

IV. WASTEWATER TREATMENT**Chapter 28.86
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WASTEWATER TREATMENT

28.86.010

28.86.010 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 charge levied on a new customer to recover capital costs needed to serve new customers.

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 customer" means a customer who connects, reconnects, or establishes a new service on sewers tributary to the county's metropolitan sewerage service before January 1, 2003.

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. "New customer" means a customer who connects, reconnects, or establishes a new service on sewers tributary to the county's metropolitan sewage system on or after January 1, 2003. This includes:

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.

P. "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.

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

R. "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.

S. "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."

T. "RWSP" means the regional wastewater services plan.

U. "Sewer rate" means the amount in dollars, charged to a residential customer equivalent each month for use of the wastewater system.

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. (Ord. 14219 § 2, 2001; Ord. 13680 § 1, 1999).

28.86.020 Comprehensive water pollution abatement plan – readoption and ratification.

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. (Ord. 13680 § 2, 1999).

28.86.030 Regional wastewater services plan as supplement to comprehensive water pollution abatement plan. Under the provisions of the King County Charter and RCW 35.58.200, the RWSP, set forth in K.C.C. 28.86.010 and 28.86.040 through 28.86.150, 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. (Ord. 13680 § 3, 1999).

28.86.040 Regional wastewater services plan policies and explanatory material, financial policies for comprehensive water pollution abatement plan - application.

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 K.C.C. 28.86.160. (Ord. 13680 § 4, 1999).

28.86.050 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 Brightwater 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.

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 the [Brightwater]* treatment plant [at the Route 9 site north of the city of Woodinville]* 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, or minor rerouting to facilitate south or east county growth. 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's goal is to prevent and control nuisance odor occurrences at all treatment plants and associated conveyance facilities and will carry out an odor prevention program that goes beyond traditional odor control. To achieve these goals, the following policies shall be implemented:

1. Existing treatment facilities shall be retrofit in a phased manner up to the High/Existing Plant Retrofit odor prevention level as defined in Table 1 of Attachment A to Ordinance 14712**, the odor prevention policy recommendations dated March 18, 2003. This level reflects what is currently defined as the best in the country for retrofit treatment facilities of a similar size. Odor prevention systems will be employed as required to meet the goal of preventing and controlling nuisance odor occurrences;

2. Existing conveyance facilities that pose nuisance odor problems shall be retrofitted with odor prevention systems as soon as such odors occur, subject to technical and financial feasibility. All other existing conveyance facilities shall be retrofitted with odor control systems during the next facility upgrade;

3. The executive shall phase odor prevention systems implementing the tasks that generate the greatest improvements first, balancing benefit gained with cost, and report to the council on the status of the odor prevention program in the annual RWSP report as outlined in K.C.C. 28.86.165;

4. New regional treatment facilities shall be constructed with odor control systems that are designed to meet the High/New Plant odor prevention level as defined in Table 1 of Attachment A to Ordinance 14712**, the odor prevention policy recommendations dated March 18, 2003. This level reflects what is currently defined as the best in the country for new treatment facilities of a similar size;

*Reviser's note: This language was added in Ordinance 15602 but not underlined in accordance with K.C.C. 1.24.075.

**Available in the office of the clerk of the council.

5. New conveyance facilities serving these new regional treatment facilities shall also be constructed with odor control systems as an integral part of their design;

6. Design standards will be developed and maintained for odor control systems to meet the county's odor prevention and control goals;

7. A comprehensive odor control and prevention monitoring program for the county's wastewater treatment and conveyance facilities will be developed. This program shall include the use of near facility neighbor surveys and tracking of odor complaints and responses to complaints and shall consider development of an odor prevention benchmarking and audit program with peer utilities; and

8. New odor prevention and measurement technologies will be assessed and methods for pilot testing new technologies identified when determined by the executive to be necessary and appropriate for achieving the goals of this policy.

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: The county shall evaluate opportunities in collaboration with adjacent utilities regarding the transfer of flows between the county's treatment facilities and treatment facilities owned and operated by other wastewater utilities in the region. The 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 municipal water supply or 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. (Ord. 15602 § 1, 2006: Ord. 15384 § 1, 2006: Ord. 14712 § 2, 2003: Ord. 13680 § 5, 1999).

