KC did not identify all of the down gradient private wells to the south and West of Route 9 which will be adversely(drained or contaminated in a spill) affected by Brightwater.

O16-90
- KC used bogus data to justify no impact to traffic on Route 9 - assumed Route 9 was already widened - this has not been funded, used 2010 as the year to illustrate construction traffic - this is the beginning of operation, used PM traffic figures only – when AM is the time when more traffic occurs, excluded railroad crossings, and excluded most of the key bottleneck intersections..

O16-91
- KC left out how the safety relief valve will work at Route 9 but included it for Unocal. Check out the Phase III drawings - there is nothing there for Route 9 and it is the preferred alternative
- KC coincidently stopped the Whidbey fault line short of the Route 9 site
- Included subsurface geology maps with question marks in the middle indicating they don't what's there.
- etc. etc.

O16-92
120. Describe how King County can substantiate the following statement in the DEIS when they have not provided any data as support(not identified how they are going to address the geologic hazards, operational impacts on soil, sediments, etc). "construction of the Brightwater treatment, conveyance, and outfall facilities will incorporate measures to avoid or minimize geologic hazards and to minimize construction and operational impacts on soil, sediment, and groundwater to the maximum extent practicable. No significant unavoidable adverse impacts to earth and groundwater resources are expected to result from construction or operation of the Brightwater Treatment Plant"

121. Where is the detail to support this comment "...no significant unavoidable adverse impacts to earth and groundwater resources..."

*122. **4-49** Explain how King County can state the no action alternative would have any effect on the Cross Valley Aquifer since there are no plans to move current septic users to Brightwater should it be built at Route 9?*

O16-93
*123. **5.2.1** - The discussion of air quality impacts related to the conveyance system and outfall is qualitative only. No modeling was performed, nor was meteorological data collected at portal siting areas along the conveyance corridors. – Why wasn't this done – KC had over a year to understand the issues? How does King County expect to address the odor requirements and provide the community a chance to respond when no research has been done?*

O16-94
*124. **5.2.5** Describe what/how operating efficiencies might be compromised by the no action alternative. Include statistics to prove your conclusion and justify why retrofitting current plants with state of the art odor control, reducing I/I and using Alderwood for any excess is not a better choice than building Brightwater.?*

O16-95
*125. **5.3.3** – where are the mitigation plans for the outfall during operation and what are they?*

*126. **5.4** Based on the lack of data collected by King County(no actual data from the sites and an unproven model - Paine Field, nothing for the outfalls, or conveyance)*

Response to Comment O16-86

The Draft EIS discussed potential safety relief points into the Sammamish River or Lake Washington in Section 3.8. A discussion of emergency flow management procedures is included in the Final EIS. Please refer to Chapter 3 and the discussion of impacts in Chapters 6, 7, and 9.

Response to Comment O16-87

The baseline used in assessing the impacts to the surface waters of Puget Sound were the existing marine conditions plus the addition of the Brightwater effluent. King County knows of no other large outfall being proposed for the region.

Response to Comment O16-88

The secondary clarifiers at the Route 9 site are no longer included and the odor control technology for the Unocal site and Route 9 site are the same in the Final EIS. Additional details about the wastewater treatment process and the odor control technology selected are provided in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Response to Comment O16-89

Please refer to the response to the Washington State Department of Ecology, Comment W5-43.

Response to Comment O16-90

Recent traffic counts were collected and the data were used in the analysis of intersection and segment operations. Please refer to Chapter 16 of the Final EIS for sources of traffic data. Existing traffic counts are documented in the separately bound "Supplemental Traffic Information" document, and can be reviewed at the King County project office.

Please refer to the response to the U. S. Army Corps of Engineers, Comment F2-7, for the status of the SR-9 widening project. Since the issuance of the Draft EIS, the SR-9 project has been funded through the "Nickel Funding Package" as legislated by the State of Washington. Chapter

16 of the Final EIS analyzes the traffic impacts along SR-9 with and without the proposed widening of SR-9 between SR-522 and SR-524.

The current proposed construction schedule for the Brightwater project would be from 2005 to 2009. Based on peak construction periods for construction at portal and treatment plant site s , the detailed analyses of construction traffic were updated for the Final EIS to represent the peak construction year of 2007. Furthermore, the Final EIS also evaluated the impacts of the SR-9 widening and Brightwater projects if both projects were under construction at the same time. Please refer to Appendix 3-G, Construction Approach and Schedule, of the Final EIS regarding schedule and sequence of construction.

Please refer to the response to the City of Woodinville, Comment C5-140. The AM peak-hour traffic volumes on SR-9 between SR-522 and 228th Street SE were approximately 10 percent lower than PM peak-hour volumes. AM peak traffic conditions were analyzed and included as part of the Snohomish County concurrency requirements for operation of the treatment plant. Please refer to Appendix 16-A, Transportation Concurrency: Route 9 Plant Site, of the Final EIS for the concurrency analysis.

Using rail for construction access was considered and rejected as a mitigation measure. Instead, other measures are proposed. Please refer to Chapter 16 of the Final EIS.

The key intersections along SR-9 included both of the SR-522 ramp termini and 228th Street SE. The intersection of SR-9 and SR-524 was added to the traffic analysis presented in Chapter 16 of the Final EIS. These are the intersections in the vicinity of the Route 9 site that may be affected by project construction traffic.

Response to Comment O16-91

The safety relief is not shown on the Route 9 drawings because it would not be located onsite. The safety relief for both the Unocal and the Route 9 sites would be to the Sammamish River in the Kenmore area. A second safety relief for the Unocal System would be located on the Unocal Site. Please refer to Appendix 3-B, Project Description: Conveyance, for more information.

Response to Comment O16-92

Whidbey fault line location: The Whidbey fault lines shown in the Draft EIS are not based on King County's interpretation, but on the interpretations of various existing seismic researchers. The exact location and extent of the South Whidbey Island fault are unknown and have been projected at several locations, all shown in the EIS for the purpose of completeness. As part of the Final EIS, King County met with researchers from the U.S. Geological Survey (USGS) and the University of Washington, who are conducting ongoing studies on this faulting system to get the most up-to-date information. This information is shown and described in Chapter 4 of the Final EIS. Even with the most current information available, the researchers project that the South Whidbey Island fault is outside the siting criteria established by King County for the Brightwater System.

Geology maps with question marks: It is standard field of the geology to show question marks between areas where there may be some uncertainty in the geologic interpretation. To infer that the exact geologic contacts are definitely known would be incorrect and potentially dangerous.

Appendix 6-B, Geology and Groundwater, of the Final EIS includes a detailed and comprehensive evaluation of the potential effects, impacts, and mitigations of the Brightwater System with respect to groundwater and geology to substantiate the statements made in the Final EIS that no adverse impacts are expected as a result of the construction and operation of Brightwater.

It is correct that there are no plans to move existing septic tank users to the Brightwater System. However, as development continues in the north King County and south King County and if all new developments have to rely on septic tanks, then a potential adverse risk to groundwater quality could result from the increased amount of septic discharges.

Response to Comment O16-93

Odor control facilities will be provided along the conveyance corridor at all structures with the potential to outgas or those that require ventilation. Additionally, there will be continuous air monitoring at all facilities to ensure odor control equipment is working optimally and

meeting treatment criteria. Due to the level of removal at the stack, dispersion is not relied upon for odor abatement. The volume of air outgassing from the underground structures is relatively small, because the size of the conveyance pipes is large relative to the rate of change of the peak wastewater flow rate. Please refer to Appendix 5-B, Odor Analysis: Conveyance, of the Final EIS for additional information

King County conducted a H_2S monitoring program in the summer of 2003 to assess dissolved sulfide and H_2S concentrations within the tributary flow streams in the existing system. Dissolved sulfide and H_2S levels are highest during the summer, and will provide worst-case scenario data to conservatively design the proposed odor control facilities.

Response to Comment O16-94

Over a decade ago, King County began preparing for the eventuality that our wastewater treatment system would run out of capacity by 2010 due to rapid population growth in the Puget Sound region. In November 1999, as a result of nearly 8 years of planning and study, the King County Council adopted the Regional Wastewater Services Plan (RWSP), a comprehensive 30-year plan to meet our region's wastewater treatment needs. The Final EIS for the RWSP can be found online at http://dnr.metrokc.gov/wtd/rwsp/FEIS/toc.htm.

Impacts of the No Action Alternative are addressed in the pertinent impact chapters, but also in the description of the purpose and need for the Brightwater project found in Chapter 1. In addition, the infiltration and inflow discussion in Chapter 2 has been changed to include additional discussion of I/I control and its relationship to the need for additional capacity in the King County wastewater system. Chapter 3 of the Final EIS offers a detailed description and comparison of alternatives, including the No Action Alternative. Appendix 3-J, Evaluation of the No Action Alternative, addresses the No Action Alternative in additional detail. For further discussion about flows from Alderwood Water District and the need for Brightwater, please refer to the response to the City of Edmonds, Comment C9-36.

Response to Comment O16-95

Impact from and mitigation plans for the outfall are included in Chapter 5 of the Final EIS. There are no mitigation plans for the operation of the outfall because there should not be any air quality impacts associated with the operation of the outfall. To reduce air emissions in the outfall zone during construction, marine vessels and equipment would be required to use emission control measures similar to those described for land-based equipment under mitigation measures for treatment plant sites.

The air dispersion model used for the Final EIS is EPA's Industrial Source Complex Short-Term Dispersion Model (ISCST3, version 02035). The ISCST3 model is recommended by EPA for use in demonstrating compliance with the National Ambient Air Quality Standards. Additional information about the dispersion modeling procedures used and the meteorological data used in the odor and air quality modeling is provided in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS. King County has provided additional information about the dispersion modeling procedures used and the meteorological data used in the odor and air quality modeling in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS. As mentioned in the Draft EIS, meteorological data are being collected from two monitoring stations, one located at the Unocal site and one located at the Route 9 site. The intent has been to collect 12 months of data that will be used in the modeling for the Notice of Construction permit. At the time of the Final EIS, 9 months of data had been collected, which has been used for the odor and air modeling for the Final EIS. In addition, 4 years of data from Paine Field has also been modeled. The Paine Field data provide the model with additional potential weather patterns to evaluate. Please refer to the Final EIS for additional information. Hourly data from the Unocal and Route 9 sites, plus data from Paine Field, were used in the dispersion modeling for the Final EIS. The results of the modeling are presented in Chapter 5 and Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Regulatory requirements and environmental impacts were provided in the Draft EIS. However, additional details have been provided in the

Final EIS based on comments received on the Draft EIS. This additional information is intended to help clarify the proposed project to the reader.

in preparation of the DEIS – explain how King County can make the following statement – "...There are no significant unavoidable adverse impacts to air quality associated with this project since dispersion modeling indicates that there will be no adverse impacts from odors and air toxics, and combustion sources will meet current emission standards"

127. Prove through comparison of actual data(not summarized) compiled from the sites vs that from Paine Field that the dispersion model used for Unocal and Route 9 were accurate.

128. King County needs to run all assumptions against the proven model to justify their assurances that the HAP, etc levels are not above legal limits?

129. Explain how King County can expect the public to comment when the DEIS does not have any data from which to derive conclusions for purposes of understanding environmental impacts and the proper regulatory requirements? O16-95

*130. **6.2.5** Since the SSO site for Brightwater at Route 9 is the Sammamish River and Lake Washington justify with statistics how the no action alternative could be worse? **See attached SSO report.*** O16-96

131. What additional water bodies could be affected and under what conditions? How could this happen? O16-97

132. What figures/facts were used to prove significant public health impacts could occur in the EIS for the RWSP – are they still valid today with the regions depressed population/employment, etc? O16-98

*133. **7.2.5** Provide justification why King County cannot use current plants to accommodate sewage needs through reduction in I/I and expansion?* O16-99

*134. Describe "rare" occasions since nearly 2Billion gallons of sewage is dumped into our waterways yearly thru SSO and CSO overflows every year? **See attached SSO excel report**. Why isn't King County eliminating these today?.* O16-100

135. CSO sites according to King County will not meet DOE standards until 2030? Why is King County taking money from this program to build an old technology plant - Brightwater? Justify how letting CSO/SSO's continue to occur is preferable? O16-101

*136. **8.2.5** "...providing this additional service could require greater energy expenditures". – Justify this comment with facts and figures.* O16-102

*137. **9.2.5** Since the SSO site for Brightwater at Route 9 is the Sammamish River and Lake Washington justify with statistics(use a valid baseline) how the no action alternative could be worse? Accidents happen all the time – see attached SSO report.*

138. How does the no action alternative mean more failed septic systems since Brightwater will not address septic systems currently in place? O16-103

*139. **9.2.6** Document why King County did not take into account the cumulative effects of adding another outfall with 36mgd of secondary effluent to Puget Sound when evaluating potentially toxic chemicals, already high levels of nutrients, etc?*

*140. **16.2.2.2** What is King County using to support it's statement "...seven of the 12 study intersections would be expected to operate at LOS F" since the businesses on the Route 9 site do not contribute to traffic congestion along these routes.* O16-104

*141. **17.2.5** Justify the growth expected for Snohomish County with today's figures for growth/employment.* O16-105

Response to Comment O16-96

Please refer to the response to The Washington Tea Party, Comment O14-149.

Response to Comment O16-97

Impacts from emergency overflows at the safety relief point in the Sammamish River would be limited to the river and northern portions of Lake Washington. An emergency bypass of untreated wastewater to the outfall in Puget Sound could also occur under the Unocal Alternative. Other points where spills could occur include the treatment plant sites themselves and pump stations. To the extent that these facilities are near water bodies such as Little Bear Creek (Route 9), Willow Creek (Unocal), or other surface waters, impacts to these other water bodies could occur. However, due to the designs of each treatment plant, which include emergency bypass systems and redundant power backups, spills would be highly unlikely.

Response to Comment O16-98

For a detailed response to questions concerning population growth forecasts and wastewater flow projections and how this relates to the need for Brightwater, please refer to the response to the City of Seattle, Comment C10-l. Population and employment forecasts in north King County and south Snohomish County and how those forecasts are used to calculate wastewater flows are discussed Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Response to Comment O16-99

The infiltration and inflow discussion in Chapter 2 includes additional discussion of I/I control and its relationship with the need for additional capacity in the King County wastewater system.

Over a decade ago, King County began preparing for the eventuality that our wastewater treatment system would run

out of capacity by 2010 due to rapid population growth in the Puget Sound region. In November 1999, as a result of nearly 8 years of planning and study, the King County Council adopted the Regional Wastewater Services Plan (RWSP), a comprehensive 30-year plan to meet our region's wastewater treatment needs. The Final EIS for the RWSP can be found online at http://dnr.metrokc.gov/wtd/rwsp/FEIS/toc.htm. The RWSP, which identified the need for Brightwater and other capital facilities in the region, includes plans to expand South Plant in Renton in 2029.

Response to Comment O16-100

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-121, for more information on the proposed safety relief point in the Sammamish River. Regarding ongoing overflows, King County is currently actively working with the Washington State Department of Ecology, the City of Seattle, and the community to reduce the discharge of combined sewer overflows (CSOs) into Lake Washington and Puget Sound. Currently under construction are two projects, the Denny Way CSO Control Project and the Henderson CSO Control project, to control two of the largest CSO discharges in the King County System. Numerous other projects are currently planned or are underway to continue to aggressively address CSOs. King County is also committed to minimizing sanitary sewer overflows to the extent feasible through regular maintenance and monitoring at existing facilities.

Response to Comment O16-101

The RWSP, which identified the need for Brightwater and other wastewater improvement projects across the region, outlined a plan for a Combined Sewer Overflow (CSO) program to reduce overflows and discharges when the sewers reach capacity. For updated information about King County's CSO program, including the status of CSO project construction, please refer to the RWSP progress reports in the library section of the RWSP Web site at http://dnr.metrokc.gov/wtd/rwsp/rwsp.htm. Information on the CSO program can also be found in Chapter 2 of the Final EIS. King County's Combined Sewer Overflow (CSO) Control Program Web site can be found at http://dnr.metrokc.gov/wtd/cso/index.htm.

The technology employed at Brightwater will enable King County to meet or exceed applicable state and federal standards for wastewater treatment and discharge. Chapter 3 of the Final EIS discusses the treatment processes, site layout, and construction methods that will be used in building and operating Brightwater. Further discussion of technology can also be found in the response to Jones, Comment I411-9.

Response to Comment O16-102

Providing the additional capacity to treat up to 54 mgd at either the South Treatment Plant or the West Point Treatment Plant would require the installation of additional equipment and capacity throughout the conveyance system to convey flows from the north end to these two treatment plants. This could potentially require more energy than treating the wastewater at either the Route 9 or Unocal sites.

Response to Comment O16-103

Please refer to the response to The Washington Tea Party, Comment O14-149, and Appendix 3-J, Evaluation of the No Action Alternative, of the Final EIS for discussions of the No Action alternative. Without construction of the Brightwater Treatment Plant, King County's existing wastewater facilities would reach capacity by approximately 2010. As described in Chapter 3 of the Final EIS it is possible that a moratorium on growth could be imposed. It is also possible that some areas that would otherwise be provided with connections to the regional wastewater system, would instead be served by individual onsite sewage treatment systems. Under this scenario where the number of such systems could increase, the number of failures of such systems could similarly increase.

In terms of cumulative impacts, the discharge to Puget Sound will comply with all applicable discharge limitations and requirements, which are designed to protect beneficial uses in Puget Sound. This permitted discharge, however, will add a small increment to the overall trend of increased nutrient, metal, and solids inputs to Puget Sound from urbanization in the region. Even with strict compliance with regulations for stormwater and wastewater discharges, the overall level of pollutant loading to Puget Sound is increasing. There are no known plans for additional discharges in the Central Puget Sound Basin. For the analysis

of potential environmental and human heath impacts of the Brightwater discharge, predicted effluent constituent concentrations were modeled using the existing conditions in Puget Sound, and resulting analysis therefore accounts for the cumulative impacts. The analyses, which are included in the *Phase 3 Brightwater Marine Outfall Water Quality Investigation* (Parametrix and Intertox, 2002) and in Appendix 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System, of the Final EIS concluded that all water quality parameters would remain within safety guidelines. Constituents that were determined to be near acceptable guidelines were exclusively the result of existing conditions, and the addition of Brightwater effluent was an insignificant contribution. Please refer to Chapter 6 of the Final EIS for additional information.

Response to Comment O16-104

Background traffic due to growth in the area is expected to increase the traffic volumes on SR-9 and 228th Street SE with or without the proposed project by 2040. The additional number of trips generated by the proposed project, in relation to increased volumes due to growth in the area, would not result in changes in segment or intersection LOS as compared to the No Action Alternative. Please refer to Chapter 16 of the Final EIS for updated 2040 No Action levels-of-service.

Response to Comment O16-105

King County has prepared an updated population and flow analysis. Please refer to Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS. A discussion of Brightwater, in relation to plans and policies and employment growth projections for Snohomish County, including revised land capacity and employment information is provided in Chapter 11 of the Final EIS. Please refer to Chapter 17 for a discussion of water requirements for Brightwater construction and operations (including fire flows) and proposed mitigation.

142. ***17.2.5*** *What potential inconsistencies with adopted comprehensive plan policies and service agreements is King County talking about?*
143. *How much clean water will Brightwater require during construction and operation(prior to production of reclaimed water)*
144. *Where will this water be obtained?*
145. *How much water does Brightwater need during construction and operation for fire protection? Where will this be obtained?*
146. *The Cross Valley Water District does not anticipate any major water improvement projects near the Route 9 site (G. Hajek, Cross Valley Water District, personal communication, July 3 and August 26,2002. Per the comments from CVWD and since Cross Valley Water District has no operational backup water supply for its current well customers, how does King County propose to obtain water and protect the current users of the CVWD?* O16-105
147. *Explain how King County plans to guarantee the water supply for CVWD and the surrounding private wells down gradient and to the West/South of Route 9 at their current level or better.* O16-106
148. *What guarantees, dollars and plans does King County have to address any disruption, destruction, drainage, contamination, etc of the CVWD water supply and/or private wells during the construction or operation of Brightwater?* O16-107
149. *Should there be disruption, contamination, etc, will King County immediately hook the CVWD well users and/or surrounding private wells to clean potable water paid for by King County(at no cost to the well users) in a timeframe dictated by those current well users?* O16-108

Response to Comment O16-106

The construction and operations phases of the Brightwater Treatment Plant at the Route 9 site is anticipated to have negligible, if measurable, effect on the Cross Valley Water District wells, and domestic wells located in the vicinity of the site. However, King County is committed to mitigating significant adverse effects to water users should impacts occur and will implement a Potable Water Supply Program as described in Chapter 12 of the Final EIS. King County will also conduct a well inventory in potentially affected areas prior to the initiation of construction dewatering activities to ascertain the location and the condition of private wells currently in use as a baseline. Please refer to the response to the Washington State Department of Ecology, Comment W5-15, which provides a brief summary of the groundwater impact analyses conducted for the Route 9 site. A more detailed analysis is contained in Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O16-107

Several regulations mandate the protection of aquifers, and King County will comply with applicable local, state, and federal laws during the construction and operation of Brightwater. Detailed information on geology, groundwater, and management of water quality during construction at the treatment plant sites can be found in Chapter 6 and Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O16-108

King County has a comprehensive plan in place to address a range of emergencies, and is prepared to take measures to protect worker safety, public health, and continue operating the wastewater system to the extent possible under emergency circumstances.

Several regulations mandate the protection of aquifers, and King County will comply with applicable local, state, and federal laws during the construction and operation of

Brightwater. Detailed information on geology and groundwater, and management of water quality during construction, at the treatment plant sites can be found in Chapter 6 and Appendix 6-B, Geology and Groundwater, of the Final EIS. Chapter 17 of the Final EIS describes King County's plans to mitigate service disruptions to local residents and businesses.

Linda Gray
SKEA
2/5/2003

KING COUNTY SSO Report compiled from KC reports to DOE 6/2002-5/95

Description	Date	Plant	Spill dumped to	Leak	volume-gallons	cause	Commments
West Point Plant Emergency Sewage Bypass	6/11-19/2002	West	Puget Sound	x	1800gpm for 9 days	influent bypass gates malfunction,Leak from bottom of emergency marine outfall	
Sewer overflow Henderson Pump Station	7/24/02	East	overflow from manhole in parking lot of QFC into Seattle storm drains	x	unk	blockage in Seattle private sewer line	information provided to DOE as a courtesy since overflow to a receiving water did not occur
Sewage bypass Fremont Siphon Relief	2/27/02	West	Canal St. Relief - Ship canal	x	250,000	leak in bypass gate that opened to CSO outfall line	
sewage overflow of Secondary Effluent Vashon Treatment Plant	2/13/02	East	outfall manhole into Gorusch Creek, Vashon treatment plant	x	500	high flow surge- failure to open bypass valve while draining chlorine contact tank	
Sewage overflow at Hidden lake pump station	12/16/01	West	entered outfall pipe		41,000	no upstream storage for storm events - design in progress	
Overflow of Secondary Effluent Vashon Treatment Plant	12/13/01	East	overflowed the chlorine contact channel into Gorsuch Creek, Vashon Treatment plant	x	9,000	Rain Storm - high flows. Hydralic limitations of outfall pipe, plan to expand plant in next 3-5yrs	
Peak Flow Capacity-West Point Treatment Plant, gear box replacement w/sewage pump 2	12/3/01	West	repair			danger of complete failure if not fixed, reroute to South tx plant	
Sewage overflow due to blocked line	11/21/01	West	Duwamish waterway near 1st avenue bridge	x	80,000	blockage where line transistions from 12-10" diameter	
Primary treatment Sewage flow diverted around secondary process	10/30/01	West	diversion around secondary process		1,100,000	hydraulic gate failure	
Sewage Overflow at Murray Pump Station	10/4/01	East	outfall pipe in Puget Sound contained in pipe with 169,000gal capacity		10,000	power failure cause by traffic accident 2hrs to get power back	
Sewage Overflow at Wilburton Siphon Construction site	10/1/01	East	Kelsy Creek	x	1,500	plug failed	
sewage Overflow at Juanity Dr SE	8/19/01	East	Juanita Bay Park and Creek	x	25,000	broken 1" line connecting to force main	
Overflow King Street Regulator Station	6/29/01	West	Elliott Bay	x	1,000	trunk level sensor failure	
Overflow at 10700-27th Ave S manhole	4/10/01	East	contained in manhole	x	100	Air bleed unit seeping effluent	
Sewage bypass at Carkeek Park Pump station	4/3/01	West	Puget Sound	x	1,600,000	power outage, emergency generator installed for pump stat	
Murray Pump Station Sewage Overflow	3/20/01	East	Puget Sound	x	56,000	local power outage	

Sewage overflow Heathfield Pumping Station	1/9/01	East	City of Bellevue storm drain	x	1-3,000	power bump, Progammable Logic Controller failure, to be fixed 4th qtr 2001	
Sewage overflow Wilburton Siphon	12/12/00	East	Mercer Slough	x	0.5L/m for unk duration	21" siphon leak	
Loss of Disinfection South Treatment Plant Renton	10/18/00	East	Puget Sound	x	8,000,000	Failure of planned power outage/plant shutdown. Influent pumps dropped offline	Hope to have regular chlorine system back on line 11/2000
Sewage bypass and overflow Hidden Lake pump station	10/2/00	West	Puget Sound	x	66,324	power bump, protective relay failed, UPS moved to dedicated circuit	
Sewage bypass and overflow Hidden Lake pump station	9/16/00	West	Puget Sound	x	7,900	power bump, protective relay failed	
Sewage Bypass and overflow Kenmore pump station	8/29/00	West	Sammamish River near Kenmore boat launch	x	80,000	gate failed to shut during planned power outage drill	
Yarrow Bay Pumping Station sewage overflow	5/4/00	East	Yarrow Bay area of Lk Washington	x	67,000	electrical component failure in 3 phase monitor	
Overflow of Secondary Effluent, Vashon Plant	2/1/00	East	Gorsuch Creek	x	35,000	flow in excess of outfall capacity due to heavy rainfall	
Sewage overflow West Point treatment plant	1/4/00	West	Puget Sound	x	18,000,000	1effluent pump down for routine maint, 2nd pump failed during high flows due to rain	
Overflow of Secondary Effluent, Vashon Plant	12/15/99	East	Gorsuch Creek	x	25,000	heavy rain and outfall flow limited	
overflow of influent from Interbay pump station at Denny regulator	11/12/99	West	Elliott Bay	x	3,800,000	hydraulic valve malfuction caused influent gate to close and stop functioning. Heavy rains also a factor	
Barton Pump station overflow	10/8/99	East	Puget Sound	x	48,000	Power outage, plan to install standby gen by 2001 or 2002	
Iinterurban pumping station forcemain sewage leak	4/21/99	East	Green River Footbridge Ft. Dent Park, Tukwila	x	3,500	Force main px, 2 check valves cracked on brass casings due to hydraulic transient in forcemains	
Sewage overflow Carkeek Pump Station	3/3/99	West	Puget Sound	x	416,000	Power outage at pump station emergency gen does not carry the pump station load, emergency gen in design stage, heavy rains also a factor	
Sewage overflow Hidden Lake Pump station	3/2/99	West	Puget Sound	x	152,000	extended rain storm flows exceeded force main capacity, attempts to run 3rd pump unit to min overflow caused manholes on force main to surcharge causing unsafe conditions	
Sewage overflow 30th Ave pump station	1/31/99	West	Union Bay Lake Washington	x	30,000	power outage caused switch to emergency power and 30th Ave failed due to overheating	
Chemical Discharge Alki Stormweather Plant	1/19/99	East	Puget Sound	x	43,760 diluted bleach	rainwater from roof activated the float starting the pump	

Mill Creek Trunk sewage overflow	12/28/98	East	Mill Creek	x	40,000	mod-severe rains caused excess capacity
Black Diamond Pumping Station sewage overflow	12/11/98	East	Ginder Creek which eventually flows by stream to Lake Sawyer	x	152,000	Electrical transformer failure caused slow drop in voltage, generator started, pumps did not, plan to install UPS
West Point Plant and Collection System sewage overflow	10/16/98	West	Puget Sound	x	41,000,000 untreated, 92,000,000 primary treatment only	main electrical feeder failed from Seattle City Light and backup feeder also failed to provide enough power
Lakeland Hills Pumping Station Sewage Overflow	9/8/98	East	White River - hosed down sidewalk with water to clean	x	8-12,000	Wetwell level bubbler turned down too low(2 pump control failures), alarm system failed to notify main control. Designing upgrade for controls to prevent in future
63rd street Pumping Station sewage overflow	7/14/98	East	Puget Sound Duwamish waterway	x	approx 200	emergency bypass gates leaking due to rotting at Alki plant
Sewage overflow Hidden Lake Pump station	6/24/98	West	Puget Sound	x	81,856	pump station #4 overflowing due to insufficient discharge from Hidden Lake Pump stationwhen instrument air accidently shut off
York/Hollywood Transfer line sewage overlow	4/22/98	East	Roadside ditch tributary to Sammamish River	x	3,000	broken drain line between York and Hollywood pumping stations
Sewage overflow West Point Treatment Plant	3/23/98	West	Puget Sound	x	100,000	Opening hydraulic supply to emergency bypass gate caused gate to open about 1%
Sewage overflow Interbay Pump Station	3/22/98	West	Puget Sound Elliott Bay	x	13,300,000	High wetwell relay failure caused emergency closure of pump station influent gate
Sewage overflow York Pumping Station forcemain	2/5/98	East	JB Instant Lawn's yard eventually in ditches to Sammamish River about 1 mile away	x	780,000	Vacuum relief valve failed on pump station's forcemain. Valve stuck open
Sewage overflow Hidden Lake Pump station	1/19/98	West	Puget Sound	x	204,000	Power bump at station, emergency generator did not pick up the station due to burnt relay in the auto transfer system
Sewage Overflow Murray Ave and 53rd St. Pumping stations	10/30/97	East	Puget Sound	x	250,000	heavy rainfall resulted in high flows to Alki System and failure of a temporary gate installed during modifications to 63rd St. Pumping Station
Sewage Overflow Ballard Regulator	10/5/97	West	Salmon Bay	x	300,000	bad interceptor level sensor preventing regulator gate from reopening after interceptor level had dropped below its setpoint

Sewage Overflow - West Point Treatment Plant	10/3/97	West	Puget Sound	x	625,000	Control power loss part of a larger influent control structure power outage. UPS failed to maintain the 120 VAC control power causing the fail-safe sequence to initiate
Sewage Overflow Freeway interceptor, Tukwila	8/27/97	East	Storm drain retention basin, Gillian Creek	x	172,800	DOT work at new manhole
Sewage overflow Carkeek Pumping station	7/14/97	West	Puget Sound	x	550,000	Seattle City Light power outage no UPS
Sewage overflow at West Seattle Pump Station	5/31/97	East	Alki Area	x	6,000,000	heavy rainfall combined sewer influent to 63rd flooded pumping station's drywell
Sewage overflow Medina Pumping Station	3/20/97	East	Lake Washington	x	40,000	stormwater pump shut down due to false vibration alarm
Sewage overflow Cascade Siphon, Renton	3/19/97	East	Ground near Cedar River Wetlands	x	unk	CSO highflows, construction working on installing parallel line
Sewage overflow Bryn Mawr System	3/19/97	East	Lake Washington	x	unk	CSO highflows, construction working on installing parallel line
Sewage overflow Medina Pumping Station	3/18/97	East	Lake Washington	x	42,000	power bump causing larger stormweather pumps to fail
Overflow of reuse water Alki plant	3/10/97	East	Waterworks park wetlands C-4 water containing chlorine residual of 0.1mg/L, and resuse plant effluent turbidity below 1NTU	x	320,000	broken connection at c-4 meter box just north of anaerobic digesters
Sewage Overflow at Bryn Mawr siphon	12/10/96	East	Lake Washington	x	unk	siphon inlet surcharged due to lack of capacity. Project underway to increase downstream conveyance system
Sewage Overflow South Mercer Island Pumping Station	11/19/96	East	Lake Washington	x	126,000	Station lost primary and secondary power due to storm, plan to have stationary generator
Sewage overflow 63rd st. Pumping Station	10/13/96	East	Puget Sound	x	750,000	Electrical storm blew fuse on one of three lines that supply power. Single phasing undected thru night. Plan to install alarm to notify of single phasing
Sewage overflow Harbor Regulator	7/18/96	West	West Duarnish waterway	x	14,000	Plugged bubbler which controls operation of outfall gate.
Sewage overflow Henderson Street Pumping Station	5/12/96	East	Lake Washington	x	1,500	Heavy rain, one pump out of service
Sewage overflow Denny Way Regulator	5/7/96	West	Puget Sound	x	170,000	Intense rain caused trunk level to go up 7ft and overflowed station

Sewage overflow 63rd st. Pumping Station	2/9/96	East	Puget Sound	x	166,000	Main Circuit breaker tripped during storm. Flows in excess of 50,000,000 pumped thru station	
Sewage overflow Kenmore Pump station	2/8/96	West	flow from upstream 68th Ave manholes to Sammamish River	x	20,000	heavy rain taxed capacity of Kenmore after it received 10,000,000 gal extra flow from Ballinger and Hollywood pump stations	
Sewage Overflow Mill Creek Interceptor	2/8/96	East	from Manhole R18F into Mill Creek	x	unk	south interceptor full to capacity due to storm. Plan to reduce incoming sewage flow	
Sewage overflow Cascade Sipon	2/8/96	East	from manhole R10-33 at S 259th in Renton to Cedar River	x	unk due to remoteness of line	sipon surcharged due to rainstorm. Lasted 3 days	
Sewage overflow Interurban Pumping Station	1/17/96	East	storm drain to Green River	x	2,000	Leaking forcemain. Station will be decommissioned 1/20	
Sewage Overflow West Point Treatment Plant	7/19/95	West	Puget Sound	x	800,000	emergency bypass gate bumped open during hydraulic leak repair	
Sewage Spill Report - West Point Treatment Plant	6/7/95	West	Ground west end of Treatment Plant	x	2-300	outfall gate structure cover not completely sealed, caused cover to leak	reported as courtesy to DOE since no bypass or overflow
Sewage Overflow West Point Treatment Plant	5/2/95	West	Inside West Point Plant	x	5,000	flow meter manhole cover left open, will recap pipe even if its open only for short period	

Linda Gray
SKEA
2/5/2003

November 15, 2002

To the Honorable County Council,
We the residents of unincorporated South Snohomish County do hereby petition the Snohomish County Council to immediately adopt the Model Code Recommendations for Designating And Protecting Critical Areas, Washington State Office of Community Development, Growth Management Services, First Edition (2nd Draft)-May 2002, Chapter X.30. Designation and protection is a requirement under the Growth Management Act RCW 36.70A.050, 060 and .172 combined with Article 11 of the Washington State Constitution. Under such regulation, Snohomish County is required to designate and adopt regulations protecting Critical Aquifer Recharge Areas and Critical Areas as defined in RCW36.70A.030 (5)(b) areas with a critical recharging effect on aquifers used for potable water).

Immediate adoption is petitioned because:

1. While designation and protection of Critical Areas has been a requirement for over 10 years, Snohomish County has not complied. Snohomish County is using interim legislation SCC 32.11 which is unacceptable because:
    a. it does not identify then designate the specific areas to be protected by the law(RCW 36.70A.050, 060 and .172)
    b. it does not utilize "best available science" as defined by WAC 365-195-900 through 365-195-925
2. According to the Snohomish County General Policy Plan Goal NE 1.A.1 - "The County shall designate critical areas for protection, pursuant to the Growth Management Act."
3. Development plans presented to Snohomish County have the immediate potential to significantly threaten the quality and quantity of ground water – specifically the Eastern portion of the Intercity Plateau Aquifer, the Cross Valley Sole Source Aquifer, Group A Wells, Group B Wells and their zones of contribution, and the hydrogeology of Little Bear Creek. Some of the potential hazards include:
    a. "Activities that would significantly reduce the recharge to aquifers currently or potentially used as potable water."
    b. "Activities that would significantly reduce the recharge to aquifers that are a source of significant base flow to a regulated stream."(Little Bear Creek)
    c. A significant increase in impervious surfaces dramatically decreasing aquifer recharge.
    d. Dewatering required during construction/plant operation has the potential to cause significant reduction in the groundwater table and surface water discharge to streams
    e. Over-pumping can not only deplete the aquifers but cause the ground to subside drastically.(see attached PowerPoint)
4. Snohomish County Groundwater Characterization Study, Economic and Engineering Services, Inc. in association with Sweet-Edwards/Emcon, Inc, 7/91
    a. Page 7 Section IV "…Because of the importance of potable groundwater to many areas within Snohomish County, and the preliminary nature of the surface recharge potential maps, an additional non-physical criterion

(conformance with Sole Source Aquifer criteria) was used to prepare a critical aquifer recharge area map (Figure IV-6). This map incorporates all the high potential recharge areas shown on Figures IV-2 and IV-3 and the areas included in the Cross Valley, Newberg and Tulalip Sole Source Aquifer Petitions." I have attached Figure IV-6 for your review.

b. Section XI, page 1"...The aquifer recharge areas and their vulnerability to pollution as identified in this study should be adequate for initial designation under the GMA."

c. Section XI, page 3"...The critical aquifer recharge areas identified in this assessment should be adopted by the County as "Critical Areas" in response to the requirements of the GMA. The interim protection regulations should focus on targeted SEPA review of proposed projects within said areas by the designation as Environmentally Sensitive Areas and by amendment of the current "county Policy for Protection of Groundwater Resources." More specific protection measures and regulations should be developed as a product of the planned GWMP activities.

d. Section XI, page 3, 2 "...Critical aquifer recharge areas be further evaluated as additional data becomes available. *High risk land use areas (e.g. industrial and commercial zoning) outside, but in proximity to such recharge areas, should be evaluated on a more intense scale* to determine what degree of recharge potential exists and whether any of these areas meet the Critical Area criteria."

5. Robinson & Noble, "Concepts on Aquifer protection for CVWA Ground Water System, 2/89".

   a. The entire recharge area should be considered to be sensitive to the potential for contamination. "...These areas where the till is missing, and the underlying deposits are exposed at land surface, are termed "windows". ...*These areas are the most sensitive to aquifer contamination and are thus called sensitivity zone I(SZ-I)"*

      i. *Page 11. "Ideally, there should be no commercial-industrial sources of pollution on the SZ-I, SZ-II areas. Such sources would include landfills and septic fields that receive concentrated chemicals..."*

6. Golder Assoc., "CVWD Wellhead Protection Plan", 3/2000

   a. Page 11, "In addition to businesses, improperly constructed or abandoned water wells may pose a threat to groundwater by providing a conduit between the ground surface and the underlying aquifer. Based on the well inventory and a review of well logs on file at DOE's northwest regional office, there are likely up to be up to 500 water wells located within the designated WHPA. Additional US Geological Survey water wells are shown on Figure 4."

   b. Page 12, "...Based on review of the local geology presented on Figure 2.2, the Cross Valley Aquifer daylights along the Little Bear Creek, Paradise Valley and Evans Creek Drainages. "

7. Snohomish County Ground Water Management Plan, Golder Assoc., May 1999
   a. Taken from page III-11, 2.2.1: "Cara Designation. Snohomish County should identify an Interim Ground Water Protection Area (IGPA) for the Snohomish Ground Water Management Area. The IGPA should correspond to the "moderate" and "high" vulnerability areas identified in Figure 1-3-8.
   b. Section I. Additionally, the IGPA should include: 1) any new wellhead protection areas, up to and *including the zone of contribution, as delineated by Group A, Group B, or individual water systems; 2) any new Sole Source Aquifers; and 3)any new Special Protection Areas*...The IGPA map will be provided to all jurisdictions within the Snohomish County Ground Water Management Area. Such jurisdictions should consider the IGPA map when making land use decisions potentially affecting ground water. When the County and jurisdictions develop a CARA map, this map should replace the IGPA

Clearly this sensitive area (Eastern portion of the IPA aquifer, Cross Valley Sole Source Aquifer, Group B Wells and their zones of contribution, individual water systems, Group A Wells, and Little Bear Creek) underlying, adjacent to, and/or down gradient from the Proposed Brightwater Route 9 Site is complex and needs thoughtful designation and protection to ensure clean surface and potable groundwater. This must be accomplished as soon as possible by completing CARA and Sensitive Area designations which also reflect the recharge and sensitive areas documented above. Honorable Councilmen, this is of vital importance to all in my area where we rely solely on groundwater for our potable water source. Please let me know how we can best get these protective policies in place. Thank you in advance for your assistance.

Sincerely

Linda Gray

Linda Gray
And members of Sno-King Environmental Alliance
Mark Sakura, Just the Facts
425-398-8788
425-398-0449 FAX
22629-78th Ave SE
Woodinville, WA 980072

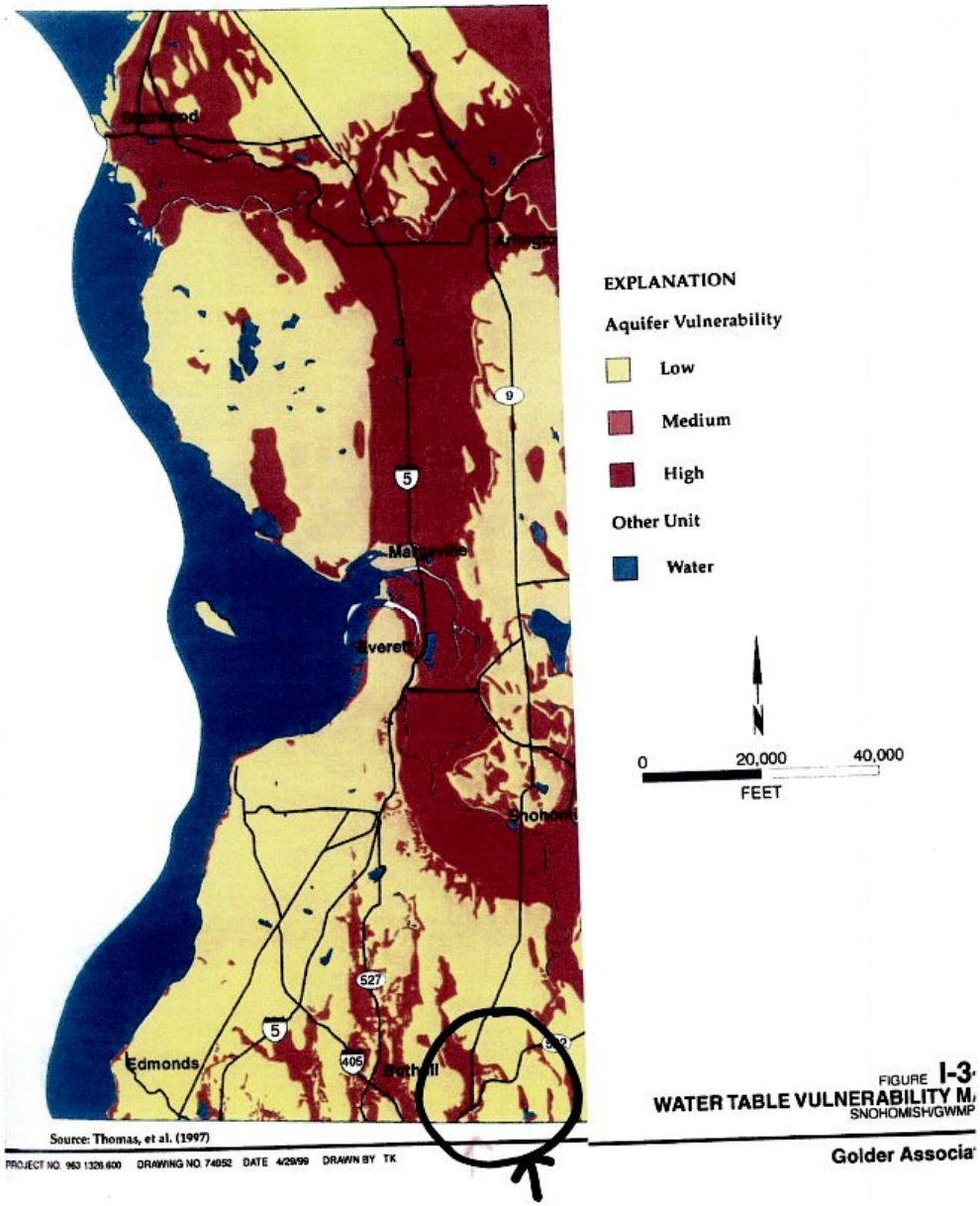
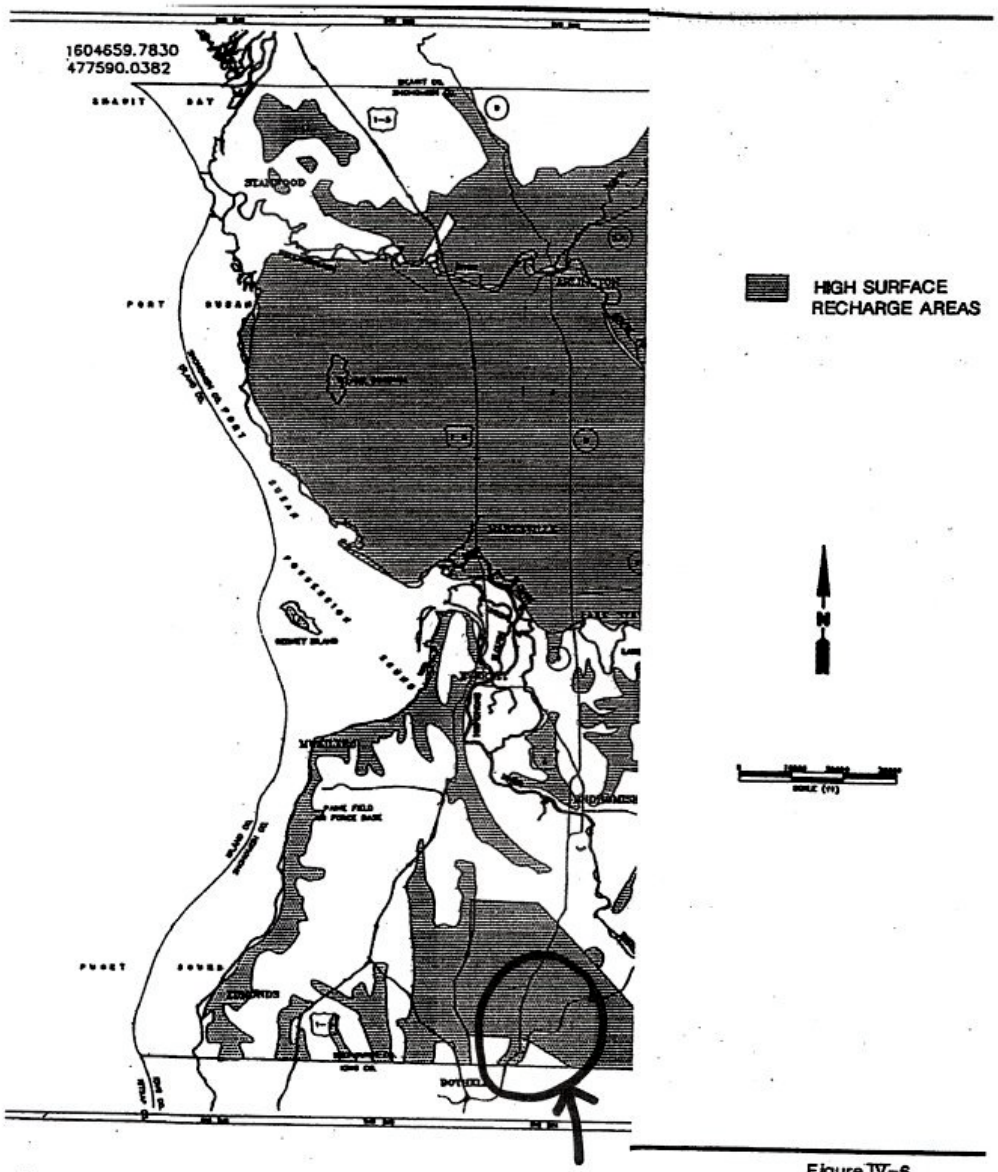


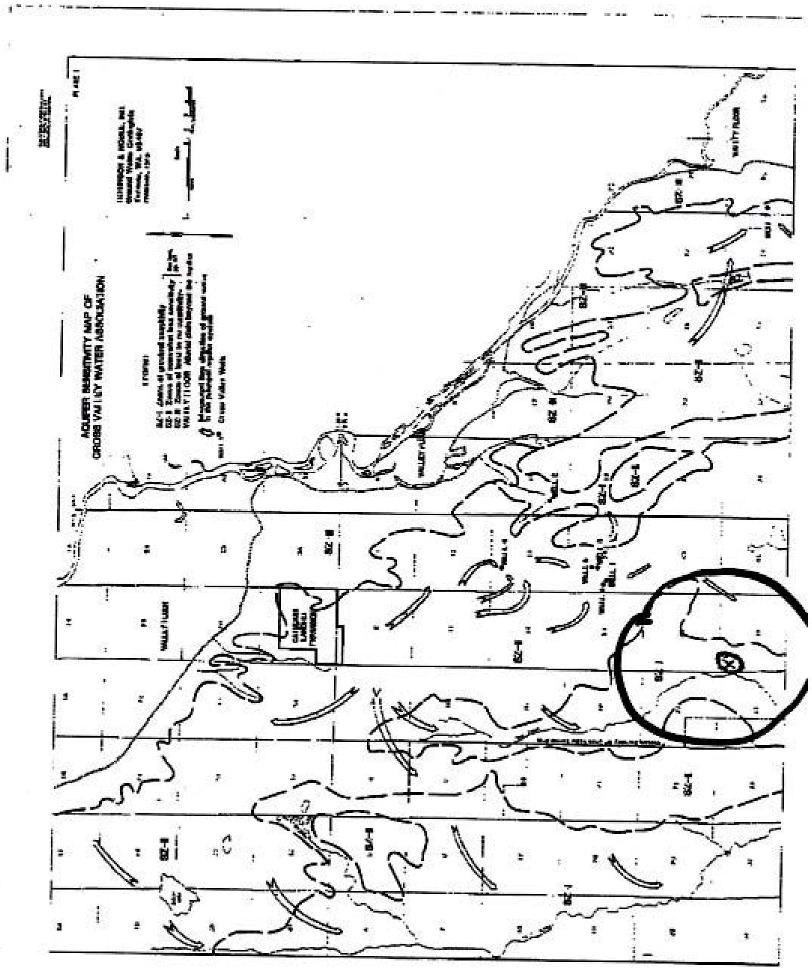
FIGURE I-3
WATER TABLE VULNERABILITY M
SNOHOMISH/GWMP

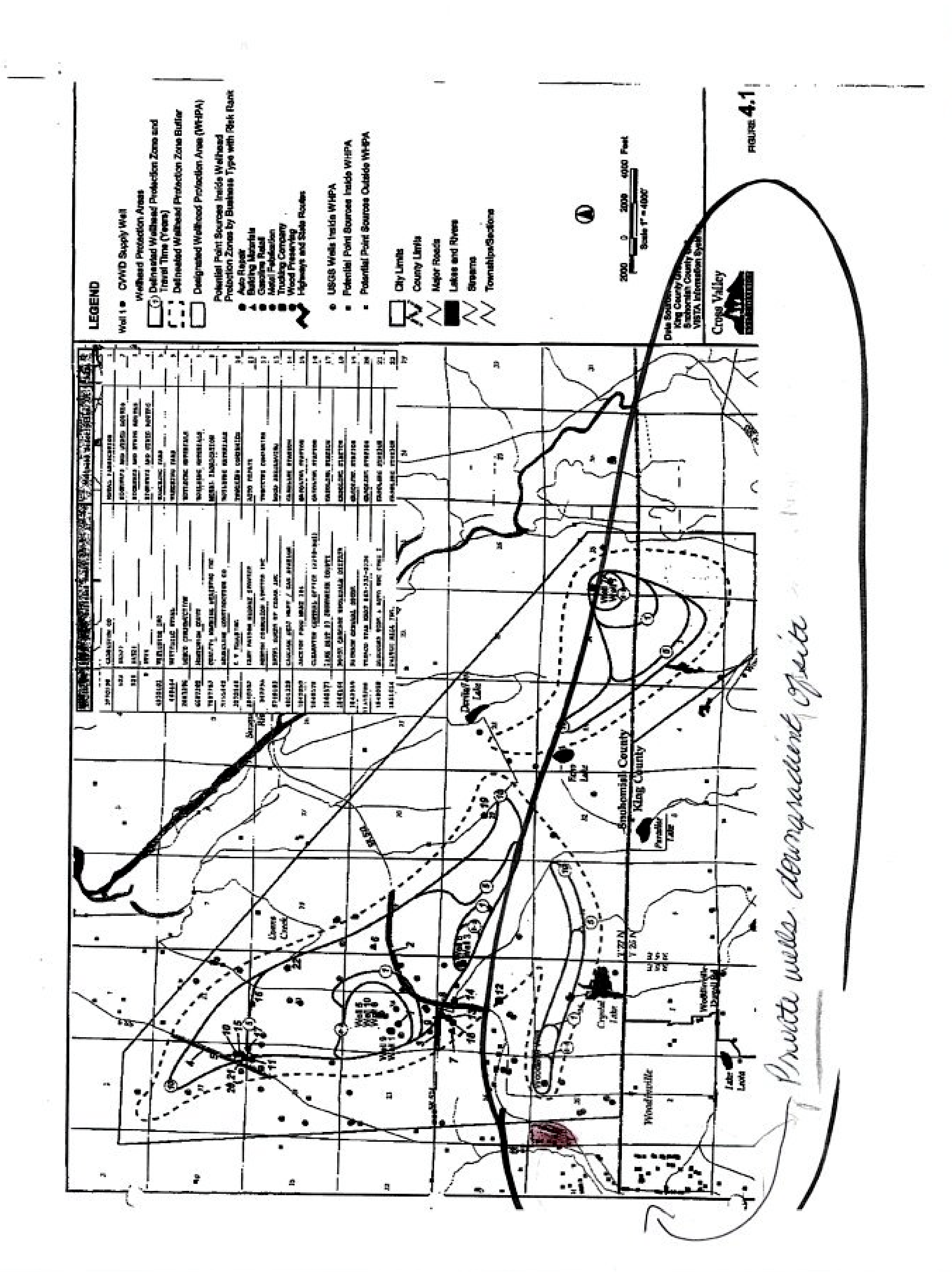
Golder Associa



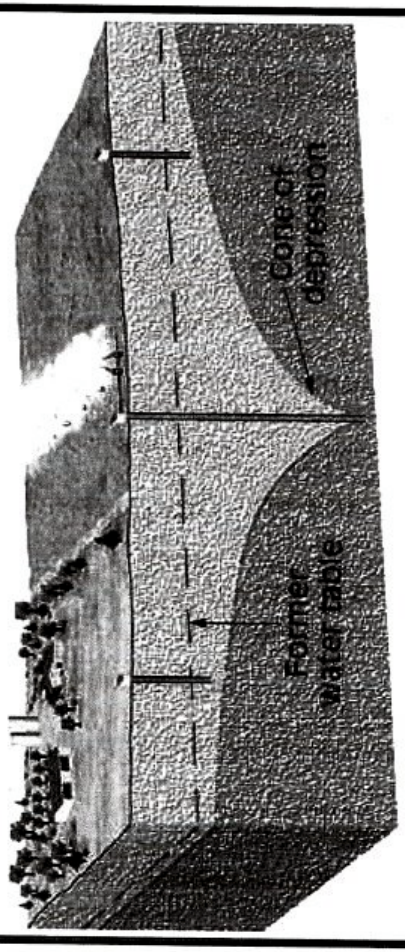
Sweet-Edwards
EMCON

Figure IV-6
SNOHOMISH COUNTY
CRITICAL AQUIFER
RECHARGE AREAS

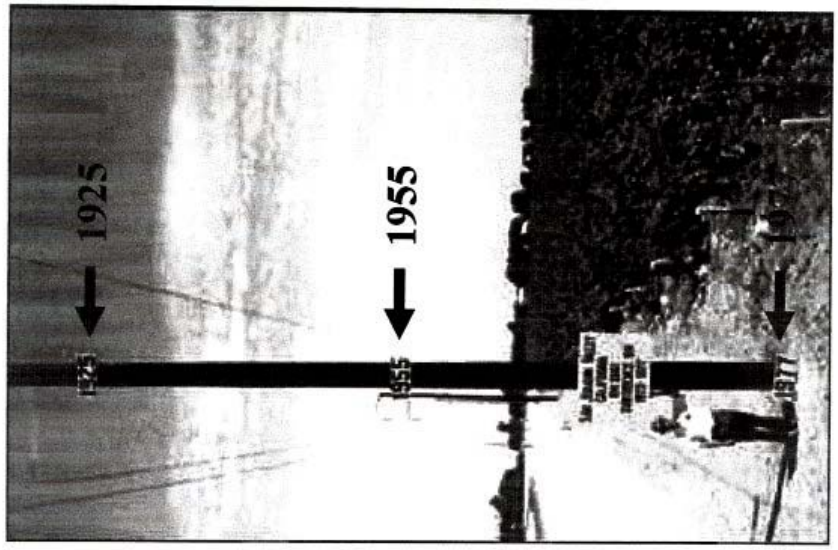

AQUIFER SENSITIVITY MAP OF
CROSS VALLEY WATER ASSOCIATION


LEGEND
Well 1 CWWD Supply Well
Wellhead Protection Areas
Delineated Wellhead Protection Zone and Travel Time (Years)
Delineated Wellhead Protection Zone Buffer
Designated Wellhead Protection Area (WHPA)
Potential Point Sources Inside Wellhead Protection Zones by Business Type with Risk Rank
Auto Repair
Building Materials
Gasoline Retail
Metal Fabrication
Trucking Company
Wood Preserving
Highways and State Routes
USGS Wells Inside WHPA
Potential Point Sources Inside WHPA
Potential Point Sources Outside WHPA
City Limits
County Limits
Major Roads
Lakes and Rivers
Streams
Townships/Sections
2000 0 2000 4000 Feet
Scale 1" = 4000'
Cross Valley
FIGURE 4.1
Snohomish County
King County
Crystal Lake
Woodinville
Lake Leota
Private wells downgradient of site

Overpumping can produce a large cone of depression causing shallow wells to go dry.



If heavy pumping lowers the water table, the shallow wells may be left dry.



In the San Joaquin Valley of California, over-pumping has not only depleted aquafers but caused the ground to subside drastically.

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O17
SNO-KING ENVIRONMENTAL ALLIANCE/ JOSEPH

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

February 5, 2003

King County Department of
Natural Resources and Parks
Wastewater Treatment Division
201 South Jackson Street
Seattle, WA 98104-3855

RECEIVED
FEB 5 2003
ENVIRONMENTAL
PLANNING DIVISION

Re: Comments on Brightwater Regional Wastewater Treatment System DEIS

Dear Sir/Madam:

These comments on the Brightwater Regional Wastewater Treatment System Draft Environmental Impact Statement (DEIS) are submitted pursuant to the State Environmental Policy Act (SEPA). These comments are submitted on my own behalf and on behalf of the Snohomish-King County Environmental Alliance.

O17-1 In general, the DEIS suffers numerous deficiencies in violation of Washington law. These deficiencies involve core SEPA requirements, including: failure to analyze the full range of impacts of the project under WAC 197-11-060; use of incomplete information and failure to fill information gaps in relevant information or scientific uncertainty concerning impacts under WAC 197-11-080; failure to make the DEIS "concise, clear, and to the point" under WAC 197-11-400(3); failure to provide detail commensurate with the importance of environmental impact under WAC 197-11-402; failure to study an adequate number of sites under WAC 197-11-440(5)(c)(vii); failure to show compliance with the requirement that contractor work has been adequately reviewed under WAC 197-11-420(2); and failure to provide enough discussion of impacts versus the project itself under WAC 197-11-425(3).

O17-2 Many of these deficiencies are detailed in comments already submitted in this matter. All comments submitted by all other interested parties, along with all documents referenced in those comments, are hereby incorporated by reference as if set forth in this document in their entirety. Comments incorporated by reference include but are not limited to:

- "Review of Water Resource Related Aspects of the King County Brightwater Project DEIS for Cross Valley Water District," Robinson & Noble, January 2003.
- "King County Brightwater Project DEIS Review," David Hutley, Penhallegon Associates Consulting Engineers, Inc., January 15, 2003.
- "Comments on Brightwater Draft Environmental Impact Statement (DEIS)," Mark Brearley, Unocal Corporation, January 17, 2003.
- Letter of Dale Deierling, President, Cross Valley Water District, January 21, 2003.
- "Brightwater Draft Environmental Impact Statement: Snohomish County Response," Faith Lumsden, January 21, 2003.

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 1of 21

Response to Comment O17-1

Thank you for your comment. Responses to more specific comments raised elsewhere in this letter are included below following each comment. King County believes its EIS complies with all applicable procedural requirements of SEPA, including those referenced in your comment.

Response to Comment O17-2

Each of the referenced comment letters is responded to in this Final EIS.

O17-2 ➢ Comments of Seattle Public Utilities on Brightwater DEIS, January 2003.

O17-3 I here submit the following additional comments. The lack of discussion below of any particular aspect of the DEIS should not be construed as acquiescence to aspects of the DEIS not discussed herein (*see* incorporation by reference above).

SURFACE WATERS

O17-4 An EIS is to focus on issues that need to be addressed and to be "clear, concise, and to the point." WAC 197-11-400(3). Yet in the discussion of surface water impacts, core issues are drowned in a sea of extraneous information. For instance, only 30 of 63 pages of the DEIS surface waters section discusses the project's impacts on surface waters. Yet WAC 197-11-425(3) requires that "[m]ost of the text" of an EIS "shall discuss environmental impacts and their significance." Impacts not adequately covered by this section include the impact of discharge into Puget Sound of treated sewage in light of current and anticipated pollution problems already experienced in the Sound. It is not enough to simply contend that pollution of the Sound would eventually be worse without Brightwater. The DEIS must discuss the impacts of the project. That impacts under

O17-5 some other scenario could be worse is no excuse for not fully disclosing the impacts of this scenario.

O17-6 Among the areas in need of expanded study and discussion is the issue of a mixing zone for discharging effluent. The DEIS states that the project will fully comply with Washington water quality standards outside the mixing zone. This is misleading. The DEIS does not explain that a "mixing zone" is a euphemism for an area of pollution within which normal water quality standards will be exceeded, . The DEIS must make clear that the numeric and narrative criteria in the water quality standards will be violated in this water **sacrifice** zone. WAC 197-11-425(2).

O17-7 Further, the DEIS does not discuss the impacts to the environment of this water sacrifice zone, and there is no indication that the environmental impacts of the mixing zone have been studied. This incomplete information must be provided. WAC 197-11-425(3).

O17-8 Specific study of the impact to nearshore habitat must be included in this study.

O17-9 It is not a sufficient answer to state that contamination within the sacrifice zone will be within some regulatory limits. The regulations are drafted precisely to accommodate the discharge of massive quantities of wastewater into waterway. Thus, the mixing zone regulations anticipate a significant impact on the natural environment, but set standards to assure that it is within a largely political acceptable balance. That the discharge may be within the limits established by the mixing zone rule does not answer the question what

O17-10 direct and indirect impact the discharge will have on the marine environment within the sacrifice zone, as well as the cumulative impact on the Sound (including near-shore areas). That information must be presented in detail for all reasonable outfall sites.

Another area of missing information is shown in the Technical Appendix Figure 1: "Substrate in the Candidate Outfall Zones and Vicinity". Here, the substrate of the Route

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 2of 21

Response to Comment O17-3

Thank you for your comment.

Response to Comment O17-4

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-134, or the Final EIS for a thorough discussion of the surface water impacts of the project, including those associated with the proposed outfall.

Response to Comment O17-5

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts.

Response to Comment O17-6

The following definition will be included in the Final EIS:

From: WAC 173-201A-020 Definitions.

"Mixing zone" means that portion of a water body adjacent to an effluent outfall where mixing results in the dilution of the effluent with the receiving water. Water quality criteria may be exceeded in a mixing zone as conditioned and provided for in WAC 173-201A-100.

Response to Comment O17-7

It is permissible under Chapter 173-201A WAC to exceed Water Quality Standards and criteria within the mixing zone, therefore King County modeled dilution and impacts at the edge of the mixing but did not model the area within the mixing zone. The Final EIS acknowledges that aquatic resources that reside within the mixing zone may be impacted.

The size of the mixing zone is determined by the depth of the receiving body and the size of the diffuser (WAC 173-201a-100) and is not based on effluent or surface water

concentration. King County is employing state-of-the-art technology to insure high effluent quality, achieve rapid dilution, and minimize the impact of the mixing zone. In many instances it is likely that Water Quality Standards would be achieved well within the defined mixing zone. As a result, approximately 62 percent of the possible effluent constituents identified are 5 orders of magnitude below concentrations suspected of impacting aquatic life by the time edge-of-mixing-zone dilutions are reached. Please refer to the *Phase 2 Marine Outfall Siting Water Quality Investigations* (Parametrix and Intertox, 2001) Appendix E for a complete listing of screening ratios at the edge of the mixing zone.

Response to Comment O17-8

Impacts to the nearshore habitat from both construction and operation of the outfall are examined in the Final EIS. As was shown in the *Phase 3 Brightwater Marine Outfall Water Quality Investigation* (Parametrix and Intertox, 2002) in the Draft EIS, effluent would reach a minimum dilution of 1,780:1 in the nearshore, which means that the concentrations of all detected effluent constituents would be well below levels shown to impact aquatic resources.

Response to Comment O17-9

There are no regulatory limits within the mixing zone; the mixing zone is an area surrounding the discharge within which Water Quality Standards may be exceeded.

Water quality standards are established to protect the environment and public health. The purpose of 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington is to establish water quality standards for surface waters of the state of Washington consistent with public health and public enjoyment thereof, and the propagation and protection of fish, shellfish, and wildlife, pursuant to the provisions of chapter 90.48 RCW and the policies and purposes thereof" (http://www.ecy.wa.gov/biblio/wac173201a.html).

Response to Comment O17-10

Chapter 7 of the Final EIS discusses the direct and indirect impacts, as well as cumulative impacts, to Puget Sound marine life.

O17-11 9 discharge area has been characterized. But the map shows that no data has been collected concerning the Unocal System Alternative discharge area. This data must be obtained and studied. WAC 197-11-425(3). Without this baseline data, there can be no meaningful comparison of impacts to the substrates of the discharge point alternatives presented in the DEIS. This comparison must be made in order to fully evaluate and compare the impacts of the proposals on the marine environment.

O17-12 An additional area of concern is the DEIS statement that "there is a potential for chemical or biological contaminants to enter the marine environment". DEIS at 6-48. The proposal calls for the discharge of 36 to 72 million gallons of wastewater per day. This is not clean drinking water. It is sewage from multiple industrial, commercial and residential sources. Many of the contaminants will not be removed by treatment, and the DEIS must not obscure this basic fact. The discharge of pollutants into the Sound is not a "potential."

O17-13 It is the direct and intended result of this project. Wording like this (a "potential") is not consistent with the SEPA's requirements that an EIS be written in an objective, straightforward manner. It suggests strongly that the authors of the EIS were more inclined to soft-pedal the project's impacts than to provide an honest disclosure.

O17-14 Two paragraphs later, the DEIS states, "[t]he impacts to the marine environment are expected to be minimal". *Id.* But there is virtually no analysis to support this statement. Puget Sound is a world treasure of marine life that is already under tremendous stress and has already suffered tremendous degradation. The loss of the Sound as an economic and cultural resource would be devastating to our region. This DEIS does not provide nearly the detail required for the project's potential cumulative, direct, and indirect impacts on the Sound. Much more study is required. WAC 197-11-402, -080.

Water quality changes must also be studied in relation to decreases in water *quantity* of nearby streams and wetlands. How will water quality be impacted by less water going to these water bodies as a result of construction and operation of Brightwater and its conveyance systems? *Id.*

ALTERNATIVES

O17-15 The DEIS only discusses the impacts of the Route 9 and Unocal alternatives, along with no action. But the DEIS acknowledges that there were originally 7 semi-finalist candidate sites. DEIS at 2-19. The impacts of all of these sites, and others, should have been studied in detail in the DEIS. WAC 197-11-440(5); *Barrie v. Kitsap County*, 93 Wn.2d 843, 855-57 (1980) ("Instead of describing alternative uses of the [] property the county should have discussed alternative regional [] *sites*") (emphasis added). Discussing only two sites is inadequate.

O17-16 The DEIS acknowledges that "four sites . . . were found to be consistent with the policy site selection criteria and feasible alternatives for future environmental review." DEIS at 2-19. At the very least, the impacts from the Point Wells and Gravel Quarry alternatives should have been studied in addition to the two alternatives included in the DEIS. The differential impacts between these sites must also be studied. WAC 197-11-425(3). The

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 3of 21

Response to Comment O17-11

Preliminary information regarding the sediment characteristics of the outfall zones is found in the *Final Report: Sediment Chemistry and Benthic Infauna Baseline Sediment Characterization Report* (King County, 2002). The conclusions of the report are:

- Analytical results from chemical and physical testing of nine sediment samples indicate the following characteristics of nearshore sediments in Zones 5, 6, and 7:
- Nearshore sediments in Zones 5, 6, and 7 are composed mainly of sand and contain low concentrations of organic carbon, ammonia, and sulfides.
- Concentrations of trace metals and organic compounds meet all regulatory and guidance criteria.
- A greater proportion of fine-grained material, along with higher concentrations of organic carbon, trace metals, and some organic compounds, were found in two nearshore samples in Zone 7, located in the vicinity of a Point Wells stormwater outfall.

Additional geotechnical and geophysical surveys conducted in 2003 are presented in the Final EIS.

Response to Comment O17-12

King County is proposing to utilize state-of-the-art treatment technology to treat the wastewater prior to discharge. The removal efficiency of membrane bioreactor (MBR) treatment is detailed in `ix 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System. This treatment methodology has the potential to remove more contaminants than conventional activated sludge (CAS).

Side-by-side comparisons of MBR and CAS effluents produced from the same influent were possible for 12 chemicals: aluminum, barium, chromium, copper, mercury, nickel, silver, zinc, ammonia-nitrogen, bis(2-ethylhexyl)phthalate, di-N-butyl phthalate, and phenol. In all

cases, MBR effluent quality was equal to or better than CAS effluent quality. Blended MBR-Advanced Primary Treatment (APT) effluents were also compared to CAS effluent under a range of flow conditions. This analysis was conducted for constituents that previously were shown to be of the greatest potential concern for their effects on aquatic life. The analysis confirmed that blended effluent quality would be significantly better than CAS effluent quality. It is estimated that annual mass loads to Puget Sound would be reduced by up to 98 percent, depending on the chemical. In all cases, even at high flow rates, switching to the blended MBR-APT process improves effluent quality.

Response to Comment O17-13

The direct and intended result of the Brightwater proposal is *not* to discharge pollutants into Puget Sound. Rather, the direct and intended result is to remove pollutants prior to discharge of the effluent and then to discharge *treated* wastewater into Puget Sound. The effluent discharged from the Brightwater Treatment Plant would be required to meet Washington State Water Quality Standards. Please refer to Chapter 3 of the Final EIS for a discussion of the proposed technology (membrane bioreactor) for providing secondary treatment of wastewater. Please refer to Chapter 6 of the Final EIS for a discussion of Water Quality Standards and impacts to surface waters, and Appendix 6-I, Effluent Quality Evaluation for the Brightwater Treatment Plant Membrane Bioreactor and Advanced Primary System.

Response to Comment O17-14

A majority of the scientific investigations completed by King County's outfall siting team were focused on evaluating the potential impacts of the proposed outfall on the biological resources of Puget Sound and the people that frequent the shorelines. Eliminating or significantly reducing the possibility that people may become sick or aquatic life harmed as a result of the new outfall has been the primary consideration of the outfall siting study. King County has identified what would be discharged from the outfall (effluent characterization reports), the dilution and transport of the effluent within the Puget Sound (oceanographic modeling and plume modeling), and the potential pathways for contact with the discharge (biological investigations and human use survey). All of these studies increase the confidence in the determination that the outfall and effluent constituents are not expected to be harmful to people and aquatic life. The impacts of the proposed Brightwater System (conveyance and treatment plant) on surface water due to stormwater runoff are detailed in, Appendices 6-C, Management of Water Quality During Construction at the Treatment Plant Sites, 6-D, Permanent Stormwater Management at the Treatment Plant Sites, and 6-E, Route 9 Site Runoff Effects on the Geomorphology of Little Bear Creek.

As discussed in the Final EIS, the stormwater management system and dewatering operations at the alternative treatment plant sites would not remove water from nearby streams. However, detention of runoff from the Route 9 site would slightly reduce peak flood flows in Little Bear Creek. Further information can be found in Appendices 6-C, 6-D, and 6-E, of the Final EIS.

Response to Comment O17-15

Please refer to the response to Lane Powell Spears Lubersky LLP, Comment O4-1.

Response to Comment O17-16

King County applied both policy and practical considerations in deciding to look at two rather than four action alternatives for treatment plant sites. SEPA case law permits the use of policy considerations to limit the number and range of alternatives in an EIS. Moreover, on a project of this scale, evaluating two rather than four plant sites allows for a more detailed investigation and evaluation of impacts and mitigation measures for each site. For a discussion of the Preferred Alternative, please refer to Chapter 1 of the Final EIS.

O17-16 explanation offered in the DEIS that the Route 9 and Unocal sites "rose above the rest" in the mind of the King County Executive because of cursory and vague "policy considerations," does not express a defensible rationale for limiting the number of sites to be studied at only two.

O17-17 The alternative of delaying the project must also be systematically studied. There is scant mention of this alternative in the DEIS. We specifically incorporate the City of Seattle's comments regarding the opportunities for delaying this project because of lower population growth than used by the County in its demand forecasts.

O17-18 Likewise, the alternative of building the plant in stages has not been studied. Indications are that the plant, as contemplated by the DEIS, will have far more capacity than will be needed in the foreseeable future. For this reason, it may be desirable to build enough flexibility into the planning to allow a scaled-back project that is suitable to the most up-to-date population growth plans available.

O17-19 Study of this staged alternative is particularly important, as King County has used an outdated population growth plan for this DEIS, inflating the need for the project, which apparently will not be needed until the year 2030 according to Seattle Public Utilities. *See* http://seattletimes.nwsource.com/cgi-bin/PrintStory.pl?document_id=134621630&zsection_id=268448406&slug=brightwater25m&date=20030125. King County must obtain the most up to date information on population growth, WAC 197-11-080, and must study it accordingly, including as it relates to the alternatives of delaying the project, scaling down the project, and building the project in stages rather than all at once. WAC 197-11-440(5)(c)(vii).

CONVEYANCE SYSTEM

O17-20 There is a dearth of information on the impacts of the conveyance systems proposed. This is particularly troubling as the Route 9 site would entail construction and operation of far more pipeline than would the Unocal system alternative. It simply makes no sense to site a treatment facility such as Brightwater at an inland location that will require piping treated and untreated sewage through sensitive areas between the site and the Sound when another available alternative (Unocal) site would necessitate only one (influent) pipeline.

O17-21 The argument that the Route 9 site is actually less environmentally risky because it would involve less feet of pipeline devoted to untreated influent wastewater is speculative and counterintuitive. If this is a basis for deciding in favor of the Route 9 alternative, it must be studied in much greater detail since the impacts to the environment are potentially very great from any spills, leaks, and ruptures to these pipelines (influent or effluent). WAC 197-11-080 & -402.

O17-22 In this regard, the DEIS's statement that "[o]nce in operation, the conveyance facilities for either Route 9 or Unocal would not cause any significant adverse impacts," is disingenuous. DEIS at 1-10; *see* DEIS 4-37; 6-38 (ignoring effects of spills/leaks/catastrophic failure of the pipelines). Pipelines and pump stations of all kinds leak sometimes, and are at risk for catastrophic ruptures (*e.g.*, the 1999 Bellingham

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 4of 21

Response to Comment O17-17

For more information on population growth forecasts please refer to the response to the City of Seattle, Comment C10-1.

Response to Comment O17-18

The West Point and South Treatment Plants currently receive flows that are at 84 and 74 percent, respectively, of their average annual design capacities. Thus, there is limited available capacity at existing treatment plants to accommodate the flows projected for the Brightwater Service Area if the Brightwater facilities were constructed in stages.

King County projects that Brightwater will receive average wet-weather flows (AWWF) of approximately 23 mgd upon start-up in 2010, which is approximately 64 percent of the design AWWF of 36 mgd. The flow projections further indicate that Brightwater will reach its 36 mgd AWWF design flow by 2020. Because Brightwater will begin operation with a significant flow, and will rapidly be brought to its design flow, staging or phasing the construction does not appear feasible.

Response to Comment O17-19

Seattle Public Utilities (SPU) subsequently revised its comment referred to above. King County has updated its growth projections based on more recent population information. This new information affirms the ongoing need for Brightwater and the importance of having it in operation by 2010. Please refer to Chapter 2 of the Final EIS and Appendix 2-A, Population and Flow Analysis. As stated in the Draft EIS, Brightwater is a phased project with the 54 mgd capacity projected to be in operation in 2040.

Response to Comment O17-20

For a comprehensive description of the three Brightwater alternatives, please refer to Chapter 3 of the Final EIS.

Response to Comment O17-21

Risks to groundwater quality and quantity resulting from constructing and operating the influent and effluent conveyance pipelines have been extensively studied throughout the Brightwater SEPA environmental review process. There is a substantially greater amount of detailed information on the engineering protection afforded to groundwater resources by pipeline design included in the Final EIS accompanied by a revised environmental impact analysis. New geotechnical borings completed after the Draft EIS are also described in Chapter 6 and Appendix 6-B, Geology and Groundwater, of the Final EIS. Also, please refer to the response to the Washington State Department of Ecology, Comment W5-8, for more groundwater information.

Response to Comment O17-22

Specific probabilities for operational spills or leaks in the wastewater system have not been formulated; however, due to the proposed design of the conveyance system and treatment plant, it is unlikely that spills, leaks, and overflows that could affect public health or the environment would occur. Please refer to the response to the Washington State Department of Ecology, Comment W5-35, for a discussion of the likelihood of pipeline breaks or leaks, and Comment W5-77, for a discussion of spill prevention and emergency cleanup procedures.

Chapter 6 of the Final EIS discloses potential impacts of spills on water quality during operation. Chapter 7 discloses potential impacts of spills to fish and wildlife, while Chapter 9 discloses potential environmental health impacts.

O17-22 Olympic Pipeline disaster). There will surely be spills and leaks, and possibly catastrophic failures, from these proposed pipelines. The DEIS must analyze the environmental effects of these events. The DEIS's cursory and conclusory assurance that "the potential for pipe ruptures or breaks in the system is very low" provides no comfort.

O17-23 DEIS at 6-43. The probabilities of such events, and their environmental impacts, have not been analyzed.

O17-24 Moreover, the threat of seismic events leading to a catastrophic pipeline and plant failure is not adequately studied or discussed. The DEIS states, "the South Whidbey Island Fault Zone . . . extends southeast across Puget Sound. . . . several of the postulated and extrapolated locations of the fault are shown approximately 2 miles north of the Route 9 treatment plant site". DEIS at 4-7. Given the probable devastating effects on the plant and pipelines of a major earthquake along a nearby fault line, King County must find out whether there is in fact a fault where postulated and extrapolated, and must study the environmental impacts of movement along that fault line vis-à-vis the pipelines and the plant. Other site alternatives must also be analyzed in terms of seismic vulnerability.

O17-25 More scrutiny is also needed regarding impacts to the "complex glacial stratigraphy" in the Brightwater Treatment Plant Service Area. DEIS at 4-7. The impacts of contamination on groundwater and surface waters has only been studied in a cursory way. *E.g.*, DEIS at 4-26 & 27. Analysis must be performed concerning possible groundwater contamination. The likelihood of that occurrence should be assessed as well as the impacts if that risk materializes. The impact analysis should include a discussion of the probable duration of aquifer pollution and the feasibility of means to mitigate groundwater pollution if it occurs.

