



King County

Metropolitan King County Council

Regional Water Quality Committee

Staff Report

Agenda Item No.: 7 **Name:** Beth Mountsier
Proposed Ordinance No.: 2013-0147 **Date:** May 1, 2013
Attending: Debra Ross, Water Quality Planner, Wastewater Treatment Division, Department of Natural Resources and Parks

SUBJECT:

AN ORDINANCE relating to combined sewer overflow control policies, amending Ordinance 13680, Section 8 as amended and K.C.C. 28.86.080 and Ordinance 13680, Section 18 as amended and K.C.C. 28.86.180.

SUMMARY:

Proposed Ordinance 2013-0147 revises the policies guiding King County's combined sewer overflow (CSO) control program that are a part of the Regional Wastewater Services Plan (RWSP) and codified in King County Code. The policy revisions were developed per the direction of Ordinance 17413 which approved the update to King County's long-term CSO control plan. Ordinance 17413 called for review and proposal of potential revisions to the policies to ensure they aligned with the updated long-term CSO control plan.

The recommendations for the policy revisions were developed in close collaboration with the Metropolitan Water Pollution Abatement Advisory Committee, which provides advice to both the Executive and Council.

The proposed ordinance revises and adopts policies to guide the County's CSO control program including the following changes to existing CSO control policies:

- Explicitly stating the County's CSOs will be controlled to Environmental Protection Agency (EPA) and Department of Ecology (Ecology) standards by the end of 2030
- Incorporating green stormwater infrastructure where technologically feasible and cost-effective
- Implementing a water quality assessment and monitoring study consistent with the guidance provided in Ordinance 17413.

The proposed amendments also make appropriate technical changes.

BACKGROUND:

Combined sewer overflows are discharges of untreated or partially treated sewage and stormwater released directly into marine waters, lakes and rivers during heavy rainfall, when the sewers have reached their capacity. Although the sewage in CSOs is greatly diluted by stormwater, both CSOs and stormwater may be harmful to public health and aquatic life because they carry chemicals and disease-causing pathogens.

Most recently, King County adopted the 2012 CSO Control Plan Update and an amendment to its long term combined sewer overflow control plan (Ordinance 17413) to be submitted to Ecology with the next NPDES permit renewal for West Point. It was developed to provide the control strategies and updated schedule for construction of projects to address the remaining CSO outfalls that do not meet state standards. It was also understood that the approved 2012 CSO plan would become part of the consent decree with Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology).

To date, out of the thirty-eight CSO sites in the regional wastewater system, sixteen of the sites are controlled to the Department of Ecology's standard of no more than one overflow per year. Of the remaining CSO locations, three are being refined and adjusted to meet the control standard, five CSO control projects are currently in design. Fourteen sites remain uncontrolled and are addressed through nine projects (2 treatment plants and 7 storage facilities) in the 2012 Update and were the primary concern of a recently agreed to consent decree.

The CSO control policies in the RWSP are intended to guide the county in controlling CSO discharges. They are over-arching policies that provide the foundation for the long-term control plan and the implementation of the CSO Control Program in the Wastewater Treatment Division.

ANALYSIS:

As noted above, the policy review and potential revisions were called for in Ordinance 17413 to ensure all of the codified policies were consistent with the recent adoption of an updated long-term CSO control plan.

The recommended changes to the policies make them more explicit regarding the timing of completion of CSO Control projects and the standards for CSO control as stipulated by the state. The recommended changes also incorporate references to the consent decree with EPA and Ecology and some of the specific terms of the decree. In addition, the policy revisions recognize the changes in technology and incorporate references to the potential use of green infrastructure.

The proposed policy revisions are consistent with the new long-term CSO control plan and the approved consent decree with EPA and Ecology. Therefore the the proposed policy revisions meet the direction provided in Ordinance 17413.

A full crosswalk of the existing policy, the proposed amended policy (or new policy) and the rationale for the change, including MWPAACs recommendations are summarized in Attachment 1 to this staff report.

