

MWPAAC RWSP Policy Review Task Force  
Discussion/Proposed Amendments  
Conveyance Policies  
*WORKING DRAFT*

Existing Conveyance Policies K.C.C. 28.86.060	Task Force Proposed Amendments as of September 30, 2014	Comments/Discussion at MWPAAC RWSP Policy Review Task Force Meetings	Sub-committee and full MWPAAC Comments
<p>A. Explanatory material. The conveyance policies are intended to guide how major improvements to the wastewater conveyance system, including building and upgrading the pipes and pump stations needed to convey wastewater to the Brightwater treatment plant and building the outfall pipe from the Brightwater treatment plant, will be accomplished. The policies also include guidance for other major and minor conveyance improvements to accommodate increased flows in other parts of the service area and to prevent improper discharges from the sanitary system.</p>	<p>The conveyance policies are intended to guide how major improvements <del>to the wastewater conveyance system, including building and upgrading the pipes and pump stations needed to convey wastewater to the Brightwater treatment plant and building the outfall pipe from the Brightwater treatment plant,</del> will be accomplished. <del>The policies also include guidance for other major and minor conveyance improvements in the county’s regional wastewater conveyance system</del> to accommodate increased flows <del>in other parts of the service area</del> and to prevent improper discharges from the <u>regional sanitary</u> system.</p>	<p>July 24 meeting: There was discussion that County staff should attempt to amend to make current, now that Brightwater is built and operational. *****</p> <p>Aug. 21 meeting: There was general discussion on the conveyance policies and whether or not they apply only to the separated system, or if they should also apply to the combined system. WTD staff noted that the RWSP conveyance policies provide guidance to the separated system and the CSO control policies guide the CSO program and combined system. There were questions on which policies apply if separated flows go into combined pipes, and it was noted that the CSO control policies do not mention conveyance, but predominantly deal with CSO treatment, overflows, and sediment management. There was a comment that it’s important that the preamble, or explanatory material of the specific policy subject matter be clear.</p> <p>Some felt it made sense to have the conveyance policies include all conveyance for the separated and combined system; others noted that it is important to keep the conveyance policies for the separated system and for the combined system in separate policies. One advantage was noted of keeping them separate: if someone were to look for policy guidance on CSOs, there would be one set of policies to look at versus two sets.</p> <p>(WTD staff attempted to reflect this discussion in the CSO control policies.) *****</p> <p>Sept. 30 meeting: There was discussion that conveyance policies should apply to both the combined and separated system. It was decided that all conveyance related policies should be under the category of conveyance.</p>	<p><i>Full MWPAAC approved the Task Force proposed amendments at its March 25, 2015 meeting.</i></p> <p><i>From Rates and Finance Committee meeting on Dec. 4, 2014:</i></p> <ul style="list-style-type: none"><li>• There was a suggestion that there be policy guidance relating to non-dispersible products and that only toilet paper should be flushed down the toilet.</li><li>• There was also a suggestion that there be policy guidance to stop support for the low-low flow toilets as one jurisdiction has had to remove some of the low-low flow toilets due to problems the low flows along with non-dispersible products were causing in gravity pipes; another member mentioned that others are still making progress with low flow toilets.</li></ul>
<p>CP-1: To protect public health and water quality, King County shall plan, design and construct county wastewater facilities to avoid sanitary sewer overflows.</p> <p>1. The twenty-year peak flow storm shall be used as the design standard for the county’s separated wastewater system.</p> <p>2. Parameters developed by the wastewater treatment division in consultation with the metropolitan water pollution abatement advisory committee shall be used to guide project scheduling</p>	<p>CP-1: To protect public health and water quality, King County shall plan, design and construct county wastewater facilities to avoid sanitary sewer overflows.</p> <p><u>1a.</u> The twenty-year peak flow storm shall be used as the design standard for the county’s separated wastewater system.</p> <p><u>1b. The one event per year standard shall be used as the design standard for the County’s combined wastewater system.</u></p> <p>2. Parameters <u>that have been</u> developed by the wastewater treatment division in consultation with the metropolitan water pollution abatement advisory committee shall be used to guide project scheduling and prioritization for <del>separated</del> wastewater</p>	<p>July 24 meeting: There was a question about if there are any potential regulatory changes related to #3, or if this remains as the current state of affairs. In discussion with WTD’s NPDES expert, there has been no need for any emergency discharges to the Green/Duwamish, and at this point in time, there is nothing to indicate any changes. The strike out language reflects what is in the Fact Sheet associated with the South Plant NPDES permit. It may also be that this really isn’t needed in the conveyance policies. *****</p> <p>Aug. 21 meeting:</p>	<p><i>From E&amp;P Subcommittee meeting on November 6, 2014:</i> There was a suggestion to add the word “overflow” after “The one” and before “event” in 1b.</p>