O17-26 A similar analysis should be performed for surface water contamination. Both analyses should include a statement of whether any such pollution would violate applicable water quality standards.

AIR

O17-27 The one-paragraph cumulative impact discussion of air quality impacts is inadequate because it segments the air impacts of Brightwater from other local air pollution sources. DEIS at 5-36. It does not discuss the cumulative impact of Brightwater's Route 9 site alternative in relation to nearby local odor sources, including but not limited to the Stockpot (Campbell's Soup) factory, which is well known to contribute to local air quality problems. WAC 197-11-060. Localized and other cumulative impacts must be fully studied and discussed. *Id.*, WAC 197-11-792.

CONTRACTOR OVERSIGHT

O17-28 An EIS may be prepared by an outside consultant. However, "[t]he lead agency shall assure that the EIS is prepared in a professional manner and with appropriate interdisciplinary methodology". WAC 197-11-420(2). References to methodology employed in the DEIS do not indicate whether the lead agency or contractor produced the analyses in the DEIS. *E.g.*, DEIS at 5-12, 6-20. Assuming some of the DEIS was prepared by outside consultants, there is no indication that King County assured

Response to Comment O17-23

Significant additional data gathering and analyses of the potential effects to groundwater from pipelines and tunnels have been conducted since the Draft EIS and are summarized in Appendix 6-B, Geology and Groundwater, of the Final EIS. Also, please refer to Chapter 4 of the Final EIS for seismic considerations. These additional data and analyses all indicate that no significant adverse environmental impacts are expected using the planned design, construction, and mitigation approaches for the Brightwater System.

Response to Comment O17-24

The potential implications to the Brightwater System of the South Whidbey Fault and its uncertain boundaries are discussed in Chapter 4 of the Final EIS. Since the Draft EIS, King County has been sharing data and collaborating with researchers at the U.S. Geological Survey and the University of Washington on the most current knowledge available for the fault. Based on the currently known information, seismic design requirements as specified by the International Building Code are judged to be adequate to address seismic considerations.

Response to Comment O17-25

This level of scrutiny and analysis has been conducted since the Draft EIS and is summarized in Appendix 6-B, Geology and Groundwater, of the Final EIS and in the response to the Washington State Department of Ecology, Comments W5-9, W5-15, and W5-43.

Response to Comment O17-26

Chapter 6 of the Final EIS provides more detailed evaluations of potential impacts to surface waters during construction and operation. The Final EIS discloses that improperly mitigated impacts to surface waters could include turbidity from dewatering discharge and sediment runoff from construction sites, accidental spills and leaks, and improperly managed

stormwater. The Final EIS also includes mitigation for these impacts, including measures to handle dewatering discharge, compliance with applicable stormwater management regulations, and spill minimization and control procedures.

Response to Comment O17-27

The Draft EIS identified a number of potential impacts associated with the construction and operation of Brightwater facilities. The analysis of air impacts has been supplemented and refined, and an updated analysis of impacts and reasonable mitigation measures is set forth in Chapter 5 of the Final EIS. Also included in Chapter 5 is an additional discussion of the possible significant impacts (direct and cumulative) to air quality and the mitigation measures that would address the probable significant adverse environmental impacts of Brightwater facilities in the vicinity of the proposed Route 9 treatment plant site.

Response to Comment O17-28

The analyses in the Draft EIS were prepared by staff in the King County Department of Natural Resources and by a team of consultants under contract to the King County Department of Natural Resources. The preparers are listed in the Fact Sheet at the front of the Draft EIS and Final EIS. They included a large, interdisciplinary team of professional geologists, hydrologists, biologists, air and noise experts, transportation engineers, structural and civil engineers, architects, writers, land use planners, archaeologists, and other technical experts. King County staff with corresponding expertise worked closely with the consultants and reviewed all work done to ensure that the Draft EIS and Final EIS were prepared in a professional manner with appropriate interdisciplinary methodology.

O17-28 professional preparation, much less how such assurance was achieved. This must be spelled out in the EIS.

CONCLUSION

O17-29 The DEIS suffers from many potentially fatal deficiencies. The need for a broadened alternatives analysis, in particular, warrants the distribution of a revised DEIS so that there is an adequate opportunity for public and agency comment on other reasonable alternative sites.

Don Theiler's cover letter

O17-30 "*King County has provided safe, environmentally sound wastewater treatment in the central Puget Sound region for 40 years.*" makes is sound as though the wastewater treatment provided by King County has been flawless. I believe over the period of 40 years there has been improvement, but there are many things lacking in the wastewater treatment provided - most notably CSOs and SSOs. I don't believe this statement is universally accepted as noted by the concern of environmentalists regarding the heath of the Puget Sound. Building on that with the statement "... continue safeguarding ... needs to build a wastewater treatment system... by 2010..." makes many assumptions and is not based in fact. It would be nice to have an introduction which was not steeped in the public relations sales pitch. The Seattle Public Utilities Annual CSO report shows nearly 100 million gallons of CSO in 1999.

O17-31 *The Draft EIS analyzes in detail the characteristics, potential impacts, and mitigation measures for the Brightwater alternatives.*

This paragraph claims that the DEIS "analyzes in detail..."

O17-32 How can "all of the potential impacts" be known with a conceptual DEIS which does not contain specifics designs?

O17-33 How can comment on this DEIS document identify the "all of the potential impacts" of a phantom design where meaningless terms such as "best management practices" are utilized to mitigate impacts?

The RWSP FEIS states "*The Final EIS addresses and compares at a programmatic level the probable significant adverse environmental impacts of the EPP and the other service strategies discussed in the Draft RWSP. This 'programmatic-level' EIS provides information necessary to decide on an overall plan of action, but more detailed or 'project-level' review would be required before any element of the plan would be implemented.*"

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 6of 21

Response to Comment O17-29

Both the Draft EIS and the Final EIS include a range of alternatives as required by SEPA.

Response to Comment O17-30

Thank you for your comment.

Response to Comment O17-31

Thank you for your comment.

Response to Comment O17-32

The EIS has been revised in response to comments on the Draft EIS. The Final EIS provides a more refined project description, a concise evaluation of significant impacts, and additional information and technical data in the appendices.

Response to Comment O17-33

The EIS has been revised in response to comments on the Draft EIS. The Final EIS lists both "proposed" mitigation measures and "potential" mitigation measures for impacts of the Brightwater proposal. Many proposed mitigation measures were developed in response to Draft EIS comments and new information and analysis, and are considered by King County to be part of the Brightwater proposal. Permitting agencies may determine that other mitigation measures, including those listed as "potential," are needed.

O17-34 Will the FEIS subsequent to this DEIS for the Brightwater project conform to this 'project-level' review?

O17-35 As the RWSP states that the 'project-level' review would be 'more detailed', can you explain why the DEIS lacks the needed detail?

Will a supplemental EIS be issued to deal with the lack of specificity and to fulfill the 'project-level' requirement?

Tthe DEIS needs to be more detailed to fulfill the 'project-level' requirement. The additional level of detail is also needed for public comment on the impacts and mitigations.

O17-36 I notice the RWSP FEIS has no such cover letter. While I'm sure Mr. Theiler's comments are interesting, are they needed for the purpose of the document? If not, then why not eliminate Mr. Theiler's cover letter?

Foreward

The Draft EIS and Final EIS are intended to provide decision makers, regulatory agencies and the public with information and evaluation of the probable significant adverse environmental impacts of the Brightwater proposal and identify alternatives and reasonable mitigation measures.

O17-37 The DEIS does not provide "information and evaluation of the probable significant adverse environmental impacts" to the public and others due to the lack of specific information regarding the nature of the project. The "proposal" is very general and lacks specifics regarding the impacts and mitigation.

O17-38 *An EIS was completed in 1998 and the final plan was adopted in 1999.The final plan, which had broad support, included a new regional wastewater treatment plant (now called Brightwater),a network of conveyance pipes for the new plant and outfall...*

The reference to "...broad support..." for the RWSP is unsubstantiated in fact. Since you reference this matter, would you please characterize the nature of the support and opposition for the RWSP and the alternatives?

In addition would you indicate the support for the option chosen: Executive's Preferred Plan (EPP)?

King County Executive Ron Sims has identified a preferred alternative, which is outlined in Chapter 3 of the Draft EIS. This preferred alternative is for public information only.

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 7of 21

Response to Comment O17-34

The EIS has been revised in response to comments on the Draft EIS. The Final EIS provides a more refined project description, a concise evaluation of significant impacts, and additional information and technical data in the appendices. It provides an environmental analysis sufficient for making project-level decisions concerning the environmental impacts of the proposal. King County will provide additional information to permitting agencies as needed.

Response to Comment O17-35

Both the Draft EIS and the Final EIS include a discussion of the probable significant adverse environmental impacts and the reasonable mitigation measures for these identified impacts beyond that characterized in this comment. As with any large project of this scale, more detailed analysis is being conducted on all aspects of the project. Moreover additional evaluation of impacts and consideration of mitigation measures has been conducted in response to Draft EIS comments. As appropriate, much of this additional analysis is set forth in the chapters and appendices of the Final EIS.

Response to Comment O17-36

Thank you for your comment.

Response to Comment O17-37

Both the Draft EIS and the Final EIS include a discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts beyond that characterized in this comment. The Draft EIS was issued at a point in time when a certain level of information was known relating to the probable significant adverse impacts of the proposal and possible ways to reasonably mitigate those impacts. In areas where there was uncertainty in relation to impacts in one respect or another, the Draft EIS presented, following SEPA Guidelines, a worst-case analysis of impacts. In other areas, the Draft EIS

indicated that ongoing analysis was under way and that additional information would be forthcoming. Since issuance of the Draft EIS in late 2002, considerable additional analysis has been conducted, as is the case on any large project, to further define and develop the proposal and respond to Draft EIS comments. Additional analysis that has been conducted that relates to probable significant adverse impacts that will not be mitigated or regulated into non-significance is included as part of the Final EIS analysis.

Response to Comment O17-38

Throughout the public involvement process of the Regional Wastewater Services Plan (RWSP), King County received numerous letters and comments from citizens, jurisdictions, community groups, and tribal governments expressing their opinions and posing questions on the alternatives studied in the RWSP. These comments were reviewed and considered by the team who produced the RWSP EIS. A thorough description of the RWSP public involvement process is addressed in the response to the City of Edmonds, Comment C9-10.

The comments received as part of the RWSP Final EIS are available as a separate appendix. The RWSP Final EIS also contains a summary of the comments and results of King County's RWSP public opinion summary. To obtain copies of the RWSP EIS comments, and the RWSP Public Opinion Summary, please contact the Brightwater project team at 206-684-6799 or toll-free at 1-888-707-8571.

and is not intended in any way to prejudge the County 's final decision, which will be made after additional analysis and public comments on the Draft EIS are collected.

O17-39

The executives preferred choice has prejudiced the process toward the Route 9 site. The execute announced unsubstantiated reasons for preference including a change in the cost (more earth removal), reclaimed water, size, etc...

Would it be possible to state the facts by which the executive has chosen the preferred site?

How could the executive know which site was better when there was so little data available?

Since additional information has become available, will the executive be updating his preferred choice?

At that point, the project design will be finalized and construction will begin.

O17-40

If the project design has not been finalized, how can the potential impacts and mitigations be determined?

How can data be sufficient for siting but insufficient for design?

How can you analyze the impacts and mitigations of an undetermined design?

The designs set forth in this Draft EIS are conceptual at this stage and will be finalized once additional public input is provided and as the siting and design process continues.

O17-41

Does the conceptual design present a flaw in the SEPA process?

How can SEPA be fulfilled as the DEIS does not contain specific actions being evaluated for impacts and mitigation, but rather a phantom "conceptual" wastewater treatment system which moves and changes?

O17-42

This Draft EIS outlines a number of alternatives , including a No Action Alternative, to accomplish the overall Brightwater Proposal. The alternatives evaluated in this Draft EIS are as follows...

This description of the number of alternatives being evaluated seems flawed. There are two sites for the sewage plants with one site having two possible conveyance routes. The three possible conveyance routes each have two options, deep tunnel gravity and deep tunnel force main.

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 8of 21

Response to Comment O17-39

On August 13, 2002, Executive Sims announced that he had identified the Route 9-195th Street System as the Preferred Alternative to evaluate in the Brightwater Draft EIS. Executive Sims' reasons for selecting a preferred alternative were based on engineering studies, cost, community concerns, and the environment. When the Preferred Alternative announcement was made, there were 3 years of scientific and engineering data pertaining to the Brightwater project, in addition to an extensive public involvement process in which people had several opportunities to actively participate in the Brightwater siting process.

Among the reasons initially articulated by Executive Sims for identifying the Preferred Alternative to evaluate in the Draft EIS was that the Route 9 site is larger, which makes building the plant easier and more cost-effective. The larger site offers greater potential for buffers. The Unocal site is considerably smaller and in a highly visible location, surrounded by a greater amount of residential, commercial, and recreational uses. The longer effluent pipeline for the Route 9 site could offer more long-term opportunities for water reuse. Construction and operation of Brightwater at the Unocal site could present more noticeable impacts to the surrounding community. The steep Unocal site would require extensive terracing and excavation.

Identifying a preferred alternative in an EIS is a common practice on large-scale public projects. A preferred alternative is not a final decision. The final outcome of the siting process will be determined when Executive Sims makes a decision on Brightwater in December 2003. For a more detailed description and comparison of alternatives, please refer to Chapter 3 of the Final EIS.

Response to Comment O17-40

Please refer to the response to the City of Edmonds, Comments C9-2 and C9-3.

Response to Comment O17-41

Please refer to the response to Comment O17-34 in this letter.

Response to Comment O17-42

Please refer to the response to Lane Powell Spears Lubersky LLP, Comment O4-1.

O17-43 What are the significant environmental differences between the deep tunnel gravity and tunnel force main for the alternative plants?

O17-44 What are the energy consumption differences between the deep tunnel gravity tunnel force main for the alternative plants?

O17-45 Also, the method by which the alternatives are evaluated makes the matter confusing. The alternative are intertwined instead of clearly evaluated separately.

O17-46 This Draft EIS also considers two sub-alternatives related to the Unocal system. One sub-alternative involves potentially building a structural "lid " over a portion of the treatment plant site to accommodate the possible future siting of either the Edmonds Crossing multimodal project or another public use such as a park; the other sub-alternative involves treating flows from the Cities of Edmonds and Lynnwood at the Brightwater Treatment Plant.

Would it be possible to better state the alternatives and their impacts?

Where information is limited, the impacts presented are a worst case analysis.

O17-47 Was it indicated when this type of analysis was utilized?

If not, why was it not indicated when this method of analyzing impacts was utilized?

Would it be possible to note where this type of analysis is utilized?

O17-48 Where the information is limited, there are specific cases where it can be shown that the worst case analysis was not presented. For example, the air shed dispersion model for Route 9 used Paine Field air shed data.

O17-49 Where was 'worst case analysis' information utilized due to insufficient information?

O17-50 Scanning the document for references to 'worst case' produces some references such as 4.2.2.1 where the 'worst case analysis' is further refined to indicate that the worst-case impact may not occur.

How can it be said that the worst case analysis is being utilized when a caveat is added that this may not occur (either assume it is an adverse consequence to be mitigated or not)?

Should this case be called the 'worst case might happen analysis?'

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 9of 21

Response to Comment O17-43

The principal environmental differences between the gravity-only tunnel and the force main-gravity tunnel described in the Draft EIS and Final EIS are related to the aquifer/aquitard that would be traversed by the tunnel boring machines. The tunnel profile of each of the two alternatives would cross different aquifers, which would potentially impact different water sources linked to the aquifer.

Response to Comment O17-44

Only one profile is being considered for each of the treatment plant sites: a gravity tunnel for the Route 9 site and a force main for the Unocal site. Specific energy consumption data are in Chapter 8 of the Final EIS.

Response to Comment O17-45

Thank you for your comment.

Response to Comment O17-46

Chapter 3 of the Final EIS includes a description of both sub-alternatives for the Unocal System. Their impacts are discussed in Chapters 4 through 17 of the Final EIS.

Response to Comment O17-47

Please refer to the response to Comment O17-49 in this letter.

Response to Comment O17-48

Additional information about the dispersion modeling procedures and the meteorological data used in the odor and air quality modeling is provided in the response to Save Little Bear Creek Coalition, Comment O15-5, and in Appendix 5-A, Odor and Air Quality: Treatment Plant.

Response to Comment O17-49

The Foreword to the Draft EIS states that where information is limited, the impacts presented are a worst-case analysis.

Worst-case analyses were used, for example, in the following instances:

Chapter 4, Earth and Groundwater: Table 4-3, Summary of Potential Impacts by Corridor. The types of impacts in Table 4-3 are considered to be the worst case because they could occur, but would not necessarily occur. In addition, King County will take steps to mitigate any identified impacts during construction and operation of the Brightwater project. Additional geotechnical analysis has been conducted since the Draft EIS was published.

Chapter 5, Air: The Draft EIS analysis of odor impacts during operation is considered to be the worst case because it assumed that impacts would be unmitigated. The analysis assumed odors from uncontrolled concentrations of hydrogen sulfide, no odor control, and uncovered secondary clarifiers at the Route 9 site, and measurement of concentrations prior to dilution with ventilation air. However, mitigation measures will be implemented to reduce concentrations of hydrogen sulfide.

Chapter 6, Surface Water: The analysis of construction impacts along the conveyance corridors identifies *all* surface water resources that could be affected within each 72-acre portal siting area; thus, the analysis is considered to be a worst-case analysis. However, the number of potential portal siting areas which may be needed has been reduced since the Draft EIS was issued, and the actual area affected will be only a small portion of any given portal siting area.

Chapter 6, Surface Water, and Chapter 9, Environmental Health: Worst-case analysis was also used to evaluate impacts of discharging effluent through the marine outfall to Puget Sound. The analysis was based on modeling and assumed a minimal initial dilution of the effluent with marine waters. However, it is likely that dilution will be more than minimal; thus, the actual impacts are likely to be less than those modeled for the worst case.

Chapter 7, Plants, Animals and Wetlands: Worst-case analysis was used in evaluating construction impacts to upland habitat along the Unocal corridor. The number of acres that would be lost at each portal siting area was not known when the Draft EIS was issued; thus, a liberal estimate of the acreage needed was based on past experience designing construction staging areas for this type of work. However, the number of portal siting areas that may be needed has been reduced since the Draft EIS was issued, and the actual area affected would be only a small portion of any given portal siting area.

Chapter 8, Energy and Natural Resources: When the Draft EIS was issued, it was not known where permanent facilities would be placed along the conveyance corridor, thus a worst-case analysis assumed that a facility requiring electrical service would be located at each portal siting area, and each facility would draw power from all the nearest substations. However, the number of portal siting areas that may be needed has been reduced, and electrical facilities may not be required at every location. Thus the impacts are likely to be less than suggested by the worst-case analysis.

Chapter 11, Land and Shoreline Use: The Draft EIS analysis of land use impacts along conveyance corridors was considered to be the worst case because it assumed that construction would occur at every portal siting area. In addition, the analysis assumed that all portals would be located near high-density residential or commercial business uses. However, the number of portal siting areas that may be needed has been reduced since the Draft EIS was issued; the actual area affected would be only a small portion of any given portal siting area, and portals will be located in lower-density areas whenever possible.

Chapter 13, Light and Glare: Impacts of light and glare could not be quantified at portal siting areas because specific locations for portals had not been identified at the time the Draft EIS was issued; thus, the analysis assumed a worst-case scenario. The number of portal siting areas that may be needed has been reduced, and the actual area affected will be only a small portion of any given portal siting area.

Chapter 14, Recreation: Taking a “worst-case” approach, the Draft EIS assumed that impacts would occur to all recreational facilities within each of the 72-acre portal siting areas, because it was not known where portals would be located within each portal siting area. Subsequently, the number of portal siting areas that may be needed has been reduced, and the actual area affected will be only a small portion of any given portal siting area. Thus, the impacts likely will be less than suggested by the worst-case analysis.

Chapter 16, Transportation: The accepted guideline in the transportation industry for preparing a traffic impact analysis is to assume worst-case traffic conditions. Typically, the worst traffic impacts occur during the peak hours of the day, and the afternoon PM peak traffic would generally dominate over the morning peak traffic. The cumulative worst-case impacts are assumed to occur when project-generated traffic is added to the baseline traffic during the PM peak traffic conditions. This is the assumption used in the traffic impact analysis in the Brightwater EIS. In addition, the analysis of construction impacts is based on the assumption that the number of vehicle trips is equal to the number that would occur during the period of most intense construction activity, and it assumes that construction would take place at all portal siting areas at the same time. This is a very conservative approach, as it is likely that the construction schedule would be sequentially staged to minimize the traffic delays and conflicts. Thus, impacts are likely to be less than indicated by the Draft EIS analysis. Specific details about construction impacts will be known when the construction schedule is refined during the pre-design phase of the project.

Response to Comment O17-50

Please refer to the responses to Comments O17-37 and O17-49 in this letter. Also, the Draft EIS and Final EIS comply with the SEPA requirements by including the likelihood of occurrence in those areas where a worst-case analysis is discussed.

O17-51

Table 3-10. Summary of Impacts and Mitigation Measures —Air The odor control system would capture and treat process air before discharging it to the atmosphere. Under worst case conditions…

Under table 3-10, mention is made of worst case. Is this the worst case due to insufficient information or is this another type of worst case?

Would you define the worst case which is referred to here (table 3-10)?

Chapter 1

Summary

O17-52

"to meet the needs of population growth in north King and south Snohomish Counties."

Would you please describe in detail the population growth expected.
Would you please define the region that will be served by North Treatment Facility named 'Brightwater' and the regions where population growth is expected in '*north king and south Snohomish counties*'.

1.1 Proposal

"King County is proposing to build a new wastewater system, called Brightwater, by the year 2010."

Would you please describe in detail the need for the plant by the year 2010.

Why is it environmentally significant to define the time that the plant must be online?

O17-53

"region's long term wastewater capacity needs with appropriate mitigation and within the public resources available"

Would you please define 'wastewater capacity needs', 'appropriate mitigation' and 'public resources available'.

"The plant will provide secondary treatment capacity in 2010 for an average of 36 million gallons per day (mgd)of wastewater,"

What amount of peak wastewater processing will be provided?

O17-54

"Processes that provide secondary treatment of wastewater consistent with state and federal requirements"

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 10of 21

Response to Comment O17-51

"Worst case" means that the highest predicted emission levels from the wastewater treatment process are being analyzed.

Response to Comment O17-52

For a detailed response to questions concerning population growth forecasts and wastewater flow projections, please refer to the response to the City of Seattle, Comment C10-l. Population and employment forecasts in north King County and south Snohomish County and how those forecasts are used to calculate wastewater flows are discussed Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Response to Comment O17-53

"Wastewater capacity needs" is defined as the maximum amount of wastewater generated by the service area population that can be treated by existing treatment and conveyance facilities in compliance with applicable local, state, and federal laws. For a description of the Brightwater System alternatives, please refer to Chapter 3 and Appendices 3-A, Project Description: Treatment Plant, 3-B, Project Description: Conveyance, and 3-C, Project Description: Outfall, of the Final EIS.

For a definition of "appropriate mitigation," please refer to the response to the City of Shoreline, Comment C6-5. "Public resources available" is the money from the monthly sewer rate, capacity charge, grants, and other revenues, such as interest income and charges for services that are available for the wastewater system.

Response to Comment O17-54

Wastewater treatment systems in the State of Washington must be designed to produce an effluent that complies with the Clean Water Act of 1972 and subsequent amendments and with the State Water Quality Standards. Please refer to

the discussion of regulations in Chapter 2 of the Final EIS. Regulations are very complex and difficult to understand, even for those who work with them everyday. A useful reference in understanding regulations is the *Permit Handbook: Commonly Required Environmental Permits for Washington State*, Publication No. 90-29, published by the Washington State Department of Ecology. Regulations discussed in the handbook include those related to air quality, water quality, and water resources, and contact information is provided for state and federal agencies. The regulations will remain in effect until federal or state agencies change the regulations. Please contact the Environmental Protection Agency and the Washington State Department of Ecology for information on any anticipated changes to federal or state regulations, respectively.

Would you please define the complete state and federal requirements to which you are referring?

Would you please inform the date until which those requirements are in effect?

O17-54 Would you please define what known or anticipated changes will be occurring in these state and federal regulations in the future?

"Services that are cost-effective and a good investment for the region"

What is meant by cost-effective?

O17-55 What is meant be a good investment?

By what criteria are these measurements of investment evaluated?

What comparative financial evaluations have been done to show that this investment is better than another?

O17-56 For example, what would the financial impact be for the no action alternative with accelerated CSO projects and enhancements to the conveyance system?

O17-57 *"The existing system now conveys wastewater flows from northeast and northern King County and south Snohomish County to King County 's existing treatment plants in Seattle and Renton. New conveyance facilities would collect and convey influent (untreated wastewater) to the Brightwater Treatment Plant"*

As specifically as possible, what areas would be serviced by the new wastewater treatment facility?

Referencing the DEIS at 11-34:
Approximately 60 percent of Brightwater's service area will be located in Snohomish County.

O17-58 Would you please advise the background which substantiates the assertion that 60% of the service area for the North Treatment Facility called Brightwater will be in Snohomish county?

Can this be understood to mean sewage gallons per day?

Would you please show the percentage distribution of Brightwater's service area between King County and Snohomish County over time from 2010 thru 2030?

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 11of 21

Response to Comment O17-55

The term "cost-effective" means "economical in terms of tangible benefits produced by money spent"; the term "investment" means "the outlay of money usually for income or profit"; and the term "good" means "favorable, or advantageous" (Merriam-Webster online dictionary, http://www.m-w.com).

Regarding financial evaluations, several wastewater service strategy options were studied in the Regional Wastewater Services Financing Plan (King County Department of Natural Resources. 1997. *Regional Wastewater Services Draft Financing Plan* [second printing]. Seattle, WA), which was prepared as a companion document for the Draft RWSP and the RWSP Draft EIS. The Draft Financing Plan focused primarily on economic and financing issues associated with Brightwater and other capital facilities around the region, and was used to provide information that could be combined with the more extensive policy perspectives of the Draft RWSP. A copy of this document can be obtained by calling the Brightwater project team at 206-684-6799 or toll-free at 1-888-707-8571.

Response to Comment O17-56

Cost and economic impacts are not topics analyzed under SEPA and therefore are not addressed in the Brightwater EIS. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

However, once a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation

strategies and solutions to Brightwater construction and operational impacts. As part of the overall decision process, King County is revising the cost estimates (dated November 2002) for the Brightwater alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

Response to Comment O17-57

Population and employment forecasts in north King County and south Snohomish County and how those forecasts are used to calculate wastewater flows are discussed Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Response to Comment O17-58

A study completed for the Regional Wastewater Services Plan indicates that approximately 60 percent of wastewater flows to the Brightwater System, when the system comes online in 2010, will come from drainage basins in Snohomish County. The study was based on 1995 population forecasts provided by the Puget Sound Regional Council. The updated forecasts prepared for the Brightwater Final EIS using 2000 data indicate no significant change in the results. Please refer to the Final EIS Chapters 1 and 2, and Appendix 2-A, Population and Flow Analysis. Flow volumes and the percentage of flow from Snohomish and King Counties, as indicated in the RWSP study (see table below), were based on average wet-weather flows (million gallons per day) from basins in the Brightwater Service Area. Flow volumes and percentage of flow to Brightwater that will come from King County and Snohomish County will vary over time as basin flows are transferred among the Brightwater, West Point, and South Treatment Plants to optimize system efficiency. Flows from the two counties will be approximately equal in 2050.

	2010	**2020**	**2030**	**2050**
Snohomish County (mgd)*	14.0	19.6	13.0	25.9
King County (mgd)	8.2	15.4	21.4	27.1
Total AWWF** to Brightwater (mgd)	22.2	35.0	34	53
Snohomish % of total mgd	63	56	38	49
King County % of total mgd	37	44	62	51

* mgd = million gallons per day
** AWWF = average wet-weather flow

"This Draft EIS also considers two sub-alternatives related to the Unocal system. One sub-alternative involves potentially building a structural "lid " over a portion of the treatment plant site to accommodate the possible future siting of either the Edmonds Crossing multimodal project or another public use such as a park; the other sub-alternative involves treating flows from the Cities of Edmonds and Lynnwood at the Brightwater Treatment Plant."

O17-59 Regarding sub-alternatives, this seems to confuse the issue and make it more difficult to understand the relative impacts of the alternatives.

How can the alternatives be evaluated with regard to the sub-alternatives?

For example, the environmental impacts of the sub-alternatives would seem to be significant and have a cascading effect on the alternatives themselves. Another example of sub-alternatives are the gravity and force-main conveyance methods.

It would be preferable to identify complete alternatives – including specific sub-alternatives - and their impacts.

1.2 Preferred Alternative

"The King County Executive has identified the Route 9 system with an effluent corridor along NE 195th Street and a marine outfall in Zone 7S as his Preferred Alternative because of the relative efficiencies and flexibility it would provide."

O17-60 What is meant by *relative efficiencies*?

What is meant by *flexibility it would provide*?

"For example, the Route 9 site is twice the size of the Unocal site, making it easier to engineer and build the plant, and it would provide more room for a landscaped buffer."

O17-61 How can it be shown that the size of the Route 9 site in comparison to the UNOCAL site makes it easier to engineer and build a wastewater treatment facility?

What data supports this assertion?

By what quantitative standard can the easiness of the construction and engineering be demonstrated?

O17-62 What are the characteristics and purpose of a landscaped buffer?

What criteria are utilized to evaluate the effectiveness of a buffer?

"The design of the Route 9 conveyance system and the manner in which it would connect to the existing King County system also would provide more flexibility for sending flows

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 12of 21

Response to Comment O17-59

The alternatives and sub-alternatives evaluated in the Brightwater EIS have been defined consistent with the SEPA Rules, which state that an EIS may discuss a range of alternatives or a few representative alternatives (WAC 197-11-440(5)). Further discussion of defining alternatives is provided in the response to Lane Powell Spears Lubersky LLP, Comment O4-1.

Response to Comment O17-60

The reasons for selecting a preferred alternative are included in Chapter 1 of the Final EIS. Chapter 1 includes information on flexibility and relative efficiencies of the Route 9 site and associated conveyance system and outfall.

Response to Comment O17-61

A large site provides several advantages:

- It facilitates construction by providing more space available for site access, contractor staging, equipment laydown, storage of earth, room for contractor operations, etc.
- It simplifies engineering by providing additional space to run piping, conduits, and duct work.
- It provides better access to facilities by allowing more space for roads, walkways, and parking.

Response to Comment O17-62

A buffer comprised of plant material, earthwork, and other physical elements (such as fences and walls) is a common means of providing visual separation between land uses and/or roadway corridors; visual relief from large expanses of building or site development; retention of existing vegetation; increased site permeable area; and increased habitat development. Minimum requirements for landscape buffering or screening are established by zoning ordinances and site development regulations that set specific standards for location of buffer or screening area (usually at site perimeters

and between certain land uses); depth and area of landscaped buffer; type and density of plant material; establishment and growth period benchmarks (such as, "…must be of certain height and coverage within 5 years"); and plant establishment and maintenance obligations.

Mitigation in the form of landscape buffers is illustrated and described for each site and proposed facility in both the Draft EIS and Final EIS. The Route 9 site allows for landscape buffers ranging in width from 210 to 310 feet along the proposed facility's western boundary with SR-9. The Unocal site allows for perimeter landscape buffers of between 20 and 30 feet.

to other treatment plants during emergencies and for providing reclaimed water to users near the plant and along the effluent pipeline."

O17-63 By what quantitative measures can the comparative flexibility of the two alternatives be evaluated?

O17-64 What detailed information is available to demonstrate the flexibility advantages for Route 9.

O17-65 What is characterized as an emergency?

What is the likelihood of such emergencies and by what means has this been calculated?

O17-66 What reclaimed water usage can be estimated for the Route 9 site?

Beyond the reclaimed water usage for plant operations, would you please compare the marginal return at various points in the wastewater system for a dollar spent on reclaimed water.

For example, would it be more cost effective (measured as annual reclaimed water utilized and potable water saved per dollar spent) to enhance reclaimed water at places where industrial demand exists?

Please detail the usage of *reclaimed water to users near the plant and along the effluent pipeline* as a basis for preferring the Route 9 site.

What would the environmental impacts be of the extraction of effluent and processing to reclaimed water standards?

What would be the cost per gallon?

O17-67 At what points in the effluent line would it be possible to extract effluent and do further processing?

How does this vary with cut and cover, force main and deep tunnel?

O17-68 If the extraction is only at the portals, how would the reduction of the number of portals impact the ability of the system to provide reclaimed water?

O17-69 Ordinance 13680 in TPP-8 states:
TPP-8: King County shall continue water reuse and explore opportunities for expanded use at existing plants, and shall explore water reuse opportunities at all new treatment facilities.

Response to Comment O17-63

A comparison of the alternatives and a summary of their potential impacts can be found in Chapter 3 of the Final EIS.

Response to Comment O17-64

It would be easier to send flows from the Route 9 site to both the South Plant and West Point due to the configuration of the collection system in the north end. The Unocal site, being on the shoreline, has a more limited ability to send flows to both the South Plant and West Point.

Response to Comment O17-65

Plant emergencies can consist of a number of events, ranging from fires and hazardous material releases to natural disasters. These events would be addressed by King County's Emergency Response Plan, which specifies procedures for responding to such events. Please refer to the response to the Washington State Department of Ecology, Comment W5-35.

Response to Comment O17-66

King County has identified potential future users within a 5-mile radius of both the Route 9 and Unocal sites and along the expected path of the Route 9-195th Street conveyance corridor. There is a potential demand for 7.4 mgd within 5 miles of the Unocal site. Potential demand within 5 miles of the Route 9-195th Street System is 10.1 mgd. Up to an additional 10 mgd of potential agricultural demand in the Sammamish Valley could be served by the Brightwater Treatment Plant at the Route 9 site instead of developing a separate Sammamish Reuse Treatment Facility. For a discussion of potential reclaimed water projects and the costs of producing and distributing reclaimed water, please refer to the response to the Sno-King Environmental Alliance/Gray, Comment O16-13, Chapter 3 of the Final EIS and Appendix 3-D, Reclaimed Water Technology Review and Evaluation of Potential Water Reuse Opportunities. If specific customers for reclaimed water are identified in the future and specific

proposals are made for the construction of distribution lines, an evaluation of environmental impacts of specific proposals would be undertaken at that time.

Effluent would not be "extracted" for treatment and processing. The current treatment technology planned for Brightwater, membrane bioreactors (MBR), would produce an effluent that meets reclaimed water standards, with an additional disinfection step. Please refer to the references noted in the paragraph above for further discussion.

Response to Comment O17-67

If withdrawal of treated effluent is desired for reuse water production along either the Route 9-195th Street or the Route 9-228th Street conveyance corridors, the effluent would be drawn out of the effluent tunnel at the portals as these are the only locations where the piping inside of the tunnel would be exposed and readily accessible.

With open-cut (cut-and-cover) construction, the treated effluent could be withdrawn at any point along the pipeline. However, the open-cut effluent system alternatives were eliminated from further consideration in the *Brightwater Phase 3 Pre-DEIS Conveyance Evaluation Summary* (October 2002) due to the significant community and environmental impacts associated with this type of construction.

Response to Comment O17-68

The Brightwater project would have effluent treatment facilities to produce Class A reclaimed water for reuse. Initially in Phase 1, a 5-mgd reuse facility would be provided. Space would be reserved onsite for additional water reclamation (reuse) facilities up to the average wet-weather flow (AWWF) projected for buildout (up to 54 mgd). Extraction would not only be at the portals. Reclaimed water could be distributed from each of the treatment plant sites as well as the portals. Reducing the number of portals could potentially increase the volume of reuse water distributed from the treatment plant or remaining portals depending on the location of the users.

Response to Comment O17-69

For the cost of constructing and implementing reclaimed water projects, please refer to Appendix 3-D, Reclaimed Water Technology Review and Evaluation of Potential Water Reuse Opportunities, of the Final EIS.

Ordinance 14107, which establishes policy site selection criteria for evaluating sites to be considered for the Brightwater Treatment Plant, states that King County shall select sites that provide "room for reclamation of all wastewater flows." Room would be provided on both the Route 9 and Unocal sites to reclaim up to 54 mgd of wastewater. However, decisions on whether or not to actually reclaim all flows from the plant will be made subject to Water Reuse Policies (WRP) 1 through 15 in Ordinance 13680, which adopts the Regional Wastewater Services Plan.

Ordinance 13680, Section 10, addresses water reuse through 15 water reuse policies intended to guide King County in developing a program to produce reclaimed water. These policies direct King County to implement projects subject to economic and financial feasibility assessments, including assessment of environmental benefits and costs. It is the intent that King County will develop programs to use reclaimed water to supply additional water for the region's non-potable uses (Policy WRP-3). Treatment Plant Policy 8 (TPP-8) in Ordinance 13680 does not address use of reclaimed water outside the plant site; it states that King County shall explore opportunities for water reuse onsite at all existing and new treatment facilities.

Has the exploration of water reuse opportunities at the new treatment plan been compared to the opportunities at existing plants on a reclaimed water usage per dollar invested basis? On any other basis?

O17-69 Does this ordinance or any other mandate that reclaimed water be utilized outside the new treatment plant?

O17-70 *"The Executive prefers construction of tunnels for placement of conveyance pipelines rather than open cut construction because of the lower overall impact, lower capital cost, and lower operation and maintenance cost of tunnels."*

By what quantitative measure have tunnels been preferred to open cut construction?

What are the overall impact criteria that were used to evaluate?

O17-71 What are the criteria utilized for the capital, operation and maintenance cost evaluation?

Would you please show the detailed information regarding all analysis and conclusions?

O17-72 What is the comparative maintenance required for tunnels verses cut and cover?

O17-73 What are the comparative environmental impacts of the force main vs. deep tunnels vs. the cut and cover method of placing conveyance pipelines?

O17-74 *"Each of the three system alternatives analyzed in this Draft EIS are viable alternatives."*

What is the difference between viability and the Executives preferred choice selection criteria?

If the alternatives are all viable, what does it mean to say that one site has more *flexibility for sending flows to other treatment plants?*

Does the other alternative not have *flexibility for sending flows to other treatment plant?*

1.3 Purpose and Need for Proposal

O17-75 *"The Regional Wastewater Services Plan (RWSP),adopted in 1999, sets forth both the purpose and need for a Brightwater System to be in place by 2010."*

Since this DEIS is in large part based on the FEIS of the RWSP and much time has passed and much new data is available, do the assumptions and conclusions remain valid after several years?

Would you please update the assumptions and conclusion of the RWSP?

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 14of 21

Response to Comment O17-70

The *Brightwater Phase 3 Preliminary Conveyance Evaluation Summary* (King County, 2002) and *Brightwater Phase 3 Pre-DEIS Conveyance Evaluation Summary* (King County, 2002) describe the evaluation criteria and methodology used in analyzing the various construction methods and corridor alternatives. These documents are available from King County.

Response to Comment O17-71

SEPA does not require inclusion of financial impacts. For information on cost issues, please refer to the response to Comment O17-56 in this letter.

Response to Comment O17-72

Maintenance requirements of large diameter pipelines installed using tunneling are similar to those installed using open-cut construction.

Response to Comment O17-73

Please refer to the response to Comment O17-70 in this letter.

Response to Comment O17-74

Please refer to the response to Comment O17-60 in this letter. If the treatment plant were built at the Unocal site, flows could be diverted to other treatment plants. However, it would be much more difficult. The Unocal System would require constructing a new pump station in Portal Siting Area 11. During emergencies, the ability to respond quickly is desirable. However, under high flow conditions, it would take several hours to stop the pumps from sending the wastewater flow to Brightwater and divert the flows to the other treatment plants. For this reason, a treatment plant at the Route 9 site is considered to be more flexible.

Response to Comment O17-75

For a detailed response to questions concerning population growth forecasts and wastewater flow projections please refer to the response to the City of Seattle, Comment C10-l. Population and employment forecasts in north King County and south Snohomish County and how those forecasts are used to calculate wastewater flows are discussed Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Would you please compare the levels of increased wastewater flow that the RWSP predicted to the actual numbers which are now available?

O17-76 How do the population growth assumptions in the DEIS compare with the numbers used in the RWSP?

RWSP was adjusted downward between DEIS and FEIS, as shown from the RWSP 4/1998 "revised population and wastewater flows estimates" shown below.

Regional Wastewater Services Plan April 1998
REVISED POPULATION AND WASTEWATER FLOW ESTIMATES
As a result of comments on the Draft RWSP, assumptions about population growth in the region, particularly beyond 2020, have been reviewed and revised. It was determined that in the draft growth had been forecast to be greater than would likely occur and a different model was used in the Executive's Preferred Plan. As a result of this effort, estimates of population growth have been lowered by approximately 9% at 2030 and 30% at 2050, yielding a reduction in wastewater base flows of 7% and 25% at those years, respectively. This reduction in estimated population growth resulted in a reduction in estimated wastewater flow during the same time period. In turn, facilities could be delayed and/or constructed at a smaller size than proposed in the Draft Plan. The Service Strategies described in the Draft Plan and Draft EIS have been revised in Part I of this Final EIS to reflect these modifications.

O17-77 At what other points in time have the estimates be updated?

O17-78 Were these changes in growth projections a result of changes from the Puget Sound Regional Council (PRSC) or were these changes from some other origin?

O17-79 Who submitted the comments which precipitated the changes included in the RWSP FEIS regarding population estimates?

O17-80 What was the origin of the assumptions which were corrected by the comments? Was this information developed internally by King County?

O17-81 For all the updates, including 4/1998, please indicate the source of the need for correction. Was it new data or new assumptions or new formulas or ?

O17-82 Under "IMPLEMENTING THE RWSP" on page 3 of the RWSP Operational Master Plan, December 1999, it is mentioned:
During implementation of the RWSP, the county will periodically evaluate assumptions used to estimate population growth and development patterns to ensure that the North Treatment Plant is properly sized and has capacity available when needed.

What has been done to assure that the NTP, now called Brightwater, will be properly sized and is built when needed?

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 15of 21

Response to Comment O17-76

The most current information about forecasting population and projecting wastewater flow can be found in Chapter 2 of the Final EIS and Appendix 2-A, Population and Flow Analysis. For a detailed response to questions concerning population growth forecasts and wastewater flow projections, please refer to the response to the City of Seattle, Comment C10-1.

Response to Comment O17-77

Population and flow estimates have been updated between the Final RWSP and the Final EIS. Please refer to Appendix 2-A, Population and Flow Analysis.

Response to Comment O17-78

Following release of the Draft Regional Wastewater Services Plan (RWSP), King County received comments that the forecasting methodology should be reviewed as the rate of growth and the projected population from 2020 to 2050 appeared very high. In response, King County evaluated other alternatives and selected a less conservative method to estimate wastewater flows in the Executive's Preferred Plan. A "linear trend function" was selected and this straight line approximation had the effect of lowering projections after 2020. The Regional Water Quality Committee (RWQC) was instrumental in bringing this issue to King County's attention. This is well-documented in Appendix A to the RWSP.

Response to Comment O17-79

While there were comments on the Draft EIS for the RWSP regarding the population and flow estimates, King County committed in the RWSP to revisit population growth and assumptions when new information became available. The PSRC, the source of demographic information used in wastewater planning efforts, developed new forecasts based on the 2000 Census and produced detailed forecasts on

population and employment in time for King County to complete a basin by basin demographic analysis comparing that new information with the previous forecasts. This is documented in Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Individual comments and responses on the Draft EIS for the Regional Wastewater Services Plan were included as an Appendix to the RWSP Final EIS and Plan. This appendix includes a list of commenters, copies of their comments, and associated responses and is available as supporting documentation to the Brightwater Final EIS.

Response to Comment O17-80

Please refer to the response to Comment O17-79 in this letter.

Response to Comment O17-81

Please refer to the response to Comments O17-78 and O17-79 in this letter.

Response to Comment O17-82

King County updated the population and flow projections after the publication of the Brightwater Draft EIS based on the most recent available census data. For a description of how population and flow updates are used in the planning process, please refer to Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

O17-83 Specifically what are the key data that determine the 2010 requirement for the capacity of Brightwater?

O17-84 *Over 2 million people live and work in King County 's wastewater service area. They take showers, wash clothes and dishes, flush toilets, and perform other routine functions that use water. These activities, combined with other commercial and industrial water uses, generate an average of more than 200 million gallons of wastewater each day.*

Have any studies been made to determine the usage trends of water by the people in the service area? For example, have low flow toilets' impact been calculated into the formulas and assumptions of water usage?

Now the existing regional system is running out of capacity, an issue that was evaluated in the RWSP. Forecasts of population growth between 1990 and 2030 predict that 1.1 million additional people will live and work in King County 's wastewater service area and will generate an additional 74 million gallons of wastewater each day by the year 2030. At this rate , population growth will exhaust available capacity in the system by the year 2010.

O17-85 This phrase discusses as fact the hypothesis that the system will be out of capacity at the year 2010. As additional information, the reader is directed to '*See Chapter 2 for a discussion of population forecasts and wastewater flow estimates.*' When arriving at Chapter 2, in '*2.3.1 Forecasting Population and Projecting Wastewater Flow*' we are directed to '*For a detailed discussion of population and employment forecasts, see Chapters 6,7,and 8 of Wastewater 2020 Plus Existing Condition, King County Department of Metropolitan Services (METRO)and HDR Engineering, Inc., August 1994*'

Would it be possible to make a clear and concise description of the most recent data and conclusions about the status of the existing system and the capacity to support the region?

One goal of this section is to demonstrate the need for the proposal. Would you please make a clear and concise description of the need for this facility by 2010?

What are the bottlenecks in the system? Capacity? Conveyance? I&I?

What are the critical assumptions that are inputs to the models which predict the point at which the system will reach capacity?

2.3.1 Forecasting Population and Projecting Wastewater Flow

To identify wastewater facilities needed in the future in its service area, the King County Wastewater Treatment Division projected future wastewater flows by first using population and employment forecasts provided by the Puget Sound Regional Council

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 16of 21

Response to Comment O17-83

Wastewater conveyance and treatment systems are designed using a number of different parameters aimed at ensuring that the effluent discharged from the treatment plants meets the federal and state standards for secondary treatment. These parameters also ensure that standards are met for preventing sanitary overflows in separated systems and for limiting permitted overflows in combined systems. The treatment plants are sized according to a number of different conditions that vary largely due to weather-related factors and treatment plant processes. Treatment plant design parameters allow for a particular range of operating conditions under both dry- and wet-weather conditions for both the hydraulic and solids handling requirements. These parameters include flow rates for average wet-weather, average dry-weather, maximum monthly, weekly, daily, and hourly flow rates, as well as varying BOD and TSS concentrations and loadings under dry- and wet-weather conditions. These parameters drive the designs of each of the processes to ensure there is adequate treatment under varying flow and weather conditions.

The sizing of the conveyance system is based almost solely on being able to transport peak flows. For the County's conveyance system, King County proposed and Ecology accepted the use of a 20-year design storm to handle peak hydraulic flows in the separated system. The conveyance system is usually built to handle this peak flow at full buildout unless there is a way to phase the conveyance.

Response to Comment O17-84

The residential flow factor of 60 gpcd has been used historically by King County and former Metro to develop both the South and West Point Systems. The industrial and commercial flow factors of 75 and 35 gped, respectively, were derived based on permitted flow for industrial users, and on modeling and measured flows at the plants for commercial users. Using measured flows, along with King County's hydraulic model and the assumption that residential

flows equal 60 gpcd, the relationship between industrial and commercial flow factors was established. To determine if the unit flow factors were reasonable, King County compared the base sanitary flow estimates with dry weather flows measured from each treatment plant for 1990. Dry weather flows include base sanitary flow plus dry weather infiltration and inflow (I/I). The estimated flows derived from population and sewered area compared closely with the measured flows.

When King County developed the Regional Wastewater Services Plan, alternative unit flow factors were examined by modeling wastewater unit flow factor changes as a result of water conservation, pricing, and the plumbing and building codes. The County's analysis of the varying flow factors indicated that the base sanitary flows could decrease from 10 to 18 percent using a moderate to aggressive water conservation program. While this sounds significant, it is important to understand that base flow is not a major factor in the timing and sizing of a treatment plant or of its associated conveyance system. Base flow represents less than 20 percent of the peak 20-year storm flow, which is King County's design standard. The potential conservation measures resulted in peak flow reductions in 2020 from 2 to 4 percent. Peak flows at 2030 are projected to be 608 mgd in the separated portion of the system. This will not change the timing or size of any facilities currently planned. Based on this analysis, and the fact that water conservation benefits are uncertain because they are not mandatory, the flow factors were not adjusted to include reliance on water conservation.

The City of Seattle recently suggested that industrial and commercial flow factors are significantly lower than those used by King County. Seattle's flow factors are based upon what we believed to be the results of water conservation efforts over the last decade that could reduce the need for additional sewer capacity in the future. Residential consumption predicted by Seattle remains similar to the King County flow factor so there is no adjustment warranted for residential. Seattle's proposed flow factor for 54 gpd is similar to the 10 percent base flow reduction analysis discussed above. The corresponding 2 percent reduction in peak flow is small enough that it is not recognized within the accuracy of the actual monitoring. Additionally this potential reduction of 2 percent of the peak is not enough to risk underbuilding any wastewater facilities unless they can be cost-effectively phased.

Flow information from the County's treatment plants indicates that water conservation is not having a significant effect on wastewater flows. This is probably because much of the conservation taking place is in outdoor water use, such as reduced lawn watering or car washing, which is water that usually does not reach the sewer system. The volumes of the potential commercial sector reductions are so small that they cannot be seen in the volumes handled by the wastewater system.

King County agrees that there is a reduction of water use in the industrial sector, though more work needs to be done to refine the industrial flow factor. However, it is important to note that any reductions in estimated industrial flow will occur primarily in the southern portions of the service area and will not benefit the north service area where reaching hydraulic capacity is being reached most quickly. Even so, estimates show that, using a 50-gpd flow factor, we would see only a 4-mgd reduction in base flows and average wet-weather flows system-wide. While King County is interested in further evaluating these factors, the projected water conservation benefits do not warrant any adjustment in treatment or conveyance sizing for this project.

Response to Comment O17-85

Please refer to revised Chapter 1 and Appendix 2-A, Population and Flow Analysis, of the Final EIS. All indicators used to project conveyance and treatment plant capacity indicate that King County is running out of capacity. King County will exceed capacity in the north end conveyance and storage facilities no later than 2010; may be out of capacity at the South Treatment Plant sooner than anticipated; and is already at the limit of capacity in solids handling at the West Point Treatment Plant.

Conveyance: The north service area continues to be a major constriction in the system. Based on model results done in 1998, King County estimates that the Kenmore Interceptor (a.k.a., Lake Line) and upstream storage and flow transfers to Edmonds will reach capacity no later than 2010. This assumption is supported by recent checks against the model, comparing King County's 1998 modeled peak flows for basins discharging to the Lake Line for the year 2000 against updated flows modeled using actual rainfall data from the 2001–2002 wet season.

Treatment: King County derives average wet-weather flow (AWWF) for the base planning year of 1990 by measuring flow at the treatment plants over several years and adjusting these flows using rainfall data to reflect an average wet period during historical conditions. The South Treatment Plant Service Area collection system is a separated system, and its AWWF definition is the average of all flows during the months of November through April (6 months). For the West Point collection system, which has combined systems, the AWWF is defined as the average of all non-storm flows during the months of November through April. Comparison of the historical AWWF to the projected AWWF for the King County system indicates that the measured flow is well below the projected flow for the years 1987–88, 1992–94, and 2000–01. This is because these years are generally described as drought years in the Puget Sound region. In years when the rainfall has been about normal or above normal (1981–82, 1984, 1986–87, 1997, and 1991), the measured AWWF at the treatment plants is very close to the projected AWWF. In 2013 the projected AWWF will reach the system capacity of 248 mgd. In terms of the individual treatment plants, the West Point Treatment Plant will have some capacity beyond 2010, and the South Treatment Plant may reach capacity sooner than anticipated.

Solids: Solids handling is also a critical factor in determining the timing for new treatment plant facilities. Current projections show that the South Treatment Plant will reach its solids handling capacity at 2010 and the West Point Treatment Plant is already at or near its solids capacity. During the RWSP, King County expected the West Point Treatment Plant to have enough solids capacity to last through 2030 and reach its hydraulic capacity at 133 mgd AWWF. Problems with the digester and solids handling facilities suggest that capacity is now reached. Evaluations are being done now to determine if minor modifications will enable the capacity to last through 2010 when the Brightwater facilities are online.

(PSRC).At the time the RWSP was being developed, PSRC forecasted population growth through 2020.King County extended this forecast through 2050 by applying a linear trend function, essentially assuming that growth would continue at the same rate until 2050,the time when the area is expected to reach build-out.

O17-86 Against what period of data was the linear trend function applied to generate the projection from 2020 thru 2050?

O17-87 King County relies on the numbers from PSRC for the growth in the area. Do you have experts within King County familiar with population growth that recommended a linear trend function be applied to the 2020 data to extend it forward to 2050?

O17-88 Since this is a critical projection, has King County been reasonable in their requirement to under the GMA to project future needs for capital facilities?

O17-89 By what method had King County determined that the area would reach "build-out"?

What are the characteristics of the situation described as "build-out"?

Does this have a special meaning to growth planners?

O17-90 Does this mean that after 2050 there will not be any further growth in the area?

What is meant by the "area"?

O17-91 In ordinance 13680 CP-3 states: *King County shall periodically evaluate population and employment growth assumptions and development pattern assumptions used to size conveyance facilities to allow for flexibility to convey future flows that may differ from previous estimates.*

Given the burden of CP-3, has King County completely fulfilled this responsibility?

Was it sufficient to apply a linear trend from 2020 to 2050?

O17-92 *It is important to note that King County continually revises its flow projections based on current population forecasts and other factors to ensure that its wastewater facilities are properly sized and have sufficient capacity available when needed to meet the demands of growth.*

Would you please detail what this statement "continually revises" means?

Why is it important to note this?

On what dates have the flow projections been updated?

Response to Comment O17-86

The linear trend was applied to the years 1990, 2000, 2010, and 2020 to generate the population and employment for the years 2030, 2040, and 2050.

Response to Comment O17-87

There are staff members within King County's Wastewater Treatment Division with expertise that are familiar with population growth and recommended the application of the linear trend function.

Response to Comment O17-88

Please refer to the response to Comment O17-82 in this letter.

Response to Comment O17-89

Previous to more recent forecasts, Puget Sound Regional Council (PSRC) population forecast to the year 2020 therefore additional modeling efforts needed to be performed to determine population at 2030 and saturation. Both 2030 and saturation are crucial for facilities planning; therefore a population trend line was used to calculate FAZ data for these years. The population trend line variables were established from available PSRC data. Using the PSRC residential, retail, basic, and streets/highways land use data, FAZ acreages for each land use were allowed to grow until the FAZ vacant developable land reduced to zero. Each land use category within a FAZ was allowed to grow at its own rate. When total acreages from all the land use categories within a FAZ reached a point where no more vacant developable land was available population was allowed to continue to grow based on land redevelopment resulting in higher population densities. This increased density was allowed to continue based on the trend lines developed to the year 2050. By the year 2050, essentially all vacant and developable land within the Urban Growth Area has been developed. For this study the year 2050 was assumed to be the point of saturation and thus "built out."

Response to Comment O17-90

The “area” means that geographic area where wastewater conveyance and treatment are provided by both the local sewer agency infrastructure and the King County wastewater system. Appendix 2-A, Population and Flow Analysis, of the Final EIS provides maps that show the Brightwater Sewer Service basins as one example.

Response to Comment O17-91

Please refer to the responses to Comments O17-78 and O17-79 in this letter.

Response to Comment O17-92

Just as the Puget Sound Regional Council revises its population and employment forecasts from time to time to account for changed conditions, King County also re-examines their wastewater facility needs based on changed conditions including changes in population and employment forecasts. Additional new or changed information may be cause for a re-examination or comparison of factors including updated I/I flow information that could result in a recalibration of flow projection models or information that suggests water usage has changed over time. This is important to note because the wastewater conveyance and treatment systems are designed using a number of different parameters aimed at ensuring that the system discharges meet federal and state requirements. By testing and re-examining changed conditions, facility improvements and/or process changes can ensure adherence to these requirements.

Flow projections are continuously tested and compared using changed conditions, essentially testing for sensitivity of one parameter over another. When major factors suggest a change in flow rates, flow projections are typically updated. Updates have been done when major observed flow changes occur such as in the early 1980s or when major discharge requirements are changed, such as when secondary treatment was required at the West Point Treatment Plant. In the early 1990s, a major flow projection update project was undertaken when the Washington Growth Management Act and the resulting King County Comprehensive Plan established the Urban Growth Area. This directed changes to the potentially sewerable land area that would have a major impact on our regional wastewater system and ability to meet federal and state discharge requirements.

O17-93 On what dates have the population forecasts utilized been updated?

Would you contrast the actual wastewater flows with the flow projections from prior forecasts?

Siting the Brightwater Treatment Facilities
Site Selection and Screening Activities March 2001
Environmental Review Process

Extensive programmatic environmental review under the State Environmental Policy Act ("SEPA") began during the adoption of the RWSP. The preliminary County siting activities and policy considerations described in Phases 1 and 2 are designed to (1) further define the specific Brightwater project proposal that will be evaluated in an EIS starting in 2002; and (2) produce a number of alternative system packages.

Consistent with SEPA policy that encourages incorporation of previous environmental analysis, the Brightwater siting process includes a phased review that builds on previous SEPA analysis. This phased review began with the SEPA review and analysis associated with adoption of individual Growth Management Act plans and policies at the regional, county and city level and was followed by an EIS for the Regional Wastewater Services Plan ("RWSP EIS"). The SEPA review conducted on the RWSP EIS analyzed the potential impacts of siting, constructing and operating a Brightwater system in general. Both the RWSP EIS and the RWSP itself identify possible Brightwater mitigation measures. Because the RWSP EIS has already evaluated the broad impacts of the new treatment plant at a programmatic level of detail (not at a project level), the next EIS will supplement this analysis, and is termed a Supplemental Environmental Impact Statement (SEIS).

The SEPA review for Brightwater includes adoption of the site screening and site selection criteria by the King County Council. Because many of the site screening criteria are based on the environmental policies and values found in adopted County and City GMA comprehensive plans and development regulations, the SEPA environmental checklist identified what are generally only positive long-term impacts on the environment resulting from the adoption of the site screening criteria. The criteria also address how significant adverse environmental impacts can be avoided or minimized by a rigorous site selection process. A Determination of Non-Significance (DNS) was issued based on this checklist (November 17, 2000).

In Phase 3, a SEIS will be prepared that builds on the programmatic RWSP EIS and analyzes the detailed environmental impacts and proposed mitigation of a limited number of Brightwater alternative system packages. Because the Project EIS will include detailed information on environmental impacts of the Brightwater project at specific locations, the public will have additional opportunities to participate in the Brightwater SEPA process at that time. Public input will be sought throughout the EIS process.

O17-94 It would appear that in general the EIS process has not followed what was intended in the Phase I Site Selection and Screening Activities document published March 2001.

What issues and ordinances empowered the change from what was described above?

What happened to the SEIS envisioned which would be at a project level?

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 18of 21

Response to Comment O17-93

The following is a summary of Puget Sound Regional Council's (PSRC's) STEP and Small Area forecasts from 1994:

- STEP 1994 - Produced updated regional forecasts out to 2020, which was the first set of forecasts used in draft Wastewater 2020 Plus planning.
- Small Area Forecasts 1995 - Used STEP94 as the basis. The PSRC Executive Board approved these forecasts in April 1995 for use in the Vision 2020 Update and the Metropolitan Transportation Plan. The PSRC General Assembly then adopted these plans in May 1995. This forecast represented the last formal approval or adoption by the Executive Board or the General Assembly of a Small Area Forecast. The County used these as the basis for Regional Wastewater Services Plan (RWSP) and Draft EIS level population and employment and flow projections.
- The 1995 Small Area Forecast report implies that the forecasts were approved by the Executive Board for use in the reports, but the General Assembly of PSRC formally adopted only the reports, not the forecasts, in May 1995.
- STEP 1997 - Produced updated regional forecasts out to 2020, and later, to 2030.
- Small Area Forecasts 1999 - Used STEP97 as the basis. Characterized as a working set of forecasts, they extended again out to 2020. County used these in a test against the basis for the 1995 flow projections.
- Small Area Forecasts 2001 - Updated the 1999 forecasts, although STEP97 results were still being used as the base. Extended the STEP97 results out to 2030 and added updated information on population, households, and jobs to estimate a base year 2000 dataset.
- STEP 2001/2002 - PSRC produced new regional forecasts out to 2030, using Census 2000 data for the first time.
- Small Area Forecasts (SAF) 2002 - PSRC used the STEP

01/02 results as the base, and incorporated actual 2000 Census and employment data in the base year 2000 dataset at the FAZ level. This set of data is used for analysis in Appendix 2-A, Population and Flow Analysis, of the Final EIS.

It is important to note that PSRC does not currently plan to resume the process of having the board or assembly approve/adopt forecasts in the future. The current schedule calls for a major update (with a more recent STEP model forecast) every three to four years, with annual minor updates occurring during the off years. Appendix 2-A compares population and employment forecasts based on the 2000 census and employment data with the previous forecasts based on earlier employment data used in the RWSP.

Response to Comment O17-94

This Final EIS for the Brightwater Regional Wastewater Treatment System is project-level and contains considerable detail not included in the programmatic-level EIS for the Regional Wastewater Services Plan. For a discussion of phased review of the Brightwater project under SEPA please refer to the Chapter 1 section on “Environmental Review” of the Final EIS.

O17-95 What happened to the "*the Project EIS will include detailed information on environmental impacts of the Brightwater project at specific location*", which was described in this Phase I document?

Siting the Brightwater Treatment Facilities
Site Selection and Screening Activities March 2001
Technical Goals

O17-96

- ***Assure Efficient and Reliable Treatment*** *– Develop a wastewater treatment, conveyance and disposal system that is efficient and reliable.*
- ***Use Existing Public Facilities and Land*** *– Maximize existing public investment by maximizing the use of existing wastewater facilities and properties.*
- ***Meet the Schedule*** *– Select a preferred location for the new North Treatment Facilities by December 2002 and ensure that the facilities are operational by 2010.*
- ***Balance Risk, Flexibility and Long-Term Cost*** *– Balance cost with the risk of uncertainty and the flexibility to respond to changes in growth projections, technology and regulations.*
- ***Meet Regulations*** *– Ensure the wastewater system is designed and constructed to meet regulatory requirements.*

It would appear that technical goals "meet the schedule" and "balance risk, flexibility and long term cost" may be at odds. Since the schedule should be based on the growth projections how can you both meet the schedule and respond to changes in growth projections? Unless the initial growth projections are perfect, responding to changes in growth projections would require changing the schedule to match current growth projection up to the time the project is begun.

Would you please discuss how the constant discussion of the necessity to meet the 2010 date for the new treatment facility to be online can be integrated with the concept of responding to changes in growth projections?

Siting the Brightwater Treatment Facilities
Site Selection and Screening Activities March 2001
Financial Goals

O17-97

Maintain Reasonable Rates – To minimize impacts on ratepayers and provide reasonable equity, design the wastewater system so that rates remain within projections developed in the RWSP.

How is the current cost information working within the projections developed in the RWSP?

With the escalating costs of the new treatment facility, how is the financial goal laid out being met?

Will the "growth pays for growth" method of financing be maintained?

Phase 2 Siting the Brightwater Treatment Facilities

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 19of 21

Response to Comment O17-95

Please refer to the response to Comment O17-94 in this letter for information regarding phased review under SEPA.

Response to Comment O17-96

All government agencies responsible for infrastructure make capital facilities plans based on long-range projections of need using the best available data at the time. Past and current population forecasts and flow projections require that the Brightwater Treatment Plant be on line by 2010 with a capacity of 36 mgd, please refer to Appendix 2-A, Population and Flow Analysis, of the Final EIS. Before additional increments of treatment capacity are added in the future, population forecasts and flow projections will again be revised and analyzed as to the timing of the needed expansion.

Response to Comment O17-97

SEPA does not require inclusion of financial impacts. For information on cost issues, please refer to the response to Comment O17-56 in this letter.

6.0 Proposed Final Candidate Systems
6.1 Executive's Recommendation

The King County Executive considered the four suitable candidate systems in light of applicable goals and policies that address the region's needs in meeting the Growth Management Act and for providing affordable, quality public services. The goals and policies speak to: encouraging multi-modal transportation systems; seeking affordable transportation options; intergovernmental coordination on projects of statewide, region-wide, and county-wide significance; using urban land efficiently by targeted land use concentration and concentration of infrastructure investments to save money; balancing urban uses with environmental protection through careful site planning that maximizes developable land while respecting natural systems; and encouraging revitalization.
Two suitable candidate systems offer significant opportunity for intergovernmental partnerships which benefit the surrounding communities as well as meet regional goals and needs addressing efficient use of urban land, provision of affordable and multi-modal transportation options, revitalization of land, and the balancing of urban land uses with environmental protection.
The County Executive recommends the following two candidate systems for advancement to Phase 3.

- *Edmonds Unocal*
- *Route 9*

O17-98 It would appear the executive recommended two of the four suitable sites for Phase 3 evaluation arbitrarily. The concepts of defined by the executive as those which distinguished the two sites he promoted seem to be arbitrary.

O17-99 In his letter of Sept 17, 2001 recommending the final candidate sites, the executive make numerous claims.

The executive declares that four sites are viable, but that the number should be reduced to save money and keep the project on schedule.

O17-100 In general, the executive's decision to reduce the final candidate sites to two is not supported by the reasons given.

O17-101 Specifically, is there any information available as to the potential impact of the inclusion of all four sites in the Phase 3 process? What would the cost impacts be? What would the impact be on the schedule?

O17-102 By what ordinance did the executive utilize additional criteria to narrow the number of sites?

O17-103 It would seem that all four sites should have been included in the SEPA DEIS for a best comparison of environmental impacts. Further, the inclusion of all four sites would have given the wastewater rate payers the best opportunity for a cost effective solution. Strangely, the executive has justified the narrowing of the field to the two most expensive sites on the basis of saving money in the selection process. and "*We must make sure we*

Brightwater DEIS comments by Tim Joseph for Sno-King Environmental Alliance 2/5/2003 Page: 20of 21

Response to Comment O17-98

The SEPA Rules (WAC 197-11-440) state that an EIS must describe and discuss a reasonable number of alternatives and the significant impacts that will narrow the range or degree of beneficial uses of the environment or pose long term risks to human health or the environment. The Brightwater EIS evaluates a reasonable number of treatment plant sites, conveyance routes and outfall locations. For a discussion of the Preferred Alternative, please refer to Chapter 1 of the Final EIS.

Response to Comment O17-99

Please refer to the response to Comment O17-98 in this letter.

Response to Comment O17-100

Thank you for your comment.

Response to Comment O17-101

Please refer to the response to Comment O17-98 in this letter. All of the alternatives included in the Final EIS are viable from a SEPA perspective. Cost is not considered to be a SEPA issue.

Response to Comment O17-102

The Executive's decision to narrow the number of sites does not require an ordinance.

Response to Comment O17-103

Please refer to the response to Comment O17-98 in this letter for a discussion of alternatives that must be described and discussed under SEPA.

O17-103 *make the best possible choice and not let the costs outweigh the benefits for the long term.*" It would seem easier to argue that the inclusion of all four sites would allow the best possible choice.

O17-104 Also, the executive describes the risk of proceeding with only two sites. While he touches on the SEPA risk of needing to have two viable alternatives, he seems to fail to see the risk of not looking closely at the four alternatives that the multi-year, multi-million dollar process has provided as candidates for phase 3.

Thank you for your consideration of these comments.

Sincerely,

Tim Joseph
Sno-King Environmental Alliance
425-485-8536

22711 78th Ave SE
Woodinville WA 98072

Response to Comment O17-104

Thank you for your comment.

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O13
UNOCAL CORPORATION

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

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UNOCAL 76

Mark Brearley, Ph.D., R.G.
Senior Staff Geologist

RECEIVED
JAN 21 2003
ENVIRONMENTAL PLANNING DIVISION

January 17, 2003

Environmental Planning
King County Wastewater Treatment Division
201 South Jackson Street, KCS-NR-0505
Seattle, WA 98104

Re: Comments on Brightwater Draft Environmental Impact Statement (DEIS)

To Whom It May Concern:

Please accept these comments on the Brightwater DEIS.

Overall Comments

O13-1 In general, the DEIS provides inadequate analysis of impacts from the proposal. The document contains cursory review of many issues. For a project of this magnitude, an Environmental Impact Statement should be expected to provide in-depth analysis and detailed information about the project and its impacts. Instead, the overall approach of the document is to provide a shallow explanation and examination of impacts. Too often, the document states conclusions of no or minor impacts without providing the underlying data and analyses to justify these conclusions. Significant revisions and reissuance are necessary to provide an adequate level of environmental review.

General Comments

O13-2
- Inadequate Analysis of Co-Location of Treatment Plant with Multimodal Facility: A portion of the Unocal Site has been planned for the Edmonds Crossing multimodal facility, with provisions for a relocated ferry terminal, access to commuter rail and buses, and adequate parking. The planning concept also features associated mixed-use development. While planning for the multimodal facility is not yet complete, the importance of that project to the City of Edmonds and its intended development is well documented through the inclusion of the project in the city's comprehensive plan and the Downtown Waterfront Plan, a subarea component of the city-wide Comprehensive Plan.
- The DEIS makes an assumption that the Edmonds Crossing project can be built on the Unocal site along with the treatment plant by construction of a "lid" over portions of the treatment facilities. However, the analysis provided in the DEIS is inadequate to determine

Response to Comment O13-1

Both the Draft EIS and the Final EIS include a reasonably thorough discussion of the probable significant adverse environmental impacts and reasonable mitigation measures for those identified impacts beyond that characterized in this comment. The Draft EIS was issued at a point in time when a certain level of information was known relating to the probable significant adverse impacts of the proposal and possible ways to reasonably mitigate those impacts. In areas where there was uncertainty in relation to impacts in one respect or another, the Draft EIS presented, following SEPA Guidelines, a worst-case analysis of impacts. In other areas, the Draft EIS indicated that ongoing analysis was under way and that additional information would be forthcoming. Since issuance of the Draft EIS in late 2002, considerable additional analysis has been conducted, as is the case on any large project, to further define and develop the proposal and respond to Draft EIS comments.

Many of the details this letter describes as necessary for an EIS relate to information either that does not involve significant adverse impacts or that is important prior to issuance of actual permits but may not be essential to include in an EIS. Such information may not be included in the Final EIS, because it is not required and King County is mindful of the need to keep the Final EIS as readable as possible. Any additional analysis that has been conducted that relates to probable significant adverse impacts that will not be mitigated or regulated into non-significance is included as part of the Final EIS analysis.

Response to Comment O13-2

The Draft EIS did evaluate in Chapters 3, 4, 5, 8, 10, 11, 12, 13, and 16 the potential environmental impacts associated with the co-location of the Brightwater project and the Edmonds Crossing project at the Unocal site. The impacts of

this co-location are also evaluated in further detail in Chapters 4 through 17 in the Final EIS.

January 17, 2003
Brightwater DEIS Comments
Page 2

O13-2 whether, in fact, this is feasible and to truly understand the impacts and necessary mitigation for such co-location. See DEIS pages 1-11, 1-12, 3-109, 5-27, 11-38, 11-57, 11-61, 12-13, and 12-24.

O13-3 • The County must produce an environmental analysis that truly evaluates the treatment plant at the Unocal site constructed along with co-location of the Edmonds Crossing project. In other words, it is inadequate to provide a limited evaluation of the impacts of the "lid" as a "sub-alternative." Instead, the county must assume the co-location of the sewage treatment facilities and the multimodal facility using the available information on the Edmonds Crossing project. A reissued or supplemental DEIS, must then provide detailed information on whether the two projects can truly be built and what elements of each project might be eliminated or need to be significantly modified. As one example, the Edmonds Crossing project includes many elements located at the lowest level of the lower yard (e.g. bus access and parking). If the lid would only accommodate development at 50' and above, this could

O13-4 significantly limit the multimodal project. The analysis must also evaluate how the two projects could be operated concurrently, the limitations that would need to be placed on either or both projects, the impacts from such co-location and the mitigation requirements generated as a result of such co-location.

O13-5 • Inadequate Evaluation of Alternatives: The DEIS covers the impacts of only two alternative sites and a no-action alternative. Yet, the DEIS acknowledges that of the seven candidate sites, "four sites . . . were found to be consistent with the policy site selection criteria and feasible alternatives for future environmental review." DEIS at 2-19. The DEIS should have considered the impacts from the Point Wells alternative and the Gravel Quarry alternative in addition to the two site evaluated. The claim that the Unocal Site offered "significant opportunities for intergovernmental partnerships" and provided "multimodal options" as a reason why this site "rose above the rest" appears to be disingenuous. See DEIS at 2-19. In fact, location at the Unocal site has the significant potential for disrupting, delaying or severely impacting the development of the Edmonds Crossing multimodal project at this location. As noted in the previous comment, the DEIS fails to adequately consider the

O13-6 multimodal facility as a planned improvement at this location that must be accommodated. Had the county truly considered the Unocal site as an alternative because of the importance of the site for multimodal opportunities, the DEIS should have incorporated the Edmonds Crossing project into the presumptions of the project and more clearly analyzed the treatment plant in light of the objective of providing the multimodal project at this site.

O13-7 • Relocation of Pine Street: There are several instances in the DEIS where the document simply states that Pine Street will be relocated. See, e.g., 3-19, 3-20, 3-21, and 16-36. Pine Street's current location provides a route up and around a significant slope. The elevation at the existing eastern edge of the bend in Pine Street is at elevation 110 and the western edge of the street after its curvature to the south is at elevation 172. The County has failed to explain the affects of relocating Pine Street, the magnitude of the cut required, the size of the retaining wall, the slope of the relocated roadway and the impact this would have on various

Response to Comment O13-3

Please refer to the response to Comment O13-2 in this letter.

Response to Comment O13-4

Please refer to the response to the Port of Edmonds, Comment G3-3.

Response to Comment O13-5

Please refer to the response to Lane Powell Spears Lubersky LLP, Comment O4-1, on the number of alternatives considered for the Brightwater project.

Response to Comment O13-6

Please refer to the response to Comment O13-2 in this letter.

Response to Comment O13-7

Please refer to the response to Point Edwards, LLC, Comment I343-11.

January 17, 2003
Brightwater DEIS Comments
Page 3

O13-7 elements of the environment including earth, water, traffic, aesthetics, land use and vegetation.

O13-8
- Unocal Site Cleanup Schedule: The DEIS fails to address how the current timing of site cleanup by Unocal could affect the development of the treatment facility at the Unocal site. Unocal's current cleanup order provides for work on the lower yard to begin no sooner than 2004 or 2005. The cleanup could extent for one or more years. If the county proposes to begin work on the site prior to completion of this clean-up, which it appears will occur (DEIS at 3-30), the County must include in its environmental analysis more detailed discussions on the impact this could have on the county project. If the county would take over the cleanup, the impacts of the county's cleanup work become part of the county's actions, that those impacts must be evaluated in this document. If the county will await cleanup by Unocal, the impact of this delay on the timing of the project must be evaluated.

O13-9
- Inadequate Noise Analysis – Neither the general document nor the technical appendices provide any detailed information to justify the conclusions in the noise analysis, DEIS Chapter 10. There is no documentation of the specific noise generating sources or the expected unmitigated levels of noise from each source. There is no evaluation of the mitigating affect buildings or other measures would have to reduce noise levels. There is no modeling presented to show the means by which conclusions were drawn regarding compliance with noise standards. Without this crucial data and analysis, the evaluation and conclusions concerning noise impacts is unsupportable.

Specific Comments

O13-10
- Section 1.5.3.1, Page 1-7: DEIS states: "The Unocal site is located in the City of Edmonds and is owned by the City of Edmonds and the Unocal Corporation." While later in the paragraph the separate ownerships are explained, this first sentence should be revised to avoid confusion. Nearly all of the Unocal site is owned by Union Oil Company of California ("Unocal") while the portion west of the railroad tracks is owned by the City of Edmonds.

O13-11
- Same page: The DEIS states "This site also provides room for buffers, though they would be relatively narrow compared to those at the Route 9 site." Figure 3-8 shows major sewage treatment facilities located only 50 feet north of the southern property line, immediately adjacent to the single-family neighborhood in the Town of Woodway. Rather than use subjective terms such as "relatively narrow," the DEIS should have described the width of the buffers at each of the proposed alternative sites and compared these buffers to those at other existing treatment facilities, rather than provide the ambiguous conclusion that there would be "room for buffers."

O13-12
- Section 2.4.3.3, Page 2-24: The discussion of Factor 7 states, in regard to the concentration of essential public facilities, that "neither community proposed for a plant has an undue concentration of regional essential public facilities." The County should identify the essential public facilities in these communities, explain how the County interprets the term "undue

Response to Comment O13-8

Please refer to the response to the Washington State Department of Ecology, Comment W5-43.

Response to Comment O13-9

The Final EIS has been revised to include a section discussing specific noise levels resulting from process equipment and plant operations, as well as how these noise levels would be controlled. The Final EIS also compares construction noise levels with existing ambient levels and describes mitigating measures to be incorporated in construction documents. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-132.

Response to Comment O13-10

Thank you for your comment. Clarifications have been made in Chapter 1 of the Final EIS.

Response to Comment O13-11

For comparative analysis, specific buffer widths are described in Chapter 3 of the Final EIS for both the Unocal and Route 9 sites.

Response to Comment O13-12

Please refer to the response to the City of Edmonds, Comment C9-5.

January 17, 2003
Brightwater DEIS Comments
Page 4

O13-12 concentration" and evaluate this term in light of the concentration of population affected by essential public facilities, not the mere number of such facilities within a jurisdiction.

O13-13
- Section 3.5.1.3, Page 3-21 – In discussing the barge dock option, the relationship of the proposed barge to proposed work under the Edmonds Crossing project must be evaluated. What would the effect be on timing for the Edmonds Crossing project?

O13-14
- Section 3, Figure 3-8 – The figure should accurately locate the relocated Pine Street and show its connection toward SR 104. The arrow drawn for the Realigned Pine Street fails to show how it has been relocated.
- Section 7, Figure 7-1 – The road into the Unocal site is mislabeled. This road is known as Unoco Road, not Unocal Drive.

O13-15
- Section 11.1.2.1, Page 11-10 – The EIS should note that there is an application pending on a portion of the site for development of 295 condominium units on the site. Construction of these residential units is expected to begin by the summer of 2003. The impact of relocation of these residential units and the demolition of these residential units should be evaluated in this document as a potential impact.

O13-16
- Same Page – The discussion of the Edmonds Downtown/Waterfront Activity Center subarea plan is inadequate. The detailed provisions of that plan relating to development at the Point Edwards site should be discussed and the sewage treatment facility's consistency or inconsistency with the policies and criteria of that plan should be addressed.

O13-17
- Section 11.2.2.1, Page 11-37 – See comment regarding Section 11.1.2.1, Page 11-10.

O13-18
- Same page. Further detail is needed to explain, analyze and justify the conclusions stated regarding Snohomish County's buildable lands report and accommodation of population and employment to meet growth targets.

O13-19
- Same Section, Page 11-38 – A rezone to "P" would be inconsistent with the city's existing comprehensive plan. The County should discuss this inconsistency, explain the need for an amendment to the city's comprehensive plan and discuss the timing of the amendment process in relation to the project schedule.

