November 23, 1999

Introduced By: Larry Phillips

nsr Proposed No.: 98-290

ORDINANCE NO. 13680

AN ORDINANCE relating to wastewater treatment and conveyance; adopting changes to the Comprehensive Water Pollution Abatement Plan, a King County functional plan; and adding a new chapter to K.C.C. Title 28.

PREAMBLE:

The King County council makes the following legislative findings regarding wastewater planning in its service area:

The Municipality of Metropolitan Seattle (Metro) was created by public vote in 1958 to exercise the powers conferred by chapter 35.58 RCW related to water pollution abatement. RCW 35.58.200 confers specific powers to prepare and implement a comprehensive water pollution abatement plan including provisions for waterborne pollutant removal, water quality improvement, sewage disposal and storm water drainage. In the exercise of those powers, the Metro’s governing body, the metropolitan council, adopted a comprehensive water pollution abatement plan for the Seattle metropolitan area by Resolution No. 23 on April 22, 1959. This plan has been supplemented and amended from time to time by various Metro resolutions and has been implemented in stages. It includes facilities for the conveyance and treatment of sewage and control of combined sewer overflows that include, but are not necessarily limited to, wastewater treatment plants, interceptor and trunk sewers, pumping stations, regulator stations, outfall sewers, storm sewers to divert storm water from sanitary sewers, lands for application of biosolids, property rights, buildings and other structures.

Pursuant to the authority of chapter 36.56 RCW and a special county election held November 3, 1992, the county on January 1, 1994, assumed
the rights, powers, functions and obligations of Metro, including operation of Metro’s water pollution abatement function.

The King County council, in assuming the legislative powers of Metro, readopted by Ordinances 11032 and 12074, the Metro resolutions that comprise the comprehensive water pollution abatement plan for King County.

The Growth Management Act, chapter 36.70A RCW, requires counties to develop growth management plans to ensure that facilities and services necessary to sustain urban growth are in place when needed. This supplement to the comprehensive water pollution abatement plan will help assure that facilities and services are in place.

The King County Comprehensive Plan also requires that adequate facilities and services are available or can be made available to adequately serve growth and requires that all capital facilities plans be consistent with the King County Comprehensive Plan. This supplement to the comprehensive water pollution abatement plan will help assure that adequate facilities and services are available.

King County provides conveyance, treatment and disposal of sewage consistent with the terms of the agreements between Metro and local sewer utilities. Those agreements provide for the county accepting sewage and industrial waste delivered by those local governments to county’s regional wastewater treatment system, subject to such reasonable regulations as may be adopted from time to time by the council. The county is also responsible for compliance with all state and federal requirements applicable to the planning, design, construction, operation and maintenance of its wastewater treatment system. This supplement to the comprehensive water pollution abatement plan will help assure the county continues to perform its wastewater function consistent with its agreements with local governments and in compliance with state and federal requirements.

King County has conducted an extensive public process in developing, deliberating on and adopting this supplement to the comprehensive water pollution abatement plan. The executive submitted a draft regional wastewater services plan, draft environmental impact statement and draft financing plan to the public in May 1997. The public’s input was reflected in the recommendations contained in the preferred plan for regional wastewater services submitted to the council by the executive. The Metropolitan King County Council’s regional water quality committee deliberations included public comments at its meetings and special meetings throughout the county. The council heard public comment during its deliberations as the committee of the whole. A public hearing was held before the full council prior to adoption of the plan.
In accordance with the state Environmental Policy Act, chapter 43.21C RCW, King County issued a determination of environmental significance for the regional wastewater services plan on September 1, 1994, conducted a forty-five-day scoping process for the determination, prepared and circulated a draft environmental impact statement on May 7, 1997, provided a ninety-day comment period, held five public hearings on the draft environmental impact statement and prepared and circulated a final environmental impact statement on April 27, 1998.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Definitions. The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

A. “Biosolids” means a primarily organic product produced by wastewater treatment processes that can be beneficially recycled. The product may contain water, sand, organic matter, microorganisms, trace metals and other chemicals.

B. “Capacity” and “rated capacity” mean the average wet weather flows that the treatment plant or conveyance system is designed to handle. Average wet weather flows are wastewater flows that occur during wet months but not during storms.

C. “Capacity charge” means a monthly charge levied on new connections, reconnections and new uses as mitigation for growth.

D. “Community treatment system” means a treatment device or drainfield, or both, that is shared by two or more property owners.

E. “Component agencies” means the cities, towns, counties and sewer districts that retail wastewater treatment services, that dispose of any portions of their sanitary sewage into the wastewater system and that have entered into a contract with the county for providing for wastewater treatment.

F. “Comprehensive Water Pollution Abatement Plan” means a plan developed pursuant to RCW 35.58.200.
G. “CSO” means a combined sewer overflow, which is an overflow from a combined sewer that is designed to collect both sanitary sewage and stormwater runoff. The overflows occur during storms when flows in the system exceed the capacity of the wastewater collection system.

H. “ESA” means the federal Endangered Species Act.

I. “Existing customers” means all customers not included in the definition of new customers.

J. “I/I” means inflow/infiltration, which is the total quantity of water from both inflow and infiltration without distinguishing the source.

K. “Indirect potable use” means discharging reclaimed water to surface or groundwater and withdrawing water for treatment prior to use as a drinking water source from another location in the same watershed.

L. “Infiltration” means the water entering a wastewater system, including sewer service connections, from the ground through such means as, but not limited to, defective pipes, pipe joints, connections or manhole walls.

M. “Inflow” means the water discharged into a wastewater system, including service connections from such sources as, but not limited to, roof leaders, cellar, yard and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, manhole covers, cross-connections from storm sewers and combined sewers, catch basins, storm waters, surface runoff, street wash waters or drainage. “Inflow” does not include, and is distinguished from, infiltration.

N. “Mgd” means million gallons per day, a measure of wastewater treatment capacity.
O. “Monthly sewer rate” means the cost, in dollars, charged to a residential customer equivalent.

P. “New customers” means a customer produced from:
1. New connections to the existing collection system, including:
   a. flows from new single family and multiple unit residential connections;
   and
   b. new commercial or industrial connections;
2. Expansions in activity from existing connections, including:
   a. conversion of residential units (single or multiple) to include additional customers or equivalents, or both; and
   b. expansions in commercial or industrial activity;
3. Septic to sewer conversions; and
4. I/I flows from the new connections and newly constructed conveyance systems.

Q. “Nonpotable use” means using reclaimed water for nondrinking water applications that may include but are not limited to irrigation, industrial processing, agricultural uses and stream augmentation.

R. “Reclaimed water” means wastewater that is treated to a sufficiently high level that it can be safely used for intended purposes.

S. “Residential customer equivalent” means the factor in cubic feet of water used to describe the discharge from a single-family residence. Commercial and industrial customers are converted to residential customer equivalents based on the volume of water consumption.
T. “RWQC” means the regional water quality committee, which is a regional committee as defined by Section 270 of the King County Charter, with powers and duties to “develop, review and recommend ordinances and motions adopting, repealing, or amending county-wide policies and plans relating to the subject matter area for which a regional committee has been established.”

U. “RWSP” means the Regional Wastewater Services Plan.

V. “Shall” and “will” in a policy mean that it is mandatory to carry out the policy. “Should” in a policy provides noncompulsory guidance and establishes some discretion in making decisions. “May” in a policy means that it is in the interest of the county or other named entity to carry out the policy but there is total discretion in making decisions.

W. “Wastewater revenues” means revenues from the monthly sewer rate, capacity charge, grants and other revenues, such as interest income and charges for services, available for the wastewater system.