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and prioritization for separated wastewater system projects. 3. The south treatment plant effluent transfer system shall be designed with a five-year design storm standard. When effluent volumes exceed the five-year design standard and exceed the capacity of the south treatment plant effluent transfer system, secondary treated effluent from the south treatment plant will be discharged to the Green/Duwamish river until the flow subsides such that the flow can be discharged through the south treatment plant effluent transfer system.	system projects. <u>The parameters shall be reviewed and updated as needed as part of each comprehensive conveyance system improvement program update.</u> 3. The south treatment plant effluent transfer system shall be designed with a five-year design storm standard. When effluent volumes exceed <del>the five-year design standard and exceed</del> the capacity of the south treatment plant effluent transfer system, secondary treated effluent from the south treatment plant will be discharged to the Green/Duwamish river until the flow subsides such that the flow can be discharged through the south treatment plant effluent transfer system.	There was a question on whether or not parameters to guide project scheduling and prioritization for separated wastewater system projects have already been developed. It was noted they were developed with MWPAAC during the development of the 2007 CSI Program Update. There was a suggestion that the policy provide guidance for the parameters to be reviewed and included in each program update. The amended language strives to reflect this discussion. ***** Sept. 30 meeting: Discussion centered on what is the design standard for flows into the conveyance system and what is the distinction. The group decided to split 1 into 1a. and 1b. to differentiate between the design standards for the separated and combined system.	
CP-2: King County shall construct the necessary wastewater conveyance facilities, including, but not limited to pipelines, pumps and regulators, to convey wastewater from component agencies to the treatment plants for treatment and to convey treated effluent to water bodies for discharge. Conveyance facilities shall be constructed during the planning period of this plan to ensure that all treatment plants can ultimately operate at their rated capacities. No parallel eastside interceptor shall be constructed. No parallel Kenmore Interceptor shall be constructed.	No changes to existing policy.	July 24 meeting: There was discussion at July 24 meeting that the portion about “no parallel eastside interceptor...no parallel Kenmore interceptor...” is no longer needed since Brightwater is built and operating, eliminating the need for any such projects. WTD staff noted they have also wondered if it is time to take this language out; they noted it was very important during Council deliberations of the RWSP in 1998/1999. ***** Aug. 21 meeting: There was a comment that it is important to the City of Renton to keep in the information about “no parallel eastside interceptor shall be constructed”; because of this, the group felt both statements should be left in; therefore, no changes are being proposed.	
CP-3: King County shall periodically evaluate population and employment growth assumptions and development pattern assumptions used to size conveyance facilities to allow for flexibility to convey future flows that may differ from previous estimates. The following activities shall take place to confirm assumptions and conveyance improvement needs: 1. Field verification of wastewater flows and conveyance component conditions prior to implementation of regional conveyance capital projects that are intended to expand capacity of the system; and 2. Decennial flow monitoring to correspond with the Federal Census conducted every ten years.	No changes to existing policy.	Aug. 21 meeting: There was discussion about whether or not this policy also applies to CSO facilities. WTD staff mentioned that the CSI program update and CSO control program updates are on different schedules—the CSO program is reviewed every five years, per regulations, to coincide with the West Point Treatment Plant’s permit renewal.  There was discussion that the first paragraph in this policy should be added to the CSO policies, along with specificity associated with CSO conveyance sizing. (WTD staff attempted to reflect this discussion in the CSO control policies.)  In addition, there were questions raised regarding the industry standard. Some task force members commented that WTD builds capital projects based on worst-case scenario and the cost allocation follows that, but should be more nuanced. Should the issue of cost allocation be put in the financial policies? Members wanted this to be noted as a discussion point when the financial	

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		policies are reviewed.	