28.86.060 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 Brightwater treatment plant and building the outfall pipe from the Brightwater 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 peak flow storm shall be used as the design standard for the county's separated wastewater system.

2. Parameters developed by the wastewater treatment division in consultation with the metropolitan water pollution abatement advisory committee shall be used to guide project scheduling and prioritization for separated wastewater system projects.

3. 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: King County shall apply uniform criteria throughout its service area for the financing, development, ownership, operation, maintenance, repair and replacement of all conveyance facilities. The criteria shall include:

1. County ownership and operation of permanent conveyance facilities that serve natural drainage areas of greater than one thousand acres;

2. Conformance to the county's comprehensive water pollution abatement plan and the Regional Wastewater Service Plan as precondition of county ownership; and

3. A financial feasibility threshold governing limitations of the county's financial contribution to: development of a new interceptor or trunk sewer; or acquisition of an interceptor or trunk sewer constructed by a local agency. The threshold, as specified in K.C.C. 28.84.080, shall consider the capital costs that can be supported by the existing customers in the natural drainage area that would be served by the new facility.

CP-5: King County shall closely integrate water reuse planning and I/I study results with planning for wastewater conveyance and treatment facilities. King County shall consider water conservation and demand management assumptions developed by local utilities for wastewater facility planning. (Ord. 15602 § 2, 2006; Ord. 13680 § 6, 1999).

28.86.070 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 and will evaluate 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 utilizing and evaluating I/I pilot rehabilitation projects, and developing draft local conveyance systems' design guidelines, procedures and policies, including inspection and enforcement standards. Evaluations of the pilot rehabilitation project and a regional needs assessment of the conveyance system and assessments of I/I levels in each of the local sewer systems will form the basis for identifying and reporting on the options and the associated cost of removing I/I and preventing future increases. The executive shall submit to the council a report on the options, capital costs and environmental costs and benefits including but not limited to those related to water quality, groundwater seepage, stream flows and wetlands, and habitat of species listed under the ESA. No later than December 31, 2005, utilizing the prior assessments and reports 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 area should be thirty percent from the peak twenty-year level identified in the report. 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, 2006, 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. (Ord. 15602 § 3, 2006; Ord. 13680 § 7, 1999).

28.86.080 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 implement its long-range sediment management strategy to address its portion of responsibility for contaminated sediment locations associated with county CSOs and other facilities and properties. Where applicable, the county shall implement and cost share sediment remediation activities in partnership with other public and private parties, including the county's current agreement with the Lower Duwamish Waterway Group, the Department of Ecology and the Environmental Protection Agency, under the federal Comprehensive Environmental Response, Compensation and Liability Act.

CSOCP-8: King County shall assess CSO control projects, priorities and opportunities using the most current studies available, for each CSO Control Plan Update as required by the Department of Ecology in the NPDES permit renewal process, which is approximately every five to seven years. Before completion of an NPDES required CSO Control Plan Update, the executive shall submit a CSO program review to the council and RWQC. 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 December 13, 1999, which are the Denny way, Henderson/Martin Luther King, Jr. way/Norfolk, Harbor and Alki CSO treatment plants. (Ord. 15602 § 4, 2006; Ord. 13680 § 8, 1999).

28.86.090 Biosolids policies (BP).

A. Explanatory material. The biosolids 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. (Ord. 13680 § 9, 1999).

28.86.100 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 facilitate 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: By December 2007, the King County executive shall prepare for review by council a reclaimed water feasibility study as part of a regional water supply plan which will include a comprehensive financial business 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. The reclaimed water feasibility study shall be reviewed by the RWQC. At a minimum the feasibility study shall comply with chapter 90.46 RCW and include:

1. Review of new technologies for feasibility and cost effectiveness, that may be applicable for future wastewater planning;
2. Review of revenue sources other than the wastewater rate for distribution of reused water;
3. Detailed review and an update of a regional market analysis for reused water;
4. Review of possible environmental benefits of reused water; and
5. Review of regional benefits of reused water.