X. “Wastewater system” means all the county’s water pollution abatement facilities, together with all lands, property rights, equipment and accessories necessary for those facilities, and any other infrastructure, and all operations and programs provided by the county under chapter 35.58 RCW, including but not limited to: 1. conveyance of influent from component agencies; 2. treatment of sewage; 3. disposal of treated effluent; 4. production and recycling of biosolids; 5. regulation of I/I; 6. control of combined sewer overflows; and 7. production of reclaimed water.

Y. “Water reuse” means using reclaimed water.

SECTION 2. Resolution No. 23 and all subsequent resolutions that amended and implemented the comprehensive water pollution abatement plan, duly enacted by the
council of the Municipality of Metropolitan Seattle (Metro) and not expressly repealed by
that body effective not later than midnight, December 31, 1993, and that are not
inconsistent with the King County Charter or county ordinances, are hereby readopted and
ratified as the comprehensive water pollution abatement plan for King County.

SECTION 3. Under the provisions of the King County Charter and RCW
35.58.200, the RWSP, set forth in sections 1 and 4 through 15 of this ordinance, is hereby
adopted as a supplement to the comprehensive water pollution abatement plan for King
County. The RWSP provides policy guidance for the wastewater system through the year
2030.

SECTION 4. A. The RWSP policies, as set forth in this chapter, shall provide
direction for the operation and further development of the wastewater system, its capital
improvement program and, as necessary, the development of subsequent policies.

B. The RWSP explanatory material, as set forth in this chapter, provides
background information and generally describes the objectives of the RWSP policies.

C. Financial policies for the comprehensive water pollution abatement plan and its
supplement, the RWSP, are separately adopted in section 16 of this ordinance.

SECTION 5. Treatment plant policies (TPP). A. Explanatory material. The
treatment plant policies are intended to guide the county in providing treatment at its
existing plants and in expanding treatment capacity through the year 2030. The policies
direct that secondary treatment will be provided to all base sanitary flows. The county will
investigate possible tertiary treatment with a freshwater outfall to facilitate water reuse.
The policies also direct how the county will provide the expanded treatment capacity
necessary to handle the projected increases in wastewater flows resulting from population
and employment growth. The policies provide for the construction of a new treatment plant (the north treatment plant) to handle flows in a new north service area, expansion of the south treatment plant to handle additional south and east King County flows, and the reservation of capacity at the west treatment plant to handle Seattle flows and CSOs. The potential for expansion at the west and south treatment plants will be retained for unanticipated circumstances such as changes in regulations. The policies address goals for odor control at treatment plants and direct that water reuse is to continue and potentially expand at treatment plants. The policies also describe a cooperative siting process for the new north treatment plant and its outfall.

B. Policies.

TPP-1: King County shall provide secondary treatment to all base sanitary flow delivered to its treatment plants. Treatment beyond the secondary level may be provided to meet water quality standards and achieve other goals such as furthering the water reuse program or benefiting species listed under the ESA.

TPP-2: King County shall provide additional wastewater treatment capacity to serve growing wastewater needs by constructing a new north treatment plant in north King county or south Snohomish county and then expanding the treatment capacity at the south treatment plant. The west treatment plant shall be maintained at its rated capacity of one hundred thirty-three mgd. The south treatment plant capacity shall be limited to that needed to serve the eastside and south King County, except for flows from the North Creek Diversion project and the planned six-million-gallon storage tank. The potential for expansion at the west treatment plant and south treatment plant should be retained for unexpected circumstances which shall include, but not be limited to, higher than
anticipated population growth, new facilities to implement the CSO reduction program or
new regulatory requirements.

TPP-3: Any changes in facilities of the west treatment plant shall comply with the
terms of the West Point settlement agreement.

TPP-4: King County shall establish goals for odor control at all treatment plants.
In order to establish these goals, the executive shall investigate potential technologies and
costs for odor control and recommend a policy to the council for inclusion in the RWSP.
This investigation shall be completed and a policy adopted in a timely manner so that
odors are controlled at existing plants and at any new plant. Odor control facilities and
equipment shall be designed and operated to meet these goals. In the case of the south
treatment plant, King County’s goal shall be to significantly reduce odor below baseline
levels established in the development of the 1993 south treatment plant air model.

TPP-5: King County shall undertake studies to determine whether it is
economically and environmentally feasible to discharge reclaimed water to systems such
as the Lake Washington and Lake Sammamish watersheds including the Ballard Locks.

TPP-6: When there are opportunities to transfer flows between King County’s
treatment facilities and treatment facilities owned and operated by other wastewater
utilities in the region, the county shall evaluate them. Such evaluation shall include, but
not be limited to cost, environmental and community impacts, liability, engineering
feasibility, flexibility, impacts to contractual and regulatory obligations and consistency
with the level of service provided at the county owned and operated facilities.

TPP-7: King County may explore the possibility of constructing one or more
satellite treatment plants in order to produce reclaimed water. The county may build these
plants in cooperation with a local community and provide the community with reclaimed water through a regional water supply agency. In order to ensure integrated water resource planning, in the interim period prior to the development of a regional water supply plan, King County shall consult and coordinate with regional water suppliers to ensure that water reuse decisions are consistent with regional water supply plans. To ensure costs and benefits are shared equally throughout the region, all reclaimed water used in the community shall be distributed through a regional water supply agency consistent with a regional water supply plan.

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.

TPP-9: A comprehensive public involvement program shall be developed and implemented to provide the public, at a minimum, the opportunity to give input on the criteria and the screening process used for selecting the list of possible sites for the new north treatment plant, its conveyance system and outfall and to comment on the final selection of a site. The King County executive shall establish one or more committees to aid in the siting of a north treatment plant. The committees shall, at a minimum, evaluate siting criteria to be used and propose a narrowed list of sites for consideration by the executive after consulting with the council as follows:

1. The King County executive shall transmit a motion to the council that establishes the criteria by which sites will be selected; and
2. The executive shall provide the council with timely reports that detail the sites that meet the criteria and are under consideration and, at a later date, those sites that are final candidates for the siting of the north treatment plant.

TPP-10: Based on criteria approved by the council, the King County executive shall have the final decision on the site for a north treatment plant.

SECTION 6. Conveyance policies (CP). A. Explanatory material. The conveyance policies are intended to guide how major improvements to the wastewater conveyance system, including building and upgrading the pipes and pump stations needed to convey wastewater to the north treatment plant and building the outfall pipe from the north treatment plant, will be accomplished. The policies also include guidance for other major and minor conveyance improvements to accommodate increased flows in other parts of the service area and to prevent improper discharges from the sanitary system.

The policies also direct the executive to develop and recommend policies to implement equitable regional ownership of the conveyance system.

B. Policies.

CP-1: To protect public health and water quality, King County shall plan, design and construct county wastewater facilities to avoid sanitary sewer overflows.

1. The twenty-year design storm shall be used as the design standard for the county’s separated wastewater system.

2. The south treatment plant effluent transfer system shall be designed with a five-year design storm standard. When effluent volumes exceed the five-year design standard and exceed the capacity of the south treatment plant effluent transfer system, secondary treated effluent from the south treatment plant will be discharged to the Green/Duwamish...
river until the flow subsides such that the flow can be discharged through the south

treatment plant effluent transfer system.

CP-2: King County shall construct the necessary wastewater conveyance facilities,

including, but not limited to pipelines, pumps, and regulators, to convey wastewater from

cOMPONENT agencies to the treatment plants for treatment and to convey treated effluent to

water bodies for discharge. Conveyance facilities shall be constructed during the planning

period of this plan to ensure that all treatment plants can ultimately operate at their rated

capacities. No parallel eastside interceptor shall be constructed. No parallel Kenmore

Interceptor shall be constructed.

CP-3: 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.