O13-20
O13-21
- Section 11, Figure 11-1 – The map contains several errors. First, it shows the Unocal Site as zoned for Commercial Waterfront. The text of the DEIS correctly explains that the zoning of the site was changed to MP1 and MP2 and should be labeled as such on this figure. Moreover, the rezone was adopted in conjunction with a Master Plan that shows specific use categories for the site. The DEIS should show the Master Plan concept plans. Finally, this figure shows a street labeled "Unocal Road." That labeled street is Pine Street. Unoco Road is not shown in this figure.

Response to Comment O13-13

Please refer to the response to the Town of Woodway, Comment C7-24.

Response to Comment O13-14

The figures have been updated in the Final EIS to show the relocated Pine Street and correct road names.

Response to Comment O13-15

Please refer to the responses to the City of Edmonds, Comment C9-92, and the Port of Edmonds, Comment G3-14.

Both the Draft EIS and Final EIS evaluate the impact of the displaced housing capacity at the Unocal site in Chapter 11. Additional text has been added to this chapter in the Final EIS to indicate that there is a pending development application for the Unocal site. The City of Edmonds Architectural Design Review Board has reviewed and approved the referenced condominium project and given the developer authorization to proceed with their building permit application. With the exception of the Unocal Structural Lid sub-alternative, which evaluates co-location with the Edmonds Crossing project, any new construction at the Unocal site would be displaced if the Unocal site were selected for the location of the Brightwater Treatment Plant. The project description for the lid subalternative is described in Chapter 3 of the Final EIS.

Response to Comment O13-16

The consistency of Brightwater with the local plans and policies for the City of Edmonds, including the Downtown/Waterfront Activity Center, is discussed under the impact section of Chapter 11 of the Final EIS. This chapter has been revised to include additional detail and analysis of the proposed development of the Point Edwards site.

Response to Comment O13-17

Please refer to the response to the Unocal Corporation, Comment O13-15.

Response to Comment O13-18

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-6 for a discussion of how the Brightwater System has been planned within the context of regional and local growth management plans. Chapter 11 of the Final EIS includes a discussion of updated buildable lands data for both Snohomish and King Counties.

Response to Comment O13-19

Please refer to the response to the City of Edmonds, Comment C9-86.

Response to Comment O13-20

Please refer to the response to Point Edwards LLC, Comment I343-23.

Response to Comment O13-21

Thank you for your comment. Road labels have been corrected in Chapter 11 of the Final EIS.

January 17, 2003
Brightwater DEIS Comments
Page 5

O13-21 • Same Section, Figure 11-2 – Again, Pine Street is mislabeled as "Unocal Road". Unoco Road is shown but not labeled.

O13-22 • Section 12.2.2.2, Page 12-14 - There should be discussion of the specific aesthetic standards presented in the Downtown Waterfront plan and whether the project is consistent with those provisions.

O13-23 • Section 12.2.5.1, Page 12-19 – This section should discuss the current remediation of the site and the post remediation grades and contours as proposed, rather than presenting only pre-remediation conditions.

O13-24 • Section 12.3.1.1, Page 12-22 – The DEIS states that the Design Review criteria will be "addressed." That vague term does not indicate compliance and does not suggest any measure of mitigation. Instead, the county should examine each of the criteria and discuss whether any of the criteria could be met and how such compliance might provide aesthetic mitigation. Also there are inadequate details provided to explain how these variations in length, relief, depth, etc. would affect aesthetics. There should be quantification of these dimensions so that there is some means by which to judge the extent and effectiveness of proposed mitigation. A comparison to accepted design review standards would be a helpful means to assess who significant these proposed mitigation measures would be to provide mitigation of aesthetic impacts. These same corrections are needed in the discussion continuing on page 12-23.

O13-25 • Chapter 16 – This Chapter must provide much more detailed discussion of the proposed multimodal facility and the impacts of this project on that planned facility.

O13-26 • Section 16.2.3.1, Page 16-37 – There is inadequate detail provided on the likely location for parking of 350 construction workers. The potential parking sites and the impacts of using such sites for the parking of 350 construction workers must be included in the analysis.

Thank you for the opportunity to provide comments on this DEIS.

Yours sincerely,

Mark Brearley, Ph.D., R.G.
Senior Staff Geologist

cc: Carl Kellar
Brent Carson

Response to Comment O13-22

Chapter 12 has been revised to include a more detailed discussion of the City of Edmonds Comprehensive Plan's Downtown Waterfront Activity Center Area goals for extending the downtown westward to the waterfront. The intent of this plan is to promote compatible land use and park-like shoreline features and to reinforce "Edmond's attractive, small town pedestrian oriented character." As discussed in Chapter 12, The Edmonds Community Development Code's architectural review criteria, which ultimately would be used as one of the basic design and aesthetics review frameworks for reviewing the facility, would challenge the scale and mass of the project to "fit in and to be harmonious with the planned and existing character of the nearby area." The Structural Lid sub-alternative for the Unocal site provides one of the three desired components for the area—the multimodal alternative.

Response to Comment O13-23

Please refer to the response to the Point Edwards LLC, Comment I343-26.

Response to Comment O13-24

Please refer to the response to the Unocal Corporation, Comment O13-22.

Response to Comment O13-25

Please refer to the response to the Washington State Department of Transportation, Comment W2-19. Please refer to Chapter 16 of the Final EIS for more detail describing the transportation analysis and impacts to the proposed multimodal facility in Edmonds.

Response to Comment O13-26

Please refer to the response to the City of Edmonds, Comment C9-112. A traffic study of the remote offsite parking lot for the Unocal construction workers has been

prepared and included in Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS.

O11
UPPER BEAR CREEK UNINCORPORATED AREA COUNCIL

FINAL ENVIRONMENTAL IMPACT STATEMENT

Brightwater Regional Wastewater Treatment System

COMMENTS AND RESPONSES

RECEIVED
JAN 22 2003
ENVIRONMENTAL
PLANNING DIVISION

Upper Bear Creek Unincorporated Area Council

Serving 22,000 people in north-central King County between the Sammamish and Snoqualmie Rivers and north of Redmond and east of Woodinville.

The Upper Bear Creek Community Council meets the 2nd and 4th Tuesdays of each month. The purpose of the council is to inform, assist and represent our community in dealing with King County government and other entities with respect to issues that affect our community. Minutes of the last meeting are available upon request. For more information please call Nancy Stafford at 425-788-5841 or Geoff Clayton at 425-486-3206

Department of Natural Resources
Wastewater Treatment Division
Attention: Debra Ross,

O11-1 Below are some of the concerns we have heard in our community. Despite many public meetings and fine efforts by KC staff to educate the public about the proposed Brightwater wastewater treatment facility and the Route 9 site there is still a high level of distrust. We have heard people express the opinion that the selection of Route 9 as the preferred site, and the Environmental Impact Statement that supports that selection, are fundamentally and fatally flawed. KC has stated that the purpose of the EIS is to inform decision makers and the public about the probable significant adverse environmental impacts and to identify alternatives and reasonable mitigation measures. However, the EIS fails to accomplish these purposes because it takes a short-term approach that focuses only on the footprints of the facilities and alignments, discusses these areas only in generalities and does not propose directly relevant mitigation to the impacted communities. It is almost as though the EIS and KC do not realize the magnitude of their own proposal. A 1.5 billion dollar industrial comlex that brings urban sewage and treatment capacity to relatively cheap land at the boundary with rural Snohomish and King County has the potential for far greater impacts than are dealt with in the EIS. KC has fought locating a churches in the rural area, but when KC prepares its own EIS for a facility that has the potential to heavily impact rural and resource areas, KC's view becomes very narrow and project oriented. Listed below are some examples of the notable deficiencies in the EIS and these at a minimum must be addressed in the FEIS.

O11-2 **1) The EIS is biased or irrelevant because Ron Sims designated the Route 9 site as the preferred alternative before the collection of technical and environmental data was complete. Overall the**
O11-3 **selection failed to follow due process.**

Example 1: The fact that KC eliminated two other potentially viable sites from the scope of the EIS because their consideration would have cost KC more money appears arbitrary and capricious given the

Response to Comment O11-1

Thank you for your comments. Please refer to the responses to your specific concerns below.

Response to Comment O11-2

Please refer to the response to Lane Powell Spears Lubersky LLP, Comment O4-1.

Response to Comment O11-3

SEPA does not require that all viable alternatives be examined in an EIS. As a practical matter, the level of detail on each alternative site or system would be far lower if more than two action alternatives were evaluated in this EIS. The range of alternatives in this EIS meets SEPA requirements and allows for more detailed investigation and evaluation of potential significant adverse environmental impacts and mitigation measures.

O11-3 magnitude of the project. Spending 1% to 5% of the total project cost on a thorough environmental analysis is not unusual for large projects.

O11-4 Example 2: Ron Sims stated that "I've listened to the public, the scientists and engineers, and I'm ready to tell you what I'm thinking. Based on the information provided thus far, I have identified as a preferred alternative the option that I believe is most likely to be delivered on time and on budget."

It appears that time (the number of attorneys that opponents could gather to delay the process) and budget were more important than environmental factors in selecting the preferred alternative. Time and budget are not part of a SEPA checklist or environmental impact assessment. They are good criteria for a business decision, but how important are environmental impacts to the final selection. Is there an attitude that anything can be mitigated? If so, then the real costs of mitigation need to be included in the FEIS. Because Ron Sims chose a preferred alternative based on the priorities of time and budget, the entire importance of the EIS in the decision making process must be questioned.

O11-5 Example 3: Ron Sims stated that "Building a tunnel under Northeast 195th and 205th streets in King County would provide a direct alignment between the plant and Point Wells."

Clearly "budget" was a major factor in the decision to make Route 9 the preferred alternative. However, the costs of tunneling can soar and the costs of adequate mitigation for locating the facility adjacent to the rural area and close to the headwaters of the Cottage Lake Creek, a critical resource area, have not yet been included. This lack of analysis of off-site and long-term impacts is a major weakness of the EIS and it must be corrected in the FEIS.

O11-6 **2) The EIS prejudges of the Route 9 site as the preferred location based on politics rather than complete technical analysis.**

Example1: Ron Sims stated "I've reviewed all the technical details and the thousands of technical and public comments we've received from the public during the past three year. My recommendation has several advantages including: The larger size of the Route 9 site would provide more room than the Unocal site in Edmonds for building the plant, a landscaped buffer, odor-control options and other mitigation measures."

Actually a more compact site will be easier to completely cover with a lid and turn the facility into a public amenity. The FEIS should not be considered complete unless it commits KC to placing a complete lid over the facility to fully contain odors even during maintenance. The lid should also be suitable for supporting public uses such as active recreation and other community activities.

O11-7 **3) The EIS fails to adequately consider cost effectiveness and environmental benefits of the no-action alternative.**

Example 1: At a time when the citizens of Seattle are clamoring for stream restoration (e.g. I-63 and I-80), the EIS fails to adequately show how a partnership with Seattle to reduce infiltration and inflow, and reduce combined sewer overflows, could enhance riparian functions and base flows of urban creeks and improve water quality while effectively creating capacity at the existing treatment plants. KC and

Response to Comment O11-4

Thank you for your comment.

Response to Comment O11-5

This Final EIS contains additional detailed analysis of the impacts and mitigation associated with tunneling, including offsite and long-term impacts to groundwater and surface water. Please refer to Chapter 6 and Appendix 6-B, Geology and Groundwater, of the Final EIS. The project tunnel would terminate about 1 mile west of the Daniels Creek-Cottage Lake Watershed. Neither the tunnel nor the proposed Route 9 site would impact the streams in the Cottage Lake Watershed, including Cottage Lake Creek.

Response to Comment O11-6

The Executive's decision is based on a number of factors, including the evaluation in the Final EIS as well as additional technical, community, and cost considerations. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-242, regarding the structural lid for the Unocal Structural Lid sub-alternative. A structural lid is not proposed for the Route 9 site; however, all process facilities will be covered and include odor control. Please refer to Chapter 3, and Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

Response to Comment O11-7

King County's Regional Wastewater Services Plan (RWSP) developed specific actions designed to address the region's long-term wastewater treatment needs. For an overview of how the current system is being improved and upgraded, please see the response to Just the Facts, Comment O19-19. More detailed information can be found in the complete RWSP, which is available at local area libraries, on the Internet at http://dnr.metrokc.gov/wtd/brightwater/library.htm, or on CD by contacting the Brightwater project at 206-684-6799, or

toll-free 1-888-707-8571. The Final EIS, Chapter 2, contains a summary of the plan as it relates to the Brightwater Treatment Plant.

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-58, and Appendix 3-J, Evaluation of the No Action Alternative, of the Final EIS, for more information on the No Action Alternative.

Seattle should partner to achieve long-term improvements in the urban environment, not create new threats to rural and resource lands.

Example 2: While it may be true that building deep conveyance tunnels would disrupt communities less than digging pipeline trenches, it is also possible that the region would be better served if KC teamed with cities to install shallow pipelines along alignments that more effectively distribute reclaimed water while also helping to rebuild roads in need of repair. O11-7

4) The EIS failed to obtain and evaluate relevant technical information and the long-term adverse impacts of the Route 9 site on surrounding areas. O11-8

Example 1: There is no discussion of Cottage Lake Creek, the hydrology of its headwaters, existing land uses in the upper basin, or the potential for development in the watershed close to Brightwater. O11-9 The FEIS should analyze these issues and recommend mitigation. Part of that mitigation should be that KC immediately buy the 192 acres of state DNR land in the headwaters of Cottage Lake Creek to avoid sale of that land for development that might request sewers and shift the urban growth boundary east into the headwaters of Cottage Lake Creek (a tributary of Big Bear Creek). O11-10

Example 2: Seismic and laser based topographic data are lacking despite the sites apparent location on an extension of the recently active Whidbey Island fault zone. Usual and customary techniques for analysis for seismic conditions beneath Holocene alluvium have not been applied at this site. Ron Sims recommended Route 9 as the preferred alternative without a fatal flaw analysis for seismic risk. No experts on seismic risks advised Ron Sims about the relative merits of the two sites for developing a preferred site. The Kingston arch is not a fault. O11-11

O11-12 **5) The EIS fails to consider the intent of the Growth Management Act and County-wide Planning Policies to ensure long-term preservation of rural areas appropriate location of urban infrastructure within the urban area.**

Example1: KC and or Ron Sims have stated that "The 108-acre Route 9 site could provide redevelopment and revitalization in an area that is poorly served in terms of urban services. It is located near the intersection of Highway 9 and Highway 522 north of Woodinville by the intersection of 228th and Highway 9. Brightwater could serve as a model for new development in the surrounding area. Brightwater will create a balance between urban development and environmental protection. The facility could create a buffer between the urban and rural areas and enhance the natural resources around it such as Little Bear Creek."

The more realistic long-term view is that locating a new sewage treatment plant at the urban-rural line will not create a buffer, rather it will create a magnet for urban development. The Route 9 site is a peninsula or finger of urban land in the rural area. Brightwater could serve as a model for new industrial development in the surrounding area. Developers will forcefully argue that the rural areas east of the plant should become urban because they can be cost effectively served with sewer. This will lead to a shift in the Urban Growth Boundary into the critical habitat and main sanctuary for Chinook in the already most highly urbanized and altered watershed (Sammamish Basin and WRIA-8) in the two counties. Because the Cottage Lake, Bear Creek and Sammamish basin is the only major watershed with no mountains that accumulate snow, these rivers do not benefit from snowmelt to maintain summer

Response to Comment O11-8

The Final EIS evaluates relevant technical information on various aspects of the natural and built environment and discloses potential long-term impacts of the Route 9 site on surrounding areas. Long-term off-site impacts would vary by element of the environment. Please refer to Chapters 4 through 17 in the Final EIS. Substantial new information is also provided in appendices to the Final EIS that evaluate and disclose existing conditions and potential impacts both on and off the Route 9 site. For potential impacts to Cottage Lake Creek, please refer to the response to Comment O11-5 in this letter.

Response to Comment O11-9

The technical evaluations in all areas of the environment have been substantially expanded following publication of the Draft EIS.

Response to Comment O11-10

For more information on mitigation suggestions please refer to the response to the City of Shoreline, Comment C6-5.

Response to Comment O11-11

Please refer to the updated discussions on regional seismicity in Appendix 6-B, Geology and Groundwater, of the Final EIS. Since the Draft EIS, King County has been meeting with researchers from the U.S. Geological Survey and the University of Washington to ascertain the most recent findings on the Whidbey Island Fault Zone. These results and their impact to the Brightwater System have been incorporated into the discussions in Chapter 4 and Appendix 6-B, Geology and Groundwater, of the Final EIS.

Response to Comment O11-12

Regarding the comment related to growth inducing impacts associated with Brightwater, please refer to the response to the Washington State Department of Natural Resources,

Comment W3-6. The Route 9 site is included within the Maltby unincorporated Urban Growth Area (UGA) in Snohomish County as well as the City of Woodinville UGA. Both Snohomish County and the City of Woodinville designate this site for industrial use. Regardless of whether Brightwater is sited at the Route 9 site, industrial development will likely occur in this area. The impact of such development has been evaluated in the environmental review of both jurisdictions' comprehensive plans.

O11-12 base flows and cold temperatures. Thus, they are particularly vulnerable to degradation resulting from loss of groundwater recharge and storage due to development. The EIS does not show that Brightwater can be a model for new development of the surrounding (rural) area without severe impacts.

O11-13 Example 2: To help ensure the long-term viability of rural residential areas and the critical riparian resources of the Cottage Lake Creek basin, KC should acknowledge the benefits of properly functioning onsite sewage disposal systems in the rural area. This decentralized method of sewage disposal should be technically supported as the preferred alternative for the rural area because cumulatively they provide significant recharge to the shallow aquifer and thermally equilibrated base flow to the Bear Creek Basin. To reinforce the long-term viability of rural residential living and protect riparian resources, the FEIS should propose mitigation including free upgrades and pumping of septic tanks for homes in the watershed.

O11-14 **6) To date, KC has failed to meet concurrency standards for improving the quality of life in urban and rural residential areas of north King County including deficiencies in parks, roads and community services. Correct these deficiencies before bringing new urban infrastructure.**

Example 1: KC and or Ron Sims have correctly stated that "This site also provides opportunities for codevelopment with recreational facilities such as sports fields."

The Route 9 site should not be considered the preferred alternative KC until King County can show immediate funding to reduce the deficiency in park and recreational needs in the Northshore Plan area by 50% and with complete concurrency for local and regional parks before ground is broken at the site. Recommendations for the location of these parks must be presented in the FEIS if it is to have credibility as a document that fairly evaluates impacts on the community as a whole and appropriately mitigates for locating such a huge element of urban infrastructure at the edge of the rural area.

Example 2: Before making final selection of the Route 9 site KC must provide an inventory of the deficiencies in its past and present services to the greater Woodinville and Bear Creek planning areas as identified in the Northshore Community Plan and other area plans.

O11-15 **7) Failure to address the potential for long-term harm to the headwaters of the most productive spawning habitat in WRIA-8 for Chinook salmon which are listed as threatened under the Endangered Species Act.**

Example 1: KC and or Ron Sims have stated that "Besides its larger size, the Route 9 location provides environmental opportunities for cleaning up a polluted site and enhancing nearby streams and wetlands, Sims said. King County would remove less soil before construction from the Route 9 site than from the Unocal site."

Actually the potential for long-term harm to Cottage Lake Creek far exceeds the benefits of just doing on-site enhancements. The Route 9 site should not be considered the preferred alternative KC until King County can show immediate funding to complete all the projects for Salmon protection in the Bear Creek Basin identified in the WRIA-8 Near-Term Action Agenda and thus help ensure long-term preservation of productive habitat for endangered Chinook salmon including hydrologic, biologic and geomorphic conditions favorable for Coho and Chinook to spawning and rearing.

Response to Comment O11-13

It is acknowledged that properly designed and maintained onsite systems are appropriate wastewater disposal options in rural areas. For more information on mitigation suggestions please refer to the response to the City of Shoreline, Comment C6-5.

Response to Comment O11-14

Please refer to the response to the Snohomish County Planning Development Services, Comment S3-145, for a discussion of proposed mitigation concerning recreational opportunities at the Route 9 site.

King County is not required to mitigate other unrelated projects in the City of Woodinville and Bear Creek planning area as part of the Brightwater project.

Response to Comment O11-15

King County has addressed potential impacts to fish, including chinook salmon, in Chapter 7 of the Final EIS. King County will continue to work as a regional manager of water quality and habitat and will work to mitigate impacts related directly to the operation and construction of the Brightwater Treatment Plant.

8) Failure to demonstrate credible markets or landscapes for reclaimed water.

Example 1: KC and or Ron Sims have stated that "The Route 9 site and pipeline also would provide greater flexibility for changes in flow volumes and reusing water."

O11-16 Actually the EIS fails to show how the Route 9 site could better serve the main areas where it would be useful to end wasteful irrigation with potable such as the UW campus, Woodland Park, other Seattle Parks and or help limit surface water diversions in the Snohomish Valley. Instead it will compete with the already very expensive pilot plant proposed for 60-acres south in the Sammamish Valley. If the Route 9 site is selected the Sammamish Valley pilot plant should be terminated.

Example 2: Lake Washington might be a discharge point for Tertiary or Quaternary treated water if heat was withdrawn for residential/commercial uses and the high quality water was discharged from a long diffuser in lake bottom.

Example 3: There is no demand for reuse close to the plant but in the future a large cluster of urban development could be supported by it. Will someone decide that the environmental good of reuse exceeds the environmental good

O11-17 In Conclusion: The FEIS must show exactly how KC can make the Brightwater facility a good neighbor and evaluate the environmental impacts of the proposed mitigations.

Sincerely,

The Upper Bear Creek Community Council
Geoff Clayton, Pres.

Response to Comment O11-16

King County has evaluated potential opportunities to use reclaimed water in the project area. Potential users were identified within a 5-mile radius of both the Route 9 and Unocal treatment plant sites and along the expected path of the Route 9-195th Street effluent conveyance line. The University of Washington, Bothell campus is within the 5-mile radius, although it was not identified as a potential user. The University of Washington, Seattle campus, Woodland Park, other Seattle Parks, and the Snohomish Valley are not within the targeted 5-mile radius.

Agricultural sites within the Sammamish Valley were identified as potential customers for reclaimed water from the Brightwater Treatment Plant, if it is constructed at Route 9. There is a potential for up to a 10 mgd demand in the Sammamish Valley that could be served by the Brightwater Treatment Plant instead of developing a separate Sammamish Reuse Treatment Facility in the valley.

King County is not proposing to discharge reclaimed water into Lake Washington. As noted earlier in this response, King County has evaluated potential opportunities to use reclaimed water in the project area. Potential users were identified within a 5-mile radius of both sites and along the expected path of the Route 9 effluent conveyance line. Please refer to the discussion of potential reclaimed water projects in Chapter 3 and Appendix 3-D, Reclaimed Water Technology Review and Evaluation of Potential Water Reuse Opportunities, of the Final EIS.

Response to Comment O11-17

The Final EIS lists both “proposed” mitigation measures and “potential” mitigation measures for impacts of the Brightwater proposal. In response to Draft EIS comments and new information, King County has identified a series of mitigation measures. The proposed mitigation measures are treated by King County as part of the Brightwater proposal.

Permitting agencies may determine that other mitigation measures, including those listed as “potential,” are needed. Mitigation measures are intended to minimize or reduce impacts. SEPA states that the EIS should indicate what the intended environmental benefits of mitigation measures are for significant impacts; however, the EIS does not need to analyze mitigation measures in detail unless they will have a significant adverse impact.

FINAL
ENVIRONMENTAL
IMPACT STATEMENT

Brightwater
Regional Wastewater
Treatment System

COMMENTS AND RESPONSES

O14
WASHINGTON TEA PARTY

Response to the Draft Environmental Impact Statement for the Proposed Brightwater Regional Wastewater Treatment System

RECEIVED
JAN 21 2003
ENVIRONMENTAL
PLANNING DIVISION

The Washington Tea Party
Post Office Box 183
Edmonds, Washington 98020

January 2003

Photo © 2002 by Nancy Mayes

The Washington Tea Party
Post Office Box 183
Edmonds, Washington 98020

January 20, 2003

Washington State Department of Ecology
Northwest Regional Office
Attention: Mr. Kevin Fitzpatrick
Water Quality Section Manager
3190 160th Avenue SE
Bellevue, WA 98008

RE: PREMATURE ISSUANCE OF THE BRIGHTWATER DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

Dear Mr. Fitzpatrick:

O14-1 Enclosed is The Washington Tea Party's Response to the Draft Environmental Impact Statement for the Proposed Brightwater Regional Wastewater Treatment System. King County is premature in issuing the Brightwater DEIS and asking for public input as required by the Washington State Environmental Policy Act (SEPA).

SEPA Rules state, in part [WAC 197-11-500(4)], "the DEIS is developed as a result of scoping and serves as a basis for the final statement." SEPA does encourage issuance of a (DEIS) while completing tasks like permitting and putting final design elements into the building and construction plans. However, in order to apply for permits, King County must have made the decisions about processing technology, building size and placement, chemical use and storage, portal locations, and have conducted a comprehensive risk assessment to determine what the impacts would be on sensitive human and environmental populations both during and after construction.

1. King County has yet to establish the design of the facility in anything beyond grossly general, conceptual terms. In essence, artists renditions. The public cannot respond to the impacts of a facility without knowing its size, structural placement, or what types of chemical and physical hazards the public or the environment may be exposed to.

2. King County has yet to decide what technology will be used in processing and treatment of wastewater and the presentation has been only made in the most general of terms and the

Response to Comment O14-1

Thank you for your comment. King County has evaluated in the Draft EIS the proposal to locate wastewater facilities in north King County or south Snohomish County. The Draft EIS identifies several alternative ways to do this and includes extensive detail with regard to the environmental impacts and mitigation measures associated with alternative Brightwater treatment plant, conveyance, and marine outfall alternatives. As contemplated under SEPA, and as consistent with all capital projects, the planning process will result in additional detail as time goes on and the project alternatives are refined further in response to SEPA Draft EIS comments and additional information. This Final EIS fulfills the purpose of SEPA by including Draft EIS comments and extensive responses thereto. It also provides additional detail in the body of the Final EIS text. Following issuance of the EIS, King County will continue to refine the proposal and conduct more detailed analysis in anticipation of applying for building permits and approvals from the jurisdictions with regulatory authority over Brightwater facilities.

Washington State Department of Ecology
January 20, 2003
Page 2

presentation changes from audience to audience and date-to-date. For example, no information has been provided as to what chemicals will be stored onsite and in what quantities. The public cannot respond to risks presented with no knowledge of those risks.

3. King County has yet to decide the actual locations of the potential portals in each conveyance corridor. The environmental impacts cannot be known when the location is not known. The public, therefore, cannot respond.

4. King County has failed, in the DEIS, to address many of the substantive concerns submitted by citizens during the scoping process.

King County is clearly at fault in issuing the DEIS prematurely. King County should be required to withdraw it and reissue a revised DEIS only after the above decisions have been made and that all necessary information is included in the revised DEIS so that the public can appropriately respond.

SEPA Rules state, in part [WAC 197-11-400(3)], "Environmental impact statements shall be concise, clear, and to the point, and shall be supported by the necessary environmental analysis." The DEIS submitted by King County is neither clear, concise or to the point and none of their claims are supported by environmental analysis.

How can a legitimate, credible environmental analysis be performed on a processing facility when a proposed technology to be used in processing wastewater and the portal sites have not been identified? Concerned citizens assert that an analysis of the real environment has not been done. If these decisions have been made and if a real environmental analysis has been done, it certainly has NOT been presented to the public. If it has not been presented to the public in the DEIS, impacted citizens are denied their lawful right to have public input. This denial of public input on a project of this magnitude should be sufficient to reject the DEIS as incomplete and insufficient and to require King County to withdraw it.

The SEPA Rule cited requires the DEIS to be "concise, clear, and to the point. . . ." The DEIS is so filled with vague generalities and noncommittal verbiage (e.g., might, maybe, could) that it completely

O14-1

Washington State Department of Ecology
January 20, 2003
Page 3

fails this test. The reader is left with a strong uncertainty as to King County's intent. If King County truly wishes to be a 'good neighbor' (King County's words) they would have provided all of the required information to properly inform the public. However, King County has never disclosed all of the information needed by the public. King County has always sidestepped pointed questions as to how the facility would be constructed or operated leaving the public to question if King County has actually designed this facility beyond an artist's conception.

If King County actually has construction and operating plans then let them be produced and give the public the opportunity to comment on them as is required by SEPA Rules. It is obvious that King County wrote the DEIS due to a deadline that had to be met and not because they had any thing to report. Therefore, the DEIS should be recalled and resubmitted when there are construction and operating plans in hand, when all environmental assessments have been properly completed and when a comprehensive human health and environmental risk assessment has been accomplished.

The Washington Tea Party, therefore, requests that you, as the Washington State Department of Ecology representative to the Brightwater project, reject the DEIS as both incomplete and inadequate. If you are unable to reject the DEIS entirely, we then request that Ecology require King
O14-1 County to issue a supplemental DEIS with an appropriate public comment period.

Sincerely,

The Washington Tea Party
By:

John T. Quast

John T. Quast
Response Project Manager
Member, Board of Directors

This work is dedicated

to those who,

like our forefathers,

are willing to stand and fight

for the right to have a vote.

The Washington Tea Party

The Washington Tea Party is a grassroots organization formed in opposition to the efforts of King County, acting as a metropolitan municipal corporation (MMC), to site a sewage treatment facility in Edmonds, Washington.

This non-profit corporation, representing in excess of 40,000 Edmonds residents, is now directing its efforts in the Washington State Legislature, to ensure local residents will have a voice in the siting of any essential public facility by an MMC.

They are joined in this effort by other groups such as the Concerned Citizens of Mountlake Terrace, who represent the interests of more than 20,000 Mountlake Terrace citizens.

Foreword

O14-2

If the process is flawed, can the outcome be otherwise?

The Brightwater Regional Wastewater Treatment System is the creation of a governmental agency flexing its decision-making power over its neighbor, people it is NOT chartered to serve: the citizens of Snohomish County. In a patronizing "father knows best" attitude, King County and its Executive have decided South Snohomish County shall be the home for a showcase sewage treatment plant.

While outside input is required by law, the process of obtaining that input was convoluted from the start. Scripted public meetings and carefully crafted informational material trivialized the significant impact a facility costing more than a billion dollars would have on Snohomish County and its residents. King County did not anticipate that the citizens it was attempting to bamboozle would figure out what was going on. Snohomish County citizens, seeing the lack of forethought in the project, objected both to the Executive's and Council's decision and their perception that they had the right to make a decision for Snohomish County citizens in the first place.

Public meetings became a sham of an impartial forum. The lack of sufficient planning, the lack of regard for local concerns, the lack of a sound public policy, and the lack of interest in even considering alternative courses of action was obvious. By muzzling objections; thwarting legitimate requests for information; and feeding, flattering, fawning, and smiling into submission anyone who disagreed with their charted course of action, King County's intent to callously disregard the environmental impact of building a sewage treatment plant in Snohomish County became clear early on.

Nothing has changed with the production of the draft environmental impact statement (DEIS). Thousands of questions were submitted by Snohomish County residents during the scoping process. In addition, more than 100 tourists from nearby and around the world submitted scoping comments. Their concerns appear to have been largely ignored in the DEIS.

-iv-

Response to Comment O14-2

The public outreach associated with the Brightwater siting process, including the multiple SEPA comment hearings conducted for the Draft EIS, has gone far beyond that which is required under the State Environmental Policy Act in order to encourage public comments on the Draft EIS.

The Draft EIS identifies the basic proposal and possible locations for portals in Brightwater facilities. In response to Draft EIS comments, and taking into account additional information obtained as the siting process continues, the Final EIS provides additional specificity regarding Brightwater facilities and possible portal locations. The specific designs of the facility are not ordinarily, on capital projects of this size, completed at the front end of the process. Notwithstanding this, the Final EIS contains additional basic design information regarding the Brightwater facilities.

While no expense was spared to shower the public with cookies, coffee, designer water, and slick brochures during the series of dog-and-pony shows, King County charged private citizens $50 for a printed copy of the draft report. Presuming that, since every bureaucrat has a computer, everyone else must have a computer, CD-ROM copies are free. It clearly appears this was yet another attempt to mute the concerned voices of citizens who might challenge it's validity.

The basic policy of Washington's State Environmental Policy Act (SEPA) is to ensure that governmental agencies give proper consideration to all environmental matters when making decisions such as where to build a sewage treatment plant and its associated conveyance lines. A part of the process is the environmental impact statement (EIS). The EIS is used as the guideline for building the facility, so the document must be complete, to include (but not be limited to) design of the facility, how the facility is to be constructed, what materials will be used, estimated cost, processing technology, and all expected impacts. An EIS is intended to be written for anyone to be able to read and understand.

SEPA Rules state clearly, more than once, that environmental documents must be clear and concise. WAC 197-11-030(2)(c) states, "Prepare environmental documents that are concise, clear, and to the point, and are supported by evidence that the necessary environmental analyses have been made" (emphasis added). WAC 197-11-400(3) states, in part, "environmental impact statements must be concise, clear, and to the point, and shall be supported by the necessary environmental analysis." The Legislature clearly intended the burden to be upon King County to document and substantiate statements that could be easily and efficiently comprehended by the reader.

For the average citizen reading King County's Brightwater DEIS, the document is not clear. It is apparent necessary analyses have not been done. Many general statements made in the DEIS have a lack of supporting documentation to substantiate those statements. The reader should not be required to guess or to search for referenced supporting documentation in private, federal, state, or local repositories. Pertinent information should be provided within the DEIS, readily accessible and understandable. We request the studies and analyses that support statements and conclusions be published in their entirety in a supplemental DEIS.

Compounding these frustrations, King County has yet to select the design of the facility, the technology to be used in processing the sewage to be treated, or even the sites of the necessary portals. The consistent refusal of King County to select a plant design, processing technology,

O14-2

or even portal locations strongly suggests that King County is attempting to circumvent public review and comment on these issues. In addition, many of the charts and graphs reproduced in the DEIS carry, in fine print, King County's disclaimer that the data are not reliable and that King County will not warrant the accuracy or completeness of the data presented. King County's presentation of data and issues is so general and vague as to strongly suggest an intentional effort on the part of King County to mislead the public.

The DEIS has been carefully scrutinized and comments and questions have been prepared in response by members and supporters of the Washington Tea Party. These people found numerous errors, omissions, and blatantly false statements. The format of this response follows the format of the report. We have set forth questions and concerns on a chapter-by-chapter basis.

The process leading to publication of the DEIS was flawed. The outcome is fatally flawed: premature, incomplete, often in error, and misleading. King County should be required to rescind the DEIS, do the necessary research, make decisions about plant and conveyance design and technology, and only at that point resubmit the DEIS for public review and comment. O14-2

Table of Contents

Chapter	
1	Summary
2	Background
3	Description and Comparison of Alternatives
4	Earth and Groundwater
5	Air
6	Surface Water
7	Plants, Animals, and Wetlands
Appendix C	Endangered Species Act / Essential Fish Habitat Evaluation
8	Energy and Natural Resources
9	Environmental Health
10	Noise and Vibration
11	Land and Shoreline Use
12	Aesthetics
13	Light and Glare
14	Recreation
15	No Response
16	Transportation
17	Public Services and Utilities

Chapter 1

Summary

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 1 – Summary

Introduction

O14-3 There are significant errors and omissions in these chapters that must be addressed by King County. Many general statements made in this DEIS lack supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and in an understandable format.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

Methodology

O14-4 It is possible to use statistical methods to produce results from a sample to predict results for a population, but that only works if the sample is *randomly* selected and is large enough to be statistically significant.

Sample selection for analyses presented in this DEIS appear to have been specifically chosen for a desired result or outcome. In general, the sample sizes seem to be small and locations and dates of sampling are mostly missing.

All data expressed in reports of this type should include, but not be limited to:

1. A statement about sample size;
2. Who conducted the survey or collected the samples;

1-1

Response to Comment O14-3

This comment makes general references regarding the entire Draft EIS. Detailed responses are made in regard to detailed comments set forth under each chapter. The Draft EIS and Final EIS identify alternative types of technology that could fulfill the project purpose, along with the identified significant impacts and mitigation measures associated with each approach.

Response to Comment O14-4

Without knowing what specific statistics or projections are being referred to in this comment, it is difficult to respond with any specificity. Where specific examples are provided in the comments submitted by The Washington Tea Party, they are responded to in the Final EIS.

3. A statement about how the sample was selected and from what population (if the sample is not randomly selected, there is a high probability that it is not representative of the population being studied); and
4. A disclaimer that addresses the margin of error for the results (e.g., ± some identified standard deviation), also called the confidence interval.

When people talk about something being "significant," they generally mean that they think it is important. "Statistical significance," however, is a clearly defined mathematical result. Because something is statistically significant doesn't necessarily mean it is important in the context, but results that are important must be statistically significant. Thus, the phrase "statistically significant" only applies to the issue of how well a sample represents an unknown population. In the context of this DEIS test, survey, and study results should certainly be statistically significant and their statistical significance should be clearly stated and demonstrated.

A relationship that is perfectly trustworthy within one range of observation may have a long history of breaking down outside that range. Extrapolation predictions (such as population or growth projections) are often required to complete a model, and they are, by their very nature, *highly suspect*.

Any forecast can give misleading results if any variables that impact the subject of study have been omitted. It is incredibly difficult to identify every variable that may impact the subject, which is why forecasting beyond the short term is increasingly error-prone. Growth projections, for example, made now for the 2010-2020 time period, are unlikely to be reliable. Since this DEIS is biased toward building the sewage treatment plant, forecasts used to justify building the plant are particularly suspect.

Study results, unless they can be replicated by others with independent samples, should not be accepted or relied upon. Systematic error (statistical language for "bias") refers to the tendency of those conducting the study to consistently underestimate or overestimate a true value for their own purposes.

The DEIS has failed the statistical tests. Statements and projections, in many cases, do not appear to be substantiated or supported, and samples and methods appear to have been chosen with intentional statistical bias. Many of King County's studies, surveys, charts, graphs, and

O14-4

projections could have been used as examples in Darrell Huff's How To Lie With Statistics (W.W.Norton&Co., Inc., 1954).

Examples of King County's intent to mislead, or perhaps of their knowledge of the unreliability of the information they present, is evident in the figures presented in the DEIS. For example, when the DEIS compares the Unocal site with the Route 9 site in photographs and on maps, the Unocal site appears to be much larger. The DEIS fails to emphasize that the maps are drawn to different scales. Furthermore, on many of the figures, *in very fine print*, King County disclaims any representation or warranty "as to accuracy, completeness, timeliness" of the information contained therein, and goes on to state, "King County shall not be liable for any general, special, indirect, incidental, or consequential damages . . . from the use or misuse of the information contained on this map." This statement is not only on maps, but on drawings of plant layout. King County's disingenuous approach effectively removes them from any accountability or
O14-4 responsibility for the information they present.

1.9.4 Reclaimed Water

O14-5 The DEIS addresses the need to reclaim water, the benefits of reclaimed water, King County's goal to reclaim water, King County's leadership in producing reclaimed water, and the vast and varied market for reclaimed water in unspecified "parts of the United States" (DEIS, page 1-14).

Nowhere does King County specifically identify a single customer who is willing to purchase reclaimed water from the proposed sewage treatment plant. Neither does King County identify specific golf courses, business parks, cemeteries, industrial facilities (except for the proposed sewage treatment plant itself), or any other enterprise in the reasonable environs of the two proposed sites which are likely customers for reclaimed water. And one suspects that the proposed sewage treatment plant would not be purchasing water from itself. The DEIS states (page 1-14, paragraph 2), "The timing and ultimate demand for reclaimed water depend on the potential users in proximity to the Brightwater Treatment Plant and the effluent pipeline." In other words, "we haven't a clue." However, King County does claim ownership of the potential reclaimed water, just in case a market develops.

1-3

Response to Comment O14-5

King County has evaluated the potential demand for reclaimed water, but specific customers willing to purchase reclaimed water have not been identified. If the plant is built at either the Route 9 or Unocal site, provisions will be made to allow the possible future use of reclaimed water by potential users. Please refer to the discussion of potential reclaimed water projects in Chapter 3 and Appendix 3-D, Reclaimed Water Technology Review and Evaluation of Potential Water Reuse Opportunities, of the Final EIS.

O14-5 As is typical in the DEIS, after explaining the value of reclaimed water, King County offers the caveat (last sentence on page 1-13), "there are no firm mandates to produce reclaimed water at this time."

1.10 Environmental Review

O14-6 The DEIS states (page 1-17), "The need for the Brightwater system was specifically identified in the final Environmental Impact Statement prepared for the King County Regional Wastewater Services Plan (RWSP) issued in April 1998 and incorporated by reference in this Draft EIS."

In that document, the Executive's preferred plan clearly notes (Figure EP1-1) that the proposed sewage treatment plant was to be sited in Snohomish County, focusing particularly on the Edmonds/Mill Creek/Mountlake Terrace areas. Therefore, after 1998, the process of choosing site selection criteria and the supposed thorough evaluation of multitudes of potential sites in both King and Snohomish Counties for the proposed sewage treatment plant has been a sham. The open houses and meetings King County has held in Snohomish County in the past 2 years were designed simply to alleviate the anxiety of Snohomish County citizens and attempt to build local support for a 1998 done deal.

O14-7 During the planning, scoping, and comment periods for the RWSP DEIS, no public meetings were held in Snohomish County. No residents of Snohomish County were on the mailing list for notification of meetings to be held in King County. King County, therefore, overtly denied Snohomish County residents' right for input to the SEPA process for that project. This is an obvious violation of SEPA Rules [WAC 197-11-030(2)(c)], which clearly state, "Encourage public involvement in decisions that significantly affect environmental quality," especially, one might think, the public that is most likely to be impacted.

O14-8 Not only has King County circumvented the SEPA Rules, its behavior flies in the face of the 14th Amendment to the U.S. Constitution. King County has been chastised for this before. In *Cunningham v. Municipality of Metropolitan Seattle* [751F.Supp. 885 (W.D. Wash 1990)], the court held, among other things:

> Where state or local government officials are elected, equal protection requires that votes of the citizens be of equal weight; no person's vote may be reduced in

1-4

Response to Comment O14-6

The Regional Wastewater Services Plan (RWSP), Executive's Preferred Plan, does not identify any particular site or county where the proposed North Treatment Plant, now known as Brightwater, would be sited. The proposed location is referred to in RWSP Chapter EP1-2 as "north King or south Snohomish County."

In Figure EP1-1 of the RWSP Final EIS, a map depicts the three portions of King County's wastewater service area: the West Service Area (gold), the East Service Area (orange), and the North Service Area (purple). A dark black line marks a border across a portion of the North and West Service Areas. The bordered area runs from Woodinville in the east, Mill Creek in the north, Bothell/Lake Washington to the south, and Shoreline/Richmond Beach/Edmonds to the west. The map legend in the lower right corner denotes the purple and gold area within the thick-lined border as "Approximate area where new plant might be sited. Actual location not determined." This bordered area, which spans portions of both north King and south Snohomish Counties, does not indicate that Brightwater would be built in Snohomish County.

The site screening criteria for evaluating the potential list of sites for Brightwater can be found in Ordinance 14107, which the Metropolitan King County Council adopted on May 15, 2001. Members of the public and elected officials representing people in the siting area had an opportunity to help establish the siting criteria adopted in this ordinance. The siting advisory committee appointed by both the King and Snohomish County Executives was instrumental in determining these criteria. The committee represented jurisdictions in both King and Snohomish Counties.

Response to Comment O14-7

Please refer to the response to the City of Edmonds, Comment C9-10, which describes how agencies and

individuals were notified of the SEPA process for the RWSP, and which describes public meetings for scoping and for the Draft EIS. Snohomish County and several cities and individuals in Snohomish County were notified, and they responded to the Determination of Significance and Scoping Notice and the Draft and Final EIS for the RWSP. Snohomish County citizens attended public meetings in Shoreline, Bothell, and Woodinville. Please note that the section of the SEPA Rules that states that agencies shall "Encourage public involvement in decisions that significantly affect environmental quality" is WAC 197-11-030(2)(f).

Response to Comment O14-8

In response to the referenced case, Cunningham v. Metro, and pursuant to state statute and a vote of the citizens, King County assumed the rights, powers, functions, and obligations of Metro, including its water pollution abatement functions. Thus, King County now acts in a regional capacity in its planning and operation of certain functions, such as wastewater conveyance and treatment.

Brightwater Final EIS 1280

value compared to the votes of others because of where he or she happens to live in the electoral district. U.S.C.A. Const.Amend. 14.

It does not matter whether governmental powers possessed by body be deemed "legislative or "administrative;" if a body possessing them is elected the "one person, one vote" principle applies. U.S.C.A. Const.Amend. 14.

O14-8 Efficiency and acceptance by the public cannot justify denial of equal protection of the laws; fact that the buses run on time cannot justify a dilution of any citizen's right to vote on the governing body responsible for the operation of the buses. U.S.C.A. Const.Amend. 14. [or sewage treatment!]

O14-9 Provide answers to the following questions in a supplemental DEIS:

1. How many public meetings were held where public comment was recorded for the RWSP draft or final EIS?
2. How many of those public meetings were held in Snohomish County? Please be specific about locations and times.
3. What volume of public comment was provided by King County residents?
4. What volume of public comment was provided by Snohomish County residents?
5. What volume of mail describing the project and soliciting comment was sent to King County residents?
6. What volume of mail describing the project and soliciting comment was sent to Snohomish County residents?
7. Explain why King County residents were allowed 90 days to respond to the RWSP DEIS while the response period for this DEIS is only 75 days.

Conclusion

O14-10 King County is premature in issuing the draft environmental impact statement (DEIS) for the proposed sewage treatment plant and asking for public input as required by the Washington State Environmental Policy Act (SEPA). SEPA Rules state, in part [WAC 197-11-500(4)], "the DEIS is developed as a result of scoping and serves as a basis for the final statement." SEPA does encourage issuance of a DEIS while completing other tasks, such as permitting and putting final design elements into the building and construction plans. However, in order to apply for permits, King County must have made the decisions about processing technology, building size and

1-5

Response to Comment O14-9

King County is not preparing a Supplemental Draft EIS. Please refer to the response to the City of Edmonds, Comment C9-10, which describes the public meetings and public comment on the Draft EIS for the RWSP. Public comments were not recorded for the Final EIS; SEPA does not require a comment period for a Final EIS. SEPA requires a 30-day comment period on a Draft EIS, with a possible extension to 45 days. The comment periods for both the RWSP Draft EIS and the Brightwater Draft EIS were considerably longer than the required comment period.

Response to Comment O14-10

The Draft EIS does identify alternative sites for the Brightwater Regional Wastewater Treatment System, each made up of a treatment plant, marine outfall, and associated conveyances. It also includes several action alternatives, in addition to the No Action Alternative. It analyzes a variety of options for the siting, construction, and operation of Brightwater facilities as part of the Draft EIS analysis. The Final EIS provides additional detail in all of these areas. SEPA encourages that environmental review and an EIS be conducted as early as possible in the process (WAC 197-11-055). In capital construction projects of this scale, it is customary to refine the details of a proposal as it continues through the environmental review and permitting process. Moreover, King County has expressed the desire to obtain input from those commenting on the EIS and attending public workshops and seminars prior to finalizing its decisions associated with Brightwater.

placement, chemical use and storage, and portal locations. King County must also have conducted a comprehensive risk assessment to determine what the impacts would be on sensitive human and environmental populations during and after construction.

1. King County has yet to establish the design of the facility in anything beyond grossly general, conceptual terms, in essence, artists renditions. The public cannot respond to the impacts of a facility without knowing its size, structural placement, or what types of chemical and physical hazards the public or the environment may be exposed to. Lest King County be held accountable to the conceptual drawings and artist renditions, they, too, carry the usual King County disclaimer.
2. King County has yet to decide what technology will be used in processing and treatment of wastewater, the presentations have been made only in the most general terms, and the presentation changes from audience to audience and date to date. For example, no information has been provided as to what chemicals will be stored onsite and in what quantities. The public cannot respond to risks presented with no knowledge of those risks.
3. King County has yet to decide the actual locations of the potential portals in each conveyance corridor. The environmental impacts cannot be known when the location is not known. The public, therefore, cannot respond.
4. King County has failed, in the DEIS, to address many of the substantive concerns submitted by citizens during the scoping process.

King County is clearly at fault in issuing the DEIS prematurely. King County should be required to withdraw it and reissue a revised DEIS only after the above decisions have been made and all necessary information is included. Only then can the public appropriately respond.

SEPA Rules state, in part [WAC 197-11-400(3)], "Environmental impact statements shall be concise, clear, and to the point, and shall be supported by the necessary environmental analysis." The DEIS submitted by King County is neither clear, concise, nor to the point, and few of its claims are supported by environmental analysis.

O14-10

How can a legitimate, credible, environmental analysis be performed on a proposed processing facility when the technology to be used in processing wastewater and the portal sites have not been identified? Concerned citizens assert that an analysis of the real environment has not been done. If these decisions have been made and if a real environmental analysis has been done, it certainly has NOT been presented to the public. If it has not been presented to the public in the DEIS, impacted citizens are denied their lawful right to have public input. This denial of public input on a project of this magnitude should be sufficient to reject the DEIS as incomplete and insufficient and to require King County to withdraw it.

The SEPA Rule cited requires the DEIS to be "concise, clear, and to the point. . . ." The DEIS is so filled with vague generalities and noncommittal verbiage (e.g., might, maybe, could) that it completely fails this test. The reader is left with a strong uncertainty as to King County's intent. If King County truly wishes to be a "good neighbor" (King County's words) they would have provided all of the required information to properly inform the public. However, King County has never disclosed all of the information needed by the public. King County sidesteps pointed questions as to how the facility would be constructed or operated, leaving the public to question if King County has actually designed this facility beyond an artist's conception.

If King County actually has construction and operating plans, King County should produce them and give the public the opportunity to comment on them, as is required by SEPA Rules. It is obvious that King County wrote the DEIS because of a perceived deadline and not because they had anything to report. Therefore, the DEIS should be recalled and resubmitted when there are construction and operating plans in hand, when all environmental assessments have been properly completed, and when a comprehensive human health and environmental risk assessment has been
O14-10 accomplished.

Chapter 2

Background

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 2 – Background

Introduction

O14-11 There are significant errors and omissions in these chapters that must be addressed by King County. Many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

2.1.1 History

O14-12 This section is incomplete from a historical perspective. The section omits many of the issues that existed during the time the Municipality of Metropolitan Seattle (Metro) was being dissolved and then absorbed by the King County Council. It is vital to understand what happened at that time in order to have a realistic view of what is happening today.

In 2001, registered voters in Snohomish County, Washington, challenged the constitutionality of the action of the King County Council and Executive in governing citizens outside their legally established county boundary. The King County Council and Executive are elected solely by the registered voters of King County. The King County Council and Executive are the governmental entity of the metropolitan municipal corporation (MMC). The MMC is a corporation with governing powers, as established in Section IV of *Cunningham v. Municipality of Metropolitan Seattle* [751F.Supp. 885 (W.D. Wash 1990)]. In that case, the United States District Court stated:

2-1

Response to Comment O14-11

Both the Draft EIS and the Final EIS contain alternative summaries of the entire documentation. Please refer to, for example, the summary of impacts and mitigation measures for the various alternatives set forth on pp. 3-32 through 3-143 of the Draft EIS

Response to Comment O14-12

Thank you for your comment. The cited case, Cunningham v. Metro, speaks for itself.

"Municipality of Metropolitan Seattle (Metro) possessed governmental powers, and thus was subject to the 'one person, one vote' principle in view of its functions of water pollution abatement and public transportation, its ability to fix rates and charges for local agencies use of water pollution abatement facilities and to impose charges directly on the sewage system users, its power to acquire assets by condemnation and its police power to adopt rules and regulations necessary to enable it to carry out its functions and provide penalties for their violations. U.S.C.A. Const. Amend. 14; West's RCWA 35.58.010 *et seq.*"

The application of those governmental powers within Snohomish County by King County exceeds their jurisdiction and violates the "one person, one vote" rule, which is guaranteed under Amendment 14 of the Constitution of the United States.

King County Executive and Council, acting as "Metro," have decided that a new wastewater treatment plant is required to serve northern King and some of southern Snohomish counties. Many sites were studied, both in King County and in Snohomish County. King County decided, and confirmed its decision on December 10, 2001, that two sites in Snohomish County would be the finalist sites for the wastewater treatment plant. The decision was made despite the fact that Snohomish County residents had no representation in the decision-making process. King County
O14-12 officials are accountable only to King County voters.

Violation of 14th Amendment

O14-13 Registered voters in Snohomish County are unable to vote for the governing body of the MMC administered solely by the King County Council and Executive. The executive and all council members are elected solely by registered voters of King County. The MMC functions as a regional government. It has, among others: the power of eminent domain (RCW 35.58.320), the power to construct facilities with relation to public rights of way without franchise (RCW 35.58.330), and the power to develop rules and to enforce these with penalties through the Superior Court (RCW 35.58.360). Therefore, it should be viewed as a regional government and should be accountable to (be voted for by) residents of the entire region it purports to govern. King County believes that they have the right to make decisions for Snohomish County residents, regardless of what Snohomish County's elected representatives have decided. As in *Cunningham*

2-2

Response to Comment O14-13

Please refer to the response to Comment O14-12 in this letter. Your comment does not address environmental impacts. Please contact the King County Prosecuting Attorney's Office if you desire further discussion of the legal issues presented in this comment.

v. Metro, Snohomish County residents have no rights of representation on the King County Council.

King County officials, citing regional need, believe they can site a wastewater treatment facility outside of their county boundaries and with no accountability to the residents of the affected area. Thus, the MMC is able to make land use decisions with no political cost to the King County Council or Executive. In spite of local and vocal opposition, King County currently is continuing with its process as if there were no opposition. Effectively, there is no opposition because the people affected are disenfranchised.

In April 1989, the U.S. Supreme Court unanimously signed a decision in what would become a landmark case from New York. The Supreme Court decided the composition of the Board of Estimate (New York City) was unconstitutional because it violated the equal rights provisions of the 14th Amendment. The flaw emphasized by the court was that the boroughs were widely different in population, and that the citizens of the boroughs were unequally represented on the board.

From *Cunningham v. Metro:* Where state or local government officials are elected, equal protection requires that votes of the citizens be of equal weight; no person's vote may be reduced in value compared to the votes of others because of where he or she happens to live in the electoral district. U.S.C.A. Const.Amend. 14.

From *Cunningham v. Metro:* It does not matter whether governmental powers possessed by a body be deemed "legislative or "administrative;" if a body possessing them is elected the "one person, one vote" principle applies. U.S.C.A. Const.Amend. 14.

From *Cunningham v. Metro:* Efficiency and acceptance by the public cannot justify denial of equal protection of the laws; the fact that the buses run on time cannot justify a dilution of any citizen's right to vote on the governing body responsible for the operation of the buses. U.S.C.A. Const.Amend. 14. [or sewage treatment!]

From *Cunningham v. Metro:* Municipality of Metropolitan Seattle (Metro) possessed governmental powers, and thus was subject to the "one person, one vote" principle in view of its functions of water pollution abatement and public transportation, its ability to fix rates and charges for local agencies use of water pollution abatement facilities and to impose charges

O14-13

directly on the sewage system users, its power to acquire assets by condemnation and its police power to adopt rules and regulations necessary to enable it to carry out its functions and provide penalties for their violations. U.S.C.A. Const.Amend. 14; West's RCWA 35.58.010 et seq.

Unlawful expansion of MMC beyond its legally defined boundaries

King County officials, citing regional need for health and safety purposes, maintain that they have the right, by law, to site a wastewater treatment plant and all associated infrastructure outside of their county jurisdiction (RCW 35.58), without the approval of the voting residents of the affected jurisdiction or their elected representatives. Further, that they have the right to set utility rates, develop rules, and enforce these, including penalties, through the Superior Court.

King County appears to base its argument on "service area." However, the term "service area" is descriptive, rather than a legal term to be used to establish the boundaries of MMC. Providing wastewater treatment through negotiated contractual agreements between MMC and cities and other local jurisdictions does not provide legal justification for nor entitle MMC to expansion of its powers beyond the legally defined boundaries of King County through the process of eminent domain.

The expansion of MMC, through the use of eminent domain, is an unlawful expansion of the boundaries of MMC beyond King County and is a violation, without due process, of RCW 35.58.030, which states in part, "The boundaries of a metropolitan municipal corporation may not be expanded to include territory located in a county other than a component county except
O14-13 as a result of the consolidation of two or more contiguous metropolitan municipal corporations."

Conclusion

O14-14 A constant factor in our governmental process is to have citizens participate, individually, by ballot, in the selection of those people who carry out governmental functions. In this instance, registered voters in Snohomish County are excluded from this election process. Presently, the King County Council and Executive (a governmental body controlling MMC) are elected solely by the registered voters of King County. On September 6, 1990, Judge William Dwyer said, "No

2-4

Response to Comment O14-14

Please refer to the response to Comments O14-12 and O14-13 in this letter.

person's vote may be reduced in value because of where he or she happens to live." In the current instance, we do not have a reduced vote. We have no vote at all.

According to RCW 36.56.010, King County was able to assume the "rights, powers, functions, and obligations" of Metro, in part, because the boundaries were "coterminous" -- that is, they had the same boundaries. Neither Metro nor King County has ever represented the people of Edmonds or Snohomish County. Given that part of King County's argument is that it treats sewage from Snohomish County, it appears that King County is exceeding the coterminous bounds which allowed them to absorb Metro. Either Metro (thus, MMC) should be reformed to serve the needs of both Snohomish County and King County (which would give Snohomish County citizens a voting voice), or King County should be prohibited from extending its governmental functions beyond the properly established boundaries of King County by use of eminent domain.

Additionally, RCW 35.58.320 states, " A metropolitan municipal corporation shall have the power to acquire by purchase and condemnation all lands and property rights, both within and without the metropolitan area, WHICH ARE NECESSARY FOR ITS PURPOSES [emphasis provided]." King County has not demonstrated that building a sewage treatment plant in Snohomish County is necessary for its purposes. A site within King County would equally serve its purpose. King County makes the claim that the MMC will process sewage from Snohomish County as justification for locating the plant outside King County's boundaries. Therefore, the
O14-14 project is not "for its" (King County's) purposes.

2.2.4.2 Biosolids Recycling

This section is incomplete and inadequate because it only discusses producing Class B biosolids. Why would King County only consider the outdated 1960's technology production of Class B biosolids as used in Renton and West Point treatment plants?

O14-15

1. If King County truly intends to use state-of-the-art technology, why would the proposed sewage treatment plant produce Class B biosolids?
2. Discuss other alternatives and present them in a supplemental DEIS.

Response to Comment O14-15

Please refer to the responses to Just the Facts, Comments O19-57 and O19-59.

Footnote 5 in this section states, "Class B biosolids contain greatly reduced amounts of disease-causing microorganisms (pathogens) and can be safely applied to land with limited public access such as forest and agricultural sites." Biosolids containing pathogens would potentially contaminate streams and surface waters, causing health risks to aquatic life, fowl, and mammals living within the forest, agricultural land, and downstream. These pathogens would also present a risk to people using the forests and agricultural land, especially those whose immune systems have been compromised.

O14-16

1. Explain how Class B biosolids can be considered "safe" for the forests and agriculture if they contain pathogens.
2. Specify what pathogens might be present and their impact on animals.
3. How would those pathogens impact people. Be specific and include those whose immune systems are compromised.
4. What crops would be grown on the agriculture land where the Class B biosolids are present?
5. Have any long-term health risk assessments been completed by King County or an approved medical institution or university?
6. If so, please publish those study results in a supplemental DEIS.
7. If not, why not?
8. What safeguards must be employed when applying or working around Class B biosolids?
9. What odor would Class B biosolids have?
10. Would past application of Class B biosolids present future health risks if the land were used for something other than forest or agriculture in the future?

2.2.4.3 Water Reuse Program

O14-17

The DEIS did not adequately address the recycling of reclaimed water. Reclaimed water has a much lower environmental cost than developing new sources and leaves source waters in their original streams and aquifers.

1. How would potable reclaimed water be distributed from each of the proposed sewage treatment plant sites? Be specific.
2. What advantages would providing potable reclaimed water have in meeting future needs and protecting the environment? Be specific.

2-6

Response to Comment O14-16

Treatment of biosolids to Class B pathogen reduction standards kills 90-95 percent of pathogens. Remaining pathogens may include bacteria, viruses, and protozoa. Risk of effects on animals is low because pathogens die off quickly after exposure to the environment. King County biosolids are tested for total viruses, parasites, and salmonella bacteria. Viruses and parasites were not detected in King County biosolids in 2002. Salmonella are detected at very low levels, and quickly die when exposed to the environment. For more information please refer to the *King County 2002 Biosolids Quality Summary*, available upon request by calling the Brightwater project team at 206-684-6799, toll-free at 1-888-707-8571 or via email at brightwater@metrokc.gov.

In order for people to be at risk from these pathogens, they must come into contact with biosolids and ingest enough for an infectious dose. Public access is restricted on these sites to prevent inadvertent contact. Safeguards such as good hygiene (e.g., using gloves and/or washing hands with soap and warm water before eating), must be employed when applying or working around Class B biosolids. This is similar to working with composts, fertilizers, soils, and other soil amendments.

For additional information on how Class B biosolids can be considered safe for the forest and for agriculture, what crops are grown where biosolids are present, long-term health risk assessments, future health risks, and associated odors, please refer to the response to Just the Facts, Comment O19-61.

Response to Comment O14-17

This comment refers to "potable reclaimed water". Please note that reclaimed water is not potable and could not be used for purposes such as drinking water. Reclaimed water is wastewater treated to a level that allows it to be used safely for other purposes such as irrigation and industrial processes. Class A reclaimed water would be distributed from each of the proposed treatment plant sites to customers using a

separate distribution system. For the Route 9 System, the distribution system would be constructed using open cut from the treatment plant site or from one of the effluent portals. For the Unocal System, the distribution system would be constructed using open cut from the treatment plant site.

The advantages of using reclaimed water would be a reduction of demand on the Cedar and Tolt watersheds and/or groundwater sources. The specific source that would see a reduction in demand would depend on where the customer for reclaimed water is located. The advantages to a reduction in demand would include a decrease in water taken from the natural system and in energy and chemicals used at the water treatment plants to treat the water. There may also be a reduction in energy for the conveyance of potable water vs. reclaimed water, but this would need to be evaluated on a case-by-case basis.

Both the Unocal and Route 9 treatment plants would have reserved space to provide treatment for up to 54 mgd of reclaimed water.

O14-18 The DEIS does not address Unocal as a tidal zone except to say that an in-depth discussion of possible damage to the plant is unnecessary because, in case of a seismic tidal disaster, everything on the coastline would be damaged. A damaged wastewater plant can spread deadly pathogenic bacteria whereas damaged homes do not. A damaged wastewater plant would significantly monopolize the City's resources, inhibiting its ability to deal with damage to other structures and facilities. WAC 173-240-060(h) calls for the elucidation of the "100-year flood/wave" potential.

O14-19 1. What design measures would be taken, above and beyond minimal building codes, to prevent damage and leakage during a tidal event?

O14-20 2. Describe in detail King County's emergency response plan for tidal events.

O14-21 3. What is King County's reasoning for building yet another sewage plant in a tidal zone?

4. Discuss in detail the requirements of WAC 173-240-060(h).

2.3.1 Forecasting Population and Projecting Wastewater Flow

O14-22 The DEIS does not present any data that reflect historical success in forecasting area growth. Therefore, the reader can neither ascertain nor evaluate the accuracy of growth projections. The justification used by King County for the proposed sewage treatment plant is based on anticipated growth rates that extend beyond 2020. Most models use forecasted values for future variables, making the likelihood of correct projections ever more uncertain. A professional forecaster would admit that any projection beyond the very near term is suspect. Projections become less reliable as time goes by. Therefore, the idea than an accurate forecast of wastewater flow in 20, 30, or 40 years from a specific area of a county can be produced is nonsensical.

1. Provide the model that was used to forecast area growth.
2. Indicate the past success rate of the model used.
3. What variables were used?
4. What assumptions were used in choosing the variables?
5. Provide forecasted values and the methodology used to forecast them.
6. What standard deviations are associated with the area growth projections?
7. Include answers to these questions in a supplemental DEIS and provide time for public comment.

2-7

Response to Comment O14-18

Low bank shoreline areas in Washington are potentially susceptible to damage from tsunami hazards. A tsunami is a series of waves generated by an undersea disturbance that radiates outward from the area of disturbance. Tsunamis are most commonly caused by earthquakes, but landslides, volcanic eruptions, and meteorites can generate tsunamis. Tsunamis have been documented in Puget Sound that have originated from earthquakes on distant faults around the Pacific Rim. Tsunami wave heights observed from historical earthquakes located outside Puget Sound are small. The very large 1964 Prince William Sound, Alaska, earthquake, which had an estimated magnitude of between 8 and 8.6, produced a wave only 0.8 feet high in Elliott Bay, Seattle (Spaeth and Berkman, 1967). Tsunami modeling indicates that a major tsunami would not result from offshore earthquakes (Murty and Hebenstreit, 1989). The same modeling indicates that for an earthquake in Puget Sound off Seattle, a tsunami of 2.6 feet could occur in Elliot Bay, but would be much smaller north (Ferndale) and south (Tacoma) of Seattle (Murty and Hebenstreit, 1989). The researchers note that a major earthquake (magnitude greater than 8) on a fault in the Puget Sound area could result in a tsunami up to 9.8 feet and submarine slides that could cause significant local tsunamis. An earthquake of this magnitude has not been documented on Puget Sound area faults, and the maximum magnitude earthquake for the Seattle Fault is estimated to be no greater than about 7.25.

An earthquake of approximately magnitude 7 on the Seattle Fault about 1,000 to 1,200 years ago is interpreted to have produced a large northward-moving tsunami in Puget Sound that inundated West Point in Seattle, Cultus Bay on Whidbey Island (Atwater and Moore, 1992), and probably the Snohomish River delta (Bourgeois and Johnson, 2001). A recurrence interval for tsunamis in Puget Sound has not been identified. However, because tsunamis that inflict significant damage have not been documented in historic times (since

about 1870) in Puget Sound and only one has been identified in the last 2,000 years (Atwater and Moore, 1992), this suggests a recurrence interval of much longer than 100 years.

SEPA regulations require that probable impacts be addressed, but not those that merely have a possibility of occurring, but are remote or speculative (WAC 197-11-782). Because the likelihood of a tsunami affecting the Unocal site is remote, the impacts are not addressed in the Final EIS.

The Brightwater project would be designed to comply with the Criteria for Sewage Works Design (Washington Department of Ecology, 1998), the International Building Code for seismic standards, and other applicable design requirements for reasonably probable operating conditions.

References

Atwater, BF and Moore, AL, 1992. *A tsunami about 1,000 years ago in Puget Sound, Washington*: Science v. 258, p. 1614-1617.

Bourgeois, J, and Johnson, S.Y., 2001. *Geologic evidence of earthquakes at the Snohomish delta, Washington, in the past 1200 years*, 2001. GSA Bulletin Vol. 113, p. 482-494.

Murty, TS and Hebenstreit, GT, 1989, *Tsunami amplitudes from local earthquakes in the Pacific Northwest region of North America*, Part 2 -- Strait of Georgia, Juan de Fuca Strait, and Puget Sound: Marine Geology, v. 13, p 189-209.

Spaeth, M.G. and Berkman, S.C., 1967. *The Tsunami of March 28, 1964 as Recorded at Tide Stations*, ESSA Technical Report Coast and Geodetic Survey, July 1967

Response to Comment O14-19

Please refer to the response to the City of Kenmore, Comment C3-84.

Response to Comment O14-20

It is uncertain what is meant by “tidal events” in the comment. However, emergency response plans for situations where a site is inundated with water are site-specific and developed as part of the design of a treatment plant when final elevations are known, when the stormwater systems are sized, and when the various storms, frequency of occurrence, and potential flows are evaluated. If the Unocal site is selected, these activities would be conducted as part of the design and permitting phase of the project and are not necessary for an Environmental Impact Statement.

Response to Comment O14-21

The full text of WAC 173-240 can be accessed online at http://www.ecy.wa.gov/pubs/wac173240.pdf. King County will comply with all applicable local, state, and federal laws in the construction and siting of Brightwater. This includes regulations that could apply to siting facilities in a shoreline area.

Response to Comment O14-22

Population growth forecasts and wastewater flow projections were discussed in Chapter 2 of the Brightwater Draft EIS. The most current information about forecasting population and projecting wastewater flow can be found in Chapter 2, and Appendix 2-A, Population and Flow Analysis, of the Final EIS. For a detailed response to questions concerning population growth forecasts and wastewater flow projections, please refer to the response to City of Seattle, C10-1.

2.3.2 Developing a Regional Plan

O14-23 This section implies that King County has the right to plan for the future of its neighbors without their permission. Although King County claims to encourage and welcome input, comments from people who cannot vote bear little weight. King County held meetings only in King County prior to issuance of the draft EIS for the Regional Wastewater Services Plant (King County 1997a).

1. Provide substantiation that the citizens of Snohomish County were informed of the public meetings and encouraged to provide input prior to issuance of the draft EIS for the Regional Wastewater Services Plan.

2.4.2.2 Recommended Candidate Sites

O14-24 Table 2-2 states that the Unocal site meets policy site selection criteria and that the site is suitable for the proposed sewage treatment plant. In November 2001, at the request of King County, the City of Edmonds presented King County with a matrix demonstrating that the Unocal site failed to meet most of the site selection criteria and was, therefore, unsuitable for the project. King County has never acknowledged, responded, or referred to this matrix. This matrix was also provided to the King County Council on December 10, 2001.

1. Please publish the matrix provided by the City of Edmonds showing the unsuitability of the Unocal site.
2. What points in the matrix does King County believe are not applicable?
3. How can the Unocal site be "suitable" in the face of evidence presented in the matrix?

2.4.3.2 Working With Host Jurisdictions to Site Brightwater

O14-25 The state Growth Management Act (GMA) prohibits local preclusion of essential public facilities [WAC 365-195-340(1)(c). However, **the GMA also clearly states that there must be equity in geographical distribution** [WAC 365-195-840(5)(b)].

2-8

Response to Comment O14-23

Please refer to the response to the City of Edmonds, Comment C9-10.

Response to Comment O14-24

The City of Edmonds' concerns, along with the issues, ideas, and concerns submitted by hundreds of other citizens, community groups, and jurisdictions, have been shared with Brightwater project team members throughout the siting process. This information has contributed to the decisions made during the Brightwater siting process. Additionally, Brightwater-related comments, letters, and other materials received by King County were passed along to members of the project team, who considered the issues and concerns expressed as they prepared the Draft EIS.

However, the matrix referenced in the above comment is not a King County document, and was not directly referenced in the Draft EIS. Those interested in obtaining a copy of this document should direct their requests to the City of Edmonds.

The Unocal site is a suitable alternative, and meets the siting criteria adopted by the King County Council in Ordinance 14107. A detailed description of the Unocal System alternative, and an analysis of impacts and associated mitigation measures, can be found in Chapter 3 of the Final EIS.

Response to Comment O14-25

Please refer to the response to the City of Edmonds, Comment C9-5.

WAC 365-195-840 provides the framework under which local jurisdictions are to prepare development regulations for the siting of essential public facilities under the mandates of the Growth Management Act. The referenced section, WAC 365-195-840(5)(b), is a guideline for meeting the requirements. WAC 365-195-020 states that "within the

framework established by the act, a wide diversity of local visions of the future can be accommodated. Moreover, there is no exclusive method for accomplishing the planning and development regulation requirements of the act."

Given that Brightwater is a regional facility that would serve the future needs of a broad geographic distribution (south Snohomish County and north King County), it is difficult to choose a site that would truly represent a significant share of the service area population.

King County recognizes the need for equity in distribution. The King County Comprehensive Plan 2000 (KCCP), F-221, states, "No single community should absorb an inequitable share of these facilities and their impacts." This same paragraph calls for appropriate buffering. If the Unocal site were selected, the sewage treatment plant would be within 50 feet of residences, and Edmonds (a very small town) would bear the burden of three regional wastewater treatment plants.

O14-25
1. How does King County plan to circumvent the GMA, which precludes the aggregation of essential public facilities in one location?
2. How does King County plan to circumvent its own KCCP?

O14-26
The KCCP calls for evaluation of expansion of existing facilities as opposed to new construction (F-220 and F-221). No reference has been made to such an evaluation in the DEIS. King County has not clearly demonstrated the need for Brightwater.

1. Has an evaluation been conducted that supports construction of a new facility as opposed to expansion of existing facilities?
2. Has an evaluation been conducted that supports other, less costly methods to meet King County's wastewater capacity problem?
3. If so, include it in a supplemental DEIS.
4. How would King County justify the capital outlay of in excess of $1.3 billion without demonstrating a clear need for the facility?
5. How would King County justify the capital outlay of in excess of $1.3 billion when less expensive proposals have been made to solve the capacity problem without building a new facility?

2.4.3.3 Snohomish County Essential Public Facilities Siting Process

O14-27
The Growth Management Act (GMA) stipulates that municipalities be open to siting of essential public facilities with mitigation. The heart of the GMA is growth paying for growth. There is little room left for growth in Edmonds, it is not an urban growth area, and it is serviced by its own

2-9

Response to Comment O14-26

Several wastewater treatment plant options were evaluated in detail in the Regional Wastewater Services Plan (RWSP), which was referenced extensively in Chapter 2 of the Brightwater Draft EIS.

A number of alternatives for increasing capacity to meet our regional wastewater treatment needs were discussed in the RWSP. These alternatives included the expansion of our two regional facilities, construction of smaller satellite facilities, and construction of a new regional wastewater facility. It was determined that a new regional facility would best meet our long-term wastewater needs.

Chapter 2 of the Final EIS offers the most current summary of the planning process that led to the adoption of the RWSP, a 30-year plan that identified the need for Brightwater and other major capital facilities around the region. Chapter 2 also describes in detail how the Brightwater alternatives studied in the EIS were developed. The RWSP can be referenced online at http://dnr.metrokc.gov/WTD/rwsp/rwsp.htm

Response to Comment O14-27

Please refer to the response to the City of Edmonds, Comment C9-5.

regional sewage plants. Therefore, siting the proposed sewage treatment plant in Edmonds would go against the spirit of growth paying for growth.

On a Snohomish County level, the Countywide Planning Policies for Snohomish County, most recently amended in April 2000, states on page 18, paragraph 1: "A guiding principle should be the shared responsibility of communities to site facilities for which they contribute to the need." Since Edmonds would not contribute wastewater to the proposed sewage treatment plant, Edmonds has no responsibility to site the facility. This is particularly evident when considering the GMA and KCCP referenced above.

Snohomish County recognizes the need for local control of the siting process (Snohomish County Interlocal Agreement to Implement Common Siting Process for Essential Public Facilities, Appendix "A"). On page 3, paragraph (3.), the document states that "The local jurisdiction shall conduct its review as required by this common siting process, as well [as by] its own codes and ordinances. This shall include the conduct of public hearings required for any land use action which may be needed by the proposal, including comprehensive plan amendment, rezoning, conditional use permit, or similar approval."

1. Explain how either Edmonds or Route 9 could be considered as communities to pay for new growth, since the proposed plant would not serve either community.
2. Explain how King County could justify the addition of another essential public facility to Edmonds, which already has two regional sewage plants and other essential public facilities within its city limits.
3. Explain how King County can ignore the codes and ordinances of the local jurisdiction. O14-27

O14-28 The DEIS does not describe the Unocal site in terms of the eleven factors of the siting process [2.4.3.3]. This suggests a strong, pre-designation bias on the part of King County. It seems clear that King County wants to gloss over these factors, which it has disregarded, in placing Unocal on the site list. How Unocal meets these factors must be addressed in a documented public forum, such as the DEIS. The most prominent violations include:

Factor 3, facility should be consistent with plans of the host community: The City of Edmonds has plans for residential and commercial development as well as development of a regional

2-10

Response to Comment O14-28

Please refer to the response to the City of Edmonds, Comment C9-5.

transportation facility on the site. The City's planned use is necessary to supplement City revenues. The site is prime real estate and the planned use would provide needed tax revenue.

O14-28 1. Provide documentation demonstrating that the proposed sewage treatment plant is consistent with Edmonds' Master Plan?

O14-29 ***Factor 4, facility should include a significant share of the host community's population:*** The proposed sewage treatment plant would service North King County and the eastern municipalities of southern Snohomish County. King County considers the buried conveyance system through these areas related to the host. The plant itself would have the greatest project impact on the host community; however, Edmonds would not represent the "significant share" of the wastewater services, and has no need for the facility because it is served by its own regional sewage treatment plant.

1. What communities (in what counties) would be using the proposed sewage treatment plant in the first 5 years of operation?
2. What proportion of plant capacity would each community use? Please provide a precise table of all communities (and their county affiliation) and population.
3. What communities (in what counties) would be using the proposed sewage treatment plant in the first 10 years of operation?
4. What proportion of plant capacity would each use? Please provide a precise table of all communities (and their county affiliation) and projected population.
5. What communities (in what counties) would be using the proposed sewage treatment plant in the first 20 years of operation?
6. What proportion of plant capacity would each use? Please provide a precise table of all communities (and their county affiliation) and projected population
7. Edmonds provides for its own wastewater treatment, how does it meet the requirements of factor 4?

O14-30 ***Factor 7, avoid concentration of essential public facilities in one area.*** Edmonds is already home to two regional sewage treatment plants, a regional ferry terminal, a regional public port, regional bus lines, and a train station. This factor should remove Edmonds from consideration.

1. Please provide documentation that demonstrates that the proposed sewage treatment plant in Edmonds is *not* a concentration of essential public facilities?

2-11

Response to Comment O14-29

For detailed information on population and wastewater flow analysis, please refer to Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

Response to Comment O14-30

Please refer to the response to the City of Edmonds, Comment C9-5.

Factor 8, sponsor to encourage local public participation. Participation was only noticeably encouraged *after* the site was chosen for the short list (when there was no option to have the site removed).

O14-31

1. What processes and time line were used to alert the public? Note all newspaper ads, hosted events, public notices made (and how), and what kind of response each engendered, from 1995 to the present.
2. How was the early response different from the later response, after the short list was announced?

Factor 9, project to be consistent with local land use regulations. King County's selection of the Unocal site for its proposed sewage treatment plant is absolutely inconsistent with local land use regulations. Edmonds' comprehensive plan allows commercial, residential, and recreational use of the Unocal site.

O14-32

1. Provide documentation that demonstrates how a large sewage treatment plant fits in with Edmonds' planned residential, recreational and commercial uses for this site and adjoining area.
2. Provide documentation that demonstrates how a sewage treatment plant is a better fit than the city's proposed uses.
3. Provide documentation that demonstrates how a sewage treatment plant could provide a better economic future for Edmonds than uses currently planned.

Factor 10, project should be compatible with surrounding land uses. Edmonds has rid itself of industrial facilities in the downtown core and plans to promote quality living and tourism. The Unocal site, and its immediate surroundings, includes land used for a prized wetland, recreation, high-end residential, and commercial purposes.

O14-33

1. Provide documentation that demonstrates a sewage treatment plant would be compatible with the commercial, residential, and recreational land uses in the surrounding areas.

O14-34

Factor 11, adequate mitigation must be provided. "Adequate mitigation," because of Unocal's location, is not technically possible in terms of odor control (prevailing winds flow into the bowl), aesthetics (highly visible and prominent), buffers (no spare acreage), earth topography (retaining

2-12

Response to Comment O14-31

For information on public involvement during the Regional Wastewater Services Plan process prior to 2000, please refer to the response to the City of Edmonds, Comment C9-10.

