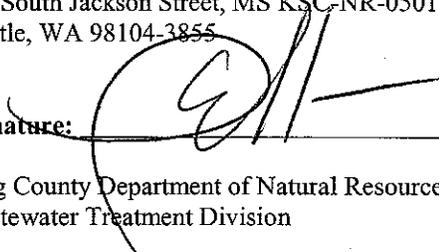


DETERMINATION OF NONSIGNIFICANCE**TITLE OF PROPOSAL:** Barton Combined Sewer Overflow Control Project**DESCRIPTION OF PROPOSAL:** To meet the combined sewer overflow (CSO) control standard of the National Pollutant Discharge Elimination System permit for the West Point Treatment Plant, the King County Wastewater Treatment Division proposes to install a system of bioretention/bioinfiltration facilities ("bioswales") in West Seattle's Sunrise Heights and Westwood neighborhoods. The bioswales, which would be installed in existing planting strips or new curb bulbs along the street over 32-64 half blocks, would prevent and delay stormwater from entering the combined sewer system from the street right-of-way. Construction of the proposed bioswales would begin in the second half of 2013 and take approximately two years to complete.**LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY:** The project site would include public street rights-of-way in an approximately 200-acre residentially developed area in West Seattle's Sunrise Heights and Westwood neighborhoods. The exact locations of bioswales in this area would be determined during design. The site is bound to the west by 34th Avenue SW, to the north by SW Othello Street, to the east by 29th Avenue SW, and to the south by SW Barton Street. It is located in King County, Washington, in Sections 25 and 36, Township 24N, Range 3E.

SEPA Responsible Official: Pam Elardo, P.E.
Position/Title: Director, King County Wastewater Treatment Division
Address: 201 South Jackson Street, MS KSC-NR-0501
Seattle, WA 98104-3855
Date: 5/5/11
Signature: 
Proponent and Lead Agency: King County Department of Natural Resources and Parks
Wastewater Treatment Division
Contact Person: Sue Meyer, Water Quality Planner
King County Wastewater Treatment Division
201 South Jackson Street, MS KSC-NR-0505
Seattle, WA 98104
phone: 206-684-1171; e-mail: sue.meyer@kingcounty.gov
Issue Date: May 12, 2011

The State Environmental Policy Act (SEPA) lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

This Determination of Nonsignificance (DNS) is issued under WAC 197-11-340 (2); the lead agency will not act on this proposal for 17 days from the issue date. **Comments must be submitted by May 31, 2011.** Submit comments to Wesley Sprague, Supervisor, Community Services and Environmental Planning, King County Wastewater Treatment Division, 201 South Jackson Street, MS KSC-NR-0505, Seattle, WA 98104-3855.

The Director of King County Department of Natural Resources and Parks, consistent with King County Public Rule 7-4-1, Section 6.2.14 and RCW 43.21C.240, has determined that the environmental impacts identified in the SEPA environmental checklist for the Barton CSO Control Project will be adequately addressed by the development regulations and other applicable requirements of the City of Seattle and by all other applicable state and federal regulations referred to in the environmental checklist for the Barton CSO Control Project. Therefore, no administrative appeal of issuance of the DNS will be allowed for the Barton CSO Control Project. The rule may be viewed at <http://www.kingcounty.gov/operations/policies/rules/utilities/put741pr.aspx>, or contact Sue Meyer, Water Quality Planner, at 206-684-1171 or sue.meyer@kingcounty.gov to obtain a copy of the rule.



King County

Department of Natural Resources and Parks

Wastewater Treatment Division

King Street Center, KSC-NR-0505
201 South Jackson Street
Seattle, WA 98104

Environmental Checklist

for the

Barton Combined Sewer Overflow Control Project

April 27, 2011

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.

This information is available in accessible formats upon request at 206-684-1280 (voice) or 711 (TTY).

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

Barton Combined Sewer Overflow Control Project

2. Name of applicant:

King County Wastewater Treatment Division (WTD), Department of Natural Resources and Parks (DNRP)

3. Address and phone number of applicant and contact person:

King County Wastewater Treatment Division
201 South Jackson Street, MS: KSC-NR-0505
Seattle, WA 98104-3855

CONTACT:

Sue Meyer, Water Quality Planner, telephone: 206-684-1171,
email: sue.meyer@kingcounty.gov

4. Date checklist prepared:

April 27, 2011

5. Agency requesting checklist:

King County Wastewater Treatment Division, Department of Natural Resources and Parks

6. Proposed timing or schedule (including phasing, if applicable):

Construction of the Barton CSO Control Project is expected to begin in the second half of 2013 and take approximately two years to complete.

7. Do you have any plans for future additions, expansions, or further activity related to or connected with this proposal? If yes, explain.