CP-4: The King County executive shall prepare and submit to the council

recommended policies for achieving uniform financing, construction, operation,

maintenance and replacement of all conveyance facilities within its service area.

CP-5: King County shall closely integrate water reuse planning and I/I study

results with planning for wastewater conveyance and treatment facilities. Water

conservation and demand management assumptions shall also be coordinated with

wastewater facility planning.

CP-6: King County executive shall prepare and submit to the council a study on

the impact of conveyance trenches on groundwater recharge and inflow and infiltration

including options and costs for limiting these impacts. Based on the study, the executive
shall recommend policies for council review and adoption for limiting these impacts
accompanied by a proposed work program and schedule for implementation.

SECTION 7. I/I policies (I/IP). A. Explanatory material. The I/I policies are intended to guide the county in working cooperatively with component agencies to reduce the amount of I/I that flows into component agencies’ local collection systems, thereby reducing the impact of I/I on the regional system’s capacity. This cooperative process will assess levels of I/I in local conveyance systems and construct pilot projects to demonstrate the cost-effectiveness and environmental costs and benefits of local collection system rehabilitation. The executive will develop and recommend long-term measures to reduce existing and future levels of I/I into local collection systems. Incentives for component agencies to meet the adopted target for I/I reduction may include a surcharge.

B. Policies.

I/IP-1: King County is committed to controlling I/I within its regional conveyance system and shall rehabilitate portions of its regional conveyance system to reduce I/I whenever the cost of rehabilitation is less than the costs of conveying and treating that flow or when rehabilitation provides significant environmental benefits to water quantity, water quality, stream flows, wetlands or habitat for species listed under the ESA.

I/IP-2: King County shall work cooperatively with component agencies to reduce I/I in local conveyance systems by the following:

1. By July 1, 2001, the executive shall propose for council review and approval an initial list of pilot rehabilitation projects dealing with the most serious and readily identified I/I problem areas in the local sewer systems. By July 1, 2002, the executive shall propose an additional list of pilot projects. The pilot rehabilitation projects shall be
used to demonstrate the effectiveness of I/I controls in the local sewer systems tributary to the regional system.

2. By December 31, 2002, the county, in coordination with component agencies, shall develop model local conveyance systems’ design standards, including inspection and enforcement standards, for use by component agencies to reduce I/I within their systems.

3. By December 31, 2003, the executive shall submit to the council a report defining I/I levels in each of the local sewer systems, based on assessments of those systems, and identifying options and the associated cost of removing I/I and preventing future increases. The options should be informed by the results of the pilot rehabilitation projects described in subsection 1 of this I/IP-2. The report shall analyze the options on cost-effectiveness and environmental costs and benefits including but not limited to those related to water quality, groundwater interception, stream flows and wetlands, and habitat of species listed under the ESA.

The report shall include information on public opinion, obtained through surveys and other appropriate methods, on the role of individual property owners in implementing solutions to reduce I/I, having voluntary and mandatory property owner actions, the willingness to pay to reduce I/I, and acceptable community options to reduce the I/I.

4. No later than December 31, 2004, utilizing the report described in subsection 3, the executive shall recommend target levels for I/I reduction in local collection systems and propose long-term measures to meet the targets. These measures shall include, but not be limited to, establishing new local conveyance systems design standards, implementing an enforcement program, developing an incentive based cost sharing program and establishing a surcharge program. The overall goal for peak I/I reduction in the service
The county shall pay one hundred percent of the cost of the assessments and pilot projects.

I/IP-3: King County shall consider an I/I surcharge, no later than June 30, 2005, on component agencies that do not meet the adopted target levels for I/I reduction in local collection systems. The I/I surcharge should be specifically designed to ensure the component agencies’ compliance with the adopted target levels. King County shall pursue changes to component agency contracts if necessary or implement other strategies in order to levy an I/I surcharge.

SECTION 8. Combined sewer overflow control policies (CSOCP). A.

Explanatory material. The CSO control policies are intended to guide the county in controlling CSO discharges. Highest priority for controlling CSO discharges is directed at those that pose the greatest risk to human health, particularly at bathing beaches, and environmental health, particularly those that threaten species listed under ESA. The county will continue to work with federal, state and local jurisdictions on regulations, permits and programs related to CSOs and stormwater. The county will also continue its development of CSO programs and projects based on assessments of water quality and contaminated sediments.

B. Policies.

CSOCP-1: King County shall plan to control CSO discharges and to work with state and federal agencies to develop cost-effective regulations that protect water quality. King County shall meet the requirements of state and federal regulations and agreements.
CSOCP-2: King County shall give the highest priority for control to CSO discharges that have the highest potential to impact human health, bathing beaches and/or species listed under ESA.

CSOCP-3: Where King County is responsible for stormwater as a result of a CSO control project, the county shall participate with the city of Seattle in the municipal stormwater national pollutant discharge elimination system permit application process.

CSOCP-4: Although King County’s wastewater collection system is impacted by the intrusion of clean stormwater, conveyance and treatment facilities shall not be designed for the interception, collection and treatment of clean stormwater.

CSOCP-5: King County shall accept stormwater runoff from industrial sources and shall establish a fee to capture the cost of transporting and treating this stormwater. Specific authorization for such discharge is required.

CSOCP-6: King County, in conjunction with the city of Seattle, shall implement stormwater management programs in a cooperative manner that results in a coordinated joint effort and avoids duplicative or conflicting programs.

CSOCP-7: King County shall develop a long-range sediment management strategy to prioritize clean up of contaminated sediments at specific CSO locations.

CSOCP-8: King County shall use the results of the 1998 water quality assessment to assess CSO control projects and priorities before issuing the year 2000 CSO update required by the county’s national pollutant discharge elimination system permit. Prior to the year 2005 CSO update, the executive shall evaluate the benefits of CSO control projects along with other pollution control projects developed by King County and other agencies. This CSO program review will include, but not be limited to the following:
maximizing use of existing CSO control facilities; identifying the public and
environmental health benefits of continuing the CSO control program; ensuring projects
are in compliance with new regulatory requirements and objectives such as the ESA and
the Wastewater Habitat Conservation Plan; analyzing rate impacts; ensuring that the
program review will honor and be consistent with long-standing existing commitments;
assessing public opinion; and integrating the CSO control program with other
water/sediment quality improvement programs for the region. Based on its consideration
of the CSO program review, the RWQC may make recommendations for modifying or
amending the CSO program to the council.

CSOCP-9: Unless specifically approved by the council, no new projects shall be
undertaken by the county until the CSO program review has been presented to the council
for its consideration. CSO project approval prior to completion of CSO program review
(beyond those authorized in this subsection) may be granted based on, but not limited to,
the following: availability of grant funding; opportunities for increased cost-effectiveness
through joint projects with other agencies; ensuring compliance with new regulatory
requirements; or responding to emergency public health situations. The council shall
request advice from the RWQC when considering new CSO projects. King County shall
continue implementation of CSO control projects underway as of the effective date of this
section, which are the Denny way, Henderson/Martin Luther King, Jr. way/Norfolk,
Harbor and Alki CSO treatment plants.

policies are intended to guide the county 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.

B. Policies.

BP-1: 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.

BP-2: Biosolids-derived products should be used as a soil amendment in landscaping projects funded by King County.

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.

BP-4: King County shall seek to maximize program reliability and minimize risk by one or more of the following: 1. maintaining reserve capacity to manage approximately one hundred fifty percent of projected volume of biosolids; 2. considering diverse technologies, end products, and beneficial uses; or 3. pursuing contractual protections including interlocal agreements, where appropriate.

BP-5: King County shall produce and use biosolids in accordance with federal, state and local regulations.

