

KING COUNTY

1200 King County Courthouse 516 Third Avenue Seattle, WA 98104

Signature Report

September 26, 2006

Ordinance 15602

Proposed No. 2005-0523.4

Sponsors Hammond, Hague and Constantine

1	AN ORDINANCE relating to the Regional Wastewater
2	Services Plan; and amending Ordinance 13680, Section 5,
3	as amended, and K.C.C. 28.86.050, Ordinance 13680,
4	Section 6, and K.C.C. 28.86.060, Ordinance 13680, Section
5	7, and K.C.C. 28.86.070, Ordinance 13680, Section 8, and
6	K.C.C. 28.86.080, Ordinance 13680, Section 10, and
7	K.C.C. 28.86.100, Ordinance 13680, Section 11, and
8	K.C.C. 28.86.110, Ordinance 13680, Section 16, as
9	amended, and K.C.C. 28.86.160 and Ordinance 13680,
10	Section 18, as amended, and K.C.C. 28.86.180.
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13	STATEMENT OF FACTS:
14	1. The Municipality of Metropolitan Seattle ("Metro") was created by
15	public vote in 1958 to exercise the powers conferred by chapter 35.58
16	RCW related to water pollution abatement. RCW 35.58.200 confers
17	specific powers to prepare and implement a comprehensive water pollution

18	abatement plan including provisions for waterborne pollutant removal,
19	water quality improvement, sewage disposal and storm water drainage. In
20	the exercise of those powers, the Metro's governing body, the metropolitan
21	council, adopted a comprehensive water pollution abatement plan for the
22	Seattle metropolitan area by Resolution No. 23 on April 22, 1959. This
23	plan has been supplemented and amended from time to time by various
24	Metro resolutions and has been implemented in stages. It includes
25	facilities for the conveyance and treatment of sewage and control of
26	combined sewer overflows that include, but are not necessarily limited to,
27	wastewater treatment plants, interceptor and trunk sewers, pumping
28	stations, regulator stations, outfall sewers, storm sewers to divert storm
29	water from sanitary sewers, lands for application of biosolids, property
30	rights, buildings and other structures.
31	2. Pursuant to the authority of chapter 36.56 RCW and a special county
32	election held November 3, 1992, the county on January 1, 1994, assumed
33	the rights, powers, functions and obligations of Metro, including operation
34	of Metro's water pollution abatement function.
35	3. The King County council, in assuming the legislative powers of Metro,
36	readopted by Ordinances 11032 and 12074, the Metro resolutions that
37	comprise the comprehensive water pollution abatement plan for King
38	County.
39	4. King County provides conveyance, treatment and disposal of sewage
40	consistent with the terms of the agreements between Metro and local sewer

41	utilities. Those agreements provide for the county accepting sewage and
42	industrial waste delivered by those local governments to county's regional
43	wastewater treatment system, subject to such reasonable regulations as
44	may be adopted from time to time by the council. The county is also
45	responsible for compliance with all state and federal requirements
46	applicable to the planning, design, construction, operation and
47	maintenance of its wastewater treatment system.
48	5. King County conducted an extensive public process in developing,
49	deliberating and adopting a supplement to the comprehensive water
50	pollution abatement plan in the 1990s. The executive submitted a draft
51	regional wastewater services plan, draft environmental impact statement
52	and draft financing plan to the public in May 1997. The public's input was
53	reflected in the recommendations contained in the preferred plan for
54	regional wastewater services submitted to the council by the executive.
55	The metropolitan King County council's regional water quality committee
56	deliberations of the proposed legislation included public comments at its
57	meetings and special meetings throughout the county. The council heard
58	public comment during its deliberations as the committee of the whole. A
59	public hearing was held before the full council prior to adoption of the
60	plan.
61	6. In accordance with the state Environmental Policy Act, chapter 43.21C
62	RCW, King County issued a determination of environmental significance
63	for the regional wastewater services plan on September 1, 1994, conducted

64	a forty-five-day scoping process for the determination, prepared and
65	circulated a draft environmental impact statement on May 7, 1997,
66	provided a ninety-day comment period, held five public hearings on the
67	draft environmental impact statement and prepared and circulated a final
68	environmental impact statement on April 27, 1998.
69	7. The Regional Wastewater Services Plan ("RWSP") was adopted by the
70	King County council in November 1999 by Ordinance 13680 and
71	subsequently codified in K.C.C. chapter 28.86.
72	8. The RWSP is a supplement to the King County comprehensive water
73	pollution abatement plan. The RWSP identifies projects and programs
74	needed to provide wastewater capacity for homes and businesses in the
75	wastewater service area through the year 2030. The RWSP also provides
76	policy direction for the operation and continued development of the
77	wastewater system and its capital improvement program.
78	9. In 2001, the King County council adopted Ordinance 14219 amending
79	and adding financial policies to the RWSP relating to the sewage
80	treatment capacity charge; and amending Ordinance 13680, Section 1, as
81	amended, and K.C.C. 28.86.010 and Ordinance 13680, Section 16, as
82	amended, and K.C.C. 28.86.160.
83	10. In 2003, the King County council adopted Ordinance 14712 amending
84	and adopting policies relating to odor control at wastewater treatment
85	plants and conveyance facilities; and amending Ordinance 13680, Section
86	5, and K.C.C. 28.86.050.