Committee members inquired during the April 2013 briefing on this matter, if the policies explicitly note the option to potentially re-sequence CSO projects – as more information is gathered via a pending 2013 Budget Proviso report or the anticipated CSO related water quality assessment. The proposed policies do not directly address re-sequencing of projects, but the committee may want to consider an amendment to address this issue.

REASONABLENESS

The proposed revisions to the policies to update them and provide more specificity is consistent with the intermittent review and updating of RWSP policies. It is reasonable to make the updates to the CSO policies at this time via Proposed Ordinance 2013—147.

ATTACHMENTS:

1. Crosswalk of Recommended Amendments to Combined Sewer Overflow Control Policies, King County Code Chapter 28.86
2. Proposed Ordinance 2013-0147

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Recommended Amendments to Combined Sewer Overflow Control Policies, King County Code Chapter 28.86

| Existing Policies | Proposed Ordinance 2013-0147 | Rationale |
|---|---|--|
| <p>From Combined Sewer Overflow Control Policies, King County Code 28.86.080 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.</p> | <p>From Combined Sewer Overflow Control Policies, King County Code 28.86.080 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.</p> | <p>This is consistent with the County’s long-term CSO plan that was updated in September 2012.</p> <p>The Engineering and Planning Subcommittee of the Metropolitan Water Pollution Abatement Advisory Committee (E&P) suggested keeping this portion more general and adding specificity on the priorities in CSOCP-2.</p> |
| <p>B. Policies. CSOCP-1: King County shall plan to control CSO discharges to 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.</p> | <p>B. Policies. CSOCP-1: King County shall plan to control <u>its</u> CSO discharges <u>by the end of 2030 to meet:</u> <u>1. the state’s CSO control standard of an average of one untreated discharge per CSO outfall per year based on a twenty-year moving average, and</u> <u>2. conditions of national pollutant discharge elimination system (“NPDES”) permit requirements, and</u> <u>3. conditions of the Environmental Protection Agency (“EPA”)/Washington state Department of Ecology (“Ecology”) Consent Decree.</u>((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.))</p> | <p>Proposed amendments are consistent with the approved amendment to the County’s long-term CSO plan:</p> <ul style="list-style-type: none"> • Adds that the completion date to achieve CSO control is 2030 • Reconfirms the County’s commitment to meet the state’s CSO control standard, permit requirements, and EPA/Ecology Consent Decree • Defines the state standard as suggested by E&P. • |
| | <p>CSOCP-2: <u>King County shall continue to work with state and federal agencies to develop cost-effective regulations that</u></p> | <p>There was a suggestion from E&P that this portion of the original</p> |

| Existing Policies | Proposed Ordinance 2013-0147 | Rationale |
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| | <p><u>protect water quality. King County shall meet the requirements of state and federal regulations and agreements.</u></p> | <p>CSOCP-1 be a separate policy.</p> |
| <p>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.</p> | <p>CSOCP-((2))3: ((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.))</p> <p><u>Consistent with the EPA/Ecology Consent Decree and the county’s long-term CSO control plan as approved through Ordinance 17413, King County shall give the highest priority for control to CSO discharges that have the highest potential to impact:</u></p> <p><u>1. human health through contact with CSO flows or fish consumption, or</u></p> <p><u>2. environmental health, such as in areas where sediment remediation is under way or anticipated, or species listed under ESA.</u></p> | <p>Language was added to be consistent with the approved amendment to the County’s long-term CSO plan. At the suggestion of E&P, language was added to better describe “highest priority”.</p> |
| <p>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.</p> | <p>((CSOCP4: 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.))</p> <p><u>CSOCP-((3))4: Consistent with its legal authority, if King County constructs new projects that would separate stormwater from its combined system that result in separated stormwater discharges to waterways, the county shall coordinate with the city of Seattle in the city’s municipal stormwater NPDES permit (MS4) process as appropriate.</u></p> | <p>Based on discussion with E&P, the proposed amendment clarifies that the policy provides guidance for new projects.</p> |
| <p>CSOCP-4: Although King County’s wastewater collection system is impacted by the intrusion of clean stormwater.</p> | <p>CSOCP-((4))5: ((Although King County’s wastewater collection system is impacted by the intrusion of clean</p> | <p>Proposed amendments reconfirm that (1) King County’s facilities</p> |