In August 2000, King County developed a public involvement program for the proposed new regional wastewater treatment plant, later called Brightwater. This program was designed around project milestones, with the flexibility to adjust to changing circumstances. It has been updated throughout the siting process.

The public involvement program includes the following elements:

- Regular consultation with Tribal Governments.
- Interviews and briefings with elected officials and other regional community, business, and environmental leaders.
- Siting Advisory Committee (later called the Executive Advisory Committee).
- Newsletters, videos, displays in public areas.
- Web site that includes opportunities to comment on the project.
- Focus groups (2000 and 2001).
- Media outreach leading to press coverage of the process.
- Speakers bureau and special events such as booths at fairs.
- Workshops for regional stakeholders (August 2000 and May 2001).
- Public meetings and hearings throughout the siting area: June 2000, April 2001, June 2002 (EIS scoping meetings), December 2003 (Draft EIS hearings). These meetings were advertised in newspapers including *Edmonds Beacon, Mukilteo Beacon, Enterprise Newspapers (Edmonds, Shoreline, Lake Forest Park, Lynnwood, and Mill Creek), Eastside Journal, Bothell/Kenmore Reporter, Seattle Times, Woodinville Weekly,* and *Everett Herald.*
- Toll-free phone line and timely response to citizen

correspondence.
- Technical information made available on CDs, in libraries, and on the Web.
- Educators workgroup.
- Two community task forces for the potential plant sites (2002).
- Design workshops for communities near potential plant sites (summer 2002). These workshops were advertised in newspapers listed above.
- Conveyance workshops for communities near potential conveyance routes (summer 2002). These workshops were advertised in newspapers listed above.

Many of these activities are ongoing and provide people with multiple opportunities to get involved in the project in the manner that best meets their individual needs. Members of the public have had opportunities to nominate sites for consideration, help develop the criteria by which sites would be evaluated, comment on candidate sites before sites were selected for evaluation in the EIS, comment on proposed conveyance routes, help develop guidelines for architects designing the facilities, and comment on the scope and draft of the EIS.

The following summary reports of these activities are available at area libraries or by contacting the Brightwater project at 206-684-6799 or toll-free 1-888-707-8571:

King County Wastewater Treatment Division. 2001. *Public Involvement Summary for Phase 1 of Siting Process.* Seattle, WA: Author.
King County Wastewater Treatment Division. 2001. *Public Involvement Summary for Phase 2.* Seattle, WA: Author.
King County Wastewater Treatment Division. 2001. *Public Involvement Supplement for Phase 2.* Seattle, WA: Author.
King County Wastewater Treatment Division. 2002. *Public Involvement Summary for the First Part of Phase 3.* Seattle, WA: Author.

Response to Comment O14-32

Please refer to the response to the City of Edmonds, Comment C9-5.

Under the Chapter 11, Impacts discussion for the Unocal Site in the Draft EIS and the Impacts and Mitigation: Unocal System in the Final EIS, it is acknowledged that a wastewater treatment plant at the Unocal site would be inconsistent with the City of Edmonds' long-range vision for the site and surrounding area. It is also acknowledged that conversion of the site to a public facility use would result in a loss of potential economic opportunities and housing capacity that could be accommodated at the site through mixed-use development.

Regarding the request for documentation on how a wastewater treatment plant could provide a better economic future for Edmonds, SEPA does not require the evaluation of economic impacts resulting from a proposed action. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighting and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers (WAC 197-11-448(1))."

Response to Comment O14-33

Please refer to the response to Comment O14-32 in this letter.

Response to Comment O14-34

For mitigation concerns, please refer to the response to the City of Shoreline, Comment C6-5.

walls would dramatically alter site), etc. Fifty feet is not considered by the community as an adequate buffer zone. King County has not worked with the local community to determine "adequate mitigation."

O14-34

1. Define the term "adequate" in terms of mitigation.
2. What agency would determine what is "adequate" mitigation?
3. Have the government and citizenry of Edmonds been involved in the determination of mitigation measures and choices?
4. How can King County make specific mitigation decisions without the input of Edmonds government and citizenry?
5. How would each mitigation value be scientifically determined?

Figure 2-1

O14-35

This section refers to Figure 2-1 which purports to illustrate King County's wastewater system. The figure also shows one of the two regional wastewater treatment plants located in the City of Edmonds. The implication is that the pictured Edmonds plant is somehow associated with the King County wastewater system. Either correct the figure to omit the Edmonds plant or correct it to reflect the two regional wastewater treatment plants currently operating within the Edmonds city limits.

2-13

Response to Comment O14-35

Figure 2-1 is correct as shown in the Draft EIS as it depicts the connection between the Edmonds wastewater treatment plant and the Ballinger and Richmond Beach pump stations.

Chapter 3

Description and Comparison of Alternatives

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 3 – Description and Comparison of Alternatives

Introduction

This chapter was supposed to discuss the description and comparison of alternatives for the proposed King County sewage system, but it does not. While it discusses a lot, at long length, no decisions have been made public about plant design, processing technology, or even the location of portals. Therefore, this DEIS is incomplete and its publication premature.

O14-36 How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

3.5.1.4 Odor Control

Exhaust air discharge from stacks is aesthetically incompatible in this prominent location. The discharge height is the same as the homes on the slope of the bowl.

O14-37
1. How tall would each stack be? Provide site plan and elevation of proposed stacks.
2. What direction is the prevailing wind? Provide wind maps of the site in relation to stacks.
3. How would the released effluent *not* blow into the face of the bowl residents?
4. Provide a list of the alternatives to the stacks.
5. Discuss in detail the comparative advantages and disadvantages of all the alternatives.

3-1

Response to Comment O14-36

Please refer to the response to Comment O14-1 in this letter.

Response to Comment O14-37

The stacks from each scrubber would be approximately 20 feet high. The site plan is provided in Chapter 3 of the Final EIS, but no heights are provided for any of the facilities. The prevailing wind direction at the Unocal site is from the south east. A wind rose of the Unocal site is included in Appendix 5-A, Odor and Air Quality: Treatment Plant. The treated air from the scrubbers would have odors below the detection thresholds. The analysis included in Appendix 5-A shows that even under worst-case conditions, there would be no odor beyond the property line of the treatment plant and therefore residents in the Edmonds Bowl would not smell the plant. There are no viable alternatives to stacks. Stacks could be combined together to form larger stacks, which may be aesthetically more pleasing. The height can also be varied. The higher the stack is, the better the dispersion. However, the Brightwater Treatment Plant would have sufficient treatment of the process air such that high stacks are not required to prevent offsite odor impacts.

3.5.1.5 Effluent Disinfection

Edmonds residents specified UV disinfection over chemical injection to minimize use and/or storage of chemicals in the neighborhood and to be environmentally friendly and forward-thinking.

O14-38

1. Does a disinfection technology exist today that is more "state-of-the-art" than UV disinfection?
2. List all alternatives to UV disinfection and describe each in detail.
3. Discuss in detail the comparative advantages and disadvantages of all alternatives.
4. Is there a disinfection technology being developed today that is more "state-of-the-art" than UV disinfection?

3.8 Handling Emergency Overflows

The DEIS does not adequately discuss the possibility of overflows of pathogenic influent from conveyance lines across northern King and southern Snohomish Counties.

O14-39

1. Where could pathogenic overflow occur?
2. In what volume could pathogenic overflow occur?
3. What pathogens could occur in such overflow?
4. Has a risk assessment been done with respect to such pathogens?
5. If so, please provide the results of the risk assessment in a supplemental DEIS.
6. If not, why not?
7. If not, please conduct a risk assessment for each pathogen and provide the results in a supplemental DEIS.

3-2

Response to Comment O14-38

Ultraviolet (UV) is currently a viable disinfection system for wastewater treatment. Alternatives include chlorine gas, sodium hypochlorite, ozone, and chlorine dioxide. An analysis of disinfection alternatives for Brightwater is included in Appendix 3-K, Treatment Plant Disinfection Alternatives, of the Final EIS. Appendix 3-K describes all the alternatives evaluated for Brightwater and the advantages and disadvantages of each. There may be other disinfection technologies being developed today, but none that have been proven to be reliable at a scale that would be acceptable for use at Brightwater, except for those evaluated in Appendix 3-K.

Response to Comment O14-39

As noted in Appendix 3-E, Flow Management and Safety Relief Point, of the Final EIS, overflows would occur either at a safety relief point in Kenmore, discharging to the Sammamish River, or at the outfall to the Puget Sound. The location would depend on case-by-case flow and operational conditions. Given the design parameters of the Brightwater System, it is estimated that the probability of an overflow event from either location would be one event per 100 years through 2030, gradually increasing to one event per 75 years by 2050. Overflow volumes would depend on the size of the storm. The Brightwater System will provide up to 11 million gallons of new storage capacity in north King County to prevent overflows, so any overflows that do occur would be the result of extreme weather that exceeds both pumping capacity and all of the system's storage capacity.

Chapter 9 of the Final EIS discloses that pathogens would be present in rainwater-diluted overflows to the Sammamish River or Puget Sound. These could include E. coli, Entamoeba, Cryptosporidium, Giardia, and the Hepatitis A

virus. Due to the infrequent occurrence of overflows and resulting low potential for exposure, risk assessment was not conducted.

Chapter 4 - Earth and Groundwater

Introduction

O14-40 This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to earth and groundwater for the proposed King County sewage system, **but it does not or does so only superficially**. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

The Edmonds Unocal site is situated on geologically unstable land, surrounded by water-dependant wetlands, and is designated in the Edmonds Master Plan for purposes other than sewage treatment. Therefore, the citizens of Edmonds have questions regarding the impact on earth- and groundwater-related issues of the proposed sewage treatment plant.

General Comments

O14-41 The DEIS does not adequately comment on the problems associated with construction on a site with a very shallow water table (Unocal) vs. a less shallow water table (Route 9).

1. What is the impact of building a facility on a site with a shallow water table?
2. How does the Unocal site compare to the Route 9 site with regard to the ability to construct the treatment plant?

O14-42 No preliminary designs including the Edmonds Crossing multimodal facility were provided. King County needs to demonstrate feasibility (in terms of building structure and layout, soil compatibility for increased load, and additional "proper fit" concerns in all categories of the environment) through concrete and well-thought-out designs.

4-1

Response to Comment O14-40

The purpose of a Draft EIS is to allow an opportunity for those commenting on the EIS to correct information in the Draft EIS and/or provide additional information. The request for additional supporting documentation in the EIS itself is noted; however, SEPA also calls, to the extent feasible, for a concise and readable document. The Draft EIS and Final EIS address both concerns by providing summary documents, for which additional supporting documentation and analysis are provided either in appendices, documents incorporated by reference, or other generally-referenced documents.

All materials are available for review at the King County Wastewater Treatment Division or in libraries, as noted in the Fact Sheet at the front of the Final EIS.

Response to Comment O14-41

Please refer to the response to the Washington State Department of Ecology, Comment W5-15.

Response to Comment O14-42

An evaluation of the structural lid needed to allow for co-location of the Brightwater Treatment Plant with the multimodal terminal is included in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

O14-42 1. Provide a feasibility study and publish it in a supplemental DEIS.

O14-43 Throughout the DEIS, King County proposes the option of building a lid on the Unocal plant as a park [Sec. 1.91 & throughout]. A park, as a means of mitigation, cannot disguise odor or hide retaining walls, so it is NOT an adequate means of mitigation for Earth-related or other problems. Fiscal feasibility has not been adequately discussed.

1. Provide detailed drawings and descriptions of how the Unocal site would accommodate a park on top of the sewage plant.
2. Provide support for the fiscal feasibility of this option.

O14-44 Throughout the text [1.5.3.4, 3.2.1.2, 3.5.1, 3.5.1.2, 3.5.1.7], King County fails to address how many acres an optional 72 mgd plant at the Unocal site would need. That number was found only in Table 3-6 and was listed as 34 acres, which is only 2 more than is needed for the 54 mgd plant.

1. Explain in detail how a 33% increase in capacity can be accomplished with only a 6% increase in acreage.
2. The Route 9 plant is listed as needing 47 acres for a 54 mgd plant. Explain why the Unocal site requires 20 fewer acres for the same capacity.
3. The included figure [3-8] appears to lack room to add 33% more tanks or ponds. Provide detailed drawings and descriptions of how a 72 mgd plant would fit on the Unocal site (conceptual drawings are not acceptable).
4. Provide detailed drawings and descriptions of how both a 54 mgd and a 72 mgd plant would accommodate Edmonds Crossing.
5. Describe how a 54 mgd plant with Edmonds Crossing built on top of it could be turned into a 72 mgd plant to accommodate future capacity.

4.1.3.1 Unocal Site

O14-45 The DEIS states (page 4-9), "The Unocal site consists of two relatively flat to gently sloping areas. . . ." This is an error. While the lower yard may be "gently sloping," the upper yard is definitely not. In fact, the upper yard is a historic and present landslide risk because of the steepness of the hill. The DEIS should state "steeply sloping."

4-2

Response to Comment O14-43

Amenities such as parks, trails, sports fields, recreation centers, etc. are at this point only suggestions to give the community ideas about what could be constructed as part of the Brightwater System development. There are no definite plans to provide specific recreational facilities or other amenities at or adjacent to any proposed site. After a final decision on Brightwater is made, King County would work with the host jurisdictions and communities to determine what amenities, if any, would be constructed as part of the Brightwater System development. For more detail on mitigation issues, please refer to the response to the City of Shoreline, Comment C6-5.

Cost and economic impacts are not topics analyzed under SEPA and therefore are not addressed in the Brightwater EIS. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

However, after a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to Brightwater construction and operational impacts. As part of the overall decision-making process, King County is revising the cost estimates (dated November 2002) for the Brightwater alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

Response to Comment O14-44

Slightly more than 1 acre of additional land would be required for the Unocal 72-mgd sub-alternative. The land required is for additional screening channels at the headworks, additional primary clarifiers, additional aeration basins and membrane tanks, and additional digesters. The other facilities do not require additional land to accommodate 72-mgd. The difference in area occupied by the 36-mgd, 54-mgd, and 72-mgd treatment plants is shown in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

The acreage for both the Route 9 site and Unocal site treatment processes and buildings are shown in Attachment F to Appendix 3-A. The facilities required are identical, with the exception of disinfection for Puget Sound discharge. At Route 9, disinfection would occur in the effluent tunnel and no onsite disinfection chamber would be required. This is not possible at the Unocal site due to the close proximity to Puget Sound. Two disinfection chambers would be required at the Unocal site, one for membrane bioreactor effluent and one for ballasted sedimentation effluent. In addition, the odor control systems for the headworks and primary treatment are located on top of the primary clarifiers at Unocal (and next to the primary clarifiers at Route 9) and the odor control systems for the secondary process are located on top of the aeration basins at Unocal (and next to the aeration basins at Route 9). The space between the facilities is greater at Route 9 than at Unocal allowing for ease of construction and buffering of the unit processes to break down the mass of the overall facility. The drawing of the Unocal 72-mgd sub-alternative is included in Appendix 3-A of the Final EIS. There is sufficient space to accommodate all facilities without stacking of basins. Drawings of the 54-mgd and 72-mgd Unocal plants with the Edmonds Crossing concept on top of the plant are included in Appendix 3-A as well.

Response to Comment O14-45

These corrections have been made in the Final EIS.

King County claims the upper yard at Unocal comprises one-third of the site and the lower yard, two-thirds of the site. However, Fig. 4-1 shows them to be about equal in area, with the upper yard possibly larger. This is significant because the upper yard needs extensive, technically challenging, and visually obtrusive grading to allow desired construction.

O14-45

1. Correct the sentence to say "steeply sloping."
2. Correct this fraction designation in your document to reflect actual proportions.

O14-46

Figure 4-2 shows the lower yard to have liquefaction hazard and the upper yard to have landslide hazard. However, the upper yard is also composed of silt and sand and thus prone to liquefaction.

1. Correct Figure 4-2 for the upper yard to reflect both types of hazards.
2. Correct the supporting paragraph on p. 4-12 to include this information.

O14-47

In the DEIS (page 4-11), King County underestimates the importance of the Kingston Arch (KA) Fault and claims that it is not a fault (citing a single paper by a SHIPS scientist), but simply an arch. The official USGS SHIPS website posts a regional map showing faults capable of producing damaging earthquakes. It includes KA Fault as one of the "dashed heavy line" Quaternary faults running east-west through the Unocal area, and it also shows the Coast Range Boundary (CRB) Fault running north-south through the Unocal area—for a double seismic impact. The CRB Fault is the major north-south fault under the Seattle metro area. The map also shows the lower portion of the South Whidbey Fault to be uncertain, as denoted by question marks within the dashes (this is the only fault noted in such a manner). On Figure 4-3, the green line of the Kingston Arch (KA) Fault, which is 3,700 feet away, is drawn too far to the north on the map.

1. Provide the source documents that support the claim that the Kingston Arch is not a fault.
2. Show additional documentation that states that there is no fault running along the KA.
3. Discuss in detail the impact of the KA Fault crossing the Unocal area.
4. Discuss in detail the impact of the CRB Fault crossing the Unocal area.
5. Describe extra measures needed in the design and construction of a sewage treatment plant on the Unocal site, given the presence of two notable faults.
6. Correct Figure 4-3.
7. Publish a supplemental DEIS presenting these issues correctly.

4-3

Response to Comment O14-46

The soil in the upper yard is not liquefaction-prone because it is very dense as a result of being overridden by glaciations and it is not saturated. Loose, silty, sandy, saturated deposits at the ground surface are prone to liquefaction; therefore, no correction is needed.

Response to Comment O14-47

The Kingston Arch is a broad area of uplift that has been defined using indirect, geophysical measurements. Geologists' interpretations of the significance of the Kingston Arch differ. Some interpretations associate the Kingston Arch with faulting deep beneath the ground surface. Identifying the distance from the Kingston Arch, Coastal Range Boundary Fault, or other buried faults to the Unocal site or any other surface feature is difficult because they are broad, regional features that cover a large area, not a discrete line or surface. The Brightwater facilities would be located in an area of moderate to high seismic risk as defined by the Uniform Building Code. Strict building codes will need to be met to protect structures and features from the relatively high seismic risk at either the Unocal or Route 9 site.

The King County Brightwater team is working closely with researchers at the U.S. Geological Survey and the University of Washington to evaluate the seismic risk posed by the South Whidbey Island Fault. The fault is thought to be composed of numerous "splays" or fault surfaces, and the locations are not well defined on the Puget Sound mainland at this time. The Final EIS text has been revised; please refer to Chapter 4 of the Final EIS. This is an area of current and ongoing research. King County will continue to obtain updated information about this regional seismic structure throughout the EIS and the predesign and design phases of this project. The figures in Chapter 4 have been revised in the Final EIS.

O14-48

The DEIS (page 4-12) states, ". . . sandy soil on the site has the potential for liquefaction, especially the fill soil in the lower yard area." If the multimodal Edmonds Crossing facility were built on top of the sewage treatment plant at the Unocal site, it would significantly increase the weight of the structure and lower the liquefaction threshold, allowing liquefaction with smaller seismic events.

1. Provide a sound estimate on how much weight the paving and structures for Edmonds Crossing would add to the weight of the overall structure.
2. Have any studies been done to estimate the impact that constant car and truck activity would have on the liquefaction?
3. If so, provide those studies.
4. If not, why not?
5. Numerically describe the difference in liquefaction potential for the weight of the 54 mgd and 72 mgd sewage-plant-only structures, and also for the 54 mgd and 72 mgd sewage-plant-plus-Edmonds-Crossing structures. Include projections on what kind and degree of seismic activity would induce damage on each of the four options.

O14-49

The DEIS (page 4-12, Groundwater) states, "The permeable nature of the surface fill allows precipitation to infiltrate and flow downward . . . and thus supplement regional groundwater supplies." This appears to present a significant problem if any runoff is contaminated.

1. Provide a detailed study of the impact on groundwater and its movement during plant construction.
2. Provide a detailed study of the impact on groundwater during plant operation.
3. How would King County assure that groundwater is not contaminated by infiltration through permeable soils in the case of a sewage spill?

4.1.3.2 Route 9 Site

O14-50

The DEIS (page 4-18) discusses the Cross Valley Aquifer (CVA). The Route 9 site is near the (CVA). The future will see a drain on local aquifers. Therefore, the proposed sewage treatment plant at the Route 9 site offers a prime opportunity to provide tertiary reclaimed water to people currently using wells. King County is required by its policy to be a leader in environmental

4-4

Response to Comment O14-48

The statement that the increased weight of the multimodal Edmonds Crossing facility on top of the treatment plant would lower the liquefaction threshold allowing liquefaction with smaller seismic events is not true. The weight of structures on top of liquefaction-prone soils has nothing to do with the potential for liquefaction to occur. The potential for liquefaction to occur is based on the magnitude and frequency of the earthquake shear forces, the saturation level of the soil deposit, the soil gradation and density, and proximity of the soil deposit to the ground surface.

Response to Comment O14-49

Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS for detailed information on all of your questions and the response to the Washington State Department of Ecology, Comment W5-15, for a synopsis of Appendix 6-B. The requested studies are summarized in these Final EIS documents.

Response to Comment O14-50

Approximately 5 mgd of the wastewater treated at Brightwater would be treated to the advanced treatment level, making it possible to reuse this water for landscape irrigation and industrial uses in and near the facilities. As outside demand for reclaimed water increases in the future, King County would increase its production at Brightwater with space available to reclaim up to 54 mgd as the need is identified. When and if a proposal is identified to provide for future reused water outside the plant site, appropriate SEPA review will be conducted. However, there are no plans for programs to supplement drinking water sources with water treated at Brightwater. Reclaimed water is not potable water. Please refer to the response to Comment O14-17 in this letter. Please refer to Chapter 3 of the Final EIS for additional details on reclaimed water at the Brightwater Treatment Plant.

stewardship, yet it fails to take this opportunity to encompass an aggressive tertiary reclaimed water program into its proposed sewage plant design.

O14-50

1. Justify in detail King County's decision and its failure to follow its own policy.
2. Develop and present a plan to make use of potable reclaimed water to alleviate the drain on critical aquifers, planning for future needs.
3. Publish this plan in a supplemental DEIS.

4.1.4 Conveyance Corridors

O14-51

Table 4-1 Under the cross headings of *Mapped Hazards* and *Kenmore to Edmonds*, the text inadvertently addresses the Point Wells site (which is not in Edmonds) versus the Point Edwards site in Edmonds, where the Unocal conveyance ends and outfall is located.

1. Correct the information in this table to reflect the Point Edwards data related to the Unocal Corridor.

4.2.1.1 Construction Impacts

Groundwater Control and Dewatering

O14-52

The DEIS states, "groundwater control may consist of pumping groundwater at volumes ranging from a few gallons per minute (gpm) to several thousand gpm." It seems obvious that the impacts on surrounding land will be vastly different at "several thousand gpm" than those at only a "few" gpm. It is impossible for the public to evaluate impacts with such vague statements.

1. Provide specific information about soil types, construction methods, and a realistic estimate of groundwater pumping.
2. Provide a realistic description of the impacts of such groundwater pumping.
3. Publish this information in a supplemental DEIS.

4-5

Response to Comment O14-51

The suggested corrections to the table are included in the Final EIS.

Response to Comment O14-52

Please refer to the response to the Washington State Department of Ecology, Comments W5-9, W5-15 and W5-43. Additional detail is provided in Appendix 6-B, Geology and Groundwater, of the Final EIS.

Unocal Site

O14-53

On page 4-33, the DEIS states, "Unless dewatering is designed and conducted appropriately, the wetland could be impacted by drying." This sounds significant.

1. Provide details about how the dewatering would be designed and constructed to avoid drying this major wetland.
2. Publish these details in a supplemental DEIS so the public can respond.

O14-54

King County notes that dewatering impacts during construction at Unocal (which may be 24/7 for 8 long years) may dry out the adjacent marsh. King County also notes that release of contaminated groundwater may reach the marsh (where it is likely to drain).

1. Address what specific harm would come to what specific species.
2. How would destruction of microscopic biota affect the life cycle of the marsh as a whole?
3. Describe how ecological damage on such a scale can be adequately mitigated ("adequately" in this case means *no detriment or unnatural change* can come to the existing flora and fauna).

O14-55

The groundwork required to build a sewage treatment plant at the Unocal site — a series of 50-foot high retaining walls for construction grading and slope stabilization — is a questionable construction choice for a high seismic zone and inconsistent in terms of aesthetics with the surrounding land uses. Massive and extensive retaining walls are very industrial in nature. Such walls, being highly visible from all points within the Bowl, are not amenable to mitigation *that could hide them*. This amount of land work would carve out much of the existing hillside and dramatically change the visual nature of the site and surrounding neighborhood.

1. Provide detailed site plans and elevation drawings showing where the retaining walls would be built and the difference between current and built elevation and topography.
2. Provide an artist's conception of the view from Edmond's Bowl looking toward the newly graded and walled Unocal site, showing current elevation view versus realistic as-built view.
3. Provide a detailed description of the construction materials and methods, and an artist's rendering of what a proposed retaining wall would look like. The rendering should be realistic.

4-6

Response to Comment O14-53

Please refer to the response to the Washington State Department of Ecology, Comment W5-15, for a synopsis of the dewatering approach and potential supplemental flow to the marsh area during construction in the Unocal lower yard area. Chapter 6 and Appendix 6-B, Geology and Groundwater, of the Final EIS provide more detailed discussions of the dewatering approach (which consists of a combination of deep wells located on the Unocal site and a vertical flow barrier wall adjacent to the marsh) and of the supplemental flow back to the marsh if needed to maintain its normal water level.

Response to Comment O14-54

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-187. Please refer to Chapters 6 and 7 of the Final EIS for a discussion of potential dewatering of Edmonds Marsh.

Response to Comment O14-55

The realignment of Pine Street would be designed to protect the existing residences to the extent possible. The road would include retaining walls on either side to stabilize the slope. Because the residents at the top of Woodway Hill would be at a higher elevation than the treatment plant, they would not have visual disturbances or impediments to their privacy. The odor control at the treatment plant would be state-of-the-art and would prevent offsite odors; thus, residents at the top of Woodway Hill would not smell the plant. Please refer to Chapter 12 of the Final EIS for a revised discussion of aesthetic impacts.

O14-55

4. There is a newly-constructed residential estate atop the Woodway hill, with a grove of trees along Pine Street. According to site plans, this grove would be destroyed, the street realigned, and a retaining wall and plant structures built in this portion of the site. How would the home closest to the plant (less than 50 ft away) be protected in terms of adjacent slope stability, privacy, visual disturbance, odor control, etc.?

O14-56

Table 4-2. The DEIS does not adequately address the specifics of tank design, which is tied to issues of seismic stability and groundwater contamination.

1. If groundwater at the Unocal site is not under artesian pressure, what prevents sewage water from seeping through seams and joints in concrete tanks and down to the marsh or beach?

O14-57

2. Describe the proposed tank design and construction.
3. Would the tanks be lined?
4. If not, why not?
5. If so, would the lining hold up near the joints, given their exposure to chemical stresses? Explain in detail.
6. If so, would the lining hold up near the joints, given their exposure to seismic stresses? Explain in detail.
7. Provide a projection of tank lifetime and maintenance and replacement schedules.

O14-58

DEIS Table 4-2 shows that the retaining walls are to be built only to the Uniform Building Code (UBC), which typically stipulates only the minimum acceptable conditions for the situation. The community would insist that any walls be constructed *better than* code because of the walls' vital importance to earth stability and plant safety, and because of the visibility of the walls.

1. Describe the difference between UBC stipulations for design and the best possible design ("cutting edge" construction).
2. Explain why King County chooses not to conform to the best possible design.

O14-59

3. Describe the various possible materials that can be used in wall construction in terms of aesthetics.
4. Explain why King County chooses not to use the most naturalistic materials possible.
5. Propose a process in which Edmonds would have input into the final decision on the aesthetics of the retaining walls.

4-7

Response to Comment O14-56

Please refer to Chapter 4 of the Final EIS for information about tank design and leak testing. Design and construction measures, such as installing water stops across concrete joints and conducting hydraulic pressure tests prior to putting the tanks in use, along with operations monitoring, inspections, and maintenance, are standard methods that would be used to prevent leakage. Also, for the Unocal site, treatment structures located in the upper yard area would have underdrain systems beneath them to drain perched water that may collect beneath these structures. The underdrain systems would be designed to collect samples to test for leakage. There are no plans for underdrains beneath structures located in the lower yard area; their leak resistance would be monitored through routine inspections and maintenance.

Response to Comment O14-57

The concrete tanks would be tested with clean water at the completion of construction to ensure that they do not leak. This would prevent wastewater from leaking out of the tanks into the surrounding groundwater during operations. The tanks would not be lined because well-constructed concrete tanks do not require linings to be water-tight. Drinking water tanks are typically unlined concrete as well. The tanks would be designed to withstand the water pressure in both the walls and the joints without leaking, and would be designed to withstand seismic events (the reference to exposure to chemical stresses is unclear and therefore not responded to). The design life of these tanks would be at least 50 years. Under normal operations the tanks would be drained and inspected annually and repaired as required.

Response to Comment O14-58

The Uniform Building Code (UBC) and other codes are typically more conservative than the site-specific analysis

when reasonably competent soils are present at the site. This is because the code maps tend to combine areas and therefore use the accelerations that are highest for a particular area. The Brightwater Treatment Plant would likely be designed to International Building Code (IBC) 2003 which, unlike some of the old UBC codes, agrees with the latest thinking by the U.S. Geological Survey (USGS) and National Earthquake Hazards Reduction Program (NEHRP). The IBC does not specifically cover seismic soil loads on retaining walls. The retaining walls would be designed to have incremental lateral earthquake pressures that are based on the site specific firm ground acceleration for a seismic event with a 500-year return interval (10-percent chance of occurrence in 50 years) modified by a site factor (from IBC) that accounts for amplification through the soils.

Response to Comment O14-59

Detailed facility materials selection and design development for the treatment plant on the Unocal site have not been initiated. The Draft and Final EIS make several recommendations for mitigating the aesthetic impacts associated with this proposal. Local jurisdictions and the community will have many opportunities for participation in the design development process including permitting and design review.

4.2.2.2 Operational Impacts - Unocal Site

O14-60 The design and construction difficulties of the Unocal plant related to groundwater are discussed but the impact on the groundwater system caused by the construction or operation of the proposed sewage treatment plant at the Unocal site is not discussed. The impact on the Olympic View water supply well of the construction of the plant at the Unocal site is not discussed. This is an important water source.

1. Discuss the impact of construction of the proposed facility on groundwater.
2. Discuss the impact of operation of the proposed facility on groundwater.
3. Discuss the impact of construction of the proposed facility on the Olympic View water supply well.

4.3.1.1 Mitigation Measures -- Construction

O14-61 The concrete tanks and pipelines holding pathogenic and odorous sewage, and the tanks and pipelines holding hazardous chemicals, are the most dangerous elements of the treatment plant if damaged during a seismic event.

1. What are the specific mitigation measures for dealing with infrastructure failures resulting from seismic events?

4.3.1.2 Mitigation Measures - Operational

O14-62 It is just as important at the Unocal site as at the Route 9 site to monitor groundwater for contamination because of the close proximity of the marsh and because of the permeability of the lower yard soil. In the section on High Groundwater Levels (page 4-55) the DEIS suggests "downward forces with an appropriate factor of safety" as a mitigation measure during design and construction. Several methods are mentioned, but none is committed to. If no appropriate safety factor has been determined, the public is unable to provide responsible input as required by SEPA Rules. Dewatering, it has been stated in this and other sections, could cause sinking of

4-8

Response to Comment O14-60

All aspects of these questions have been addressed in Appendix 6-B, Geology and Groundwater, of the Final EIS. For synopses of this appendix, please refer to the response to the Washington Department of Ecology, Comments W5-9 and W5-15.

Response to Comment O14-61

Please refer to the response to the City of Edmonds, Comment C9-126, for a discussion of emergency response planning, which would also include specific responses to seismic events. Please refer to the response to the Washington State Department of Ecology, Comment W5-35, for a discussion of pipeline design requirements that minimize the risk of breaks or leakages resulting from seismic events.

Response to Comment O14-62

The portion of the text that is being commented on has been revised for the Final EIS. Please refer to Appendix 6-B, Geology and Groundwater, and Chapter 4 of the Final EIS and to the response to the Washington State Department of Ecology, Comment W5-15, for detailed and summarized descriptions of the analyses and mitigation approaches for the Unocal site. In response to your questions:

In regard to the design of deep foundation piles that are planned for structures located in the lower yard area, the Draft EIS statement "downward forces with an appropriate factor of safety" is part of the discussion on the use of foundation piles to support structures primarily as a mitigation approach for the liquefaction potential of the soil in the lower yard area. In addition, the foundation piles provide a secondary benefit of resisting hydrostatic uplift forces that would occur at the base of structures from the high groundwater levels in the lower yard. Piles would be designed to support the weight of the structure (dead, live-, and seismic loads), and an appropriate factor of safety

would be applied to these loads in order to provide an extra margin of surety that the piles can support the structural loads. This is standard design practice the world over.

Also, as stated, increasing the dead weight of the structures is not planned as a design approach against hydrostatic uplift. Piles are the best solution for the lower yard area. As with construction at both sites, groundwater levels at the Unocal site will be monitored during construction to ensure that the dewatering system is achieving its design objectives. Dewatering water will be tested for chemical constituents to evaluate if treatment is needed and to determine appropriate discharge methods.

Factors of safety in engineering design are not necessarily site-specific, but relate more to the structure being designed, the risk of failure, and the accuracy of the input parameters in the engineering analyses. The typical range of factors of safety is based on industry standards and is often prescribed by codes. For deep pile foundations, which are planned to support structures in the lower yard, factors of safety in the range of 3 are typically used for dead and live load situations.

No specific factor of safety has been determined at this time. It is part of an engineering design. Please refer to Chapters 4 and 6 of the Final EIS for lists of proposed mitigation measures.

surrounding ground. Suggesting increasing the dead weight of the structure, therefore, seems ludicrous.

O14-62
1. Address monitoring of groundwater in the Unocal paragraph.
2. Define "an appropriate factor of safety" as it relates to the Unocal site.
3. How was that factor arrived at?
4. If no appropriate factor has been determined, why not?
5. Vague generalities are not mitigation measures. State which methods of design and construction would be implemented at the Unocal site.

4.2.2 / 4.3.2 Conveyance Corridors

Table 4-4 King County does not address specific impacts and mitigation measures for destruction of wetlands throughout the conveyance corridors, nor for stream flow reduction, nor for structural damage due to earth settling under adjacent buildings.

O14-63
1. Address the impacts of *each* portal site in specific terms.
2. What buildings would be affected?
3. What wetland features would be destroyed?
4. Is a specific wetland expected to re-establish itself after construction, can it be helped along, or is it permanently destroyed?
5. Would the lower pumping level of adjacent wells be so low that the owners would not be able to draw water of adequate volume or quality?
6. If so, how would King County address that problem?

4.3.2.2 Operational

O14-64
1. What is the routine for monitoring conveyance pipelines?
2. How fast can an aquifer deplete when it has a tunnel to follow?
3. Can a depleted aquifer be caught early and the problem resolved?
4. If so, specifically how would the problem be resolved?

4-9

Response to Comment O14-63

It is not known at this time which buildings would be affected. In the Final EIS, three to four candidate portal sites are presented within each portal siting area. Based on the approximate boundaries of wetlands, streams, and mature upland forest, impacts are calculated based on a minimum 2-acre portal footprint. In addition, Chapter 7 of the Final EIS addresses the nature of impacts for each candidate portal site.

Every effort is being made to avoid wetlands. If wetland impacts cannot be avoided, wetlands may need to be filled. Based on the duration of construction, wetland impacts may be considered temporary or permanent. The construction duration at portal sites ranges between 1 and 4 years. Temporary impacts may be considered for those wetlands impacted by shorter construction periods. Wetlands impacted for long construction periods would be considered permanently impacted and would be mitigated offsite according to Ecology and local requirements. Temporarily impacted wetlands would be restored. Wetlands are not expected to reestablish themselves on their own. If wetlands are restored on portal sites, restoration plans will be prepared and implemented, including grading, planting, maintenance, and monitoring plans. Final decisions regarding the use of portal sites after construction will be made after issuance of the Final EIS.

With regard to lowering pumping levels adjacent to wells and associated mitigation measures, please refer to the response to the Town of Woodway, Comment C7-23.

Response to Comment O14-64

There is no standard routine for monitoring conveyance pipelines. Groundwater monitoring programs are typically developed to be specific to a particular area and for a particular purpose. It may be advisable to establish both a pre- and post-construction groundwater monitoring

program for segments of the selected conveyance alignment that are considered sensitive. If so, the program would be developed in conjunction with affected parties and the Washington State Department of Ecology, and would include elements such as monitoring locations, frequency, and methods. The program could include a combination of water level and water quality monitoring, if deemed advisable.

Tunnel construction using a tunnel boring machine (TBM) would result in placement of concrete liners in the tailshield of the TBM. The excavated tunnel diameter would be a few inches larger than the initial liner diameter. As the TBM advances, the erected liner exits the tailshield, and the excavated ground is no longer supported by the TBM shield. The strength of the in-situ soils is inadequate to support the weight of 200 to 350 feet of overlying soils. Saturated sands or gravels would immediately flow into the annular space, and clays and silts will quickly squeeze into the annular space until contact is made with the initial liner. Although this zone of soil immediately adjacent to the TBM has been disturbed by the excavation process and may be less dense or less stiff, the overall permeability of the soil would be the same order of magnitude as the surrounding undisturbed ground. With full soil contact, there is essentially no possibility of groundwater transport along the tunnel/soil interface. Additional lowering of permeability in the annular zone is provided by grouting undertaken during tunneling.

With regard to aquifer depletion, declines in water levels associated with leakage into a tunnel (infiltration) could be monitored, and the decline could be reversed depending on the source of the infiltration. Many possible mitigation scenarios exist for this potential situation. However, since no specific problem is anticipated, no specific solution can be provided.

O14-65

5. Does King County plan to construct combined sewer overflows or use separated storm and sanitary sewers?
6. If sewer flows are to be combined, explain why.
7. Would the new conveyance systems be large enough to function as overflow storage, based on a 20-yr storm or bigger?

4.2.3.1 Construction Impacts

O14-66

At Unocal, outfall tunneling equipment and a large onshore portal would significantly disrupt and irrevocably alter or destroy scarce and vital recreation land and disrupt critical rail transport.

1. How is it possible to mitigate such damage?
2. Provide a site plan showing where outfall tunneling would be staged on the Unocal site. Show where the hole would be dug, the path of the equipment, where the waste material would be piled, etc.
3. Describe how this would or would not affect earth and water processes, recreation, and transportation that are dependent on the earth and water processes not being disrupted.
4. Explain in detail how disruption or diversion of groundwater would be managed at this portion of the construction site.
5. Explain in detail the timetable for this process.
6. How would disruption of groundwater processes for that length of time be manifested in the environment?
7. Explain in detail how this hole would be patched.
8. How would the affected land be restored to its former quality and usability?

Figures

O14-67

The maps for the Unocal site and the Route 9 site are drawn to completely different scales. This fact precludes the reader from making any realistic comparison between the sites. In fact, this misleading information can cause the reader to base conclusions on faulty information.

4-10

Response to Comment O14-65

The local conveyance systems in the Brightwater Service Area are separated sewers. There are no combined sewer systems in the area.

With the level of power and equipment redundancy at the proposed treatment plant as well as the size of the influent tunnels, the Brightwater System would have the estimated capacity to handle approximately a once-in-100 year flow and power outage event through 2030 and increasing to a once-in-75 year event by 2050.

Response to Comment O14-66

King County is committed to working with affected parties during the construction of the Brightwater System to minimize construction-related impacts; this includes working with rail transport. Mitigation for disruption or loss of recreational areas or marine habitat could potentially include restoration and monitoring of the areas after construction and during operations, improvement of degraded habitat offsite, or the construction of new recreational facilities. Please refer to Chapter 14 of the Final EIS for a discussion of mitigation measures for impacts to recreation.

The construction methodology, duration, and site description for the Unocal outfall are discussed in Appendix 3-C, Project Description: Outfall, of the Final EIS. The preferred construction method is open-cut (trench) construction.

Impacts to and management of groundwater due to outfall construction at Unocal would be identical to the potential impacts due to construction of the treatment plant. Please refer to Appendix 6-B, Geology and Groundwater, of the Final EIS for details. The temporary short-term lowering of groundwater levels by up to about 30 feet could impact the hatchery well if it is used. There are no anticipated impacts to the private domestic well because of the great distance between the facility site and the well and the fact that groundwater flows from the south to north in the vicinity of

the site. The preferred outfall alternative consists of a open-cut pipeline from the effluent pump station with a short section of pipe jacked underneath the railway. While no portal would be constructed for the outfall, the tunnel boring machine for the conveyance influent tunnel would be launched from a shaft that would be used as the treatment plant's effluent pump station. Thus, the excavated shaft would be incorporated into the Unocal Treatment Plant design and would not be "patched" after the conclusion of tunneling activities. Appendix 6-B also contains a timetable of construction dewatering.

After construction of the outfall, native materials would be used as backfill wherever possible, restoring disrupted land to its former uses.

Response to Comment O14-67

Maps are drawn at the necessary scale to show the required level of detail, and vary throughout the Final EIS. All "to scale" maps provide the user with a scale in the map legend.

King County is not planning on issuing a Supplemental Draft EIS, but rather has provided copies of technical study reports and has conducted public open house technical seminars during the summer of 2003 prior to the issuance of the Final EIS.

The geologic maps for both treatment plant sites were revised and your comment was considered during the revision. However, in order to show features surrounding the Route 9 site, the scale was made smaller than that on the figure showing the Unocal site. Both sites are shown at the same scale on a regional geologic map included in Appendix 6-B, Geology and Groundwater, of the Final EIS.

O14-67

1. Redraw these maps and all others throughout the DEIS, using the same scale for both sites.
2. Publish these redrawn maps in a supplemental DEIS.

O14-68

Figure 4-2 shows the lower yard to have liquefaction hazard and the upper yard to have landslide hazard. However, the upper yard is also composed of silt and sand and thus prone to liquefaction.

1. Correct Figure 4-2 for the upper yard to reflect both types of hazards.
2. Correct the supporting paragraph on page 4-12 to include this information.

O14-69

On **Figure 4-3**, the green line of the Kingston Arch (KA) Fault, which is 3,700 ft away, is drawn too far to the north on the map.

1. Redraw this map with the correct location of the KA Fault.

O14-70

Figure 4-9 does not indicate liquefaction hazard of the Unocal site, nor does it map the tidal flood potential of the Unocal site.

1. Update this map to show the liquefaction hazard at the Unocal site.
2. Include the tidal flood zone at the Unocal site.

4-11

Response to Comment O14-68

The soil in the upper yard is not liquefaction-prone because it is very dense as a result of being overridden by glaciations and it is not saturated. Loose, silty, sandy, saturated deposits at the ground surface are prone to liquefaction.

Response to Comment O14-69

Published sources on the location of the Kingston Arch have been reviewed and the information is reflected on the revised figures in the Final EIS.

Response to Comment O14-70

This figure has been updated for the Final EIS. Also, please refer to the response to Comment O14-18 in this letter.

Chapter 5

Air

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 5 – Air

Introduction

O14-71 This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to air for the proposed King County sewage system, **but it does not or does so only superficially**. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

O14-72 **Assumptions**. There are numerous uses of very vague statistics, including the Dispersion Model. This fact suggests that many assumptions are built into the DEIS. For example, in §5.2.6 Cumulative Impacts, the DEIS states, "no significant change from existing odor conditions is anticipated in the vicinity of the treatment plant." This statement is based on the Dispersion Model using outdated and incomplete data.

With reference to impacts on air quality, this section will discuss the potential significant impact to citizens during the construction and operation of the proposed King County wastewater treatment plant. The issues to be addressed here will involve the assumptions used in the DEIS, the construction of the treatment plant, and the hazardous and Toxic Air Pollutants caused by the facility's operation over the next 50 to 100 years.

5-1

Response to Comment O14-71

The purpose of a Draft EIS is to allow an opportunity for those commenting on the EIS to correct information in the Draft EIS and/or provide additional information. The request for additional supporting documentation in the EIS itself is noted; however, SEPA also calls, to the extent feasible, for a concise and readable document. The Draft EIS and Final EIS address both concerns by providing summary documents, for which additional supporting documentation and analysis are provided either in appendices, documents incorporated by reference, or other generally-referenced documents. All materials are available for review at the King County Wastewater Treatment Division or in libraries, as noted in the Fact Sheet at the front of the Final EIS.

SEPA states that the lead agency shall prepare its threshold determination ad EIS, if required, at the earliest possible point in the planning and decision making process, when he principal features of a proposal and its environmental impacts can be reasonable identified. King County had sufficient information about the facility design and wastewater treatment processing technology of the Brightwater system to evaluate the environmental impacts in the Draft EIS.

Response to Comment O14-72

King County has provided additional information about the dispersion modeling procedures used and the meteorological data used in the odor and air quality modeling in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS. As mentioned in the Draft EIS, meteorological data are being collected from two monitoring stations, one located at the Unocal site and one located at the Route 9 site. The intent has been to collect 12 months of data that will be used in the modeling for the Notice of Construction permit. At the time of the Final EIS, 9 months of data had been collected, which has been used

for the odor and air modeling for the Final EIS. In addition, 4 years of data from Paine Field has also been modeled. The Paine Field data provide the model with additional potential weather patterns to evaluate. Please refer to the Final EIS for additional information on this subject.

5.1.2.1 Unocal Site

O14-73

The DEIS states, "The Unocal site is located on the side of a relatively steep hill. . . ." This is a misleading, minimizing statement and does not reflect the actual site topography.

1. The site steepness is relative to what?
2. By what standard did King County assess steepness?
3. Correct this statement to remove the word "relatively."

O14-74

Location of Sensitive Receptors and Table 5-2. The DEIS, on page 5-9, refers to children and elderly adults as "sensitive receptors for air emissions." Table 5-2, referenced in this paragraph, fails to list Marina Beach (adjacent to the Unocal site) where thousands of "sensitive receptors" gather in all seasons. Table 5-2 also fails to list either the South County Senior Center on Railroad Avenue or the assisted-care living facility located at Highway 104 and Dayton Avenue, both filled with identified "sensitive receptors" every day. All three of these locations are filled with children and/or the elderly during all seasons, and all three are located immediately adjacent to or within about one-half mile of the Unocal site. The DEIS also fails to consider the children and elderly who regularly use the Washington State Ferry System and wait in ferry lines adjacent to the proposed sewage treatment plant. In fact, if King County were able to co-locate the proposed sewage treatment plant and Edmonds Crossing, these "sensitive receptors" would be sitting for long periods *right on top* of the source of air emissions!

1. Why does King County fail to consider the closest "sensitive receptors for air emissions?"
2. What impact would air emissions have on people using these facilities?
3. Why was ferry traffic not considered as a location in Table 5-2?
4. Please correct the paragraph and Table 5-2 to show the closest "sensitive receptors."

5.2.1 Study Methodology

O14-75

The DEIS states, "The discussion of air quality impacts related to the conveyance system and outfall is qualitative only. No modeling was performed, nor was meteorological data collected at portal siting areas along the conveyance corridors." Without quantitative data, it is impossible

Response to Comment O14-73

Site-specific elevation data were used for dispersion modeling. For more details about how the elevation data are obtained, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-182.

Response to Comment O14-74

For information on sensitive receptors please refer to the response to the City of Woodinville, Comment C5-125.

Response to Comment O14-75

Odor control facilities would be provided along the conveyance corridor at all structures with the potential to outgas or that require ventilation. Additionally, there would be continuous air monitoring at all facilities to ensure odor control equipment is working optimally and meeting treatment criteria. Due to the level of removal at the stack, dispersion is not relied upon for odor abatement. Please refer to Appendix 5-B, Odor Analysis: Conveyance, of the Final EIS for more information.

The volume of air outgassing from the underground structures is relatively small, because the size of the conveyance pipes is large relative to the rate of change of the peak wastewater flow rate.

King County will be conducting a hydrogen sulfide (H_2S) monitoring program in the summer of 2003 to assess dissolved sulfide and H2S concentrations within the existing tributary flow streams. Dissolved sulfide and H2S levels are highest during the summer and will provide worst-case scenario data in order to conservatively design the proposed odor control facilities. Additional information about odor control for

the conveyance corridor has been provided in Appendix 5-B of the Final EIS.

for a concerned public to comment. Therefore, public input based on any factual information is denied. King County has, therefore, failed to meet SEPA rules regarding public input.

1. Why was no modeling performed at portal siting areas?
2. Why was no modeling performed along conveyance corridors?
3. Why were no meteorological data collected at portal siting areas?
4. Why were no meteorological data collected along conveyance corridors?
5. How does King County justify this lack of data?
6. Conduct modeling studies at portal sites.
7. Conduct modeling studies along conveyance corridors.
8. Conduct meteorological studies at portal sites.
9. Conduct meteorological studies along conveyance corridors.

O14-75 10. Publish these studies in a supplemental DEIS.

5.2.1.4 Meteorological Data

O14-76 This section discusses meteorological data gathered at Everett for comparison with both the Unocal and Route 9 sites. King County's assessment of prevailing winds "suggests" that they are "likely" to be similar. No documents or references are provided to support this vague assessment. While data from Paine Field may be more representative than data from Seattle-Tacoma International Airport, that's a bit like saying Idaho is more representative of western Washington than Utah or New Mexico. Accurate sampling must be done at the Unocal and Route 9 sites. Although the Route 9 and Unocal sites were chosen as finalist sites for King County's proposed sewage treatment plant in December 2001, meteorological monitoring stations were not installed until June 2002. Therefore, site-specific data are unavailable and the public input, as required by SEPA rules, is precluded.

1. What methodology did King County use to compare topography between Paine Field and the Unocal site?
2. What methodology did King County use to compare topography between Paine Field and the Route 9 site?
3. Please provide comparison data for both sites.
4. What modeling technique allows the omission of data where it is not available and allows conclusions based on highly incomplete data?

5-3

Response to Comment O14-76

Please refer to the response to the Save Little Bear Creek Coalition, Comment O15-5.

5. Provide documentation that supports the use of 1961-1965 data in 2002 modeling.
6. Conduct meteorological studies at both the Unocal and Route 9 sites.
O14-76 7. Publish those studies in a supplemental DEIS.

5.2.2.1 Construction Impacts

Construction impacts would create two significant problems, especially at the Edmonds site. According to the DEIS (page 5-16, paragraph 2 of this section), "Fugitive dust emissions from the Route 9 site should be lower than emissions from the Unocal site because the estimated volume of soil to be excavated is less. Approximately 250,000 cubic yards of material would be removed from the Route 9 site, while up to 2 million cubic yards are expected to be removed O14-77 from the Unocal site." This means that *8 to 10 times* the amount of soil would need to be removed in Edmonds from a much smaller site on a steep slope. In addition, Table 5-3 lists numerous contaminants present in Unocal site soils.

1. How would King County reduce the fugitive dust emissions to minimal levels? Be specific.
2. Section 5.3 (Mitigation Measures) mentions a watering program at the construction site to reduce emissions. Would the use of water on a hillside create the potential for water O14-78 to run off into the local creek, parks, wetlands, or Puget Sound?
3. Provide King County's plan to contain this runoff.
4. Would the use of water on a hillside create the potential for slides or erosion?
5. Provide King County's plan to control slides and erosion.
O14-79 6. How would contaminants mentioned in Table 5-3 be prevented from dispersing into the air?

O14-80 The DEIS states (page 5-16, last paragraph), "The greatest potential for air emissions from construction at the Unocal site would be emissions of contaminants present in groundwater or soil at the site." The DEIS goes on to say, "these contaminants . . . could disperse into the air, if the soil or groundwater containing them were disturbed." Two scenarios mentioned regarding this clean-up include King County's purchase of the site and assumption of the responsibility for site cleanup.

5-4

Response to Comment O14-77

Please refer to the response to Comment O14-80 in this letter.

Response to Comment O14-78

Please refer to the response to the Washington State Department of Ecology, Comments W5-9, W5-15 and W5-40. Additional detail is provided in Appendix 6-B, Geology and Groundwater.

Response to Comment O14-79

Demolition and construction-related activities would result in short-term impacts to ambient air quality. Dust emissions from heavy construction operations could temporarily elevate levels of particulate matter in the ambient air. The potential for impacts would be short-term, occurring only while demolition or construction work is in progress. No significant long-term adverse impacts on local or regional air quality are anticipated.

Fugitive dust emissions typically occur during building demolition, ground clearing, excavation, site preparation, grading, stockpiling of materials, onsite movement of equipment, and transportation of material. Fugitive dust emissions are greatest during dry periods, periods of intense construction activity, and periods of high-wind conditions. Dust emissions from construction activities should be very low from fall through spring, when the soil at the site is typically wet and the potential for dust is lower. In dry times, water trucks would regularly water roads for dust control.

Response to Comment O14-80

Air emissions from excavation of potentially contaminated soil at the Unocal site would be accomplished according to the regulations stated below.

Although construction impacts would be temporary, they would be mitigated based on the requirements of the Puget Sound Clean Air Agency (PS Clean Air) for minimizing air

quality impacts to ambient air. PS Clean Air Regulation I Section 9.15 states “No person shall allow visible emissions unless reasonable precautions are employed.” Construction emissions would be mitigated by watering roads, covering loaded dump trucks, washing trucks prior to their exit from the construction area and minimizing idling vehicle times.

PS Clean Air has the responsibility to determine compliance with its Regulation I, Section 9.15. Washington State and Federal OSHA regulations for worker safety during construction may also require onsite monitoring to ensure worker health and safety standards are met. This would include monitoring contaminants that could be emitted to the air from contaminated soil or groundwater. Failure to comply with these standards would result in curtailing or stopping the activity that was producing violations. Chapter 16 of the Final EIS includes traffic estimates of the number of truck trips to be used during construction.

1. How would King County protect the citizens of Edmonds if the removal of 2 million cubic yards of contaminated soil disperses contaminants into the air? Provide a detailed plan.
2. Would the time taken to clean up this soil cause delays in the construction since winter, summer, and various wind conditions during many months exacerbate these emissions of contaminants?
3. How would King County prevent such a situation from occurring? Provide a detailed plan.

O14-80

The DEIS states on page 5-18, "Due to the presence of these contaminants, excavation of soil at the Unocal site would likely result in air emissions of small amounts of BETX and PAHs. All of these pollutants are TAPs. . . ." Since there are significantly more "sensitive receptors" (i.e., children and elderly adults at the waterfront, at the senior center, and in a nearby assisted-care living facility) than are considered by the DEIS, the Unocal site would seem to pose a far greater health risk during construction than King County has reported.

O14-81

1. Has King County taken these local concerns into account?
2. If so, where are these concerns published?
3. If not, why not?
4. How would local citizens be made aware of such problems if they occurred?
5. Conduct a study of the potential impacts of air emissions on the populations identified here and omitted in the DEIS.
6. Publish the results of the study in a supplemental DEIS.

O14-82

During site development and the construction of the facility, the DEIS states, "construction vehicles have the potential to degrade air quality in the surrounding areas. Traffic disruptions would be greatest at intersections, leading to increased queuing and air quality emissions." The creation of vehicle emissions at the Unocal site would be exacerbated by the disruption of hundreds of thousands of vehicles comprising ferry traffic which may be required to wait for long periods during the several years of construction.

1. What would King County do to reduce air emissions generated from these construction activities? Provide a detailed plan.

O14-83

2. Has King County included the additional costs of traffic and air pollution reduction during all phases of construction?
3. If so, please publish the additional cost data.

5-5

Response to Comment O14-81

Please refer to Chapter 5 of the Final EIS for more information regarding air quality impacts from dust during construction. Major earth moving activities are generally required to clean up contaminated soils, particularly for surface soil contamination. If Unocal were to clean up the site prior to sale, emissions of these contaminants would not take place during treatment plant construction because the contamination would have been removed prior to the County's acquisition of the site. If King County cleans up the site, excavation of soil at the Unocal site would be required and would likely result in air emissions of small amounts of BETX and PAHs, along with other contaminants. Based on projected contaminant levels, it is likely that air quality regulatory agencies would require dispersion modeling for benzene and PAH if site cleanup had not been completed before King County undertook construction of a treatment plant at the Unocal site. This modeling would be conducted during permitting for the site and could be used to evaluate potential impacts to surrounding populations. Refer to Chapter 5 of the Final EIS for more information.

Watering is a standard dust suppression technique used at hazardous waste sites during investigation and remediation. If the site is selected, the nature and extent of soil contamination at the Unocal site would be better defined during the design phase and appropriate measures identified at that time.

Response to Comment O14-82

As is customary at construction sites, traffic could be rerouted to minimize impacts by using detours, lane closures, and flag persons to control traffic flow. Traffic provisions are aimed at reducing emissions by moving construction traffic in and out of the area promptly to reduce vehicle emissions impacts. For Unocal, a shuttle for construction workers could be used. The shuttle would bring workers to the site from offsite parking lots. There would also be a remote

construction truck holding area to minimize conflicts to the ferry traffic movement along SR-104, to schedule construction material delivery to the site during off-peak hours, and to encourage workers to carpool to construction site. For additional information please refer to the response to Comment O14-80 in this letter

Response to Comment O14-83

For cost issues, please refer to the response to Comment O14-43 in this letter. For mitigation concerns, please refer to the response to the City of Shoreline, Comment C6-5. Information related to traffic and air quality can be found in Chapters 16 and 5, respectively, of the Final EIS.

4. If not, why not?
5. Provide a detailed estimate of additional costs of traffic and air pollution mitigation in a supplemental DEIS. O14-83

5.2.2.2 Operational Impacts

On page 5-19 the DEIS states, "The goal for odor control at the Brightwater Treatment Plant is to prevent offsite nuisance odors from occurring by using a combination of design, operation, and maintenance practices and procedures. The proposed sewage treatment plant odor control system would have the highest degree of odor control equipment and strategies currently available for municipal wastewater plants in the United States." This statement is not true. On page 5-25, the DEIS, with reference to **Natural Gas-Fired Standby Turbine Generators**, states, "In addition, onsite generation may be provided to further improve reliability." In order to provide the "highest degree of odor control," the DEIS should say that onsite generation ***will*** be provided.

1. Explain why King County does not commit to onsite generation.
2. Is the phrase "may be provided" an admission that the proposed sewage treatment plant would not be built to the highest degree of odor control?
3. If not, why does King County equivocate? State King County's commitment to onsite generation. O14-84
4. Specifically, what design characteristics would prevent nuisance odors?
5. Specifically, what operation practices would prevent nuisance odors?
6. Specifically, what maintenance practices would prevent nuisance odors?
7. Does King County commit to using those design, operation, and maintenance practices?
8. If not, why not?
9. Specifically, what odor control equipment would be used to ensure the highest degree of odor control?
10. Specifically, what odor control strategies would be used to ensure the highest degree of odor control?
11. Does King County commit to using that equipment and those strategies?
12. If not, why not?
13. Provide the data that will be used for making a decision about onsite generation.

5-6

Response to Comment O14-84

King County is committed to onsite generation as described in Chapters 3 and 8 of the Final EIS. However, the type of onsite generation—turbines, reciprocating engines, fuel cells, or some combination of these—has not yet been determined. There are no data to provide regarding the decision for onsite generation.

King County would provide redundant power supplies for the treatment plant, as required by the Washington State Department of Ecology. The odor control system, as part of the treatment plant, would therefore have redundant power supply. The highest degree of odor control mentioned in Chapter 5 of the Final EIS refers to the level of treatment, which in the case of Brightwater is a multi-stage system.

The treatment plant would be designed to have all processes fully enclosed to capture all process air and treat it in the odor control systems. The odor control systems would be multi-stage systems that would treat the process air to such a high degree that odors would not be detected offsite.

Operation practices would include adding chemicals in the collection system and at the influent pump station, using chemicals and carbon in the odor control systems at the plant site as required by the system design, keeping all process building and tank covers and doors closed, and using the maintenance air scrubbers while cleaning tanks.

Maintenance practices would include preventive maintenance on the pumps and fans in the odor control system, cleaning the chemical scrubbers as required to maintain the design removal efficiencies, replacing the carbon prior to breakthrough. King County is committed to using the design, operation, and maintenance practices as described above.

Odor control systems for the liquids and solids processes would use three-stage chemical scrubbers followed by carbon adsorber vessels. Carbon only would be used for the emergency digester pressure relief vents and the biosolids

truck storage. Please refer to the responses to items 4, 5, and 6 regarding strategies for odor control. For further detail, please refer to Chapter 5 and Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

Odor Emissions

The DEIS (on page 5-21) states, "Solids handling facilities are usually the largest producers of odor due to the high organic content of solids . . . and common anaerobic conditions."

O14-85

1. Does King County have a plan to minimize odors from solids handling?
2. If so, provide that plan.
3. If not, why not?
4. Since current King County treatment plants are known to create significant odors due to the storage and transfer of solids, how would the proposed sewage treatment plant be designed and built differently from King County plants currently in operation?
5. Since the proposed sewage treatment plant at the Unocal site would be built in a beach area, within a retirement community, and near local restaurants, would not odors have a more significant impact at this location?

O14-86

Washington State Department of Ecology's *Criteria for Sewage Works Design* (The Orange Book), §G2-5.1 Odor Prevention/Treatment; General Design Considerations states, "Even under the best conditions, sewage can have odors which, if released to the atmosphere, would be considered objectionable to public." The odors cannot be mitigated by dispersion (the usual method). Because of the bowl-like site, the height, position and distance of any release is going to affect the people of Edmonds because people are at all heights, directions, and close by the project site. A discharge stack is especially not acceptable.

1. Describe the features King County would incorporate into the design and construction of the plant to assure that no detectable odors are released into the atmosphere.
2. What operating technologies would King County use to ensure no detectable odors were released into the atmosphere?

O14-87

The proposed King County sewage treatment plant would produce bio-solids which must be hauled away by truck. This would create additional traffic on already congested Edmonds Way. The transfer process generates significant odor. Odor control is a concern for Edmonds residents because of the close proximity of homes and businesses.

1. How would King County mitigate this problem to assure that no detectable odors leave the subject site? Be specific.

5-7

Response to Comment O14-85

The Brightwater solids handling building would be designed and operated to minimize odors. Process areas for thickening, dewatering, and biosolids truck loading would be fully enclosed. The process air would be treated in the odor control system. Biosolids would be transferred onto trucks inside an enclosed and ventilated loading/scale area. This area would be equipped with doors that would be closed after the truck enters, and the doors would not be opened until the truck is covered. The biosolids loading area would be designed with a ventilation system that would keep the area under negative pressure to prevent the escape of odorous air. The air removed from this area would pass through odor prevention systems to treat the air before it is discharged to the atmosphere. As the ventilation system is designed to keep the loading area under a negative pressure, normal operations would require that the doors be kept closed for proper operation. An alarm would be generated within the plant control system whenever one of these doors is open allowing for improper operating conditions to be corrected.

Biosolids would either be directly loaded into the trucks from the dewatering devices (centrifuges), or stored in an enclosed tank to allow for loading into trucks independent of the dewatering operation. This loading may occur via an enclosed and ventilated conveyor system, or by means of an overhead hopper system. In all cases, the entire process would be ventilated and the air treated in the odor prevention system before discharge. The biosolids haul trucks have covers that are designed to limit odors from escaping. Any trucks located at the treatment plant site and not inside the ventilated loading area would be hooked up to ducts that would pull air from under the covers on the empty trucks and treat this air inside the odor prevention systems.

The Brightwater solids handling odor prevention system would be different from that of the existing King County plants in these ways:

- The doors would be shut while trucks are being loaded with biosolids.
- The loading bays would be under negative pressure to prevent the process air from escaping. An alarm would be generated within the plant control system whenever one of these doors is open allowing for improper operating conditions to be corrected.
- The biosolids haul trucks would have covers to limit odors from escaping. Any trucks located at the treatment plant site and not inside the ventilated loading area would be hooked up to ducts that would pull air from under the covers on the empty trucks and treat this air inside the odor prevention systems.
- Trucks carrying biosolids would be covered and typically would be leaving during off-peak hours.

The odor prevention systems at both the Unocal and Route 9 sites would be designed to prevent odors from traveling offsite.

Response to Comment O14-86

The key elements of the odor prevention program for the Brightwater Treatment Plant are described in Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS and are outlined below. These features would be incorporated into the design, construction, and operation of the treatment plant to assure no detectable offsite odors:

- All treatment processes would be covered or enclosed to capture and treat process air.
- Chemicals would be added in the collection system and at the influent pump station to react with the odor-causing compounds in the wastewater and reduce the formation of odors, further reducing downstream treatment plant odor loading.
- Odor abatement systems would be sized to handle worst-case operating conditions, where combinations of meteorological conditions (such as inversions and stagnant air) coincide with peak odor releases from treatment processes.
- Redundant equipment would be included in the facility design, including dedicated equipment for odor control during routine maintenance activities.
- The proposed odor abatement system includes three-stage chemical scrubbing followed by activated carbon. This multiple-stage system is designed to specifically treat target compounds including hydrogen sulfide, ammonia, and reduced sulfur compounds. The activated carbon would be used as an odor “polisher” to remove any trace residual odors from the multiple-stage scrubbers.

Response to Comment O14-87

The vehicle combustion emissions from the biosolids trucks have not been included in the Final EIS. There would only be two to three biosolids truck trips per day, and the emissions from these trucks would be negligible compared to the emissions from the thousands of vehicles that travel in Edmonds each day. Please refer to the response to Comment O14-85 in this letter for information on odor control from biosolids trucking.

O14-88

2. Describe all other methods of bio-solid disposal and discuss the comparative advantages and disadvantages of each.
3. Has King County considered other methods of disposal (such as incineration)?
4. If not, why not?

Figure 5-2

O14-89

Figure 5-2 fails to list Marina Beach (adjacent to the Unocal site) where thousands of "sensitive receptors" gather in all seasons. Figure 5-2 also fails to list either the South County Senior Center on Railroad Avenue or the assisted-care living facility located at Highway 104 and Dayton Avenue, both filled with identified "sensitive receptors" every day. All three of these locations are used by children and the elderly during all seasons, and all three are located immediately adjacent to or within about one-half mile of the Unocal site. Figure 5-2 also fails to consider the children and elderly who regularly use the Washington State Ferry System and, therefore, wait in ferry lines adjacent to the proposed sewage treatment plant. In fact, if King County were able to co-locate the proposed sewage treatment plant and Edmonds Crossing, these "sensitive receptors" would be sitting for long periods *right on top* of the source of odor emissions!

1. Why does King County fail to consider the closest sensitive receptors "for odor emissions?"
2. What impact would odor emissions have on people using these facilities?
3. Why was ferry traffic not considered as a location in Figure 5-2?
4. Please correct Figure 5-2 to correctly represent the closest "sensitive receptors."

Air Technical Appendix

O14-90

The air technical appendix, on page 9 under Meteorological Data, states that meteorological data were collected at the Paine Field Airport station in Everett and did not include a 5-year data set since there was no data collection prior to October 1998. It further states, "necessary meteorological data were available for dates prior to October 1968. Five years of this data (1961-1965) were used in the model. . . . There is a large amount of data missing from 1963, so meteorological data from this year were not included in the analysis." The report goes on to say,

5-8

Response to Comment O14-88

King County's biosolids management program reflects a long-adopted policy of 100 percent beneficial use, either as a directly applied soil amendment or as a compost feedstock. Since 1972, King County biosolids have been used in numerous land application, reclamation, and research projects within Washington. King County has supported important scientific research on the environmental effects of biosolids recycling that has demonstrated the value and safety of land application. The current biosolids beneficial use program has been designed to provide reliability through the establishment of several market outlets and geographic diversity.

During the process of selecting methodologies for Brightwater, King County considered all methods of biosolids treatment and destruction, as described in Appendix 3-L, Preliminary Working Draft Facilities Plan, of the Final EIS. King County did consider incineration, but the air permit required for such a process could not be obtained in the timeframe. In addition, incineration is inconsistent with King County's policy promoting beneficial reuse of biosolids.

Response to Comment O14-89

The sensitive receptors mentioned in the comment were added to the model. Even those sensitive receptors located at the multimodal facility waiting for the ferry would not be exposed to concentrations of hydrogen sulfide, the major component of wastewater emissions, at levels that would cause health impacts. For further information on sensitive receptors, please refer to the response to the City of Woodinville, Comment C5-125. For information on exposure levels and health effects, please refer to the response to the Snohomish County Planning and Development, Comment S3-53.

Response to Comment O14-90

Please refer to the response to the Save Little Bear Creek Coalition, Comment O15-5.

"onsite meteorological stations would account for local changes in the topography and would be more applicable to the conditions at the sites than data obtained from the offsite meteorological station at Paine Field." In other words, the Dispersion Modeling used contains very old, insufficient and questionable data. However, this model forms the basis of King County's conclusions about toxic air pollutants and impacts to the air at both the Route 9 and Unocal sites. Within the parameters of this flawed model, the total HAPs would exceed 2.5 to 2.6 tons per year. Total TAPs with Nitric Oxide would exceed 50.5 to 60.0 tons.

1. Explain how the use of outdated, incomplete, and geographically inappropriate data provide King County with reasonable information to draw conclusions?
2. Would the different topography and higher elevation at Paine Field be applicable to a sea-level site at the Edmonds waterfront?
3. What modeling technique allows the omission of large amounts of data and allows conclusions based on highly incomplete data?
O14-90 4. Provide documentation that supports the use of 1961-1965 data in 2002 modeling?
5. Will King County issue a supplemental DEIS when data are available?
O14-91 6. If not, why not?
7. If so, when will the scoping period begin?

5-9

Response to Comment O14-91

King County is not issuing a Supplemental Draft EIS. This Final EIS responds to comments received on the Draft EIS. The Final EIS provides additional air modeling data. Please refer to the discussion in Chapter 5 and Appendices 5-A, Odor and Air Quality: Treatment Plant, and 5-B, Odor Analysis: Conveyance, of the Final EIS.

Chapter 6

Surface Water

The Washington Tea Party
Response to Draft
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Regional Wastewater Treatment System

Chapter 6 – Surface Water

Introduction

O14-92 This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to surface water for the proposed King County sewage system, **but it does not or does so only superficially**. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

6.1 Affected Environment

O14-93 Considering the potential impacts to Willow Creek, the flow estimates and water quality data provided are inadequate. Three rough estimates made by timing floating objects is suitable for school science projects but not as baseline data for a billion dollar sewage treatment plant with the creek on two sides. Flow recorders and additional water quality sampling must to be done. The rerouting of the existing large Edmonds Way Drain that crosses the site is discussed briefly, and it appears that the drain would need to be relocated in the wetland buffer.

1. Provide authoritative documentation that supports the data collection methodology selected for flow estimates and water quality.
2. How would King County substantiate the data collected?

6-1

Response to Comment O14-92

Please refer to the response to Comment O14-71 in this letter.

Response to Comment O14-93

The Final EIS presents the available data for Willow Creek. The project would largely avoid impacting the creek and the information presented for the creek is adequate. Further analysis indicates that the temporary dewatering during construction at the Unocal site might affect water levels in Willow Creek and the adjacent Edmonds Marsh. If this site is selected, water levels in the creek and the marsh would be monitored both before and during construction and supplemental water would be supplied if a decline in water levels occurred. More information can be found in Appendix 6-D, Permanent Stormwater Management at the Treatment Plant Sites, of the Final EIS. The route of the Edmonds Way Drain, which lies beneath the project site, would be altered slightly, as shown in Chapter 3. The drain would not be routed through wetlands.

Cross sections showing the stratigraphy of the Unocal site, including the regional and surficial aquifer, are provided in Appendix 6-B, Geology and Groundwater, of the Final EIS. This appendix also includes a figure showing the capture zone for the Olympic View well.

3. King County must provide a study using flow recorders and complete additional water quality sampling.
4. Where would the existing Edmonds Way Drain be rerouted?
5. What would be the impacts of this rerouting?
6. If the Edmonds Way Drain were to be rerouted through the wetlands, discuss the impacts on each of the permanent and temporary inhabitants as well as on the habitat.
7. It is difficult to gain a good understanding of the geology and groundwater at the Unocal site. Provide several cross sections which show stratigraphy as well as regional and perched groundwater tables.
8. Describe in detail (including graphs) how the regional and perched groundwater table varies seasonally. Also discuss the expected flow rates from each groundwater zone that contributes to the wetland.

O14-93 9. In figure 4-10, show the capture zone for the Olympic View water supply well.

The King County wastewater treatment proposals call for recycling water, yet there are no plans to do so from the Unocal site. There are no proposals for conveyance lines to return treated water to areas where there is a potential demand. The costs of transporting recycled water are not in the cost estimates. After the disruption caused by laying miles of conveyance lines for raw sewage and treated effluent, it is unlikely that the public would permit further disruption to construct water lines to convey recycled water at a later date. However, recycled water has been a major selling point for King County's proposed sewage facility.

O14-94
1. Explain how King County would meet its commitment to recycle water if the plant were located in Edmonds.
2. Provide cost estimates for recycling water and documentation to support those estimates.
3. What would it cost to recycle water if the plant were to be located in Edmonds?
4. What is the market for recycled water in Edmonds?
5. How far would recycled water have to be transported to be used?
6. How would the recycled water be transported?
7. What would be the impacts of that need to transport recycled water?
8. If water trucks were to be used, provide a study of the impact of additional truck traffic on Highway 104.

6-2

Response to Comment O14-94

Please refer to the response to Hensley, Comment I408-30, for a discussion of the potential reclaimed water demand and costs for constructing and implementing a reclaimed water system. Detailed costs have not been developed for a reclaimed water system at the Unocal site. If the decision were made to locate the treatment plant at the Unocal site, specific costs for conveying reclaimed water to potential users would be developed. Based on the initial analysis, the distance between the Unocal site and potential users varies from one-quarter mile to approximately 5 miles.

Reclaimed water is distributed in dedicated pipelines. On occasion, during drought conditions, King County has made reclaimed water available via tanker trucks to users for special purposes such as stream restoration. The frequency of tanker truck use at the South Plant has been on the order of one truck trip per day during summer irrigation season. However, truck delivery of water or reclaimed water is neither recommended nor encouraged.

If specific customers for reclaimed water are identified in the future and specific proposals are made for the construction of distribution lines or the transport of reclaimed water using tanker trucks, an evaluation of environmental impacts of specific proposals would be undertaken at that time.

6.2 Impacts

The following questions were asked during the scoping process and were either ignored or answered incompletely and in vague terms.

O14-95

1. What would be the impact on the Union Oil Marsh during construction and operation of the proposed sewage treatment plant?
2. Would constant water flows be maintained?
3. Would water quality be affected by either construction or operation of the sewage treatment plant?
4. How would these impacts be mitigated?
5. What would be the impact on Deer Creek Fish Hatchery during construction and operation of the proposed sewage treatment plant?
6. How would these impacts be mitigated?

6.2.2.1 Construction Impacts

The following questions were asked during the scoping process and were either ignored or answered incompletely and in vague terms.

O14-96

1. What underground springs, creeks, and rivers would be altered, dammed, or in any other way affected?
2. What would be the impact on any other underground drainage systems?
3. How would these impacts be mitigated?
4. How would King County restore the historic connection of Willow Creek to Puget Sound?
5. How does King County propose to mitigate the effects of changing streams, springs, historical drainage, and rising water table on affected property owners?
6. Would King County assume responsibility for damages caused by those effects?
7. How would King County mitigate future damage?

6-3

Response to Comment O14-95

As stated in the Final EIS, extensive erosion control measures would be in place during construction to assure that the water quality of both Willow Creek and Edmonds Marsh are adequately protected. During project construction, some dewatering would be required to temporarily lower groundwater at the site. A groundwater cutoff wall or similar measure would be installed to minimize possible lowering of water levels in the creek or nearby marsh. This measure would also assure that there would be no flow impacts on Willow Creek. No dewatering would be required following construction. Please refer to the response to Comment O14-93 in this letter. Further information can be found in Appendices 6-C, Management of Water Quality During construction at the Treatment Plant Sites, and 6-D, Permanent Stormwater Management at the Treatment Plant Sites, of the Final EIS.

Operation of the Deer Creek Hatchery would not be affected by construction or operation of the Brightwater Treatment Plant. As stated above, construction of the treatment plant would include measures to prevent flow impacts to Willow Creek. As impacts to the fish hatchery are not anticipated, no mitigation is proposed.

Response to Comment O14-96

Impacts to groundwater resources are disclosed in substantially more detail in Chapter 6 of the Final EIS. While local declines in groundwater would occur in the immediate vicinity of dewatering operations, only small water level changes (about 1 foot or less) would be experienced in the producing wells. Mitigation for impacts is also discussed in substantially more detail. Please refer to the response to the Washington State Department of Ecology, Comments W5-9 and W5-15.

There would be no permanent alterations to the groundwater system. A temporary groundwater cutoff wall would be

constructed to minimize groundwater impacts during the temporary dewatering of the site during construction. This cutoff wall would be removed at the end of the construction period at which time dewatering at the site would cease. The route of the Edmonds Way Drain, which lies beneath the project site, would be slightly altered. The lower portion of Willows Creek currently flows through a pipe into Puget Sound. This portion of the creek would be removed from the pipe and the creek would be “daylighted” into a reconstructed stream channel. As a result of these measures, no damages to adjacent properties are expected. There would be no substantial change in creek flows or groundwater conditions at the project site. Further information can be found in Chapter 3 and Appendices 6-C, Management of Water Quality During Construction at the Treatment Plant Sites, and 6-D, Permanent Stormwater Management at the Treatment Plant Sites, of the Final EIS.

6.2.2.2 Operational Impacts

O14-97

The proposed sewage plant would significantly increase areas of impervious surfaces.

1. How would the increased stormwater runoff be accommodated in order for it not to impact streams and wetlands in the vicinity of the plant?
2. Provide detailed, to-scale drawings of planned stormwater drains.

O14-98

The City of Edmonds would require runoff to be discharged to its natural location. Section 18.30.060 of Edmonds Community Development Code states, "Natural drainage patterns shall be maintained, and discharges from the project shall occur at the natural location, to the maximum extent practical." The point of natural discharge for the Unocal site is Willow Creek. Therefore, direct, undetained discharge to Puget Sound would not be allowed. It seems likely that King County proposes direct, undetained discharge in order to avoid installation of a several-acre detention pond, for which there is no space at the Unocal site.

1. Why is direct discharge proposed rather than discharging at the natural location?
3. How would King County fit the required detention pond volume on the Unocal site?
4. Would additional property have to be taken in some manner to accommodate the required detention pond?
5. If so, how much?
6. If so, what property and by what mechanism?
7. If King County does not intend to install the required detention pond, how does it plan to circumvent Edmonds City Code requirements?

O14-99

The following questions were asked during the scoping process and were either ignored or answered incompletely and in vague terms.

1. What would be the impact on the Union Oil Marsh during construction and operation of the proposed sewage treatment plant?
2. Would constant water flows be maintained?
3. Would water quality be affected by either construction or operation of the sewage treatment plant?
4. How would these impacts be mitigated?

6-4

Response to Comment O14-97

The central portion of the Route 9 site, where the treatment plant would be constructed, is currently over 90 percent impervious (73 of 78 acres). The proposed project would install large areas of forest and landscape, reducing impervious area to approximately 56 percent. The Unocal site is currently covered with 25 acres of impervious area (or about 52 percent). After project construction, impervious area would increase, slightly to 28 acres (58 percent).

All stormwater would be treated and detained following the guidelines in the Washington State Department of Ecology *Stormwater Management Manual for Western Washington* (August 2001). More detail can be found in Appendix 6-D, Permanent Stormwater Management at the Treatment Plant Sites, of the Final EIS.

The preliminary level of design detail provided is appropriate for inclusion in an EIS. Detailed design for planned stormwater drains and other stormwater facilities would be developed after the completion of the EIS and approval of the final project site.