87	11. In May 2004, the King County executive, in accordance with RWSP
88	policy WWPP-5 regarding monitoring and reviewing the implementation
89	of the RWSP, submitted the 2004 Regional Wastewater Update to the
90	King County council and the regional water quality committee ("RWQC")
91	for review.
92	12. The regional water quality committee was briefed on the 2004 RWSP
93	Update by executive and council staff in May, June, July, September and
94	October 2004. The regional water quality committee directed committee
95	staff to work with executive staff and intergovernmental staff representing
96	caucus interests of the committee to conduct further review of potential
97	technical and substantive amendments to RWSP policies based upon the
98	2004 RWSP Update and implementation of the RWSP policies since its
99	adoption in 1999.
100	13. Committee staff, executive and intergovernmental staff met regularly
101	during the latter months of 2004 and throughout 2005 and consulted
102	regularly with members of the RWQC regarding potential policy
103	amendments and briefed the committee intermittently at regularly
104	scheduled committee meetings regarding progress on the review. In
105	addition, committee staff arranged briefings before the committee, based
106	on committee member requests, on a range of topics and subject matter
107	related to the implementation of RWSP policies subsequent to the 2004
108	RWSP Update. In 2005, these briefings included updates on the regional
109	needs assessment regarding conveyance capacity and potential capital

110	facility improvements needed, infiltration and inflow policy
111	implementation and treatment plant policy implementation, including
112	progress on the Brightwater environmental review, permitting and
113	mitigation progress.
114	14. Committee staff at the direction of the committee members organized
115	a peer review of the population and flow projections contained in the 2004
116	RWSP Update. The peer review was facilitated and staffed by consultants
117	and staff to the King County department of natural resources and parks in
118	spring, 2005. The regional water quality committee was subsequently
119	briefed on the outcome of the peer review and recommendations of those
120	technical and intergovernmental staff who participated in the review.
121	15. Committee staff, executive staff and intergovernmental staff met with
122	an ad-hoc committee of the regional water quality committee in August
123	and September, 2005 to discuss potential technical and substantive
124	amendments to RWSP policies.
125	16. Committee and executive staff briefed the committee in June,
126	September and November 2005 regarding recommended changes to
127	RWSP policies and other ordinances regarding reporting requirements to
128	provide information on implementation of RSWP policies and progress in
129	particular on major capital projects, including Brightwater. The executive
130	subsequently submitted legislation to amend RWSP reporting
131	requirements. Ordinance 15384 eliminates redundancies in the reporting
132	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.

178	TPP-4: King County's goal is to prevent and control nuisance odor occurrences at
179	all treatment plants and associated conveyance facilities and will carry out an odor
180	prevention program that goes beyond traditional odor control. To achieve these goals,
181	the following policies shall be implemented:
182	1. Existing treatment facilities shall be retrofit in a phased manner up to the

- 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 supply plans. 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.

((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

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247	selection of a site. The King County executive shall establish one or more committees to
248	aid in the siting of a north treatment plant. The committees shall, at a minimum, evaluate
249	siting criteria to be used and propose a narrowed list of sites for consideration by the
250	executive after consulting with the council as follows:
251	1. The King County executive shall transmit a motion to the council that
252	establishes the criteria by which sites will be selected; and
253	2. The executive shall provide the council with timely reports that detail the
254	sites that meet the criteria and are under consideration and, at a later date, those sites that
255	are final candidates for the siting of the north treatment plant.
256	TPP-10: Based on criteria approved by the council, the King County executive
257	shall have the final decision on the site for a north treatment plant.))
258	SECTION 2. Ordinance 13680, Section 6, and K.C.C. 28.86.060 are each hereby
259	amended to read as follows:
260	Conveyance policies (CP).
261	A. Explanatory material. The conveyance policies are intended to guide how
262	major improvements to the wastewater conveyance system, including building and
263	upgrading the pipes and pump stations needed to convey wastewater to the ((north))
264	Brightwater treatment plant and building the outfall pipe from the ((north)) Brightwater

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

service area and to prevent improper discharges from the sanitary system.

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

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Interceptor shall be constructed.