WRP-3: Recycling and reusing reclaimed water shall be investigated as a possible future 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. The coordination shall be done with the affected water supply purveyors. Water reuse must be coordinated with water supply/resource purveyors to ensure that resources are 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 will include, but are not limited to: capital, operation and maintenance costs; cost recovery; potential and proposed uses; rate and capacity charge impacts; 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. A detailed financial analysis of the overall costs and benefits of a water reuse project shall include cost estimates for the capital and operations associated with a project, the anticipated or existing contracts for purchases of reused water, including agricultural and other potential uses, anticipated costs for potable water when the project becomes operational; and estimates regarding recovery of capital costs from new reused water customers versus costs to be assumed by existing ratepayers and new customers paying the capacity charge. Water reuse projects that require major capital funding shall be reviewed by RWQC and approved by the council.

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 of King 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 evaluate potential funding of pilot-scale and water reuse 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 when environmental benefits and financial conditions merit this investment and new program. (Ord. 15602 § 5, 2006; Ord. 13680 § 10, 1999).

28.86.110 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, an asset management program shall be established that provides for appropriate ongoing maintenance and repair of equipment and facilities. The wastewater maintenance budget, staffing levels and priorities shall be developed to reflect the long-term useful life of wastewater facilities as identified by the asset management program

WWSP-10: The asset management program 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. (Ord. 13680 § 11, 1999).

28.86.120 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: The 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 range of data to be gathered should be based on water pollutants and elements that scientific literature identifies as variables of concern, what is needed to substantiate the benefits of abating combined sewer overflows and what is required by state and federal agencies. The executive shall submit summary reports and comprehensive reviews of this information to the King County council as outlined in K.C.C. 28.86.165.

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. (Ord. 15384 § 2, 2006; Ord. 13680 § 12, 1999).

28.86.130 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 of plan implementation and its consistency with policies, and of scientific, economic and technical information as well as periodic comprehensive reviews 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 the RWSP and conduct reviews of the RWSP as outlined in K.C.C. 28.86.165. (Ord. 15384 § 3, 2006; Ord. 13680 § 13, 1999).

28.86.140 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. (Ord. 13680 § 14, 1999).

28.86.150 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. (Ord. 13680 § 15, 1999).

28.86.160 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 rates and 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.

FP-3: The executive shall maintain an ongoing program of reviewing business practices and potential cost-effective technologies and strategies for savings and efficiencies; the results shall be reported in the annual budget submittal and in an annual report to the RWQC.

FP-4: New technologies or changes in practice that differ significantly from existing technologies or practices shall be reported to the council and RWQC with projected costs prior to implementation and shall also be summarized in the RWSP annual report.

FP-5: Significant new capital and operational initiatives proposed by the Executive that are not within the scope of the current RWSP nor included in the RWSP, or are required by new state or federal regulations will be reviewed by the RWQC and approved by the council to ensure due diligence review of potential impacts to major capital projects' schedules, including Brightwater, the bond rating or the sewer rate and capacity charge.

FP-6: 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-7: Unless otherwise directed by the council by motion, the King County department of natural resources and parks or its successor agency 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-8: 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. Alternative methods of providing a similar level of funding assistance for water quality improvement activities shall be transmitted to the RWQC and the council within seven months of policy adoption.

FP-9: 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-10: 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-11: The county shall structure bond covenants to ensure a prudent budget standard.

FP-12: King County should structure the term of its borrowings to match the expected useful life of the assets to be funded.

*Reviser's note: Ordinance 15602 added new policies FP-3, FP-4 and FP-5, but this reference was not changed.

FP-13: 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-14: 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-15: King County shall charge its customers sewer rates and capacity charges 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.

1. Existing and new sewer customers shall each contribute to the cost of the wastewater system as follows:

a. Existing customers shall pay through the monthly sewer rate for the portion of the existing and expanded conveyance and treatment system that serves existing customers.

b. New customers shall pay costs associated with the portion of the existing wastewater conveyance and treatment system that serves new customers and costs associated with expanding the system to serve new customers. New customers shall pay these costs through a combination of the monthly sewer rate and the capacity charge. Such rates and charges shall be designated to have growth pay for growth.