Response to Comment O14-98

That portion of Willow Creek downstream of the project site currently flows in a pipe to its discharge point in Puget Sound. The project would restore the lower portion of Willow Creek to a natural stream channel. The Unocal site is tightly constrained and space for stormwater detention ponds would be difficult to accommodate. Given the close proximity of the Unocal site to Puget Sound, the cost and space efficiencies of direct discharge to the Sound are justified from an engineering perspective and further property acquisition is not envisioned at this time. The restoration of the lower portion of Willow Creek to a natural stream channel would result in a net environmental benefit to the creek. If the Unocal site is selected, King County would work closely with the City of Edmonds to assure that the

stormwater system serving the project site protects and enhances Willow Creek and Edmonds Marsh.

Response to Comment O14-99

Please refer to Chapters 6 and 7 of the Final EIS for a discussion of impacts to streams and wetlands, including Edmonds Marsh, during construction and operation of the treatment plant. Chapter 6 also contains a discussion of approaches to maintain water level overflows in Edmonds Marsh, of water quality impacts, and of mitigation. Please refer to Chapter 6 and Appendix 6-B, Geology and Groundwater, of the Final EIS for a discussion of hydrogeologic conditions.

The project lies downstream from Deer Creek Fish Hatchery; therefore, no mitigation is required, as it would not be affected.

King County is not preparing a Supplemental Draft EIS. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-1, for additional discussion.

In response to compensation for landowners, acquisition of the property would follow the property acquisition process used by King County Wastewater Treatment Division (WTD). Please refer to the response to Comment O14-190 for more information.

5. What would be the impact on Deer Creek Fish Hatchery during construction and operation of the proposed sewage treatment plant?
6. How would these impacts be mitigated?
7. Per WAC 173-240-060, has an analysis been done of geohydrologic factors: depth to groundwater, groundwater movement; impact of land shaping on natural springs?
8. If not, why not?
9. If so, provide the analysis and results, in their entirety, in a supplemental DEIS.
10. Would construction of the sewage plant divert flow to damage private property or disturb the existing wetland?

O14-99 11. If so, how would King County compensate property owners?

O14-100 Discussion of "No documented cases of flooding at the Unocal site" is an inadequate evaluation of flooding from Willow Creek or from wave action.

1. Provide specifics of the expected flood level identify the methodology used to arrive at those specifics.

O14-101 King County expects the proposed plant to operate for 100 years. Over such a time frame, King County must consider the risk of sea level inundation due to global warming for the Unocal site.

1. Provide details of the risk of sea level inundation due to global warming.
2. Have any studies been done with reference to the risk of sea level inundation of the Unocal site?
3. If so, provide these studies, in their entirety, in a supplemental DEIS.
4. If not, why not?
5. If not, conduct such a study and include the results in their entirety, in a supplemental DEIS.

O14-102 WDE "Orange Book" states under G2-1.5.2 Plant Location/Flood Protection, that the plant be located at an elevation not subject to 100-year wave action. This could mean a tsunami wave from any Puget Sound or Pacific Rim earthquake.

1. Has King County extensively and conclusively studied the inundation zone for the Edmonds/Unocal sea level site?
2. If so, provide the study and results, in their entirety, in a supplemental DEIS.

6-5

Response to Comment O14-100

Information on flooding presented in the Draft EIS was based on the Federal Emergency Management Agency's February 19, 1986 Flood Insurance Rate Map (FIRM) for the City of Edmonds. This reference has been added to Chapter 6 of the Final EIS. This map indicates that portions of Willow Creek and Edmonds Marsh to the north and east of the site and coastal areas to the west of the railroad tracks have been identified as areas that experience 100-year floods. However, the proposed site for the treatment plant is not identified as a flood hazard area. In addition, as was disclosed in the Draft EIS, the plant would be designed to meet all applicable Ecology flood proofing standards required for treatment plant sites.

Response to Comment O14-101

SEPA regulations require that probable impacts be addressed, but not those that merely have a possibility, remote or speculative, of occurring (WAC 197-11-782). WAC 197-11-782 defines probable as: "Probable" means likely or reasonably likely to occur, as in "a reasonable probability of more than a moderate effect on the quality of the environment." Probable is used to distinguish likely impacts from those that merely have a possibility of occurring, but are remote or speculative. This is not meant as a strict statistical probability test. King County believes that sea level rise greater than 20 feet (the height above sea level of the Unocal plant) due to global warming may have a possibility of occurring but is remote and speculative.

Response to Comment O14-102

Available information indicates that a substantial tsunami event in Puget Sound would occur at a frequency very much less than once in 100 years. A tsunami in Puget Sound is therefore a remote event and SEPA does not require that remote events be analyzed in an EIS. Please refer to the response to the City of Edmonds, Comment C9-61.

3. If not, conduct a study that complies with WDE "Orange Book regulations.
4. Does King County intend to risk another coastal sewage plant or spill in case of disaster?
5. If a seismic wave happened, Edmonds residential and commercial districts and the wetlands would have to contend with their own damages plus the hazards from damage to the sewage plant. How does King County intend to mitigate damages due to tsunami?
6. Would a trust fund be established to compensate the city, residents, and business for potential damages?
7. In what amount?

O14-102 8. Who would control such funds?

O14-103 Note that the existing 48-inch culvert that is the outfall of Willow Creek is subject to blockage by the littoral transport of sand and gravel northward along the beach. Therefore, the outfall for direct discharge of stormwater from a proposed sewage treatment plant must be constructed to avoid such problems.

1. For the direct discharge of stormwater to the Sound, at what depth would the outfall be located?
2. What would be the impact of the construction of this new outfall?
3. What would be the impact of the operation of this new outfall?
4. What would be the impact of the maintenance of this new outfall?

O14-104 Urban stormwater is known to contain chemical and biological pollutants. Stormwater runoff from all of the surfaces in a sewage treatment plant would be expected to contain higher levels of fecal coliform.

1. Discuss this issue in more detail.
2. What measures would be taken for enhanced water quality treatment?

O14-105
3. Has a risk assessment been done with reference to elevated levels of fecal coliform?
4. If so, provide these studies, in their entirety, in a supplemental DEIS.
5. If not, why not?
6. If not, perform the risk assessment and present the results in a supplemental DEIS.

O14-106 The statements in the DEIS that the water quality impacts of the discharge of treated sewage into Puget Sound would be minimal because they meet water quality standards outside the mixing zone is difficult to believe. Meeting the standards would allow King County to obtain the needed

6-6

Response to Comment O14-103

The proposal for stormwater discharge from the Unocal site is now to construct a new stormwater outfall, which would discharge into Puget Sound at a depth of about 50 feet. The stormwater pipe would be placed in the same trench as the plant outfall. Please refer to Chapters 4, 6, and 7 of the Final EIS for impacts of constructing, operating, and maintaining the outfall.

Response to Comment O14-104

It is not anticipated that stormwater runoff from the project site would contain higher levels of fecal coliforms than those typically found in runoff from urban areas or from other light industrial areas. Extensive source control measures would be implemented at the project site to minimize the chance of untreated or partially treated wastewater coming into contact with runoff flowing to the general stormwater system. Please refer to the response to the Washington State Department of Natural Resources, Comment W3-27.

Response to Comment O14-105

King County has conducted an assessment of risks associated with operation of the Brightwater Treatment Plant and discharges to Puget Sound. This information is included in Appendix 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System, of the Final EIS. Current and future chemical concentrations in receiving waters were assessed for their potential impacts to human health. Impacts from bacteria and viruses were also evaluated. The risk-based approach calculated exposure concentrations for people recreating along the shorelines of Puget Sound and for people consuming shellfish or finfish, incorporating information from recreation user surveys, tribal fish consumption surveys, ambient conditions, and expected dilutions from various discharge scenarios and outfall configurations. Evaluations showed, that overall, cancer risks and non-cancer hazard

estimates were well below EPA guidelines and were mainly attributable to existing ambient conditions for cancer risks. The addition of Brightwater-associated risks to existing risks would be negligible.

An evaluation of potential ingestion of microorganisms was also conducted. As with chemical constituents, individuals would most likely be exposed to microorganisms in nearshore areas while swimming or digging in the sand near water. Fecal coliforms are used in both federal guidance and the Washington State Water Quality Standards to determine the potential risk of exposure to organisms. Standards are established to protect human health. Based on dilution modeling conducted for the project, there would be no significant risk to individuals in nearshore areas being significantly impacted by exposure to bacteria or other microorganisms. Please refer to Appendix 6-I for more information.

In compliance with NPDES permit conditions, King County would also regularly collect treated effluent samples and provide results to the Washington Department of Ecology. Samples would be analyzed for conventional parameters, nutrients, coliforms, metals, and organics on varying schedules, ranging from daily to every 6 months. With respect to potential risks from fecal coliform contamination due to treatment plant site stormwater runoff, such risks would be very low. There would be little opportunity for stormwater to come into contact with untreated effluent. Stormwater from the sites that would be potentially exposed to chemicals, untreated effluent, or biosolids would be kept separate from the remainder of the site's stormwater treatment system and would be routed through the site for treatment and discharged through the deep water outfall. Both plants would also include design features that, under emergency conditions, would minimize the potential for plant upset by allowing for the routing of flows directly into either the effluent tunnel for Route 9 or directly to the deep water outfall for the Unocal site. This would further minimize the possibility of exposure of surrounding residents to microorganisms in untreated wastewater running off the site in stormwater.

Response to Comment O14-106

King County has conducted the most extensive characterization of Puget Sound circulation to date (*Final Report Puget Sound Physical Oceanography Related to the Triple Junction Region* [Ebbesmeyer et al., 2002]). Additionally King County has modeled effluent transport under a wide variety of oceanographic conditions. This information was compiled along with effluent characterization to demonstrate that the discharged effluent would not significantly change the risks associated with swimming in Puget Sound. These studies have been published and are available in Appendices 6-H, Predesign Initial Dilution Assessment, and 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System, of the Final EIS or from King County in *Final Report Puget Sound Physical Oceanography Related to the Triple Junction Region*.

The median effluent dilution reached approximately 603:1 to 1548:1 at the edge of the chronic mixing zone, (131:1 minimum dilution); 100:1 is recommended by the Washington State Department of Ecology. King County is confident that its outfall will comply with all future changes in Water Quality Standards. Since the publication of the Draft EIS, Ecology has issued new water quality standards for temperature and bacteria. Neither of these changes impacts the design or operation of the Brightwater System.

King County thoroughly analyzed the anticipated Brightwater effluent quality for all constituents detected in influent, effluent, and reclaimed water. King County did not merely analyze for those constituents with Water Quality Standards and/or Criteria. Due to the high effluent quality and the a great deal of dilution and mixing in Puget Sound, King County is confident that any future changes in Water Quality Standards or Criteria would not impact the permit requirements of Brightwater.

Reference:

Ebbesmeyer, C.C., G.A. Cannon, B. Nairn, and M. Cawrse. 2002. *Final Report Puget Sound Physical Oceanography Related to the Triple Junction Region.* Prepared for King County Department of Natural Resources. Seattle, WA. October 2002.

permits but that doesn't mean the impacts are minimal. This discussion needs considerably more detail.

1. What studies support the statement? Publish those studies and sources of supporting data in a supplemental DEIS.
2. Are higher water quality standards anticipated in the near future?
3. Would King County adhere only to minimal water quality standards?
4. Is it King County's goal to obtain permits prior to the adoption of anticipated higher water quality standards in order to qualify for lower standards?
5. If not, why does King County not plan to raise water quality to the level of anticipated higher standards? O14-106

The discussion about discharge of groundwater and surface water recovered from the site during construction clearly shows that a construction treatment system would be required. Details about the treatment process and chemicals to be used must be provided, especially considering the presence of juvenile chinook in the near shore environment. The impacts of the chemicals on each of the nearby wildlife species needs to be discussed and a risk assessment completed. O14-107

1. What kind of a construction treatment system would be used?
2. What treatment process would be used?
3. What chemicals would be present?
4. In what volumes would chemicals be present?
5. How would these chemicals be stored?
6. How would these chemicals be disposed of?
7. How would treated water impact all species of wildlife in the area? Be specific, and address the impact to juvenile chinook and any threatened specie in particular. O14-108

6.3 Mitigation Measures

There are no specific mitigation measures proposed for surface water impacts in the DEIS. King County must propose some mitigation measures and allow citizens, the City of Edmonds, and the Washington Department of Fish and Wildlife to evaluate them. This section is incomplete and inadequate for public response. O14-109

6-7

Response to Comment O14-107

All construction stormwater management at the Brightwater Treatment Plant would be regulated under an individual NPDES construction stormwater permit issued by the Washington State Department of Ecology. During construction, sediment ponds would be constructed to settle the sediment present in runoff water from the construction site. In most cases this is adequate to reduce the sediment and turbidity levels in runoff to meet water quality standards in the receiving water. However, in cases where turbidity standards may be exceeded, additional treatment would be required. In these cases, there are several approaches. A polymer such as polyacrylamide may be added to flocculate the fine suspended material in the runoff. This polymer is commonly used in drinking water treatment and is non toxic to aquatic life. A new product called Chitosan is another promising material being used to clarify stormwater runoff. This product is derived from crab shells and other chitin material. None of these additives to stormwater are toxic to aquatic life. The quantities of materials, if used, would be determined during the design and construction phase. More information can be found in Appendix 6-C, Management of Water Quality During Construction at the Treatment Plant Sites, of the Final EIS.

Response to Comment O14-108

Stormwater and dewatering water would be treated according to the state water quality guidelines established by the Washington State Department of Ecology in their *Stormwater Management Manual for Western Washington* (August 2001), designed to protect beneficial uses of downstream waters, including fish and wildlife. Through consideration of these regulations, treated water entering Puget Sound from the project site during construction is not expected to negatively affect fish and wildlife species, including juvenile chinook and other federally threatened species. King County is also coordinating with NOAA Fisheries and the U.S. Fish

and Wildlife Service and will be preparing a Biological Assessment to evaluate impacts listed as threatened under the ESA.

Response to Comment O14-109

Chapter 6 of the Final EIS contains substantially more information regarding mitigation measures related to surface water impacts during construction and operation.

Groundwater from the Unocal site currently flows to the wetland. This groundwater would be collected during the 6-year construction period along with surface water. This water is typically very turbid. Unless the collected groundwater is treated and discharged to the wetland, flows to the wetland would be decreased for a 6-year period. This is significant.

O14-110
1. Discuss collection, treatment, and discharge of groundwater.
2. How would negative impacts be mitigated?
3. Why is day lighting of the downstream reach of Willow Creek not presented as mitigation?
4. Why is this section incomplete? Since the section offers no specific mitigation measures, will King County issue a supplemental DEIS?
5. If not, why not?

O14-111
King County's proposed sewage plant would not satisfy the expected water quality requirements in 2010. In order to meet expected water quality standards at that time, the plant would have to be expanded.

1. What impact would such expansion have on the cost of the plant?
2. What impact would such expansion have on the existing buffers?

O14-112
3. What is the potential for expansion of the plant without further condemnation, purchase, or other taking of neighboring property?

O14-113
4. How would construction of the proposed sewage plant affect the Olympic View Water District wells?

O14-114
5. What steps would be taken to ensure that there is no loss of water quantity or quality?

O14-115
6. What steps would King County take to reduce the nutrients in treated sewage added to Puget Sound?
7. Specifically, what steps would King County take to reduce the potential for algae growth causing toxic "red tides?"

6.3.1 Mitigation Measures Common to Construction and Operation at Both Sites

O14-116
The Olympic Water District receives water from Seattle and from a well in a valley over the hill from the proposed sewage plant in Edmonds. During times when Seattle water is restricted by

6-8

Response to Comment O14-110

During construction at the Unocal site, dewatering activities would occur. A groundwater cutoff wall would be installed to prevent groundwater drawdown effects upon the nearby marsh. No substantial negative impacts upon the marsh are anticipated. Please refer to the response to Comment O14-95 in this letter.

If the Unocal site is selected, the lower portion of Willow Creek, which is currently conveyed in a pipe, would be daylighted in a restored stream channel. This mitigation is discussed in the mitigation section of Chapter 6 of the Final EIS. King County is not preparing a Supplemental Draft EIS. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-1, for additional discussion.

Response to Comment O14-111

As designed, Brightwater will meet all federal Clean Water Act requirements in 2010, in addition to meeting the requirements of all applicable state and local water pollution abatement laws. The Draft EIS did not anticipate plant expansion would be necessary until 2040. However, if tighter water quality standards are imposed in the future, space on the plant site is available to add needed equipment and processes to ensure compliance without compromising the existing buffers. For more information on cost issues, please refer to the response Comment O14-43 in this letter.

Response to Comment O14-112

The potential for expansion up to 54 mgd for the Route 9 site and 72 mgd for the Unocal site is included in the plant sites shown in the EIS. There would be no function land acquisition for expansion.

Response to Comment O14-113

Please refer to the response to the Olympic View Water & Sewer District, Comment D2-2.

Response to Comment O14-114

The Brightwater Treatment Plant is currently being designed to meet all applicable water quality requirements currently in place. Construction activities would be guided by the Washington State Department of Ecology *Stormwater Management Manual for Western Washington* (August 2001), and the plant would be designed to meet discharge standards established by Ecology. It is speculative at this time to predict what water quality standards will be in place in 2010. However, King County will continue to consult with local, state, and federal agencies to address any water quality concerns and will meet all applicable regulations.

Response to Comment O14-115

King County is proposing to utilize membrane bioreactor treatment technology to provide the highest quality effluent. Membrane bioreactor (MBR) technology, the Preferred Alternative for Brightwater secondary water treatment (King County, 2003), yields an effluent that is highly clarified and low in ammonia when compared to conventional systems and is expected to remove 72–85 percent of the total ammonia (Parametrix, 2003). In addition, N:P and ammonia:nitrate ratios in the MBR effluent more closely match the receiving waters than conventionally treated effluent (Parametrix 2003, Sukapanpotharam and Bucher, 2003). Maintaining a natural balance in these ratios is an important consideration given that nutrient ratios have been shown to play an important role in algal growth and other physiological processes, and specifically, that changes in these ratios have been implicated as triggers for HABs (Hodgkiss and Ho, 1997). Further discussion can be found in Appendix 7-D, Assessment of Potential Influence of Brightwater Discharges on Harmful Algae Blooms in Puget Sound, of the Final EIS.

Response to Comment O14-116

No significant adverse environmental impacts to Olympic View Water and Sewer District's (OVWSD's) supply wells are anticipated during construction or long-term operations of the Brightwater System. Please refer to the response to the Washington State Department of Ecology, Comment W5-9, for a summary of the groundwater impact and mitigation analyses conducted for the OVWSD system and to Appendix 6-B Geology and Groundwater, of the Final EIS for more detail.

low snowpack, the well takes on even greater importance. Deep tunneling and massive excavation would, by its nature, disrupt groundwater. The King County siting matrix acknowledges that ground water flow paths would be disrupted.

O14-116

1. What would be the effect on the Olympic Water District's well?
2. What measures would King County take to mitigate those effects?
3. What is King County's plan to maintain groundwater flow?
4. Could this represent a permanent change?

6.3.4 Outfall Zones

O14-117

The effluent stream must be analyzed for phosphorous, nitrogen, BOD and COD.

1. Discuss King County's plans to establish a continuous outfall sampling system to measure effluent quality.
2. How would King County install a system to alarm and reduce discharge when control limits for P, N, BOD, and COD are exceeded?
3. Explain the system and a backup system in a supplemental DEIS.

Surface Water Technical Appendix

O14-118

Section 18.30.060 of the Edmonds Community Development Code states, "Natural drainage patterns shall be maintained, and discharges from the project shall occur at the natural location, to the maximum extent practical."

1. Explain why this code was not included in a discussion of the applicable local codes in the surface water technical appendix?
2. Provide in detail King County's plan to comply with the Edmonds Community Development Code.

6-9

Response to Comment O14-117

The frequency at which effluent monitoring occurs would be stipulated in the NPDES permit. Presently, King County monitors conventional parameters, such as N, P, BOD and COD, more frequently than permit requirements because these are indicators of a properly functioning treatment system. There are no plans for an alarm system.

Response to Comment O14-118

The Final EIS contains a reference to the City of Edmonds Community Development code. Please refer to the response to Comment O14-98 in this letter.

Chapter 7

Plants and Animals

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 7 – Plants and Animals

Introduction

O14-119 It is unreasonable to expect a concerned public to respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided. The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

Table 7-1 Statutes Associated with Potential Impacts to Plants, Animals, and Wetlands

O14-120 The DEIS states (Table 7-1, page 7-2), "ESA review is required when . . . a species listed as threatened or endangered at the federal level would be affected by the project." The DEIS states, in the next paragraph, "The ESA prohibits the 'take' of listed species without a special permit." In Appendix C (Table 5-4, page 5-11, Unocal), the DEIS states, "Forest clearing will remove 12 acres of forest that includes perch and roost trees adjacent to good-quality nearshore foraging habitat." Due to the use of these areas by wintering bald eagles, specifically those perch trees, the removal of the perch trees would be a take of habitat.

1. Has an ESA review been completed?
2. If so, where are the results of that review?
3. If not, why not?
4. What special permit is required for the "take" of bald eagle habitat?
5. Provide the information about the "take" of bald eagle habitat in text of this chapter.

7-1

Response to Comment O14-119

SEPA states that the lead agency shall prepare its threshold determination ad EIS, if required, at the earliest possible point in the planning and decision making process, when he principal features of a proposal and its environmental impacts can be reasonable identified. King County had sufficient information about the facility design and wastewater treatment processing technology of the Brightwater system to evaluate the environmental impacts in the Draft EIS. The Draft EIS evaluated the impacts of providing wastewater treatment that meets secondary standards. The Final EIS identifies membrane bioreactors as the preferred technology for achieving that goal.

Response to Comment O14-120

Endangered Species Act (ESA) review has not been completed. Once the final site has been selected, King County would prepare a Biological Assessment (BA) as part of the permitting requirements to comply with Section 7 of the ESA. The BA will be submitted to the federal permitting agencies for their review. Information, including the potential effects to species listed under the ESA and conservation measures, will be contained in this document.

7.1.2.1 Unocal Site

O14-121

The DEIS states, "The Unocal site has been operating as an industrial facility for the past 80 years." This statement is false. The Unocal site has not been operating as an industrial facility for the past 80 years. King County has consistently, knowingly, and intentionally published this false statement as fact. The reality is that the Unocal site has been dormant for many years, with parts of the site functioning as an Edmonds city park.

1. Correct the text. Replace the erroneous statement, "The Unocal site has been operating as an industrial facility for the past 80 years" with "The Unocal site was operated as an industrial facility. A portion of the site which has been a public park has been sold to the City of Edmonds. Unocal is in the process of cleaning up the site and developing it into tax-generating residential property."

O14-122

The forested slope does provide a wildlife movement corridor. The river otter has been seen by numerous individuals utilizing this area. The forested areas along the steep slopes above Puget Sound are fragmented. However, looking at aerial photographs along these slopes for the entire Town of Woodway will show that there is a continuous band of forest that ends in the Unocal site. The construction of the proposed sewage treatment plant will remove the connection for wildlife using these slopes to reach the Edmonds Marsh.

1. Correct the text to state that the forested slope does provide a wildlife movement corridor rather than suggesting that it "may" do so.

Upland Forest

O14-123

Bald eagles do use the perch trees. The DEIS is misleading in its suggestion that bald eagles "may" use perch trees.

1. Correct the text to state that bald eagles "do" use perch trees.

7-2

Response to Comment O14-121

Chapter 7 of the Final EIS has been revised to accurately reflect the historic use of the site and the current site conditions.

Response to Comment O14-122

The forested slope above Puget Sound is part of a larger wildlife movement corridor along Puget Sound. This statement is made in Chapter 7 and Appendix 7-C, Unocal Site Sensitive Areas Technical Report, of the Final EIS.

Response to Comment O14-123

Bald eagles use perch trees for finding prey in Puget Sound, and the forested habitat on the Unocal site provides suitable perches for bald eagles foraging in the area. This statement is made in Chapter 7 and Appendix 7-C, Unocal Site Sensitive Areas Technical Report, of the Final EIS.

Special Status Species

O14-124 The DEIS states (page 7-8, paragraph 5), "In 2002, no [great blue heron] active nests or adult birds were observed."

1. When were observations made? Include dates and times of day.
2. Over how long a period were observations made?
3. By whom were these observations made?

Wetlands

O14-125 One wetland was not identified in the DEIS. The location of the wetland is in the southeast corner of the Unocal property. It is a small hillside seep that consists of scrub-shrub and emergent habitat. Water seeps out of the slope for several months of the year and collects at the base of the slope, adjacent to the railroad tracks. This area must be delineated and the additional impacts quantified.

1. Identify, on all figures, maps, and text, the wetland in the southeast corner of the Unocal property.
2. What would be the impacts on wetland inhabitants and visitors of construction of the proposed sewage treatment plant?
3. What would be the impacts on wetland inhabitants and visitors of operation of the proposed sewage treatment plant?
4. What would be the impacts on wetland inhabitants and visitors of a sewage spill?

7.2.2.2 Operational Impacts – Impacts Common to Both Sites

O14-126 The DEIS, on page 7-59, states, "The Unocal site's close proximity to Puget Sound and the Edmonds Marsh provides diverse habitat, including wetlands, a wildlife refuge, salmon-bearing creeks, and a fish hatchery, for several fish and wildlife species." The Route 9 site is described as providing much less diverse habitat. Based on the types of habitat provided and the varying use by species between the two sites, it does not seem accurate to state that the operational impacts would be similar between the two sites. In addition, on page 7-66 the DEIS states

7-3

Response to Comment O14-124

Tom Cyra from the Washington State Department of Fish and Wildlife surveyed the Unocal site and Edmonds Marsh for great blue herons on March 26, 2002, and on May 1, 2001 (Brookshire, personal communication, 2002). Specific times and durations of observations were not available on field observation data sheets.

Reference:

Brooksire, J. 2002. Telephone conversations on June 13, July 2, and July 30,2002. Washington State Department of Fish and Wildlife. Olympia, Washington.

Response to Comment O14-125

Additional wetland studies will not be conducted until after the final treatment plant site has been selected by King County. One seep wetland (Wetland C in the Final EIS) has been delineated on the slope above Puget Sound. This small wetland would be removed as part of the site development. Wetland impacts and mitigation measures, including impacts from construction and operations, are described in Chapter 7 of the Final EIS.

Response to Comment O14-126

Chapter 7 of the Final EIS has been revised to compare and contrast the operational impacts at each of the two treatment plant sites.

The impacts of an emergency discharge (sewage spill) would not substantially differ between the two sites. Both sites would have the same safety relief point located in the Sammamish River and would also provide the option, in the unlikely event of a plant failure, to route flows of influent directly to the effluent conveyance line. In the case of the Route 9 site, untreated wastewater would be mixed with treated effluent in the effluent tunnel, which would then be conveyed to an outfall in Puget Sound. For the Unocal site, influent would bypass the site and similarly be mixed with

treated effluent in the outfall to Puget Sound. The likelihood of such discharges would be similar to the likelihood of discharges to the Sammamish River which is approximately once per 100 years in 2030, gradually increasing to once per 75 years in 2050. Please refer to Chapter 3 of the Final EIS for a description of the five-part emergency wastewater overflow system and the last resort safety relief point.

"Wetland resources on and near the Unocal site are particularly sensitive to operational impacts due to their proximity to Puget Sound and the Edmonds Marsh, which provide habitat to a relatively diverse community of fish and wildlife species." The text seems to contradict itself by stating for the Route 9 site "Operation of the plant would also be beneficial to terrestrial and aquatic habitats due to improved water quality due to new stormwater facilities, less noise and traffic than presently exists, relocated and restored streams, and restored riparian and wetland habitats on the north and south portions of the site." Furthermore, the upland forest impact at the Unocal site is potentially 14 acres, while the Route 9 site will result in approximately 6 acres of upland habitat. This would be a significant difference in impacts. The introductory text must be modified to reflect the greater impact to plants, fish, and wildlife species at the Unocal site, including bull trout, bald eagles, and marbled murrelets, which are on the U. S. Fish and Wildlife Service list as "threatened."

O14-126

1. How will the operational impacts differ between the Unocal and Route 9 sites?
2. How will the impacts of a sewage spill differ between the Unocal and Route 9 sites?
3. Modify introductory text to reflect the greater impact to plants, fish, and wildlife species at the Unocal site.

Route 9 Site – Upland Habitat

O14-127

The text states that approximately 9 acres of native forest habitat and grassland would be lost for the development of stormwater detention and treatment ponds. In Figure 7-7, this impact is labeled exclusively as an upland forest, permanent impact.

1. Correct Figure 7-7 by changing the text on the figure to reflect upland forest and grassland impact.

Response to Comment O14-127

Upland grassland is identified in Chapter 7 of the Final EIS. Chapter 7 discusses both forested and grassland habitat. The total amount of upland grassland and upland forest that would be incorporated into the wetland and stream mitigation area is also provided in Chapter 7 and additional information on grassland and forest habitat is provided in Appendix 7-B, Route 9 Site Sensitive Areas Technical Report.

Appendix C

Endangered Species Act / Essential Fish Habitat Evaluation

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 8

Energy and Natural Resources

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 8 - Energy and Natural Resources

Introduction

This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to energy and natural resources for the proposed King County sewage system, **but it does not or does so only superficially**,. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS lack supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

O14-128

The public is very concerned about the impact of the increase of energy demand due to the proposed sewage treatment plant, the impact on the ratepayers in Edmonds, and if there is sufficient capacity for a backup system. In general, this section is vague in terms of answering these questions. Specific examples are provided below, with specific reiterations of questions submitted during the scoping process which King County has failed to address in the DEIS.

8.2 Impacts

O14-129

The section of the DEIS on energy consumption (Section 8.2.2.2) states that the "primary source for normal plant operation at either of the alternative sites would be the Snohomish PUD" and that the PUD has sufficient capacity for the site. Later in the section, the DEIS states that "approximately 4 miles of 115-kV transmission lines would be necessary to bring adequate

8-1

Response to Comment O14-128

Specific information on the plant design and wastewater treatment processes for the Brightwater Treatment Plant is provided in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

Response to Comment O14-129

For the Route 9 site, Snohomish County Public Utility District (PUD) would supply electrical energy to the site from the SNO-KING substation via two independent 115 kV electrical feeders, one new feeder along SR-9 and one existing along 228th Street SE. For the Unocal site, approximately 4 miles of 115 kV transmission line would be necessary to bring adequate power and backup power to the site from the nearest substation, each of which is approximately 2 miles from the site. The final route of these transmission lines would be decided during the final design and have not been included in the Final EIS.

For the Route 9 site, the transmission lines may potentially be above ground. For the Unocal site, the lines would be below ground if required by local jurisdictions. WAC 197-11-440(6)(a) directs the EIS to "analyze significant impacts of the alternatives... Elements of the environment that are not significantly affected need not be discussed." The potential health impacts of above-ground and below-ground power lines have been addressed in numerous studies and EISs prepared by major utilities and are not considered to be significant. Power lines are constructed in association with all major infrastructure projects in the region; health effects from these installations are most appropriately addressed by the energy providers.

The substation does fit on the Unocal site, as shown by the site layouts in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS. At the Unocal site, the substation is along the western edge of the site. At the Route 9 site, the substation is in the northwestern portion of the treatment

plant. Biogas would not be stored onsite. Biogas would be used as a fuel in the cogeneration facility to help provide power to run the entire treatment plant at average wet weather flow capacity. Additional information has been provided on the energy requirements and facility design in Appendix 3-A.

power" to the site and may or may not be installed underground. There is also a statement that a substation would be required at the site.

1. Specify the routes of the transmission lines for both sites on maps drawn to the same scale.
2. If the transmission lines are above ground, what are the potential impacts of the power lines on the health of the community?
3. The Unocal site is small; therefore, is there sufficient room for the substation at the site?
4. The substation has not been shown on any published displays. Where would it be located on site?
5. Provide a map (drawn to scale) showing the substation in relation to the rest of the proposed sewage plant on the Unocal property.
6. Where and how would collected biogas be stored? Be specific.

O14-129 7. In what quantities?

The public is specifically concerned about the sewage plant's backup energy system, as previously communicated during the scoping process.

This section addresses the backup power system, but is vague on the source of this power. The DEIS states that biogas alone would be insufficient (and biogas may not even be used, as this is never conclusively stated). It appears to state that backup power would have to be derived from natural gas, requiring construction of 3.5 miles of 6-inch diameter high-pressure natural gas pipelines. This section is very unclear on if, and how, backup power is part of the design. Clarify this issue in a supplemental DEIS.

O14-130

1. Would the proposed sewage treatment plant have a NPDES-required backup power generation system capable of handling the demands of the treatment plant?
2. Would natural gas be required for this backup system?
3. Would construction of the plant require construction of both power lines (electricity) AND natural gas pipes to the site?
4. What is the cumulative impact of both of these power sources?
5. Is there a possibility of blackouts or brownouts?
6. Provide maps (drawn to the same scale) for both sites, clearly identifying the routes the natural gas and power lines would take.

8-2

Response to Comment O14-130

A cogeneration facility would be located at each treatment plant site to provide capacity for average annual consumption. The cogeneration facility would contain gas turbines, and/or reciprocating engines, and/or fuel cells that would provide electrical power using biogas (gas produced during the treatment plant's anaerobic digestion process that contains mostly methane and carbon dioxide) and natural gas as the fuel source. The facility would provide sufficient power to run the entire treatment plant at average wet-weather flow (AWWF) capacity, including the influent pump station, should power be lost from the grid. Under normal operations the cogeneration facility would run using biogas. The dual feed electrical service would meet the NPDES requirements for backup power and provide for reliability and redundancy. Natural gas would be required for the cogeneration facility, but not for the NPDES backup system. Construction of the plant would require both power lines and natural gas lines to each site. The cumulative impacts are included in the discussion of treatment plant impacts in Chapter 8 of the Final EIS.

In severe weather, there is the possibility of power outages. However, the Brightwater Treatment Plant would have a dual feed electrical service for redundancy and reliability. Snohomish County Public Utility District (PUD) would supply electrical energy to the site from the SNO-KING substation via two independent 115 kV electrical feeders that would pass through local substations at both the Route 9 and Unocal sites. The SNO-KING substation is a major, dual fed substation, with primary power feeds from Bonneville Power Administration (BPA) and auxiliary feeds from Seattle City Light and Puget Sound Energy. This substation is the major electrical substation within Snohomish County. It is considered extremely reliable and coupled with the two independent, high voltage feeders to the plant, would provide adequate redundancy to meet permit requirements for reliability. In addition, the plant would have electrical

cogeneration capacity to handle the load during average wet weather flows.

The specific routes that the power lines and natural gas line would take would be decided during final design and are not included in maps in the Final EIS. Typically the routing is the responsibility of the service provider and is subject to separate environmental review. Additional information on the backup power system is provided in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

This section discusses "Impacts of Regional Energy Consumption" which is vague and troublesome. Clarify this issue in a supplemental DEIS.

O14-131

1. What would be the maximum increase in costs to the consumer as a result of the increased demand (both electricity and gas) of the treatment plant?
2. Could gas from the Cedar Hills Regional Landfill provide a "stable source of energy" to the region, considering that it would provide only 5,000 to 10,000 MWh of energy (Table 8-6)?
3. Provide details of how this plan would be feasible. Be specific.
4. Power generated onsite could include biogas, fuel cells, or turbine generators. Would they be required?
5. If so, which ones and in what quantities?
6. Would construction of the plant require construction of both power lines (electricity) AND natural gas pipes to the site?
7. Provide details of the cumulative impact of both of these power sources on nearby residents. Be specific.
8. Provide details of the cumulative impact of both of these power sources on wildlife inhabiting or crossing the area.

8.3 Mitigation Measures

O14-132

The DEIS states throughout this section that alternative energy sources, such as biogas, could be used as a fuel. Section 8.3.1.1 (Biogas Reuse) specifies four methods of biogas production; however, throughout the document, biogas is only considered as a possibility.

1. Specify whether biogas would be used.
2. If this cannot be stated with certainty, specify why not.
3. Are there restrictions for the use of biogas at either the Unocal or the Route 9 site?
4. Where and how would collected biogas be stored? Be specific.
5. In what quantities?
6. What are the environmental impacts of biogas (air quality)? Be specific.
7. Has a risk assessment been performed with respect to storage and use of biogas in an urban setting?
8. If so, include the results of the risk assessment in this section.

8-3

Response to Comment O14-131

SEPA does not require the inclusion of financial information or cost/benefit analyses, as outlined in WAC 197-11-450; this information is not included in the SEPA documentation.

Diesel would be stored onsite in a 1,000-gallon above-ground tank. Please refer to the responses to the City of Woodinville, Comments C5-91 and C5-95, and Comment O14-130 in this letter. Cumulative impacts to wildlife from the Brightwater Treatment System are discussed in Chapter 7 of the Final EIS, specific impacts from power sources are not discussed. These impacts are included in the overall discussion of cumulative impacts from the overall project.

Response to Comment O14-132

Biogas would be used in the cogeneration facility to help provide sufficient power to run the facility during average wet weather flow (AWWF) capacity.

There are no restrictions for the use of biogas. Cogeneration facilities would be constructed to meet all building and safety codes. Biogas would not be stored onsite. The environmental impacts of biogas are discussed in Chapter 9 of the Final EIS. There would be no gas releases or air quality impacts from the digesters. They would have fixed covers and any emergency releases for pressure release would be treated in carbon systems for odor control.

Anaerobic digestion is used at wastewater treatment facilities throughout the United States that are located near residential and commercial areas. It has been proven to be a safe and reliable solids processing technology, used for decades throughout the world. The treatment processes for both the Route 9 and Unocal plants include anaerobic digestion. No biogas would be stored onsite. The digesters themselves are typically designed and operated to be safe and are compatible with land uses such as those planned for the each site and its surrounding area. Anaerobic digestion is supported by King County's current biosolids policies. These policies were

adopted by the King County Council in November 1999, as part of the Regional Wastewater Services Plan, Ordinance 13680. The policies are intended to guide King County to continue to produce and market Class B biosolids. The ordinance states that King County shall strive to achieve beneficial use of wastewater solids. A beneficial use can be any use that proves to be environmentally safe, economically sound, and utilizes the advantageous qualities of the material. Anaerobic digestion produces biosolids that can be used for beneficial reuse. A risk assessment has not been conducted. SEPA regulations require that probable impacts be addressed, but not those that merely have a possibility, remote or speculative, of occurring (WAC 197-11-782). A risk assessment for anaerobic digestion is not required by SEPA. No risk assessment on biogas was performed.

O14-132

9. If not, why not?
10. If not, complete a risk assessment and include it in this section.

O14-133

Concerned citizens questioned how increased utility costs to local ratepayers would be mitigated, yet this was not addressed in this section, except the for the vague reference to the potential use of biogas. However, if biogas were used, it would provide less than 10% of the total required energy load (from Table 8-5).

The minimum energy requirement for the proposed sewage treatment site (36 mgd) would be 52,000 to 72,000 MWh. Biogas production would yield 5,000 MWh, resulting in a net minimum requirement of 47,000 to 67,000 MWh for the proposed sewage treatment site alone (not considering requirements of the corridors, portals, or outfall site). This is a significant impact, and would undoubtedly have an impact on ratepayers (especially considering the already high cost of electricity, as noted in Section 8.1.1.5). So, to re-state the original questions:

1. How would the construction and operation of the sewage plant affect the utility rates (both electricity and natural gas, if required for the backup system) in Snohomish County?
2. Specifically, how would the construction and operation of the sewage plant affect the utility rates (both electricity and natural gas, if required for the backup system) in Edmonds?
3. How would increased cost to local ratepayers be mitigated?

8.3.1.1 Biogas Reuse

O14-134

Although King County discusses options, there is no commitment to any biogas reuse, nor any discussion of its negative impacts on the community. With no commitment to reduce energy drain on current facilities, this is not a mitigation measure. With no discussion of possible negative impacts of biogas reuse, King County has rendered the public unable to respond to this section.

1. Have studies been done at the other King County sewage treatment sites concerning the amount of energy produced through biogas reuse?
2. If so, include that information in this section.
3. Would King County reuse biogas at the proposed sewage treatment facility?

8-4

Response to Comment O14-133

The impacts on the electricity and natural gas rates, and potential mitigation, were not analyzed as part of the Final EIS. Consistent with the SEPA rules (WAC 197-11-444), the Draft EIS and Final EIS are organized around elements of the environment. SEPA does not require the evaluation of economic impacts resulting from a proposed action. “SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighting and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers” (WAC 197-11-448(1)).

Response to Comment O14-134

Please refer to the response to Comment O14-132 in this letter.

4. If not (or if not certain), remove biogas reuse as a mitigation measure.
5. Provide documentation on the environmental impacts of biogas (air quality).
6. Has a risk assessment been performed with respect to storage and use of biogas in an urban setting?
7. If so, include the results of the risk assessment in this chapter.
8. If not, why not?
O14-134 9. If not, complete a risk assessment and include it in this chapter.

8.4 Significant Unavoidable Adverse Impacts

In this section, King County addresses increased energy needs for a 54 mgd sewage treatment plant. King County fails to address the drain on other natural resources (e.g., water) and fails also to discuss increased energy drain for the expanded 72 mgd sewage treatment plant.

1. Provide results of a study stating the increased energy needs for an expanded plant.
2. Provide results of a study stating the water requirements during construction of the plant.
3. Provide details of how water requirements would be met.
O14-135 4. Provide results of a study stating the water requirements during operation of the plant.
5. Provide details of how those water requirements would be met.
6. What other natural resources would be impacted during construction? Be specific.
7. What other natural resources would be impacted during operation? Be specific.
8. Provide results of a study stating what the increased energy needs would be for an expanded plant during the expected lifetime of the plant.
9. Provide details of how water requirements would be met for an expanded plant for the lifetime of the plant.

8-5

Response to Comment O14-135

The energy required for each alternative, including the Unocal 72-mgd sub-alternative, is included in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

The primary water requirement for treatment plant construction is for dust suppression. To the extent possible, this requirement would be minimized by covering material stockpiles with plastic sheeting and by planning staging excavation so that actual construction of the structures would begin shortly after the groundcover is removed. Given these mitigation efforts, water would still be required in areas where excavation is in progress and on temporary interior roads that are not paved. Generally, a contractor would be required to have one water tanker truck on site (typically with a capacity of approximately 3,500 gallons). During dry summer months, the contractor may use nearly four tanker trucks per day while excavation is in progress. Contractors typically receive permission to fill tankers from local fire hydrants and pay fees for water usage. If there were onsite ponds containing clean water, the contractor could also pump from those ponds into the tanker. However, the largest demand for water is in dry periods when ponds would likely be low or dry. Therefore, during dry periods, contractors could use up to 14,000 gallons of water per day for dust suppression. Other construction needs for water, such as housekeeping and washdown, are minor; generally less than 1,000 gallons per day. Bottled drinking water would typically be provided for workers.

The water requirements during operation of the plant would be limited to potable water use for employees and plant processes and would average approximately 350 gallons per minute. These are not considered significant environmental impacts. In addition, much of the plant water needs would be met using reclaimed water produced at the plant and the water requirements during future expansions of the treatment plant would not vary greatly. The City of Edmonds would

provide the water for the Unocal site and the Cross Valley Water District for the Route 9 site. The impact on natural resources during construction and operation is discussed in Chapter 17 of the Final EIS.

Chapter 9 – Environmental Health

Introduction

O14-136 This chapter was supposed to, **but does not or does only superficially**, address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to environmental health for the proposed King County sewage system. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

General Comments

O14-137 1. Snohomish County and Edmonds are not included in the King County Regional Wastewater Services Area (RWSA) and not included in the King County mandate. These areas have their own wastewater treatment plants in place and are efficiently serving their constituency. None of the actual communities identified in the DEIS as proposed sewage treatment plant sites were consulted until the King County Council selected them as potential locations. Input, questions, comments, and inquiries placed before the King County Council by the citizens of Snohomish County since that time have been ignored. Given such a record how can the King County RWSA be called a "good neighbor?"

O14-138 2. Recent information published in the news media has identified the large amount of pollution currently found in the Puget Sound. The proposed sewage plant would be discharging wastewater directly into Puget Sound. How can King County justify an additional outfall given the huge potential for adding to the existing pollution?

O14-139 3. Given the financial difficulties that King County is facing, which is resulting in the closure of services and parks important to the well being of the King County constituency, how

9-1

Response to Comment O14-136

Please refer to the response to Comment O14-40 in this letter.

Response to Comment O14-137

Population and employment forecasts in north King County and south Snohomish County and how those forecasts are used to calculate wastewater flows are discussed Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS.

King County Executive Ron Sims proposed candidate sites for the Brightwater Treatment Plant on March 27, 2001. Between March 27 and May 15, 2001, meetings and briefings occurred with many affected jurisdictions and community groups. The Executive Advisory Committee, whose members were appointed by Executives Drewel and Sims, included representatives from tribal governments, local jurisdictions, business, labor, and community organizations. The Executive Advisory Committee met on April 12 and May 10, 2001 to discuss the candidate sites. Four public workshops were held in April 2001 to allow individuals, jurisdictions, and organizations to express their opinions on the candidate sites. The Council held a public hearing on May 14, 2001. On May 15, 2001, the council adopted six candidate sites for the Brightwater Treatment Plant.

Response to Comment O14-138

Impacts of marine discharge to Puget Sound are disclosed in Chapter 6 of the Final EIS. Please refer to the response to Comment O14-114 in this letter, regarding compliance with applicable water quality standards.

Response to Comment O14-139

The Regional Wastewater Services Plan (RWSP) discussed a number of alternatives for providing increased capacity to meet our regional wastewater treatment needs. These alternatives included the expansion of our two regional facilities, construction of smaller satellite facilities, and

construction of a new regional wastewater facility. It was determined that a new regional facility would best meet our long-term wastewater needs. Additional information can be found in Chapter 2 of the Final EIS. In addition to acknowledging the need for a third regional treatment plant, the RWSP also calls for expansion at the South Treatment Plant in Renton by 2029.

Regarding water quality, King County's facilities treat wastewater to secondary levels in compliance with all applicable federal Clean Water Act guidelines and state water pollution abatement laws.

King County's wastewater treatment facilities are funded directly by ratepayers, not through the general fund revenues that cover costs for parks and related services.

O14-139 can the large financial outlay be justified compared with the far more modest cost of upgrading existing King County facilities? In addition, the upgrading of existing facilities would reduce the amount of pollution that King County now contributes to Puget Sound.

O14-140 4. Chapter 9 and the Environmental Health Technical Appendix of the DEIS are supposed to provide all of the information that a reader would need to assess the risks to residents and the environment. However, after reading these sections, it is obvious that King County never conducted a risk assessment. Therefore, King County cannot make statements that the proposed sewage treatment plant would reduce any risks, because they don't know if any exist. In addition, it is clear that there would be no benefit to Snohomish County and that the proposed sewage treatment plant is really needed to prevent overflows into Lake Washington, which is a King County problem, not a Snohomish County issue (see comment 18). If the proposed sewage treatment plant would benefit Snohomish County, and if there are no risks, then King County must rewrite these two sections to reflect that.

Specific Comments

O14-141 1. **Section 9.1.1** -- In this section the DEIS mentions air emissions but does not specify all air emissions, which would include both toxic and esthetic emissions. Add the word "all" to the last line of this paragraph to include ". . . all air emissions."

O14-142 2. **Section 9.1.2.1, paragraph 1, last sentence** – In this sentence the DEIS lists the chemicals that are "... commonly used at wastewater treatment plants..." Are these the chemicals that will be used at the proposed sewage treatment plant? If these will not be used at the proposed sewage treatment plant do not include them in the list of chemicals with hazards. Identify only those chemicals that will be used at the proposed sewage treatment plant and provide their impacts.

3. **Section 9.1.2.1, subsection Hazardous Materials, sentence 1** – This whole paragraph is superfluous. It does not address the issues related to chemicals associated with the operation of the proposed sewage treatment facility. Replace it with a paragraph that addresses the possibility of contamination of soils after the facility is constructed, and the impacts to air and groundwater if spills of hazardous chemicals should occur.

9-2

Response to Comment O14-140

Please refer to the response to Comment O14-105 in this letter that addresses the need for a risk assessment. With respect to the cause of overflows into Lake Washington, Chapter 2 of the Draft EIS noted that King County currently provides wastewater service not only to King County, but (as of 2000) to approximately 107,000 residents in Snohomish County. As a result, overflows into Lake Washington are the combined effects of flows and population from both King and Snohomish Counties.

Response to Comment O14-141

Chapter 9 addresses emissions only with respect to Environmental Health. Chapter 5 of the Final EIS addresses "esthetic" emissions, or odors.

Response to Comment O14-142

Please refer to Appendix 3-A, Project Description: Treatment Plant, of the Final EIS for a list, description, and quantities of the materials and chemicals used in the treatment process. A description of the delivery, handling, and storage facilities is also provided in Appendix 3-A. Please refer to the response to the Washington State Department of Ecology, Comment W5-77, for a discussion of operational spill prevention and emergency cleanup measures, and to Comment W5-35, for a discussion of the likelihood of spills or leaks from pipeline breaks or leakages that could result in groundwater or soil contamination. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-256, for a discussion of airborne pathogens or plant failure resulting in the release of hazardous fumes. Potential releases of contaminants from emergency overflows are discussed in Chapter 9 of the Final EIS.

4. **Section 9.1.2.1, subsection Hazardous Gases Within the Wastewater System, paragraph 2** – In this paragraph the DEIS states only the exposure levels for workers. However, in the event of a breach in the system, residents who live and work nearby would also be exposed. What would be their exposure? Please provide an evaluation of the exposure of someone living in one of the nearby homes or working at the Marina in Edmonds. How would these people be affected by a hazardous gas release? Also, provide the amount of time it would take for an evacuation of homes and businesses if there should be a release of hazardous fumes such as methane or hydrogen sulfide.

5. **Section 9.1.2.1, subsection Airborne Releases, paragraph 4** – In this paragraph, the DEIS discounts the potential impacts of the facility. However, if the proposed sewage treatment plant were to be placed at the Unocal site, any volatile or aerosol release from the facility would have the potential to collect in the Edmonds bowl then move up the hill towards many homes. Therefore, the DEIS underestimates the impacts air borne hazards may have. Many of the people who live near the proposed Unocal site are elderly and far more susceptible to exposures to the chemicals listed in the DEIS than are younger, more robust residents. What would the potential impacts be on elderly individuals who are living near the site?

6. **Section 9.1.2.1, subsection Emergency Overflows, sentence 3** – The DEIS states that there are potential releases of viruses and other pathogens during Emergency Overflows but it does not identify the most likely ones that individuals may be exposed to. Identify all potential viruses and pathogens, list the effects on humans, flora, and fauna and provide a flow chart that explains how the communities of Edmonds or those surrounding the Route 9 site can limit exposure to each of the potential pathogenic organisms, in order to prevent infection during emergency overflow conditions. O14-142

O14-143 7. **Section 9.1.2.2, subsection Bacteria, Viruses, and Other Pathogens, paragraph 3** – King County wants to place a large water treatment plant in residential and highly used recreational areas. Those impacted are not interested in how much money King County would spend to test for viruses that could be released into the drinking water or into Puget Sound where children play on the shores. What the residents of Edmonds want this report to do is to provide the information needed to test for all types of viruses in order to protect citizens from diseases from the proposed sewage treatment plant. Therefore, in a chart, provide the procedures King County will use to

9-3

Response to Comment O14-143

Potential environmental health impacts are disclosed in Chapter 9 of the Final EIS. As noted in this chapter, it is very difficult to monitor the presence of viruses in secondary treated wastewater. As a result, it is not reasonable at this time to speculate on all potential types of viruses that could be present in wastewater or their potential symptoms. Chapter 9, however, does disclose that previous studies have shown secondary treatment with disinfection to be 48 to 96 percent effective at removing viruses. More information on proposed disinfection processes at each treatment plant site is provided in the Project Description in Chapter 3 of the Final EIS.
In compliance with NPDES permit conditions established by Ecology, King County would regularly monitor effluent quality and compile results for submittal to the agency. Samples would be analyzed for conventional parameters, nutrients, coliforms, metals, and organics on varying schedules, ranging from daily to every 6 months. Due to the difficulties discussed above, these monitoring requirements do not include monitoring for viruses. This required monitoring program is intended to ensure that the treatment system is properly functioning and that health risks to human and risks to the aquatic environment are minimized.

With respect to beach closures and impacts to human health, there have been no reported human health impacts from overflows at treatment plants. Between 1999 and 2003, only two overflow incidents at treatment plants, and only one overflow, an event at the West Point plant in January 2000, warranted postings of warning signs along beaches (Budka, 2003).

During larger rain storms, primarily during the non-summer rainy season, overflows do occur at various Combined Sewer Overflow (CSO) points throughout older portions of King County's system and can result in temporary beach closures. These overflows, however, are due to the combined effects of stormwater and wastewater flows in older portions of the

King County and local systems and are typically not related to the performance of treatment plants. King County is currently working with the state Department of Ecology and has several projects underway or in the planning stages to reduce CSO overflows throughout its system. By providing additional system capacity, Brightwater would actually help to reduce the frequency and volume of overflows throughout the system compared to the No Action Alternative.

With respect to nutrients, as noted in Chapter 6 of the Final EIS, treated effluent from the Brightwater Treatment Plant would be provided with secondary treatment and would meet all applicable water quality requirements as determined by Ecology. As a result, nutrient impacts to Puget Sound beyond the mixing zone would be minimal. Because the project does not propose any discharges to wetlands and would be guided by Ecology stormwater requirements, nutrient impacts to wetlands are expected to be minimal.

Reference:

Budka, Ben, King County Water Quality Trouble Call Coordinator. Personal communication, memorandum to Scott Mickelson, King County Water Quality Program Planner III, May 2003.

identify viruses and the methods King County will use to disinfect the wastewater to kill them. In a second chart, provide the potential symptoms and treatments for someone who has become exposed to all potential viruses and other pathogenic organisms.

8. **Section 9.1.2.2, subsection Bacteria, Viruses, and Other Pathogens, paragraph 3, sentences 4 and 6** – These sentences lack credibility because releases from plants that King County operates regularly close beaches due to high levels of fecal coliforms during the summer. Either remove these sentences or modify them to reflect reality.

9. **Section 9.1.2.2, subsection Nutrients** – While the DEIS addresses certain types of toxic algae, it does not address the potential of eutrophication of the protected wetland that borders the Unocal site or the areas directly offshore of Edmonds. While an addition of nutrients at the depths King County plans to release the wastewater would provide short-term benefits to resident organisms, over the long term the ecology of the area would be significantly changed, which could result in dramatic impacts to the quality of recreational areas. In addition, the wetland area, which has only recently been restored, could be permanently damaged, which would be a significant loss to wildlife in the area as well as to aesthetic values in Edmonds. Therefore, provide a much more detailed account of the impacts to the environment due to the addition of nutrients from the proposed sewage treatment facility. O14-143

10. **Section 9.1.5, Outfall Zones, paragraph 2, sentence 2** – The DEIS states that King County has done extensive sediment studies and that the proposed sewage treatment plant would not add any additional pollution except for an ". . . occasional violation of fecal coliform bacteria standards near shore." Given King County's record at existing plants, residents of Edmonds lack confidence that King County would judiciously monitor areas where residents cannot legally hold King County accountable for its actions. Therefore, "occasional violations" are completely unacceptable. Modify the sentence to include a provision that ensures that recreational areas would not be degraded by this facility; and that there would be NO "occasional fecal coliform violations." O14-144

11. **Section 9.2.1 Study Methodology, paragraph 1, sentence 1** – How can King County estimate the risk to populations surrounding the proposed facility if it hasn't calculated that risk? What this first sentence tells any reader of this report is that King O14-145

9-4

Response to Comment O14-144

Please refer to the response to Comment O14-143 in this letter for a discussion of monitoring and past overflows at King County treatment plants. This monitoring, as well as reporting of results, would be required by the Washington State Department of Ecology as part of compliance with King County's NPDES permit. While the facility design, system components that would minimize the potential for plant upset, and depth of discharge would greatly minimize the likelihood of fecal coliform violations, it is not possible to completely ensure that such violations would never occur, since emergency situations do occur. In addition, under certain conditions, bacterial loads in stormwater discharges and from existing City of Edmonds wastewater outfalls may contribute to bacteria levels in the project area. In the event that such violations do occur in nearshore areas where individuals could come in contact with water, King County would take appropriate steps to post beach closures, notify the public, and test beach areas until cause for concern has passed.

Response to Comment O14-145

Please refer to the response to Comment O14-105 in this letter, which discusses the risk assessment conducted for the proposed project.

County does not know the risk associated with its proposed plant. Every residential area is different, and unless King County conducts its own risk evaluation the DEIS report means nothing. There are senior citizens living within a mile of the proposed sewage treatment plant and children use the beaches every day. What is their risk of exposure to the proposed sewage treatment plant releases? This isn't a Study Methodology, it's a travesty. If King County were really were concerned about being a "good neighbor," it would have conducted its own risk assessment and outlined a real methodology. Provide a real risk assessment that provides the intended audience with real numerical understanding of their risks. Include an Exposure Assessment, Toxicity Assessment, Epidemiology Assessment, and the Study's Validity that includes all bias and confounders in the study. To do anything else only indicates that King County is hiding something and does not want affected residents to know the truth about the proposed sewage treatment plant. If these processes have been done, then provide the report in this section in its entirety. If not, why not? O14-145

12. **Section 9.2.2.1, Subsection Spills and Leaks, last sentence** – What does the DEIS mean when it states that the "Health risks are no greater than at any other large construction site?" Where is the substantiation for that statement? How can King County justify that statement without the appropriate documentation? Please provide the justification and all documentation for every statement like this (in this chapter and throughout the DEIS). O14-146

O14-147

13. **Section 9.2.2.2 Operational Impacts, subsection Materials Stored and Used at Treatment Plant Sites** -- The residents who live near the proposed sewage treatment facility are not interested in what is printed in some regulatory document. They want KING COUNTY to state what their risks would be so that they know that King County knows they would be affected. Please bring forward all results of risk evaluations in order for residents to be informed of the risks that they would be exposed to. See comment 11 above.

14. **Section 9.2.2.2** – The DEIS uses, throughout the text, words and phrases like "minimal," "there will be a risk but it is minimal," and "our procedures will minimize the risk." How can King County justify these statements? What are the risks to area residents associated with this plant? Provide all of the justification and documentation for these statements. What these statements tell the reader is that King County hasn't

9-5

Response to Comment O14-146

This statement is made because the types of potential contaminants used on construction sites would be similar to other large construction sites. Like other projects, spills could include petroleum products, solvents, lubricants, and other materials. The project would require a Spill Prevention and Emergency Cleanup Plan, as part of applicable stormwater permits. This requirement is also similar to other large construction projects. Please refer to the response to the Washington State Department of Ecology, Comment W5-77. Please refer to the response to the City of Woodinville, Comment C5-102, for a discussion of King County and Washington State requirements for the development of a "Site Specific Health and Safety Plan" for all King County project construction sites. Health risks from materials used onsite during construction would be similar to those at other large construction sites. This is because the types of chemicals that would be used and the applicable health and safety requirements would also not substantially differ from other large construction projects.

Response to Comment O14-147

Please refer to the response to Comment O14-105 in this letter.

conducted, nor will it conduct, a risk assessment on the impacts of this facility. Prove to the readers that King County really wants to be a good neighbor and publish the results of the risk assessment (or is there something King County does not want the world to know?).

O14-147

15. **Section 9.2.2.2, subsection Biosolids Handling, Transport, and Application** -- Throughout this section, the DEIS informs the reader that all risks will be managed or are well below the EPA requirements. However, the DEIS never states what the risks are. King County never provides documentation for any of its statements. Please provide the required information so readers will have an understanding of what to expect if this facility is built.

O14-148

16. **Section 9.2.3.2, subsection Spills, Leaks, or Other Releases** – What are the risks to small children and the elderly due to releases from the proposed sewage treatment plant? Normally transient exposures, such as those that might occur at a manhole cover, are calculated for an adult male, in good health who weights 70 KG. Small children and the elderly are very sensitive members of the population and would not respond as the adult male. Therefore, what would be their risks? Please provide the calculated risk for these sensitive populations.

17. **Section 9.2.3.2 Subsection Emergency Overflows** – It is not stated what the human or environmental risks associated with releases at safety points would be in the event of an overflow. Were these risks calculated? If so, what risk would residents in these areas be exposed to? If not, why not?

O14-149

18. **Section 9.2.5 No Action Alternative** – Snohomish County is not in King County's regional authority district, so why should Snohomish County pay for King County's problems on the Sammamish River and Lake Washington? While overflows in these systems would be a disaster, wouldn't it be much more cost effective for King County to do something about potential problems in King County's own region where the issues are? This section does not say what would happen in southern Snohomish County should the No Action Alternative be implemented. Therefore, it is supposed that nothing would happen. If there are impacts, list them.

9-6

Response to Comment O14-148

As discussed in more detail in Chapter 9 of the Final EIS, human health risks associated with spills and airborne releases during plant operation are expected to be minimal. This would be the case for all populations. Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-256, for more information about the potential for releases of airborne chemicals or pathogens. With respect to emergency overflows, please refer to the response to the Washington State Department of Natural Resources, Comment W3-121. Chapter 9 of the Final EIS discloses that there is the potential for impacts to human health associated with overflows at the proposed safety relief point in the Sammamish River. Individuals coming in contact with overflows could be exposed to pathogens, resulting in illness. However, as noted in the response to Comment W3-121, overflows would be very infrequent, occurring only approximately once every 100 years by 2040, gradually increasing to once every 75 years by 2050. Impacts would be minimized during overflow events by notifying public health agencies, media sources, and the public. Please refer to the response to the Town of Woodway, Comment C7-53, for more information on notification requirements.

Response to Comment O14-149

As was noted in Chapter 2 of the Draft EIS, as of 2000 King County collected wastewater from approximately 107,000 customers in Snohomish County under wastewater disposal agreements from a number of jurisdictions in the County. As this wastewater is collected and conveyed to King County's regional conveyance system, any overflows into Lake Washington or the Sammamish River would be contributed to by flows not only from King County, but also from Snohomish County.

Should the No Action Alternative be implemented, overflows would increase in frequency and volume over time, starting

approximately in 2010. These overflows could result in decreased water quality and environmental impacts, and increased human health risks. The location of overflows is more a factor of system features rather than geography. Overflows are most likely to occur in the vicinity of the Kenmore Pump Station, as this is the hydraulically lowest part of the conveyance system that collects wastewater from north King and south Snohomish counties. Probabilities of overflows into the Sammamish River would increase from one event per every 20 years to one event per year in 2020. Overflow volumes to the Sammamish River in a 20-year peak flow event would be approximately 60 million gallons in 2020; average annual overflow volumes would be 20 million gallons. Additional flows directed to the South Treatment Plant in Renton after 2010 would not receive secondary treatment and would be discharged to Puget Sound with only primary treatment. Some secondary treated effluent may also be discharged to the Green River. More information on the projected frequency, timing, and location of overflows is provided in Appendix 3-J, Evaluation of the No Action Alternative, of the Final EIS.

O14-150 19. **Section 9.2.6 Cumulative Impacts** -- The DEIS hasn't presented what the environmental health risks are for Snohomish County residents compared to what is currently in place. Therefore, how can King County justify the statement that the proposed sewage treatment plant would reduce risks? Provide the risks that residents would be exposed to and how they are reduced by the construction of this facility.

O14-151 20. **Section 9.3.1.4 Discharges to the Marine Environment** – The DEIS does not reveal what the state-of-the-art technology is, so how can the reader evaluate whether or not King County will actually achieve a high level of efficiency at any of the discharge points? Why doesn't King County just tell the public how it plans to build, operate, and maintain this facility?

O14-152 21. **Section 9.4 Significant Unavoidable Adverse Impacts** – What are the short-term risks that area residents would be exposed to during construction and overflows? Provide the justification and documentation for these statements. Provide the calculated risks and all biases associated with those risks.

O14-153 22. **Reference** – None of the references listed indicate that King County actually performed a risk assessment for either human or environmental exposures. Therefore, how does King County know the proposed sewage treatment plant would reduce any risks at all?

Technical Appendices,

O14-154 1. **Environmental Health, Outfall Technical Studies** -- Is this the entire risk assessment? Where is the methodology, toxicology, epidemiology, and uncertainty sections that provide the justification for all of the statements made in the DEIS that there are no risks? This document is supposed to be the Technical Appendix. Therefore, provide all of the technical information on the human and environmental risk assessment so that the readers are able to determine if King County has actually done its job.

9-7

Response to Comment O14-150

Please refer to the response to Comment O14-149 in this letter.

Response to Comment O14-151

Please refer to Chapter 3 of the Final EIS, which provides substantial new information regarding specific treatment processes and technologies, including the proposed use of Membrane Bioreactor (MBR) technology, which has been used only at a handful of facilities nationwide.

Response to Comment O14-152

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-121, for a discussion of overflow potential and risks. Please refer to the response to the Washington State Department of Ecology, Comment W5-35, for a discussion of the risk of spills during plant operation. Finally, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-124, for a discussion of the risk of construction spills. Because they are usually accidental in nature or caused by unforeseeable events, it is not feasible to numerically calculate risks of chemical spills during construction and operation, or from events such as earthquakes. Such calculations would be speculative at best and would not be appropriate for a SEPA analysis. Consistent with the intent of SEPA, the Final EIS acknowledges that these events could occur and discloses their potential impacts. With respect to overflows from the proposed safety relief point in the Sammamish River, the potential frequency has been calculated, and the impacts from such events disclosed in Chapters 6, 7, and 9, and to Appendix 3-E, Flow Management and Safety Relief Point, of the Final EIS.

Response to Comment O14-153

Please refer to the response to Comment O14-105 in this letter for more information about the risk assessment conducted by King County for the Brightwater project.

Response to Comment O14-154

Please refer to the response to Comment O14-105 in this letter for more information about the risk assessment conducted by King County for the Brightwater project.

Chapter 10

Noise and Vibration

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 10 - Noise and Vibration

Introduction

O14-155 This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to noise and vibration for the proposed King County sewage system, **but it does not or does so only superficially**. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS completely lack supporting documentation to substantiate the statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

10.1 Affected Environment

O14-156 The discussion of noise and vibration addresses primarily regulatory compliance, rather than the impact of construction noise over the anticipated 6-year period on humans and wildlife. It certainly does not address the cumulative effect of 6 years of noise and vibration on the inhabitants of the Unocal Marsh, the surrounding wilderness habitation, or on the transitory or permanent inhabitants. Many of the inhabitants are listed in the DEIS as either endangered or threatened.

1. Describe the long-term, cumulative effects noise could have on Unocal Marsh inhabitants, visitors, and environs.

10-1

Response to Comment O14-155

Please refer to the response to Comment O14-71 in this letter.

Response to Comment O14-156

Regulatory standards and guidelines for noise and vibration are set for the purpose of protecting human and environmental health. Significant research on the health effects of noise and vibration has been conducted by regulatory agencies prior to adopting these standards. Therefore, it is the accepted practice to conduct SEPA analysis on the basis of compliance with regulatory standards. The Final EIS has been revised to include additional detail on construction noise and vibration impacts and on the contribution of specific process equipment and plant operations to overall noise levels. In addition, further information is provided on how the noise levels would be controlled. Also, please refer to the response to the Snohomish County Planning and Development Services, Comments S3-132 and S3-133.

Anticipated construction noise impacts on animal populations in the Unocal Marsh and elsewhere in the project vicinity were discussed in Chapter 3 of the Draft EIS. This discussion has been expanded in Chapter 7 of the Final EIS. The discussion of noise impacts on human populations has been expanded in Chapter 10. No long-term noise and vibration impacts on human or animal populations due to operation of Brightwater System facilities are expected, because noise and vibration would be mitigated to levels slightly above the existing minimum ambient levels. Please refer to the response to Comment O14-40 in this letter regarding the inclusion of supporting documents in the Draft EIS.

2. Describe the long-term, cumulative effects vibration could have on Unocal Marsh inhabitants, visitors, and environs.

References made in the DEIS to supporting documents, photographs, journals, reports, and papers, which are not supplied to the reader for review as a part of the DEIS, are not sufficient to meet the intent of the SEPA rules governing this DEIS.

1. Include all referenced documents as an integral part of a supplemental DEIS. The absence of such supporting documentation is deemed a lack of disclosure on the part of King County and is unacceptable.

Additionally, tables, charts, and graphs used in this study, particularly in this chapter, are relied upon by the DEIS authors to support their conclusions. Yet numerous of these charts, tables, etc., carry in ***fine*** print a disclaimer by King County which reads in part, "King County makes no representations or warranties, expressed or implied, as to accuracy, completeness, timeliness, or rights to the use of such information . . . King County shall not be liable for any general, special, indirect, incidental, or consequential damages . . . from the use . . . of the information contained on this map." King County is responsible and liable for all information published in the DEIS.

1. How can the public possibly respond to the DEIS when King County makes no warranty as to the accuracy of the data used or displayed?
2. How can King County draw conclusions based on data they cannot support?
3. Respond to both these questions in detail.
4. State, unequivocally, what data can be relied upon by the public in their evaluation of the DEIS.
5. State unequivocally what data cannot be relied upon by the public in their evaluation of the DEIS. O14-156

10.1.3 Regulatory Environment

O14-157 The DEIS states, "sounds created by the installation or repair of essential utility service are exempt from maximum noise levels." This statement ignores the very real human impact of long-term construction noise and mitigation of this impact. While King County may believe it is exempt from regulatory control as it relates to noise and vibration, that belief does not exempt

10-2

Response to Comment O14-157

The period during which "essential utility service" construction is exempt from maximum noise levels under Washington Administrative Code 173-60-50 has been clarified in the Final EIS to the hours of 7 a.m. to 10 p.m.

Chapter 10 of the Final EIS has also expanded the discussion of construction noise impacts and mitigation to note that construction could occur for longer periods of time during key construction periods. Also please refer to the responses to the Snohomish County Planning and Development Services, Comment S3-133, and to the City of Woodinville, Comment C5-105.

The Draft and Final EIS both evaluate the short- and long-term effects of noise and vibration from construction and operation of Brightwater System facilities. These impacts are described for both human and animal populations, as described in the response to Comment O14-156 in this letter.

O14-157 King County from evaluating the short- and long-term effects of noise and vibration caused by construction and operation of the proposed sewage treatment plant. The DEIS should pay particular attention to the short- and long-term effects of noise and vibration on threatened or endangered transitory and permanent inhabitants of the Unocal Marsh and environs.

10.1.3.1 Treatment Plant Sites

O14-158 In this section, the DEIS addresses regulations only and ignores the very real human impact of long-term construction noise and mitigation of this impact.

6. Describe the short-term, cumulative effects noise would have on Edmonds residents, businesses, and visitors.
7. Describe the short-term, cumulative effects vibration would have on Edmonds residents, businesses, and visitors.
8. Describe the short-term, cumulative effects noise would have on Unocal Marsh inhabitants and visitors.
9. Describe the short-term, cumulative effects vibration would have on Unocal Marsh inhabitants and visitors.
10. Describe the long-term, cumulative effects noise would have on Edmonds residents, businesses, and visitors.
11. Describe the long-term, cumulative effects vibration would have on Edmonds residents, businesses, and visitors.
12. Describe the long-term, cumulative effects noise would have on Unocal Marsh inhabitants and visitors.
13. Describe the long-term, cumulative effects vibration would have on Unocal Marsh inhabitants and visitors.
14. Has a study been done that describes the long-term, cumulative impact noise could have on the Unocal Marsh inhabitants and visitors?
15. If yes, provide the study in a supplemental DEIS.
16. If not, why not?
17. If not, study the long-term cumulative impact noise could have on the Unocal Marsh inhabitants and visitors. Please be specific in detailing the impact for each inhabitant/visitor.
18. Publish the results of the study in a supplemental DEIS.

10-3

Response to Comment O14-158

Please refer to the response to Comment O14-156 in this letter. The regulatory requirements for noise and vibration are important to the impact analysis because the codes are designed to protect residential land use from excessive noise and vibration from adjacent industrial and commercial land uses. The noise and vibration code limits have been deemed appropriate and practical by environmental studies and by many years of jurisdictional enforcement.

Construction noise and vibration impacts would be intermittent and would be mitigated as described in the Final EIS. Please refer to the responses to the Snohomish County Planning and Development Services, Comment S3-133, and the City of Woodinville, Comment C5-105. Operational noise would be mitigated to a 5 dBA increase above the minimum existing ambient noise level. The cumulative impact of noise from plant operation over the minimum existing ambient noise level is considered in the 5 dBA increase. Operational vibration would be mitigated to imperceptible levels at the nearest residences. Please refer to the responses to the Port of Edmonds, Comments G3-36 and G3-37.

No long-term noise and vibration impacts to Unocal Marsh inhabitants and visitors are expected from Brightwater System facilities because the mitigated noise levels would be lower than the existing maximum ambient noise levels, and mitigated vibration sources would be below perceptible threshold levels. Please refer to the response to Comment O14-40 in this letter.

10.1.3.2 Conveyance Corridors

In this section, the DEIS addresses regulations only and ignores the very real human impact of long term construction noise and mitigation of this impact.

1. Describe the short-term, cumulative effects noise would have on nearby residents, businesses, and visitors.
2. Describe the short-term, cumulative effects vibration would have on nearby residents and visitors.
3. Describe the short-term, cumulative effects noise would have on inhabitants of and visitors to nearby wetlands, riparian areas, and grasslands.
4. Describe the short-term, cumulative effects vibration would have on inhabitants of and visitors to nearby wetlands, riparian areas, and grasslands.
5. Describe the long-term, cumulative effects noise would have on nearby residents, businesses, and visitors.
6. O14-159 Describe the long-term, cumulative effects vibration would have on nearby residents, businesses, and visitors.
7. Describe the long-term, cumulative effects noise would have on inhabitants of nearby wetlands, riparian areas, and grasslands.
8. Describe the long-term, cumulative effects vibration would have on inhabitants of and visitors to nearby wetlands, riparian areas, and grasslands.
9. Has a study been done that describes the long-term, cumulative impact noise could have on wetlands, riparian areas, and grasslands inhabitants and visitors.?
10. If yes, provide the study in a supplemental DEIS.
11. If not, why not?
12. If not, study the long-term cumulative impact noise could have on wetlands, riparian areas, and grasslands inhabitants and visitors. Please be specific in detailing the impact for each inhabitant/visitor.
13. Publish the results of the study in a supplemental DEIS.

10-4

Response to Comment O14-159

Regulations and codes governing construction and operation noise and vibration apply to conveyance as well as to treatment facilities, and provide an appropriate and accepted basis for impact analysis. Also, please refer to the response to Comment O14-158 in this letter.

10.1.4 Treatment Plant Sites

In this section, the DEIS discusses existing noise and vibration conditions at both the Unocal and the Route 9 sites. The DEIS states on page 10-6, paragraph 2, "A noise evaluation was conducted at the treatment plant sites and along the conveyance corridors." Later in the same paragraph (page 10-7), it states, "Only data that maintained calibration during the monitoring period were considered for this evaluation." Along with King County's refusal to warrant tabular data, this statement casts doubt on the methodology used and the accuracy of conclusions drawn from the data.

O14-160

1. How does data maintain calibration?
2. How many data points were ignored?
3. Was the pattern of loss of calibration analyzed?
4. If so, include this analysis in a supplemental DEIS.
5. If not, why not?
6. Does this mean that all "outliers" were discarded?
7. Does this mean that King County ignored all data that did not support the desired conclusion?
8. Would the same methodology and equipment be used to monitor noise and vibration during construction?
9. Would the same methodology and equipment be used to monitor noise and vibration during plant operation?
10. Include the study, in its entirety, in a supplemental DEIS.
11. Provide data that was discarded.

The DEIS states (page 12-7, para 2), "Noise levels are measured and analyzed statistically. . . ." but no reference is made to study methodology or statistical significance.

1. What methodology was used to determine the statistical accuracy and appropriateness of the study?
2. Were the results statistically significant?
3. What was the range of data points?
4. What was the standard deviation of the computed mean?
5. What was the sample size, and how was it selected?
6. Demonstrate that the sample size was truly representative of the site location.
7. Provide the study, in its entirety, in a supplemental DEIS.

10-5

Response to Comment O14-160

The cited text from page 10-7 of the Draft EIS was not relevant to the impact evaluation and has been deleted. Successful calibration before and after recording of data was achieved for all ambient noise and vibration data used in the Draft EIS analysis. Adequate noise data was obtained to determine the minimum and maximum hour ambient noise levels and when they occurred, as needed for evaluation of construction and operation noise impacts. The reference to statistical analysis of data (cited in the comment on page 12-7, paragraph 2) pertains to how the monitoring instrument tracks the percentage occurrence of the varying ambient noise levels with respect to the peak noise level. This is explained in Chapter 10 of the Final EIS.

O14-161 The DEIS states on page 10-7, paragraph 4, "human perception levels described in Table 10-7 are relevant to both construction and operation vibration. . . ." Reference is made to a U.S. Department of Transportation assessment published in 1998. This assessment is applicable to high-speed ground transportation noise and vibration impact. The DEIS claims that this study is relevant to both construction and operation of the proposed sewage treatment plant.

1. How does King County justify its perception of **relevance**?
2. What study or supporting documentation justifies the association of high-speed rail transportation to construction and operation of a sewage treatment plant?
3. Provide all such supporting documentation.

10.1.4.1 Unocal Site

O14-162 The DEIS notes on page 10-8 that minimal monitoring was conducted on the Unocal site. This suggests insufficient data points to accurately establish a baseline level for noise and vibration.

1. Why was such a small sample taken?
2. Demonstrate that the sample size and duration of monitoring is sufficient to provide reliable data.
3. Demonstrate that the results are a realistic representation of the area surrounding the Unocal site throughout the year.
4. Provide study data and results in this section.

10.1.5 Conveyance Corridors

O14-163 The DEIS states in the first paragraph of this section (page 10-9), "noise monitoring was not practical at portal siting areas because of the large amount of land they encompass."

1. How can the public (or King County) appropriately evaluate noise when no baseline level has been established?
2. How can the public (or King County) appropriately evaluate noise at a portal site when no decision has been made about where portal sites would be located?

10-6

Response to Comment O14-161

Ground-borne vibration results from the propagation of vibration waves through the ground. Vibration waves can be caused by any one of various sources, including mechanical equipment, large vehicles such as trains, and traffic on rough roads. The perception and effects of ground-borne vibration are similar regardless of the source. The Federal Transit Administration (FTA) has taken a lead role in determining vibration impact criteria and mitigation methods based on FTA's own research and the work of others. The FTA has a long history of nationwide experience upon which to base their conclusions and recommendations. The cited FTA document details the procedures for noise and vibration impact assessment and relies on a review of state-of-the-art research on human perception of ground-borne vibration. It is believed that human perception of ground-borne vibration from construction and operation of Brightwater System facilities would be similar to human perception of ground-borne vibration from transit projects.

Response to Comment O14-162

The measurement of ambient noise at the Unocal site was performed in accordance with industry standards for noise monitoring. Existing ambient noise levels at the site were measured at sufficient locations to determine the lowest hourly minimum and the highest hourly maximum levels. Adding more monitoring locations would not yield different results and would not affect the impact assessment or proposed mitigation. Lower minimum noise levels are not expected at other times of the year, since the measurements were made in dry weather, when noise levels are not influenced by traffic tire noise on wet pavement. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-134.