270	B. Policies.
271	CP-1: To protect public health and water quality, King County shall plan, design
272	and construct county wastewater facilities to avoid sanitary sewer overflows.
273	1. The twenty-year ((design)) peak flow storm shall be used as the design
274	standard for the county's separated wastewater system.
275	2. Parameters developed by the wastewater treatment division in consultation
276	with the Metropolitan Water Pollution Abatement Advisory Committee shall be used to
277	guide project scheduling and prioritization for separated wastewater system projects.
278	3. The south treatment plant effluent transfer system shall be designed with a five-
279	year design storm standard. When effluent volumes exceed the five-year design standard
280	and exceed the capacity of the south treatment plant effluent transfer system, secondary
281	treated effluent from the south treatment plant will be discharged to the Green/Duwamish
282	river until the flow subsides such that the flow can be discharged through the south
283	treatment plant effluent transfer system.
284	CP-2: King County shall construct the necessary wastewater conveyance facilities,
285	including, but not limited to pipelines, pumps and regulators, to convey wastewater from
286	component agencies to the treatment plants for treatment and to convey treated effluent to
287	water bodies for discharge. Conveyance facilities shall be constructed during the planning
288	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

291	CP-3: King County shall periodically evaluate population and employment growth
292	assumptions and development pattern assumptions used to size conveyance facilities to
293	allow for flexibility to convey future flows that may differ from previous estimates.
294	CP-4: ((The King County executive shall prepare and submit to the council
295	recommended policies for achieving uniform financing, construction, operation,
296	maintenance and replacement of all conveyance facilities within its service area.)) King
297	County shall apply uniform criteria throughout its service area for the financing,
298	development, ownership, operation, maintenance, repair and replacement of all conveyance
299	facilities. The criteria shall include:
300	1. County ownership and operation of permanent conveyance facilities that serve
301	natural drainage areas of greater than one thousand acres;
302	2. Conformance to the county's comprehensive water pollution abatement plan
303	and the Regional Wastewater Services Plan as a precondition of county ownership; and
304	3. A financial feasibility threshold governing limitations of the county's financial
305	contribution to: development of a new interceptor or trunk sewer; or acquisition of an
306	interceptor or trunk sewer constructed by a local agency. The threshold, as specified in
307	K.C.C. 28.84.080, shall consider the capital costs that can be supported by the existing
308	customers in the natural drainage area that would be served by the new facility.
309	CP-5: King County shall closely integrate water reuse planning and I/I study
310	results with planning for wastewater conveyance and treatment facilities. ((Water
311	conservation and demand management assumptions shall also be coordinated with
312	wastewater facility planning.)) King County shall consider water conservation and demand
313	management assumptions developed by local utilities for wastewater facility planning.

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((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 ı	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

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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.

403	CSOCP-3: Where King County is responsible for stormwater as a result of a CSC
404	control project, the county shall participate with the city of Seattle in the municipal
405	stormwater national pollutant discharge elimination system permit application process.
406	CSOCP-4: Although King County's wastewater collection system is impacted by
407	the intrusion of clean stormwater, conveyance and treatment facilities shall not be
408	designed for the interception, collection and treatment of clean stormwater.
409	CSOCP-5: King County shall accept stormwater runoff from industrial sources
410	and shall establish a fee to capture the cost of transporting and treating this stormwater.
411	Specific authorization for such discharge is required.
112	CSOCP-6: King County, in conjunction with the city of Seattle, shall implement
113	stormwater management programs in a cooperative manner that results in a coordinated
114	joint effort and avoids duplicative or conflicting programs.
115	CSOCP-7: ((King County shall develop a long-range sediment management
116	strategy to prioritize clean up of contaminated sediments at specific CSO locations.))
117	King County shall implement its long-range sediment management strategy to address its
118	portion of responsibility for contaminated sediment locations associated with county
19	CSOs and other facilities and properties. Where applicable, the county shall implement
20	and cost share sediment remediation activities in partnership with other public and private
21	parties, including the county's current agreement with the Lower Duwamish Waterway
22	Group, the Department of Ecology and the Environmental Protection Agency, under the
23	federal Comprehensive Environmental Response, Compensation and Liability Act.
24	CSOCP-8: ((King County shall use the results of the 1998 water quality
25	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))

472	facilitate the development of a water reuse program to help meet the goals of the county to
473	preserve water supplies within the region and to ensure that any reclaimed water
474	reintroduced into the environment will protect the water quality of the receiving water body
475	and the aquatic environment.
476	WRP-2: ((Within twelve months of the adoptions of this plan,)) By December
477	2007, the King County executive shall prepare for review by council ((5)) a Reclaimed
478	Water Feasibility Study as part of a Regional Water Supply Plan which will include a
479	((detailed work)) comprehensive financial business plan including tasks and schedule for
480	the development of a water reuse program and a process to coordinate with affected tribal
481	and local governments and the state and area citizens. ((Accompanying the work plan shall
482	be a list of potential pilot projects and associated costs. Development of the water reuse
483	program shall be coordinated with development of a regional water supply plans.)) The
484	Reclaimed Water Feasibility Study shall be reviewed by the RWQC. At a minimum the
485	feasibility study shall comply with chapter 90.46 RCW and include:
486	1. Review of new technologies for feasibility and cost effectiveness, that may be
487	applicable for future wastewater planning;
488	2. Review of revenue sources other than the wastewater rate for distribution of
489	reused water;
490	3. Detailed review and an update of a regional market analysis for reused water;
491	4. Review of possible environmental benefits of reused water; and
492	5. Review of regional benefits of reused water.
493	WRP-3: Recycling and reusing reclaimed water shall be investigated as a possible
494	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 ((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.