BP-6: King County shall strive to produce the highest quality biosolids economically and practically achievable and shall continue efforts to reduce trace metals in biosolids consistent with 40 C.F.R. Part 503 pollutant concentration levels (exceptional quality) for individual metals. 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.

BP-7: When biosolids derived products are distributed outside the wastewater service area, the county shall require that local sponsors using the products secure any permits required by the local government body.

BP-8: King County shall work cooperatively with statewide organizations on biosolids issues.

BP-9: King County shall seek to minimize the noise and odor impact associated with processing, transporting and applying of biosolids, consistent with constraints of economic and environmental considerations and giving due regard to neighboring communities.

BP-10: Where cost-effective, King County shall beneficially use methane produced at the treatment plants for energy and other purposes.

SECTION 10. Water reuse policies (WRP). A. Explanatory material.

The water reuse policies are intended to guide the county in continuing to develop its program to produce reclaimed water. The county will coordinate its program with regional water supply plans and work with state agencies and local jurisdictions on opportunities for water reuse. The county will implement pilot and demonstration projects. Additional projects shall be implemented subject to economic and financial feasibility assessments, including assessing environmental benefits and costs.
The water reuse policies, as in the treatment plant policies, intend that the county continue producing reclaimed water at its treatment plants. The treatment plant policies also address the potential construction of one or more satellite plants. These small plants would provide reclaimed water, with the solids being transferred to the regional plants for processing.

B. Policies.

WRP-1: King County shall actively pursue the use of reclaimed water while protecting the public health and safety and the environment. The county shall accelerate the development of a water reuse program to help meet the goals of the county to preserve water supplies within the region and to ensure that any reclaimed water reintroduced into the environment will protect the water quality of the receiving water body and the aquatic environment.

WRP-2: Within twelve months of the adoptions of this plan, the King County executive shall prepare for review by council a detailed work plan including tasks and schedule for the development of a water reuse program and a process to coordinate with affected tribal and local governments, the state and area citizens. Accompanying the work plan shall be a list of potential pilot projects and associated costs. Development of the water reuse program shall be coordinated with development of a regional water supply plan.

WRP-3: Recycling and reusing reclaimed water shall be investigated as a possible significant new source of water to enhance or maintain fish runs, supply additional water for the region’s nonpotable uses, preserve environmental and aesthetic values and defer the need to develop new potable water supply projects.
WRP-4: King County’s water reuse program and projects shall be coordinated with the regional water supply plans and regional basin plans, in accordance with state and federal standards. Water reuse and water supply/resources must be developed in a manner complementary with each other to allow the most effective management of resources in the county.

WRP-5: King County shall implement nonpotable projects on a case-by-case basis. To evaluate nonpotable projects, King County shall develop criteria which may include, but are not limited to: cost; environmental benefits; fisheries habitat maintenance and enhancement potential; community and social benefits and impacts; public education opportunities; risk and liability; demonstration of new technologies; and enhancing economic development.

WRP-6: King County shall work with local water purveyors, including when the local purveyors update their water comprehensive plans, to evaluate the opportunities for water reuse within their local service area.

WRP-7: King County shall develop an active water reuse public education and involvement program to correspond with the development of the water reuse program and be coordinated with other water conservation education programs.

WRP-8: King County shall utilize a forum or multiple forums to provide opportunities for coordination and communication with the Washington state Departments of Health and Ecology, which have the principal state regulatory roles in the planning, design and construction of reuse facilities. The county shall involve other parties on these forums, including but not limited to, the Corps of Engineers, Washington state Department of Fish and Wildlife, National Marine Fisheries Service, United States Fish and Wildlife
Service, regional water suppliers, tribal governments, local water and wastewater districts, cities, local health departments, watershed forums and environmental and community groups.

WRP-9: King County shall work, on a case-by-case basis, with the Washington state Departments of Health and Ecology on water reuse projects including, but not limited to, those that are not specifically cited in the 1997 Department of Health and Ecology Water Reclamation and Reuse Standards.

WRP-10: King County shall hold and maintain the exclusive right to any reclaimed water generated by the wastewater treatment plants by the county.

WRP-11: King County’s water reuse program projects shall not impair any existing water rights unless compensation or mitigation for such impairment is agreed to by the holder of the affected water rights.

WRP-12: King County shall retain the flexibility to produce and distribute reclaimed water at all treatment plants including retaining options to add additional levels of treatment.

WRP-13: King County shall continue to fund pilot-scale and water reuse demonstration projects, in whole or in part, from the wastewater utility rate base.

WRP-14: King County shall complete an economic and financial feasibility assessment, including environmental benefits, of its water reuse program. The assessment shall include the analysis of marginal costs including stranded costs and benefits to estimate equitable cost splits between participating governmental agencies and utilities. The assessment shall also include a review of existing and planned water and wastewater
facilities in an approved plan to ensure that water reuse facilities are justified when any
resulting redundant capacity as well as other factors are taken into account.

WRP-15: King County should pursue development of a water reuse program to
discharge reclaimed water to reduce freshwater consumption used in the operation of the
Ballard Locks as a priority water reuse project.

SECTION 11. Wastewater services policies (WWSP). A. Explanatory
material. The wastewater services policies guide the county in both providing
wastewater services to its customers and maintaining the wastewater system in a
cost-effective, environmentally responsible manner. These policies shall also guide
King County’s development and operation of community treatment systems.

King County provides wholesale wastewater treatment and disposal service to
component agencies. The county’s wastewater service area boundary generally coincides
with the boundaries of these component agencies, including certain areas in Snohomish
county and Pierce county. The county is to provide wastewater services to areas within the
respective urban growth boundaries and in rural areas only to protect public health and
safety, in conformance with state provisions and local growth management act policies and
regulations.

B. Policies.

WWSP-1: King County shall provide wastewater services to fulfill the contractual
commitments to its component agency customers in a manner that promotes environmental
stewardship, recognizes the value of wastewater in the regional water resource system and
reflects a wise use of public funds.
WWSP-2: King County shall continue to foster tribal relations as appropriate to structure processes for joint water quality stewardship.

WWSP-3: King County shall not accept additional wastewater directly from private facilities within the boundaries of a component agency without the prior written consent of such component agency.

WWSP-4: King County’s wastewater service area generally has been developed along those boundaries adopted in the original metropolitan Seattle sewerage and drainage survey, substantive portions of which were adopted as the county’s comprehensive water pollution abatement plan and amended. King County’s wastewater service area consists of the service areas of the component agencies with which a sewage disposal agreement has been established (agreement for sewage disposal, section 2) and the county’s service area boundary is the perimeter of these areas. The service area boundary for sewer service provided to Snohomish county and Pierce county shall not exceed each county’s urban growth boundary. The service area boundary within King County shall be consistent with countywide planning policy CO-14 and the King County Comprehensive Plan which permit sewer expansion in rural areas and resource lands where needed to address specific health and safety problems. To protect public health and safety, the county may assume in accordance with state procedures, the ownership of existing sewer treatment and conveyance facilities that have been constructed by a sewer district organized under state law.

WWSP-5: Extensions of existing conveyance facilities or construction of new conveyance facilities must be consistent with King County’s land use plans and policies,
and certified by potentially affected land use jurisdictions as consistent with their adopted land use plans and policies.

WWSP-6: King County shall operate and maintain its facilities to protect public health and the environment, comply with regulations and improve services in a fiscally responsible manner.

WWSP-7: King County shall plan, design and construct wastewater facilities in accordance with standards established by regulatory agencies and manuals of practice for engineering.

WWSP-8: King County shall construct, operate and maintain facilities to prevent raw sewage overflows and to contain overflows in the combined collection system. In the event of a raw sewage overflow, the county shall initiate a rapid and coordinated response including notification of public health agencies, the media, the public and the affected jurisdiction. Preserving public health and water quality shall be the highest priority, to be implemented by immediately initiating repairs or constructing temporary diversion systems that return flow back to the wastewater system.