Response to Comment O14-163

Additional information on conveyance noise, based upon a more specific definition of portal locations, is included in Appendix 10-B, Noise and Vibration: Conveyance, of the Final EIS. The new analysis proposes monitoring of ambient noise levels at the portals prior to construction for inclusion as guidance to permit conditions or contract requirements. This is presented as a mitigation measure in the Final EIS. Nighttime minimum ambient noise levels along the conveyance corridors will likely be in the low 30's dBA, similar to those monitored on the Unocal site, and construction and operations noise impacts and mitigation would be similar to those for the treatment plant on the Unocal site.

10.2.2.1 Construction Impacts

O14-164

The DEIS admits on page 10-12, paragraphs 3 and 4, that the maximum allowable sound and vibration levels will be exceeded. King County justifies exceeding these levels by citing exemptions in the regulatory code for essential public utilities.

1. Considering that King County has stated throughout the DEIS its desires to be a "good neighbor," how does it justify exceeding maximum allowable levels, especially considering the 6-yr construction window?
2. Has a risk assessment been done, evaluating the long-term health risks associated with excessive noise and vibration levels over this period of time?
3. If so, has the risk assessment considered the elevated average age of residents near the Unocal site?
4. If so, include the risk assessment in this section.
5. If not, why not?
6. If not, conduct such a risk assessment and include it in the EIS.

O14-165

The DEIS admits that vibration will be evident during construction.

1. What impact would vibration from construction of the proposed sewage treatment plant have on the slide-prone Unocal site?
2. What impact would vibration from construction of the proposed sewage treatment plant have on nearby, slide-prone areas?
3. What impact would vibration from construction of the proposed sewage treatment plant have on the potential for liquefaction at the Unocal site?
4. What impact would vibration from construction of the proposed sewage treatment plant have on the potential for liquefaction of nearby areas?

O14-166

The DEIS states on page 10-13, paragraph 2, "the closest residence is approximately 130 feet south of NML-1." This is a misleading statement, as it suggests that the residence is 130 ft south of any potential source of noise and vibration. In reality, the residence is within 50 ft of a potential source of noise and vibration (the property line, where construction would take place).

1. Correct this erroneous presentation.

10-7

Response to Comment O14-164

Although construction noise levels are not regulated during the daytime hours of 7 a.m. to 10 p.m., King County proposes to mitigate noise impacts by specific measures described in Appendices 10-A, Noise and Vibration: Treatment Plant, and 10-B, Noise and Vibration: Conveyance, of the Final EIS. Appendix 10-A also states, "Any construction activities required outside of exempt daytime hours can only be conducted under an exemption permit or variance. If an exemption permit or variance is granted for nighttime construction activities, the noise level limits for residential land use during nighttime hours will be applied." A long-term health risk assessment from noise exposure is not applicable to the Brightwater construction activities because of the intermittent nature of the noise and the fact that noise would be maintained at acceptable levels per the applicable jurisdiction's codes during non-exempt (nighttime) hours. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-133.

Response to Comment O14-165

Vibration impacts and mitigation are described in Appendices 10-A, Noise and Vibration: Treatment Plant, and 10-B, Noise and Vibration: Conveyance, of the Final EIS. Slides and liquefaction of soils would not result from construction vibration, since those construction activities producing vibration are also processes which include reinforcement of the adjacent soils by shoring, sheeting, ground freezing, or tunnel lining.

Response to Comment O14-166

Noise monitoring location number 1 (NML-1), is the closest onsite location where construction may occur relative to adjacent residences. The Draft and Final EIS also discuss construction truck noise impacts on Pine Street, which would be closer to residences. The selected locations for noise monitoring are adequate and appropriate based upon accepted

methods for noise impact analysis. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-134. For information on construction noise impacts on human and wildlife populations, please refer to Chapters 7 and 10 of the Final EIS and to the response to Comment O14-156 in this letter.

Increases or decreases in business revenues, tax revenues, and property values are not environmental impacts, and are not addressed in the EIS. Before construction begins, King County will work with local jurisdictions to gain permits and will work to address concerns associated with the construction and operation of the Brightwater System.

O14-166

2. Explain why monitoring stations were not placed to accurately measure and record the noise and vibration levels at residences in the area?
3. Explain, in detail, what the impact of dealing with these noise levels for a multi-year construction project would be to people, birds, animals, and marine life?
4. How would these noise and vibration levels during construction of the proposed sewage treatment plant affect property values?
5. How does King County plan to compensate property and business owners for loss of property value and business?
6. How does King County plan to compensate those local residents who work nights and must contend with loss of sleep during the 6 years of construction?

10.2.2.2 Treatment Plant Sites

O14-167

This section contains vague words, phrases, and generalities which preclude the reader from ascertaining King County's intent as to what would be built and how it would be operated. Thus, the reader is unable to make any realistic response. This section should be rewritten, with King County making firm commitments and presenting results derived from credible studies and supporting documentation.

1. Rewrite this section and resubmit for public input.
2. Include credible studies and supporting documentation.

10.2.3.1 Construction Impacts

O14-168

The DEIS states on page 10-16, paragraph 2, that no specific portal areas have been identified and, thus, it is not possible to determine which people (and other inhabitants) would be impacted. To expect the public to have a valid response, when specific information is lacking, is unreasonable. This expectation is not in compliance with SEPA rules. The DEIS is fatally flawed and should be ruled invalid.

O14-169

The DEIS states on page 10-16, paragraph 4, "No published data on noise and vibration for tunneling machinery are available. . . ." King County has made much about its experience with

10-8

Response to Comment O14-167

Thank you for your comment.

Response to Comment O14-168

Updated conveyance and portal information is available in Chapter 3 of the Final EIS. The cited section of the Draft EIS does in fact contain an impact analysis, and it references Table 10-8 for maximum noise levels. The Final EIS provides additional data in Chapter 10 relating to the noise and vibration impacts during construction of the conveyance.

Response to Comment O14-169

Appendix 10-B, Noise and Vibration: Conveyance, of the Final EIS provides more information on vibration impacts from tunneling. The analysis indicates that vibration from tunneling operations would not be sufficient to cause damage to structures or property.

Construction noise levels shown in the Draft EIS for portals are based on the same noise sources and construction activities as those at the treatment plant sites. As noise levels at any given location are a function of distance from the noise source, construction activities would have similar impacts as for the facility sites at equal distances. Since the portal sites are smaller than the treatment plant sites, impacts in the vicinity of portal locations could be greater if receivers are closer to construction activities.

deep tunneling and with tunneling machinery, which makes it difficult to believe that no data on noise and vibration for tunneling machinery are available. This suggests that King County is either unaware of its own experience or is intentionally misleading the public.

1. Are there any unpublished data concerning noise and vibration for tunneling machinery?
2. If so, include these data in this section
3. If not, how does King County support its contention that noise would be attenuated by the soil between the tunnel and the ground surface?
4. Provide supporting documentation for that statement.

The DEIS states (page 10-17, paragraph 1) that noise levels at the portals during peak construction could be in excess of those generated at the facility sites under similar situations.

1. Upon what data does King County base this evaluation?
2. Why would portal construction be noisier than facility construction?
3. Are facility construction noise levels understated?
4. Provide any studies or evaluations used in drawing this conclusion, in their entirety, in this section. O14-169

10.3 Mitigation Measures

O14-170

1. Explain in detail the methodology and equipment King County would use for ongoing monitoring of noise and vibration at the sewage treatment plant.
2. What recourse do impacted residents have if the mitigation measures that are mentioned in this section are not sufficient?
3. Edmonds residents living within a one-mile radius of the ferry dock heard the construction noise from a minor project. How, then, would King County mitigate construction from a major project?
4. How would King County ensure that mitigation measures outlined in this section would be adhered to?
5. What penalties would be exacted if mitigation measures are not strictly adhered to?
6. What reporting procedures would be used to report to the public the dates and times when King County exceeds acceptable levels of noise and vibration?

10-9

Response to Comment O14-170

King County does not propose to monitor noise and vibration at the treatment plant on an ongoing basis. Mitigation measures specified in the Final EIS would result in operating noise levels at the nearest residences that would not exceed the minimum nighttime noise levels of the applicable jurisdiction's noise code. The code-required noise levels are deemed adequate for an acceptable residential exterior environment.

Construction noise mitigation is specified in Appendices 10-A, Noise and Vibration: Treatment Plant, and 10-B, Noise and Vibration: Conveyance, of the Final EIS. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-133.

Demonstration that noise mitigation measures have achieved the criteria stated in the Final EIS would occur as part of Brightwater System commissioning and start-up activities. Noise monitoring would be conducted at this time to confirm that the noise limits committed to by King County would be met.

Construction contract documents would place noise performance responsibility on the contractors and equipment suppliers. Appendix 10-B includes a construction noise monitoring plan with reporting procedures described for the conveyance system that has also been added to the treatment plant construction noise mitigation discussion in Appendix 10-A.

O14-170 7. How frequently does King County anticipate exceeding acceptable levels of noise and vibration?

10.4 Significant Unavoidable Adverse Impacts

O14-171 The DEIS states that there would be "unavoidable temporary increases in noise levels" which would, in some cases, be "locally significant."

1. Define "temporary" in this context.
2. Define "locally significant" in this context.
3. Is there any chance that increased noise levels would become permanent?

10-10

Response to Comment O14-171

Temporary noise level increases would be those occurring only during construction activities, before start-up and operation of Brightwater System facilities. Construction is scheduled as shown in Appendix 3-G, Construction Approach and Schedule, of the Final EIS. Construction activities producing noise are intermittent and would be limited to daytime hours unless an exemption permit or variance is granted. Also, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-133.

Locally significant impacts would be those experienced by residences that are nearest to construction haul routes or nearest to construction activities on a Brightwater Treatment Plant site. Construction noise mitigation would apply primarily to those nearest residences, and the significant impacts would be those associated with peak noise levels of single-event type noise sources of short duration, such as truck pass-by. As noted above, the increased noise levels associated with construction would be temporary, up to several years' duration, and would not extend beyond the period of construction activities.

Chapter 11

Land and Shoreline Use

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 11 – Land and Shoreline Use

Introduction

O14-172 This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to land and shoreline use for the proposed King County sewage system. However, **it does not or does so only superficially.** Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

Land and shoreline use is central to the reason that the many members of the Washington Tea Party have spent so many hours over a more than year-long period trying to ensure that the proposed sewage plant is never constructed on the Edmonds waterfront. Replacing one early twentieth century industrial plant with yet another industrial plant is the wrong use for the land and the shoreline. It is not stretching things to say that using the Unocal property for the proposed sewage plant would result in an economic disaster for Edmonds.

11. Affected Environment

O14-173 The DEIS gives no introduction to this section. In other sections, the introductory paragraph is used to describe the overall scope of the affected environment. Land and shoreline use are central and critical to the environmental impact of the proposed sewage plant.

11-1

Response to Comment O14-172

Please refer to the response to Comment O14-71 in this letter.

Response to Comment O14-173

Additional introductory information has been added to Chapter 11 of the Final EIS.

O14-173
1. Provide an introductory paragraph.
2. List all the ways a sewage plant can affect land and shoreline use.

11.1.1.4 Regional Wastewater Services Plan (RWSP)

O14-174
The DEIS (page 11-5) quotes the RWSP that King County should consider environmental equity.

1. Define the phrase "environmental equity."
2. Give a detailed explanation of how environmental equity was taken into account in selecting the Unocal site.

The DEIS (page 11-8) quotes Snohomish County siting process factor 4 as "the facility should include a significant share of the host community's population."

1. Clarify. How can a facility have population included in it?
2. Explain in detail how, if the proposed sewage plant is located in Edmonds, a significant share of the Edmonds population would be included within the facility?

11.1.2.1 Unocal Site – Existing Land Use

O14-175
The DEIS (page 11-10) states that the land surrounding the site includes commercial waterfront uses.

1. Explain the term "commercial."
2. Discuss how it relates to all of the public facilities listed in the sentence.

O14-176
The DEIS (page 11-10) states that single family residential uses are located within 0.25 miles of the site.

1. Be more specific.
2. How close are the nearest residences to the boundary of the site?

11-2

Response to Comment O14-174

Given that Brightwater is a regional facility that will serve the future needs of a broad geographic distribution (south Snohomish County and north King County), it is difficult to choose a site that would truly represent a significant share of the service area population. Please refer to Appendices 2-B, Portal Screening Level 1 and 2 Documentation, and 2-C, Portal 19 Screening Level 3 Documentation, of the Final EIS, and to the following documents for a discussion of the Brightwater siting process: *Siting the Brightwater Treatment Facilities Site Selection and Screening Activities* (King County, March 2001) and *Brightwater Siting Project, Phase 2 System Descriptions and Evaluation* (King County, September 2001).

Response to Comment O14-175

The referenced text has been revised in Chapter 11 of the Final EIS to provide clarification regarding use of the word "commercial" in the description of existing land use.

Response to Comment O14-176

The referenced text in Chapter 11 has been revised in the Final EIS to indicate that single-family residences are located directly to the east and south of the site boundary. The zoning map for the Unocal site indicates the relationship between the project site and adjacent residential zoned land. The closest residences are located just east of SR-104 and south of Pine Street and are less than 1/4 mile from the site boundary. The exact distances to each residence have not been measured.

O14-176

3. Provide a map showing the locations of these residences and their proximity (in miles) to the proposed site.

O14-177

The DEIS (page 11-12) quotes Edmonds Shoreline Master Program document as referring to "the conservancy shoreline."

1. Explain this term.
2. How does it relate to the siting of the sewage plant.

11.1.3 Conveyance Corridors

O14-178

The opening paragraph (page 11-16) admits that specific portal locations have not been identified, that only potential impacts are known, and that further analyses are needed.

1. Why have the portal locations not been identified?
2. Explain how the legal requirements for a DEIS can be met if specific locations are not known.
3. Will King County issue a supplemental DEIS for public comment after the "further analysis" is completed?
4. If not, why not?
5. If so, when will the scoping period begin and how long will it last?

11.2.2 Treatment Plant Sites

O14-179

The introductory paragraph (page 11-37) says that a fence and exterior buffer would separate the treatment plant from adjacent land uses.

1. Which would be closer to the adjacent land use, the fence or the exterior buffer?
2. Would the fence be visible to residents nearby?
3. Would the fence be of the large, industrial chain link type?
4. How would King County mitigate the ugly appearance of a large, industrial fence abutting residential property?

11-3

Response to Comment O14-177

The term "conservancy shoreline" refers to the shoreline designations that have been established by the City of Edmonds Shoreline Master Program. It is defined as sparsely developed areas exhibiting some natural constraints such as wetland conditions. These are further classified into saltwater and upland areas generally lying waterward of the western boundary of the "urban railroad environment, and freshwater areas associated with Lake Ballinger."

The shoreline designations and requirements are discussed as they relate to the siting of Brightwater System facilities, such as the outfall, within these designated areas. The referenced text in Chapter 11 has been revised in the Final EIS to provide clarification.

Response to Comment O14-178

Recent Level 2 portal screening that was conducted as part of the Brightwater conveyance predesign identified candidate sites to carry forward for further screening. These sites met engineering needs and minimized environmental and community impacts. The Brightwater Conveyance Predesign Level 2 Portal Screening process is described in Chapter 2 and included in Appendix 2-B, Portal Screening Level 1 and 2 Documentation, of the Final EIS.

The exact location of portal facilities would be determined once a final Brightwater System alternative is selected. During the design phase of the project, King County will work with property owners, local communities, and jurisdictions to develop detailed mitigation and design specific to the selected Brightwater System alternative. The process for ongoing site and facility design and the community's role in this process, is described more fully in Chapter 2 of the Final EIS. The process of community input is already underway, beginning with a series of Brightwater workshops held in 2002. A final design team has been selected and is currently developing preliminary design

materials in concert with a series of Technical Seminars open to all community participants held during the summer of 2003. In response to preparing a Supplemental Draft EIS, please refer to the response to the Snohomish County Planning and Development Services, Comment S3-1.

Response to Comment O14-179

With regards to the fence, no decisions have yet been made on the materials and exact location of the fence and associated security system and landscaping of external buffer areas. This would be done as an element of final design. Regardless of the site selected, the fence and buffer areas are a major element of the architectural design and would be designed to be aesthetically pleasing. Community Design Workshops will be held during predesign and final design to identify community priorities for incorporation in facility design.

Regardless of the site selected, the exterior buffer and other visible aspects of the treatment facilities are important to the overall design. To the extent possible, every effort would be made to screen the facility and make it visually agreeable. This would also be a community decision. A minimum setback of 50 feet from the property line has been applied to each site. The details of the landscaping and exterior buffers would be decided during final design. For each site, the buffer widths and areas are visible on the site layouts in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

Regarding the exterior buffer, The Orange Book, §G2-3.6.1 states:

> All new sewage treatment plants should be designed with buffer zones. . . . Minimum buffer zone widths and site screens will be established on a case-by-case basis, considering the process topography, prevailing wind directions, provision of covered units, and use of effective windbreaks in the overall plant design.

O14-179

1. Give a detailed description of the buffer widths established for the proposed sewage plant case.
2. Give a detailed description of the site screens established for the proposed sewage plant case.
3. Discuss how the factors cited in the quotation above were applied in deciding on the required buffer.
4. King County schematic diagrams shown at public meetings show only a single line of trees as a buffer. Does this meet the State's standards?
5. Explain how the buffer would be implemented on a site with such a limited amount of land in relation to the proposed sewage plant requirements.

O14-180

6. Does King County plan to purchase, condemn, or procure (by any means) any property not included in the Unocal site in order to meet the buffer requirement?
7. If so, explain the process by which such property will be procured.
8. Would King County anticipate procuring property (by any means) not included in the Unocal site when the proposed sewage facility is expanded to meet future needs?
9. If so, identify any such property. Provide a detailed map.
10. If so, explain the process by which such property will be procured.

O14-181

The Orange Book, §G2-1.5.1 states:

> Treatment plant sites should be located as far as practicable from any existing commercial or residential area or any area that will probably be developed within the plant's design life. The plant site should be separated from adjacent uses by a buffer zone and provided with ample area for any foreseeable future expansion.

1. Discuss in detail how the plan for the proposed sewage plant meets this State requirement.

11-4

Response to Comment O14-180

King County does not plan to purchase, condemn, or procure any property not included in the Unocal site in order to meet the buffer requirement at this time.

The site as described in the Draft EIS includes area for future expansion.

Response to Comment O14-181

Regardless of the site selected, the treatment plant facilities would be designed with adequate buffer zones to separate the treatment plant from the surrounding commercial and residential areas. The plant sites are located as far as practicable from commercial or residential areas and include space for future upgrades and expansions. The buffer zones for each site are described in detail in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS.

O14-181 2. Since future expansion is already foreseen, explain how King County has allowed for "ample area" for this expansion.

11.2.2.1 Construction Impacts

The DEIS (page 11-34) states that the proposed sewage plant site locations are designed to increase operational efficiency.

O14-182
1. Explain in detail what is meant by "operational efficiency."
2. Explain how a plant at the Unocal site would be more operationally efficient than the nearly 100 other sites considered. Compare the Unocal with each other site individually.
3. State whether operational efficiency or environmental impact is more important. Justify King County's reasoning.

The DEIS (page 11-34) states that Snohomish County's Comprehensive Plan directs the County to develop wastewater treatment facilities to support urban growth.

O14-183
1. Explain in detail how a facility sited in an area like Edmonds that is almost fully developed supports urban growth.
2. Explain how siting a plant in an area that already has fully provided for wastewater treatment for the foreseeable future would support urban growth.
3. Explain the rationale for not siting a facility in an area of King or Snohomish County that is predicted to experience urban growth.

O14-184 The DEIS (pages 11-35/36) discusses the sewage treatment agreement between King County and Edmonds under "Factor 4."

1. Give a full and complete discussion of the terms of this agreement, covering both the present and the future. Cover the responsibilities of each party during all seasons of the year.

11-5

Response to Comment O14-182

Operational efficiency includes, among other criteria, the ability to operate a treatment plant efficiently by locating the treatment plant in the vicinity of its service area, having all of the treatment facilities on the site located within relatively close proximity to one another, allowing flow by gravity through the treatment plant, and minimizing pumping in the conveyance system.

The two locations evaluated in the Final EIS were selected from a total of 95 sites. The entire site selection and screening process took place from 1999 to 2002 and is described in the *Phase 2 Siting the Brightwater Treatment Facilities, Site Selection and Evaluation Activities* (September 2001) and the *Brightwater Siting Project Phase 2, System Descriptions and Evaluation* (September 2001). The siting criteria are described and each site's ratings are provided in the documents. These evaluations compare the Unocal sites with the other sites.

The conclusion of the siting process (i.e., the selection of the two sites evaluated in the Final EIS) was that both sites would allow for construction of a treatment plant that rated high in the key factors, or siting criteria, that were most important (see Phase 2 documentation) and that neither site would have environmental impacts that were unreasonable and would not meet SEPA requirements. Neither operational efficiency nor environmental impact is considered as being more important than the other. Both sites provide opportunities to operate efficiently and construct and operate a treatment plant with minimal environmental impacts.

Response to Comment O14-183

Chapter 1 of the Final EIS contains a discussion of the siting process. Please refer to the response to Comment O14-174 in this letter.

Response to Comment O14-184

Please refer to Chapter 2 of the Final EIS for a discussion of King County's service area.

2. Avoid half-truths, partial explanations, and slanted information. Remove these from a supplemental DEIS.

O14-184 3. Identify and list the complete responsibilities of all parties for all seasons of the year.

The DEIS (page 11-36) cites Snohomish County's siting process Factor 7: "the overall concentration of essential public facilities in the County shall be reviewed to avoid undue concentration in any one community." King County says "while the City of Edmonds, for example, does have two existing wastewater treatment facilities serving local needs, King County's two existing regional treatment facilities are located in King County. . . ."

1. Define the term "undue concentration [of essential public facilities]."
2. Relate the definition to the population and area of the community.
3. Define the term "local needs."

O14-185 4. Show that King County recognizes that the Edmonds plant serves Edmonds, Mountlake Terrace, parts of the Town of Woodway, and unincorporated Snohomish County.

5. Show that King County recognizes that the Lynnwood plant in Edmonds serves Lynnwood, parts of Edmonds, and unincorporated Snohomish County.
6. Explain in detail why King County believes that King County (population 6,041,700; area 2,235 square miles) having two treatment facilities is relevant to the City of Edmonds (population 39,515; area 7.5 square miles) having two such facilities.
7. Explain in detail why King County believes that Edmonds would not have an undue concentration of essential public facilities if a third sewage plant were to be built there.
8. Remove the phrase "local needs" and acknowledge that the two existing sewage treatment plants in Edmonds both serve "regional needs."

O14-186 The DEIS (pages 11-37 and 11-42/43) states that the use of the Unocal site for the proposed sewage plant, "would result in a loss of potential economic opportunities and housing capacity that could be accommodated at site through mixed use development." The DEIS (page 11-55) states that the GMA and SEPA process utilized to develop local comprehensive plans has already considered the cumulative impacts of allowed development.

11-6

Response to Comment O14-185

Please refer to the Purpose and Need section in Chapters 1 and 2 of the Final EIS for a discussion of the need for Brightwater, King County's Service Area, and projected population and associated waste flows.

Response to Comment O14-186

In response to cumulative impacts and the planned life of the facility, please refer to the responses to the Washington State Department of Natural Resources, Comment W3-6, and the Suquamish Tribe, Comment T1-28. The cumulative impacts discussion in Chapter 11 has been expanded in the Final EIS.

In response to financial impacts, property values, and loss of tax revenues, please refer to the response to The Washington Tea Party, Comment O14-32.

1. Show how the cumulative impact of the proposed sewage plant in Edmonds has already been considered. It is not enough simply to say there would be an impact. The cumulative impact is the most important impact of the proposed sewage plant.
2. Give a thorough quantitative financial analysis of the impact.
3. How many years would the land be used for a sewage plant?
4. Estimate the opportunity cost of the use of the land as a sewage plant site over the lifetime of the proposed plant.
5. What would be the loss of property taxes for the site itself (the direct loss) over the lifetime of the proposed plant, if the property were to be removed from the tax rolls?
6. Be sure to allow for the increase in assessed valuation over 100 years.
7. Be sure to include not only the loss of property taxes that would go to Edmonds, but also those dollars that would go to school districts, library districts, the Port of Edmonds District, the Snohomish County, and the State of Washington.
8. Estimate the decrease in property values in the Edmonds Bowl and Woodway caused by proximity to the proposed sewage plant.
9. Include the indirect loss of property taxes through decreased valuation of property in the Edmonds Bowl and in Woodway.
10. Include the loss of sales taxes that would be collected from future residents of the site who would have shopped in Edmonds and by visitors who would no longer come to Edmonds to shop.
11. Include the loss of utility taxes that would be paid by future residents of the site.
12. Estimate the value of lost recreational use of the Edmonds waterfront.
13. Include the value of other lost recreational opportunities.
14. Include the loss of business sales of businesses located in downtown Edmonds and the waterfront area.
15. Calculate the present value of the 100-year stream of losses.
16. Justify the discount rate King County used in computing present value.
17. Have a nice day.

O14-186 18. An Edmonds kind of day.

O14-187 The DEIS (page 11-37) admits that Edmonds is not in King County's service area, but states that the site selection is consistent with the Edmonds Comprehensive Plan policy because it is "located in the same general geographic area that will be served by the facility."

1. Explain what is meant by "general geographic area". Be specific.
2. Could Everett be considered to be in the same general geographic area as the Alderwood Water District's service area?
3. If so, explain why sites near the existing Everett sewage plant were not even considered as candidate sites for the proposed sewage plant.

O14-188 The DEIS (pages 11-36 to 11-39) gives an analysis of the Comprehensive Plan and City Code requirements for the City of Edmonds.

1. Provide a similar analysis covering the plan and code requirements for the Town of Woodway, which the Unocal property abuts.

O14-189 The DEIS (page 11-35) refers to Snohomish County siting process Factor 3, which covers the relationship of other land use plans with that of the host community. King County says that "very few local plans contemplate the siting of a regional wastewater treatment plant."

1. Acknowledge the fact that the Edmonds Comprehensive Plan does provide for two regional wastewater treatment plants, which are already in operation.

11.2.3.2 Operational Impacts

The points raised above relate to text under the "Construction Impacts" section, but most are more relevant to the matter of "Operation Impacts."

11-8

Response to Comment O14-187

Please refer to Chapter 2 and Appendix 2-A, Population and Flow Analysis, of the Final EIS for a geographic overview of King County's wastewater service area. Edmonds is served by King County's wastewater treatment services. King County currently treats wastewater from Edmonds 6 months out of the year through a flow transfer agreement. Everett is largely outside of the geographic service area. No sites in Everett were evaluated because only a very small area, less than an acre, in south east Everett is served by the Alderwood Water and Sewer District, who then conveys this flow to King County's regional plant at West Point.

Response to Comment O14-188

Information from the Town of Woodway Comprehensive Plan has been added to Appendix 11-A, Land Use Plans and Policies: Brightwater Regional Wastewater Treatment System, of the Final EIS, as it relates to the siting of Brightwater System facilities that are within its jurisdiction.

Response to Comment O14-189

Chapter 11 of the Final EIS has been revised to acknowledge the presence of other regional public facilities in the vicinity of the Unocal site. Please refer to the response to the City of Edmonds, Comment C9-5, for a discussion of the Brightwater Treatment Plant's relationship to land use plans and policies.

11.3.3.1 Unocal Site

O14-190

The DEIS (page 11-55) mentions the cumulative impact of the loss of potential economic opportunities and housing capacity.

1. Using the present value of the cumulative economic losses sustained by Edmonds calculated above, present a detailed proposal about how King County would mitigate these losses.
2. How would King County propose to compensate the City and private owners of land in the City, as well as other entities that would suffer a loss?

O14-191

The DEIS (page 11-57) states "construction and co-location of a multimodal transportation facility on the Unocal site would result in significant mitigation by opening up the existing ferry terminal land for development." The multimodal facility is a longstanding project plan. Opening up the existing ferry terminal land for development would result from the building of the multimodal facility. It should not be claimed as mitigation.

1. Remove this mitigation claim.

O14-192

The DEIS (page 11-58) refers to holding community design workshops for the proposed sewage plant as mitigation.

1. Review the definition of mitigation given on page G-12.
2. Remove the reference to community design workshops. Holding meetings is not mitigation.

11-9

Response to Comment O14-190

In response to cumulative impacts, please refer to the responses to the Washington State Department of Natural Resources, Comment W3-6, and the Suquamish Tribe, Comment T1-15. The cumulative impacts discussion in Chapter 11 has been expanded in the Final EIS.

In response to economic impacts, property values, and loss of tax revenues, please refer to the response to Comment O14-32 in this letter.

In response to compensation for landowners, acquisition of the property would follow the property acquisition process used by King County Wastewater Treatment Division (WTD). In addition to acquiring property, the County often needs to purchase easements (i.e., the right to use property owned by another person for a particular purpose). Typically the property King County WTD can acquire falls into three categories: temporary construction easements, permanent utility easements, and ownership. Any relocation of uses would be in accordance with the federal Uniform Relocation and Real Property Acquisition Policies Act, as it applies to displaced businesses, residential owners, and tenants. WTD's real property acquisition procedures are designed to provide consistent and equitable treatment of all affected property owners and tenants (King County, Department of Natural Resources and Parks, Wastewater Treatment Division. 2003a and 2003b). Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation website at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

Response to Comment O14-191

Thank you for your comment.

Response to Comment O14-192

A definition of "mitigation" appears on Page G-12 in the Glossary of the Draft EIS. An explanation of the purpose of the Design Guidelines Workshops can be found in the Draft EIS, Chapter 12, Section 12.3 "Mitigation Measures" (available at: http://dnr.metrokc.gov/WTD/brightwater/env/deis/chapters/Ch-12.pdf).

Design Guidelines Workshops allow the community to participate in the design process. The community's ideas and suggestions can help direct the development of visual mitigation recommendations and mitigation options. Public meetings are held to facilitate the process where King County and host jurisdictions work together to determine what mitigation measures will be put forth as part of the Brightwater siting process and permitting that will follow at the selected site. Meetings alone are not considered mitigation. For additional information on mitigation, please refer to the response to the City of Shoreline, Comment C6-5.

Chapter 12

Aesthetics

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 12 - Aesthetics

Introduction

O14-193 This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to aesthetics for the proposed King County sewage system, **but it does not or does so only superficially**. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS completely lack supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

O14-194 This chapter is filled with undefined and vague terms, such as "might," "could be implemented," "some or all," and such verbiage. There is no commitment to any plan, design, or process. Because of this purposeful vagueness, the public is unable to assess the aesthetic impact of King County's proposed sewage treatment plant.

Edmonds, long known as the "Gem of Puget Sound," is recognized regionally as a highly desirable place to live, for its beaches, waterfront attractions, its ferries, its small town look and atmosphere, and as a tourist destination. All these features combine to make it one of the most aesthetically desirable places to live and visit in the entire Pacific Northwest. A mega sewage plant that dominates the waterfront, downtown, and the much-prized residential areas in "The Bowl" would have a devastating and lasting effect on the very existence of Edmonds as it is today and as the people and the City of Edmonds plan it for tomorrow.

12-1

Response to Comment O14-193

Please refer to the response to Comment O14-71 in this letter.

Response to Comment O14-194

Please refer to the response to Comment O14-71 in this letter.

12.1 Affected Environment

O14-195 Aesthetics is "the sense of perception" (Webster). The DEIS addresses the visual qualities of the sewage plant site but neglects to consider how people perceive things: through all of their senses, including hearing, taste, and smell.

1. Discuss the effects of noise and odor in the aesthetics chapter.
2. Why does this section not even refer to community planning and visions, "preferences" long looked forward to: a future without Unocal or any industrial facility prominent in the magnificent setting?

12.1.2.1 Regulatory Environment - Unocal Site – Visual/Aesthetic Characteristics of the Site

The DEIS states that the Unocal site is "characterized as an industrial landscape resulting from development and ultimate removal of a former bulk terminal or "tank farm'...." (page 12-3).

The "tank farm" was demolished in the summer of 2001. The site has been rezoned and is being environmentally cleaned. It is under active consideration for up-scale multi-family residences. Past use has nothing to do with future use.

O14-196
1. Who characterized the visual/aesthetic conditions?
2. What was the methodology used in locating conditions or locales to evaluate?
3. What are the qualifications of those who prepared the evaluation?
4. Was anyone from the Edmonds community, knowledgeable about the sewage treatment plant proposal from a critical perspective, consulted as an onsite guide to local aesthetics, viewpoints, and issues for this evaluation?
5. If not, why not?
6. Include the report generated from the above study, or complete such a study and include it, in a supplemental DEIS.

12-2

Response to Comment O14-195

Consistent with the SEPA rules (WAC 197-11-444), the Draft EIS and Final EIS are organized around elements of the environment. Noise impacts are addressed in Chapter 10, while odors are addressed in Chapter 5. Chapter 11 addresses the compatibility of the project with applicable plans and policies, many of which express community preferences and visions.

Aesthetic analysis was conducted from many elevations and at many locations within neighborhoods in Edmonds. Chapter 12 indicates that the hillside and treatment plant would be visible and would become a dominant focal point from many vantages with Edmonds.

Response to Comment O14-196

For the CH2M HILL EIS Team, SB and Associates is the professional aesthetics/visual environmental analyst for the Brightwater Regional Wastewater Treatment System EIS.

The characterization and recording methodology is described in the Draft and Final EIS. The methodology included extensive field observation and photographic recording from multiple viewpoints along each side of the site and within the surrounding community.

A series of public workshops were held in 2002 to obtain community input on site qualities and aesthetic resources. The results of these workshops are found in the Draft EIS Technical Appendices.

The characterization of the existing aesthetic conditions of the Unocal site as an "industrial" and remnant "tank farm" landscape is derived from the remaining terraces, spills basins and conveyance structures visible on the site's exposed hillside slopes and shoreline. These remnants are clearly expressive and reflective of its 70-year Unocal industrial and tank farm past.

O14-197

The DEIS states, "The City of Edmonds recently purchased a small waterfront portion of the site for a public park. This park is currently in use." This statement refers to Marina Beach Park, which is directly below the Unocal site.

1. What is the view like from the beach - looking out across the Sound, and then back at the hillside looming above it?
2. Was the impact of having a sewage plant looming directly above the beach assessed?
3. Provide statistics gathered to indicate how much "this park is currently in use."
4. Provide statistics on use by children and adults on average days, holidays, and weekend days in various seasons of the year.
5. Has the impact of a sewage treatment plant on the marina and on nearby restaurants and hotels been factored into the use of the beach?
6. If such a study has been done, please include it in a supplemental DEIS.
7. If not, why not?

O14-198

Summary of Existing View Corridors and Major Visual Landmarks

"Distant view corridors to the site are from City of Edmonds neighborhoods from just above downtown to the east ridgeline. . . ." The view of the Unocal hill has a spectacular prominence, especially in grey or foggy weather, when the view of the shore across the Sound is obscured. Like Mt. Rainier, as experienced by those who live in Seattle, it can appear very close one day and not so close the next. It is the single most prominent feature of the landscape in many people's main living room window who live with an western exposure from the hillsides above the site.

1. Why is the particular phraseology used in this report?
2. What care was taken to edit for even-handed judgment? The text seems to be fully descriptive at times, but fully bland at others, which appears to be linguistic bias.
3. Did the evaluator go to any of the houses in the neighborhoods referred to and look out their windows?
4. Has anyone counted the number of homes that have such an exposure and would be affected?
5. What is the average real estate value of these homes today?

12-3

Response to Comment O14-197

Chapter 12 of the Final EIS describes and illustrates the affected aesthetic environment and impacts on views toward the Brightwater Treatment Plant, including views from Marina Beach Park. Chapter 14 of the Final EIS acknowledges potential aesthetic impacts to adjacent recreational areas would be mitigated through facility design.

A yearlong survey was conducted by King County to identify human recreational patterns within the Brightwater project siting area. The findings of this survey are discussed in Chapter 14 of the Final EIS.

Response to Comment O14-198

Aesthetic analysis was conducted from many elevations and at many locations within neighborhoods in Edmonds. Chapter 12of the Final EIS indicates that the hillside and treatment plant would be visible and would become a dominant focal point from many vantages within Edmonds.

Regarding real estate values, SEPA does not require the evaluation of economic impacts resulting from a proposed action. “SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighting and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers” (WAC 197-11-448(1)).

6. How would a sewage plant, as a main living room view, affect the "View for Sale" value of these homes? Analyze and provide the report in a supplemental DEIS.
7. Have any local real estate professionals been contacted for consultation on this question?
8. If so, please provide their report(s) in a supplemental DEIS.
9. If not, why not?
10. If not, please consult with local real estate professionals and provide their report(s) in their entirety in a supplemental DEIS.

O14-198

12.1.3 Conveyance Corridors

O14-199

The DEIS states that specific sites for the portals have not been selected (page 12-6).

1. Why have the portal sites not been identified?
2. When will portal sites be identified?
3. Explain how legal requirements for a DEIS can be met if specific locations are not known.
4. Issue a supplemental DEIS for public comment to cover the portal sites.

12.2.1 Impacts - Methodology

O14-200

The DEIS states that visual and aesthetic characterizations and assessments were conducted through review and evaluation of historic photographs and descriptions (page 12-10).

1. Provide a list of all photos and descriptions used.
2. Provide all photographs and descriptions used for this study.
3. Provide all photographs and descriptions applicable to the area which were not used in the study.
4. Explain the usefulness of this assessment.

O14-201

The DEIS also states that contemporary aerial photographs were used to determine visual and aesthetic characterizations and assessments.

1. Provide a list of all aerial photographs used

12-4

Response to Comment O14-199

Please refer to the response to Comment O14-178 in this letter.

Response to Comment O14-200

Aerial photographs of Brightwater System facilities can be viewed in the Discovery Report prepared for the Brightwater project and used as the basis for site context and surrounding environment understanding. A Bibliography is provided on pages 25 and 26 of this document. Also, the State of Washington Department of Natural Resource's shoreline aerial photography website was utilized, as were historic photos and aerials from King County DNR project archives/library.

The photos shown in Chapter 12 were taken in early 2002 during Draft EIS preparation. These photos are but a small selection of the photographic record taken during field observation and analysis trips. The photos that are presented do, however, represent views from all sides of each site and accurately depict the range of existing aesthetic/visual conditions and impacts associated with each of the proposed treatment facilities.

Response to Comment O14-201

Please refer to the response to Comments O14-198 and O14-200 in this letter.

O14-201

2. State where these aerial photographs are available for examination.
3. Explain the usefulness of this assessment.

O14-202

The DEIS states that aesthetic impacts were further assessed by developing a three-dimensional model of the sewage plant sites.

1. How can this be accurate when the public has seen only conceptual drawings and displays?
2. If three-dimensional models have been developed, why has the public not been informed of the actual facility dimensions, placement, etc.
3. Who has seen these models?
4. If three-dimensional models have been developed, where can these models be seen?
5. Have they been available for public viewing?
6. If so, where and when?
7. If not, why not?
8. More importantly, if King County has not defined the final design, how can these models be representative?

12.2.2.1 Treatment Plant Sites - Construction Impacts

O14-203

The DEIS recognizes that short-term and construction-related aesthetic impacts would result at the Unocal site (page 12-11). The DEIS discusses visual impacts only and, as already stated in comments on 12.1, fails to address noise as a component of aesthetics. Everyone within sight and sound of the sewage plant and barge construction sites would be negatively impacted. In addition, businesses and other commercial operations would be negatively impacted by construction activities,

1. Itemize those businesses and commercial operations that would be negatively impacted both visually and by noise during the construction period.
2. Calculate the monetary losses that would accrue and present the results in the final EIS.
3. Calculate the loss in revenue from property taxes to the City of Edmonds and present the results in the final EIS.

12-5

Response to Comment O14-202

The three-dimensional assessment models, used in the Chapter 12, Aesthetic Section, of both the Draft and Final EIS, are computer generated 3-D simulations, or models, of each of the treatment plant concepts. These models were developed using proposed facility layout, scale, height and site elevation data combined with, or inserted into, multiple viewpoint site photographs. These 3-D simulations delineated specific facility image “envelopes” used to examine and describe facility impacts and mitigation responses from many viewpoints. These 3-D models are presented, as color graphics, in both the Draft and Final EIS. The simulations do not illustrate, and therefore do not analyze, any design development or details beyond those of layout, scale, height and relative site elevations. Color has been added to indicate differences in various elements, such as buildings versus retaining walls and different vegetation types. King County will be developing many more models and simulations of specific facility design elements as the project continues through design development, community workshops, and permitting.

Response to Comment O14-203

Noise and noise-related impacts associated with Brightwater are addressed in Chapter 10 of the Final EIS.

Increases or decreases in business revenues, tax revenues, and property values are not environmental impacts, and are not addressed in the EIS. Before construction begins, King County will work with local jurisdictions to gain permits and will work to address concerns associated with the construction and operation of the Brightwater System.

4. Calculate the loss of revenue from property taxes to Snohomish County, the Edmonds School District, the Sno-Isle Regional Library System, and any other entity that derives income from Edmonds property taxes and present the results in the final EIS.
5. Calculate the loss of sales tax revenue to the State of Washington and present the results in the final EIS.

O14-203

O14-204

The businesses along the waterfront adjacent to the Unocal site would be particularly hard hit. It is doubtful that the up-scale restaurants would be able to continue in their present locations. They would suffer the most from construction noise and dust.

1. Calculate the impact of the loss of key businesses to the Edmonds economy and present the results in the final EIS.
2. How would King County mitigate this loss?
3. Calculate the loss of income to business owners and employees and present the results in the final EIS.
4. How would King County mitigate this loss?

O14-205

People who live within sight and sound of the sewage plant and the barge dock construction sites would not only have their lives disrupted for 6 years, but their homes would be devalued.

1. Calculate the number of people affected and present the results in the final EIS.
2. Calculate the loss in revenue from property taxes to the City of Edmonds and present the results in the final EIS.
3. Calculate the loss of revenue from property taxes to Snohomish County, school districts, library districts, and any other entity that derives income from Edmonds property taxes.
4. Present the results of these calculations in a supplemental DEIS.

O14-206

Marina Beach Park has become an all-time favorite with both locals and out-of-town visitors. Although the DEIS acknowledges there would be negative aesthetic impacts on Marina Beach Park from construction of the barge dock and ancillary features (page 12-11), it fails to explain them.

1. Itemize all the negative aesthetic impacts relating to the construction of the barge dock and ancillary features
2. Discuss in detail the effects of noise in relation to #1 above.

12-6

Response to Comment O14-204

Increases or decreases in business revenues, tax revenues, and property values are not environmental impacts, and are not addressed in the EIS. Before construction begins, King County will work with local jurisdictions to gain permits and will work to address concerns associated with the construction and operation of the Brightwater System.

Response to Comment O14-205

Please refer to the response to Comment O14-204 in this letter.

Response to Comment O14-206

The barge dock is no longer being considered as an element for Brightwater construction.

3. Specify the time it would take to restore Marina Beach Park to either its present aesthetic condition or an improved aesthetic condition.
4. Identify any permanent effects construction of the proposed sewage treatment plant would have on any species inhabiting the area.

O14-206

12.2.2.2 Operational Impacts - Unocal Site

The DEIS recognizes that the proposed sewage plant "would not be fully consistent with the aesthetic and visual compatibility site development standards of the City of Edmonds' MP 1 and MP 2 zones" (p.12-12). The DEIS identifies four of the Architectural Design Review (ADR) criteria to which the sewage plant would not conform. However, it fails to identify a fifth, namely ADR criterion A.4. "Long, massive, unbroken, or monotonous buildings shall be avoided in order to . . . . provide space for landscaping and recreational facilities." (ECDC 20.10.070) Since the DEIS acknowledges that the sewage plant would present a view of "large building masses and long, linear and horizontally dominant structures" (page 12-13), the proposed sewage treatment plant fails to meet criterion A.4.

O14-207

1. Add criterion A.4 to the list.
2. Explain what recreational facilities would be included.
3. Who would have access to them?
4. Explain how that access would be gained.
5. What times of day (or night) would the recreational facilities be accessible?
6. What would be the impacts of the lighting of these facilities?
7. Describe in detail the landscaping features King County would incorporate in the sewage plant design.
8. Provide a layout plan for the landscaping features. Conceptual drawings are not acceptable.
9. Identify who would bear the cost of maintenance of the recreational facilities.
10. Identify who would bear the cost of maintenance of the landscaping features.

O14-208

The DEIS states, "although some additional site area would be used for increased facility processing capacity, aesthetic impacts from the 72-mgd treatment plant sub-alternative . . . would follow closely those modeled and evaluated for the 36-mgd and 54-mgd treatment plants at the Unocal site." (page 12-12)

12-7

Response to Comment O14-207

The Draft and Final EIS address the criteria for avoiding "…long, massive, unbroken and monotonous buildings" and recommends several mitigation responses, including provision of landscape screens and buffers to meet or exceed zoning and design standards.

Landscape buffering mitigation has been developed for perimeter and interior areas of the treatment plant in order to evaluate the effectiveness of this type of aesthetic impact mitigation. The impact and mitigation models prepared and documented for the Draft and Final EIS illustrate this analysis process. Please refer to Chapter 12 of the Final EIS.

Detailed design of landscape buffers and any recreational mitigation elements would be determined during permitting with the local jurisdiction. The cost of maintaining landscape buffers on the treatment plant site would be born by King County.

Response to Comment O14-208

From an aesthetic point of view the impacts associated with the Unocal 72-mgd sub-alternative would "follow closely," or be similar in extent and character, to those identified for the 36- and 54-mgd treatment facilities at the Unocal site. There would be some reduction of buffering mitigation capacity in the perimeter area, along the northern property limits at the marsh. Please refer to Chapters 3 and 12 of the Final EIS for additional information regarding the Unocal 72-mgd sub-alternative.

1. Explain what is meant by "closely" in this context.
2. Since the DEIS does not say follow "exactly," itemize all the ways the aesthetic impacts would not duplicate in every way and without exception the aesthetic impacts for the 34-mgd and 54-mgd plants.
3. Detail exactly the "additional site area" that would be used for the 72-mgd plant. Provide clear, easy-to-read, large-scale maps, drawn to scale. Conceptual drawings are not acceptable.

O14-208

The DEIS states that "lidding at the site could be done to accommodate a multi-modal transportation facility or some other feature such as a park." (page 12-12) "Aesthetic impacts . . . follow closely those [of] the 36-mgd and 54-mgd treatment plants at the Unocal site."

O14-209

1. Explain what is meant by "closely" in this context.
2. Since the DEIS does not say follow "exactly," itemize all the ways the aesthetic impacts of the lidded subalternative would not duplicate in every way and without exception the aesthetic impacts for the 34-mgd and 54-mgd plants.

O14-210

The DEIS states that a park on the lid could include "a small amount of active recreation within a passive park setting of trails and viewpoints." (page 12-13). To preserve the aesthetic quality of a park, it must be maintained adequately, and, in order to provide for the safety and peace of mind of its users, the park must be policed.

1. Define "active recreation" as it is used in this context.
2. Define "a small amount" as it is used in this context.
3. Specifically, what recreational activities might fit into this definition?
4. Provide a plan of the "lid-top" park showing details of the active recreation area(s) and the trails. Conceptual drawings are not acceptable.
5. Explain how King County would provide for the maintenance and upkeep of the park over the next one hundred years.
6. Explain how King County would provide for policing the park over the next one hundred years.
7. Would the park plans include any facility that could be used for night-time events?
8. If night activities would be possible, explain what steps King County would take to eliminate glare from lights.

12-8

Response to Comment O14-209

The Unocal Structural Lid sub-alternative does add to the physical scale and mass of the treatment plant. This alternative also provides a "capping and consolidation" of the treatment facilities at the lower and northern portions of the site. The lid alternative also provides an increased capacity to support landscape-buffering mitigation along the lid's perimeter at a higher, more effective elevation. Please refer to Chapter 3, Appendix 3-A, Project Description: Treatment Plant, and Chapter 12, of the Final EIS for a detailed description of the Unocal Structural Lid sub-alternative and proposed design concepts.

Response to Comment O14-210

The Draft EIS described a conceptual park and recreation use for the Unocal Structural Lid sub-alternative. The park facility is no longer being considered as a component to this sub-alternative in the Final EIS.

O14-210 9. If night activities would be possible, explain what steps King County would take to abate noise levels.

O14-211 The DEIS states, "A park on the treatment plant lid could include a small amount of active recreation within a passive park setting of trails and viewpoints. Interpretive elements could be integrated into the plan. A park lid would visually change the character of the views from industrial to urban park." Keep in mind that this is not a comparison with a heavily concreted downtown like Seattle, where the Freeway Park over I-5 is a relief from pavement, but rather a largely natural setting where such a downtown park would be jarringly inappropriate.

1. Has King County conducted a survey to ascertain whether the Edmonds public would accept a sewage plant lid aesthetically as a park in comparison to a natural area?
2. If so, please provide the survey, in its entirety, in a supplemental DEIS.
3. If not, why not?
4. If not, please conduct such a survey and provide survey results in a supplemental DEIS.
5. Provide the survey instrument and responses.
6. What governmental agency would be responsible for park maintenance and the cost of maintenance?
7. What governmental agency would be responsible for the safety of park users and the cost of providing that safety?
8. When, where, and how was the survey taken?
9. Provide the dates and times of day surveys were conducted, and the number of people responding.
10. How much would this type of structural and landscaping effort cost to build?
11. How would it be built? Be specific and provide detailed drawings.
12. Who would bear the cost?
13. How would the park experience be maintained as a natural area simulation?
14. What exactly would the lid be on top of? How would odors from within the cisterns or facilities below be controlled?
15. Would this not affect odor control engineering and take away from the ability of the engineers to focus on odor chemistry as a single issue?
16. Provide the engineering drawings or support work showing the feasibility of this concept.
17. Where is a professional engineering or scientific assessment as to the long-term or short-term feasibility of this concept?

12-9

Response to Comment O14-211

Please refer to the response to Comment O14-210 in this letter.

O14-211

18. What type of engineering and maintenance issues would arise from decades of aging in this type of structure?
19. What extra cost burdens would come from an earthquake event?
20. Who would bear the cost of repair?
21. If funds for complete restoration are not available to King County in the future, what low cost alternative would be necessary? Edmonds would demand the highest quality available for all repairs.

Major Visual landmarks

O14-212

The DEIS once again refers to the Unocal site as the "tank farm, that until recently was integral to Point Edwards, Edmonds Marsh, and the City of Edmonds." (page 12-14). This section discusses the visual impacts of the proposed sewage treatment plant. Past use has nothing to do with future use.

1. Delete all references to the former use of the Unocal site.

12.2.3.2 Operational Impacts - Unocal Corridor

O14-213

The DEIS states that specific sites for the portals have not been selected (p.12-6). The same comments made in response to 12.1.3 apply here.

1. Why have the portal sites not been identified?
2. Explain how legal requirements for a DEIS can be met if specific locations are not known.
3. Explain how the public can respond to the DEIS when portal sites, building technology, sewage processing technology, and other technologies that would impact the environment have not been identified?
4. Issue a supplemental DEIS for public comment to cover the portal sites.

12-10

Response to Comment O14-212

The reference to the "tank farm" is associated with the description of remaining terraces, spill basins, and structures from this facility that formed the affected environmental condition as studied in early 2002. The term used best describes what was seen on this hillside in 2002.

Response to Comment O14-213

Please refer to the response to Comment O14-178 in this letter.

12.2.4 Outfall Zones

The DEIS states that the aesthetic impact of construction of the outfall zone would be temporary (page 12-18).

1. Specify the construction time involved for Zone 6.

The DEIS states that the construction impact for Zone 6 would be a view of a barge with construction equipment. It can be assumed that the construction equipment would be used.

1. Specify the exact location of the barge. Provide a detailed map.
2. Would the barge ever be moved during the construction process?
3. If so, to what specific location or locations? Provide a detailed map.
4. O14-214 Would the construction equipment ever be moved from the barge during the construction period?
5. If so, to what location or locations? Provide a detailed map.
6. Has the noise level of the construction equipment on the barge been studied?
7. Supply the results of such study or studies.
8. If a noise level study has not been done, why not?
9. Provide all references in a supplemental DEIS.

The DEIS also states that "views of existing upland marine shoreline would be altered to that of a construction site during the construction period." (page 12-18)

1. Specify how long it would take to have the areas impacted by the construction of Zone 6 restored to an acceptable aesthetic condition, to City of Edmonds specifications.

12.2.4.2 Operational Impacts

O14-215 The DEIS states "there would be no long-term aesthetic impacts associated with the operation of the outfall within . . . Zone 6." (page 12-18)

1. Detail all short-term aesthetic impacts associated with the operation of outfall Zone 6.

12-11

Response to Comment O14-214

Substantial new information regarding construction of the marine outfall, including construction techniques, staging areas, onshore/offshore construction equipment, and barge location and uses is provided in Chapter 3 of the Final EIS. Total construction duration for all outfall and diffuser pipeline alignments is estimated at 10 to 12 months.

Response to Comment O14-215

Because effluent would be discharged well offshore and at substantial depth, there would be no aesthetic impacts associated with operation of the outfall in either Zone 6 or Zone 7S. Chapter 12 of the Final EIS documents short-term, construction-related impacts associated with construction of the outfall in Zone 6.

2. Define the term "long-term" as it is used in this context.
3. Define the term "short-term" as it is used in this context.
4. What study or supporting documentation substantiates this statement?
O14-215 5. Supply that study and/or supporting documentation in a supplemental DEIS.

12.3.1.1 Mitigation Measures – Treatment Plant Sites – Unocal Site – Construction

The DEIS concedes that there will be aesthetic impacts during the construction period (page 12-22). One method it proposes to mitigate the construction impacts is to "manage associated visible activity and visual access to construction facilities and equipment during nighttime periods ....."
O14-216 (page 12-22).

1. Explain what the word "manage" means in this context.
2. The euphemism "BMP" is not acceptable as any part of the answer.

The DEIS proposes ways of mitigating negative visual impacts, but not negative noise impacts. Both determine how human beings perceive through their senses.

O14-217 1. Discuss the ways King County proposes to mitigate for negative sound impacts during the construction period.
2. King County must comply with Edmonds' limitations on noise, especially between the hours of 11:30 p.m. and 6:00 a.m. (ECDC 17.60.010)

O14-218 The DEIS lists several viewpoints and view corridors that could be considered for short-term mitigation but states, "many of the other nearby and distant viewpoints and associated view corridor impacts could not be reasonably mitigated due to scale of construction activity and the exposed orientation and visual prominence of the site." (page 12-22)

1. Specify which viewpoints and view corridors could not be mitigated? Provide in detail the location of these viewpoints and associated view corridors.
2. Explain why they could not be mitigated.

12-12

Response to Comment O14-216

Light and glare, nighttime construction impacts, and associated mitigation are discussed in Chapter 13 of the Final EIS.

Response to Comment O14-217

Please refer to Chapter 10 for a discussion of noise and vibration.

Response to Comment O14-218

The description of visual/aesthetic impacts and mitigation in Chapter 12 of the Draft EIS is accurate and complete. Chapter 12 includes figures identifying the various veiwpoints from which aesthetic impact images were prepared and studied. Chapter 12 acknowledges that the treatment plant at the Unocal site would be visible from many key civic/public and neighborhood vantage points within the City of Edmonds' downtown and hillside neighborhoods and Puget Sound. Impacts from the various viewpoints are described in the Unocal Treatment Plant section.

Chapter 12 acknowledges that there will be long-term unavoidable adverse aesthetic impacts if the treatment plant is constructed at the Unocal site. Although facility and site design would be directed at achieving consistency with applicable local regulations, policies, and codes and minimizing impacts to the greatest extent possible, there would be a significant and permanent change to the look and character of this prominent hillside. The treatment plant would present a large and prominent facility in its place through major alterations in the site's shape, topography, and vegetation pattern and through the introduction of large-scaled retaining structures and process buildings.

SEPA does not require the evaluation of economic impacts resulting from a proposed action. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into

account in weighting and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

O14-218

3. Explain why business operators cannot be compensated for losses caused by the noise and loss of the general aesthetic appeal of their business sites.
4. Explain why employees cannot be compensated for the jobs they would lose because of a business slowdown or closure due to the negative construction impacts.

O14-219

In this chapter the DEIS states that the proposed sewage treatment plant "would become a major visual landmark" (page 12-14); however, the DEIS fails to address the plight of the Edmonds residents who would be adversely impacted by the construction of the proposed sewage plant. The question is: "Everything else being equal, would you buy a house with a view or a sewage plant?"

1. Define "major visual landmark" as it is used in this context.
2. Why has the DEIS failed to address the effects of the proposed sewage plant on the property values? Provide a detailed mitigation plan.
3. Why does King County claim that many of the other nearby and distant viewpoints and associated view corridor impacts would not be reasonably mitigated?
4. How does King County plan to compensate individual property owners for lowered property values, during both the construction period and the life of the plant?
5. How can there be room to accommodate a design to "distribute buildings and structures onsite leaving breaks or apparent breaks between buildings and structures," given the limited space of the Unocal site? Provide a detailed, factual plan. Conceptual drawings are not acceptable.
6. What specifically does "reduce view access" mean?
7. Would existing vegetation be retained?
8. If not, describe how much and what vegetation would be retained and what would not.
9. What exactly does "meet and exceed" standards in these categories mean? Provide architectural rendering.

Operational

O14-220

In this chapter, the DEIS identifies four of the Architectural Design Criteria to which the sewage plant would not conform (page 12-12). A fifth (ADR criterion A-4) is identified in this response.

12-13

Response to Comment O14-219

A visual landmark is, because of its visual prominence and visual accessibility from many points of view, a pronounced focal feature in the landscape. In the case of the Unocal site, the scale and mass of the treatment plant combined with the exposed hillside make for a major visual landmark.

Please refer to the response to Comment O14-198 in this letter regarding real estate value assessments in EIS review.

Existing vegetation would be retained along the northern portions of the site along the existing sediment pond, marsh, and fish hatchery areas. Please refer to figures for the Unocal site in Chapter 3 of the Final EIS for an illustration of the vegetation/landscape plantings to remain (those associated with the retained marsh and pond wetlands) and to be enhanced along the northern marsh boundary of the site. The Key Map for Unocal Site Impact Viewpoints in Chapter 3 shows in dark green the perimeter area of both retained vegetation and enhanced landscape.

Response to Comment O14-220

Please refer to the responses to the Point Edwards LLC, Comments I343-25 and I343-27.

And yet the DEIS states in this section that some ways of mitigating the negative aesthetic impacts of the plant would be to "address all of the Design Review criteria. . . ." (page 12-22)

O14-220 1. Explain King County's statements.

The DEIS states that King County would "Vary the length, relief, depth, [and several other architectural features of buildings, retaining wall façades, and roofs] to avoid . . . monotonous buildings." (page 12-22, **Operational**, second bullet). However, an earlier section the DEIS states, "most nearby and distant views to the site would present large building masses and long, linear and horizontally dominant structures at the upper and mid levels" (page 12-13, **Aesthetic Setting**, first paragraph), and that the lidding subalternative would be a "continuous horizontal band . . . (30 and 40 feet in depth by approximately 2,400 feet in length) along the northern perimeter of the proposed facility. The band would occur at . . . a[n] elevation of 50 feet." (page 12-13, first full paragraph). No attempted tweaking of the ADR criteria could mitigate the sheer O14-221 bulk and mass of a mega sewage plant, when it is situated in such an exposed position as the Unocal site.

The DEIS states that King County proposes to mitigate the negative aesthetic impacts to "meet and exceed standards for setbacks, screening, and buffering. . . ." (page 12-23, second bullet).

1. Explain how "meeting standards" is a form of mitigation.
2. Are there any areas or instances in the entire construction and operation phases in which King County may not meet standards?
3. If so, please supply a complete list.

O14-222 The proposed Unocal site is very small, and many believe it would not accommodate the proposed sewage treatment plant. If King County exceeds standards for screening and buffering, especially if the screens and buffers involve the planting of trees or simply distance, adjacent properties may have to be expropriated by eminent domain.

1. Supply a detailed plan of the screens and buffers anticipated as a method of mitigation. Conceptual drawings are not acceptable.
2. List any properties that may have to be procured (by any means) to accommodate the screens and buffers now and over the next hundred years.

12-14

Response to Comment O14-221

Many of the design standards are in themselves regulations defining mitigation of various land use conditions and characteristics, such as screening of parking areas and utilities, reducing building mass and scale, and application of visually separating landscape screening or buffering. Thus, meeting or exceeding these standards would support the larger mitigation effort. Please refer to the response to Point Edwards, LLC, Comment I343-25.

Response to Comment O14-222

Please refer to the response to the Point Edwards LLC, Comment I343-13, regarding buffer/mitigation area widths and characteristics.

Mitigation screening and buffering is illustrated in Chapter 12 of the Draft EIS and Final EIS. No property is currently slated for procurement for the purposes of screening or buffering. Chapter 12 outlines a range of mitigation recommendations for reducing or minimizing aesthetic impacts, including scale, mass, material reflectivity, and other impacts. Please refer to Chapter 13 of the Final EIS for mitigation recommendations for offsite light and glare impacts.

The DEIS states (page 12-23), "The major aesthetic impact of a treatment plant at the Unocal site would be the large scale and prominence of the facility in relation to existing uses and natural settings in the vicinity. To reduce the scale. . . ." followed by a list of *possibilities*.

O14-222

1. Would scale-reduction involve the use of mirrors?
2. Explain how it is possible to reduce the apparent scale of buildings, structures, and retaining walls while enhancing the landmark characteristics of the hillside?
3. Describe how the scale would be reduced on an already too-small building site on a steep hillside?
4. Define "interrupt" as it is used in this context.
5. What plants would increase short-term screening? Be specific.
6. What plants would increase long-term screening? Be specific.
7. Where would these plants be planted? Be specific.
8. How long would selected plants take to mature? Be specific.
9. What vegetation would not be retained? Be specific.
10. What techniques would be used to limit offsite glare? Be specific.
11. What techniques would be used to limit material reflectivity? Be specific.
12. What techniques would be used to limit light? Be specific.

O14-223

The Unocal tank farm was painted green to blend with the surrounding landscape. The profile of that facility was a highly visible eyesore, regardless of the color.

1. What color schemes does King County envision that would make the proposed sewage treatment plant blend with the surrounding landscape?
2. What color schemes does King County envision that would make the proposed sewage treatment plant blend with the surrounding context?

O14-224

The DEIS contemplates a "community friendly appearance," possibly enhanced with public art. Such an appearance could only be achieved by complete non-presence. Unless a three-dimensional model showing "landscape improvements," a "varied, attractive, and community friendly appearance," and the use and location of public art is available, the public cannot possibly assess the aesthetic impact of such non-committal statements.

12-15

Response to Comment O14-223

Please refer to the response to the Point Edwards LLC, Comment I343-25. Colors and materials selection is one of the means to achieve design consistency or blending with the surrounding environment.

Response to Comment O14-224

"Community friendly appearance" is an aesthetic objective that King County established for its wastewater facilities in the past and that the County will apply to the Brightwater project. This objective asks that facility design take into account local community and neighborhood qualities, characteristics and patterns, including such elements as cultural or heritage references, natural systems and vegetation, scale, materials, and views. In this same manner, King County has completed several art-integrated projects for its treatment and conveyance projects, including Renton Treatment Plant, West Point Treatment Plant, and a number of conveyance portal and pump stations. The public art integration is a planned component of the Brightwater project and is managed by the King County's Department of Natural Resources, Wastewater Treatment Division and the King County Arts Commission, working in conjunction with local permitting jurisdictions and surrounding community.

O14-224

1. Provide a detailed plan for the proposed sewage treatment plant showing a "community friendly appearance."
2. What agency would decide what public art is "appropriate?"
3. What agency would decide where public art is "appropriate?"

Design Mitigation Options

O14-225

The DEIS (page 12-23) states that different design options "or elements of them" **could** be implemented. These options are vague to the point of uselessness and provide essentially no information upon which the public could base a reasonable assessment.

Option 1: Unocal "Expose"Design Mitigation Option

O14-226

1. Provide a drawing illustrating this plan.
2. What is a "plant structure?"
3. Explain how an illusion is created to "reduce appearance of bulk and mass?"
4. Provide historically referenced (waterfront transportation, maritime, and/or lumber-shingle mill structures) roof and building structure patterns and details based on the industrial history of the site, the maritime context of the area, and the commercial and civic plans of the City of Edmonds.
5. A Disneyland of Sewage would actually wind up as the result, spotlighting the fact of a sewage plant in the area rather than camouflaging it. This would be extremely tasteless. Provide a drawing to illustrate the feasibility and acceptability of this plan.
6. Develop a color scheme consistent with a commercial/civic/maritime palette that blends with surrounding land form and forest/marsh landscape.
7. Explain how this is different from what Unocal did?
8. Do the planners consider Edmonds a generic "urban maritime and natural landscape context?"
9. Provide drawings or plans that refer to the Edmonds waterfront as a unique place specifically.

12-16

Response to Comment O14-225

The design mitigation options presented in the Chapter 12of the Final EIS define a range of mitigation capabilities and capacities for each site and from each viewpoint. In so doing, they give guidance to future design efforts that must eliminate or reduce impacts while meeting jurisdictional design and development standards, community preferences, and programs set for each site during the design development and permitting process. This ongoing process would be coordinated with local jurisdictions, agencies, and the community.

Response to Comment O14-226

During the design and permitting processes, specific details, such as color schemes, would be addressed. Please refer to the response to Comment O14-225 in this letter for more information.

Illustrations of the "Expose" design mitigation option for both the Route 9 and Unocal treatment plant sites are provided in Chapter 12 of the Final EIS. The term "plant structures" as used in Chapter 12 refers to the facility buildings and exposed structural shells.

Altering or modulating the form, location, texture of facility structures, and their key visual elements, such as building facades and rooflines, can achieve a reduction in the apparent scale, mass, and bulk of the facility. In order to reduce or eliminate aesthetic impacts and achieve a more compatible design "fit" with the character and qualities of a community surrounding a site and facility, it is useful to identify and use (or reference) in some way the cultural and heritage patterns and details of that community. Another means of reducing or eliminating impacts is through the use of colors and landscaping that are consistent with colors and vegetation patterns found in the surrounding community and open space. This consistency allows for the increased potential for visual

connections and compatibilities to be achieved between onsite and offsite environments.

Option 2: Unocal "Hide"Design Mitigation Option

1. Explain what is meant by "redefine the hillside."
2. Explain what is meant by "fully screen the facility."
3. Specify how these would be accomplished.
4. Provide the engineering drawings or support work demonstrating the feasibility of this lidding concept.
5. Provide a professional engineering or scientific assessment as to the long-term or short-term feasibility of "lidding."
6. What other "partnered community facility" examples are there?
7. If the City of Edmonds applies for federal funding for help with its transportation issues, would King County submit to a federal EIS for the proposed sewage treatment plant?
8. Has any transportation engineering entity or professional commented on the feasibility of this "lidding" over a sewage cistern?

O14-227

9. If so, provide their findings.
10. How would the lid work, on a day-to-day basis, in relation to transportation functions?
11. What would the experience be in different kinds of weather?
12. What would the maintenance issues be?
13. Who would be responsible for maintenance?
14. Would the facility be shut down for repairs or inspection at certain intervals?
15. If damage or deterioration were determined, who would pay for the expertise to accomplish the repairs? Edmonds would insist the repairs be done with the highest quality construction.
16. How does that differ from what Unocal did in painting their tanks green?
17. Specify what is possible along these lines and what are the limitations of this proposal?
18. Would integration of vegetation promote deterioration to "key structures?"
19. Would this be sustainable into the future as the plant ages?
20. Could this effort be dropped due to budget constraints and aging facility maintenance needs?

Option 3: Unocal "Blend" Design Mitigation Option

O14-228

1. Specifically define "natural vegetation."

12-17

Response to Comment O14-227

Please refer to the response to Comment O14-225 in this letter. With a lidded “Edmonds Crossing” facility at the Unocal site, King County would design to established standards as set by and developed at the West Point and Renton Treatment facilities. Please refer to Chapter 3 and Appendix 3-A, Project Description: Treatment Plant, of the Final EIS more detailed information.

Response to Comment O14-228

Please refer to the response to Comment O14-225 in this letter.

2. Given the nature of the hillsides in question, how can it be guaranteed that what is being described here is practical?
3. What if dense and mixed native landscape cannot be sufficiently provided because of the steepness and instability of the hillsides in question?
4. Specify what materials would be used to "hide" or partially obliterate the identifiable structures.
5. Show the color scheme in a full-color architectural rendering.
6. Would this color scheme be effective in all seasons?
7. Identify the limitations of this proposal.
8. Would integration of vegetation promote deterioration to "key structures?"
9. Would such vegetation integration be sustainable as the plant ages?
10. Could this effort be dropped due to budget constraints and aging facility maintenance needs?

O14-228

O14-229

The DEIS lists the removal of the "temporary barge and access facility after construction" (page 12-23) as a mitigation measure. This is not mitigation. All construction debris, facilities, and equipment should be removed when construction is complete, and to offer removal of such as a mitigation measure is both unacceptable and misleading.

1. Delete this item from the list of mitigation measures.

O14-230

12.3.2 Conveyance corridors

The DEIS states that specific sites for the portals have not been selected (page 12-6). If that is the case, it is counterproductive at this time to discuss mitigation measures.

1. Issue a supplemental DEIS that addresses specific sites (see 12.1.3, comments 3 and 4) and discuss mitigation measures.

12-18

Response to Comment O14-229

Please refer to the response to Comment O14-206 in this letter.

Response to Comment O14-230

A list of specific portal candidate sites is presented in Chapter 3 of the Final EIS. For further information about mitigation, please refer to the response to the City of Shoreline, Comment C6-5. For information about managing construction-related impacts, please refer to the response to Comment O14-329 in this letter.

12.4 Significant Unavoidable Adverse Impacts

O14-231 The DEIS states (page 12-30, paragraph 2), "Although facility and site design would be directed at achieving consistency with applicable local regulations, policies, and codes and minimizing impacts to the greatest extent possible, there would be a significant and permanent change to the look and character of this prominent hillside and would present a large and prominent facility in its place through major adjustments in the site's shape, topography, and vegetation pattern and through the introduction of large-scaled retaining structures and process buildings."

1. What is the economic assessment of this impact?
2. Address aesthetics with reference to the prospects of attracting restaurant diners to the locale of a regional sewage treatment plant?

O14-232 Edmonds depends to a very large degree on the attractiveness of a magnificent waterfront to bring in retail shopping and dining in restaurants, such as Anthony's Home Port. The reason for the expectations about the replacement of the Unocal site with mixed retail, residential and parkland usage, is the prospect for enhancing the area economically as a direct product of enhancing it aesthetically. A sewage plant would not be an attraction for the restaurant trade.

1. How much yearly income does a restaurant such as Anthony's represent?
2. What does it represent in local taxes which might be lost if businesses such as Anthony's Home Port moved?
3. What would the economic impact be for potential new restaurants to replace those that leave?
4. Provide King County's proposals to mitigate this impact on the continued economic development of Edmonds.
5. Has a professional economic assessment been done of the aesthetic impact of proximity to a large regional scale sewage plant for a local economy dependent on tourism and tourism-related retail?
6. If so, please include that assessment in its entirety in a supplemental DEIS.
7. If not, please produce such an assessment and include it in a supplemental DEIS.
8. Has an assessment been done of the replacement value of businesses that might leave the Edmonds waterfront or downtown as a direct result of the aesthetic environment?
9. If so, please include that assessment in its entirety in a supplemental DEIS.
10. If not, please produce such an assessment and include it in a supplemental DEIS.

Response to Comment O14-231

Please refer to the response to Comment O14-198 in this letter.

Response to Comment O14-232

Please refer to the response to Comment O14-204 in this letter.

Chapter 13

Light and Glare

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 13 – Light and Glare

Introduction

O14-233 This chapter was supposed to address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to light and glare for the proposed King County sewage system, **but it does not or does so only superficially**. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS completely lack supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

13.1 Affected Environment

The DEIS states, "Because portal locations have not been determined within the portal siting areas, it is difficult to quantify light and glare impacts."

O14-234
1. Portal locations have not been determined. How can King County characterize the DEIS response period as "public input" as required by SEPA Rules?
2. Establish locations and the lighting to be used in each potential corridor and, only then, evaluate the potential impact to the environment.
3. Following such evaluation, resubmit the DEIS for public comment.

13-1

Response to Comment O14-233

Please refer to the response to Comment O14-71 in this letter.

Response to Comment O14-234

In response to portal locations, please refer to the response to Comment O14-178 in this letter.

Additional design information has been added to the Final EIS. Please refer to Chapters 3, 12 and 13 for a discussion of proposed design concepts and potential impacts and mitigation associated with the Brightwater System. Chapter 13 specifically addresses light and glare impacts.

13.1.2 Treatment Plant Sites

O14-235

The DEIS states that both sites were evaluated for existing light and glare sources. Concerned citizens challenge the methodology used for this evaluation and claim that the results obtained are flawed and could not be duplicated. No light and glare study is published in the DEIS, nor is it referenced.

1. Provide documentation that supports the evaluation for existing light and glare.
2. What credible methodology for sampling would support such a limited sample size and/or duration of sampling?
3. Provide the evaluation methodology and results in a supplemental DEIS.

13.2.1 Impacts – Study Methodology

O14-236

The DEIS states, "Based upon the field observations conducted for this EIS, the Unocal site would be classified as E3. . . ." The classification E3 is inconsistent with King County's own observations as depicted in the DEIS technical appendices. King County's measurements show that, at four of the six positions, light was so low as to be unmeasurable. The two remaining positions are located within the commercially developed areas and should not have been used. The assignment of an E3 classification to the Unocal site indicates bias on the part of King County and suggests that the classification may have been made prior to obtaining field data. The assigned classification of E3 appears to be both arbitrary and capricious, and should be changed to the more realistic classification E1.

1. Explain why King County selected positions 2 and 3, at the Unocal site, rather than appropriate positions on the edge of the proposed sewage treatment plant location?
2. Excluding data from positions 2 and 3, no light was observed. Why was the classification E3 assigned to the Unocal site as a whole?
3. Including data from positions 2 and 3, the arithmetic mean ($\bar{x}$) of the accrued data is .69 lux. Considering that fact, why was the classification E3 assigned to the Unocal site?
4. Change the classification of the Unocal site to E1.

Response to Comment O14-235

By recording the time of day and weather conditions, the results of the field evaluation of the existing lighting are repeatable. Conditions that can affect this are the addition or elimination of light sources in the general area of the study.

Appendix 13-A, Illumination Modeling of Route 9 and Unocal treatment Plants, of the Final EIS includes measured values and field notes. Since exterior lighting is a stable, non-dynamic source there is little need for extended studies. In general, extended studies do not produce any different result than a sample taken on a single typical night. The most common type of exterior light source in the area is High Pressure Sodium (HPS). An HPS lamp has a life expectancy of 20,000 hours with a very stable light output. This means that the light sources are stable and there will not be much of a change in output over an extended period of time versus a single night. The other factor is the weather. Cloud cover can create a ceiling that will bounce light back to the earth. Wet surfaces will increase the reflectance of the surface producing more skyglow and glare. Both of these situations are somewhat visible at times but the additional illumination values are not measurable with standard light level meters. Unless additional sources of light are added or removed, or the surrounding communities modify the existing site lighting, additional evaluation of the existing conditions would not produce any different summary results.

Response to Comment O14-236

Unocal site observation locations 2 and 3 were selected not because of the ambient light levels but because they offered a good view of the site from the surrounding community. The northwest and northeast edges of the site are not readily accessible. These locations, 2 and 3, more realistically represent what people will see from the non-residential areas of Edmonds.

The E3 classification was assigned to the Unocal site because it is located within the city limits of Edmonds. The project site is also located within the limits of the urban growth boundaries. The City of Edmonds does not have any restrictions on exterior light types or styles. The existing level of development creates an urban atmosphere along the northwest and northeast areas of the site. An E3 area is defined as: “Areas of medium ambient brightness. These areas will generally be urban residential areas. Roadways will normally be lighted to typically traffic route standards.” The areas located above the site are medium-density residential. Many of these homes have post lights and other exterior light sources that do not make this an intrinsically dark area, as required for an E1 classification.

An E1 area is classified as: “Areas with intrinsically dark landscapes. Examples are national parks, areas of outstanding beauty, or residential areas where inhabitants have expressed a strong desire that all light trespass be strictly limited.” Due to the site’s location within the City, and the existing area lighting, per the definition of an E1 area the site does not qualify for an E1 area classification.

The DEIS (page 13.7, paragraph 1) states, "Because the project is in an early phase of development, design of specific lighting methods and locations has not yet taken place. Thus, no quantitative modeling of light levels was performed." This is inappropriate and fails to meet the intent of SEPA in that such analyses are required and should be available for review in order to afford the public an opportunity to have input.

O14-237

1. How can the impacted public express their concerns about testing and measurement when the details of the tests, modeling, and results are not provided?
2. Were positions 2 and 3 chosen to boost the baseline figure which is used later in the DEIS to determine allowable amounts of light on the proposed sewage treatment site? (See page 13-7, §13.2.2.1 Unocal Site.)
3. Explain how the impacted public can express their concerns about glare and lighting when there are no design plans for the proposed sewage treatment plant.

13.2.2.1 Construction Impacts

The DEIS indicates that there would be "temporary significant increases in light and glare levels." Since the projected construction time frame is 6 years, "temporary" seems an ill-chosen word. Six years of significantly increased light, even if the increase is only for parts of days, is NOT temporary by any realistic standard. The DEIS further states that "lighting levels would be designed so as not to exceed 2 lux at the property line closest to adjacent residences on the southern boundary of the site." This is the same location as identified in King County field observations as positions 4, 5, and 6 (see technical appendix). None of these positions reflect <u>any</u> measurable light.

O14-238

1. Explain the concept of "temporary" in the context of a 6-yr construction project.
2. King County has committed to <u>no</u> net increases in light levels (page 13-7, paragraph 1). How does King County justify their decision to design "so as not to exceed 2 lux?"
3. In order to reflect King County's commitment to <u>no</u> net increases in light levels, as supported by King County's own observations of zero lux currently at the southern boundary of the site (positions 4, 5, and 6), include zero lux level at the southern property line.
4. Change this chapter to reflect the Unocal classification of E1 and use this classification in all calculations and plans.

13-3

<u>Response to Comment O14-237</u>

A three-dimensional site model has been developed and is included in Appendix 13-A, Illumination Modeling of Route 9 and Unocal Treatment Plants, of the Final EIS. This includes a luminaire schedule, defining the type, wattages, type of lamp and mounting method, and height of each site light proposed for the site. The lighting model includes results in lux around the site and at the perimeter of the site so that light spillage from the site can be evaluated.

<u>Response to Comment O14-238</u>

In general the lighting would move to follow the construction. The construction would take place largely during the daytime, but under some conditions, nighttime construction could be necessary. The only lights at the construction site would be those used for safety and security, not for construction. Please refer to the response to Comment O14-244 in this letter for possible mitigation measures used to reduce the light and glare issues for the impacted properties. These would be evaluated on a case-by-case basis for the best possible solution for the affected resident(s).

The 2-lux value is considered a worst case. There may not be a need for any construction lighting in the area, but if illumination were required for a short duration it would be designed as to not exceed 2 lux at the property line. Once the lighting is no longer needed it would be disconnected. The 2-lux value is the IESNA E3 area post curfew recommended maximum value. The post-construction light levels along the southern side of the plant will be 0 lux from the treatment plant site sources.

Please refer to the response to Comment O14-236 in this letter.

The DEIS shows (page 13-9) "typical percentage values for reflectance of light" for a variety of materials. The DEIS also claims that "the potential for glare . . . is minimized."

O14-239

1. Reference the source for these percentage values and include them in a supplemental DEIS.
2. Explain what the term "minimized" means in real values.
3. Glare would be minimized in relation to what?

Unocal Site

The DEIS implies the Unocal site has recently been operating. The Unocal site has not been functional in many years.