2. Sewer rate. King County shall maintain a uniform monthly sewer rate expressed as charges per residential customer equivalent for all customers.

a. Sewer rates shall be designed to generate revenue sufficient to cover, at a minimum, all costs of system operation and maintenance and all capital costs incurred to serve existing customers.

b. 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.

c. The executive, in consultation with the RWQC, shall propose for council adoption policies to ensure that adequate debt service coverage and emergency reserves are established and periodically reviewed.

3. Capacity charge. The amount of the capacity charge shall be a uniform charge, shall be approved annually and shall not exceed the cost of capital facilities necessary to serve new customers. The methodology that shall be applied to set the capacity charge is set forth in FP-12.3.a*.

a. The capacity charge shall be based on allocating the total cost of the wastewater system (net of grants and other non rate revenues) to existing and new customers as prescribed in this subsection. The total system cost includes the costs to operate, maintain, and expand the wastewater system over the life of the RWSP. Total estimated revenues from the uniform monthly rate from all customers and capacity charge payments from new customers, together with estimated non rate revenues, shall equal the estimated total system costs. The capacity charge calculation is represented as follows:

$$\text{Capacity Charge} = \frac{[\text{Total system costs} - \text{rate revenue from existing customers}] - \text{Rate revenue from new customers}}{\text{Number of new customers}}$$

where:

(1) total system costs (net of grants and other non rate revenues) minus rate revenue from existing customers equals costs allocated to new customers.

(2) costs allocated to new customers minus rate revenue from new customers equals the total revenue to be recovered through the capacity charge.

(3) total capacity charge revenue requirements divided by the total number of new customers equals the amount of the capacity charge to be paid by each new customer.

b. The capacity charge may be paid by new customers in a single payment or as a monthly charge at the rate established by the council. The county shall establish a monthly capacity charge by dividing that amount by one hundred eighty (twelve monthly payments per year for fifteen years). The executive shall transmit for council adoption an ordinance to adjust the discount rate for lump sum payment. The executive shall also transmit for council adoption an ordinance to adjust the monthly capacity charge to reflect the county's average cost of money if the capacity charge is paid over time.

c. King County shall pursue changes in state law to enable the county to require payment of the capacity charge in a single payment.

d. The capacity charge shall be set such that each new customer shall pay an equal share of the costs of facilities allocated to new customers, regardless of what year the customer connects to the system. The capacity charge shall be based upon the costs, customer growth and related financial assumptions used for the Regional Wastewater Services Plan adopted by Ordinance 13680 as such assumptions may be updated. Customer growth and projected costs, including inflation, shall be updated every three years beginning in 2003.

e. The county should periodically review the capacity charge to ensure that the actual costs of system expansion to serve new customers are reflected in the charge. All reasonable steps should be taken to coordinate the imposition, collection of and accounting for rates and charges with component agencies to reduce redundant program overhead costs.

f. Existing customers shall pay the monthly capacity charge established at the time they connected to the system as currently enacted by K.C.C. 28.84.055. New customers shall pay the capacity charge established at the time they connect to the system.

g. To ensure that the capacity charge will not exceed the costs of facilities needed to serve new customers, costs assigned and allocated to new customers shall be at a minimum ninety five percent of the projected capital costs of new and existing treatment, conveyance and biosolids capacity needed to serve new customers.

*Reviser's note: Ordinance 15602 added new policies FP-3, FP-4 and FP-5, but this reference was not changed.

h. Costs assigned and allocated to existing customers shall include the capital cost of existing and future treatment, conveyance and biosolids capacity used by existing customers, and the capital costs of assessing and reducing infiltration and inflow related to the use of the existing conveyance and treatment capacity.

i. Capital costs of combined sewer overflow control shall be paid by existing and new customers based on their average proportionate share of total customers over the life of the RWSP.

j. Operations and maintenance costs shall be paid by existing and new customers in the uniform monthly rate based on their annual proportionate share of total customers.

k. Any costs not allocated in FP-12.3 f, g, h, i and j* shall be paid by existing and new customers in the sewer rate.

l. Upon implementation of these explicit policies, the Seattle combined sewer overflow benefit charge shall be discontinued.

4. Based on an analysis of residential water consumption, as of December 13, 1999, 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.