WWSP-9: To ensure the region’s multibillion-dollar investment in wastewater facilities, ongoing maintenance and repair shall be a high priority of King County. The wastewater maintenance budget, staffing levels and priorities shall be developed to reflect the long-term useful life of wastewater facilities.

WWSP-10: King County shall establish a wastewater facilities assets management plan, updated annually, establishing replacement of worn, inefficient and/or depreciated capital assets to ensure continued reliability of the wastewater infrastructure.
WWSP-11: King County shall design, construct, operate and maintain its facilities to meet or exceed regulatory requirements for air, water and solids emissions as well as to ensure worker, public and system safety.

WWSP-12: King County shall accept sewage, septage and biosolids from outside its service area provided that it is consistent with the King County Comprehensive Plan or the comprehensive plan of the source jurisdiction, capacity is available and no operating difficulties are created. The county shall establish a rate to recover costs from accepting sewage, septage and biosolids from outside its service area.

WWSP-13: King County shall identify the potential for “liability protection” for component agencies for unexpected costs associated with water quality requirements.

WWSP-14: King County shall continue its long-standing commitment to research and development funding relating to water quality and technologies for the wastewater system.

WWSP-15: King County will consider development and operation of community treatment systems under the following circumstances:

1. The systems are necessary to alleviate existing documented public health hazards or water quality impairment;

2. Connections to public sewers tributary to conventional wastewater treatment facilities are not technically or economically feasible;

3. Installation of on-site septic systems is not technically feasible;

4. Properties to be served by said systems are within the jurisdiction and service area of a local government authority authorized to provide sewer service;
5. The local sewer service provider agrees to own and operate the collection system tributary to the community treatment system;

6. Development of the community systems and provision of sewer service are consistent with all applicable utility and land use plans; and

7. Public sewer extensions shall be in compliance with King County Comprehensive Plan Policy F-313 as in effect on March 11, 1999.

SECTION 12. Water quality protection policies (WQPP). A.

Explanatory materials. The water quality protection policies are intended to guide King County in identifying and resolving regional water quality issues, protecting public and environmental health and protecting the public’s investment in wastewater facilities and water resource management. Research and analysis are required and will be used to evaluate water quality in county streams and other bodies of water within the service district.

B. Policies.

WQPP-1: King County shall 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.

WQPP-2: King County shall evaluate the impacts and benefits of actions that affect the quality of the region’s waters and identify measures to meet and maintain water quality standards.
WQPP-3: King County shall forecast future aquatic resource conditions that may affect wastewater treatment decisions and work cooperatively to identify cost-effective alternatives to mitigate water quality problems and enhance regional water quality.

WQPP-4: King County shall participate with its regional partners to identify methods, plans and programs to enhance water quality and water resources in the region.

WQPP-5: King County executive shall implement a comprehensive water quality monitoring program of streams and water bodies that are or could be impacted by influent, effluent, sanitary system overflows or CSOs. The executive shall submit annually to council for review a written report shall include:

1. Analysis and presentation of water resource sampling, environmental monitoring, economic and other improvement data. The range of data to be gathered should be based on water pollutants and elements that scientific literature identifies as variables of concern in addition to data required by state and federal agencies.

2. Analysis regarding the impacts of CSOs and the benefits of abating CSOs. The range of data to be gathered should be based on what is needed to substantiate the benefits of abating overflows in addition to data required by state and federal agencies.

3. Other wastewater research activities undertaken by the executive.

4. The quality variability of biosolids over time.

WQPP-6: King County shall implement and maintain water quality, monitoring, evaluating and reporting programs to support the national pollutant discharge elimination system for wastewater and other permit applications, and ensure permit compliance.
WQPP-7: King County shall actively participate in the development of water quality laws, standards and program development to ensure cost-effective maintenance or enhancement of environmental and public health.

WQPP-8: King County shall assess the risk to human health and the environment from wastewater treatment and conveyance activities, and use this information in evaluating water pollution abatement control options.

SECTION 13. Wastewater planning policies (WWPP)  A. Explanatory material.

The wastewater planning policies are intended to guide the county in its long-term comprehensive planning for design and construction of facilities that meet the wastewater needs of customers within the service area.

Recognizing that the RWSP is a complex and dynamic comprehensive development guide that will regularly need to be updated, the county will conduct annual reviews 1. of plan implementation and its consistency with policies, and 2. of scientific, economic and technical information. Every three years conduct a comprehensive review of the assumptions on which the RWSP is based.

These policies also express the intent of the council to request that the RWQC continue review of the conditions and assumptions that guide the implementation of the RWSP.

B. Policies.

WWPP-1: King County shall plan comprehensively to provide for the design and construction of facilities that meet the wastewater system needs of the service area and shall coordinate with other local jurisdictions to ensure that construction-related disruption to neighborhoods is minimized.
WWPP-2: In planning future wastewater systems, King County shall make a long-term assessment of wastewater system needs.

WWPP-3: In planning for facilities, King County shall work collaboratively with other jurisdictions and look for opportunities to achieve cost savings.

WWPP-4: Facility sizing shall take into account the need to accommodate build-out population.

WWPP-5: RWSP review processes. King County shall monitor the implementation of and conduct the following reviews of the RWSP:

1. Implementation. The King County executive shall submit an annual written report and shall report semiannually to the RWQC and the council on siting, permitting, design and construction of any new treatment facilities and associated conveyances, project cost estimates, schedules and issues of concern. The written report shall be submitted no later than December 1 of each year until the facilities to implement the RWSP are operational. The initial report shall identify key decision points during implementation. The executive shall provide timely reports on these key decisions to allow for evaluation for consistency with the adopted policies;

2. Annual plan review. The county should ensure that the RWSP reflects current conditions. An annual review of the plan should address water pollution abatement, water quality monitoring results, water conservation and water reclamation, ESA compliance, septic system conversions to the regional sewer system, biosolids management, wastewater public health problems, compliance with other agency regulations and agreements; and

3. Comprehensive three-year plan review. A comprehensive review of RWSP shall be conducted every three years beginning in 2003. The purpose of the review is to
evaluate plan components, including but not limited to: the planning assumptions on the
rate and location of growth, phasing and size of facilities, and the effectiveness of policy
implementation for I/I reduction, water reuse, biosolids, CSO abatement, water quality
protection, environmental mitigation and public involvement. The executive shall transmit
a report to the RWQC and the council on the results of the review and may recommend
policy changes based on this report, changing regulations, technologies or other emergent
or relevant factors. The council should convene an engineering and science panel to
independently evaluate the report and recommendations and prepare findings.

SECTION 14. Environmental mitigation policies (EMP). A. Explanatory
material. The environmental mitigation policies are intended to guide King County in
working with communities to develop mitigation measures for environmental impacts from
the construction and operation of wastewater facilities. These policies also ensure that the
siting and mitigation processes for wastewater facilities are consistent with the Growth
Management Act and the state Environmental Policy Act.

B. Policies.

EMP-1: King County shall work with affected communities to develop mitigation
measures for environmental impacts created by the construction, operation, maintenance,
expansion or replacement of regional wastewater facilities. These mitigation measures
shall:

1. Address the adverse environmental impacts caused by the project;

2. Address the adverse environmental impacts identified in the county’s
environmental documents; and
3. Be reasonable in terms of cost and magnitude as measured against severity and duration of impact.

EMP-2: Mitigation measures identified through the state Environmental Policy Act process shall be incorporated into design plans and construction contracts to ensure full compliance.

