

Legislation Text

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Clerk 09/19/2006

AN ORDINANCE relating to the Regional Wastewater Services Plan; and amending Ordinance 13680, Section 5, as amended, and K.C.C. 28.86.050, Ordinance 13680, Section 6, and K.C.C. 28.86.060, Ordinance 13680, Section 7, and K.C.C. 28.86.070, Ordinance 13680, Section 8, and K.C.C. 28.86.080, Ordinance 13680, Section 10, and K.C.C. 28.86.100, Ordinance 13680, Section 11, and K.C.C. 28.86.110, Ordinance 13680, Section 16, as amended, and K.C.C. 28.86.160 and Ordinance 13680, Section 18, as amended, and K.C.C. 28.86.180.

STATEMENT OF FACTS:

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

outfall sewers, storm sewers to divert storm water from sanitary sewers, lands for application of biosolids, property rights, buildings and other structures.

- 2. Pursuant to the authority of chapter 36.56 RCW and a special county election held November
- 3, 1992, the county on January 1, 1994, assumed the rights, powers, functions and obligations of Metro, including operation of Metro's water pollution abatement function.
- 3. The King County council, in assuming the legislative powers of Metro, readopted by Ordinances 11032 and 12074, the Metro resolutions that comprise the comprehensive water pollution abatement plan for King County.
- 4. King County provides conveyance, treatment and disposal of sewage consistent with the terms of the agreements between Metro and local sewer utilities. Those agreements provide for the county accepting sewage and industrial waste delivered by those local governments to county's regional wastewater treatment system, subject to such reasonable regulations as may be adopted from time to time by the council. The county is also responsible for compliance with all state and federal requirements applicable to the planning, design, construction, operation and maintenance of its wastewater treatment system.
- 5. King County conducted an extensive public process in developing, deliberating and adopting a supplement to the comprehensive water pollution abatement plan in the 1990s. The executive submitted a draft regional wastewater services plan, draft environmental impact statement and draft financing plan to the public in May 1997. The public's input was reflected in the recommendations contained in the preferred plan for regional wastewater services submitted to the council by the executive. The metropolitan King County council's regional water quality committee deliberations of the proposed legislation included public comments at its meetings and special meetings throughout the county. The council heard public comment during its deliberations as the committee of the whole. A public hearing was held before the full council

prior to adoption of the plan.

- 6. In accordance with the state Environmental Policy Act, chapter 43.21C RCW, King County issued a determination of environmental significance for the regional wastewater services plan on September 1, 1994, conducted a forty-five-day scoping process for the determination, prepared and circulated a draft environmental impact statement on May 7, 1997, provided a ninety-day comment period, held five public hearings on the draft environmental impact statement and prepared and circulated a final environmental impact statement on April 27, 1998.
- 7. The Regional Wastewater Services Plan ("RWSP") was adopted by the King County council in November 1999 by Ordinance 13680 and subsequently codified in K.C.C. chapter 28.86.
- 8. The RWSP is a supplement to the King County comprehensive water pollution abatement plan. The RWSP identifies projects and programs needed to provide wastewater capacity for homes and businesses in the wastewater service area through the year 2030. The RWSP also provides policy direction for the operation and continued development of the wastewater system and its capital improvement program.
- 9. In 2001, the King County council adopted Ordinance 14219 amending and adding financial policies to the RWSP relating to the sewage treatment capacity charge; and amending Ordinance 13680, Section 1, as amended, and K.C.C. 28.86.010 and Ordinance 13680, Section 16, as amended, and K.C.C. 28.86.160.
- 10. In 2003, the King County council adopted Ordinance 14712 amending and adopting policies relating to odor control at wastewater treatment plants and conveyance facilities; and amending Ordinance 13680, Section 5, and K.C.C. 28.86.050.
- 11. In May 2004, the King County executive, in accordance with RWSP policy WWPP-5 regarding monitoring and reviewing the implementation of the RWSP, submitted the 2004 Regional Wastewater Update to the King County council and the regional water quality

committee ("RWQC") for review.