| Existing Policies | Proposed Ordinance 2013-0147 | Rationale |
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| <p>Traditionally, conveyance and treatment facilities shall not be designed for the interception, collection and treatment of clean stormwater.</p> | <p>stormwater. Traditionally, conveyance and treatment facilities shall not be designed for the interception, collection and treatment of clean stormwater.) <u>King County’s wastewater conveyance and treatment facilities shall not be designed to intercept, collect and treat new sources of stormwater. However, King County may evaluate benefits and impacts to the county system from accepting stormwater from Seattle that is not currently in the combined system and shall consider factors including, but not limited to existing capacity, benefits and costs to ratepayers and the regional system, operational impacts, payment to county for value of the use of available capacity and for the costs of conveyance and treatment of new sources of stormwater and compliance with state and federal regulations and commitments.</u></p> | <p>shall not be designed for new sources of stormwater and (2) requires the county to consider the benefits, costs and impacts of accepting new sources of stormwater from Seattle if such a request were to occur.</p> |
| <p>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.</p> | <p>CSOCP-(5)6: <u>In accordance with King County’s industrial waste rules and regulations, including K.C.C. 28.84.050K.1 and K.C.C. 28.84.060, the county shall accept contaminated 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.</u></p> | <p>Proposed amendments make the language consistent with King County Code 28.82.380 (definition of Industrial waste), and respond to a suggestion from E&P to acknowledge that the policy is in accordance with industrial waste rules and regulations.</p> |
| | <p>CSOCP-7: <u>King County shall consider implementing green stormwater infrastructure projects to control CSOs when results of technical, engineering, and benefit/cost analyses and modeling demonstrate it is a viable and cost-effective CSO control method.</u></p> | <p>Based on discussion with E&P, a specific policy related to green stormwater infrastructure was added to recognize that decisions would be based on results of specific analyses and modeling.</p> |
| <p>CSOCP-6: King County shall implement stormwater management programs in a cooperative manner that results in a coordinated joint effort and avoids duplicative or conflicting programs.</p> | <p>CSOCP-(6)8: <u>King County(, in conjunction with the city of Seattle,) shall consider implementing joint CSO control projects with the city of Seattle when it is cost-effective, is within county legal authorities and can be accomplished</u></p> | <p>Language was added to incorporate information on potential joint projects with Seattle, consistent with the</p> |

| Existing Policies | Proposed Ordinance 2013-0147 | Rationale |
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| | <p><u>within the schedule outlined in the EPA/Ecology Consent Decree and the county’s approved long-term CSO control plan. ((stormwater management programs in a cooperative manner that results in a coordinated joint effort and avoids duplicative or conflicting programs.))</u></p> | <p>Consent Decree and Council-approved amendment to the long-term CSO control plan.</p> |
| <p>CSOCP-7: King County shall implement its long-range sediment management strategy to address its portion of responsibility for contaminated sediment locations associated with county CSOs and other facilities and properties. Where applicable, the county shall implement and cost share sediment remediation activities in partnership with other public and private parties, including the county's current agreement with the Lower Duwamish Waterway Group, the Department of Ecology and the Environmental Protection Agency, under the federal Comprehensive Environmental Response, Compensation and Liability Act.</p> | <p>CSOCP-((7))9: 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)) EPA, under the federal Comprehensive Environmental Response, Compensation and Liability Act.</p> | <p>No substantive changes were made as this policy remains consistent with the County’s Sediment Management Plan.</p> |
| <p>CSOCP-8: King County shall assess CSO control projects, priorities and opportunities using the most current studies available, for each CSO Control Plan Update as required by the Department of Ecology in the NPDES permit renewal process, which is approximately every five to seven years. Before completion of an NPDES required CSO Control Plan Update, the executive shall submit a CSO program review to the council and RWQC. Based on its consideration of the CSO program review, the RWQC may make recommendations for modifying or amending the CSO program to the council.</p> | <p>CSOCP-((8))10: <u>Consistent with the EPA/Ecology Consent Decree</u> King County shall assess CSO control projects, priorities and opportunities using the most current studies <u>and information</u> available, for each CSO Control Plan ((Update)) <u>Amendment</u> as required by the Department of Ecology in the NPDES permit renewal process, which is approximately every five to seven years. ((Before completion of an NPDES required CSO Control Plan Update, the executive shall submit a CSO program review to the council and RWQC. Based on its consideration of the CSO program review, the RWQC may make recommendations for modifying or amending the CSO program to the council.))</p> | <p>Language was added to be consistent with the CSO Control Plan Amendment and the Consent Decree. Based on discussion with E&P, this policy was split into two policies – see CSOCP-11 below. The term “Amendment” is consistent with Ecology’s use of term and the Washington Administrative Code.</p> |
| | <p><u>CSOCP-11: Before completion of an NPDES required CSO Control Plan Amendment, the executive shall submit a CSO program review report to the council and RWQC. Based on its consideration of the CSO program review, the RWQC may</u></p> | <p>This language was moved from CSOCP-8 with the exception of the last sentence which recognizes that EPA and Ecology</p> |