EMP-3: The siting process and mitigation for new facilities shall be consistent with the Growth Management Act and the state Environmental Policy Act, as well as the lawful requirements and conditions established by the jurisdictions governing the permitting process.

EMP-4: King County shall mitigate the long-term and short-term impacts for wastewater facilities in the communities in which they are located. The 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.

EMP-5: King County shall enter into a negotiated mitigation agreement with any community that is adversely impacted by the expansion or addition of major regional wastewater conveyance and treatment facilities. Such agreements shall be executed in conjunction with the project permit review. Mitigation shall be designed and implemented in coordination with the local community, and shall be at least ten percent of the costs associated with the new facilities. For the south treatment plant and for the new north treatment plant, a target for mitigation shall be at least ten percent of individual project costs, or a cumulative total of ten million dollars for each plant, whichever is greater, provided that mitigation funded through wastewater revenues is consistent with: chapter 35.58 RCW; Section 230.10.10 of the King County Charter; agreements for sewage
disposal entered into between King County and component agencies; and other applicable
county ordinance and state law restrictions.

SECTION 15. Public involvement policies (PIP). A. Explanatory material. The public involvement policies are intended to guide the county in maintaining public
information and education programs and to engage the public and component agencies in
planning, designing and operating decisions that affect them.

B. Policies.

PIP-1: King County shall maintain public information/education programs and engage the public and component agencies of local sewer service in the planning,
designing and operating decisions affecting them.

PIP-2: King County shall develop public information and education programs to support county wastewater programs and shall lay the groundwork for public understanding of and involvement in specific programs.

PIP-3: King County shall involve public officials and citizens of affected jurisdictions early and actively in the planning and decision-making process for capital projects.

PIP-4: King County shall inform affected residents and businesses in advance of capital construction projects.

PIP-5: King County shall disseminate information and provide education to the general public, private sector and governmental agencies regarding the status, needs and potential future of the region’s water resources.

PIP-6: King County shall actively solicit and incorporate public opinions throughout the implementation of its comprehensive plan.
PIP-7: Beginning January 1, 2001, King County shall implement a public awareness and education program regarding the environmental impacts and costs to wastewater rate payers of I/I in the local and regional conveyance systems.

PIP-8: King County shall support regional water supply agencies and water purveyors in their public education campaign on the need and ways to conserve water. King County should promote pilot projects that support homeowner water conservation in coordination with water suppliers and purveyors, emphasizing strategies and technologies that reduce wastewater.

SECTION 16. Financial policies (FP). A. Under the provisions of the King County Charter and RCW 35.58.200, these financial policies are hereby adopted and declared to be the principal financial policies of the comprehensive water pollution abatement plan for King County, adopted by the Municipality of Metropolitan Seattle (Metro) in Resolution No. 23, as amended, and the RWSP, a supplement to the plan.

B. Explanatory material.

1. Financial forecast and budget. Policies FP-1 through FP-7 are intended to guide the county in the areas of prudent financial forecasting and budget planning and are included to ensure the financial security and bonding capacity for the wastewater system. This set of policies also addresses the county’s legal and contractual commitments regarding the use of sewer revenues to pay for sewer expenses.

2. Debt financing and borrowing. Policies FP-8 through FP-11 are intended to guide the county in financing the wastewater system capital program. These policies
direct that capital costs be spread over time to keep rates more stable for ratepayers by
the county issuing bonds. A smaller share of annual capital costs will be funded
directly from sewer revenues and capacity charges.

3. Collecting revenue. Policies FP-12 through FP-14 are intended to guide
King County in establishing annual sewer rates and approving wastewater system
capital improvement and operating budgets. Monthly sewer rates, which are the
primary source of revenue for the county’s regional wastewater system, are to be
uniformly assessed on all customers. Customers with new connections to the
wastewater system will pay an additional capacity charge. The amount of that charge
is set by the council, within the constraints of state law.

4. Community treatment systems. Policy FP-15 is intended to guide the county
in the financial management of community treatment systems.

C. Policies.

1. Financial forecast and budget.

FP-1: The county shall maintain for the wastewater system a multiyear financial
forecast and cash-flow projection of six years or more, estimating service growth, operating
expenses, capital needs, reserves and debt service. The financial forecast shall be submitted
by the executive with the annual sewer rate ordinance.

FP-2: If the operations component of the proposed annual wastewater system
budget increases by more than the reasonable cost of the addition of new facilities,
increased flows, new programs authorized by the council, and inflation, or if revenues
decline below the financial forecast estimate, a feasible alternative spending plan shall be
presented, at the next quarterly budget report, to the council by the executive identifying
steps to reduce cost increases. The executive shall maintain an ongoing program of
reviewing business practices for savings and efficiencies; the results shall be reported in
the annual budget submittal.

FP-3: The county shall maintain for the wastewater system a prudent minimum
cash balance for reserves, including but not limited to, cash flow and potential future
liabilities. The cash balance shall be approved by the council in the annual sewer rate
ordinance.

FP-4: Unless otherwise directed by the council by motion, the King County
department of natural resources shall charge a fee that recovers all direct and indirect costs
for any services related to the wastewater system provided to other public or private
organizations.

FP-5: Water quality improvement activities, programs and projects, in addition to
those that are functions of sewage treatment, may be eligible for funding assistance from
sewer rate revenues after consideration of criteria and limitations suggested by the
metropolitan water pollution abatement advisory committee, and, if deemed eligible, shall
be limited to one and one half percent of the annual wastewater system operating budget.
An annual report on activities, programs and projects funded will be made to the RWQC.
This policy shall remain in effect until such time as a financial plan for the surface water
regional needs assessment is adopted and implemented.

FP-6: The calculation of general government overhead to be charged to the
wastewater system shall be based on a methodology that provides for the equitable
distribution of overhead costs throughout county government. Estimated overhead charges
shall be calculated in a fair and consistent manner, utilizing a methodology that best
matches the estimated cost of the services provided to the actual overhead charge. The overall allocation formula and any subsequent modifications will be reported to the RWQC.

FP-7: The assets of the wastewater system are pledged to be used for the exclusive benefit of the wastewater system including operating expenses, debt service payments, asset assignment and the capital program associated therewith. The system shall be fully reimbursed for the value associated with any use or transfer of such assets for other county government purposes. The executive shall provide reports to the RWQC pertaining to any significant transfers of assets for other county government purposes in advance of and subsequent to any such transfers.

2. Debt financing and borrowing.

FP-8: The county shall structure bond covenants to ensure a prudent budget standard.

FP-9: King County should structure the term of its borrowings to match the expected useful life of the assets to be funded.

FP-10: The wastewater system’s capital program shall be financed predominantly by annual staged issues of long-term general obligation or sewer revenue bonds, provided that:

All available sources of grants are utilized to offset targeted program costs;

Funds available after operations and reserves are provided for shall be used for the capital program; excess funds accumulated in reserves may also be used for capital;

Consideration is given to competing demands for use of the county’s overall general obligation debt capacity; and
Consideration is given to the overall level of debt financing that can be sustained over the long term given the size of the future capital programs, potential impacts on credit ratings, and other relevant factors such as intergenerational rate equity and the types of projects appropriately financed with long-term debt.

FP-11: To achieve a better maturity matching of assets and liabilities, thereby reducing interest rate risk, short-term borrowing shall be used to fund a portion of the capital program, provided that:

- Outstanding short-term debt comprises no more than fifteen percent of total outstanding revenue bonds and general obligation bonds; and
- Appropriate liquidity is available to protect the day-to-day operations of the system.

3. Rates - sewer rates and capacity charge.

FP-12: Existing and new sewer customers shall each contribute to the cost of the wastewater system. To implement this policy, rate and capacity charge methodology will be adopted by the council, after consultation with the RWQC, consistent with state law.