517	WRP-6: King County shall work with local water purveyors, including when the
518	local purveyors update their water comprehensive plans, to evaluate the opportunities for
519	water reuse within their local service area.
520	WRP-7: King County shall develop an active water reuse public education and
521	involvement program to correspond with the development of the water reuse program and
522	be coordinated with other water conservation education programs.
523	WRP-8: King County shall utilize a forum or multiple forums to provide
524	opportunities for coordination and communication with the Washington state Departments
525	of Health and Ecology, which have the principal state regulatory roles in the planning,
526	design and construction of reuse facilities. The county shall involve other parties on these
527	forums, including but not limited to, the Corps of Engineers, Washington state Department
528	of Fish and Wildlife, National Marine Fisheries Service, United States Fish and Wildlife
529	Service, regional water suppliers, tribal governments, local water and wastewater districts,
530	cities, local health departments, watershed forums and environmental and community
531	groups.
532	WRP-9: King County shall work, on a case-by-case basis, with the Washington
533	state Departments of Health and Ecology on water reuse projects including, but not limited
534	to, those that are not specifically cited in the 1997 Department of Health and Ecology
535	Water Reclamation and Reuse Standards.
536	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.

538	WRP-11: King County's water reuse program projects shall not impair any existing
539	water rights unless compensation or mitigation for such impairment is agreed to by the
540	holder of the affected water rights.
541	WRP-12: King County shall retain the flexibility to produce and distribute
542	reclaimed water at all treatment plants including retaining options to add additional levels
543	of treatment.
544	WRP-13: King County shall continue to ((fund)) evaluate potential funding of
545	pilot-scale and water reuse ((demonstration)) projects, in whole or in part, from the
546	wastewater utility rate base.
547	WRP-14: King County shall complete an economic and financial feasibility
548	assessment, including environmental benefits, of its water reuse program. The
549	assessment shall include the analysis of marginal costs including stranded costs and
550	benefits to estimate equitable cost splits between participating governmental agencies and
551	utilities. The assessment shall also include a review of existing and planned water and
552	wastewater facilities in an approved plan to ensure that water reuse facilities are justified
553	when any resulting redundant capacity as well as other factors are taken into account.
554	WRP-15: King County should pursue development of a water reuse program to
555	discharge reclaimed water to reduce freshwater consumption used in the operation of the
556	Ballard Locks ((as a priority water reuse project)) when environmental regulations,
557	environmental benefits and financial conditions merit this investment and new program.
558	SECTION 6. Ordinance 13680, Section 11, and K.C.C. 28.86.110 are each
559	hereby amended to read as follows:
560	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 ((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 as identified 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

630	operating difficulties are created. The county shall establish a rate to recover costs from
631	accepting sewage, septage and biosolids from outside its service area.
632	WWSP-13: King County shall identify the potential for "liability protection" for
633	component agencies for unexpected costs associated with water quality requirements.
634	WWSP-14: King County shall continue its long-standing commitment to research
635	and development funding relating to water quality and technologies for the wastewater
636	system.
637	WWSP-15: King County will consider development and operation of community
638	treatment systems under the following circumstances:
639	1. The systems are necessary to alleviate existing documented public health
640	hazards or water quality impairment;
641	2. Connections to public sewers tributary to conventional wastewater treatment
642	facilities are not technically or economically feasible;
643	3. Installation of on-site septic systems is not technically feasible;
644	4. Properties to be served by said systems are within the jurisdiction and service
645	area of a local government authority authorized to provide sewer service;
646	5. The local sewer service provider agrees to own and operate the collection
647	system tributary to the community treatment system;
648	6. Development of the community systems and provision of sewer service are
649	consistent with all applicable utility and land use plans; and
650	7. Public sewer extensions shall be in compliance with King County
651	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.

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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 council in 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)) $\underline{8}$: 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)) $\underline{9}$: 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 RWOC.

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-((8)) 11: The county shall structure bond covenants to ensure a prudent budget standard.

744	FP- $((9))$ 12: King County should structure the term of its borrowings to match the
745	expected useful life of the assets to be funded.
746	FP- $((10))$ 13: The wastewater system's capital program shall be financed
747	predominantly by annual staged issues of long-term general obligation or sewer revenue
748	bonds, provided that:
749	All available sources of grants are utilized to offset targeted program costs;
750	Funds available after operations and reserves are provided for shall be used for
751	the capital program; excess funds accumulated in reserves may also be used for capital;
752	Consideration is given to competing demands for use of the county's overall
753	general obligation debt capacity; and
754	Consideration is given to the overall level of debt financing that can be sustained
755	over the long term given the size of the future capital programs, potential impacts on
756	credit ratings, and other relevant factors such as intergenerational rate equity and the
757	types of projects appropriately financed with long-term debt.
758	FP-((11)) 14: To achieve a better maturity matching of assets and liabilities,
759	thereby reducing interest rate risk, short-term borrowing shall be used to fund a portion of
760	the capital program, provided that:
761	Outstanding short-term debt comprises no more than fifteen percent of total
762	outstanding revenue bonds and general obligation bonds; and
763	Appropriate liquidity is available to protect the day-to-day operations of the
764	system.
765	3. Rates - sewer rates and capacity charge.