O14-240

1. Delete all statements referring to the Unocal site as recently operational.
2. Make only appropriate references to Unocal's current status with reference to light and glare, which is a mean of .69 lux.

In the ***Unocal 72-mgd Sub-Alternative*** paragraph, the DEIS uses such vague terms as "marginally greater" and "likely would not." In the following paragraph (***Unocal Structural Lid Sub-Alternative***), the DEIS refers to "passive recreational uses." What comes to mind is a not-too-hotly-contested game of marbles, or perhaps two old folks playing checkers.

O14-241

1. Define and quantify "marginally greater" and "likely would not."
2. Define "passive recreational uses."
3. Provide documentation supporting the contention that <u>any</u> recreational uses would be appropriate on top of a sewage storage tank.

13.2.3.1 Conveyance Corridors – Construction Impact

O14-242

This section discusses "potentially significant impacts to immediately adjacent residences during peak construction periods." The section goes on to assure the public that "King County will work with" those residents who might be affected. King County does not have a good track

13-4

<u>Response to Comment O14-239</u>

Sources have been included in the Final EIS for the reflectance values of the various example surfaces. Refer to the revised text in Chapter 13 of the Final EIS.

The uses of plantings, lower-wattage lamps, lower mounting heights, and a variety of surface materials that break up or diffuse the light will reduce the glare from the onsite light sources. The actual amount of reduction is difficult to quantify in terms of a percentage. In real terms it means that the light will be broken up (diffused) so there should not be large reflective sources. For example, notice at night how light is reflected off of windows, puddles, smooth surfaces, but not as much off of trees, grass, and heavily textured surfaces.

Glare will be compared to a site that does not utilize such features as landscaping and building textures to break up the light. For example, typical areas where little effort is spent minimizing the lighting impacts include: shopping centers, car lots, fairgrounds, and large industrial plants like saw mills and oil refineries. Examples where typical lighting impacts are minimized with the items listed include schools (except stadium lighting), and apartment complexes (with landscaped berms).

<u>Response to Comment O14-240</u>

The Final EIS has been modified to reflect the fact that the Unocal site has not been operational for a number of years. The site observations reflect the current level of inactivity at the Unocal site.

<u>Response to Comment O14-241</u>

The Unocal 72-mgd sub-alternative site has been modeled and is included in Appendix 13-A, Illumination Modeling of Route 9 and Unocal Treatment Plants, of the Final EIS. The additional lighting required for the expanded facility represents less than 10 percent of the plant's site lighting.

Additionally, the lights can be shielded and oriented so that they are directed into the site. This would be the standard practice around the perimeter of the facility.

Passive recreational uses could consist of walking paths and nature trails. At this time, the passive recreational option has been eliminated from the options for the site even though there are many examples across the country where WWTPs have been integrated into the community's recreational facilities.

Response to Comment O14-242

Potentially significant impacts are defined as new visible light sources where none existed before. Please refer to the response to Comment O14-244 in this letter for possible mitigation measures used to reduce the light and glare issues for the affected properties. These would be evaluated on a case-by-case basis for the best possible solution for the affected resident(s). King County would work with local jurisdictions, surrounding residents, business and other key stakeholders regarding mitigation issues. Please refer to the response to Comment O14-31 in this letter, which describes the kinds of activities that have been and will continue to be implemented to involve the public throughout the process to site, construct and operate the Brightwater System.

Portal sites have been identified and are included in Chapter 3 and Appendix 3-B, Project Description: Conveyance, of the Final EIS.

record of working with any of the jurisdictions or citizens it intends to impact with the proposed sewage treatment plant. Therefore, the public is justifiably skeptical when it comes to this sort of language in the DEIS.

1. Describe the types of "potentially significant impacts" that are anticipated.
2. Describe exactly what is meant by "work with." Be specific about the type(s) of mitigation and compensation that would be available to the residents and other impacted entities.
3. How can the public respond and provide input to the process when portal sites have not yet been selected?

O14-242

13.3 Mitigation Measures

O14-243

This section is so vague as to be meaningless. King County does not commit to <u>any</u> course of action for any site or impacted area. In addition, the mitigation measures do not address the concerns of businesses or residents.

1. Provide thorough and complete plans to mitigate all concerns.

13.4 Significant Unavoidable Adverse Impacts

O14-244

The DEIS states, "Construction lighting at treatment plant sites, portal location, and outfall locations could create localized increases in lighting that would be considered significant by adjacent residences. . . ." This statement is in conflict with King County's stated intent (page 13-7, paragraph 1) that there would be no net increase in site illumination. The DEIS also states, "all reasonably available mitigation measures" would be used to reduce the impact of lighting increases.

1. Clarify these statements. Be specific.
2. Specifically what mitigation would be available to those affected during the <u>6 years</u> of construction?
3. Define the word "reasonably" as it is used in this context.

13-5

<u>Response to Comment O14-243</u>

Section 13.3 at p.13-3 of the Draft EIS identified a range of possible mitigation measures. It is not the role of an EIS to definitively commit a decision maker to specific mitigation measures at that early point, unless those are built into the proposal itself. Decision-makers acting on the basis of the EIS can, pursuant to applicable SEPA provisions, impose mitigation measures as part of the decision making process. Please refer to WAC 197-11-660 for additional information.

<u>Response to Comment O14-244</u>

Some people may feel that any additional source of light is significant. Even though the goal is to not have measurable light level increases emanating from the project site, from certain angles and locations the sources of light will be visible. The Final EIS has been revised to include a more specific discussion of impacts at the portal sites.

Mitigation measures used to minimize the impacts include the following:

- Use of cut-off lights. These lights typically have flat glass with the lamp located above within the housing. This hides the lamp and cuts the light off at 90 degrees so that there is not a direct light contribution upwards. These can be either wall-mounted or pole-mounted.
- Keeping the mounting height as low as practical. This will shorten the distance that the lamp is visible from below.
- Adding house side shields to the lights to further cut down the angle at which the light source can be seen.
- Directing lighting into the site instead of away from the site.
- Adding plantings and ground cover to help diffuse the light.

The downside to these mitigation measures is that they minimize the amount of area that can be illuminated from a single source. The challenge would be to keep the

illumination impact as small as possible while still providing safety and security lighting at the sites. These mitigation measures work for both the construction period as well as for the operating plant. The term “reasonably” refers to the measures listed above. These are typical and reasonable mitigation measures to reduce the impacts from adjacent properties.

4. Who decides what is reasonable in this context?
5. The DEIS fails to address the long-term (6 years) effects of light and glare on local (transitory and permanent) wildlife, many of which are either threatened or endangered. Conduct a study to address this issue and publish it in a supplemental DEIS. O14-244

13-6

Chapter 14

Recreation

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 14 - Recreation

Introduction

O14-245 This chapter was supposed to, **but does not or does only superficially**, address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to recreation for the proposed King County sewage system. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

Edmonds is home to many types of recreation and festivals which attract local as well as international tourists. These include walking on city streets and along the waterfront, bird watching, shellfish harvesting, fishing, scuba diving, picnicking, exercising dogs, using play equipment and just looking at the view of the sound and the mountains. The proposed site is very near a marsh, fish hatchery, Edmonds City Park, Marina Beach Park, the marina, the fishing pier, Edmonds Underwater Park, and the South County Senior Center. There are many specific questions that address the impact of a sewage plant on these areas.

14.1 Affected Environment

O14-246 The DEIS states that King County collected information about recreational facilities and activities in the vicinity of the treatment plant sites and conveyance corridors by limited field surveys. The

14-1

Response to Comment O14-245

Please refer to the response to Comment O14-71 in this letter.

Response to Comment O14-246

The "limited field surveys" statement in the introduction of the Affect Environment section of Chapter 14 refers to site visits that were made by Draft EIS authors to verify amenities and facility conditions at recreational areas in the vicinity of the treatment plant sites and along the proposed conveyance corridors. The term "surveys" has been replaced with "visits" in the Final EIS to clarify one of the sources for recreational information.

A complete summary of the recreational use surveys conducted along the Puget Sound shorelines can be found in the King County November 2002 document entitled *Results of a Human Use Survey of Puget Sound Shorelines* (King County, 2002) referenced in Chapter 14 of the Final EIS. The survey included an assessment of recreational uses at three Edmonds locations including Brackett's Landing, Edmonds Fishing Pier, and Olympic Beach south of the ferry terminal, between February 2001 and March 2002. The survey methodology and specific dates are found in the *Results of a Human Use Survey of Puget Sound Shorelines* document. Use of the dog park within Marina Beach Park was not specifically studied during the 2001 and 2002 survey. King County is not anticipating hat construction and operation of the Brightwater Treatment Plant would cause significant adverse impacts to Edmonds community events or festivals. With the exception of a temporary closure of Marina Beach Park during construction, the downtown Edmonds area and other surrounding recreational facilities would not be directly impacted by the Brightwater project. However, these areas may experience temporary impacts caused by construction traffic, noise, and dust.

DEIS makes the unsubstantiated presumption that since this treatment plant would not generate odor that there would be no impact on recreation. The DEIS completely ignores the potential impact on tourism and the hundreds of annual festivals in Edmonds even though over 100 scoping comments were submitted by tourists from around the world as well as from people attending summer festivals in Edmonds.

O14-246

1. Provide the survey instrument and responses.
2. When, where, and how were these surveys taken?
3. Provide the dates and times of day surveys were conducted, and the number of people responding.

14.1.1 Regulatory Environment

O14-247

The DEIS states that 99% of the boat slips were occupied in 2000. The DEIS fails to discuss MP-1 and MP-2 rezoned areas.

1. What is the percentage of occupied slips as of Autumn 2002?
2. How many boats were on the waiting list as of Autumn 2002?
3. Identify and itemize what policies would concern recreation areas in the MP-1 and MP-2 rezoned areas. The response should include state and local policies.

14.1.1.1 Unocal Site

O14-248

The statement, "no recreational facilities are located within the fenced area," is false. The Deer Creek Fish Hatchery is located on the Unocal property. The DEIS largely ignores the existence of this important facility and potential environmental impacts upon it.

1. Remove the statement.
2. Add a statement that the Deer Creek Fish Hatchery is a recreational facility located on the Unocal property.

Response to Comment O14-247

Regarding the request for specific information on boat slips, this level of detail is not required for the EIS because the Brightwater project would not directly impact the Edmonds Marina or its moorage.

Response to Comment O14-248

The text of Chapter 14 has been revised in the Final EIS to include a discussion of the location of the Deer Creek Hatchery.

14.1.2 Conveyance Corridors

O14-249 Marina Beach Park is a potential site for a portal or pump station. Given the size of the park, construction of a portal or pump station at the park would constitute a temporary or permanent taking.

1. How does King County intend to mitigate the temporary or permanent taking of this park should a portal or pump station be constructed here?
2. What impacts would construction and maintenance of the portal have on the park?

14.1.2.1 Unocal Corridor

O14-250 Table 14-1 fails to include Marina Beach Park on the list of existing parks. A portal or pump station is proposed to be constructed at this park. Make this correction to Table 14-1.

In §14.1.1.1, the DEIS acknowledges that "The City of Edmonds proposes to add or improve two special use and two open space areas within one mile of the Unocal site. . .the 1.2-acre Deer Creek Hatchery site and 10 acres within the Unocal site." Therefore, the statement, "No parks or recreational facilities are currently proposed along the Unocal corridor," appears to be blatantly and intentionally false and misleading.

14.1.3 Outfall Zones

O14-251 The DEIS states that a year-long survey of recreational activities was conducted along the shoreline near the outfall areas consisting of interviews with people at the sites. A simple counting of bodies without information about type of recreational activity and time of day or year is not a sufficient basis for the conclusions reached.

1. Provide the survey methodology, instrument, and responses.
2. Provide the dates and times of day surveys were conducted, and the number of people responding.
3. Indicate the type of recreational activity the respondents were engaging in.

Response to Comment O14-249

Marina Beach Park is no longer considered a candidate site for a portal or pump station. However, if the Unocal site were selected as the Brightwater Treatment Plant location, a portion of the park would be used for construction of the treatment plant and outfall. King County would coordinate with the City of Edmonds to develop appropriate mitigation for all proposed actions that may temporarily impact Marina Beach Park during the permitting process.

Response to Comment O14-250

Parks and recreational facilities are listed within the portal siting areas along the Unocal corridor only. Marina Beach Park is included as part of the discussion of the Unocal site in Chapter 3 of the Final EIS, rather than as part of the conveyance corridor summary. Marina Beach Park and its associated amenities are further addressed in Chapter 14 of the Final EIS.

Although additional parks and recreational facilities not discussed in the Draft EIS would be crossed by the proposed corridors, they are not listed in the document since the corridor would be underground and would not be expected to impact these recreational facilities at the surface. Park and recreational facilities are listed only if they were located within the portal siting areas. The Deer Creek Hatchery site is technically included within the Unocal corridor alignment; however, it does not fall within any portal siting areas along the corridor. The 10-acre Special Use Area that is proposed within the Unocal site is not addressed along the conveyance corridor; rather, the proposed 10-acre site is discussed in Chapters 3 and 14 of the Final EIS.

Response to Comment O14-251

Please refer to the response to Comment O14-246 in this letter.

4. Were people at the dog park included in the survey?
5. Provide the survey instrument used at the dog park and responses to it.
6. Provide the dates and times of day surveys were taken at the dog park, and the number of people responding.
7. What would be the impact on annual festivals located in this area?
8. What would be the impact on restaurants in the area?

O14-251

9. What mitigation measures would be taken to protect restaurant patrons and owners?

14.2.2 Treatment Plant Sites

O14-252

The DEIS states that a temporary dock would be built to accommodate the barges carrying materials.

1. Exactly how much area would be needed for the dock?
2. Provide a detailed map, drawn to scale, showing the exact location of the proposed temporary dock (conceptual drawings are not acceptable).
3. Provide a detailed drawing, with dimensions, of such a dock, and the time frame for proposed construction
4. What would be the environmental impact on surrounding areas of such a dock?
5. Would construction and use of this dock temporarily or permanently necessitate the complete or partial closing of the dog park or Marina Beach Park?

O14-253

6. Detail what permits would be required to build such a dock and from whom these permits must be obtained.

O14-254

7. When would the environmental impact statement for such a dock be available to the public?
8. Provide answers to these questions in a supplemental DEIS.

O14-255

The DEIS also states that one to two acres would be needed for a construction staging area.

1. What part of Marina Beach Park would be used?
2. Is there a map available showing the exact location of this staging area?
3. Provide such a map (conceptual drawings are not acceptable).

14-4

Response to Comment O14-252

The temporary barge is no longer being proposed. If a barge dock is needed, supplemental analysis will be completed.

Response to Comment O14-253

A temporary dock is no longer part of the proposed project, and as such is not evaluated as part of this project. If a dock were required at the Unocal site, the appropriate environmental review would be conducted. A schedule for this environmental review has not been developed at this time.

Response to Comment O14-254

The Draft EIS included a discussion of constructing and operating a barge dock as a potential measure to mitigate traffic impacts if the Unocal site is selected for the Brightwater Treatment Plant location. The barge dock is no longer part of the Brightwater proposal. Additional SEPA environmental review would be conducted on this mitigation proposal if, after the issuance of the Final EIS, the Unocal System Alternative is selected and it is deemed necessary to use a barge dock to mitigate traffic impacts. The SEPA analysis would occur at a time when sufficient information is available to conduct a meaningful analysis of potential environmental impacts.

Response to Comment O14-255

Please refer to the response to the City of Edmonds, Comment C9-108. King County would ensure that all required permits necessary to perform construction activities in Marina Beach Park are attained prior to construction. Chapters 4, 6, and 7 of the Final EIS discuss environmental impacts that would result from construction activities and also list mitigation measures that would be implemented to ensure protection of the environment to the maximum extent possible. Chapter 7 also describes relevant mitigation

measures at the proposed outfall locations. In addition, Chapters 4 and 6 discuss mitigation measures intended to protect the environment.

4. Detail what permits would be required to construct such a staging area and from whom these permits must be obtained.
5. What would be the environmental impact on surrounding areas of such a staging area?
6. What activities would be restricted or forbidden in or near the staging area?
7. To what extent would activities be restricted?

O14-255

8. How long would the public be unable to use the park?

O14-256

Chapter 14 makes reference to a "detailed discussion of impacts to local traffic during construction and operation. . . ."

1. Why were these issues, as they pertain to recreation, not addressed directly in Chapter 14?
2. What methods would be used to minimize the effect of dust on the recreation areas?
3. What mitigation would be used if those methods are ineffective?

Noise

O14-257

1. What types of limitation would be set on construction noise that affects the recreation areas?
2. What hours of the day would the construction related activities be conducted?
3. What types of limitation would be set on noise from the plant's operation that affects the recreation areas?
4. Why were these issues, as they pertain to recreation, not addressed directly in Chapter 14?

Light

O14-258

1. Where would lights be place during construction?
2. Where would lights be place during operation?
3. What types of lights would be used during construction?
4. What types of lights would be used during operation?
5. How far off the ground would they be?
6. How far would the light extend?
7. Why were these issues, as they pertain to recreation, not addressed in Chapter 14?

14-5

Response to Comment O14-256

A detailed discussion of construction-related transportation impacts is included in Chapter 16 of the Final EIS. Transportation analysis prepared after the issuance of the Draft EIS provides a detailed discussion of traffic impacts that would occur with the selection of either the Unocal or Route 9 site and each of the proposed conveyance corridors. This included a discussion of traffic routes that would be used during the construction phase of the project and the estimated number of construction vehicle trips.

Chapter 5 of the Final EIS indicates that mitigation measures intended to minimize dust impacts during construction would be implemented at all areas of construction that could cause an increase in dust. King County is confident that the proposed dust mitigation measures that would require approval from local authorities would suffice in providing protection from dust associated with construction activities.

Response to Comment O14-257

Please refer to Chapter 10 of the Final EIS for a detailed discussion of potential noise impacts. Chapter 14 of the Final EIS acknowledges that users of recreational facilities would be subject to increased noise levels.

As discussed in Chapter 10, construction noise would be regulated according to local jurisdictions' regulations and policies. Construction noise levels are exempt from regulation during weekday daytime hours of 7 a.m. to 10 p.m. and further restricted during the weekend hours of 6 p.m. to 10 a.m. for the Unocal site. The weekday daytime of 7 a.m. to 10 p.m. code requirement also applies to the weekend in Snohomish County's jurisdiction for the Route 9 site. Park and recreation facilities near Brightwater project construction activities could be impacted during daytime hours. Construction noise levels up to 50 dBA could reach as far as 2,000 feet from the construction site, depending on terrain and atmospheric conditions.

Noise levels resulting from treatment plant operations would be mitigated to 5 dBA over the minimum hour nighttime ambient level (35 + 5 = 40 dBA). The daytime ambient levels near the closest residential properties range from 38 to 55 dBA. The minimum hour ambient noise level found near residences are 35 dBA at the Unocal site and 45 dBA at the Route 9 site. Operations noise would be somewhat masked by the normal ambient noise levels and would not be expected to significantly impact most park and recreational facility users.

Response to Comment O14-258

As discussed in Chapter 13 of the Final EIS, artificial lighting would be required during construction activities, particularly during the winter months. During construction, artificial lighting would be placed within the project site and would be limited to downcast lighting fixtures and other measures intended to shield adjacent properties and roadways from light sources. As a possible mitigation measure, the use of floodlighting would be avoided. The Brightwater Treatment Plant design has not been finalized; therefore, the exact location of lighting fixtures is unknown at this time. However, lighting would be required for 24-hour operation of the treatment plant and for security purposes. New lighting at the treatment plant would be designed to generate lighting patterns similar to existing lighting patterns so that there would be no significant increase or decrease site illumination. Light levels at the treatment plant would be reduced after 10:00 p.m. to the minimum levels required for security and safety. The specific type of lighting has not yet been selected; however, lighting would comply with local regulations and would be situated so that lights are directed toward the site and away from surrounding properties. The height of light fixtures would be designed so as to conform to either the City of Edmonds (Unocal site) or Snohomish County (Route 9 site) regulations for maximum height of lighting structures.

Light and glare is not expected to significantly impact adjacent recreational features since surrounding recreational features are primarily outdoor facilities and would not be impacted by lighting illumination during the daytime hours. After dusk, as previously mentioned, 24-hour security lighting would be installed and would represent existing site lighting conditions.

Mitigation measures that would be incorporated to minimize glare during construction and operation of the Brightwater Treatment Plant are discussed in Chapter 13 of the Final EIS. The exact distance from the Brightwater Treatment Plant at which glare produced by construction and operation activities could be detected has not been assessed; however, glare from the site would be similar to previous conditions. Therefore, glare was not addressed as it pertained to recreation in Chapter 14, since glare would be similar to existing conditions.

Glare

O14-258
1. What methods would be used to minimize glare during construction?
2. What methods would be used to minimize glare during operation?
3. How far from the site would glare be evident during construction?
4. How far from the site would glare be evident during operation?
5. What impact would glare have on people using Marina Beach or the fishing pier?
6. Why were these issues, as they pertain to recreation, not addressed directly in Chapter 14?

14.2.2.2 Operational Impacts

O14-259
The DEIS requires reading Chapter 5 for odor impacts and Chapter 10 for noise. The statement "There are no anticipated long-term impacts to recreation resulting from the operation of Brightwater," ignores the potential impact of a sewage spill. Given King County's record of sewage spills, the long-term impacts to recreation must be addressed.

1. Why were these issues, as they pertain to recreation, not addressed in Chapter 14?
2. Discuss odor and noise, as they pertain to recreation, in this chapter.

O14-260
3. Explain in detail the operational mechanisms that would guarantee there would never be a sewage spill.

14.2.4.2 Operational Impacts (Outfall Zones)

O14-261
The DEIS states that aquatic resources could be permanently affected by the presence of the outfall and diffuser in depths greater than 50 feet.

1. Define "aquatic resources" in this context.
2. Explain how "aquatic resources" could be permanently affected.

14-6

Response to Comment O14-259

Noise and odor impacts are addressed in separate chapters in the Final EIS. Specific noise assessments were not conducted at recreational facilities adjacent to the proposed Brightwater treatment plant sites; however, Chapter 14 of the Final EIS acknowledges that noise and odor impacts could impact adjacent recreational areas/facilities in the short-term, during construction. Aesthetic controls, noise control dampers, and odor control facilities are listed the Mitigation section of Chapter 14 as measures that would be implemented to reduce the intrusiveness of the Brightwater Treatment Plant on surrounding parks and recreational facilities.

A Spill Prevention, Containment and Control Plan that outlines specific procedures that construction workers and emergency service providers would follow in the event of an accidental hazardous materials or sewage spill would be prepared in accordance with Washington State Department of Ecology standards.

Response to Comment O14-260

King County cannot guarantee that there will never be a sewage spill. However, the likelihood of a spill is extremely low. The five-part emergency flow management system to prevent discharges of untreated wastewater is described in the response to the City of Kenmore, Comment C3-84.

Response to Comment O14-261

In this context, "aquatic resources" was intended to refer to aquatic biota. As noted in Chapter 7 of the Final EIS, discharges would likely alter benthic habitat in the immediate vicinity of the diffuser. More mobile species would likely avoid the discharge plume. Beyond the chronic mixing zone, impacts are expected to be minimal.

14.2.7 Cumulative Impacts

O14-262 The DEIS states that available recreational opportunities "could temporarily decrease."

1. Explain what recreational opportunities would decrease.
2. To what extent would each recreational opportunity decrease?
3. Specify the reasons for the decrease of each recreational opportunity.
4. How long would the decrease in each recreational opportunity last?
5. Could these changes be permanent?

14.3.1 General Mitigation Measures

O14-263 The DEIS states that public notice will be given with construction dates and routes.

1. Where would these public notices be posted?
2. How many construction notices would be posted in Edmonds?
3. How far ahead of the proposed construction dates would these notices be posted?

O14-264 Construction of a dock through Marina Beach Park would be noisy, dirty and dangerous.

1. What emergency equipment and crews would King County provide during construction to protect the public?
2. What safety measures would be used to keep people and animals away from the construction areas? Details should include type(s) of structures, length, width, and height of any structures, fencing, etc.
3. How much buffer area would there be?
4. Provide a map or maps showing details (conceptual drawings are not acceptable).

O14-265 The Unocal site includes a steep slope.

1. What safety measures would be in place to assure the stability of the slope?
2. Because of the possibility of slides or slippage, soil tests are important. What soil tests have been done on the proposed site?

14-7

Response to Comment O14-262

Since the publication of the Draft EIS, candidate sites within each portal siting area (PSA) have been identified. Chapter 14 of the Final EIS has been revised to reflect this new information. The extent of depletion for each recreational opportunity has been assessed as it relates to the candidate sites that could be selected for a portal or pump station.

Ballinger Playfield (primary PSA 26), North Creek Sportsfields (primary PSA 41), Nile Temple Golf Course (secondary PSA 27), and a playfield associated with Brier Elementary School (secondary PSA 30) are candidate portal sites. PSA 41 is part of both the Route 9-195th Street and Route 9-228th Street corridors. PSAs 26 and 30 are part of the Route 9-228th Street corridor. PSA 27 is a secondary portal associated with the Route 9-195th Street corridor. Potential impacts associated with the construction of Brightwater facilities at candidate portal sites is detailed in Chapter 14 of the Final EIS.

The duration of construction impacts on recreational facilities would depend on the type of construction proposed at each site. Generally, if the Unocal site is selected for the Brightwater Treatment Plant, construction of the outfall segment affecting Marina Beach Park is expected to last up to 6 months; however, the overall construction schedule for the outfall is about a year. Construction at the portal locations is expected to last between 1 and 3 years. As discussed in the Draft EIS, the portals would be permanent utilities located along the selected corridor; therefore, if a recreational facility were chosen as an optimal location for a portal, then a portion of the area could permanently be changed from a recreational area to a utility structure. Natural-environment recreational areas would be difficult to replace; however, athletic events could be scheduled on nearby athletic facilities if a sportsfield is temporarily affected or relocated if permanently displaced. During permitting, King County would work with local

jurisdictions to develop appropriate mitigation for impacts to recreational facilities.

Response to Comment O14-263

Before a host jurisdiction grants construction permits, King County and the jurisdiction would be able to identify possible construction-related impacts and determine the requirements King County would be expected to fulfill before, during, and after construction.

Response to Comment O14-264

The barge dock is no longer part of the Brightwater proposal. If the Unocal site is selected and if the barge dock is needed as mitigation, additional environmental review would be completed. Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

Response to Comment O14-265

The stability of the slope would be assured by constructing an engineered wall system designed to withstand earthquake forces as prescribed by applicable codes and regulations.

Soil tests to date have consisted of the drilling and sampling conducted by the site owner to evaluate the subsurface and groundwater conditions at the site. This testing did include some testing parameters, such as grain size analyses, natural water content, and plasticity limits that assist in evaluating overall soil strength properties. However, if the Unocal site is selected, additional soil sampling and testing will be conducted to evaluate the strength of the various soil deposits.

Over 170 borings dispersed relatively evenly across the Unocal site have been made by the site owner. These locations and the boring logs are contained in *Draft Remedial Investigation Report* (EMCON, 1998). Borings ranged from 4 feet to over 100 feet.

O14-265

3. Where exactly were these tests made? How deep were these soil samples and tests made?
4. Provide the results of these tests in the EIS.

O14-266

The mitigation measures for construction state that some recreational activities could be moved temporarily to another location.

1. What would be the temporary location for the dog park?
2. What would be the temporary location for the children's play area?
3. What would be the temporary location for the fishing pier?
4. How and to where can the beach be moved temporarily?
5. Could these temporary changes become permanent?
6. What impact would the construction of a portal or pump station have on the use of Marina Beach Park?

O14-267

Construction would cut off the waterfront park in Woodway that is now accessed through Edmonds.

1. How would King County provide access to that park?

O14-268

Parking would be affected by the construction activity in the Marina Beach Park area.

1. How many parking spaces would be removed by the construction activity in the Marina Beach Park area?
2. Where would King County provide more parking places?
3. Would King County provide a shuttle for those who would be required to park at a distance?
4. If so, what impact would such a shuttle have on traffic?

O14-269

The DEIS states that some portals could be permanent structures.

1. If a permanent structure displaces recreational areas at Marina Beach Park or elsewhere, where would these areas be relocated? Be specific.
2. How long would heavy equipment and construction materials be stored at Marina Beach Park?

14-8

Response to Comment O14-266

Please refer to the response to the City of Edmonds, Comment C9-108. No portals or pump stations are proposed for Marina Beach Park. Activities including Puget Sound shoreline access and use of the dog park may be temporarily affected during construction of the marine outfall and diffuser; however, impacts are expected to be minimal. Other Puget Sound shoreline parks, including Brackett's Landing in Edmonds and Richmond Beach Park in the City of Shoreline, provide direct access to Puget Sound and could be used by Marina Beach Park users. Dog owners who use the dog park in Marina Beach Park could use off-leash dog parks in Seattle and Lake Forest Park. No direct impacts to the children's play area are anticipated. Edmonds City Park provides a children's play area and is in the near vicinity of Marina Beach Park.

Please refer to the project description in Chapters 3 and 12 of the Final EIS for a description of proposed structures and how they relate to surround land use.

Response to Comment O14-267

King County would coordinate with the Town of Woodway and City of Edmonds to ensure pedestrian access remains intact along the Edmonds and Woodway public waterfront during construction at the Unocal site. Access to the Woodway waterfront through Edmonds, however, may or may not remain during construction depending on input from local jurisdictions.

Response to Comment O14-268

Please refer to the response to the City of Edmonds, Comment C9-108. King County will work with the City of Edmonds Parks and Recreation Department to identify mitigation associated with the construction of the Zone 6 outfall at Marina Beach Park. If warranted, mitigation could include construction of additional parking.

Response to Comment O14-269

Please refer to the responses to Comments O14-264 and O14-266 in this letter, and the response to the City of Edmonds, Comment C9-108.

O14-269

3. Where would these storage areas be located? Provide a map (conceptual drawings are not acceptable).
4. Given the close proximity of residential areas, salt marshes and Puget Sound, how would King County guarantee safety for people and the environment?

14.3.2 Treatment Plant Sites

O14-270

1. Describe in detail the methods to be used to camouflage the sewage plant so as not to be visible from recreational areas along the waterfront.
2. What would these methods cost?
3. How long would it take for the visual buffer to fully screen the sewage plant from the recreational areas?

O14-271

It is very difficult to visualize the plant and its size in relation to the surrounding community.

1. Provide a model of the plant and waterfront showing the structures, buffers, setbacks, noise control dampers and odor control facilities. The surrounding recreational areas (wetlands, fish hatchery, city park, Marina Beach Park, fishing pier and underwater park) should be included.

14.3.2.1 Unocal Site

O14-272

The DEIS states that access to recreational facilities would be maintained. Admiral Way is the only access to the impacted areas.

1. Provide a map of the detour sites planned.
2. List where the detour site information may be accessed.
3. At how many locations would the detour notices be posted?
4. How much lead time would people be given to inform them of detours?

14-9

Response to Comment O14-270

Mitigation options and recommendations are discussed in Chapter 12 of the Final EIS and cover all impacts from the various viewpoints and vantages around the Unocal site, including recreation/beach/marina areas. Mitigation costs are not included as part of the environmental review process.

In the case of Unocal, some level of landscape screening would be immediately effective in mitigating some of the lower portions of the treatment plant. Full screening of the treatment plant would be dependant on the mitigation design option selected and the landscape buffering elements designed.

SEPA does not require the evaluation of economic or cost impacts resulting from a proposed action. “SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighting and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers” (WAC 197-11-448(1)).

New cost estimates for Brightwater are expected to be published by King County in November 2003.

Response to Comment O14-271

Chapter 12 of the Draft and Final EIS presents several photographic and 3-D computer-simulated views of existing conditions, facility layout/impacts, and mitigation options. Some views are from nearby viewpoints. Other views are from further away to help visualize the proposed facility within the context of the surrounding environment and city neighborhoods.

Response to Comment O14-272

No detours are expected. Please refer to the response to the Port of Edmonds, Comment G3-18.

The DEIS states that proper safety measures would be incorporated.

O14-273

1. What safety measures? Explain each measure in detail.
2. What equipment and personnel would be needed during construction?
3. Would King County provide such equipment and personnel?
4. What equipment and personnel would be needed during the lifetime of the sewer plant for ongoing maintenance of such safety measures?
5. Would King County provide such equipment and personnel?
6. What funding would be provided to Edmonds to offset the increased costs associated with the impacts of this facility during its lifetime?
7. Provide a map detailing the exact areas for construction (conceptual drawings are not acceptable).
8. Specify the kind and extent of perimeter fencing.
9. What methods would be used to secure equipment and prevent accidents?
10. Would there be 24-hour supervision of the area to prevent accidents?
11. If not, why not?
12. What education and/or training would those operating the facilities have concerning health and safety issues?
13. Is there a specific curriculum available that deals with the health and safety issues?
14. If so, provide that curriculum.
15. If not, why not?

14.3.2.1 Unocal Site

O14-274

The DEIS states that access to recreational areas would be maintained during construction. Many areas are mentioned, but the DEIS also fails to mention some areas.

1. How would access to Marina Beach Park be maintained?
2. How would access to the dog park be maintained?
3. How would access to the Deer Creek Fish Hatchery be maintained?

14-10

Response to Comment O14-273

Impacts as described in the Final EIS are anticipated to accurately characterize the anticipated significant impacts of the Brightwater proposal. The level of detail is tailored to the potential significance of the impacts, as required in WAC 197-11-440 (5)(iv). Because the facility will comply with all applicable safety requirements, concerns regarding safety are not significant impacts and are therefore not required, or included, in the Final EIS.

The specific details of the safety requirements for construction and operation of the treatment plant would be developed during the design and construction phases of the project. King County's health and safety group would be involved with the construction and operation of the treatment plant to ensure compliance with applicable codes, regulations, and procedures. During construction, the selected contractor would be required to submit a safety plan that complies with OSHA, WISHA, and King County safety standards. Specific health and safety requirements (e.g., specific safety measures, equipment, personnel, fencing, operator training, etc.) would be developed sequentially later in the design phase, during the construction phase, and during plant start-up and operations. Equipment and piping would be designed to meet applicable safety codes. The plant would be staffed 24-hours a day during the operations phase. King County provides extensive training of their operations and maintenance staff. Curricula for numerous operating procedures are available from King County's Wastewater Treatment Division. The curricula are too numerous to be provided here. Specific topics can be requested from King County.

Response to Comment O14-274

Please refer to the response to the City of Edmonds, Comment C9-108. The Deer Creek Hatchery access would not be impeded during construction. Although Pine Street would be relocated, access to the Hatchery would be

maintained during construction. Signage indicating a detour route would be implemented if necessary.

14.3.4 Outfall Zones

O14-275

With reference to outfall zones,

1. What are the local and state regulations that ensure safety and minimize access restrictions to the affected recreational areas during construction and operation of the sewage treatment plant?

O14-276

The DEIS states that King County would use "best management practices."

1. Define "best management practice" in the context of this section.
2. What are the "best management practices" that would be used while constructing the diffuser and outfall?

One "best management practice" (BMP) mentioned is to use "state of the art" operation and maintenance programs.

1. Define "state of the art" in the context of this section.
2. Would the process of reverse osmosis or the use of ultraviolet treatment be among the practices? Be specific.
3. How would the "state of the art" practices differ from the processes in place at the West Point or Renton sewage treatment plants?
4. What procedures would be used for treatment of wastewater?
5. What procedures would be used for monitoring the effluent?

O14-277

The trucking of the biosolids from the site is a concern because of its potential impact on recreation areas and the people using them.

1. What methods of odor control would be used with the trucks before and after they leave the site?
2. How would King County assure that no detectable odors leave the sewage plant site?
3. What method of odor detection would be used to monitor odors outside the area of the sewage plant?
4. Which areas surrounding the proposed site would be monitored for odors?
5. Show those areas of odor detection monitoring on a detailed map.

14-11

Response to Comment O14-275

Please refer to Chapter 17 of the Final EIS for a discussion of access restrictions during the construction of Brightwater facilities.

Response to Comment O14-276

State-of-the-art operation and maintenance programs are those that have incorporated the basic requirements for meeting secondary discharge standards (*Criteria for Sewage Works Design* [Washington State Department of Ecology, 1998]) and have expanded upon them. For example, the effluent quality from King County's West Point and South Treatment Plants is typically of higher quality than the discharge standards for secondary treatment. The Brightwater Treatment Plant, using membrane bioreactor (MBR) technology, would be of higher quality than required by discharge standards. The MBR is a state-of-the-art operation. Ultraviolet disinfection (for reclaimed water) and ballasted sedimentation would also be used at Brightwater and are also state-of-the-art. None of these technologies are used at West Point or the South Plant as those plants were built before the technologies existed. However, both existing King County plants use state-of-the art maintenance programs by performing preventative maintenance on major equipment to prevent equipment failure and by benchmarking themselves against other similar plants to improve both operations and maintenance programs. Again, both plants are operated to meet or exceed secondary discharge standards. Effluent monitoring at Brightwater would be performed by continuous sampling as well as grab-sampling of the effluent at frequencies that comply with Ecology discharge requirements.

Response to Comment O14-277

Please refer to the response to Comment O14-85 in this letter for methods to control odors from the biosolids trucks and to

the response to Comment O14-86 in this letter for methods to assure that no detectable odors leave the treatment plant site.

Odor would not be detectable outside the treatment plant and therefore it is not anticipated that there would be a need to monitor for odors offsite. Monitoring would be performed on the odor control systems to ensure that the stack discharge levels are not greater than the design levels. Offsite odor impacts would be prevented by keeping the discharge emissions below the design levels. The monitoring program is summarized below. For further information, please refer to Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS.

The main elements of the monitoring program are:

- Continuous hydrogen sulfide measurements in the influent pump station wet well headspace.
- Daily assessments of scrubber hydrogen sulfide removal efficiency for the scrubber train.
- Continuous scrubber chemical dose optimization through monitoring system feedback.
- Handheld instrument checks of exhaust gas hydrogen sulfide concentration.

No offsite monitoring is required, thus no map was prepared.

O14-278 The DEIS refers to ongoing staff training.

1. Provide a list of staff positions and the related training required for each position.
2. Provide a schedule of continuing education and/or training for each position.
3. Provide copies of curricula used by current operating King County sewage treatment facilities for in-service education and/or training for each position.

O14-279 The DEIS states that there is a low risk of spills.

1. In the event of a spill what equipment and personnel would be available to contain the spill and prevent damage to nearby water and wetlands?
2. Describe in detail the backup power system to be used in the case of a power outage, including, but not limited to, redundancy of systems, magnitude, type, etc.
3. What measures would be taken to notify the public that a malfunction/overload has occurred in the system resulting in a risk to recreational areas and/or facilities?.
4. Does the plant design include a bypass system in the event of a system failure or overload?
5. Does King County have an emergency response procedures manual?
6. If so, provide a copy from each of the King County sewage treatment plants.
7. If not, why not?

14.4.3 Outfall zones

O14-280 With reference to outfall zones,

1. What are the local and state regulations to minimize the impact to restricted areas, the barge and dock operations, the increased noise, and impacts to aquatic resources?
2. What are the "best management practices" to minimize the impact to restricted areas, the barge and dock operations, the increased noise, and impacts to aquatic resources?
3. List aquatic resources in this context.

O14-281 The DEIS states that "a closure zone around the outfall may be established by the Washington Department of Health to prohibit geoduck and bivalve harvest. . . ."

14-12

Response to Comment O14-278

All plant operations staff are required to have Washington State Department of Ecology (Ecology) wastewater certification licenses including a requirement for ongoing CEUs (continuing education units) to retain their certification. King County's Wastewater Treatment Division has additional requirements for operators, including classroom training and testing in conjunction with hands-on training before they are allowed to operate in a specific wastewater treatment area. Other areas of routine training include first aid certification, confined-space training, hazardous materials response training, and vendor training on all equipment that would be operating at Brightwater. Please contact the Ecology for specific educational requirements for wastewater certification.

Response to Comment O14-279

Please refer to the response to the Washington State Department of Ecology, Comment W5-35, for a discussion of spill prevention and response, notification of the public, and the existing King County Wastewater Treatment Division Emergency Response Plan. Also, please refer to the response to the Town of Woodway, Comment C7-53, for more discussion of public notification procedures.

Response to Comment O14-280

The restricted area in this context refers to an area of shoreline that would not be accessible to the public during the construction of the outfall. State and local regulations vary by jurisdiction but, for example, may limit the daylight hours of construction, limit the allowable increase in turbidity, or set noise limitations.

Best management practices for noise limitation include equipping all machinery with properly functioning mufflers or other sound control devices, placing portable equipment as far away from sensitive receptors as practical, and shutting down equipment not in use. Best management practices for

decreasing turbidity could include the installation of turbidity curtains, if practical, or sheeting the trench during construction. Aquatic resources include all of the plants and animals inhabiting Puget Sound.

The barge dock is no longer being considered as an element for Brightwater construction.

Response to Comment O14-281

The closure would be complete for bivalves. Harvesting geoducks, butter clams, horseneck clams, and all other clams would be prohibited. There would, however, be no restrictions on harvesting any species of fish, crab, or shrimp. In the context discussed, the closure zone would be established to prevent accidental damage to the pipeline during commercial clam harvest operations. The closure is not related to water quality impacts of the discharge. The closure zone, which would extend a fixed distance on either side of the pipeline and run the entire length of the pipeline, would be restricted for the lifetime of the operations. The area in the vicinity of both proposed outfall locations is already closed to commercial shellfish harvest due to existing water quality concerns.

O14-281

1. What fish and shellfish would be allowed for harvest in the closure zone?
2. What are the criteria for determining what fish or shellfish can be harvested?
3. What would be the size of the closure zone?
4. Could the closure be permanent?

References: List locations or how to access all the references listed for Chapter 14.

Chapter 16

Transportation

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 16 – Transportation

Introduction

This chapter was supposed to, **but does not or does only superficially**, address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to transportation for the proposed King County sewage system. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

How can the impacted public respond to a DEIS in which neither the facility design nor the wastewater treatment processing technology has been decided? The truth is, they cannot. Therefore, the environmental impact study is fatally flawed and fails to meet the intent and requirements of the State Environmental Policy Act (SEPA) (RCW 43.21C) and SEPA rules (WAC 197-11).

O14-282

King County's presentation of the environmental impact as it relates to transportation is so vague, incomplete, and general in nature that it could mislead the public. No transportation management plan (TMP) is included, referred to, or even discussed except in the most general of terms. King County uses most of this section in an attempt to build credibility by detailing current conditions in general terms with little attention paid to detailed presentation of what, where, and how they would build and operate the sewage plant and the resulting effect upon transportation and the environment.

Until King County presents a realistic TMP, which includes a risk assessment, a detailed description of its intent and the effect on local transportation resulting from the proposed sewage treatment plant construction and operation, this section should be rejected by all readers (including federal, state, and local agencies) as incomplete and a disregard of the intent of the EIS process as defined in state regulatory statute.

16-1

Response to Comment O14-282

Please refer to the response to Comment O14-71 in this letter. Chapter 16 of the Draft EIS evaluated, from many perspectives, the transportation impacts associated with the proposal for each of the alternatives. As part of the ongoing development of the proposal, detailed transportation management plans will be adopted, as indicated at p. 16-51 of the Draft EIS. Section 16.3 also contains a discussion of mitigation measures. Please refer to the revised transportation analysis in Chapter 16 of the Final EIS.

16.1.1.2 Level of Service Standards

O14-283

The DEIS states, "The general public considers Level of Service (LOS) A [through] LOS D . . . as acceptable. . . ."

1. Provide the study that supports the contention of general public opinion.
2. Supply study questions, date(s) of study, investigators and affiliations, sample size, study methodology, and results.
3. Include attributed statements from members of the public who would be directly affected by this project.

O14-284

Table 16-1. The table shows Level C as "Vehicle stopping is significant, but many still pass through the intersection without stopping." Level D states, "many vehicles stop, and the influence of congestion becomes more noticeable. These data are too general to satisfy the public concern with excessive traffic delays.

1. Further describe traffic flow with data specific to the impacted location studied in this DEIS.

O14-285

Table 16.1, Level of Service makes no provisions for impacts of trucks causing delays, especially when there are changes of grade (e.g., ascending SR 104 from Edmonds to 100th Avenue) and when traffic is particularly congested (e.g., when the ferry unloads cars and trucks). The draft EIS estimates trucks comprise 9% of traffic.

1. LOS is too important to estimate the proportion of traffic that trucks represent. The EIS should include actual inventories of traffic and trucks.
2. LOS should assess the impact of going up grades and autos passing in the area of study.
3. Include the times of day when peak flows occur, including trucks. These data should not be averaged over an hour's time, since peaks occur with the ferry traffic at specific times.
4. Determine the peak traffic flow and the actual delay for important intersections.

16-2

Response to Comment O14-283

The National Academy of Sciences Transportation Research Board Special Report 209 (*Highway Capacity Manual 2000 Edition*) establishes the LOS definitions as described in the Draft and Final EIS. Accordingly, the definitions are based on nationally accepted traffic operations research and policy debate. The Highway Capacity Manual is the Federal Highway Administration's (FHWA) governing standard for estimating capacity and LOS for transportation facilities. All supporting studies are referenced in the current 2000 Highway Capacity Manual. The thresholds for acceptable LOS vary by jurisdiction. Each jurisdiction establishes its own threshold through a public process. Chapter 16 of the Final EIS provides the various thresholds for each jurisdiction within the Brightwater project area. These thresholds of level-of-service acceptability range from LOS C to E.

Response to Comment O14-284

The City of Edmonds Transportation Element (2002 Update) established level of service (LOS) D as the level-of-service standard for arterials. The traffic flow characteristics presented in tables in Chapter 16 of the Final EIS are provided to narratively characterize each LOS, but the calculated average delay value for intersections or the calculated percentage of free flow speed for roadway segments is the data that determines each level-of-service. Please refer to Chapter 16 for calculated delay information at impacted intersections.

Response to Comment O14-285

Please refer to the response to Comment O14-283 in this letter. The methodology described in the 2000 Highway Capacity Manual does take into account roadway grades, volume peaking factors for high ferry traffic surges, the percentage of trucks in the traffic stream, acceleration

characteristics of trucks, and all traffic entering the intersection (including the minor streets).

Please refer to the response to the City of Woodinville, Comment C5-140. The peak hour of traffic is typically found within the hours of 3:00 p.m. to 7:00 p.m. during the average weekday. Truck percentages are lower for the peak hour than for the whole day, showing that more trucks travel in off-peak times. Truck percentage information in the Draft EIS was collected from the Washington State Department of Transportation 2001 Annual Traffic Report at locations on SR-104. Please refer to Chapter 16 of the Final EIS for updated truck traffic percentages, intersection levels-of-service and delay, and sources of traffic data.

O14-286

"In general, LOS standards are applied only to traffic generated by the operation of a proposed project." Development of a new, up to 72 mgd, regional wastewater treatment plant is a long way outside any "in general" statement. Some LOS changes are directly related to new wastewater treatment needs.

1. Describe detailed mitigation measures for the increased transportation needs.
2. Describe mitigation measures for traffic load increases from 2010 to 2040.
3. Define King County's responsibility and identify mitigation measures for traffic increases and the schedule their implementation.
4. Include public input into the process by which acceptable LOS is decided.

16.1.2.1 Unocal Site

O14-287

Existing traffic volumes, paragraph 1 - This paragraph is full of non-definitive terms like "existing average," "estimated to range," "peak hour," "generally occur," "approximately," "generally comprises," "9 to 10%." On SR 104, ferry traffic surges occur about 25 times a day which means a "peak hour" analysis grossly understates the problem congestion at intersections and it ignores cross street traffic problems in trying to access SR 104 during surges.

1. How can King County justify its inexact statements?
2. Provide hard data that clearly show the impact on the transportation system.
3. Provide actual peak flow information related to traffic surges corresponding to ferry traffic rather than peak hour data.
4. Many autos change lanes to pass slow trucks. Since trucks comprise 9 - 10% of traffic, this is significant. Provide information showing the impact of truck volume as it relates to ferry traffic surges.
5. Provide information on the impact on SR 104 when left turns are needed to access the Unocal site going north during construction and operation of treatment facilities.
6. Identify mitigating measures, including specific time and funding requirements.

O14-288

Many traffic measuring devices have been observed on Edmonds streets during the planning period.

1. Where are these data?

16-3

Response to Comment O14-286

Please refer to the response to Comment O14-283 in this letter regarding public acceptance for LOS thresholds. Potential mitigation addresses general background infrastructure deficiencies not caused by Brightwater project trip generation. Proposed mitigation addresses operational traffic impacts created by the addition of vehicles generated by the Brightwater project and these measures would be provided by King County. Please refer to Chapter 16 of the Final EIS for both proposed and potential mitigation for future 2010 and 2040 No Action Alternative and project treatment plant operation conditions. Level-of-service standards were adopted by each jurisdiction to determine acceptable traffic operations.

Response to Comment O14-287

Please refer to the response to Comment O14-285 in this letter. Traffic counts were collected and the data were used in the analysis of intersection and segment operations. Please refer to Chapter 16 of the Final EIS for sources of traffic data and "hard data" regarding transportation system impacts. Please refer to the response to the City of Edmonds, Comment C9-115. Also, please refer to the response to Comment O14-286 in this letter and Chapter 16 of the Final EIS for more detail on mitigation measures.

Response to Comment O14-288

Traffic counts were collected and the data were used in the analysis of intersection and roadway segment operations. Please refer to Chapter 16 of the Final EIS for sources of traffic data and "true" impacts of proposed improvements. The existing traffic counts are documented in the separately bound supplemental traffic information notebook, and can be reviewed at the King County project office.

O14-288

2. Why aren't they included in the DEIS?
3. Provide data from these studies and all other relative information specific to the true impacts of proposed improvements.
4. Publish such data and information in a supplemental DEIS.

O14-289

The DEIS states "Currently, all critical intersections along SR 104 between the ferry terminal and I-5 have adequate capacity for current traffic demand volumes."

1. Support this statement with peak traffic flow data (not peak hour data) relative to ferry surges.

O14-290

Table 16-2 - This table should be modified to show ferry surge peak flows rather than "PM Peak Hour" volume "based in [Washington State Department of Transportation] WSDOT and local cities traffic counts." Currently, the level of service is understated by the methodology used.

O14-291

Intersection Level of Service - "highest delays occurring at the intersection of SR-104 and SR-99." In reality, there is little or no delay at SR-104 and SR-99 because they cross with an underpass. The above statement suggests a lack of awareness of current local conditions on the part of King County staff. Drawings show the intersection at SR-104 and streets 205/244 SW.

1. Do the data presented refer to the intersection at SR-104 and streets 205 NW/244 SW?
2. If so, correct the statement.
3. If not, correct the drawing.
4. Provide data for other intersections which would be impacted.

O14-292

Table 16-3 uses Peak-Hour delay resulting in LOS of D for 2 intersections.

1. Do ferry traffic surges cause more than 51 seconds of delay anywhere in the impacted area?
2. Do ferry traffic surges cause more than 51 seconds of delay at SR 104 and 100th Avenue West?

16-4

Response to Comment O14-289

Please refer to the response to Comments O14-285 and O14-288 in this letter. Ferry traffic surges are accounted for in the peak hour adjustment factors applied in the LOS analyses. Please refer to Chapter 16 of the Final EIS for updated intersection operations results.

Response to Comment O14-290

Please refer to the response to Comments O14-285, O14-288, and O14-289 in this letter. Please refer to Chapter 16 of the Final EIS for updated intersection operations results.

Response to Comment O14-291

The intersection of SR-104 at SR-99 has been corrected to SR-99 at NW 205th Street/244th Street SW in Chapter 16 of the Final EIS. Please refer to the response to Comment O14-288 in this letter. Please refer to Chapter 16 of the Final EIS for updated intersection operations results.

Response to Comment O14-292

Please refer to the response to Comments O14-285, O14-288, and O14-289 in this letter. Also, please refer to Chapter 16 of the Final EIS for updated intersection operations results. Intersection operating levels-of-service were prepared using the approved methodology described in the *Highway Capacity Manual, 2000 Edition* (TRB, 2000). The reported intersection delays represent an average stop delay per vehicle for the cumulative traffic operating conditions that include the ferry traffic surges and other background traffic along SR-104. As the LOS results represent an average for the peak hour, some vehicles would experience higher than the average delay shown and some lower than the average delay shown. The ferry surges, however, do strongly influence the average delay value for the full hour.

Reference:

TRB. 2000. *Highway Capacity Manual, 2000 Edition*. National Academy of Sciences Transportation Research Board Special Report 209.

O14-292 3. The footnote says "average delay." This is not the only measure hat should be used. Identify the range of delays as a result of surges. Longer delays should be taken into account to establish LOS.

O14-293 The DEIS makes references to the transportation system as including roads, ferries and train traffic. It fails to include the fact that a bus system operates in the same general area.

1. What mass transit operates in the same general area?
2. How would mass transit be impacted?
3. What measures would be taken to mitigate the impact on mass transit?

O14-294 The DEIS lists Pine Street, Unocal Road, Dayton Street, Edmonds Way and SR-104 as the roadways potentially affected by this project. Other roads need to be included, such as SR-524.

1. How would SR-524 be impacted by the project?
2. How long would SR-524 be impacted by the project?
3. What measures would be taken to mitigate the impact on SR-524?
4. How would 100th Avenue (9th Avenue) be impacted by the project?
5. How long would 100th Avenue (9th Avenue) be impacted by the project?
6. What measures would be taken to mitigate the impact on 100th Avenue (9th Avenue)?
7. How would Railroad Avenue be impacted by the project?
8. How long would Railroad Avenue be impacted by the project?
9. What measures would be taken to mitigate the impact on Railroad Avenue?

O14-295 **Existing traffic volumes**. Traffic on SR-104 is extremely congested during heavy ferry traffic conditions. It is not uncommon for the traffic to be backed up from to the intersection of 100th Ave W. and SR-104, making it impossible for local residents to access SR-104. Adding construction truck traffic will only make the problem a magnitude more difficult. The DEIS states that SR-104 has adequate capacity between the ferry and I-5. This is not true during busy periods of the day.

1. What plans does King County have to provide traffic control during these busy periods?

16-5

Response to Comment O14-293

Community Transit provides service along SR-104, 5th Avenue South, and Dayton Street, which is within 0.25 mile walking distance from the site. Transit service and park-and-ride lots are illustrated in figures in Chapter 16 of the Final EIS. Please refer to the response to the City of Kenmore, Comment C3-16, for mitigation measures for traffic impacts. As transit lines operate on the same right-of-way as general-purpose vehicles, the mitigation measures that were provided in Chapter 16 of the Final EIS would be applicable to transit as well.

Response to Comment O14-294

The proposed project traffic impacts to SR-524 and Railroad Avenue would be expected to be minimal since all Unocal site construction traffic would be required to travel along designated access routes as discussed in Chapter 16 of the Final EIS. Construction and plant operation impacts to the intersection of Edmonds Way (SR-104) and 100th Avenue West has also been included in Chapter 16. A traffic plan has been included in Chapter 16 of the Final EIS that addresses specific mitigation measures that would reduce traffic impacts during construction. Also, please refer to the response to Comment O14-286 in this letter for mitigation related to treatment plant operations, and the response to the City of Kenmore, Comment C3-16, for project traffic impacts and proposed mitigation measures.

Response to Comment O14-295

Please refer to the response to the City of Edmonds, Comment C9-115. It is true that ferry traffic does queue for long distances on SR-104, but this is not a capacity issue of SR-104. It is an issue of capacity for the ferry holding area. Please refer to the response to the City of Kenmore, Comment C3-16. A traffic plan has been included in Chapter 16 of the Final EIS that addresses specific mitigation

measures that would reduce traffic impacts during construction. As part of the mitigation strategy, flaggers and off-duty police officers would be deployed at the intersection of Edmonds Way (SR-104) and Pine Street to ensure minimal conflicts and delays to ferry traffic. A traffic control plan would be developed to provide travel priority to all ferry traffic. All construction workers would be shuttled to the Unocal site from a remote offsite parking lot to minimize traffic delays along SR-104.

O14-295
2. What measures would be taken to mitigate the impact on traffic personnel?
3. Include King County's TMP for this project, in its entirety, in this section.

O14-296
Roadway / Intersection level of Service. The DEIS presents data regarding road and intersection LOS. The DEIS fails to address the unacceptable LOS conditions that would occur.

1. During construction, what measures would King County take to mitigate the negative affect on ferry traffic?
2. How would King County mitigate the unacceptable LOS conditions, that occur during the construction phase, without placing undue burden on the local jurisdiction?

O14-297
Accident Experience. A significant retail development is taking place at the southwest corner of SR-104 and 100th Ave West, which is noted as a high accident intersection in the DEIS. The additional traffic that will be generated as a result of this development will increase the incidence of accidents at this intersection. The addition of traffic generated by the project would further increase the incidence of accidents.

1. What measures would King County take to mitigate the effects of increased traffic at this intersection?

O14-298
Parking. The City of Edmonds does not have any significant parking lots in the vicinity of the planned treatment facility. On-street parking, which is very limited in the downtown area, is the only parking in the vicinity.

1. Where would parking be provided for construction workers who chose not to utilize the proposed bus system?
2. How would King County ensure that the limited parking spaces in Edmonds are not used by construction workers who do not utilize the proposed bus system?

O14-299
Truck Traffic – The DEIS states, "Truck traffic along SR 104 in the vicinity of the Unocal site is approx. 5% of total daily traffic."

1. Provide documentation to support this statement.
2. Provide the numbers of autos and trucks rather than percentages.
3. Provide dates and times used in measuring actual volumes.

16-6

Response to Comment O14-296

Please refer to the response to the City of Kenmore, Comment C3-16. A traffic plan has been included in Chapter 16 of the Final EIS that addresses specific mitigation measures to reduce traffic impacts during construction. As part of the mitigation, flaggers and off-duty police officers would be deployed at the intersection of Edmonds Way (SR-104) and Pine Street to provide traffic control. Temporary mitigation measures were also proposed for other impacted intersections during construction and are included in Chapter 16 of the Final EIS.

Response to Comment O14-297

A traffic plan has been included in Chapter 16 of the Final EIS that addresses specific mitigation measures to reduce traffic impacts during construction. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for details on the traffic impact analyses and mitigation measures.

Response to Comment O14-298

All construction workers would be required to use the remote offsite parking lot and would be shuttled to the Unocal site. All parking for field staff and visitors would be provided onsite. The project would develop a parking management plan to provide incentive, such as priority parking spaces, for workers to carpool. The parking plan would be coordinated with the local jurisdiction during the permitting process.

Response to Comment O14-299

The truck percentage along SR-104 was based on the WSDOT 2002 Annual Traffic Report and May 2003 traffic counts conducted by Traffic Count Consultants. The updated truck traffic percentage along SR-104 within the vicinity of the Unocal site is approximately 2 percent of the total PM peak-hour traffic. Existing traffic count details are documented in the separately bound "Supplemental Traffic

Information" document, and can be reviewed at the King County project office.

16.1.3.1 Unocal Corridors

O14-300 **Roadway System.** The DEIS fails to discuss disruption of access to both homes and businesses.

1. How would King County ensure that emergency services have access to all private and business locations along the conveyance corridor during the construction project?
2. How long would a resident or business owner expect disrupted access to their property?
3. What mitigation measures are planned to compensate residents and business owners for loss of access to their property?

O14-301 **Roadway / Intersection Level of Service**. The DEIS shows the Unocal corridor following heavily traveled roadways. Portals required to gain access to the conveyance tunnels would create additional congestion either during their construction or use.

1. The DEIS should address this circumstance in its level of service discussion.
2. What traffic planning has King County done in the event that the roadway system would have to be closed to gain open access to the conveyance tunnel?
3. Has WSDOT agreed to King County's TMP?
4. If so, include their comments.
5. If not, why not?
6. Include any WSDOT comments on King County's TMP.

O14-302 **Parking**. The DEIS fails to discuss where the construction worker parking areas would be located along the conveyance corridors during the construction process.

1. Would condemnation of property be required to provide temporary parking lots during the construction cycle?

O14-303

2. If yes, where? Provide a map, drawn to scale.
3. What agency would determine the property value and compensation to be paid to owners of the condemned property?
4. When would this compensation be made and by what agency?

16-7

Response to Comment O14-300

Emergency vehicle, resident, and business-related access to homes and businesses would be maintained at all times during all construction phases of the Brightwater project. As such, no compensation would be provided. A Traffic Management Plan (TMP) would be prepared with the permitting agency that would include measures for maintaining and coordinating emergency vehicle access. The TMP would provide for continuous coordination with emergency service providers to address their needs.

Response to Comment O14-301

The conveyance system would be constructed by tunneling underground, limiting surface impacts to portal sites only. Portal site construction will not occupy or spill over onto the existing public roadways. Additional detailed analyses of construction traffic related to specific portal locations and identification of construction traffic routes and traffic impacts have been included in Chapter 16 of the Final EIS, wherein. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for greater detail. Access to the conveyance system during operating conditions would be at portal sites only. The roadway system would not be expected to be closed at any time.

Please refer to the response to the Snohomish County Planning and Development Services, Comment S3-158. WSDOT, like all other affected agencies, would not be able to finalize the TMP until the permitting process. WSDOT had the opportunity to comment on the Draft EIS, but no comments were made in regards to the TMP. All WSDOT comments have been included in the Final EIS.

Response to Comment O14-302

All parking at portal siting areas would be provided onsite, but carpools would be encouraged as a means to reduce

traffic. No condemnation of property would be required to provide temporary parking lots.

Response to Comment O14-303

With regard to property acquisition in general, King County will follow applicable federal and state laws and King County policies and procedures in acquiring property for the project. The time at which compensation is paid would depend on the particular acquisition. Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation website at http://dnr.metrokc.gov/wtd/row/acquisition.htm and the response to Comment O14-302 in this letter for more information.

16.1.4.1 Zone 6

The DEIS fails to acknowledge that an underwater sea park is located slightly north of the outfall Zone 6. This facility is utilized year-round by divers from all of western Washington.

O14-304
1. What measures would King County take to ensure that water circulation and the corresponding effluent that is discharged from the Zone 6 outfall would not affect the underwater sea park?

O14-305
2. King County has not addressed what health hazards would be created for the users of this underwater park as a result of the effluent discharge from the Zone 6 outfall. Identify all potential health hazards.
3. For each health hazard, address mitigation measures.

O14-306
4. Have all applicable state and federal agencies agreed to King County's statements that there would be no disruptions nor adverse effects to any Puget Sound transportation systems.
5. Include comments provided by each of these agencies.
6. If there are no comments, why are there no comments?

16.2.1.2 Traffic Impact Analysis

O14-307
Truck Traffic Analysis. The DEIS fails to define the areas that would be required for staging equipment and trucks during the construction of the sewage treatment plant.

1. Where would these staging areas located? Provide a map.
2. What equipment would be stored in the staging areas
3. How would movement to and from the staging areas impact local traffic?
4. Would King County condemn property to facilitate the staging area required?
5. Identify permits needed to establish such staging areas

O14-308
Employee Traffic Analysis. The DEIS discusses the need to bus workers to and from the job site due to lack of onsite parking. It fails to address many issues related to this form of transportation.

16-8

Response to Comment O14-304

King County has conducted the most extensive characterization of the circulation in the triple junction region of Puget Sound to date (*Final Report Puget Sound Physical Oceanography Related to the Triple Junction Region* [Ebbesmeyer et al., 2002]). Additionally, the County has modeled effluent transport under a wide variety of oceanographic conditions (Predesign Initial Dilution Assessment). This information was compiled along with effluent characterization to demonstrate that the discharged effluent would not significantly change the risks associated with swimming in Puget Sound. King County is also proceeding with diffuser designs that would maintain the effluent plume 70 feet below the surface under most oceanographic conditions. This will entrain the plume in the southward flowing currents carrying it away from the underwater park.

Reference:

Ebbesmeyer, C.C., G.A. Cannon, B. Nairn, and M. Cawrse. 2002. *Final Report Puget Sound Physical Oceanography Related to the Triple Junction Region.* Prepared for King County Department of Natural Resources. Seattle, WA. October 2002.

Response to Comment O14-305

As discussed in Chapter 9 of the Final EIS, health risks resulting from operation of either treatment plant would be negligible to users of the Edmonds scuba park. This conclusion is based on information provided in Appendix 6-I, Effluent Quality Evaluation for the Brightwater Membrane Bioreactor and Advanced Primary System, of the Final EIS which documents human health risks associated with toxic chemicals. With respect to pathogens, the treatment plant would be designed to meet or exceed water quality standards established by Ecology intended to protect human health. King County would be required to comply with and monitor

NPDES permit conditions established by the Washington State Department of Ecology.

Response to Comment O14-306

Individual consultation with agencies prior to publication of the Draft EIS is not part of the environmental review process as defined under the State Environmental Policy Act (SEPA). King County has identified numerous stakeholder agencies, particularly agencies with permitting authority, and has coordinated, and will continue to coordinate with these agencies. Please refer to the Distribution List for the Final EIS, attached as an appendix to the Final EIS, for a list of all agencies contacted. King County has responded to all comments received on the Draft EIS, including those of agencies. These comments are incorporated into the Final EIS. King County can not speculate why individual agencies have not chosen to provide comments on the Draft EIS. Agency comments, along with all other Draft EIS comments, are attached as an appendix to the Final EIS, along with comment responses, and are available for review along with all other comments attached to this document.

Response to Comment O14-307

All construction equipment and trucks would be staged onsite at either the Unocal or Route 9 site to minimize impacts to local traffic. Equipment and vehicles required for construction of the treatment plant (e.g., earthwork trucks, concrete and material delivery trucks, earthmovers) would be stored entirely within the treatment plant construction site. It is unknown at this time whether or not property would be condemned or if permits would be required for staging areas. As part of the traffic management plan, a remote truck-holding lot within a short travel distance to the Unocal site would be identified to stage construction truck traffic to minimize queuing along SR-104 and to avoid conflicts with ferry traffic. Selection of the remote lot would be coordinated with the local jurisdiction during the permitting process. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for more details.

Response to Comment O14-308

Please refer to the response to the City of Edmonds, Comment C9-112. Depending on the site selected, the shuttle would follow SR-104 from the remote parking location to the Unocal site and vice versa. It is estimated that eight busses would be required to transport the construction workers. The schedule of the shuttle service would be finalized during the permitting process. No stops would be expected along the route between the remote parking location and the Unocal site. It would be a restricted shuttle service, not a form of public transit.
public transit.

1. Where would the employee collector parking area(s) be located?
2. What route(s) would the bus service follow from the employee collector parking area(s) to the job site?
3. What route(s) would the bus service follow from the job site to the employee collector parking area(s)?
4. How many buses would be utilized daily for this transportation requirement?
5. What would be the schedule of this bus service?

O14-308

6. Where would the bus stops be located? Provide a map specifically noting bus routes and stops.

16.2.1.4 Conflicts with Other Projects

The Unocal site is relatively small compared to the size that King County originally specified. The plans included a space requirement for future expansion of the sewage treatment facility. Site conflicts exist. The realignment of Pine Street is required. Edmonds, in conjunction with other federal and state agencies, has been planning a multi-modal transportation system on this same site for several years.

The DEIS fails to define where the future expansion of the sewage treatment facility would be and what access would be required during the construction process.

O14-309

1. What area has been designated for future expansion of this sewage treatment facility?
2. How would this area be accessed during construction? Provide a map.
3. How would the sewage treatment facility be expanded or accessed during the construction process without encroaching on adjacent, environmentally sensitive areas?

The DEIS fails to discuss how the proposed Edmonds Crossing multi-modal transportation facility would be co-located on the same site.

1. How would both facilities be collocated on the same site? Provide a detailed map with precise measurements. Conceptual drawings are not acceptable.

16-9

Response to Comment O14-309

The areas designated for future expansion of the Brightwater Treatment Plant are shown on the figures in Chapter 3 as well as the figures in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS. The areas of expansion avoid environmentally sensitive areas (shown on the figures) to the extent possible. Once construction began on the initial plant (36 mgd) at the Unocal site, the plant would be terraced and the access roads shown in the site layouts created. These roads would also serve as access roads during construction. The Unocal sub-alternative that combines the Brightwater Treatment Plant with the multimodal facility is also described in detail in Appendix 3-A. This appendix includes detailed drawings that show that the co-location of both facilities is feasible.

16.2.1.5 Emergency Vehicle Access

O14-310

The DEIS requires that Pine Street be realigned to satisfy the design of the sewage treatment facility.

1. How would King County ensure that emergency access and service to the Town of Woodway would not be interrupted during this realignment process?
2. Provide the King County TMP, with time line, for this project.

16.2.3.1 Construction Impacts - Unocal Site

O14-311

Construction Traffic Impact Analysis. The DEIS states, "Potential impacts on the area transportation system would be related mainly to increased traffic volumes associated with earthwork and material delivery" and "Activity represents approximately 4% increase in peak-hour and daily traffic. . . ." In addition to increased traffic volume, traffic would slow because of the addition of 990 truck trips per day or 110 truck trips during peak hours. Adding more slow vehicles during the ferry traffic surges would slow the entire mass further and cause greater delays at critical intersections. Trucks are slow to accelerate from a near- or full-stop, further delaying both cars and trucks.

1. What would be the impact of slowed traffic due to slow truck acceleration?
2. Correct the EIS to recognize slow truck acceleration.

Table 16-17

O14-312

1. Revise Table 16-17 to show greater LOS and delays per the above comments.
2. Table 16-17 was reportedly devised from actual measurements taken on the intersection sites. Provide the results of that analysis in detail, including dates and times of measurements.
3. Incorporate such an analysis into the EIS, displaying the actual measured numbers and resulting delays.

16-10

Response to Comment O14-310

Emergency services access to the Town of Woodway would be maintained at all times during the construction and realignment of the Pine Street roadway segment. Please refer to the response to Comment O14-296 in this letter for more examples of mitigation measures.

Response to Comment O14-311

The acceleration characteristics of trucks were included in both construction and operations impact analysis. Please refer to Chapter 16 of the Final EIS for results of the analyses.

Response to Comment O14-312

Please refer to the response to Comment O14-285 in this letter. Additional traffic counts were performed and the data were used in the analysis of intersection and segment operations. Please refer to Chapter 16 of the Final EIS for more details and sources of the collected traffic data.

O14-313 The DEIS states "The intersection of SR-104 at 100th Avenue West may experience an increase in PM peak-hour delay (by 11 seconds) although the additional traffic would not cause a drop in the PM peak-hour LOS." Slow trucks and peak delays rather than peak-hour delays would result in lower LOS during construction.

1. Address peak delays specific to the impacted locale.
2. Provide detailed mitigation measures.

O14-314 The DEIS fails to address the issue and affect of vibration caused by heavy equipment and trucking activities on the adjacent steep hillside and neighboring properties during the construction process. A significant excavation is required at the Unocal site and this hillside has a history of being unstable. These issues were inadequately addressed in the DEIS.

1. What would be the impact of vibration caused by heavy equipment, trucking activities, and excavation during construction?
2. How would these impacts be mitigated?
3. How would King County ensure that earth movement on the steep hillside would not occur during construction due to constant vibration caused by movement of heavy equipment, trucking activities, and excavation?
4. How would King County ensure that potential earth movement, on the steep hillside, would not result in damage to private property in the adjacent areas, as the result of heavy equipment, trucking activities, and excavation?

O14-315 The DEIS fails to address the issue of vibration caused by daily train traffic and its impact on the surrounding areas such as the steep hillside.

1. How would King County ensure that vibration from daily train traffic would not cause earth movement on the steep hillside during construction?
2. How would King County ensure that vibration from daily train traffic would not cause earth movement and damage to adjacent property?

O14-316 The DEIS fails to address the issue of vibration and its impact on the environmentally sensitive areas and habitat.

16-11

Response to Comment O14-313

The methodology described in the *Highway Capacity Manual, 2000 Edition* (TRB, 2000) does take into account roadway grades, volume peaking factors for high ferry traffic surges, percentage of trucks in the traffic stream, acceleration characteristics of trucks, and all traffic entering the intersection (including the minor streets). A traffic plan has been included in Chapter 16 of the Final EIS that addresses specific mitigation measures that would reduce traffic impacts during construction.

Reference:

TRB. 2000. *Highway Capacity Manual, 2000 Edition*. National Academy of Sciences Transportation Research Board Special Report 209.

Response to Comment O14-314

Vibration impacts and mitigation are described in Appendices 10-A, Noise and Vibration: Treatment Plant, and 10-B, Noise and Vibration: Conveyance, of the Final EIS. Slides and liquefaction of soils are not expected to result from construction vibration, since those construction activities producing vibration are also processes that include reinforcement of the adjacent soils by shoring, sheeting, ground freezing, or tunnel lining. Additional geotechnical investigation would be conducted during detailed design of the Brightwater facilities to support structural design of all project elements to be placed below ground. This work would also form the basis of developing construction methods and sequencing to avoid risks of disturbing unstable slopes.

Response to Comment O14-315

Vibration impacts of daily train traffic to onsite soils would be considered as part of the preliminary design phase, when structural design criteria are being established.

Response to Comment O14-316

Much study is available on the impacts of noise on habitat; however, no studies are known to have been done on the effects of vibration on environmentally sensitive areas or habitat. Vibration generated by construction activities would be intermittent; mitigation measures used to reduce vibration, in particular the use of sonic or vibratory pile driving, would minimize any impacts that might occur to sensitive areas or habitat.

O14-316

1. How would King County ensure that irreversible damage would not occur to environmentally sensitive areas because of construction traffic and vibration?
2. How would King County ensure that irreversible damage would not occur to the habitat located in the environmentally sensitive areas because of construction traffic and vibration?

O14-317

Transportation System. The Unocal site is relatively small compared to the size that King County originally specified. The King County plans included a space requirement for future expansion of the sewage treatment facility. Site conflicts exist. The realignment of Pine Street is required. Edmonds, in conjunction with federal and state agencies, has been planning a multi-modal transportation system on this same site for several years.

The DEIS requires that Pine Street be realigned to satisfy the design of the sewage treatment facility.

1. How would King County ensure that the realignment of Pine Street would be approved by the local controlling authorities?
2. How would King County ensure that emergency access and service to the town of Woodway would not be interrupted during this realignment process?

O14-318

Construction Traffic Impact Analysis. The proposed sewage facility is a major construction project. The Unocal site is located in a unique area of the City of Edmonds, with very limited access to the site. The increased volume of traffic and heavy equipment for an extended period of time would result in accelerated street deterioration. Additional infrastructure elements such as water, electricity, and natural gas may be stressed beyond capacity. To increase the capacity of these utilities, additional construction within the City of Edmonds would be required. Additional road repair would be required. King County has not addressed these issues in the DEIS.

O14-319

The DEIS fails to discuss the impacts of construction on street deterioration in the City of Edmonds during the construction period.

1. These issues should be discussed in detail, including what measures would be taken to ensure that the City of Edmonds would have all of the affected streets restored to preconstruction conditions.

16-12

Response to Comment O14-317

The roadway section and grade requirements of the realignment of Pine Street would be designed according to county and city roadway design standards. Final approval of the design would be made during the permitting process. Emergency services' access to the Town of Woodway would be maintained at all times.

Response to Comment O14-318

A traffic plan has been included in Chapter 16 of the Final EIS that addresses specific mitigation measures that would reduce traffic impacts during construction and these measures would be provided by King County. The timeline for restoration of streets would be coordinated and finalized during the permitting process. Please refer to Chapter 17 of the Final EIS for information about the use of water, electricity, and natural gas.

Response to Comment O14-319

Please refer to the response to Comment O14-318 in this letter. Specific scheduling for improvements would be determined during the permitting process and would be coordinated with local jurisdictions.

O14-319

2. What agency would determine the pre-existing conditions prior to construction?
3. What process would be used to determine the pre-existing conditions prior to construction?
4. What is the time frame that the City of Edmonds, a resident, or a business owner could expect before the streets were restored to their original condition?

O14-320

The DEIS fails to discuss the impacts on the local infrastructure caused by the construction phase of the sewage treatment facility.

1. What agency would determine the pre-existing condition prior to construction?
2. What process would be used to determine the pre-existing conditions prior to the construction process?
3. What is the time frame that the City of Edmonds, a resident, or a business owner could expect before the streets were restored to their original condition?

16.2.3.2 Operation Impacts – Unocal Site

O14-321

Unocal Structural Lid Sub-Alternative. The DEIS discusses a structural lid design option but fails to discuss how the proposed Edmonds Crossing multi-modal transportation facility would be co-located on the same site.

1. If structural lids over the tanks are utilized as part of the design, how would this design be accomplished to prevent ferry service delays?
2. What odor control measures would be used to prevent unacceptable conditions for all transportation systems co-utilizing this site?

16.2.4.1 Construction Impacts

O14-322

Unocal Corridor. The DEIS presents data regarding the possible disruption of access to both homes and businesses.

16-13

Response to Comment O14-320

Please refer to the response to Comment O14-318 in this letter. Specific scheduling for improvements would be determined during the permitting process and would be coordinated with local jurisdictions.

Response to Comment O14-321

The multimodal transportation facility would be located on top of the structural lid. The Edmonds Crossing multimodal transportation facility would be constructed upon the completion of the structure lid. The ferry operation would not be relocated from its existing site to the new site on the lid until the new terminal is completed so as to minimize operations impacts. Both projects would require detailed coordination to minimize conflicts and delays. Construction of the Brightwater project would not be expected to create delays to the ferry services. Please refer to Chapter 5 of the Final EIS for information on odor control.

Response to Comment O14-322

Please refer to the response to Comment O14-300 in this letter. A traffic management plan (TMP) has been identified in Chapter 16 of the Final EIS that includes specific mitigation measures that would minimize traffic impacts during construction and maintain emergency service access.

O14-322
1. What plans does King County have to ensure that emergency services would have access to all private and business locations along the conveyance corridor during construction?
2. What is the time frame that a resident or business owner could expect before access to their property is restored?
3. Include King County's TMP for this project.

O14-323
The DEIS shows the Unocal corridor following heavily traveled roadways. Portals required to gain access to the conveyance tunnels would create additional congestion either during their construction or during their actual use. The DEIS fails to address this circumstance in their level of service discussion

1. Address this circumstance in the DEIS level of service discussion.
2. What traffic planning has King County done in the event that the roadway system would have to be closed to gain open access to the conveyance tunnel?

O14-324
The DEIS fails to discuss where the construction worker parking areas would be located along the conveyance corridors during the construction process.

1. Would condemnation of property be required to provide temporary parking lots during the construction cycle?

O14-325
2. What agency would determine the property value and compensation to be paid to the property owners for the condemned property?

16.2.4.2 Operational Impacts

O14-326
Unocal Corridor. The DEIS fails to address the effect of a raw sewage spill at the pumping stations en route to the sewage treatment facility. For each pumping station, provide:

1. The plans King County has to ensure an acceptable containment program for malfunction and/or sewage spill.
2. The plans King County has to ensure minimal risk and safety to the general public can be achieved in the event of a malfunction and/or sewage spill.

O14-327
3. The plans King County has to ensure that emergency services would have access to all private and business locations during an emergency sewage spill.

16-14

Response to Comment O14-323

Please refer to the response to Comment O14-301 in this letter.

Response to Comment O14-324

Please refer to the response to Comment O14-302 in this letter.

Response to Comment O14-325

This comment essentially calls for legal analysis, as opposed to environmental information, which SEPA requires be addressed in an EIS. Moreover, non-environmental information such as the acquisition of property is ordinarily entirely exempt from SEPA evaluation. Please refer to WAC 197-11-800(5). King County will follow applicable federal and state laws and King County policies and procedures in acquiring property for the project. Please refer to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation website at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

Response to Comment O14-326

Please refer to the response to the Washington State Department of Ecology, Comment W5-35, for a discussion of spill prevention and response and the existing King County Wastewater Treatment Division Emergency Response Plan, which includes provisions for conveyance facilities such as pump stations. Please refer to the response to Town of Woodway, Comment C7-53, for a discussion of public notification procedures.