1. King County shall maintain a uniform monthly sewer rate expressed as charges per residential customer equivalent for all customers. Costs of infrastructure improvements for new customers shall be recovered by a capacity charge.

2. King County shall pursue changes in state law to attain greater flexibility in setting capacity charges. In 2000 King County shall seek to achieve the authority to set such charges locally, in the same manner granted to cities and towns. Within six months of achieving the authority to set such charges locally, the executive shall propose for consideration by the council, after consultation with the RWQC, explicit policies for
setting the capacity charge including recommendations to achieve growth paying for
growth. Upon implementation of these explicit policies, the Seattle combined sewer
overflow benefit charge shall be discontinued.

3. The executive shall propose and the council adopt, after consultation with the
RWQC, explicit policies for the setting of customer monthly sewer rates;

4. King County shall charge its customers sewer rates sufficient to cover the costs
of constructing and operating its wastewater system. Revenues shall be sufficient to
maintain capital assets in sound working condition, providing for maintenance and
rehabilitation of facilities so that total system costs are minimized while continuing to
provide reliable, high quality service and maintaining high water quality standards. The
executive, in consultation with the RWQC, shall propose for council adoption policies to
ensure adequate debt service coverage and emergency reserves are established and
periodically reviewed;

5. Based on an analysis of residential water consumption, as of the effective date
of this section King County uses a factor of seven hundred fifty cubic feet per month to
convert water consumption of volume-based customers to residential customer equivalents
for billing purposes. King County shall periodically review the appropriateness of this
factor to ensure that all accounts pay their fair share of the cost of the wastewater system;

6. King County should attempt to adopt a multiyear sewer rate to provide stable
costs to sewer customers. If a multiyear rate is established and when permitted upon the
retirement by the county of certain outstanding sewer revenue bonds, a rate stabilization
reserve account shall be created to ensure that adequate funds are available to sustain the
rate through completion of the rate cycle. An annual report on the use of funds from this rate stabilization account shall be provided annually to the RWQC; and

7. King County should periodically review the capacity charge to ensure that the true costs of system expansion are reflected in the assessed charge. All reasonable steps should be taken to coordinate fee assessments and accounting with component agencies to reduce redundant program overhead costs.

FP-13: The executive shall prepare and submit to the council a report in support of the proposed monthly sewer rates for the next year, including the following information:

Key assumptions: key financial assumptions such as inflation, bond interest rates, investment income, size and timing of bond issues, and the considerations underlying the projection of future growth in residential customer equivalents;

Significant financial projections: all key projections, including the annual projection of operating and capital costs, debt service coverage, cash balances, revenue requirements, revenue projections and a discussion of significant factors that impact the degree of uncertainty associated with the projections;

Historical data: a discussion of the accuracy of the projections of costs and revenues from previous recent budgets, and

Policy options: calculations or analyses, or both, of the effect of certain policy options on the overall revenue requirement. These options should include alternative capital program accomplishment percentages (including a ninety percent, a ninety-five percent and a one hundred percent accomplishment rate), and the rate shall be selected that most accurately matches historical performance in accomplishing the capital program and that shall not negatively impair the bond rating.
FP-14. Expenditures from the wastewater revenues to correct water pollution problems caused by septic systems shall occur only if such expenditures financially benefit wastewater system current customers when the additional monthly sewer rate revenues from these added customers are considered.

FP-15: The cost of community treatment systems developed and operated in accordance with WWSP-15 would not be subsidized by the remaining ratepayers of the county’s wastewater treatment system.

SECTION 17. Capital improvement program. The capital improvement program required to implement the comprehensive water pollution abatement plan, as amended, including the RWSP, a supplement to the comprehensive water pollution abatement plan, as amended, shall be prepared pursuant to K.C.C. 4.04.200 through 4.04.270.

SECTION 18. Implementation. A. The executive is hereby directed to prepare and recommend to the council an operational master plan that meets the requirements of K.C.C. chapter 4.04. If any portion of the proposed operational master plan is inconsistent with the RWSP policies contained in this chapter, the executive shall submit at the same time a proposed ordinance amending the affected policies.

B. The operational master plan shall contain the following major elements and shall further define as necessary the major projects, projected capacity, projected completion dates and estimated costs referenced in this chapter. The operational master plan shall include a schedule and milestones for completion of the north treatment plant by 2010 and a schedule and milestones for completion of the North Lake Interceptor as a tunnel by 2006 or sooner if possible.
1. Treatment capacity. Population and employment growth is projected to require the wastewater system capacity to expand from 248 mgd to 304 mgd by 2030. The estimated costs of treatment facilities to achieve this expanded capacity by 2030 is 277 million dollars 1998 net present value. The expanded capacity shall be provided by:

a. constructing a new north treatment plant on a site large enough to accommodate ultimate plant build out in north King County or south Snohomish county with a capacity of 36 mgd by 2010 or as soon thereafter as possible to handle wastewater flows from a new north service area defined in the plan. This plant would provide secondary treatment and would discharge treated effluent to Puget Sound. To facilitate the production of reclaimed water, the possibility of upgrading to tertiary treatment with a freshwater outfall should be investigated during the initial phase of construction and subsequent expansions;

b. expanding the treatment capacity at the south treatment plant from 115 mgd to 135 mgd by 2029. This expansion would handle increased wastewater flows from the southern and eastern portions of the service area. Some or all of the plant’s capacity could also be upgraded to tertiary treatment, to meet water quality standards or facilitate water reuse, as part of future expansions or in addition to the secondary level of treatment using available land reserves at the plant site; and

c. maintaining the west treatment plant at its capacity of 133 mgd primarily to serve the city of Seattle and handle flows from the combined sewers in the area. Additional facilities should be planned in the year 2018 to accommodate the extended peak CSO flows that will occur after storms once CSO control projects are constructed.

2. Conveyance facilities.
a. The conveyance facilities are to be configured, sized and scheduled to support the treatment plants by conveying wastewater to and treated effluent from the plants. The estimated costs of conveyance facilities is 582 million dollars 1998 net present value. Major projects, with the estimated date the facility will be on line, should include:

- Parallel East Side Interceptor Section -1 (2000)
- Increase York Pump Station capacity to 68 mgd (2000)
- Parallel Auburn Interceptor Sections 1, 2, & 3 (2004)
- Construct 6 million gallons of off-line storage at North Creek (2002)
- Construct North Lake Interceptor and pump station to extend from the McAleer/Lyon Trunk to the Kenmore Pump Station sized to create 10 million gallons of storage (2006 or sooner if possible)
- Construct forcemain from new Kenmore Pump Station to North treatment plant (2010)
- Construct 120 mgd pump station at Kenmore to pump to North treatment plant (2010)
- Construct tunnel from North treatment plant to Puget Sound, sized to accommodate ultimate plant buildout (2010)
- Construct North treatment plant outfall, sized to accommodate ultimate plant buildout (2010)
- Construct 3-5 million gallons of storage at south treatment plant to achieve a five-year design storm standard of protection for the Effluent Transfer System (2030)
- Construct Auburn Interceptor Storage (2020)
- Increase North Creek Pump Station to 50 mgd (2016)
Modify York Pump Station to pump 35 mgd north (2016)

Construct force main to convey flows from North Creek to Kenmore Pump Station (2016)

b. King County will construct additional conveyance improvements (e.g., increasing conveyance and pump station capacity and extending conveyance) to accommodate increased flows in other parts of the service area to serve population growth in the smaller wastewater service basins and to prevent improper discharges from the sanitary system.