FP-16: 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-17: 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-18: 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. (Ord. 15602 § 7, 2006: Ord. 14219 § 3, 2001: Ord. 14199 § 253, 2001: Ord. 13680 § 16, 1999).

*Reviser's note: Ordinance 15602 added new policies FP-3, FP-4 and FP-5, but this reference was not changed.

28.86.165 Reporting policies. The executive shall review the implementation of the RWSP on a regular basis and submit the following reports to council and the RWQC:

A. Regional wastewater services plan annual report. The executive shall submit a written report to the council and RWQC in September each year until the facilities identified in the RWSP are operational. This report, covering the previous year's implementation, will provide the following:

1. A summary of activities for each major component of the RWSP, including treatment, conveyance, infiltration and inflow, combined sewer overflows, water reuse, biosolids and highlights of research and development projects underway and proposed for the coming year;

2. Details on each active RWSP project in the capital budget, including a project summary, project highlights, project issues, upcoming activities, schedules, an expenditures summary including staff labor and miscellaneous services, a description of adjustments to costs and schedule and a status of the projects contracts;

3. A status of the odor prevention program, including a listing and summary of odor complaints received and progress on implementing odor prevention policies and projects;

4. A summary of the previous year's results for the comprehensive water quality monitoring program;

5. A review of the plan elements, including water pollution abatement, water quality, water reclamation, Endangered Species Act compliance, biosolids management and variability of quality over time, wastewater public health problems, compliance with other agency regulations and agreements, to ensure it reflects current conditions; and

6. An update of anticipated RWSP program costs through the year 2030;

B.1. Comprehensive regional wastewater services plan review. The executive shall submit a written report to council and RWQC that provides a comprehensive review of the RWSP. The report will review the following:

a. assumptions on the rate and location of growth, the rate of septic conversions and the effectiveness of water conservation efforts;

b. phasing and size of facilities; and

c. effectiveness of RWSP policies implementation, for infiltration and inflow reduction, water reuse, biosolids, CSO abatement, water quality protection, environmental mitigation and public involvement;

2. The next comprehensive regional wastewater services plan review is due in September 2007. Subsequent reports will be prepared every three to five years as established by the council and RWQC following their review of the current report. The specific due date will be based upon the availability of necessary information, the completion of key milestones, and the time needed to collect and analyze data. The executive may recommend policy changes based on the findings of the report and other information from changing regulations, new technologies or emerging or relevant factors;

3. The comprehensive regional wastewater services plan review will include all elements of the RWSP annual report, replacing it for that year;

C. Brightwater monthly report. The executive shall prepare a monthly report to council for the Brightwater project based on a reporting format approved by motion by the King County council. The reporting format shall include a project summary, project highlights, project issues, upcoming activities, schedules, an expenditures summary including staff labor and miscellaneous services, a description of adjustments to costs and schedule and a status of the project's contracts. This report will be distributed electronically and will continue until Brightwater becomes operational; and

D. Operational master plan. The RWSP Operational Master Plan that was adopted by council in December 1999 shall be updated on a regular basis in conjunction with policy revisions to the RWSP. (Ord. 15384 § 6, 2006).

28.86.170 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. (Ord. 13680 § 17, 1999).

28.86.180 Implementation.

A. The RWSP operational master plan that was adopted by council in December 1999, shall be updated on a regular basis following substantive adopted policy revisions to the RWSP, and shall meet the requirements of K.C.C. chapter 4.04.

B. The operational master plan shall contain projects related to major program elements and shall further define as necessary the major projects, projected capacity, milestones, projected completion dates, and estimated costs.

1. Treatment capacity.

a. Population and employment growth is projected to require the wastewater system capacity to expand from two hundred forty-eight mgd to three hundred four mgd by 2030. The estimated cost and list of treatment facilities and improvements to achieve this expanded capacity by 2030, shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165.

b. The Brightwater treatment plant at the Route 9 site shall be built with a capacity of thirty-six mgd by 2010 or as soon thereafter as possible to handle wastewater flows from a new north service area as 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 prior to subsequent expansions.

c. Expanding the treatment capacity at the south treatment plant from one hundred fifteen mgd to one hundred thirty-five 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 capacity could also be upgraded to tertiary treatment, to meet water quality standards or facilitate water reuse, as part of future expansions or in additions to the secondary level of treatment using available land reserves at the plant site.

d. The west treatment plant will be maintained at its capacity of one hundred thirty-three mgd, primarily to serve the city of Seattle and handle flows from the combined sewers in the area. Additional facilities may 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. 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 cost, schedule and list of conveyance facility improvements, shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165.