King County plans to begin construction of the Barton Pump Station Upgrade Project in 2012. It will take approximately three years to complete. This project includes the installation of new raw sewage pumps that will increase the capacity of the pump station from 26 million gallons per day (MGD) to 33 MGD.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Archaeological and Historical Resources in the Barton Sub-Basin, Seattle, Washington, Cascadia Archaeology, October 26, 2009

Preliminary Geologic/Geotechnical Evaluation of Barton Alternatives, Seattle, Washington, Shannon & Wilson, Inc., March 26, 2010

Barton CSO Control Project Biological Assessment—Letter of “No Effect”, ESA Adolfson, March 30, 2011

Environmental Conditions Technical Memorandum, Barton Basin, Puget Sound CSO Project, E00022E06, ESA Adolfson, April 23, 2010

Earth Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Environmental Justice Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Noise Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Recreation Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Traffic Technical Memorandum, Barton and Murray Combined Sewer Overflow Control Projects, ESA Adolfson, April 8, 2011

Draft Barton and Murray Combined Sewer Overflow Control Facilities Plan, Tetra Tech, Inc., and Carollo Engineers, February 2011. This report will be finalized and submitted to Ecology for approval by July 2011.

A Washington State Water Pollution Control Revolving Fund State Environmental Review Process Environmental Issues Checklist will be prepared for the proposed project.

Additional environmental information that will be prepared for the proposed project includes reports summarizing the findings of a cultural resources survey, groundwater monitoring, and subsurface geotechnical investigations that have been or will be performed in the project area.

- 9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

None known

- 10. List any government approvals or permits that will be needed for your proposal, if known.**

City of Seattle Department of Transportation

- Street Use Permit
- Street Improvement Permit

Washington State Department of Ecology

- National Pollution Discharge Elimination System (NPDES) Construction Stormwater General Permit
- State Environmental Review Process

- 11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this**

checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description).

The King County Wastewater Treatment Division's (WTD's) Barton Pump Station receives flows of combined sanitary sewage and stormwater collected in the Barton wastewater basin located in West Seattle on Puget Sound. The approximately 1,100-acre basin drains to the Barton Pump Station next to the Fauntleroy Ferry Terminal. Dry weather flows pumped from the Barton Pump Station are conveyed to the West Point Treatment Plant in the City of Seattle's Magnolia neighborhood for treatment, disinfection and discharge to Puget Sound. Under peak flow conditions, some of the flows pumped from the Barton Pump Station receive primary treatment at the Alki Wet Weather Treatment Facility which then discharges them to Puget Sound.

The Barton Pump Station has the capacity to convey a peak flow rate of 26 MGD. The capacity of the pump station will increase to 33 MGD as part of the Barton Pump Station Upgrade Project (see Section A.7). When heavy rains cause flows in the basin to exceed the capacity of the conveyance system, a combination of stormwater and diluted sewage is discharged to Puget Sound through an outfall located near the pump station. Between the years 2000 and 2007, there was an average of four such combined sewer overflows (CSOs) annually in the Barton basin. The average annual total CSO volume in the basin was 4.3 million gallons.

King County's NPDES permit for the West Point Treatment Plant requires that the County implement controls to reduce CSOs in the Barton basin to an average of no more than one per year on a long-term average. To meet the CSO control standard, King County proposes to construct the Barton CSO Control Project.

The proposed project would consist of the installation of a system of bioretention/bioinfiltration facilities ("bioswales") in West Seattle's Sunrise Heights and Westwood neighborhoods. The bioswales would be installed in existing planting strips or new curb bulbs along the street over 32-64 half blocks (a half block is defined as half of a residential block, from the alley to the right-of-way). Curb bulbs, which would be created by extending bioswales into the street for a short distance, would be used to increase the bioswales' infiltration and storage capacity. The exact size, location and number of bioswales required would be determined during design.

The bioswales would prevent and delay stormwater from entering the combined sewer system from the street right-of-way. Surface drainage that is currently routed to the combined sewer would be intercepted by the bioswales, where some of the runoff would infiltrate and some would be stored. This would reduce the volume and peak flow that enters the combined system and is conveyed to the downstream Barton Pump Station, thereby reducing CSOs from the basin.

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The project site includes public street rights-of-way in an approximately 200-acre residentially developed area in West Seattle's Sunrise Heights and Westwood neighborhoods. The exact locations of bioswales in this area would be determined during design. The site is bound to the west by 34th Avenue SW, to the north by SW Othello Street, to the east by 29th Avenue SW, and to the south by SW Barton Street (see Vicinity Map). It is located in King County, Washington, in Sections 25 and 36, Township 24N, Range 3E.

Offsite staging areas would be identified by the construction contractor.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. **General description of the site (circle one):** Flat, rolling, hilly, steep slopes, mountainous, other _____.