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| | <p><u>make recommendations for modifying or amending the CSO program to the council. Any future updates or amendments to the county's long-term CSO control plan are subject to EPA and Ecology approvals.</u></p> | <p>must approve any future CSO Control Plan Amendment.</p> |
| <p>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.</p> | <p>((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.))</p> | <p>This policy has been fully implemented. The CSO control program review referred to in the policy was submitted to the King County Council in April 2006. No new projects were initiated prior to the submittal of that CSO program review.</p> <p>The projects that were under way as of December 13, 1999 have been completed. The Alki transfer of base flow was completed in 1998 and conversion of the plant to CSO treatment was finished in 2000. The Mercer Elliott/West and the Henderson/Norfolk systems were completed in 2005.</p> <p>Information related to program reviews is current and included in existing CSOCP-8 (now CSOCP-11).</p> |
| | <p><u>CSCOP-12: King County shall implement its CSO control projects in accordance with the EPA/Ecology Consent Decree and the schedule outlined in the county's approved long-term CSO control plan.</u></p> | <p>This proposed policy was developed to be consistent with the County's approved long-term CSO control plan and Consent Decree.</p> |
| | <p><u>CSOCP-13: King County shall prepare a water quality assessment and monitoring study, consistent with the</u></p> | <p>This proposed policy was developed to be consistent with</p> |

| Existing Policies | Proposed Ordinance 2013-0147 | Rationale |
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| | <p><u>guidance provided in Ordinance 17413 and other applicable legal requirements, to inform the next combined sewer overflow control program review in 2018.</u></p> | <p>Ordinance 17413 regarding the water quality assessment and monitoring study.</p> |
| <p>Mention of CSOs under RWSP Implementation: 28.86.180 Implementation <i>Under Treatment Capacity:</i> d. The west treatment plant will be maintained at its capacity of one hundred thirty-three mgd, primarily to serve the city of Seattle and handle flows from the combined sewers in the area. Additional facilities may be planned in the year 2018 to accommodate the extended peak CSO flows that will occur after storms once CSO control projects are constructed. 4. CSOs. a. CSOs shall be prioritized based on first controlling discharges that impact human health, bathing beaches and/or species listed under ESA. The second priority is other CSO locations that have the potential to affect public health and safety. Third priority are all other CSO locations. The estimated cost, schedule and list of CSO control projects, will be reported in the CSO program review (preceding the west treatment plant NPDES permit renewal), and shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165. b. CSO projects may include: (1) constructing large underground tanks and tunnels to store combined flows during storms. These flows would then be pumped to the west treatment plant once the rain subsides; and (2) treating the combined sewage at existing CSO outfall locations using technology to remove solids and disinfect the combined sewage before discharge.</p> | <p>Mention of CSOs under RWSP Implementation: 28.86.180 Implementation <i>Under Treatment Capacity:</i> d. The west <u>point</u> treatment plant will be maintained at its capacity of one hundred thirty-three mgd, primarily to serve the city of Seattle and handle flows from the combined sewers in the area. <u>Additional facilities may be planned in the year 2018 to accommodate the extended peak CSO flows that will occur after storms once CSO control projects are constructed.</u> 4. CSOs. a. ((CSOs shall be prioritized based on first controlling discharges that impact human health, bathing beaches and/or species listed under ESA. The second priority is other CSO locations that have the potential to affect public health and safety. Third priority are all other CSO locations. The estimated cost, schedule and list of CSO control projects, will be reported in the CSO program review (preceding the west treatment plant NPDES permit renewal), and shall be included in future RWSP operational master plans, summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C. 28.86.165.))<u>The county shall implement CSO control projects consistent with the schedule outlined in the county’s long-term CSO control plan as approved in attachment A of Ordinance 14713 and the Ecology/EPA Consent Decree..</u> b. ((CSO projects may include: —(1) constructing large underground tanks and tunnels to store combined flows during storms. These flows would then be pumped to the west treatment plant once the rain subsides; and</p> | <p>This updates the implementation portion of the RWSP to be consistent with the County’s approved amendment to the long-term CSO control plan and Consent Decree. There are no longer plans to add facilities at West Point Treatment Plant in 2018. King County Code 28.86.165 (RWSP reporting policies) includes the information related to reporting requirements for the CSO control program.</p> |