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serve existing customers.

766	FP- $((12))$ 15: King County shall charge its customers sewer rates and capacity
767	charges sufficient to cover the costs of constructing and operating its wastewater system.
768	Revenues shall be sufficient to maintain capital assets in sound working condition,
769	providing for maintenance and rehabilitation of facilities so that total system costs are
770	minimized while continuing to provide reliable, high quality service and maintaining high
771	water quality standards.
772	1. Existing and new sewer customers shall each contribute to the cost of the
773	wastewater system as follows:
774	a. Existing customers shall pay through the monthly sewer rate for the portion
775 .	of the existing and expanded conveyance and treatment system that serves existing
776	customers.
777	b. New customers shall pay costs associated with the portion of the existing
778	wastewater conveyance and treatment system that serves new customers and costs
779	associated with expanding the system to serve new customers. New customers shall pay
780	these costs through a combination of the monthly sewer rate and the capacity charge.
781	Such rates and charges shall be designated to have growth pay for growth.
782	2. Sewer rate. King County shall maintain a uniform monthly sewer rate
783	expressed as charges per residential customer equivalent for all customers.
784	a. Sewer rates shall be designed to generate revenue sufficient to cover, at a
785	minimum, all costs of system operation and maintenance and all capital costs incurred to

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:

\[\text{total system costs} = \text{rate revenue from existing customers} \] = \text{Rate revenue from new customers} \]
\[\text{Capacity} = \text{number of new customers} \]
Charge

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.

826	d. The capacity charge shall be set such that each new customer shall pay an
827	equal share of the costs of facilities allocated to new customers, regardless of what year
828	the customer connects to the system. The capacity charge shall be based upon the costs,
829	customer growth and related financial assumptions used for the Regional Wastewater
830	Services Plan adopted by Ordinance 13680 as such assumptions may be updated.
831	Customer growth and projected costs, including inflation, shall be updated every three
832	years beginning in 2003.
833	e. The county should periodically review the capacity charge to ensure that the
834	actual costs of system expansion to serve new customers are reflected in the charge. All
835	reasonable steps should be taken to coordinate the imposition, collection of and
836	accounting for rates and charges with component agencies to reduce redundant program
837	overhead costs.
838	f. Existing customers shall pay the monthly capacity charge established at the
839	time they connected to the system as currently enacted by K.C.C. 28.84.055. New
840	customers shall pay the capacity charge established at the time they connect to the
841	system.
842	g. To ensure that the capacity charge will not exceed the costs of facilities
843	needed to serve new customers, costs assigned and allocated to new customers shall be at
844	a minimum ninety five percent of the projected capital costs of new and existing
845	treatment, conveyance and biosolids capacity needed to serve new customers.
846	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

848	customers, and the capital costs of assessing and reducing infiltration and inflow related
849	to the use of the existing conveyance and treatment capacity.
850	i. Capital costs of combined sewer overflow control shall be paid by existing
851	and new customers based on their average proportionate share of total customers over the
852	life of the RWSP.
853	j. Operations and maintenance costs shall be paid by existing and new
854	customers in the uniform monthly rate based on their annual proportionate share of total
855	customers.
856	k. Any costs not allocated in FP-12.3 f, g, h, i and j shall be paid by existing
857	and new customers in the sewer rate.
858	1. Upon implementation of these explicit policies, the Seattle combined sewer
859	overflow benefit charge shall be discontinued.
860	4. Based on an analysis of residential water consumption, as of December 13,
861	1999, King County uses a factor of seven hundred fifty cubic feet per month to convert
862	water consumption of volume-based customers to residential customer equivalents for
863	billing purposes. King County shall periodically review the appropriateness of this factor
864	to ensure that all accounts pay their fair share of the cost of the wastewater system.
865	FP-((13)) 16: The executive shall prepare and submit to the council a report in
866	support of the proposed monthly sewer rates for the next year, including the following
867	information:
868	Key assumptions: key financial assumptions such as inflation, bond interest rates,
869	investment income, size and timing of bond issues, and the considerations underlying the

projection of future growth in residential customer equivalents;