CP-4: The executive shall update the conveyance system improvement program every five years beginning in 2013 to ensure the program remains current. The program updates shall provide information on growth patterns, rate of growth and flow projections and report on how this information affects previously identified conveyance needs. The program updates shall also provide information on changed or new conveyance needs identified since the previous update.	CP-4: The executive shall <u>conduct a comprehensive</u> update <u>of</u> the conveyance system improvement program every <del>five</del> <u>ten</u> years <del>((beginning in 2013 to ensure the program remains current))</del> <u>to correspond with updated information from the Federal Census and to ensure the program remains current.</u> The <u>comprehensive</u> program updates shall provide information on growth patterns, rate of growth and flow projections and report on how this information affects previously identified conveyance needs. They <del>((program updates))</del> shall also provide information on changed or new conveyance needs identified since the previous update. <u>Periodic mid-term reviews with local agencies will occur as needed to check assumptions and growth patterns and verify project priorities.</u>	July 24 meeting: Amendments are an attempt to capture the discussion regarding the timeframe that makes the most sense to conduct a comprehensive review of the CSI program. *****  Aug. 21 meeting: There was discussion to add language about periodic mid-term reviews. The language added is an attempt to capture that discussion.	<i>From E&amp;P Subcommittee meeting on November 6, 2014:</i> There was a suggestion to add the words “including asset management needs” after “since the previous update” in the next to last sentence.
CP-5: King County shall apply uniform criteria throughout its service area for the financing, development, ownership, operation, maintenance, repair and replacement of all conveyance facilities. The criteria shall include:  1. County ownership and operation of permanent conveyance facilities that serve natural drainage areas of greater than one thousand acres;  2. Conformance to the county's comprehensive water pollution abatement plan and the Regional Wastewater Service Plan as precondition of county ownership; and  3. A financial feasibility threshold governing limitations of the county's financial contribution to: development of a new interceptor or trunk sewer; or acquisition of an interceptor or trunk sewer constructed by a local agency. The threshold, as specified in K.C.C. 28.84.080, shall consider the capital costs that can be supported by the existing customers in the natural drainage area that would be served by the new facility.	CP-5: King County shall apply uniform criteria throughout its service area for the financing, development, ownership, operation, maintenance, repair and replacement of all conveyance facilities. The criteria shall include:  1. County ownership and operation of permanent conveyance facilities that serve <del>((natural))</del> drainage areas of greater than one thousand acres;  2. Conformance to the county's comprehensive water pollution abatement plan and the Regional Wastewater Service Plan as precondition of county ownership; and  3. A financial feasibility threshold governing limitations of the county's financial contribution to: development of a new interceptor or trunk sewer; or acquisition of an interceptor or trunk sewer constructed by a local agency. The threshold, as specified in K.C.C. 28.84.080, shall consider the capital costs that can be supported by the existing customers in the <del>((natural))</del> drainage area that would be served by the new facility.	Aug. 21 discussion: The question was asked about why this policy refers to “natural” drainage areas, and what “natural” means. Some members suggested deleting the word “natural” from this policy, and the amended language reflects that.  <i>WTD checked with its experts about the use of the word “natural” in this policy. The term “natural” refers to where water went prior to constructed drainage or sewer systems. The definition of a regional trunk line originates with the original Metro plan, the Metropolitan Seattle Sewerage and Drainage Survey, 1956-1958. The plan states: “Trunk and Intercepting Sewers: For purposes of this report, the extent of trunk and intercepting sewer facilities is limited to minimum local service areas of approximately 1,000 acres. That is, trunk service is provided for each tributary natural drainage area to a point where not more than 1,000 acres remain beyond the upper end of the trunk. Local drainage areas smaller than 1,000 acres may, of course, be served along the route of the trunk sewer. Based on average population densities and ground slopes, this limitation results in a minimum trunk sewer size in the range of 12 to 15 inches in diameter. In establishing this definition of a trunk sewer, it is assumed that local sewerage service, i.e., local service trunk lines, laterals and house connections, will be provided by local agencies.”</i>  There was also discussion on whether or not the policy should be more mandatory or discretionary, and there was a question on how a determination is made to decide what infrastructure stays with the local agency or is acquired by the County.  There were also questions on sub-bullet 3 regarding financial	