- 12. The regional water quality committee was briefed on the 2004 RWSP Update by executive and council staff in May, June, July, September and October 2004. The regional water quality committee directed committee staff to work with executive staff and intergovernmental staff representing caucus interests of the committee to conduct further review of potential technical and substantive amendments to RWSP policies based upon the 2004 RWSP Update and implementation of the RWSP policies since its adoption in 1999.
- 13. Committee staff, executive and intergovernmental staff met regularly during the latter months of 2004 and throughout 2005 and consulted regularly with members of the RWQC regarding potential policy amendments and briefed the committee intermittently at regularly scheduled committee meetings regarding progress on the review. In addition, committee staff arranged briefings before the committee, based on committee member requests, on a range of topics and subject matter related to the implementation of RWSP policies subsequent to the 2004 RWSP Update. In 2005, these briefings included updates on the regional needs assessment regarding conveyance capacity and potential capital facility improvements needed, infiltration and inflow policy implementation and treatment plant policy implementation, including progress on the Brightwater environmental review, permitting and mitigation progress.
- 14. Committee staff at the direction of the committee members organized a peer review of the population and flow projections contained in the 2004 RWSP Update. The peer review was facilitated and staffed by consultants and staff to the King County department of natural resources and parks in spring, 2005. The regional water quality committee was subsequently briefed on the outcome of the peer review and recommendations of those technical and intergovernmental staff who participated in the review.
- 15. Committee staff, executive staff and intergovernmental staff met with an ad-hoc committee

of the regional water quality committee in August and September, 2005 to discuss potential technical and substantive amendments to RWSP policies.

16. Committee and executive staff briefed the committee in June, September and November 2005 regarding recommended changes to RWSP policies and other ordinances regarding reporting requirements to provide information on implementation of RSWP policies and progress in particular on major capital projects, including Brightwater. The executive subsequently submitted legislation to amend RWSP reporting requirements. Ordinance 15384 eliminates redundancies in the reporting requirements, adjusts the due dates to reflect the availability of information, consolidates the reporting requirements into fewer, but more comprehensive, reports and facilitates future changes or additions to these requirements. The legislation also includes a section to codify reporting requirements, cost estimating and progress reports regarding major capital projects specified by the RWSP.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Ordinance 13680, Section 5, as amended, and K.C.C. 28.86.050 are each hereby amended to read as follows:

Treatment plant policies (TPP).

A. Explanatory material. The treatment plant policies are intended to guide the county in providing treatment at its existing plants and in expanding treatment capacity through the year 2030. The policies direct that secondary treatment will be provided to all base sanitary flows. The county will investigate possible tertiary treatment with a freshwater outfall to facilitate water reuse. The policies also direct how the county will provide the expanded treatment capacity necessary to handle the projected increases in wastewater flows resulting from population and employment growth. The policies provide for the construction of a new treatment plant (the ((north)) 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((5)) and the

reservation of capacity at the west treatment plant to handle Seattle flows and CSOs. The potential for expansion at the west and south treatment plants will be retained for unanticipated circumstances such as changes in regulations. The policies address goals for odor control at treatment plants and direct that water reuse is to continue and potentially expand at treatment plants. ((The policies also describe a cooperative siting process for the new north treatment plant and its outfall.))

B. Policies.

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

TPP-2: King County shall provide additional wastewater treatment capacity to serve growing wastewater needs by constructing ((a new north)) the Brightwater treatment plant ((in north King County or south Snohomish County)) 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 rerating 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 ((this o))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 ((annually. This report shall include a listing and summary of odor complaints received and detail progress on implementing odor prevention policies and projects;)) 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 ((this o))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;
- 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: ((When there are opportunities to transfer flows between King County's treatment facilities and treatment facilities owned and operated by other wastewater utilities in the region, the county shall evaluate them. Such evaluation shall include, but not be limited to cost, environmental and community impacts, liability, engineering feasibility, flexibility, impacts to contractual and regulatory obligations and consistency with the level of service provided at the county owned and operated facilities.)) 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 <u>municipal</u> 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.