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871	Significant financial projections: all key projections, including the annual
872	projection of operating and capital costs, debt service coverage, cash balances, revenue
873	requirements, revenue projections and a discussion of significant factors that impact the
874	degree of uncertainty associated with the projections;
875	Historical data: a discussion of the accuracy of the projections of costs and
876	revenues from previous recent budgets, and
877	Policy options: calculations or analyses, or both, of the effect of certain policy
878	options on the overall revenue requirement. These options should include alternative
879	capital program accomplishment percentages (including a ninety percent, a ninety-five
880	percent and a one hundred percent accomplishment rate), and the rate shall be selected
881	that most accurately matches historical performance in accomplishing the capital program
882	and that shall not negatively impair the bond rating.
883	FP-((14)) 17. Expenditures from the wastewater revenues to correct water
884	pollution problems caused by septic systems shall occur only if such expenditures
885	financially benefit wastewater system current customers when the additional monthly
886	sewer rate revenues from these added customers are considered.
887	FP-((15)) 18: The cost of community treatment systems developed and operated
888	in accordance with WWSP-15 would not be subsidized by the remaining ratepayers of
889	the county's wastewater treatment system.
890	SECTION 7. Ordinance 13680, Section 18, and K.C.C. 28.86.180 are each
891	hereby amended to read as follows:
892	Implementation.

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((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)

938	Construct six million gallons of off-line storage at North Creek (2002)
939	Construct North Lake Interceptor and pump station to extend from the
940	McAleer/Lyon Trunk to the Kenmore Pump Station sized to create ten
941	million gallons of storage (2006 or sooner if possible)
942	Construct forcemain from new Kenmore Pump Station to North treatment
943	plant (2010)
944	Construct one hundred twenty mgd pump station at Kenmore to pump to
945	North treatment plant (2010)
946	Construct tunnel from North treatment plant to Puget Sound, sized to
947	accommodate ultimate plant buildout (2010)
948	Construct North treatment plant outfall, sized to accommodate ultimate
949	plant buildout (2010)
950	Construct three to five million gallons of storage at south treatment plant to
951	achieve a five-year design storm standard of protection for the Effluent
952	Transfer System (2030)
953	Construct Auburn Interceptor Storage (2020)
954	Increase North Creek Pump Station to fifty mgd (2016)
955	Modify York Pump Station to pump thirty-five mgd north (2016)
956	Construct force main to convey flows from North Creek to Kenmore Pump
957	Station (2016)
958	b. King County will construct additional conveyance improvements (e.g.,
959	increasing conveyance and pump station capacity and extending conveyance) to
960	accommodate increased flows in other parts of the service area to serve population growth

in the smaller wastewater service basins and to prevent improper discharges from the sanitary system.

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

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

4. CSOs.

a. CSO projects shall be prioritized based on first controlling discharges that impact bathing beaches and species listed under ESA. The second priority is other CSO locations that have the potential to affect public health and safety. Third priority are all other CSO locations. The estimated cost for CSO control projects is two hundred twenty million dollars, 1998 net present value. These project areas should be completed on the following schedule:

	- Project areas and projects	Completion period
- 1	Puget Sound beaches	2009-2011
	Norfolk 0.8 million gallon (MG) st	orage tank
	South Magnolia 1.3 MG storage tar	n k
	SW Alaska 0.7 MG storage tank	
	Murray 0.8 MG storage tank	

984		Barton Pump Station (PS) Upgrade	
985		North Beach storage tank & PS upgrade	
986	2	Lake Washington ship canal, east side	- 2015
987		—University/Montlake 7.5 MG storage tank	
988	3	Duwamish River and Elliott Bay shoreline	2017-2027
989		Hanford #2 3.3 MG storage/treatment tank	
990	· · · · · · · · · · · · · · · · · · ·	Lander 1.5 MG storage/treatment tank	
991		Michigan 2.2 MG storage/treatment tank	
992		Brandon 0.8 MG storage/treatment tank	
993		Chelan 4.0 MG storage tank	
994		Connecticut 2.1 MG storage/treatment tank	
995		King Street conveyance to Connecticut	<i>;</i>
996	· ·	Hanford at Rainier 0.6 MG storage tank	
997		8th Ave. S 1.0 MG storage tank	
998			
999		Terminal 115 0.5 MG storage tank	
1000		Lake Washington ship canal, west side	2029-2030
1001		Ballard 1.0 MG storage tank	
1002		3rd Ave W 5.0 MG storage tank	
1003		11th Ave NW 2.0 MG storage tank	
1004	Other	West treatment plant - primary and secondary	
1005		treatment enhancements to handle increased	
1006		flows from CSO projects	2018

1007	b. The CSO projects may include:
1008	(1) constructing large undergrou

- (1) constructing large underground tanks and tunnels to store combined flows during storms. These flows would then be pumped to the west treatment plant once the rain subsides; and
- (2) treating the combined sewage at existing CSO outfall locations using technology to remove solids and disinfect the combined sewage before discharge.

Refinements to the CSO program may be required in response to changing conditions and new information. The listing of species under the ESA may affect project priorities, schedule and associated mitigation options.

5. Biosolids.

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

As part of planning for the north treatment plant, King County should evaluate conventional, alternative and new solids processing technologies using criteria such as product quality (class A or B), marketability, odor and other potential community impacts, impact on sewer rates, reliability of the treatment process, amount of land needed for the treatment facility and the number of truck trips needed to transport the biosolids produced.