Extending the county’s ownership of conveyance policy into Snohomish county will increase the amount of conveyance owned and operated by King County. The assessment of this extension will be done and presented to the King County council and may include, but not be limited to, the Swamp Creek and North Creek Interceptors currently owned and operated by the Alderwood Water and Sewer District.

3. I/I. The estimated cost for assessing the levels of I/I in local sewer systems is 16 million dollars and the estimated costs of pilot projects is 15 million dollars, both in 1998 net present value.

4. CSOs.

a. CSO projects shall be prioritized based on first controlling discharges that impact bathing beaches and species listed under ESA. The second priority is other CSO locations that have the potential to affect public health and safety. Third priority are all other CSO locations. The estimated cost for CSO control projects is 220 million dollars, 1998 net present value. These project areas should be completed on the following schedule:
Priority Project areas and projects                      Completion period
1023  1 Puget Sound beaches                           2009-2011
1024  Norfolk 0.8 million gallon (MG) storage tank     
1025  South Magnolia 1.3 MG storage tank               
1026  SW Alaska 0.7 MG storage tank                    
1027  Murray 0.8 MG storage tank                      
1028  Barton Pump Station (PS) Upgrade                 
1029  North Beach storage tank & PS upgrade           
1030  2 Lake Washington ship canal, east side          2015
1031  University/Montlake 7.5 MG storage tank          
1032  3 Duwamish River and Elliott Bay shoreline      2017-2027
1033  Hanford #2 3.3 MG storage/treatment tank         
1034  Lander 1.5 MG storage/treatment tank             
1035  Michigan 2.2 MG storage/treatment tank           
1036  Brandon 0.8 MG storage/treatment tank            
1037  Chelan 4.0 MG storage tank                       
1038  Connecticut 2.1 MG storage/treatment tank        
1039  King Street conveyance to Connecticut            
1040  Hanford at Rainier 0.6 MG storage tank           
1041  8th Ave. S 1.0 MG storage tank                   
1042  W Michigan conveyance expansion                  
1043  Terminal 115 0.5 MG storage tank                 
1044  4 Lake Washington ship canal, west side          2029-2030
1045  Ballard 1.0 MG storage tank                      
1046  3rd Ave W 5.0 MG storage tank                    
1047  11th Ave NW 2.0 MG storage tank                  
1048  Other West treatment plant - primary and secondary treatment enhancements to handle increased flows from CSO projects 2018
b. The CSO projects may include:
   (1) constructing large underground tanks and tunnels to store combined flows during storms. These flows would then be pumped to the west treatment plant once the rain subsides; and
   (2) treating the combined sewage at existing CSO outfall locations using technology to remove solids and disinfect the combined sewage before discharge.
Refinements to the CSO program may be required in response to changing conditions and new information. The listing of species under the ESA may affect project priorities, schedule and associated mitigation options.

5. Biosolids.

a. King County will continue to produce Class B biosolids using anaerobic digestion at the south and west treatment plants and to implement the same process at the north treatment plant until a new technology can be used reliably. The plan also proposes that the county continue to evaluate alternative technologies to reduce the water content of biosolids while preserving their marketability. The primary objective of this evaluation will be to identify alternatives to digestors at the west treatment plant, a condition of the West Point Settlement Agreement.

As part of planning for the north treatment plant, King County should evaluate conventional, alternative and new solids processing technologies using criteria such as product quality (class A or B), marketability, odor and other potential community impacts, impact on sewer rates, reliability of the treatment process, amount of land needed for the treatment facility and the number of truck trips needed to transport the biosolids produced. Based on the results of this evaluation and public comment, the executive should recommend one of three biosolids handling scenarios at any or all of the treatment plants:

(1) continue using anaerobic digestion;

(2) supplement anaerobic digestion with another treatment technology; or

(3) replace anaerobic digestion with another treatment technology.
b. The estimated costs for the expanded solids handling facilities needed at both the new north treatment plant and the south treatment plant are 85 million dollars net present value.

c. The county should continue using a public-private partnership approach to recycling biosolids such as using biosolids on working forests in King County to enhance wildlife habitat and generate long-term income from selective timber harvests.

6. Water reuse program. The south and west treatment plants should continue to produce reclaimed water for nonpotable uses and explore the production of reclaimed water at new facilities. The work plan for the water reuse program is to be prepared no later than twelve months from the adoption of the RWSP. King County will work with water suppliers to plan and implement an accelerated water reuse program that could augment existing water supplies.

If a public education and involvement program on water reuse is to be developed and implemented, it shall be coordinated with water conservation education programs. The estimated cost to evaluate potential future uses of reclaimed water and conduct pilot studies and demonstration projects is 20 million dollars net present value.

7. Community treatment systems.

a. Any operations under these policies shall require an operational master plan as described in K.C.C. 4.04.200 C.1. Failure to submit such a plan shall cause the affected capital improvement project to be out of compliance with these policies.

b. In addition to the requirements of K.K.C. 4.04.200 C.1 an operational master plan submitted under these policies shall include:
(1) description of career retention programs that are to be structured in a manner consistent with the King County/Metro merger, labor law and King County’s labor contracts;

(2) an engineering evaluation that confirms that the selected projects are most cost effective and technically efficacious and consistent with King County growth management policies for the surrounding area; and

(3) explanation of how King County participation in community treatment systems is consistent with other water pollution abatement activities of the department of natural resources, which currently operates centralized wastewater treatment facilities as contrasted with community treatment systems.

C. The executive is hereby authorized to begin implementation of the RWSP pursuant to the 1999 capital improvement program appropriation. Implementation beyond 1999 may proceed, provided that there is an approved operational master plan and the six-year capital improvement plan is updated in the 2000 adopted budget to reflect the adopted RWSP.

SECTION 19. The executive is directed to include in the executive’s scope of work for the 2000 update to the Comprehensive Plan, the updating of the information in Technical Appendix Volume 1 with regard to sewerage treatment to reflect the addition of new treatment facilities pursuant to the RWSP.

SECTION 20. Codification. Sections 1 through 18 of this ordinance should constitute a new chapter in K.C.C. Title 28.
SECTION 21. Severability. If any provision of this ordinance, or its application to any person or circumstance is held invalid, the remainder of the ordinance, or its application to other persons or circumstances is not affected.

SECTION 22. Direction to the clerk. The clerk is given direction to edit and revise this ordinance to the extent deemed necessary or desirable by the clerk and without changing the meaning of any such law, in the following respects only:

A. Make capitalization uniform with that followed generally by the county.

B. Make chapter or section division and subdivision designations uniform with that followed in the code.

C. Substitute for the term "this ordinance," where necessary, the term "section," "part," "code," "chapter," or "title," or reference to specific section or chapter numbers, as the case may require.

D. Substitute for reference to a section of "this ordinance," the proper code section number reference.

E. Strike out figures where merely a repetition of written words and substitute, where deemed advisable for uniformity, written words for figures.

F. Rearrange any misplaced statutory material, incorporate any omitted statutory material as well as correct manifest errors in spelling, and manifest clerical or typographical errors, or errors by way of additions or omissions.

G. Correct manifest errors in references, by chapter or section number, to other code.

H. Correct manifest errors or omissions in numbering or renumbering sections of the code.
I. Divide long sections into two or more sections, and rearrange the order of sections
to conform to such logical arrangement of subject matter as may most generally be followed
in the code when to do so will not change the meaning or effect of such sections.

J. Change the wording of section captions, if any, and provide captions to new
chapters and sections.

K. Strike provisions manifestly obsolete.

INTRODUCED AND READ for the first time this May 11, 1998.
PASSED by a vote of 10 to 1 this 29th day of November, 1999.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____________________________
Chair

ATTEST:

___________________________
Clerk of the Council

APPROVED this _______ day of __________________, 19___.

_________________________
King County Executive

Attachments: None