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

1. The King County executive shall transmit a motion to the council that establishes the criteria by which sites will be selected; and

2. The executive shall provide the council with timely reports that detail the sites that meet the criteria and are under consideration and, at a later date, those sites that are final candidates for the siting of the north treatment plant.

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

SECTION 2. Ordinance 13680, Section 6, and K.C.C. 28.86.060 are each hereby amended to read as follows:

Conveyance policies (CP).

A. Explanatory material. The conveyance policies are intended to guide how major improvements to the wastewater conveyance system, including building and upgrading the pipes and pump stations needed to convey wastewater to the ((north)) <u>Brightwater</u> treatment plant and building the outfall pipe from the ((north))

<u>Brightwater</u> treatment plant, will be accomplished. The policies also include guidance for other major and minor conveyance improvements to accommodate increased flows in other parts of the service area and to prevent improper discharges from the sanitary system.

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

- B. Policies.
- CP-1: To protect public health and water quality, King County shall plan, design and construct county wastewater facilities to avoid sanitary sewer overflows.
- 1. The twenty-year ((design)) peak flow storm shall be used as the design standard for the county's separated wastewater system.
- 2. <u>Parameters developed by the wastewater treatment division in consultation with the Metropolitan</u>

 <u>Water Pollution Abatement Advisory Committee shall be used to guide project scheduling and prioritization for separated wastewater system projects.</u>
- 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: ((The King County executive shall prepare and submit to the council recommended policies for achieving uniform financing, construction, operation, maintenance and replacement of all conveyance facilities within its service area.)) 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 Services Plan as a 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. ((Water conservation and demand management assumptions shall also be coordinated with wastewater facility planning.)) King County shall consider water conservation and demand management assumptions developed by local utilities for wastewater facility planning.
- ((CP-6: King County executive shall prepare and submit to the council a study on the impact of conveyance trenches on groundwater recharge and inflow and infiltration including options and costs for limiting these impacts. Based on the study, the executive shall recommend policies for council review and adoption for limiting these impacts accompanied by a proposed work program and schedule for

implementation.))

SECTION 3. Ordinance 13680, Section 7, and K.C.C. 28.86.070 are each hereby amended to read as follows:

Inflow and Infiltration (I/I) policies (I/IP).

A. Explanatory material. The I/I policies are intended to guide the county in working cooperatively with component agencies to reduce the amount of I/I that flows into component agencies' local collection systems, thereby reducing the impact of I/I on the regional system's capacity. This cooperative process will assess levels of I/I in local conveyance systems and construct pilot projects ((to demonstrate)) 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 ((by the following:
- 1. By July 1, 2001, the executive shall propose for council review and approval an initial list of pilot rehabilitation projects dealing with the most serious and readily identified I/I problem areas in the local sewer systems. By July 1, 2002, the executive shall propose an additional list of pilot projects. The pilot rehabilitation projects shall be used to demonstrate the effectiveness of I/I controls in the local sewer systems

tributary to the regional system.

- 2. By December 31, 2002, the county, in coordination with component agencies, shall develop model local conveyance systems' design standards, including inspection and enforcement standards, for use by component agencies to reduce I/I within their systems.
- 3. By December 31, 2003, the executive shall submit to the council a report defining I/I levels in each of the local sewer systems, based on assessments of those systems, and identifying options and the associated cost of removing I/I and preventing future increases. The options should be informed by the results of the pilot rehabilitation projects described in subsection 1 of this I/IP-2. The report shall analyze the options on cost-effectiveness and environmental costs and benefits including but not limited to those related to water quality, groundwater interception, stream flows and wetlands, and habitat of species listed under the ESA.