1029	Based on the results of this evaluation and public comment, the executive should
1030	recommend one of three biosolids handling scenarios at any or all of the treatment plants:
1031	(1) continue using anaerobic digestion;
1032	(2) supplement anaerobic digestion with another treatment technology; or
1033	(3) replace anaerobic digestion with another treatment technology.
1034	b. The estimated costs for the expanded solids handling facilities needed at both
1035	the new north treatment plant and the south treatment plant are eighty-five million dollars
1036	net present value.
1037	c. The county should continue using a public-private partnership approach to
1038	recycling biosolids such as using biosolids on working forests in King County to enhance
1039	wildlife habitat and generate long-term income from selective timber harvests.
1040	6. Water reuse program. The south and west treatment plants should continue to
1041	produce reclaimed water for nonpotable uses and explore the production of reclaimed water
1042	at new facilities. The work plan for the water reuse program is to be prepared no later than
1043	twelve months from the adoption of the RWSP. King County will work with water
1044	suppliers to plan and implement an accelerated water reuse program that could augment
1045	existing water supplies.
1046	If a public education and involvement program on water reuse is to be developed
1047	and implemented, it shall be coordinated with water conservation education programs. The
1048	estimated cost to evaluate potential future uses of reclaimed water and conduct pilot studies
1049	and demonstration projects is ((twenty million)) dollars net present value.
1050	7. Community treatment systems.

1051	a. Any operations under these policies shall require an operational master plan as
1052	described in K.C.C. 4.04.200 C.1. Failure to submit such a plan shall cause the affected
1053	capital improvement project to be out of compliance with these policies.
1054	b. In addition to the requirements of K.K.C. 4.04.200 C.1 an operational master
1055	plan submitted under these policies shall include:
1056	(1) description of career retention programs that are to be structured in a
1057	manner consistent with the King County/Metro merger, labor law and King County's labor
1058	contracts;
1059	(2) an engineering evaluation that confirms that the selected projects are most
1060	cost effective and technically efficacious and consistent with King County growth
1061	management policies for the surrounding area; and
1062	(3) explanation of how King County participation in community treatment
1063	systems is consistent with other water pollution abatement activities of the department of
1064	natural resources and parks, which currently operates centralized wastewater treatment
1065	facilities as contrasted with community treatment systems.
1066	C. The executive is hereby authorized to begin implementation of the RWSP
1067	pursuant to the 1999 capital improvement program appropriation. Implementation beyond
1068	1999 may proceed, provided that there is an approved operational master plan and the six-
1069	year capital improvement plan is updated in the 2000 adopted budget to reflect the adopted
1070	RWSP.))
1071	A. The RWSP operational master plan that was adopted by council in December
.072	1999, shall be updated on a regular basis following substantive adopted policy revisions
073	to the RWSP and shall meet the requirements of K C C chanter 4.04

1074	B. The operational master plan shall contain projects related to major program
1075	elements and shall further define as necessary the major projects, projected capacity,
1076	milestones, projected completion dates, and estimated costs.
1077	1. Treatment capacity.
1078	a. Population and employment growth is projected to require the wastewater
1079	system capacity to expand from two hundred forty-eight mgd to three hundred four mgd
1080	by 2030. The estimated cost and list of treatment facilities and improvements to achieve
1081	this expanded capacity by 2030, shall be included in future RWSP operational master
1082	plans, summarized in RWSP annual reports and comprehensive reviews as outlined in
1083	<u>K.C.C. 28.86.165.</u>
1084	b. The Brightwater treatment plant at the Route 9 site shall be built with a
1085	capacity of thirty-six mgd by 2010 or as soon thereafter as possible to handle wastewater

- 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.

1118

<u>28.86.165.</u>

1097	d. The west treatment plant will be maintained at its capacity of one hundred
1098	thirty-three mgd, primarily to serve the city of Seattle and handle flows from the
1099	combined sewers in the area. Additional facilities may be planned in the year 2018 to
1100	accommodate the extended peak CSO flows that will occur after storms once CSO
1101	control projects are constructed.
1102	2. Conveyance facilities.
1103	a. Conveyance facilities are to be configured, sized, and scheduled to support
1104	the treatment plants by conveying wastewater to and treated effluent from the plants. The
1105	estimated cost, schedule and list of conveyance facility improvements, shall be included
1106	in future RWSP operational master plans, summarized in RWSP annual reports and
1107	comprehensive reviews as outlined in K.C.C. 28.86.165.
1108	b. King County will construct additional conveyance improvements (e.g.,
1109	increasing conveyance and pump station capacity and extending conveyance) to
1110	accommodate increased flows in other parts of the service area to serve population
1111	growth in the smaller wastewater service basins and to prevent improper discharges from
1112	the sanitary system.
1113	3. I/I control.
1114	a. The I/I control program shall be implemented incrementally and be limited
1115	to projects that prove to be most cost effective. The estimated cost, schedule and list of
1116	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.