| Existing Policies | Proposed Ordinance 2013-0147 | Rationale |
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| <p>c. Refinements to the CSO program may be required in response to changing conditions and new information. The listing of species under the ESA may affect project priorities, schedules, and associated mitigation options.</p> | <p>— (2) treating the combined sewage at existing CSO outfall locations using technology to remove solids and disinfect the combined sewage before discharge.) ((e.) <u>Consistent with the EPA/Ecology Consent Decree the county may request ((R)) refinements to the CSO program ((may be required)) in response to changing conditions, (and) new information, and new regulations. ((The listing of species under the ESA may affect project priorities, schedules, and associated mitigation options.))</u>)</p> | |

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KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

April 26, 2013

Ordinance

Proposed No. 2013-0147.1

Sponsors Phillips

1 AN ORDINANCE relating to combined sewer overflow
2 control policies, amending Ordinance 13680, Section 8 as
3 amended and K.C.C. 28.86.080 and Ordinance 13680,
4 Section 18 as amended and K.C.C. 28.86.180.

5 STATEMENT OF FACTS:

6 1. Ordinance 17413, approving an amendment to the county's long-term
7 combined sewer overflow ("CSO") control plan was adopted on
8 September 17, 2012.

9 2. Ordinance 17413, Section 1, E. requires the King County executive to
10 propose legislation to revise policies for the Regional Wastewater Services
11 Plan to be consistent with the amended long-term CSO control plan within
12 six months following the adoption of this ordinance.

13 BE IT ORDAINED BY THE COUNCIL OF KINGCOUNTY:

14 SECTION 1. Ordinance 13680, Section 8 as amended, and K.C.C. 28.86.080 are
15 hereby amended to read as follows:

16 A. Explanatory material. The CSO control policies are intended to guide the
17 county in controlling CSO discharges. Highest priority for controlling CSO discharges is
18 directed at those that pose the greatest risk to human health (~~(, particularly at bathing~~
19 ~~beaches,))~~ and environmental health (~~(, particularly those that threaten species listed~~

20 ~~under ESA~~). The county will continue to work with federal, state and local jurisdictions
21 on regulations, permits and programs related to CSOs and stormwater. The county will
22 also continue its development of CSO programs and projects based on assessments of
23 water quality and contaminated sediments.