Response to Comment O14-327

In the event of an emergency, local fire, police, and other emergency services would work alongside of King County to respond and act. Coordination between these entities on this

subject would occur after site selection and most likely during the permitting process. Plans for rerouting traffic would occur at the time of the spill because the location would be unknown beforehand.

O14-327
4. The plans King County has for rerouting traffic during an emergency sewage spill.
5. Include King County's TMP for this project.

O14-328 The DEIS fails to address the future modifications and/or extensive repairs that may be required to the conveyance lines and/or pumping stations.

O14-329
1. If disruption to a community, a residence, or a business occurs as a result of major repair of the conveyance line and/or pumping stations, how would the affected parties be compensated?

O14-330
2. What process would be used to determine the pre-existing conditions prior to construction?
3. What is the time frame that a resident or business owner could expect before conditions were restored to those that existed prior to the disruption event?

16.3.1.1 Construction

O14-331
Mitigation Measures Common to Both Sites. In addition to these measures identified in the DEIS, add the following in a supplemental DEIS:

1. Goal of the TMP to construct improvements without impacting intersections and road segments resulting in lowering the LOS.
2. Consider alternate routes, non-peak times with minimal disturbance to businesses and residences.
3. Prepare all proposed traffic modifications plans in writing by sponsors and submit to the local jurisdiction with adequate advance time to make reasonable evaluations and facilitate local arrangements for implementation. If it is found that a proposed modification is not working as planned, replace it in a timely manner by one that would achieve the desired results.
4. Pavement disturbed by construction would receive a temporary overlay within 7 days and a permanent covering as soon as possible.
5. When one side of a street is affected by construction, an additional lane or lanes on the opposite side of the street would be temporarily opened to provide the original level of service.

16-15

Response to Comment O14-328

No future modifications are anticipated along conveyance lines. Please refer to the response to Comment O14-327 in this letter. Extensive repairs are similar to emergency sewage spills in that the location would be unknown before the incident occurred.

Response to Comment O14-329

Potential construction-related impacts associated with Brightwater would be addressed during permitting, where agreements between King County and the host jurisdiction would establish the permitting conditions.

Prior to the host jurisdiction granting appropriate permits for construction to begin, King County and the jurisdiction would be able to identify possible construction-related impacts, and determine what requirements King County would be expected to fulfill prior to construction, during construction, and after work is completed.

Response to Comment O14-330

Field surveys and a roadway condition inventory would be conducted prior to the start of construction to determine the pre-existing roadway conditions. Procedures and requirements for the field work would be determined during the permitting process. A schedule for restoration would be coordinated with each local jurisdiction and local businesses to minimize conflicts and delays.

Response to Comment O14-331

Please refer to the response to the City of Kenmore, Comment C3-16. A Traffic Management Plan (TMP) has been described in Chapter 16 of the Final EIS that includes specific mitigation measures that would reduce traffic impacts during construction. The exact details and measures to be included in the TMP would be defined at the time of project permitting. Measures to maintain levels-of-service, establish detour routes, communicate traffic changes, restore

pavements, and maintain adequate traffic lanes would likely be included in the TMP.

O14-332 The DEIS presents data regarding road and intersection LOS. The DEIS fails to address the unacceptable LOS conditions that would occur at various locations.

1. Provide the plans King County has to mitigate potential disruption of the Washington State Ferry schedules as a result of unacceptable LOS conditions.
2. Provide the plans King County has to ensure that undue burden and costs are borne by the sewage treatment plant, not local communities.

O14-333 The DEIS presents data regarding the possible disruption of access to both homes and business.

1. Provide the plans King County has to compensate affected businesses for loss of business income attributed to construction.

Mitigation Measures – Unocal Site.

O14-334
1. Add this statement: Construct one additional lane on SR-104 from Pine Street South to the first traffic light to accommodate slow moving trucks going upgrade while maintaining 2 southbound lanes. Include widening the overpass for a truck lane.

O14-335 The DEIS fails to address the issue and effect of vibration caused by heavy equipment and trucking activities during the construction process. Significant excavation is required at the Unocal site, which has a history of being unstable. This question was submitted to King County but was not answered. The DEIS also fails to address the issue of vibration caused by construction and its impact on the adjacent steep hillside and neighboring properties.

O14-336
1. If damage to private property occurs as a result of earth movement, how would King County compensate adjacent property owners?
2. How would King County mitigate such damage?

O14-337 The DEIS fails to address the issue of vibration caused by daily train traffic and its impact on the surrounding areas such as the steep hillside.

O14-338
1. If damage to private property occurs as a result of earth movement, how would King County compensate adjacent property owners?
2. How would King County mitigate such damage?

16-16

Response to Comment O14-332

Traffic impacts resulting from constructing and operating the treatment plant at the Unocal site are not expected to have adverse effects to the Washington State Ferry schedules or operations. For additional information on potential traffic impacts associated with Brightwater, please refer to Chapter 16 of the Final EIS. For information about managing construction-related impacts, please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-333

Please refer to the response to Comment O14-204 in this letter.

Response to Comment O14-334

Construction truck traffic leaving the Unocal site to SR-104 southbound would be monitored and controlled by flaggers and/or off-duty police officers to assure no conflicts or delays to the ferry traffic. Without conflicts to the ferry traffic, SR-104 would have excessive roadway capacity to accommodate slow moving truck traffic to the next signal-controlled intersection.

Response to Comment O14-335

Please refer to the response to Comment O14-314 in this letter.

Response to Comment O14-336

King County's contract agreements require our contractors to carry liability insurance coverage when performing work on behalf of the County. Ultimately, the contractor performing the work is responsible for dealing directly with a citizen or business to resolve a damage claim. Under present WTD policy, King County works with contractors and construction managers to develop procedures for handling damage claims. If King County has reason to believe that the contractor's response to a citizen claim is inadequate, then monies equal

to the value of the claim from the contractors progress payments can be withheld until the issue is resolved.

If the contractor denies a claim and a person wishes to pursue a damage claim with King County, the individual must file a claim with the King County Office of Risk Management. The Office of Risk Management follows its own established legal process to evaluate and address claims against the County. Once a formal claim against the County has been filed, the Office of Risk Management takes the lead in processing the claim.

Response to Comment O14-337

Please refer to the response to Comment O14-315 in this letter.

Response to Comment O14-338

Please refer to the response to Comment O14-336 in this letter.

O14-339 The DEIS fails to address the issue of vibration and its impact on the environmentally sensitive areas and habitat.

O14-340
1. How would King County compensate local communities and associated environmental groups if irreversible damage does occur to these environmentally sensitive areas and related inhabitants?
2. How would King County mitigate such damage?

O14-341 The Unocal site is relatively small compared to the size that King County originally specified. The King County plans include a space requirement for future expansion of the sewage treatment facility. Site conflicts exist. The realignment of Pine Street would be required. Edmonds has been planning a multi-modal transportation system on this same site for several years.

The DEIS requires that Pine Street be realigned to satisfy the design of the sewage treatment facility.

1. Provide the mitigation plans King County has to ensure that this design requirement would be accomplished.

O14-342 The DEIS fails to define the areas that would be required for staging equipment and trucks during the construction of the sewage treatment plant.

O14-343
1. Provide the mitigation plans King County has to compensate local property owners and/or local jurisdictions if condemnation of property occurs.
2. Provide the mitigation plans King County has to ensure that undue burden and costs resulting from this staging requirement are borne by the sewage treatment plant, not local communities.

O14-344 The DEIS discusses the need to bus workers to and from the job site due to lack of onsite parking. It fails to address many issues related to this form of transportation.

O14-345
1. Provide the mitigation plans King County has to ensure that undue burden and costs resulting from this busing requirement are borne by the sewage treatment plant, not local communities.

16-17

Response to Comment O14-339

Please refer to the response to Comment O14-316 in this letter.

Response to Comment O14-340

King County must comply with applicable local, state, and federal laws during the siting, construction, and operation of Brightwater. If an incident involving a violation of environmental laws were to occur, King County would be subject to fines and penalties designated by the appropriate agency (for example, Washington State Department of Ecology, Environmental Protection Agency, etc.). King County would take corrective measures and would assume responsibility for costs associated with cleaning and restoration. However, King County would not offer compensation to environmental groups or communities. For additional information on damage claims, please refer to the response to Comment O14-336 in this letter, and to the response to Comment O14-329 in this letter for additional information on mitigation.

Response to Comment O14-341

Please refer to the response to Comment O14-317 in this letter.

Response to Comment O14-342

Please refer to the response to Comment O14-307 in this letter.

Response to Comment O14-343

Construction of Brightwater facilities may require condemnation of property interests. However, King County will first work with the property owners to reach satisfactory voluntary agreements. King County will follow applicable federal and state laws and King County policies and procedures in acquiring property for Brightwater facilities. Please refer to the Uniform Relocation Assistance and Real

Property Acquisition Policies Act of 1970 and the King County Property Acquisition and Relocation Web site at http://dnr.metrokc.gov/wtd/row/acquisition.htm for more information.

Please refer to the response to the City of Shoreline, Comment C6-5, for information regarding mitigation plans, policies and suggestions.

Response to Comment O14-344

Please refer to the response to Comments O14-298 and O14-308 in this letter.

Response to Comment O14-345

Please refer to the response to Comment O14-329 in this letter.

O14-346 The DEIS fails to discuss the impacts of plant construction on street deterioration in the City of Edmonds during the construction period.

O14-347
1. Provide the mitigation plans King County has to ensure that undue burden and costs resulting from street deterioration are borne by the sewage treatment plant, not local communities.

O14-348 The DEIS fails to discuss the impacts of construction of the sewage treatment plant on local infrastructure.

O14-349
1. Provide the mitigation plans King County has to ensure that undue burden and costs resulting from impacts on local infrastructure are borne by the sewage treatment plant, not local communities.

16.3.1.2 Operational

O14-350 **Mitigation Measures Common to Both Sites.** The DEIS fails to address the future modifications and/or extensive repair that may be required on either the conveyance lines and or pumping stations.

O14-351
1. Provide the mitigation plans King County has to ensure that undue burden and costs resulting from future modifications are borne by the sewage treatment plant, not local communities.

O14-352 **Mitigation Measures – Unocal Site**. The DEIS fails to address the effect of vibration caused by daily train traffic and the affect of the daily operation of the sewage treatment plant.

1. How would King County protect the structural integrity of the retaining wall system and the safety of the sewage treatment facility from constant vibration caused by daily train traffic?
2. How would King County ensure that vibration from daily train traffic would not cause structural damage to the sewage treatment facility?

16-18

Response to Comment O14-346

Please refer to the response to Comment O14-318 in this letter.

Response to Comment O14-347

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-348

Documentation included in the Draft EIS, Final EIS, and appendices provides detailed discussion of impacts related to the Brightwater System. Analysis of local infrastructure impacts including stormwater facilities, roadways, utility lines, and utility providers are discussed in Chapters 6, 16, and 17 of the Final EIS.

Response to Comment O14-349

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-350

Please refer to the response to Comment O14-328 in this letter.

Response to Comment O14-351

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-352

Please refer to the response to Comment O14-315 in this letter.

O14-352 3. How would King County ensure that vibration from daily train traffic would not cause equipment failure at the sewage treatment facility?

O14-353 The DEIS fails to address the effect of vibration caused by daily train traffic on hazardous chemicals stored at the site.

1. How would King County ensure that vibration from daily train traffic would not cause problems and/or spills from hazardous material?
2. How would King County ensure that vibration from daily train traffic would not cause the hazardous chemical storage containers to fail?

O14-354 The DEIS fails to address the issue of a hazardous chemical material spill while en route to the sewage treatment facility.

1. Provide the containment plan King County has to protect the communities in the event of a hazardous material spill.
2. Provide King County's plan to ensure minimal risk and maximum safety for the general public in the event of a hazardous material spill.
3. Provide the plans King County has to ensure emergency services would have access to private and business locations during a hazardous material spill.
4. Provide the plans King County has for rerouting traffic in the event of a hazardous material spill.
5. Provide the plans King County has to ensure the maximum safety to all transportation systems and personnel passing through the area in the event of a hazardous material spill.
6. Provide the plans King County has to ensure minimal impact on environmentally sensitive areas and inhabitants in the event of a hazardous material spill.

O14-355 The DEIS fails to address the issue of a hazardous chemical material spill at the sewage treatment facility.

1. Provide the containment plan King County has to protect the communities in the event of a chemical material spill.
2. Provide King County's plan to ensure minimal risk and maximum safety for the general public in the event of a chemical material spill.

16-19

Response to Comment O14-353

A maximum ground vibration level of 0.008 in./sec, RMS (root mean square) velocity was measured on Admiral Way, Vibration Monitoring Location (VML)-1, while a freight train was passing. This is double the threshold of human perception, but only half of the limit considered acceptable for infrequent events, as discussed in Appendix 10-A, Noise and Vibration: Treatment Plant, of the Final EIS. Vibration due to daily train traffic would not be sufficient to result in damage to chemical containers. Please refer to the response to Comment O14-315 in this letter.

Response to Comment O14-354

The issues raised would be addressed through the development of an Emergency Response Plan specific to the Brightwater Treatment Plant, as noted in the response to the City of Edmonds, Comment C9-126. Transport of hazardous chemical materials to the Brightwater Treatment Plant would be subject to a variety of state and federal regulations, including the Resource Conservation and Recovery Act (RCRA). Such provisions and truck container design standards minimize the risk of a hazardous chemical materials spill during transport. In the event of a hazardous material spill on a roadway, the Washington State Department of Ecology would be the primary response agency, operating under the Model Toxics Control Act (MTCA).

Response to Comment O14-355

The issues raised would be addressed through the development of an Emergency Response Plan specific to the Brightwater Facility as noted in response to the City of Edmonds, Comment C9-126, and to Comment O14-354 in this letter. Operation of wastewater treatment and conveyance facilities requires the use of various chemicals for disinfection, odor control, and other processes. While there is a risk that these chemicals could be released during a spill,

modern treatment plants incorporate a number of measures to minimize such risks. These measures include spill containment provisions, double-walled storage facilities, and emergency cleanup procedures in the event of a spill. All chemical storage and handling would be designed to comply with the applicable local, state, and federal regulations, such as the UFC regulations for spill control and secondary containment (Section 8003.1.3 UFC), the Resource Conservation and Recovery Act (RCRA), and OSHA. The onsite storage would provide approximately 15 days storage capacity for each chemical. The dry polymers would be delivered in bags and stored in bags, tanks, or bins. Bags would be stored in a cool, dry location above floor level to allow for easy, safe access and effective cleanup. Storage tanks and bins would be designed with double walls and set on concrete pads, with spill containment berms and high- and low-level indicators to allow continuous feeds. The chemical building would be provided with appropriate ventilation and alarm systems in case of emergency. Areas used for loading and unloading materials would include features for spill containment. The greatest potential exposure would be to treatment plant operators. The risk of hazardous or toxic materials being transported offsite is minimal. Emergency spill response procedures would be in place at all facilities, and employees would be trained to respond appropriately.

3. Provide the plans King County has to ensure emergency services would have access to private and business locations during a chemical material spill.
4. Provide the plans King County has for rerouting traffic in the event of a chemical material spill.
5. Provide the plans King County has to ensure the maximum safety to all transportation systems and personnel passing through the area in the event of a chemical material spill..
6. Provide the plans King County has to ensure minimal impact on environmentally sensitive areas and inhabitants in the event of a chemical material spill.

O14-355

O14-356

The DEIS fails to address the issue of a raw sewage spill at the sewage treatment facility.

1. Provide the containment plan King County has to protect the communities in the event of a raw sewage spill.
2. Provide King County's plan to ensure minimal risk and maximum safety for the general public in the event of a raw sewage spill.
3. Provide the plans King County has to ensure emergency services would have access to private and business locations during a raw sewage spill.
4. Provide the plans King County has for rerouting traffic in the event of a raw sewage spill.
5. Provide the plans King County has to ensure the maximum safety to all transportation systems and personnel passing through the area in the event of a raw sewage spill.
6. Provide the plans King County has to ensure minimal impact on environmentally sensitive areas and inhabitants in the event of a raw sewage spill.

O14-357

The DEIS fails to address the issue of a material spill while exporting the sewage treatment facility solid waste.

1. Provide the containment plan King County has to protect the communities in the event of a material spill.
2. Provide King County's plan to ensure minimal risk and maximum safety for the general public in the event of a material spill.
3. Provide the plans King County has to ensure emergency services would have access to private and business locations during a material spill.
4. Provide the plans King County has for rerouting traffic in the event of a material spill.

16-20

Response to Comment O14-356

The issues raised would be addressed through the development of an Emergency Response Plan specific to the Brightwater Treatment Plant, as noted in response to City of Edmonds, Comment C9-126. Also, please refer to the response to the Washington State Department of Ecology, Comment W5-35, for a discussion of emergency overflow procedures, which would include a raw sewage spill at the treatment plant. More information on notification procedures is provided in the response to the Town of Woodway, Comment C7-53.

Response to Comment O14-357

As discussed in Chapter 9 of the Final EIS, dewatered biosolids are transported along approved haul routes to field application sites in custom-designed dump trucks and trailers that minimize spills during transport. These routes were established by King County and appropriate regulatory agencies during site permitting process.

The contractor is responsible for adhering to King County's Vehicle Maintenance Program, which establishes proactive maintenance and repair requirements on all haul trucks and equipment to minimize the risk of accidents and spills. The contractor is also responsible for maintaining a routine cleaning program. In addition to routine weekly cleaning, drivers are required to wash the equipment at the delivery sites and treatment plant to prevent dirt and biosolids from being spilled on the roadways. Each truck is equipped with special electronic devices to detect equipment operation, engine wear and life, and the operating habits of the drivers.

King County's *Biosolids and Grit Haul Driver's Handbook* describes safety and emergency procedures to be taken in the event of a spill or collision. Each truck is required to contain safety equipment including a spill kit and traffic control devices. Drivers receive regular safety training and are instructed to divert traffic safely around an accident or spill

scene to prevent motorists from driving through any spilled material. Drivers are also required to take containment measures to prevent any spills from entering water bodies, and to clean up small spills. For a major spill, including spills that may represent a risk to surface or groundwater, a cleanup subcontractor would be dispatched to the site. While safety and emergency procedures minimize public contact, dewatered biosolids are non-hazardous and present no special public safety risk from spill or contact.

Reference:

King County, 2000. *King County Biosolids and Grit Haul Driver's Handbook*. June 2000.

O14-357

5. Provide the plans King County has to ensure the maximum safety to all transportation systems and personnel passing through the area in the event of a material spill.
6. Provide the plans King County has to ensure minimal impact on environmentally sensitive areas and inhabitants in the event of a material spill.

O14-358

The DEIS states that the operation of the sewage treatment facility requires the ongoing use of Pine Street. The DEIS fails to discuss the impacts of street deterioration during the operational phase of the facility.

1. Discuss the impacts of street deterioration during operation of the facility.
2. How would King County ensure that access for emergency services for the Town of Woodway would not be interrupted during the operational phase of the sewage treatment facility?

O14-359

3. Provide the mitigation plans King County has to ensure that Pine Street would be properly maintained.

O14-360

The DEIS does not identify the types of trucks to be used, their size, or the past history of spillage and accidents from such vehicles.

1. Provide a complete description of the types of vehicles to be used to transport sludge from the sewage treatment plant.
2. Provide a historical analysis of spillage and/or accidents involving such vehicles.
3. Has a risk assessment been completed for this type of solid waste disposal system?
4. If so, include the risk assessment, in its entirety, in this section.
5. If not, why not?
6. If not, conduct a risk assessment and include it in this section.

O14-361

The DEIS fails to discuss the impacts of overweight vehicles on street deterioration.

1. What agency would determine the pre-existing conditions prior to construction?
2. What process would be used to determine the pre-existing conditions prior to construction?
3. Provide the mitigation plans King County has to ensure that repairs caused by overweight vehicles are borne by the sewage treatment plant project, not local communities.

16-21

Response to Comment O14-358

The realignment of Pine Street would be designed and constructed to carry the chemical and biosolids trucks expected to access the treatment plant during operations. Please refer to the response to Comment O14-317 in this letter. Once both the realignment of Pine Street and the treatment plant are constructed the intersection would operate normally with no obstructions to access. All access for emergency services would be maintained at all times during construction of the Pine Street realignment.

Response to Comment O14-359

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-360

The types of trucks used to transport biosolids from the Brightwater Treatment Plant would be the same trucks that are used today to transport biosolids from the West Point and South Treatment Plants (tandem semi-trailers). Semi-trailers are typically used to transport biosolids and are accepted as an industry standard. Two to three truck trips per day are anticipated for the 36-mgd plant.

A historical analysis of spillage and accidents and a risk assessment are beyond the level of detail required in the Final EIS (WAC 197-11-440 (5) (iv)).

Response to Comment O14-361

Please refer to the response to Comment O14-330 in this letter.

O14-361 4. What is the time frame that a resident or business owner could expect before the roads and access to their property were restored?

O14-362 The DEIS fails to discuss the impacts of operations of the proposed sewage treatment facility on local infrastructure and properties. The DEIS fails to address the issue of devaluation of property adjacent to the proposed sewage treatment facility. The DEIS fails to address the financial damages that commercial property owners and businesses may experience due to the proximity of the sewage treatment facility.

1. Address the issue of devaluation of property adjacent to the proposed sewage treatment facility.
2. Address the issue of financial damages that commercial property and businesses adjacent to the proposed sewage treatment facility may experience.

16.3.2.1 Construction

O14-363 **Mitigation Measures Common to All Corridors.** The DEIS states the restoration of roads and access to private and business locations would be as good as (or better than) before construction. The DEIS fails to address what agency would make the determination of the pre-existing conditions prior to construction and set the standard for the repair requirement.

1. What agency would determine the pre-existing conditions prior to construction?
2. What process would be used to determine the pre-existing conditions prior to construction?

O14-364 3. Provide the mitigation plans King County has to ensure undue burden and costs to local jurisdictions and communities are borne by the treatment plant project.

O14-365 4. What is the time frame that a resident or business owner could expect before the roads and access to their property was restored?

O14-366 The DEIS fails to address the issue of a raw sewage spill at each and every pumping station en route to the sewage treatment facility during start-up and operational system testing.

1. Provide the containment plan King County has to protect the communities in the event of a raw sewage spill.

16-22

Response to Comment O14-362

Please refer to the response to Comment O14-204 in this letter.

Response to Comment O14-363

Please refer to the response to Comment O14-330 in this letter. The roadways that would be impacted by the construction of the Brightwater project would be mitigated by King County.

Response to Comment O14-364

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-365

Please refer to the response to Comment O14-330 in this letter. Access to homes and businesses would be maintained at all times during all phases of construction.

Response to Comment O14-366

Please refer to the response to Comment O14-326 in this letter.

2. Provide King County's plan to ensure minimal risk and maximum safety for the general public in the event of a raw sewage spill.
3. Provide the plans King County has to ensure emergency services would have access to private and business locations during a raw sewage spill.
4. Provide the plans King County has for rerouting traffic in the event of a raw sewage spill.
5. Provide the plans King County has to ensure the maximum safety to all transportation systems and personnel passing through the area in the event of a raw sewage spill.
6. Provide the plans King County has to ensure minimal impact on environmentally sensitive areas and inhabitants in the event of a raw sewage spill. O14-366

O14-367 The DEIS fails to address the future modifications and/or extensive repair that may be required on either the conveyance lines and or pumping stations.

O14-368
1. If disruption to a community, a residence, or a business occurs as a result of major repair to conveyance lines and/or pumping stations, how would King County compensate the affected parties?
2. What process would be used to determine pre-existing conditions prior to construction?
3. Provide the mitigation plans King County has to ensure that undue burden and costs to local jurisdictions and communities would be borne by the sewage treatment plant project.

O14-369
4. What is the time frame that a resident or business owner could expect before conditions prior to the disruption event were restored?

16.3.2.2 Operational

O14-370 **Mitigation Measures Common to All Corridors.** Restore impacted streets to pre-existing or better conditions in the time frame established for the Unocal site portion of the DEIS.

O14-371 The DEIS fails to address the effect of a raw sewage spill at the pumping stations en route to the sewage treatment facility.

1. Provide the containment plan King County has to protect the communities in the event of a raw sewage spill.

16-23

Response to Comment O14-367

Please refer to the response to Comment O14-328 in this letter.

Response to Comment O14-368

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-369

Please refer to the response to Comment O14-330 in this letter.

Response to Comment O14-370

Thank you for your comment.

Response to Comment O14-371

Please refer to the response to Comment O14-326 in this letter.

2. Provide King County's plan to ensure minimal risk and maximum safety for the general public in the event of a raw sewage spill.
3. Provide the plans King County has to ensure emergency services would have access to private and business locations during a raw sewage spill.
4. Provide the plans King County has for rerouting traffic in the event of a raw sewage spill.
5. Provide the plans King County has to ensure the maximum safety to all transportation systems and personnel passing through the area in the event of a raw sewage spill.
6. Provide the plans King County has to ensure minimal impact on environmentally sensitive areas and inhabitants in the event of a raw sewage spill.

O14-371

O14-372 The DEIS fails to address the future modifications and/or extensive repair that may be required on either the conveyance lines and or pumping stations.

O14-373
1. If disruption to a community, a residence, or a business occurs as a result of major repair to conveyance lines and/or pumping stations, how would King County compensate the affected parties?
2. What process would be used to determine pre-existing conditions prior to construction?
3. Provide the mitigation plans King County has to ensure that undue burden and costs to local jurisdictions and communities would be borne by the sewage treatment plant project.

O14-374
4. What is the time frame that a resident or business owner could expect before conditions prior to the disruption event were restored?

16.3.3.1 Construction

O14-375 **Zone 6.** The DEIS fails to acknowledge that an underwater sea park is located slightly north of the outfall Zone 6. This facility is utilized year-round by divers from all of western Washington.

O14-376
1. What measures would King County take to ensure construction in Puget Sound for the outfall in Zone 6 would not affect the underwater sea park?
2. What health hazards would be created for the users of this underwater park, as a result of construction in Puget Sound for the outfall in Zone 6?
3. For each health hazard, address mitigation measures.

16-24

Response to Comment O14-372

Please refer to the response to Comment O14-328 in this letter.

Response to Comment O14-373

Please refer to response to Comment O14-329 in this letter.

Response to Comment O14-374

Please refer to the response to Comment O14-330 in this letter.

Response to Comment O14-375

As discussed in Appendices 3-F, Nearshore Alignment and Construction Methods Alternatives, and 3-A, Project Description: Treatment Plant, of the Final EIS, the outfall alignment would be located within Outfall Zone 6 and approximately 1.25 miles outside of the southern boundaries of the underwater sea park. It is very unlikely that the outfall construction impacts would extend as far north as the underwater park. However, installation of the outfall pipeline would utilize construction measures that would reduce any potential construction and access impacts to the park. Construction impacts and potential mitigation methods are summarized in Chapter 3 and discussed throughout the Final EIS.

Response to Comment O14-376

Please refer to the response to Comment O14-305 in this letter.

16.3.3.2 Operational

O14-377 The DEIS fails to acknowledge that an underwater sea park is located slightly north of the outfall Zone 6. This facility is utilized year-round by divers from all of western Washington.

1. What measures would King County take to ensure construction in Puget Sound for the outfall in Zone 6 would not affect the underwater sea park?

O14-378
2. What health hazards would be created for the users of this underwater park, as a result of construction in Puget Sound for the outfall in Zone 6?
3. For each health hazard, address mitigation measures.

16.4.1.1 Construction

O14-379 The DEIS states, "During the first few years of Unocal site construction, traffic . . . would experience delays. . . ." The DEIS also states that "access to Woodway neighborhoods would experience slight delays. . . ." and "Pedestrians may be rerouted from sidewalks/shoulders around the project site."

1. Define and quantify "delays" during construction as it is used in this context.
2. How many years might it be until traffic is no longer delayed?
3. Might these delays become permanent as a result of traffic associated with the sewage plant?
4. Do these delays apply to each ferry crossing?
5. Define "slight delays" in this context, in quantifiable terms.
6. How might pedestrians be rerouted? Provide a map.
7. Present King County's proposed pedestrian walkway plan for this location, in detail.

O14-380 The DEIS states, "construction traffic might result in additional accidents above the baseline levels." With no further discussion or information provided, the DEIS exhibits either King County's lack of interest and concern for public safety or else an effort to withhold this information from the public. The public is not able to consider and comment on the impact of this risk if the information is not provided in this document

16-25

Response to Comment O14-377

Please refer to the response to Comment O14-375 in this letter.

Response to Comment O14-378

Please refer to the response to Comment O14-305 in this letter.

Response to Comment O14-379

Delay is the additional travel time experienced by a driver in a vehicle. In this case, delay refers to the increase in average delay at an intersection compared to the no action condition. Construction of the treatment plant and the associated traffic impacts have an expected completion date of 2010. Delays associated with the treatment plant operation would begin in 2010 and are discussed in Chapter 16 of the Final EIS. Delays would be experienced by traffic at impacted intersections. In the area of the Edmonds ferry terminal it is assumed that some ferry traffic would be part of the traffic stream at the impacted intersections. Please refer to Chapter 16 the Final EIS for specific traffic impacts related to construction activity. Slight delays can be considered as additional average delays of 0 to 5 seconds. Also, please refer to tables in Chapter 16 of the Final EIS.

Pedestrians and bicyclists would be rerouted away from construction vehicle access points, such as to the opposite side of the street or to an adjacent parallel street. Please refer to the response to the City of Kenmore, Comment C3-16. A Traffic Management Plan (TMP) has been identified in the Final EIS that includes specific mitigation measures that would reduce traffic impacts during construction. Final approval of the TMP would be made during the permitting process.

Response to Comment O14-380

Additional traffic generated by this project would increase the potential risk of exposure to traffic accidents. Efforts to

improve safety during construction of the Brightwater project have been recommended and summarized in the mitigation section of Chapter 16 of the Final EIS. The proposed mitigation measures would range from assigning off-duty police officers to critical intersections; adding temporary non-motorized facilities where appropriate in the construction impact area; improving signal timing, phasing and signing changes in channelization. The traffic operating conditions would be continuously monitored during construction to reduce conflicts to all travel modes.

1. Define baseline levels.
2. Define and quantify "additional" as it is used in this context.
3. Has King County completed a risk assessment concerning this issue?
4. If not, why not?
5. If so, include the risk assessment here in its entirety.

16.4.2.1 Construction

O14-381

The DEIS states "There would be some delays . . . at each portal location. . . ." and goes on to state, with respect to Route 9, "Construction vehicle access to portal siting areas . . . will be disruptive and incompatible with local neighborhood streets. Include the transportation study that provides the intended audience with a real numerical understanding of their chances of delay. To do anything else only indicates that King County is hiding something and does not want affected residents to know the truth about the impact of the sewage treatment plant. If this study has been done, then provide the report in this section in its entirety.

1. Define and quantify "some delays" as it is used in this context.
2. What effect would these delays, disruption, and incompatibility have on local traffic?
3. Detail King County's plan to mitigate delays, disruption, and incompatibility.
4. Has King County completed a transportation management plan (TMP) for the proposed sewage treatment plant project?
5. If not, why not?
6. If so, include it, in its entirety, in this section.

O14-382

The DEIS states, "Possible temporary lane closures could affect movement of emergency service vehicles."

1. Describe the effect of temporary lane closures in detail.
2. If emergency vehicle access might be restricted, explain the scope and possible frequency of such restrictions.
3. How would restricted emergency vehicle access impact access to the Town of Woodway?
4. Has a transportation risk assessment been completed?
5. If not, why not?
6. If so, include it, in its entirety, in this section

16-26

Response to Comment O14-381

Additional detailed analyses of construction traffic related to specific portal locations have been included in Chapter 16 of the Final EIS and construction traffic routes and traffic impacts were identified. Please refer to Appendix 16-B, Transportation Impact: Plant Sites and Conveyance, of the Final EIS for greater detail. Some delays can be considered as additional average delays between 6 and 15 seconds. Also, please refer to tables in Chapter 16 of the Final EIS.

Please refer to the response to the City of Kenmore, Comment C3-16. A traffic management plan (TMP) has been identified in Chapter 16 of the Final EIS that includes specific mitigation measures that would reduce traffic impacts during construction.

Response to Comment O14-382

Emergency vehicle, resident, and business-related access to homes and businesses in the Town of Woodway would be maintained at all times during all construction phases of the Brightwater project. The transportation analysis for the Brightwater Treatment Plant has been prepared according to nationally approved industry guidelines for major developments. It is adequate for the determination of roadway network impacts and for selection of the preferred site, and it is sufficient for environmental documentation. Therefore, a transportation risk assessment would not be necessary to support these decisions and is not included in the Final EIS.

16.4.2.2 Operational

O14-383

The DEIS states only, "No significant unavoidable adverse impacts on traffic would result from operation of the conveyance system."

1. What study supports this statement?
2. Include the supporting study in this document.
3. If no study has been done, what is the basis for the statement?

16.4.3 Outfall Zones

O14-384

The DEIS states only, "No significant unavoidable adverse impacts on marine traffic would result from construction or operation of the Brightwater outfall."

1. What study supports this statement?
2. Include the supporting study in this document.
3. Have the Washington Department of Ecology and WSDOT indicated they would support this statement?
4. If so, include those supporting statements in this document.
5. If not, why not?
6. What agencies or groups (state, federal, tribal, environmental) have indicated that they would support this statement?
7. Include all statements, supporting or otherwise, in this document.
8. If there are no supporting statements, withdraw the statement.

Response to Comment O14-383

Operational impacts at portal sites would be limited to periodic maintenance checks occurring on an average of one inspection trip per day plus two truck trips per week, if needed. Please refer to LOS analyses contained in Chapter 16 of the Final EIS.

Response to Comment O14-384

The analysis within the Draft and Final EIS supports the statement that no significant unavoidable adverse impacts on marine traffic would result from operation of the conveyance system. The Washington State Departments of Ecology and Transportation have reviewed the Draft EIS and this statement. Neither of these agencies has indicated disagreement with this statement, nor have other agencies, tribes, or groups.

Chapter 17

Public Services and Utilities

The Washington Tea Party
Response to Draft
Environmental Impact Statement

Proposed Brightwater
Regional Wastewater Treatment System

Chapter 17 – Public Services and Utilities

Introduction

O14-385 This chapter was supposed to, **but does not or does only superficially**, address the impacts to the environment, mitigation measures, and significant unavoidable impacts related to public services and utilities for the proposed King County sewage system. Primarily, there are significant errors and omissions in this chapter that must be addressed by King County. Secondly, many general statements made in this DEIS have a complete lack of supporting documentation to substantiate those statements. The reader should not be required to search for referenced supporting documentation in federal, state, or local repositories. Pertinent information should be provided within this document, readily accessible and understandable.

17.1.1 Regulatory Environment

O14-386 Localities would be required to adopt stormwater regulations that are consistent with the new 2002 Department of Ecology Surface Water Manual. The upgrade in regulations would necessarily be enacted prior to design of the King County proposed sewage plant. These regulations will mandate considerably larger surface water facilities than now required.

O14-387 **Unocal Site.** GMA stipulates that no jurisdiction shall be required to bear a disproportionate share of essential public facilities. Edmonds presently hosts two regional sewage plants, one of the two busiest ferry terminals in Puget Sound, and a railroad station serving AMTRAK and scheduled to be one of three North Sound commuter rail stations. All but one of these facilities are within 0.5 miles of the Unocal site in the Edmonds Bowl area.

1. Explain, as requested in scoping questions, how King County intends to circumvent the Growth Management Act provisions requiring that essential public facilities not be aggregated.

Response to Comment O14-385

Please refer to the response to Comment O14-71 in this letter.

Response to Comment O14-386

Please refer to the response to the Washington State Department of Natural Resources, Comment W3-115.

Response to Comment O14-387

Please refer to the response to the City of Edmonds, Comment C9-5.

17.1.2.1 Unocal Site

O14-388

Fire Protection and Emergency Services. The Unocal site requires substantial excavation of an unstable hillside.

1. Specify, in detail, what would be the required equipment necessary to effect rescue in the event of a major landslide during excavation and terracing.
2. Specify, in detail, what would be the required training necessary for rescue personnel to effect rescue in the event of a major landslide during excavation and terracing.
3. Does the Edmonds Fire Department currently possess this equipment?
4. Does the Edmonds Fire Department currently have employees with the required skills?
5. To what extent and by what mechanism would King County pay for ongoing rescue equipment maintenance and training costs over the life of the sewage plant?

O14-389

Plant construction would require the use of significant numbers of heavy machinery.

1. How much machinery would have to be stored and repaired at the site?
2. Specify exactly what types of machinery would have to be stored and repaired at the site.
3. How much fuel for construction machinery would have to be kept on site?
4. Specify exactly what fuels, solvents, and other toxic materials related to construction machinery would have to be stored on the site.
5. Would emergency equipment and personnel which would respond to a fuel spill, explosion, or fire, be maintained at the site by King County?
6. If not, would the Edmonds Fire Department be required to respond?
7. Does the Edmonds Fire Department have the personnel and equipment required to respond to a fuel accident at the site?
8. If not, how would King County provide that equipment and personnel?

O14-390

The Unocal plant would require toxic chemicals for use in the wastewater treatment process, which would generate toxic/explosive gases. These chemicals are listed in Chapter 9. No mention of the local fire and emergency response capabilities to these hazards are discussed.

17-2

Response to Comment O14-388

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

Response to Comment O14-389

Please refer to Chapter 3 and Appendix 3-G, Construction Approach and Schedule, of the Final EIS for a discussion of the methods and equipment that would be used to construct the Brightwater System. Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2, for a discussion of emergency response procedures that would be developed for the construction and operation of the Brightwater System.

Response to Comment O14-390

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2, for a discussion of emergency response procedures that would be developed for the construction and operation of the Brightwater System. Please refer to Chapter 17 for a description of medical facilities nearest to the proposed Brightwater System Alternatives.

1. Does the Edmonds Fire Department possess the equipment and training necessary to control accidents involving chemicals listed in chapter 9?
2. Does the Edmonds Fire Department have the equipment and training needed to effect personnel rescue in the event of an industrial accident at the Proposed sewage treatment plant?
3. Where are the closest emergency medical facilities located?
4. Why are these chemicals not addressed in this chapter?

O14-390 5. What quantities of these chemicals would be stored on site?

Law Enforcement

The Unocal site is on a major highway (SR-104) and subject to surges caused by ferry traffic. SR-104 also serves as the westbound ferry vehicle holding area during peak periods. Traffic is often backed up to the intersection of SR-104 with 100th Avenue West, creating an atmosphere for potential accidents and driver confrontations which would be significantly aggravated by the proposed sewage treatment plant.

O14-391

1. Is the Edmonds Police Department staffed to handle traffic control and associated law enforcement duties during construction?
2. What mitigation measures has King County developed to assure that traffic control would be adequate during construction?
3. How would King County compensate Edmonds for additional training and personnel required for traffic control?

Solid Waste Services

O14-392 The DEIS notes the location of solid waste disposal stations but does not describe either the facility's anticipated solid waste disposal requirements or the plan for disposal.

1. Describe the anticipated solid waste disposal requirements of the proposed sewage treatment facility.

Response to Comment O14-391

King County is not anticipating the use of local law enforcement for construction traffic control. Temporary construction roadways and driveways that would access the Unocal site would be clearly marked by signage, and flaggers provided by the contractor would ensure traffic control is maintained in the immediate area of the construction site. Please refer to Chapter 16 of the Final EIS for a discussion of measures that would be implemented to mitigate traffic impacts associated with the construction and operation of Brightwater at the Unocal site.

Response to Comment O14-392

King County has yet to determine the solid waste requirements associated with the Brightwater Treatment Plant. During the final design phase, King County would coordinate with the local solid waste service provider to determine which facility could handle solid waste materials from the Brightwater facility during construction and when in operation. The Spill Prevention, Containment and Control Plan will describe offsite hazardous materials disposal.

O14-392

2. What is the plan for disposal? Include the location of the transfer station in King or Snohomish County.
3. Describe, in detail, King County's plan to dispose of all the potential toxic chemical waste.
4. If this question is answered in another section of the DEIS, reference the paragraph number in this section.
5. Why is this question not addressed in this section of the DEIS?

Water

O14-393

The DEIS notes the sources of potable water to the Edmonds plant but fails to describe the plant's water requirements.

1. List the proposed sewage treatment facility's anticipated potable water requirements.
2. If this question is answered in another section, state its location in this section.
3. Why is this question not addressed in this section of the DEIS?

Wastewater

O14-394

The DEIS states that the Lynnwood regional wastewater treatment plant is bordered by Edmonds. This is incorrect. The plant is wholly contained within the City of Edmonds.

1. Correct the EIS to reflect that the Lynnwood regional wastewater treatment plant is wholly within the City of Edmonds.

O14-395

The DEIS states that the Edmonds regional wastewater treatment plant also serves Woodway, Mountlake Terrace, the Olympic View Water and Sewer District, and parts of Lynnwood. The DEIS also states that Lynnwood and Edmonds are not part of the King County service district but fails to state that Mountlake Terrace and the Olympic View Water and Sewer District are not in the King County service area.

1. Correct this error.

17-4

Response to Comment O14-393

The information related to water requirements for the treatment plant operations was discussed in Chapter 17, Section 17.2.2.2, Operational Impacts Common to Both Sites, of the Draft EIS. This information is now contained in Chapters 3 and 17 of the Final EIS.

Response to Comment O14-394

The text in Chapter 17 has been revised in the Final EIS to describe the Lynnwood Regional Wastewater Treatment Plant within the City of Edmonds city limits.

Response to Comment O14-395

Text in Chapter 17 has been revised in the Final EIS to include a statement clarifying that Mountlake Terrace and the Olympic View Water and Sewer District are not within the King County Service Area. However, the southeast part of the City of Mountlake Terrace is included in the Brier Service Area that flows into the King County system (under an agreement with the Cities of Mountlake Terrace and Brier), and thus is within the King County Service Area. Please refer to Appendix 2-A, Population and Flow Analysis, of the Final EIS for more detail.

Please refer to the response to the City of Edmonds, Comment C9-5, for a discussion of Brightwater as it relates to the aggregation of essential public facilities in the Edmonds area.

The Draft EIS included text indicating that the Bear Creek Fire Station is staffed by a volunteer crew, as compared to other fire stations listed. Please refer to Chapter 17 of the Final EIS for a discussion of fire station locations and medical services likely to respond to an emergency with construction of the Brightwater Treatment Plant at the Route 9 site.

King County is not anticipating the need for additional fire and medical equipment at the local jurisdiction where the Brightwater Treatment Plant is constructed. Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2, for a discussion of emergency response

procedures that would be developed for the construction and operation of the Brightwater System.

O14-395

2. Explain, in detail, how King County intends to circumvent the Growth Management Act provisions requiring that essential public facilities not be aggregated.

Storm Sewer

O14-396

With reference to the storm sewer section:

1. Outline the anticipated stormwater collection and discharge system for the completed plant.
2. Include the anticipated storm water collection and discharge system interface with the existing systems, if any.
3. Does the present plan anticipate new requirements forthcoming from the Department of Ecology in 2002?
4. If so, please specify the new requirement(s) in detail
5. Provide a detailed map of the storm water collection and discharge system (conceptual drawings are not acceptable).

Electricity and Natural Gas

O14-397

The DEIS states that electrical and natural gas purveyors to the site are discussed in chapter 9. This is incorrect, they are in chapter 8.

1. Correct the EIS to reference the correct chapter.
2. Why are electrical and natural gas purveyors not discussed in this chapter?

17.1.2.2 Route 9 – Fire Protection and Emergency Medical

O14-398

The DEIS lists a number of possible stations which could respond to an emergency at the Route 9 proposed sewage treatment plant site. However, one of these is a volunteer-crewed site that is not available during the day. The proposed sewage treatment plant would use toxic chemicals in the wastewater treatment process, and would generate toxic/explosive

17-5

Response to Comment O14-396

The basic stormwater management system for the Unocal site is shown in Chapter 3, and presented in more detail in Appendix 6-D, Permanent Stormwater Management at the Treatment Plant Sites, of the Final EIS. One option under consideration for the discharge of the treated stormwater is use of the existing outfall pipeline for Willow Creek, with Willow Creek restored within a new stream channel. The existing Edmonds Way Drain would need to be rerouted to accommodate the plant facilities. This is the only project interface or impact upon existing stormwater systems. Several preliminary meetings have been held with the Washington State Department of Ecology to discuss the proposed project. No major changes to the proposed stormwater management system are anticipated at this time.

The preliminary level of design detail provided is appropriate for inclusion in an EIS. Detailed design for planned stormwater collection and discharge system or other stormwater facilities would be developed after the completion of the EIS and approval of the final project site.

Response to Comment O14-397

Chapter 8 of the Final EIS includes a discussion of electrical and natural gas purveyors. Additional discussion is not required in Chapter 17.

Response to Comment O14-398

The Draft EIS included text indicating that the Bear Creek Fire Station is staffed by a volunteer crew, as compared to other fire stations listed. Please refer to Chapter 17 of the Final EIS for a discussion of fire station locations and medical services likely to respond to an emergency with construction of the Brightwater Treatment Plant at the Route 9 site.

King County is not anticipating the need for additional fire and medical equipment at the local jurisdiction where the

Brightwater Treatment Plant is constructed. Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2, for a discussion of emergency response procedures that would be developed for the construction and operation of the Brightwater System.

gases. Although these chemicals are listed in Chapter 9, no mention of the fire and emergency response capability is mentioned.

1. Correct the text to make the distinction between the Bear Creek Fire Station (volunteer-crewed) and the other fire stations listed.
2. What response time would be reasonable for a volunteer fire station such as the one at Bear Creek?
3. How would that response time differ from a fully-staffed fire station?
4. Do the fire departments and emergency medical response teams likely to respond to an industrial emergency at the plant possess the equipment and training necessary to control industrial accidents involving chemicals expected to be at the site?
5. Do the fire departments and emergency medical response teams likely to respond, have the equipment and training needed to effect a personnel rescue in the event of an industrial accident at the Route 9 proposed sewage treatment plant?
6. What equipment would King County provide to assure that adequate fire protection is available in the event of an industrial accident?
7. What personnel would King County provide to assure that adequate fire protection is available in the event of an industrial accident?
8. What training would King County provide to assure that adequate fire protection is available in the event of an industrial accident?
9. What equipment would King County provide to assure that adequate medical care is available in the event of an industrial accident?
10. What personnel would King County provide to assure that adequate medical care is available in the event of an industrial accident?
11. What training would King County provide to assure that adequate medical care is available in the event of an industrial accident?
12. How would King County compensate other fire departments and emergency medical response teams for additional equipment, personnel, and training required to respond appropriately to an industrial accident? O14-398

O14-399 Plant construction would require the use of significant numbers of heavy machinery.

1. Would the machinery be stored and repaired at the site?
2. Would fuel for construction machinery be kept on site?

17-6

Response to Comment O14-399

Please refer to the response to Comment O14-389 in this letter.

3. Would emergency response equipment that is used to contain a fuel spill, explosion, or fire, be maintained at the site by King County?
4. If not, would local fire departments be required to respond?
5. Do the fire departments which are likely to respond have the personnel and equipment required to respond to a fuel accident at the site?
6. What equipment would King County provide to assure that adequate medical care is available in the event of a fuel accident?
7. What personnel would King County provide to assure that adequate medical care is available in the event of a fuel accident?
8. What training would King County provide to assure that adequate medical care is available in the event of a fuel accident?
9. How would King County compensate the fire departments likely to respond for additional equipment, personnel, and training required to respond appropriately to a fuel accident at the site?

O14-399

The Route 9 site would require substantial excavation during construction.

1. Do the emergency medical organizations likely to respond possess the required equipment and training to effect rescue in the event of a major accident during excavation?
2. Where are the nearest emergency medical services?
3. How would King County compensate the emergency medical organizations for additional equipment, personnel, and training required to appropriately effect rescue in the event of a major accident during excavation?

O14-400

17.1.3.1/17.1.3.2 Unocal/Route 9

O14-401

The DEIS includes compilations of the area fire, emergency medical, and police departments, but does not indicate whether these organizations are prepared to respond to a major industrial accident during construction. This is a serious oversight. King County is going to be digging holes 100 ft deep, probably deeper. This presents a serious possibility of accident including shaft cave in or tunnel collapse. South Snohomish County emergency services have not faced this situation before.

Response to Comment O14-400

Please refer to the response to Comment O14-398 in this letter.

Response to Comment O14-401

Please refer to the response to Comment O14-398 in this letter.

O14-401

1. Detail the ability of each of the listed fire departments to respond to a major industrial accident at a corridor construction site.
2. Detail the ability of each of the listed emergency medical organizations to respond to a major industrial accident at a corridor construction site.
3. Detail the ability of each of the listed police departments to respond to a major industrial accident at a corridor construction site.

17.2.2.1 Plant Construction

Unocal Site

O14-402

With respect to fire protection and emergency services, the impact plant construction would have on the Edmonds Fire Department personnel and equipment costs must be considered.

1. Detail the impact plant construction would have on Edmonds Fire Department personnel and equipment costs.
2. What are the costs associated with training personnel in unique emergency rescue procedures associated with the site?
3. In the event of a construction site emergency, what additional equipment is required beyond that of a residential community fire and emergency medical organization?
4. How would King County provide that equipment?

O14-403

With respect to law enforcement:

1. Detail the economic impact on the Edmonds Police Department of additional law enforcement and traffic control in the Unocal construction site.
2. Detail the economic impact on the Washington State Patrol of additional law enforcement and traffic control in the Unocal construction site.

O14-404

With respect to wastewater, the DEIS lists wastewater facilities located within the boundaries of the City of Edmonds but does not describe the impacts of the proposed sewage treatment facility on them.

Response to Comment O14-402

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-1.

Response to Comment O14-403

Please refer to the response to Comment O14-391 in this letter.

Response to Comment O14-404

Please refer to Chapter 3 of the Final EIS for a discussion relating to existing wastewater treatment facilities in Edmonds and the impact construction of the Brightwater Treatment Plant at the Unocal site would have on the existing treatment facilities.

O14-404
1. Describe the impact of the proposed sewage treatment plant construction on existing wastewater facilities within the Edmonds regional wastewater service area.
2. Describe any impact of the proposed sewage treatment plant construction on existing wastewater facilities within the Lynnwood regional wastewater service area.

With respect to stormwater, the DEIS indicates that the Department of Transportation storm water outfall which traverses the Unocal site may have to be relocated. This site discharges at the Marina Beach Park, a facility owned by the City of Edmonds.

O14-405
1. Provide a map showing the intended location of the relocated outfall.
2. Detail initial coordination with the City of Edmonds with respect to construction within the Marina Park.
3. Detail the impact construction would have on the Edmonds Way and the Willow Creek storm drains discharging at Marina Beach.
4. If the present design does not conform to the additional requirements of the 2002 Department Of Ecology Surface Water Manual, what would be the cost impact on the proposed sewage treatment plant?

O14-406
5. Would the expansion require further land acquisition by purchase, condemnation, or some other form of taking?
6. What would be the impact on adjacent property?

O14-407
7. What would be the impact on proposed buffers?

O14-408
8. What impact would they have on local community infrastructure?

Route 9 Site.

O14-409
With respect to fire protection and emergency services:

1. Detail the impact plant construction would have on each area's fire department personnel and equipment costs.
2. What would be the costs associated with training personnel in unique emergency rescue procedures associated with the site?
3. What would be the equipment required for potential construction site emergencies which are beyond the scope of a residential community fire and emergency medical organization?

17-9

Response to Comment O14-405

This comment refers to the Edmonds Drain, which crosses through the proposed Unocal site. The project would relocate the portion of this drain pipe that crosses the project site. The pipe would be relocated so as to avoid any major structures that would be constructed at this site. A Unocal site figure in Chapter 3 of the Final EIS shows a tentative location for the rerouted drain pipe. If the Unocal site is selected, this route would likely change as detailed design progresses. The rerouted pipe would be connected to the existing pipe that is located at the western edge of the site. The pipe's outfall into Puget Sound would therefore remain where it is.

Response to Comment O14-406

King County would acquire easements or would purchase land where necessary for the Brightwater project. If relocation of a Washington Department of Transportation (WSDOT) stormwater outfall requires additional property acquisition, King County would work with WSDOT to site a suitable location for that outfall. If property acquisition is necessary to accommodate the new WSDOT outfall location that process would most likely be carried out by WSDOT.

Response to Comment O14-407

There are two existing stormwater outfalls on the site: the 72-inch Edmonds Way Drain and the 42-inch discharge pipe, which contains Willow Creek. The 72-inch Edmonds Way Drain would need to be relocated because it conflicts with the proposed secondary clarifiers; the new location will be determined at a later date. King County would work with WSDOT as well as with applicable permitting agencies to minimize sensitive area impacts during the planning and implementation phases of this relocation project.

Response to Comment O14-408

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-409

Please refer to the response to the City of Edmonds, Comment C9-136.

O14-409 4. How would King County provide that equipment?

O14-410 With respect to law enforcement:

1. Detail the economic impact on the Snohomish County Sheriff's Department of additional law enforcement and traffic control at the Route 9 construction site.
2. Detail the economic impact on the Washington State Patrol of additional law enforcement and traffic control at the Route 9 construction site.

O14-411 With respect to stormwater, if the present design does not conform to the additional requirements of the 2002 Department Of Ecology Surface Water Manual:

1. What would be the cost impact on the proposed sewage plant?
2. Would the expansion require further land acquisition by purchase, condemnation, or some other form of taking? O14-412
3. What would be the impact on adjacent property?
4. What impact would they have on local community infrastructure? O14-413

17.2.2 Operational Impacts

Unocal Site

O14-414 With respect to fire protection and emergency services:

1. Detail the impact plant operation would have on Edmonds Fire Department personnel and equipment.
2. What would be the costs for training personnel in emergency rescue procedures unique to the site?
3. In a toxic environment, what would be the costs associated for training personnel in emergency rescue procedures unique to the site?
4. What equipment would be required for potential site emergencies which are beyond the scope of a residential community?
5. How would King County provide that equipment?

17-10

Response to Comment O14-410

Please refer to the response to The Washington Tea Party, Comment O14-391.

Response to Comment O14-411

Cost and economic impacts are not topics analyzed under SEPA and therefore are not addressed in the Brightwater EIS. "SEPA contemplates that the general welfare, social, economic and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions. The EIS is not required to evaluate and document all of the possible effects and considerations of a decision or to contain the balancing judgments that must ultimately be made by the decision makers" (WAC 197-11-448(1)).

However, after a final decision is made on the location for the Brightwater System, King County will work directly with affected jurisdictions and permitting agencies on mitigation strategies and solutions to Brightwater construction and operational impacts. As part of the overall decision process, King County is revising the cost estimates (dated November 2002) for the Brightwater System alternatives. The revised estimates will be updated at the end of 2003 and will be available on request by contacting the Brightwater project at brightwater@metrokc.gov, or 206-684-6799, or toll-free 1-888-707-8571.

Response to Comment O14-412

The Route 9 site contains adequate space to comply with any requirements related to the Washington State Department of Ecology *Stormwater Management Manual for Western Washington* (August 2001) and would not require additional land acquisition beyond that already planned.

Response to Comment O14-413

Please refer to the response to Comment O14-329 in this letter.

Response to Comment O14-414

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

O14-414

6. What special equipment would be required to address emergency situations in a toxic environment?
7. How would King County provide that equipment?

The property in question, when developed according to the Edmonds Growth Management and Master Plans, would generate significant tax revenue to the City, the Sno-Isle Library District, The Edmonds Unified School District, and Snohomish County. Therefore, King County's proposed sewage treatment plant would have serious adverse economic impacts on the Edmonds community. In addition, the loss of revenue caused by the inevitable devaluation of property in the Edmonds bowl, and the loss of sales taxes from restaurants and other businesses would cripple the City's finances.

Mitigation money may ease the City's revenue losses but would not compensate homeowners who stand to lose tens and even hundreds of thousands of dollars in property value.

O14-415

1. Describe the impact a sewage treatment plant would have on the Edmonds' economic environment during construction.
2. Describe the impact a proposed sewage treatment plant would have on the Edmonds' economic environment during the lifespan of the facility.
3. How would King County compensate the City of Edmonds, the Sno-Isle Library District, the Edmonds Unified School District, and Snohomish County for tax revenue losses over the lifespan of the facility?
4. How would King County compensate Edmonds residents for devaluation of their property?
5. How would King County compensate business owners for loss of revenue over the lifespan of the facility?
6. How would King County compensate the city, county, and state for loss of sales tax revenue over the lifespan of the facility?

O14-416

With respect to the future expansion of King County's proposed sewage treatment plant at the Unocal site to 72 mgd, the DEIS states that wastewater would be collected from the cities of Lynnwood and Edmonds. The DEIS fails to note that Edmonds, Lynnwood, Mountlake Terrace, and any other owners of the Edmonds and Lynnwood regional sewage treatment plants must agree to combining the facilities with King County's proposed sewage treatment plant.

17-11

Response to Comment O14-415

Please refer to the response to Comment O14-204 in this letter.

Response to Comment O14-416

A map showing the additional land required for a plant expansion to 72 mgd to accommodate flows from Edmonds and Lynnwood (Unocal 72-mgd sub-alternative) is shown in Appendix 3-A, Project Description: Treatment Plant, of the Final EIS. The land required for the treatment plant includes the land necessary for the onsite conveyance piping. Should this project be determined to be feasible in the future, additional site-specific evaluation of the conveyance lines would be done in association with the Cities of Edmonds and Lynnwood.

The piping to connect existing conveyance lines from the Cities of Edmonds and Lynnwood would be designed in close coordination with those two jurisdictions at the time if and when the Unocal 72-mgd sub-alternative is approved for implementation. These conveyance lines are not described in the Final EIS.

The potential adverse environmental impacts to the Cities of Edmonds and Lynnwood for the construction of the Unocal 72-mgd sub-alternative plant and associated mitigation are discussed in each chapter of the Final EIS. Additional site-specific evaluation of local conveyance connections to the Brightwater facilities would be conducted as part of subsequent environmental review, if the sub-alternative were approved for implementation. The impacts from constructing these local connections, and mitigation, are not included in the Final EIS.

The financial impact to the City of Edmonds and to the four other owners of the Edmonds Wastewater Treatment Plant for the Unocal 72-mgd sub-alternative would be evaluated as part of the overall decision-making process undertaken by King County and the owners of the Edmonds Wastewater

Treatment Plant in deciding whether or not the sub-alternative should be implemented. The effect of the Unocal 72-mgd sub-alternative on clearance of debt and bond ratings for the five communities and wastewater districts that own the Edmonds Wastewater Treatment Plant would be one of the factors considered by the owners of the Edmonds Wastewater Treatment Facility when determining whether their participation in implementing this sub-alternative is feasible. Such evaluation is not included in the Brightwater Final EIS. SEPA does not require that an analysis of financial impacts to be included in the Final EIS. WAC 197-11-448 (3) outlines examples of "information that are not required to be discussed in an EIS:" to include "methods of financing proposals, economic competition…social policy analysis…." The financial impact on the City of Lynnwood and other subscribers to the Lynnwood Regional Wastewater Treatment Plant for the Unocal 72-mgd sub-alternative would be part of the overall decision process that includes more factors than the environmental impacts discussed in the Final EIS.

King County acknowledges that all owners of the Edmonds and Lynnwood Regional Wastewater Treatment Plants would need to agree before implementation of the Unocal 72-mgd sub-alternative could occur. King County would negotiate directly with the management at each of those public utilities who had the authority to approve such an agreement as outlined in each utility's charter or managing regulations.

1. Provide a map showing the additional land that would be required for plant expansion, including land required for conveyance piping.
2. Provide a map showing the proposed conveyance corridors.
3. Specify the impacts on the cities of Edmonds and Lynnwood of construction between existing regional wastewater plants and the proposed sewage treatment plant
4. How would King County mitigate the adverse impacts of the conveyance construction?
5. What would be the financial impact on the City of Edmonds and the four other owners of the Edmonds wastewater plant if they became part of the King County system?
6. Specifically discuss clearance of debt and the bond ratings of the five communities and wastewater districts involved in ownership of the Edmonds plant.
7. What would be the financial impact on the City of Lynnwood and the other subscribers to the Lynnwood wastewater plant if they became part of the King County system?
8. What would be the cost of the City of Lynnwood and the other subscribers to the Lynwood regional wastewater plant to clear debt and the bond ratings?
9. Acknowledge that King County would have to have the agreement of all owners of the Edmonds and Lynnwood regional sewage treatment plants before the plants could be combined.

O14-416 10. By what mechanism would King County secure such agreement?

Route 9 Site

O14-417 The DEIS states that operational impacts would be similar to those of the Unocal site.

1. Describe the impact plant operation would have on personnel and equipment costs for each fire department likely to respond to a site emergency.
2. What would be the costs for training personnel in emergency rescue procedures unique to the site?
3. What would be the costs for training personnel in emergency rescue procedures to contain a toxic environment?
4. In the event of a plant emergency, what additional equipment is required beyond that of a residential community fire and emergency medical organization?
5. How would King County provide that equipment?

17-12

Response to Comment O14-417

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-1.

6. What equipment would be required to meet emergency situations in a toxic environment?
7. How would King County provide that equipment?
8. Is it feasible to expect a volunteer fire department to respond to an emergency in a toxic environment?
9. If yes, please describe in detail the plan to ensure the organization is certified, equipped, and trained to respond.
O14-417 10. How does King County compensate the organization for such certification, equipment, and training?

17.2.3.1 Construction Impacts

O14-418 Woodway Elementary School is located adjacent to portal 23 and in close proximity to portal 22 but is not mentioned in the DEIS.

1. Describe the potential impacts at the Woodway Elementary School during portal construction.

17.2.4.1 Outfall Zone Construction Impacts

O14-419 Construction of outfall Zone 6 would impact Edmonds.

1. Describe the impacts of construction on the Edmonds city parks, especially Marina Beach and the dog park, if Zone 6 is chosen as the outfall site.

17.3 Mitigation Measures

O14-420 Throughout the DEIS, the term "BMP" is used as a catch-all for unspecified measures to mitigate air, water, noise, or other adverse impact. Occasionally the reviewer is referred to a chapter (never a page or paragraph) that is said to outline "BMPs" for a specific situation (e.g., §17.3.2 paragraph 2). The glossary indicates that "BMP" has to do with water pollution

17-13

Response to Comment O14-418

Woodway Elementary School would not be directly affected by portal construction. Portal Siting Areas 22 and 23 are now secondary portals; meaning construction is not anticipated to be required at these PSAs. However, this may change due t the relatively long length of the tunnels. A final decision on the need for secondary portals will be made during final design. The following are some scenarios that may result in the use of secondary portals: temporary ventilation, standby emergency egress, deep ground improvement, and supply of backfill grout. Secondary portals would be much smaller in diameter than primary portals, require less land area, and support ancillary construction activities. If required, secondary portals would be located within approximately 10,000 feet of a primary or another secondary portal.

Response to Comment O14-419

Please refer to the response to the City of Edmonds, Comment C9-108.

Response to Comment O14-420

Best management practices (BMPs) have been defined and described in the Final EIS.

O14-420 prevention. Mitigation measures such as those described in §5.3.1.1, which are so general as to allow only the most casual attempts at air quality preservation, are the norm for the DEIS.

O14-421 1. Describe, in detail, the specific "BMPs" for dust at all construction sites.
O14-422 2. Describe, in detail, the specific "BMPs" for noise at all construction sites.
O14-423 3. Describe, in detail, the specific "BMPs" for odor control at all construction sites.

17.3.1 Treatment Sites

The DEIS states (§17.3.1 paragraph 5) that if local police and fire departments do not have adequate training to respond to emergencies during tunnel construction, King County would contract with local agencies to provide specialized training.

1. List the agencies capable of providing the appropriate training and their qualifications.
2. Describe, in detail, provisions for compensating local jurisdictions for the costs associated with this training.
O14-424 3. If local emergency and police departments are not equipped to respond to construction emergencies, please describe, in detail, the measures King County would take to ensure appropriate equipment is available.
4. Include plans to compensate local jurisdictions for additional costs they would incur for acquisition and operation of this equipment.
5. Given the limited funds available to local fire districts, how would King County ensure adequate response to industrial accidents and personnel rescue at each site throughout the lifespan of the sewage treatment plant?

17.3.1.1 Unocal Site

O14-425 Schools within the vicinity of the Unocal site would be impacted during construction.

1. Describe, in detail, what specific measures would be taken to reduce dust, noise and odor pollution at the Sherwood and Westgate schools during plant construction.

17-14

Response to Comment O14-421

Best management practices (BMPs) are measures used to reduce impacts during construction and operation of a facility. Please refer to the response to Comment O14-80 in this letter for more information on dust control.

Response to Comment O14-422

Best management practices (BMPs) are measures used to reduce impacts during construction and operation, and are the same as the mitigation measures described in Chapter 10 of the Final EIS. They include:

- Using construction equipment with well-maintained mufflers
- Locating noisy portable equipment as far away from residential receptors as practical and muffling it within enclosures
- Designating construction haul routes that minimize impacts on residential receptors
- Providing noise barriers to attenuate sound to residential receptors from the construction sites
- Establishing specific noise level limits for certain construction equipment
- Damping material on material haul truck beds
- Designing the treatment plant to operate at noise levels below the applicable regulated nighttime noise levels of the respective jurisdictions at the nearest noise-sensitive receptor
- Housing all equipment housed in buildings and in below-ground galleries
- Placing ventilation air intakes and exhausts of equipment rooms to face away from sensitive receivers whenever possible
- Using noise reduction-rated acoustic louvers and duct silencers selected to reduce transmission of indoor noise to the outdoors

- Providing noise reduction of sources with tonal qualities to below audible levels in the appropriate frequency bands of the spectrum.

Response to Comment O14-423

There are no best management practices (BMPs) for odor control during construction. Construction odors (such as odors from painting a building or laying asphalt) could infrequently and temporarily be noticeable in the project area. Any such odors likely would be intermittent and dispersed at increasing distances from the source.

Response to Comment O14-424

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

Response to Comment O14-425

Although construction impacts are temporary, they would be mitigated based on the requirements of the PS Clean Air Agency for minimizing air quality impacts to ambient air. PS Clean Air Agency Regulation I Section 9.15 states “No person shall allow visible emissions unless reasonable precautions are employed.” Construction emissions would be mitigated by watering roads, covering loaded dump trucks, washing trucks before they exit the construction area, and minimizing idling vehicle times. Please refer to Appendix 5-A, Odor and Air Quality: Treatment Plant, of the Final EIS for more details on construction mitigation.

2. Describe, in detail, what specific measures would be taken to reduce dust, noise and odor pollution at the Edmonds Marina and downtown business area during plant construction.

O14-425 3. The undefined term "BMP" is not an acceptable answer.

With respect to fire protection and emergency medical service:

1. Describe King County's plans to ensure that the Edmonds Fire Department is adequately prepared with equipment and training to effect rescue operations in the event of a major landslide.
2. Describe King County's plans to compensate the Edmonds Fire Department, and others who would be expected to respond to major construction emergencies.

O14-426 3. In addition to basic costs, the response should address rescue in case of landslide, petroleum fire, explosion, or spill.

4. How would King County ensure that the Edmonds Fire Department is adequately prepared with equipment and training to control accidents involving chemicals listed in chapter 9?
5. How would King County ensure that the Edmonds Fire Department would maintain adequate capability to respond to chemical-related accidents?
6. How would King County compensate the Edmonds Fire Department for costs?

The Edmonds Police Department is not staffed to handle traffic control and associated law enforcement duties in construction area. The Washington State Patrol is also tasked with traffic and law enforcement on SR-104 in the vicinity of the Unocal site.

O14-427 1. How would King County ensure adequate traffic control and law enforcement?

2. How would King County compensate the Edmonds Police Department for costs incurred in conjunction with the proposed sewage treatment plant construction?
3. How would King County compensate the Washington State Patrol for costs incurred in conjunction with the proposed sewage treatment plant construction.

17-15

Response to Comment O14-426

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

Response to Comment O14-427

Please refer to the response to Comment O14-391 in this letter.

O14-428 With respect to stormwater:

1. Describe, in detail, the provisions to eliminate toxic and other contaminated material from entering the stormwater system during construction. ("BMP" is not an acceptable answer.)

O14-429 The proposed sewage treatment plant would adversely impact the community's tax revenues.

1. How would the City of Edmonds be compensated for the adverse impact the proposed sewage treatment plant would have on the tax base? Describe in detail.
2. How would the Edmonds Unified School District be compensated for the adverse impact the proposed sewage treatment plant would have on the tax base? Describe in detail.
3. How would the Sno-Isle Library system be compensated for the adverse impact the proposed sewage treatment plant would have on the tax base? Describe in detail.
4. How would Snohomish County be compensated for the adverse impact the proposed sewage treatment plant would have on the tax base? Describe in detail.

17.3.1.2 Route 9 Site

O14-430 With respect to fire protection and medical response:

1. If the fire departments and emergency medical teams responding to an industrial emergency at the plant do not have the equipment and training necessary to control industrial accidents involving chemicals used in the proposed sewage treatment plant, how would King County correct this deficiency?
2. How would King County compensate the affected fire departments and others who would be expected to respond to major industrial emergencies at the plant?
3. If the fire departments and emergency medical teams responding do not have the equipment and training required to effect a personnel rescue in the event of an industrial accident at the Route 9 proposed sewage treatment plant, how would King County correct this deficiency?
4. How would King County compensate the affected fire department and others who would be expected to respond to a major construction emergencies?

17-16

Response to Comment O14-428

Please refer to the response to the Washington State Department of Ecology, Comment W5-77, which discusses measures that would be taken, in compliance with Washington State Department of Ecology requirements, to prevent spills during construction, and to address cleanup should they occur. Also, please refer to Appendix 6-C, Management of Water Quality During Construction at the Treatment Plant Sites, of the Final EIS.

Response to Comment O14-429

Please refer to the response to Comment O14-204 in this letter.

Response to Comment O14-430

Please refer to the response to the Snohomish County Fire District No. 7, Comment S1-2.

O14-430

5. If the fire departments and emergency medical teams responding to a major construction site emergency do not have the equipment and training required, how would King County correct this deficiency?
6. How would King County compensate the affected fire departments and others who would be expected to respond to major construction emergencies?

17.3.2.1 Unocal Corridors

O14-431

W. A. Anderson Alternative High School is within the 70 acre zone of possible construction for Portal 13. The DEIS anticipates the possible use of W. A. Anderson Alternative High School grounds for portal construction. Mitigation measures are vague and do not fully address plans to reduce the adverse impact of construction on the school.

1. Describe, in detail, the measures King County would take to reduce the impact of noise, dust, and odor on school activities at W. A. Anderson High School.
2. Describe, in detail, the measures King County would take to ensure the safety of students, faculty, parents, and support personnel at W. A. Anderson High School, both during construction and during times of no construction.
3. Describe, in detail, the measures King County would take to expedite traffic flow to and from W. A. Anderson High School, especially at times of peak school generated traffic.
4. Describe, in detail, the measures King County would take to ensure that local emergency organizations would be prepared to respond to a significant industrial accident, including portal or tunnel cave in, with adequate equipment and training.
5. Describe, in detail, how King County would ensure that local fire districts maintain the capability to effect personnel rescue in the event of an industrial accident?

17.3.2.2 Route 9 Corridors

O14-432

Woodway Elementary School is located adjacent to Portal 23 and in close proximity to Portal 22. Woodway Elementary School is not mentioned in the DEIS.

Response to Comment O14-431

Subsequent evaluation at portal siting areas has resulted in the determination of specific candidate sites within the 72-acre portal siting areas. As a result of the Level 2 portal screening evaluation, W.A. Anderson Alternative High School is no longer considered as a candidate portal site along the Unocal corridor.

Response to Comment O14-432

Although construction impacts are temporary, they would be mitigated based on the requirements of the Puget Sound Clean Air Agency (PS Clean Air Agency) for minimizing air quality impacts to ambient air. PS Clean Air Agency Regulation I Section 9.15 states “No person shall allow visible emissions unless reasonable precautions are employed.” Construction emissions would be mitigated by watering roads, covering loaded dump trucks, washing trucks before they exit the construction area, and minimizing idling vehicle times. Potential construction emission would be greatest during the dry summer months when the Woodway Elementary School is not in session therefore minimizing the impact on the students.

Also, as is customary at construction sites, traffic could be rerouted to minimize impacts by using detours, lane closures, and flag persons to control traffic flow. Traffic provisions would be aimed at reducing emissions by moving construction traffic in and out of the area promptly to reduce vehicle emissions impacts. For Unocal, a shuttle for construction workers could be used. The shuttle would bring workers to the site from offsite parking lots. There would also be a remote construction truck holding area to minimize conflicts to the ferry traffic movement along SR104, schedule construction material delivery to the site during off-peak hours, and encourage workers to carpool to construction site.

Woodway Elementary School is included in the list of sensitive receptors listed in Appendix 5-A, Odor and Air

Quality: Treatment Plant, of the Final EIS. This table may not contain a complete listing of sensitive receptor locations; however, the criteria for determining impacts at all the receptor locations are the same as for the sensitive receptors.

O14-432

1. Describe, in detail, the measures King County would take to control noise, dust, and odor at the Woodway Elementary School during construction of portals 22 and 23. "BMP" is not an acceptable answer.

17.3.3 Outfall Zones

O14-433

The abbreviation "COE" is not in the glossary.

1. Define "COE."

O14-434

Construction associated with Outfall Zone 6 would impact Edmonds city parks.

1. Describe, in detail, King County's plans to mitigate this impact, including maintaining public access to Marina Beach Park and the dog park.

17.4 Significant Unavoidable Adverse Impacts

O14-435

The DEIS lists unavoidable adverse impacts to students and faculty of nearby schools resulting from construction activities. The DEIS fails to discuss the impacts to local residents and businesses.

1. Describe, in detail, the level of unavoidable dust, noise, and odor expected to be detected by students and faculty at Westgate, Woodway, Sherwood, and Anderson schools during construction.
2. Describe, in detail, the level of unavoidable dust, noise, and odor expected to be detected by local residents and businesses.
3. Describe, in detail, the actions that would be taken at the schools to reduce the effect of these unavoidable impacts on students and faculty.
4. Describe, in detail, the level of unavoidable dust, noise and odor expected to be detected by citizens in downtown Edmonds and the Edmonds Marina area during construction.

17-18

Response to Comment O14-433

The acronym "COE" refers to U.S. Army Corps of Engineers. This term has been added to the Final EIS glossary.

Response to Comment O14-434

Please refer to the response to the City of Edmonds, Comment C9-108.

Response to Comment O14-435

Please refer to the Impacts and Mitigation sections in Chapter 5 of the Final EIS for a discussion of air and odor impacts to areas surrounding the proposed wastewater treatment plant sites. Chapter 10 of the Final EIS contains a summary of noise impacts to nearby properties resulting from construction of the Brightwater Treatment Plant. The Impacts and Mitigation section in Chapter 17 of the Final EIS also lists specific mitigation measures intended to minimize the impacts of dust, noise, and odor to surrounding properties.

Please refer to the response to the City of Edmonds, Comment C9-108, for a discussion concerning impacts to Marina Beach Park.

O14-435

5. Describe, in detail, the mitigation measures King County would take to compensate the community for these adverse impacts.
6. Figure 7-5 indicates that Marina Beach Park will be temporarily impacted. Does the definition of "temporary" in this context mean up to 5 years?

Figures

O14-436

Figures 17-1, 17-2, and 17-3 are not consistent in scale to clearly address impacts for Public Services and Utilities under Chapter 17. This issue has been addressed during the site design public meetings held by King County. All of these figures contain King County's disclaimer that they are not responsible for the accuracy of the information presented and cannot be relied upon. If the data is unreliable, how can the public adequately respond to the DEIS?

1. Correct these figures to use a common scale
2. Publish the corrected figures in a supplemental DEIS.

Figure 17-1 Fire and Police Districts – Unocal and Route 9 Sites

O14-437

Figure 17-1 is incomplete and inadequate because it does not show all fire stations as described in §17.1.2.2 under "Fire Protection and Emergency Medical," and the figure fails to include fire protection and emergency services available from the Woodinville fire district and nearby stations within King County. Also, the figure fails to show primary emergency routes and response time from each station to the proposed sites. Without such information, which would clearly define potential traffic impacts during the construction period, the public is unable to evaluate any mitigation proposals.

O14-438

The Bear Creek Fire station is shown on Figure 17-1. However, the DEIS states in §17.1.2.2 that the fire station ". . . voluntary and not staffed during the day." Figure 17-1 makes no distinction between this fire station and any other, the figure is misleading and might tempt a reader to believe the Bear Creek Fire Station could provide immediate emergency services.

17-19

Response to Comment O14-436

Many of the figures in the Final EIS have been revised to correct errors and provide more consistency. The scales on the figures vary depending upon the information they are trying to convey, such as system-wide versus site-specific information.

Response to Comment O14-437

This was a typographical error (in Chapter 2, Section 2.4.3.3) and the information has been corrected. Snohomish County's criteria and process for siting essential public facilities were also adopted by the City of Edmonds and were applied to the Unocal site. The application of the siting criteria is discussed further in the Impacts and Mitigation section of Chapter 11 of the Final EIS.

All fire stations listed in Chapter 17 of the Final EIS are now shown in a figure in that chapter. In addition, fire stations maintained by the Woodinville Fire and Life Safety District have been included on this Figure. A summary of Woodinville fire protection services is discussed in the Chapter 13, Affected Environment: Route 9 System section. King County would coordinate with local jurisdictions and emergency service providers during the permitting phase of the project to ensure adequate emergency routes are available to all construction sites related to the Brightwater project.

Response to Comment O14-438

The referenced figure is intended to show the location of fire and police districts and stations. Information on the staffing is appropriately described and analyzed in the Final EIS.

O14-439 Figure 17.1 is inadequate because it does not show all emergency medical facilities within a 5-mile radius of the proposed sites (e.g., Stevens and Evergreen Hospitals) and to show a realistic level of emergency services available in south Snohomish County. Figure 17.1 is further inadequate because it shows only about a 2 mile distance north of the Unocal site and east of the Route 9 site. The figure should show at least a 5-mile radius around the sites.

O14-440 Figure 17.1 is inadequate because it fails to show the south precinct of Snohomish County Sheriff base station located in Mill Creek as described in §17.1.2.2 . Figure 17-1 should identify each police and fire station, along with the number of personnel and their level of expertise.

1. Correct Figure 17-1 to show all fire stations, including those in the Woodinville Fire District and nearby King County stations.
2. Correct Figure 17-1 to show primary emergency routes and response time from each station to the proposed sites.
3. Correct Figure 17-1 to distinguish the volunteer-staffed Bear Creek Fire Station from fully-staffed fire stations.
4. Correct Figure 17-1 to show at least a 5-mile radius around the proposed sites and all emergency medical facilities within that radius.
5. Correct Figure 17-1 to identify each police and fire station, with the number of personnel and their level of expertise.

Figure 17-2 Schools Within the Vicinity of the Route 9 and Unocal Sites

O14-441 Figure 17-2 is incomplete and fails to show the Monroe School District east of Route 9 site, Maltby Elementary School, and the Northshore Schools that will likely be impacted. The figure also fails to show each school district's bus barns and bus routes to the schools that may be impacted during construction.

1. Correct Figure 17-2 to show the schools omitted, bus barns and routes, and at least a 5-mile radius around the sites.

17-20

Response to Comment O14-439

The referenced figure has been modified to include any additional public facilities previously not shown that could be affected by the construction and operation of the Brightwater System.

Response to Comment O14-440

Please refer to the response to Comment O14-439 in this letter.

Response to Comment O14-441

The referenced figure has been modified to include any additional public facilities previously not shown that could be affected by the construction and operation of the Brightwater System.

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