The street rights-of-way where bioswales would be located are generally flat.

- b. **What is the steepest slope on the site? (approximate percent slope)?**

Bioswales would not be installed in locations with a slope greater than five percent.

- c. **What general types of soils are found on the site? (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

Based on a review of existing literature, the soils at the project site generally consist of very dense Vashon till overlain by a relatively thin layer of loose to medium dense recessional outwash or weathered topsoil zones. This relatively thin layer is typically between zero and two feet thick; however, locally, it may be 5-10 feet thick and may have as much as 25 feet of fill material placed over it. In the southeastern corner of the project site (near SW Barton Street and 29th Avenue SW), post-glacial depression deposits consist of a mixture of soft peat and loose to medium dense silt and sand.

- d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

According to City of Seattle environmentally critical areas maps, the project site contains one known landslide area near 34th Avenue SW and SW Henderson Street, steep slopes on the east side of 30th Avenue SW between SW Holden Street and SW Kenyon Street, and steep slopes on the east side of 29th between SW Cloverdale Street and SW Trenton Street. No bioswales would be installed near these areas.

- e. **Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.**

The planting strips between existing curbs and sidewalks along 32-64 half blocks would be excavated and graded to create bioswales. In some areas, curb bulbs would be created to provide space for larger bioswales. The curb bulbs would be created by moving the curb out into the parking area of the roadway

for a short distance. The bioswales would be approximately 10-15 feet wide and approximately 6-10 inches deep.

Excavation and fill volumes for the proposed project would depend on the number of half blocks over which bioswales were installed. Construction of the bioswales would require excavation of approximately 270-400 cubic yards (CY) of soil per half block area. The total excavation volume for the proposed project would be between approximately 13,000 CY and 17,000 CY. Excavated soils not used as backfill would be legally disposed of off-site at a location determined by the contractor. A total of approximately 9,000-11,000 CY of landscape bioretention soils would be brought to the site and used to supplement native soils.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes. Construction activities such as site grading and excavation, materials handling, and stockpiling could cause erosion on a short-term basis. Short-term erosion could also result from the exposure of stockpiled spoils and fill. However, the potential for erosion would be low because excavation depths would be shallow, open excavation areas would be limited, and erosion control measures would be implemented (see Section B.1.h).

Operation of the completed project would not result in any erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 50 percent of the existing rights-of-way in the project area are covered with impervious surfaces. After the project is completed, there may be a reduction in the total impervious area by up to five percent due to the addition of curb bulbs at the end of the blocks. There would be no net increase in impervious surfaces on the project site as a result of this project.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Project construction activities would utilize construction-related best management practices (BMPs) such as temporary erosion and sediment control measures to minimize the potential for erosion and sedimentation. Typical BMPs that could be used include covering bare soil and stockpiles, using appropriate means to minimize tracking of sediment onto public roadways by construction vehicles, and restoring disturbed areas by replanting as soon as practical. Temporary erosion and sediment control measures would be identified in the project plans and specifications and would be implemented as required by the City of Seattle.

If curb bulbs were created for new bioswales, then the project could reduce the total amount of impervious surface in the project area by up to five percent.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile emissions, odors, industrial wood smoke) during construction

and when the project is completed? If any, generally describe and give approximate quantities if known.

The primary source of air emissions would include fossil fuel combustion by-products from construction equipment and trucks used to haul material to and from the project site, and dust from the excavation activity.

A King County Greenhouse Gas Emissions Worksheet is attached.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

During construction, BMPs would be implemented to control dust. Types of BMPs that would be used include street sweeping, watering exposed soil surfaces, and covering soil stockpiles to help minimize the amount of fugitive dust and particulate pollution to the surrounding areas.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No

- 6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No

b. Ground:

- 1) **Will ground water be withdrawn, or will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

Some of the runoff routed to the proposed bioswales would infiltrate and reach groundwater.

- 2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

Plants and bioretention soils in the bioswales would filter out pollutants in runoff that is routed to the bioswales.

c. Water Runoff (including storm water):

- 1) **Describe source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The source of runoff during construction would be stormwater. During construction, this stormwater would continue to enter the combined sewer system and be conveyed to the West Point Treatment Plant for treatment, disinfection, and discharge to Puget Sound.

Following construction of the proposed project, stormwater that is currently directed along the curb and gutter system and into the combined sewer would be re-directed to the new bioswales through curb cuts. Some runoff would infiltrate into the ground through the bottom of the bioswales. When the rate of runoff that was being routed to a bioswale exceeded the infiltration capacity of the facility, the water would begin ponding within the bioswale. Once the ponding depth exceeded 10 inches, runoff would begin to overflow into a catch basin connected to the combined sewer system. Runoff beyond the capacity of the bioswales that entered the combined sewer system would be conveyed to the West Point Treatment Plant or Alki Wet Weather Treatment Facility for treatment, disinfection, and discharge to Puget Sound.