24 B. Policies.

25 CSOCP-1: King County shall plan to control its CSO discharges by the end of
26 2030 to meet:

27 1. the state’s CSO control standard of an average of one untreated discharge per
28 CSO outfall per year based on a twenty-year moving average, and

29 2. conditions of national pollutant discharge elimination system (“NPDES”)
30 permit requirements, and

31 3. conditions of the Environmental Protection Agency (“EPA”)/Washington
32 state Department of Ecology (“Ecology”) Consent Decree.~~((and to work with state and~~
33 ~~federal agencies to develop cost effective regulations that protect water quality. King~~
34 ~~County shall meet the requirements of state and federal regulations and agreements.))~~

35 CSOCP-2: King County shall continue to work with state and federal agencies to
36 develop cost-effective regulations that protect water quality. King County shall meet the
37 requirements of state and federal regulations and agreements.

38 CSOCP-~~((2))~~3: ~~((King County shall give the highest priority for control to CSO~~
39 ~~discharges that have the highest potential to impact human health, bathing beaches and/or~~
40 ~~species listed under ESA.))~~ Consistent with the EPA/Ecology Consent Decree and the
41 county’s long-term CSO control plan as approved through Ordinance 17413, King

42 County shall give the highest priority for control of CSO discharges that have the highest
43 potential to impact:

- 44 1. human health through contact with CSO flows or fish consumption, or
- 45 2. environmental health, such as in areas where sediment remediation is under
46 way or anticipated or where there is potential to impact species listed under ESA.

47 CSOCP-((3))4: ~~((Where King County is responsible for stormwater as a result of~~
48 ~~a CSO control project, the county shall participate with the city of Seattle in the~~
49 ~~municipal stormwater national pollutant discharge elimination system permit application~~
50 ~~process.))~~Consistent with its legal authority, if King County constructs new projects that
51 would separate stormwater from its combined system that result in separated stormwater
52 discharges to waterways, the county shall coordinate with the city of Seattle in the city's
53 municipal stormwater NPDES permit (MS4) process as appropriate.

54 CSOCP-((4))5: ~~((Although King County's wastewater collection system is~~
55 ~~impacted by the intrusion of clean stormwater, conveyance and treatment facilities shall~~
56 ~~not be designed for the interception, collection and treatment of clean stormwater.))~~King
57 County's wastewater conveyance and treatment facilities shall not be designed to
58 intercept, collect and treat new sources of stormwater. However, King County may
59 evaluate benefits and impacts to the county system from accepting stormwater from the
60 city of Seattle that is not currently in the combined system and shall consider factors
61 including, but not limited to existing capacity, benefits and costs to ratepayers and the
62 regional system, operational impacts, payment to county for value of the use of available
63 capacity and for the costs of conveyance and treatment of new sources of stormwater, and
64 compliance with state and federal regulations and commitments.

65 CSOCP-~~((5))~~6: In accordance with King County's industrial waste rules and
66 regulations, including K.C.C. 28.84.050K.1 and K.C.C. 28.84.060, the county shall
67 accept contaminated stormwater runoff from industrial sources and shall establish a fee to
68 capture the cost of transporting and treating this stormwater. Specific authorization for
69 such discharge is required.

70 CSOCP-7: King County shall consider implementing green stormwater
71 infrastructure projects to control CSOs when results of technical, engineering, and
72 benefit/cost analyses and modeling demonstrate it is a viable and cost-effective CSO
73 control method.

74 CSOCP-~~((6))~~8: King County(~~(, in conjunction with the city of Seattle,)~~) shall
75 consider implementing joint CSO control projects with the city of Seattle when it is cost-
76 effective, is within county legal authorities and can be accomplished within the schedule
77 outlined in the EPA/Ecology Consent Decree and the county's approved long-term CSO
78 control plan.~~((stormwater management programs in a cooperative manner that results in a~~
79 ~~coordinated joint effort and avoids duplicative or conflicting programs.))~~

80 CSOCP-~~((7))~~9: King County shall implement its long-range sediment
81 management strategy to address its portion of responsibility for contaminated sediment
82 locations associated with county CSOs and other facilities and properties. Where
83 applicable, the county shall implement and cost share sediment remediation activities in
84 partnership with other public and private parties, including the county's current
85 agreement with the Lower Duwamish Waterway Group,~~((the Department of))~~ Ecology
86 and the~~((Environmental Protection Agency))~~ EPA, under the federal Comprehensive
87 Environmental Response, Compensation and Liability Act.