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

4-)) 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 projects 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 interception, stream flows and wetlands, and habitat of species listed under the ESA. No later than December 31, ((2004)) 2005, utilizing the prior assessments and reports ((described in subsection 3 of this I/IP-2,)) 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, 20056, on component agencies that do not meet the adopted target levels for I/I reduction in local collection systems. The I/I surcharge should be specifically designed to ensure the component agencies' compliance with the adopted target levels. King County shall pursue changes to component agency contracts if necessary or implement other strategies in order to levy an I/I surcharge.

SECTION 4. Ordinance 13680, Section 8, and K.C.C. 28.86.080 are each hereby amended to read as follows:

Combined sewer overflow control policies (CSOCP).

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

B. Policies.

CSOCP-1: King County shall plan to control CSO discharges and to work with state and federal agencies to develop cost-effective regulations that protect water quality. King County shall meet the requirements of state and federal regulations and agreements.

CSOCP-2: King County shall give the highest priority for control to CSO discharges that have the

highest potential to impact human health, bathing beaches and/or species listed under ESA.

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

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

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

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

CSOCP-7: ((King County shall develop a long-range sediment management strategy to prioritize clean up of contaminated sediments at specific CSO locations.)) 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 use the results of the 1998 water quality assessment to assess CSO control projects and priorities before issuing the year 2000 CSO update requirement by the county's national pollutant discharge elimination system permit. Prior to the year 2005 CSO update, the executive shall evaluate

the benefits of CSO control projects along with other pollution control projects developed by King county and other agencies. This CSO program review will include, but not be limited to the following: maximizing use of existing CSO control facilities; identifying the public and environmental health benefits of continuing the CSO control program; ensuring projects are in compliance with new regulatory requirements and objectives such as the ESA and Wastewater Habitat Conservation Plan; analyzing rate impacts; ensuring that the program review will honor and be consistent with long standing existing commitments; assessing public opinion; and integrating the CSO control program with other water/sediment quality improvement programs for the region)). 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 control 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.

SECTION 5. Ordinance 13680, Section 10, and K.C.C. 28.86.100 are each hereby amended to read as follows:

Water reuse policies (WRP).

A. Explanatory material. The water reuse policies are intended to guide the county in continuing to develop its program to produce reclaimed water. The county will coordinate its program with regional water supply plans and work with state agencies and local jurisdictions on opportunities for water reuse. The county will implement pilot and demonstration projects. Additional projects shall be implemented subject to economic and financial feasibility assessments, including assessing environmental benefits and costs.

The water reuse policies, as in the treatment plant policies, intend that the county continue producing reclaimed water at its treatment plants. The treatment plant policies also address the potential construction of one or more satellite plants. These small plants would provide reclaimed water, with the solids being transferred to the regional plants for processing.

B. Policies.

WRP-1: King County shall actively pursue the use of reclaimed water while protecting the public health and safety and the environment. The county shall ((accelerate)) 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: ((Within twelve months of the adoptions of this plan,)) By December 2007, the King County executive shall prepare for review by council ((5)) a Reclaimed Water Feasibility Study as part of a Regional Water Supply Plan which will include a ((detailed work)) 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 and the state and area citizens. ((Accompanying the work plan shall be a list of potential pilot projects and associated costs. Development of the water reuse program shall be coordinated with development of a regional water supply plans.)) 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 <u>future</u> 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 ((and)) must be coordinated with water supply/resource ((s must be)) 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 ((may)) 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 ((by the)) of King ((e))County.
- WRP-11: King County's water reuse program projects shall not impair any existing water rights unless compensation or mitigation for such impairment is agreed to by the holder of the affected water rights.
- WRP-12: King County shall retain the flexibility to produce and distribute reclaimed water at all treatment plants including retaining options to add additional levels of treatment.

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

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

WRP-15: King County should pursue development of a water reuse program to discharge reclaimed water to reduce freshwater consumption used in the operation of the Ballard Locks ((as a priority water reuse project)) when environmental regulations, environmental benefits and financial conditions merit this investment and new program.

SECTION 6. Ordinance 13680, Section 11, and K.C.C. 28.86.110 are each hereby amended to read as follows:

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, <u>an asset</u>

management program shall be established that provides for appropriate ongoing maintenance and repair ((shall be a high priority of King County)) 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 <u>as identified</u> by the asset management program.