As is currently the case, if, during or immediately after a wet weather event, storm water and sanitary sewage flows exceeded the capacity of the

combined sewer system in the Barton basin, excess flows would be discharged to Puget Sound untreated through an existing outfall located next to the Barton Pump Station. The purpose of the proposed project is to reduce the frequency and volume of such discharges. The project is being designed to reduce CSOs in the Barton basin to an average of no more than one per year on a long-term average.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Construction-related materials could enter ground or surface waters due to accidental spills, mechanical failures, or if construction activities are performed outside specified conditions.

See Section B.1.h and B.3.d for measures to minimize the potential for these impacts.

d. Proposed measures to reduce or control surface, ground and runoff impacts, if any:

Erosion and sedimentation control BMPs would be used during construction to reduce and control stormwater runoff impacts. Examples of typical BMPs that would be used during construction are presented in Section B.1.h.

Additional construction BMPs that could be implemented to prevent the introduction of contaminants into surface water or groundwater during construction include:

- maintaining spill containment and clean up materials in areas where equipment fueling is conducted;
- storing fuels and other potential contaminants away from excavation sites and surface waters in secured containment areas;
- conducting regular inspections, maintenance and repairs on fuel hoses, hydraulically operated equipment, lubrication equipment, and chemical/petroleum storage containers; and
- establishing a communication protocol for the unlikely event of a spill.

Because of variation in the distribution of permeable and relatively impermeable soils in the project area, increased groundwater levels due to infiltration at bioswales could result in changes to moisture levels in residential yards basements, and crawl spaces on nearby properties. To reduce the risk of increased moisture levels in these areas, sites noted as having poor soils and/or poor drainage patterns would be considered infeasible locations for bioswales. Further, all bioswales would be located so that the basements of structures on adjacent properties would be outside of the zone of influence of water infiltrating through the bioswales.

The project itself is a measure to reduce surface water impacts. The purpose of the proposed project is to reduce the number of CSOs that are discharged to Puget Sound from the Barton basin. Additionally, plants and bioretention soils

in the bioswales would filter out pollutants in runoff that is routed to the bioswales.

4. Plants

a. Check or circle types of vegetation found on the site:

- deciduous tree
 evergreen tree
 shrubs
 grass
 pasture
 crop or grain: home gardens in planting strips
 wet soil plants
 water plants:
 other types of vegetation

Vegetation in the street rights-of-way where bioswales would be located consists primarily of grass.

b. What kind and amount of vegetation will be removed or altered?

Most of the existing vegetation in the bioswale locations would be removed. Some mature trees and shrubs would be left in place.

c. List threatened or endangered species known to be on or near the site.

None known

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The bioswales would be planted with native, drought tolerant herbaceous plants, shrubs, trees, and groundcovers. The bioswales would be designed by a landscape architect and plants would be selected by a horticulturalist.

Temporary irrigation systems would be used during summer months for two years following construction to reduce plant mortality. Mulch would be replaced approximately once every three years or when necessary.

Existing mature trees and shrubs located in the proposed bioswale locations would be left in place, if practicable. Residents would be encouraged to salvage other plants from planting strips prior to construction and relocate them.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other: domestic cats and dogs, squirrels, rodents

fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

The following species are listed under the federal Endangered Species Act (ESA) and may occur in the vicinity of the site.

Common Name	Scientific Name	ESA Status	Jurisdiction
Puget Sound ESU Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	T	NMFS
Puget Sound DPS Steelhead	<i>Oncorhynchus mykiss</i>	T	NMFS
Coastal-Puget DPS Bull Trout	<i>Salvelinus confluentus</i>	T	USFWS
Marbled Murrelet	<i>Brachyramphus marmoratus</i>	T	USFWS

ESU = Evolutionarily Significant Unit
 DPS = Distinct Population Segment
 T = Threatened
 NMFS = National Marine Fisheries Service
 USFWS = United States Fish and Wildlife Service

The proposed project is not expected to affect any of these species. No in-water work is proposed as part of the project.

c. Is the site part of a migration route? If so, explain.

The entire Puget Sound area is part of the Pacific flyway migration route.

d. Proposed measures to preserve or enhance wildlife, if any:

Erosion and sedimentation control measures (see Section B.1.h) and measures to prevent the introduction of contaminants into surface water or groundwater (see Section B.3.d) would be implemented during construction.

The project itself is a measure to minimize potential impacts on wildlife. Construction of the proposed project would reduce the volume of untreated sanitary sewage and stormwater that is discharged to Puget Sound from the Barton basin, thereby reducing the potential for related adverse effects on aquatic life.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, woodstove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Temporary project energy needs would be limited to those required to operate construction equipment. Construction equipment would use fossil fuels.