88 CSOCP-((8))10: Consistent with the EPA/Ecology Consent Decree, King County
89 shall assess CSO control projects, priorities and opportunities using the most current
90 studies and information available, for each CSO Control Plan((Update))Amendment as
91 required by((the Department of))Ecology in the NPDES permit renewal process((, which
92 is approximately every five to seven years. Before completion of an NPDES required
93 CSO Control Plan Update, the executive shall submit a CSO program review to the
94 council and RWQC. Based on its consideration of the CSO program review, the RWQC
95 may make recommendations for modifying or amending the CSO program to the
96 council)).

97 ((CSOCP 9: Unless specifically approved by the council, no new projects shall
98 be undertaken by the county until the CSO program review has been presented to the
99 council for its consideration. CSO project approval prior to completion of CSO program
100 review (beyond those authorized in this subsection) may be granted based on, but not
101 limited to, the following: availability of grant funding; opportunities for increased cost-
102 effectiveness through joint projects with other agencies; ensuring compliance with new
103 regulatory requirements; or responding to emergency public health situations. The
104 council shall request advice from the RWQC when considering new CSO projects. King
105 County shall continue implementation of CSO control projects underway as of December
106 13, 1999, which are the Denny way, Henderson/Martin Luther King, Jr. way/Norfolk,
107 Harbor and Alki CSO treatment plants:))

108 CSOCP-11: Before completion of an NPDES-required CSO Control Plan
109 Amendment, the executive shall submit a CSO program review report to the council and
110 RWQC. Based on its consideration of the CSO program review, the RWQC may make

111 recommendations for modifying or amending the CSO program to the council. Any
112 future updates or amendments to the county's long-term CSO control plan are subject to
113 EPA and Ecology approvals.

114 CSCOP-12: King County shall implement its CSO control projects in accordance
115 with the EPA/Ecology Consent Decree and the schedule outlined in the county's
116 approved long-term CSO control plan.

117 CSOCP-13: King County shall prepare a water quality assessment and
118 monitoring study, consistent with the guidance provided in Ordinance 17413 and other
119 applicable legal requirements, to inform the next combined sewer overflow control
120 program review in 2018.

121 SECTION 2. Ordinance 13680, Section 18 as amended, and K.C.C. 28.86.180
122 are hereby amended to read as follows:

123 A. The RWSP operational master plan that was adopted by council in December
124 1999, shall be updated on a regular basis following substantive adopted policy revisions
125 to the RWSP, and shall meet the requirements of K.C.C. chapter 4.04.

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

129 1. Treatment capacity.

130 a. Population and employment growth is projected to require the wastewater
131 system capacity to expand from two hundred forty-eight mgd to three hundred four mgd
132 by 2030. The estimated cost and list of treatment facilities and improvements to achieve
133 this expanded capacity by 2030, shall be included in future RWSP operational master

134 plans, summarized in RWSP annual reports and comprehensive reviews as outlined in
135 K.C.C. 28.86.165.

136 b. The Brightwater treatment plant at the Route 9 site shall be built with a
137 capacity of thirty-six mgd by 2010 or as soon thereafter as possible to handle wastewater
138 flows from a new north service area as defined in the plan. This plant would provide
139 secondary treatment and would discharge treated effluent to Puget Sound. To facilitate
140 the production of reclaimed water, the possibility of upgrading to tertiary treatment with a
141 freshwater outfall should be investigated prior to subsequent expansions.

142 c. Expanding the treatment capacity at the south treatment plant from one
143 hundred fifteen mgd to one hundred thirty-five mgd by 2029. This expansion would
144 handle increased wastewater flows from the southern and eastern portions of the service
145 area. Some or all of the plant capacity could also be upgraded to tertiary treatment, to
146 meet water quality standards or facilitate water reuse, as part of future expansions or in
147 additions to the secondary level of treatment using available land reserves at the plant
148 site.