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.

3. I/I control.

a. The I/I control program shall be implemented incrementally and be limited to projects that prove to be most cost effective. The estimated cost, schedule and list of I/I improvement projects, shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165.

b. The goal of the I/I control program is to reduce the expense of conveyance system improvements over time. Every ten years, beginning in 2010, the wastewater treatment division will conduct system monitoring to update hydraulic models and measure the effectiveness of I/I control and reduction in the system.

4. CSOs.

a. CSOs shall be prioritized based on first controlling discharges that impact human health, bathing beaches and/or 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, schedule and list of CSO control projects, will be reported in the CSO program review (preceding the west treatment plant NPDES permit renewal), and shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165.

b. 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.

c. 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, schedules, 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 Brightwater 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 digesters at the west treatment plant, a condition of the West Point Settlement Agreement.

b. As part of ongoing planning for its treatment plants, King County will periodically 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 of 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.

c. The estimated cost, schedule and list of biosolids improvement projects, shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165.

d. 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.

a. The south and west treatment plants should continue to produce reclaimed water for non-potable uses and explore the production of reclaimed water at new facilities. King County will explore the production of reclaimed water at new facilities and work with water suppliers to plan and implement an accelerated water reuse program that could augment existing water supplies.

b. 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, schedule and list of water reuse projects, shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165.

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.C.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 and parks, which currently operates centralized wastewater treatment facilities as contrasted with community treatment systems. (Ord. 15602 § 8, 2006: Ord. 14199 § 254, 2001: Ord. 13680 § 18, 1999.)

28.86.200 Productivity initiative for the wastewater program.

A.1. The executive shall develop and implement a productivity initiative for the wastewater program that would include implementing business plans, meeting annual budget targets, creating an incentive fund, continuing to work collaboratively with labor, developing service agreements with county support agencies and modifying certain internal wastewater program administrative policies.

2. The goals of the productivity initiative are to:

a. continue providing high quality wastewater treatment and conveyance services to the region;

b. use private sector models to improve management of the wastewater program;

c. improve cost efficiencies;

d. provide savings to the public;

e. define target budgets and accountability measures for meeting those targets;

f. continue working collaboratively with labor; and

g. allow employees to be creative in meeting the vision of becoming the best wastewater program.

B.1 The productivity incentive program, referred to in this subsection as "program," is hereby created as a component of the productivity initiative. The goals of the program are to: provide financial incentives to employees to achieve higher than projected savings to the wastewater treatment ratepayers; encourage teamwork; and encourage employee involvement in and ownership of the business.

2. Except as otherwise excluded in this subsection, represented and nonrepresented full-time and part-time regular and term-limited temporary employees in the wastewater program, which provides design/construction, maintenance and operations, planning, finance and administration, technology assessment, environmental laboratory, and industrial waste program services are eligible to participate in the program. However, the wastewater division manager and the wastewater division assistant manager are not eligible.

3. The executive shall establish a reserve subaccount known as the productivity incentive fund, in the wastewater treatment reserves fund. This reserve subaccount shall receive a pro rata share of interest earnings from the wastewater treatment reserves fund.

4. The productivity incentive fund oversight committee is hereby created and shall be responsible for oversight of the productivity incentive fund. The committee shall have the authority and responsibility to determine the distribution and use of the fund, subject to the approval of the wastewater treatment division manager. Membership in the productivity incentive fund oversight committee shall include:

a. represented employees approximately proportional to each union's percentage of employees in the wastewater program;

b. nonrepresented employees approximately proportional to their percentage of employees in the wastewater program;

c. two wastewater program management representatives; and

d. ex officio, nonvoting membership including, but not limited to, the office of the executive and the department of executive services, finance and business operations division.