The completed project would require infrequent use of fossil fuels for vehicles traveling to the site for maintenance.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

- c. **What kind of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

None

7. Environmental Health

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

Potential exposure to construction-related materials such as fuel and hydraulic fluid could occur as the result of accidental spills, mechanical failures, or if the construction activities deviate from the project construction specifications or permit conditions.

- 1) **Describe special emergency services that might be required.**

None

- 2) **Proposed measures to reduce or control environmental health hazards, if any:**

Section B.3.d discusses typical BMPs that could be implemented to prevent spills of contaminants and minimize exposure to environmental health hazards in the event of a spill.

The project itself is a measure to reduce environmental health hazards. Installation of the proposed bioswales would reduce the risk of CSOs, which can present a public health hazard.

- b. **Noise**

- 1) **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

Noise in the project area would not affect the proposed project.

- 2) **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Construction of the proposed project would create a new, temporary source of noise in the project area that would be audible to nearby residences, churches and schools. Construction-related noise would include engine and mechanical and scraping noises associated with the use of heavy equipment such as dump trucks, excavators, jackhammers, and graders. These types of equipment typically generate noise in the range of

80-90 dBA at a distance of 50 feet. Hauling activities to and from the project site would contribute to traffic noise.

Construction activity would take place during daytime hours. It is anticipated that nighttime construction activity would not be required.

Operation of the proposed project would not generate noise.

3) Proposed measures to reduce or control noise impacts, if any:

During construction, all activities would be performed consistent with the City of Seattle's Noise Control Ordinance. All impacts from noise generated by construction would be short-term and temporary in nature and would not constitute a substantial effect on the surrounding land uses. Construction BMPs would be used to minimize construction noise. Examples of BMPs that could be used include shutting off equipment when not in use, using effective vehicle mufflers, creating a 24-hour construction hotline to promptly respond to questions and complaints, and notifying residences in advance of project construction scheduling and phasing.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The project would take place in the public right-of-way, which includes paved roadways and vegetated planting strips between existing curbs and sidewalks. Adjacent properties are generally single family residences.

b. Has the site been used for agriculture? If so, describe.

No

c. Describe any structures on the site.

The proposed bioswale locations currently contain subsurface storm drain inlets and catch basins, light posts, water meters, hydrants, and sidewalks. Structures adjacent to the bioswale locations include single-family houses and potentially two schools located in the project area.

d. Will any structures be demolished? If so, what?

Subsurface storm drain facilities, light posts, water meters, and hydrants could be moved, if necessary, to construct the proposed project.

e. What is the current zoning classification of the site?

The proposed bioswales would be located in public right-of-way. The zoning classification of the project area is Single-Family Residential (SF 5000, SF 7200).

f. What is the current comprehensive plan designation of the site?

The current comprehensive plan designation of the project area is Single-Family Residential.

- g. If applicable, what is the current shoreline master program designation of the site?**

Not applicable

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.**

According to City of Seattle environmentally critical areas maps, the project site contains one known landslide area near 34th Avenue SW and SW Henderson Street, steep slopes on the east side of 30th Avenue SW between SW Holden Street and SW Kenyon Street, and steep slopes on the east side of 29th between SW Cloverdale Street and SW Trenton Street. The project is not expected to impact these areas.

- i. Approximately how many people would reside or work in the completed project?**

None

- j. Approximately how many people would the completed project displace?**

None

- k. Proposed measures to avoid or reduce displacement impacts, if any:**

None proposed

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

The proposed project would not change existing land uses or preclude projected land uses.

Compliance with the City of Seattle's permitting requirements would help ensure that the proposal is compatible with existing and projected land uses.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

None

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

None

- c. Proposed measures to reduce or control housing impacts, if any:**

None needed

10. Aesthetics

- a. **What is the tallest height of any proposed structure(s), not including antennae; what is the principal exterior building material(s) proposed?**

No new structures are proposed.

- b. **What views in the immediate vicinity would be altered or blocked?**

The proposed project would not alter or block any views.

- c. **Proposed measures to reduce or control aesthetic impacts, if any:**

The proposed bioswales would be designed by a landscape architect. They would enhance the appearance of the right-of-way by creating a green-belt effect.

11. Light and Glare

- a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

Temporary lighting may be used at the beginning and end of work days when daylight hours are short. No nighttime construction is anticipated.

The completed project would not produce any light or glare.