149 d. The west point treatment plant will be maintained at its capacity of one
150 hundred thirty-three mgd, primarily to serve the city of Seattle and handle flows from the
151 combined sewers in the area. ~~((Additional facilities may be planned in the year 2018 to
152 accommodate the extended peak CSO flows that will occur after storms once CSO
153 control projects are constructed.))~~

154 2. Conveyance facilities.

155 a. Conveyance facilities are to be configured, sized, and scheduled to support
156 the treatment plants by conveying wastewater to and treated effluent from the plants. The

157 estimated cost, schedule and list of conveyance facility improvements, shall be included
158 in future RWSP operational master plans, summarized in RWSP annual reports and
159 comprehensive reviews as outlined in K.C.C. 28.86.165.

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

165 3. I/I control.

166 a. The I/I control program shall be implemented incrementally and be limited
167 to projects that prove to be most cost effective. The estimated cost, schedule and list of
168 I/I improvement projects, shall be included in future RWSP operational master plans,
169 summarized in RWSP annual reports and comprehensive reviews as outlined in K.C.C.
170 28.86.165.

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

175 4. CSOs.

176 a. The county shall implement CSO control projects consistent with the
177 schedule outlined in the county's long-term CSO control plan as approved in attachment
178 A of Ordinance 14713 and the Ecology/EPA Consent Decree.~~((CSOs shall be prioritized~~
179 ~~based on first controlling discharges that impact human health, bathing beaches and/or~~

180 species listed under ESA. The second priority is other CSO locations that have the
181 potential to affect public health and safety. Third priority are all other CSO locations.
182 The estimated cost, schedule and list of CSO control projects, will be reported in the CSO
183 program review (preceding the west treatment plant NPDES permit renewal), and shall
184 be included in future RWSP operational master plans, summarized in RWSP annual
185 reports and comprehensive reviews as outlined in K.C.C. 28.86.165.))

186 b. ((CSO projects may include:

187 _____(1) constructing large underground tanks and tunnels to store combined flows
188 during storms. These flows would then be pumped to the west treatment plant once the
189 rain subsides; and

190 _____(2) treating the combined sewage at existing CSO outfall locations using
191 technology to remove solids and disinfect the combined sewage before discharge.

192 _____e.))Consistent with the EPA/Ecology Consent Decree, the county may request
193 ((R))refinements to the CSO program((may be required)) in response to changing
194 conditions,((and))new information, and new regulations. ((The listing of species under
195 the ESA may affect project priorities, schedules, and associated mitigation options.))

196 5. Biosolids.

197 a. King County will continue to produce Class B biosolids using anaerobic
198 digestion at the south and west treatment plants and to implement the same process at the
199 Brightwater treatment plant until a new technology can be used reliably. The plan also
200 proposes that the county continue to evaluate alternative technologies to reduce the water
201 content of biosolids while preserving their marketability. The primary objective of this

202 evaluation will be to identify alternatives to digesters at the west treatment plant, a
203 condition of the West Point Settlement Agreement.

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

- 212 (1) continue using anaerobic digestion;
- 213 (2) supplement anaerobic digestion with another treatment technology; or
- 214 (3) replace anaerobic digestion with another treatment technology.

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

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

221 6. Water reuse.

222 a. The south and west treatment plants should continue to produce reclaimed
223 water for non-potable uses and explore the production of reclaimed water at new
224 facilities. King County will explore the production of reclaimed water at new facilities

225 and work with water suppliers to plan and implement an accelerated water reuse program
226 that could augment existing water supplies.

227 b. If a public education and involvement program on water reuse is to be
228 developed and implemented, it shall be coordinated with water conservation education
229 programs. The estimated cost, schedule and list of water reuse projects, shall be included
230 in future RWSP operational master plans, summarized in RWSP annual reports and
231 comprehensive reviews as outlined in K.C.C. 28.86.165.

232 7. Community treatment systems.

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

236 b. In addition to the requirements of K.C.C. 4.04.200.C.1, an operational
237 master plan submitted under these policies shall include:

238 (1) description of career retention programs that are to be structured in a
239 manner consistent with the King County/metro merger, labor law and King County's
240 labor contracts;

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

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

248

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Larry Gossett, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Dow Constantine, County Executive

Attachments: None