WWSP-10: ((King County)) 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.
- SECTION 7. Ordinance 13680, Section 16, and K.C.C. 28.86.160 are each hereby amended to read as follows:

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. ((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-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-((3)) 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 councilin the annual sewer rate ordinance.
- FP-((4)) 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-((5)) 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. ((This policy shall remain in effect until such time as a financial plan for the surface water regional needs assessment is adopted and implemented.)) 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-((6)) 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-((7)) 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.
- $FP-((\S))$ 11: The county shall structure bond covenants to ensure a prudent budget standard.
- FP-((9)) 12: King County should structure the term of its borrowings to match the expected useful life of the assets to be funded.

FP-((10)) 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-((11)) 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-((12)) 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

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system costs. The capacity charge calculation is represented as follows:

<u>Capacity</u> = <u>Charge</u>

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.
- 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-((13)) <u>16</u>: The executive shall prepare and submit to the council a report in support of the proposed monthly sewer rates for the next year, including the following information:

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

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

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

Policy options: calculations or analyses, or both, of the effect of certain policy options on the overall revenue requirement. These options should include alternative capital program accomplishment percentages (including a ninety percent, a ninety-five percent and a one hundred percent accomplishment rate), and the rate shall be selected that most accurately matches historical performance in accomplishing the capital program and that shall not negatively impair the bond rating.

FP-((14)) <u>17</u>. Expenditures from the wastewater revenues to correct water pollution problems caused by septic systems shall occur only if such expenditures financially benefit wastewater system current customers

when the additional monthly sewer rate revenues from these added customers are considered.

FP-((15)) 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.

SECTION 7. Ordinance 13680, Section 18, and K.C.C. 28.86.180 are each hereby amended to read as follows:

Implementation.

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

B. The operational master plan shall contain the following major elements and shall further define as necessary the major projects, projected capacity, projected completion dates and estimated costs referenced in this chapter. The operational master plan shall include a schedule and milestones for completion of the north treatment plant by 2010 and a schedule and milestones for completion of the North Lake Interceptor as a tunnel by 2006 or sooner if possible.

1. Treatment capacity. Population and employment growth is projected to require the wastewater system capacity to expand from two hundred forty-eight mgd to three hundred four mgd by 2030. The estimated costs of treatment facilities to achieve this expanded capacity by 2030 is two hundred seventy-seven million dollars 1998 net present value. The expanded capacity shall be provided by:

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

be investigated during the initial phase of construction and subsequent expansions;

b. expanding the treatment capacity at the south treatment plant from 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's capacity could also be upgraded to tertiary treatment, to meet water quality standards or facilitate water reuse, as part of future expansions or in addition to the secondary level of treatment using available land reserves at the plant site; and

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

2. Conveyance facilities.

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

Parallel East Side Interceptor Section -1 (2000)

Increase York Pump Station capacity to sixty-eight mgd (2000)

Parallel Auburn Interceptor Sections 1, 2 & 3 (2004)

Construct six million gallons of off-line storage at North Creek (2002)

Construct North Lake Interceptor and pump station to extend from the McAleer/Lyon Trunk to the Kenmore Pump Station sized to create ten million gallons of storage (2006 or sooner if possible)

Construct forcemain from new Kenmore Pump Station to North treatment plant (2010)

Construct one hundred twenty mgd pump station at Kenmore to pump to North treatment plant

(2010)

Construct tunnel from North treatment plant to Puget Sound, sized to accommodate ultimate plant buildout (2010)

Construct North treatment plant outfall, sized to accommodate ultimate plant buildout (2010)

Construct three to five million gallons of storage at south treatment plant to achieve a five-year

design storm standard of protection for the Effluent Transfer System (2030)

Construct Auburn Interceptor Storage (2020)

Increase North Creek Pump Station to fifty mgd (2016)

Modify York Pump Station to pump thirty-five mgd north (2016)

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

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