- b. **Could light and glare from the finished project be a safety hazard or interfere with views?**

No

- c. **What existing off-site sources of light or glare may affect your proposal?**

None

- d. **Proposed measures to reduce or control light and glare impacts, if any:**

None

12. Recreation

- a. **What designated and informal recreational opportunities are in the immediate vicinity?**

There are no parks or public open spaces in the project area. However, several parks and community centers are located nearby. E.C. Hughes Playground, a 6.3-acre park with a playground, wading pool, and sport fields, is located one block east of the project area between SW Holden and SW Kenyon Streets. The Southwest Community Center and Pool is located two blocks east of the project area on SW Thistle Street. Roxhill Park, a 13-acre park with a playground, sports fields, and picnic facilities, is located one block southeast of the project

area on SW Roxbury Street. An outdoor play area associated with Westside School is located in the project area on 34th Avenue SW between SW Holden and SW Kenyon Streets.

Informal recreational opportunities in the project area include walking, jogging and bike riding on streets and sidewalks.

- b. Would the proposed project displace any existing recreational uses? If so, describe.**

The proposed project would not permanently displace any recreational uses.

During construction, informal recreational use of streets and sidewalks would be temporarily displaced because some sidewalks and street lanes would be temporarily closed (see Section B.14.g).

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

King County would provide advance notification of construction activities, including sidewalk and street lane closures, to nearby residents. Advance notification would include posting signage at the site and written notification. The notification would include the name and phone number of the King County staff to be contacted regarding questions or concerns about construction activity.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state or local preservation registers known to be on or next to the site? If so, generally describe.**

A preliminary assessment of archaeological and historical resources in the Barton basin was completed for the proposed project in October 2009. The assessment identified the Gatewood Substation, which is located near the intersection of 35th Avenue SW and SW Holden Street. The Gatewood Substation is listed on the Seattle Historic Inventory. The proposed project is not expected to impact this building.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific or cultural importance known to be on or next to the site.**

The preliminary archaeological and historical resources assessment completed for the proposed project in October 2009 identified the entire project site as having a low probability for archaeological resources.

- c. Proposed measures to reduce or control impacts, if any:**

The proposed project would comply with the requirements of the National Historic Preservation Act. This would include the completion of a cultural resources survey at the project site. If artifacts were uncovered during excavation, work would be stopped pending notification of and response from appropriate agencies.

14. Transportation

- a. **Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**

The proposed project would take place within the rights-of-way of public streets in the project area. These streets provide access to and connect with the major arterials of 35th Avenue SW or Delridge Way SW.

- b. **Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

Yes. The project area is served by King County Metro Transit bus route 22 along SW Thistle Street and route 21 along 35th Avenue SW.

- c. **How many parking spaces would the completed project have? How many would the project eliminate?**

During construction, on-street parking may be temporarily restricted to one side of the street and certain zones within a block may have no parking. As a result, residents and visitors may have to park one to two blocks from their destination. The temporary loss of on-street parking spaces would be experienced on the block or blocks under active construction at any given time and last for approximately six weeks.

The completed project would not create any parking spaces. The completed project may result in the permanent elimination of up to two parking spaces per block in locations where curb bulbs are created.

- d. **Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**

Most of the proposed bioswales would be located in planting strips between existing curbs and sidewalks. In locations where curb bulbs were created, new approximately 25-foot-long sections of curb would be constructed in the adjacent public street to expand the width of the planting strip by approximately five feet. This would reduce the width of the travelled right-of-way.

- e. **Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

No

- f. **How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

The number of truck trips required for construction of the proposed project would depend on the number of half blocks on which bioswales were installed. Between approximately 2,700 and 5,300 one-way truck trips would be required over the entire project area. It is anticipated that the peak number of one-way truck trips during construction in a half block area would be approximately 20 per day.

Routine inspection and maintenance of the completed project is not expected to impact traffic in the area. It would generate between approximately four and eight one-way truck trips per month for each half block area.

g. Proposed measures to reduce or control transportation impacts, if any:

Temporary localized traffic impacts would occur in the project area during construction of the proposed project. The bioswales would be constructed on a block-by-block basis and progress through the project area. It is estimated that a one- to two-block area would be under construction at any one time and that construction in that area would last for approximately six weeks. It is not anticipated that any streets would be closed during construction, but traffic may be temporarily restricted to one lane and sections of sidewalk would be closed. Construction could result in temporary and minimal access restrictions to individual residences.

Construction of the proposed project would require a street use right-of-way permit from the City of Seattle. Permit conditions would require a traffic control plan to be submitted and approved prior to commencing construction activities. The plan's goal would be to provide safe work areas and to minimize congestion. The plan would include the locations of traffic control devices and signage. It would include measures to address residential access, emergency vehicle access, road closures and detours, temporary bus route changes, and pedestrian safety. Potential measures that could be implemented include: protective barriers, fences, flaggers, foot and/or vehicle bridges, and steel plating.