1119	b. The goal of the I/I control program is to reduce the expense of conveyance
1120	system improvements over time. Every ten years, beginning in 2010, the wastewater
1121	treatment division will conduct system monitoring to update hydraulic models and
1122	measure the effectiveness of I/I control and reduction in the system.
1123	4. CSOs.
1124	a. CSOs shall be prioritized based on first controlling discharges that impact
1125	human health, bathing beaches and/or species listed under ESA. The second priority is
1126	other CSO locations that have the potential to affect public health and safety. Third
1127	priority are all other CSO locations. The estimated cost, schedule and list of CSO control
1128	projects, will be reported in the CSO program review (preceding the west treatment plant
1129	NPDES permit renewal), and shall be included in future RWSP operational master plans,
1130	summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C.
1131	28.86.165.
1132	b. CSO projects may include:
1133	(1) constructing large underground tanks and tunnels to store combined flows
1134	during storms. These flows would then be pumped to the west treatment plant once the
1135	rain subsides; and
1136	(2) treating the combined sewage at existing CSO outfall locations using
1137	technology to remove solids and disinfect the combined sewage before discharge.
1138	c. Refinements to the CSO program may be required in response to changing
1139	conditions and new information. The listing of species under the ESA may affect project
1140	priorities, schedules, and associated mitigation options.
1141	5. Biosolids.

1142	a. King County will continue to produce Class B biosolids using anaerobic
1143	digestion at the south and west treatment plants and to implement the same process at the
1144	Brightwater treatment plant until a new technology can be used reliably. The plan also
1145	proposes that the county continue to evaluate alternative technologies to reduce the water
1146	content of biosolids while preserving their marketability. The primary objective of this
1147	evaluation will be to identify alternatives to digesters at the west treatment plant, a
1148	condition of the West Point Settlement Agreement.
1149	b. As part of ongoing planning for its treatment plants, King County will
1150	periodically evaluate conventional, alternative and new solids processing technologies
1151	using criteria such as product quality (class A or B), marketability, odor and other
1152	potential community impacts, impact on sewer rates, reliability of the treatment process,
1153	amount of land needed for the treatment facility and the number of truck trips needed to
1154	transport the biosolids produced. Based on the results of this evaluation and public
1155	comment, the executive should recommend one of three biosolids handling scenarios at
1156	any of all of the treatment plants:
1157	(1) continue using anaerobic digestion;
1158	(2) supplement anaerobic digestion with another treatment technology; or
1159	(3) replace anaerobic digestion with another treatment technology.
1160	c. The estimated cost, schedule and list of biosolids improvement projects,
1161	shall be included in future RWSP operational master plans, summarized in RWSP annual
1162	reports and comprehensive reviews as outlined in K.C.C. 28.86.165.

1163	d. The county should continue using a public-private partnership approach to
1164	recycling biosolids such as using biosolids on working forests in King County to enhance
1165	wildlife habitat and generate long-term income from selective timber harvests.
1166	6. Water reuse.
1167	a. The south and west treatment plants should continue to produce reclaimed
1168	water for non-potable uses and explore the production of reclaimed water at new
1169	facilities. King County will explore the production of reclaimed water at new facilities
1170	and work with water suppliers to plan and implement an accelerated water reuse program
1171	that could augment existing water supplies.
1172	b. If a public education and involvement program on water reuse is to be
1173	developed and implemented, it shall be coordinated with water conservation education
1174	programs. The estimated cost, schedule and list of water reuse projects, shall be included
1175	in future RWSP operational master plans, summarized in RWSP annual reports and
1176	comprehensive reviews as outlined in K.C.C. 28.86.165.
1177	7. Community treatment systems.
1178	a. Any operations under these policies shall require an operational master plan
1179	as described in K.C.C. 4.04.200.C.1. Failure to submit such a plan shall cause the
1180	affected capital improvement project to be out of compliance with these polices.
1181	b. In addition to the requirements of K.K.C. 4.04.200.C.1., an operational
1182	master plan submitted under these policies shall include:
1183	(1) description of career retention programs that are to be structured in a
1184	manner consistent with the King County/metro merger, labor law and King County's
1185	labor contracts;

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1186	(2) an engineering evaluation that confirms that the selected projects are most
1187	cost effective and technically efficacious and consistent with King County growth
1188	management policies for the surrounding area; and
1189	(3) explanation of how King County participation in community treatment
1190	systems is consistent with other water pollution abatement activities of the department of

1191 natural resources and parks, which currently operates centralized wastewater treatment 1192 facilities as contrasted with community treatment systems. 1193 Ordinance 15602 was introduced on 12/5/2005 and passed by the Metropolitan King County Council on 9/25/2006, by the following vote: Yes: 8 - Mr. Phillips, Mr. von Reichbauer, Ms. Lambert, Mr. Dunn, Mr. Ferguson, Mr. Gossett, Mr. Constantine and Ms. Patterson No: 0 Excused: 1 - Ms. Hague KING COUNTY COUNCIL ATTEST: Anne Noris, Clerk of the Council Ron Sims, County Executive Attachments None