5. It is the intent of the council that the productivity incentive fund be used to support a variety of incentives including, but not limited to:

a. provision of additional training opportunities for employees;

b. investments in productivity improvement projects;

c. funding overexpenditures on asset management and operating projects;

d. monetary payments or awards to employees; and

e. employee awards and recognition.

C.1. The productivity initiative for the wastewater program also applies to the wastewater program's capital improvement program.

2.a. The objectives of extending the productivity initiative to the wastewater program's major capital improvement projects are to:

- (1) provide savings to ratepayers through the appropriate use of approved contracting methods and more efficient management of consultants and contractors;
- (2) refine and improve the accuracy of cost estimating for major capital improvement projects; and
- (3) test the efficacy of different approved contracting methods and contract incentives in reducing the overall cost and time needed to complete major capital improvement projects.

b. For a major capital improvement project, which, for the purposes of this section, means a capital improvement project with an estimated cost of one million dollars or more, to be eligible for the productivity initiative, the wastewater treatment division must use the following best practices:

- (1) determining the difference between the level of service of the current capital assets and the needed level of service for the new or upgraded asset. The wastewater treatment division shall identify how the project under consideration will achieve the planned or required results;
- (2) evaluating alternative approaches to achieving the results;
- (3) integrating organizational goals into the major capital decision-making process;
- (4) establishing a review and approval framework supported by analysis;
- (5) tracking project costs, schedule and performance; and
- (6) evaluating results and incorporating lessons learned.

c. Project targets for major capital improvement projects in the productivity initiative shall be determined by an independent third party.

3.a. The objectives of extending the productivity initiative to the wastewater program's asset management program are to:

- (1) provide savings to ratepayers through the development of a more strategic approach to the maintenance and replacement of wastewater assets;
- (2) refine and improve the accuracy of budget forecasting for wastewater asset management;
- (3) improve reliability of the wastewater treatment system;
- (4) test new asset management techniques on a subgroup of assets and determine the applicability of these techniques to the rest of the wastewater system;
- (5) compare the costs of using in-house resources to perform small capital construction projects versus the more traditional practice of contracting out this work; and
- (6) provide incentives for employees to develop innovative approaches to asset management.

b. Application of the productivity initiative for the wastewater program to asset management maintenance and replacement projects shall be limited to categories of assets for which detailed information on historical maintenance costs, current replacement costs, and a determination of remaining useful life have been developed.

4. Certain capital program work of the wastewater program has traditionally been performed by independent contractors procured by the county rather than county employees. If the wastewater program begins to use county employees for all or any portion of such capital program work in connection with implementation of the productivity initiative, subsequent use of independent contractors shall not be limited as a result of this temporary pilot project.

5.a. The executive shall, by June of each year, file with the clerk of the council for distribution to the chair of the council and the chair of the labor, operations and technology committee, or its successor committee, an annual report that evaluates the implementation of the productivity initiative for the wastewater program. Based on the experience, data and analysis from 2004 and 2005, the executive shall, by June 2006, file with the clerk of the council for distribution to the chair of the council and the chair of the labor, operations and technology committee, or its successor committee, recommendations for modifications that may be needed, together with any necessary proposed legislation, to help further the goals and objectives outlined in this section.

b. The executive shall facilitate a thorough review of the productivity initiative for the wastewater program no later than December 31, 2010. The review shall be undertaken by an independent third party hired and supervised by the county auditor, with input from the wastewater program, and shall provide for a report to the council, which shall be filed with the clerk of the council for distribution to the chair of the council and the chair of the labor, operations and technology committee, or its successor committee. The review is to determine how effective the productivity initiative has been in achieving the goals and objectives in this section.

c. The productivity initiative for the wastewater program expires April 30, 2011, unless before that date an ordinance is enacted to continue the productivity initiative. Any major capital improvement project included in the productivity initiative, for which targets have been set by April 30, 2011, as specified in subsection C.2.c of this section, may continue with provisions of the productivity initiative applied through the completion of the project.

6. King County's wastewater treatment system shall continue to be maintained as a public facility and shall be managed and operated by public employees for so long as the productivity initiative is in effect. (Ord. 14941 § 4, 2004).

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