King County would provide advance notification of construction activity to all residents adjacent to the construction area. The notification would include the name and phone number of the individual at King County to be contacted regarding questions or concerns about construction activity.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No

b. Proposed measures to reduce or control direct impacts on public services, if any:

The contractor would be required to maintain access to residences by fire, emergency medical technician, and police vehicles and personnel at all times during construction.

16. Utilities

a. Circle the utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

The completed project would use water provided by the City of Seattle to irrigate plants during summer months for the first two years.

Utilities located in planting strips where bioswales would be located would most likely need to be relocated to construct the proposed project. This could cause temporary, short-term disruption of some utility service to some residences.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Wesley Sprague

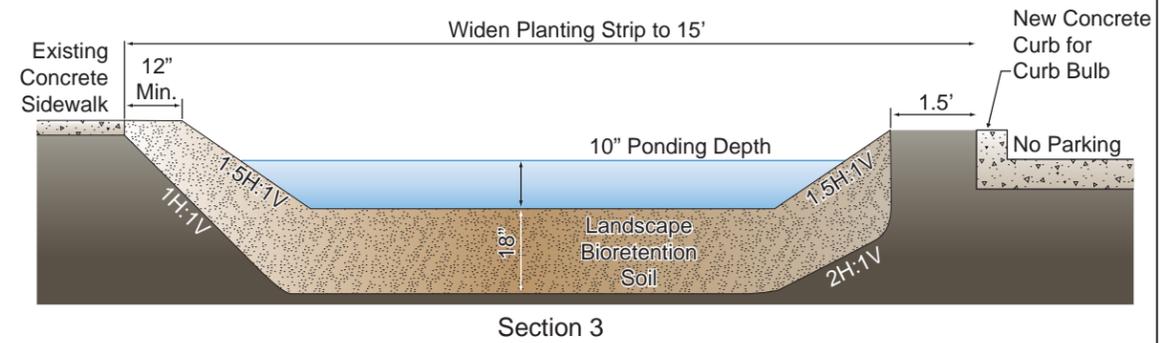
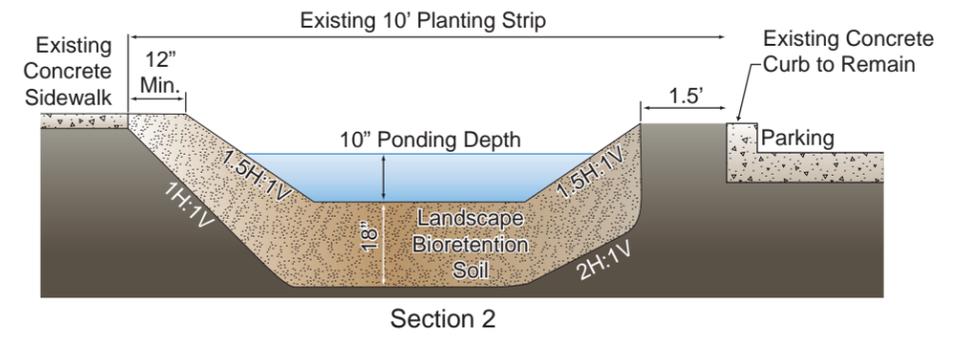
Date Submitted: 5/3/11

- Legend**
- - - Proposed Project Area
 - Combined Sewer
 - Storm Sewer
 - Sanitary Sewer
- Feasibility for GSI**
- Most Feasible (0 - 3% Slope, 10' Planter)
 - Moderately Feasible (4 - 5% Slope, 10' Planter)
 - Less Feasible (0 - 3% Slope, <10' Planter)
 - Difficult (Soil or Drainage Pattern Issues)

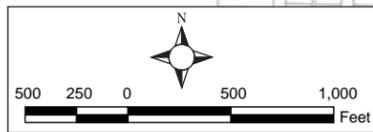
Layout of Rain Garden Cells on a Typical Block