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		feasibility threshold and the meaning behind King County Code (K.C.C.) 28.84.080. There was a suggestion to be more clear in this portion of the policy. Task force members noted that this policy is being discussed in the contracts subcommittee, and the task force intends to review any recommendations that are developed by the contracts subcommittee. K.C.C. 28.84.080 states: “Financial feasibility guideline for extension to the metropolitan sewage system. The allowable county expenditure for extensions to the metropolitan system shall be based on the capital cost that can be amortized by the customer charges paid to the county for sewer service by the residential customers and residential customer equivalents in the drainage basin to be served by the proposed extension. Only the portion of said charges attributable to the debt service and capital costs of the metropolitan system shall be used in the calculation of the capital cost that can be amortized. (Ord. 12963, 1998).”	
CP-6: King County shall closely integrate water reuse planning and I/I study results with planning for wastewater conveyance and treatment facilities. King County shall consider water conservation and demand management assumptions developed by local utilities for wastewater facility planning.	CP-6: King County shall <u>consider evolving technologies [e.g., water reuse, green stormwater infrastructure (GSI), Inflow and Infiltration (I/I) planning, water conservation, and zero discharge buildings]</u> <del>((closely integrate water reuse planning and I/I study results with))</del> <u>during project specific</u> planning for wastewater conveyance and treatment facilities. <del>((King County shall consider water conservation and demand management assumptions developed by local utilities for wastewater facility planning</del> <u>Factors such as operational, environmental and financial impacts, costs and benefits, and the net present value of alternatives shall be included in the evaluation of all feasible alternatives identified by the county. If these considerations lead the county to identify feasible alternatives to meet a conveyance system need, the county shall pursue such alternatives. King County shall coordinate with local agencies on such efforts.</u>	<p>Aug. 21 meeting:</p> <p>There was discussion on whether or not the reference to “I/I study results” should stay in, and if it’s only referring to County studies, as there have been several study results from county and local agencies’ work. Some thought it would be good to keep as is, and felt that the statement is general enough to refer to both county and local agencies’ I/I work; others thought it would be good to call out both, which is what the amended language attempts to capture.</p> <p>There were also comments that it seems to make sense to combine CP-6 and CP-7. It was noted that CP-7 was added during the process to develop the 2007 CSI Program Update. The amendments in this policy attempt to combine the two. *****</p> <p>Sept. 30 meeting</p> <p>There was discussion on I/I and conservation methods and if, and when it’s a priority. It was decided when sizing facilities – evolving technologies should be looked at and when developing long-term flows, one of these alternatives may be used.</p>	
CP-7: King County shall evaluate other demand management alternatives to meet identified conveyance needs, such as infiltration and inflow (I/I) reduction, water conservation, and reclaimed water facilities. Factors such as operational, environmental and financial impacts, costs and benefits, and the net	<del>((CP-7: King County shall evaluate other demand management alternatives to meet identified conveyance needs, such as infiltration and inflow (I/I) reduction, water conservation, and reclaimed water facilities. Factors such as operational, environmental and financial impacts, costs and benefits, and the net present value of alternatives shall be included in the</del>	<p>Aug. 21 meeting:</p> <p>There were comments to combine this policy with CP-6 (See amended CP-6 above). There were also questions on whether flow reduction in I/I should be included. It was noted that water conservation and reclaimed water facilities don’t have much impact on the sizing on conveyance pipes. A task force member</p>	

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present value of alternatives shall be included in the evaluation of all feasible alternatives identified by the county.	<del>evaluation of all feasible alternatives identified by the county.))</del>	suggested the term “water reuse” would be better than “reclaimed water facilities”.	