Typical Cross-Sections



Location Feasibility Diagram



Typical Planting Strip



Before Rain Garden Installation

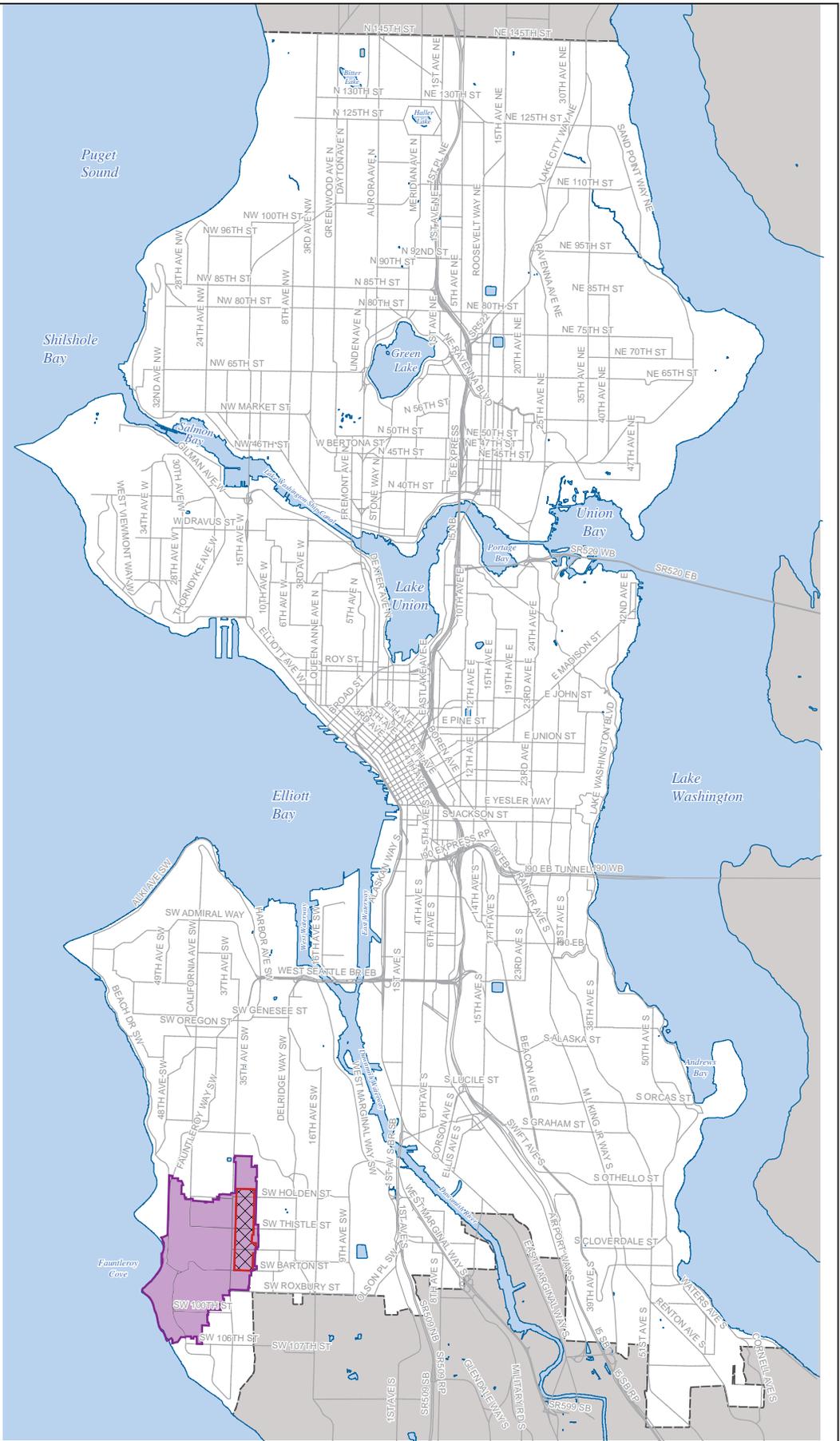


After

Legend

 Proposed Project Area

 Barton Basin



3630023/VicinityMap_Barton.ai

BARTON COMBINED SEWER OVERFLOW (CSO) CONTROL PROJECT VICINITY MAP

King County Greenhouse Gas Emissions Worksheet—Barton CSO Control Project

Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO ₂ e)			Lifespan Emissions (MTCO₂e)
			Embodied	Energy	Transportation	
Single-Family Home.....	0		98	672	792	0
Multi-Family Unit in Large Building	0		33	357	766	0
Multi-Family Unit in Small Building	0		54	681	766	0
Mobile Home.....	0		41	475	709	0
Education		0.0	39	646	361	0
Food Sales		0.0	39	1,541	282	0
Food Service		0.0	39	1,994	561	0
Health Care Inpatient		0.0	39	1,938	582	0
Health Care Outpatient		0.0	39	737	571	0
Lodging		0.0	39	777	117	0
Retail (Other Than Mall).....		0.0	39	577	247	0
Office		0.0	39	723	588	0
Public Assembly		0.0	39	733	150	0
Public Order and Safety		0.0	39	899	374	0
Religious Worship		0.0	39	339	129	0
Service		0.0	39	599	266	0
Warehouse and Storage		0.0	39	352	181	0
Other		0.0	39	1,278	257	0
Vacant		0.0	39	162	47	0

Section II: Pavement.....

Pavement.....		1.00				50
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Total Project Emissions:

50

Note: The proposed project consists of the installation of rain gardens in existing planting strips and new curb bulbs in public right-of-way.