



TO: Marcy McInelly and Erika Warhus, King City Consultants

FROM: Jadene Stensland, PE

RE: Preliminary Draft Concept Plan and Funding Strategy for King City Urban Reserve Area (URA) 6D

DATE: January 26, 2018

Clean Water Services appreciates the opportunity to review and comment on the January 2018 Preliminary Draft Concept Plan and Funding Strategy for King City Urban Reserve Area (URA) 6D. Our primary concern is that a significant amount of sanitary and stormwater infrastructure is needed to make this area ready for development. It will take time to plan, fund, and build this infrastructure, and it will require close coordination between CWS, Washington County, Tigard and King City, as well as other partners. CWS is committed to working with our partner agencies on a more detailed infrastructure master plan, after the area is added to the UGB.

Clean Water Services offers the following comments on the draft concept plan and funding strategy:

Page 15: Remove the statement that drainages are significantly eroding due to development from the north. There are several factors that may have caused erosion, including soil type, climate change, agricultural practices, property owner land-use practices, as well as development.

Page 18: use a range for the natural area constraints, for example, 70 ac – 200+ acres (conservative vs pro-development). Using 70 ac gives the impression that the City understand more about the natural resources area. See range discussed on page 29.

Page 20 – 22: add text that sanitary and storm conveyance needs to be developed with the transportation projects

Page 24: Consultant needs to update narrative in Sanitary Constraints section. It is extremely unlikely that CWS would plan or allow numerous small developer pump stations (PS), located at each drainage. Other than the currently planned Roy Rogers Rd PS, CWS has not completed the analysis for the pipe conveyance nor future PS layout. Low laying area may be difficult to serve by gravity sanitary systems and will require significant planning efforts in conjunction with the transportation planning.

Page 24: Consultant needs to update language in storm drainage planned imp section. CWS stormwater management approaches optimize upland controls and enhance the natural resources to protect the water quality of the Tualatin River basin through a variety of tools, including grey infrastructure, green infrastructure and natural resource enhancements. (Please remove the text about the storm bypass pipe, as this is not necessarily the chosen approach)

Page 24: Consultant needs to update language in Storm Constraints section – rewrite this section, as it doesn't match style of other sections on this page. A list implies that it is complete list. Incorporate text into a narrative format for the stormwater management approaches. DSL/ACE (not CWS) regulate impacts to wetlands and waterways... please correct.

Page 29: Need to add to the assessment list of things to do: complete the local wetland Inventory (LWI) and significant natural resources Inventory (SNR) to document what is there and its value. City may want to consider a tree protection plan and the DOGAMI hazard map study for area too.

Page 30: Remove photo of Bethany Creek Falls (center)...it is not an appropriate photo to use in this concept plan, since it's not a natural feature. Please remove this photo from any stormwater or natural area sections of the report. Also that facility using active control, not passive control. Find a different site/photo for this call-out. Second call-out could be re-worded to "Stormwater Management Approaches" and don't use "regional stormwater retention pond" Third photo – update call out to "stormwater facility adjacent to a protected wetland"

Page 56 – consider adding tree protection plan language in park section. Does the city want to consider more significant tree protection in planned park areas?

Page 74 - In 5th bullet of storm drainage section, remove "in accordance with CWS MS4 permit" End sentence, "...impacts to the existing storm drainage system and creeks."

Page 74 – 76: Overall, the sanitary and stormwater sections need to be reworked. Like the transportation options, CWS doesn't currently have enough information to show this level of detail in the graphics. There needs to be more flexibility in the text wording as well as shown in the map graphics. Make graphic more like density/land use map (like pg 66 or 68) that indicates a "zone" – not showing actual locations. Show a polygon that may be served by gravity (above new E-W road) and areas that may be more difficult to serve and may need pumping (lowest areas of each drainage). Other than the placement of the Roy Rogers Rd PS, CWS has not completed the analysis for the pipe conveyance nor future pump station (PS) layout. In order to be flexible, the sanitary conveyance will be planned and constructed with the transportation projects.

Page 76: Only show one graphic, not PS option and gravity options. Update graphic to show general areas, as described in comment above. Consider connecting the black and purple pipes lines on the map to show the connection. Only show local "gravity flow" lines that match with planned streets and shown on other maps/graphics. Additional pipes give the impression that more is known and that sanitary planning has been completed.

Page 76: It is extremely unlikely that CWS would plan or allow 3 pump stations, located at each drainage. PS require a lot of maintenance so our strong preference will be to design as much of the system to flow by gravity. PS as well as pipe layout and configuration will be determined later. Remove these PS icons and replace with a polygon or other identifier that this area will be evaluated for conveyance.

Page 77 – Update language – don't use "detention" or "retention". Low Impact Development Approaches (LIDA) are Stormwater management approaches that optimize upland controls and enhance the natural resources to protect the water quality of the Tualatin River basin through a variety of tools, including grey infrastructure, green infrastructure and natural resource enhancements. Stormwater management approaches address water quality and impacts from post-development run-off.

Page 77 - Note that flood control is regulated by FEMA and Washington County, not CWS.

Pg 77 - remove photo of Bethany Creek Falls ...it is not an appropriate photo to use in this concept plan, since it's not a natural feature. Please remove this photo from any stormwater or natural area sections of the report.

Pg 80 – storm water facilities costs will be paid by developers, not CWS

Page 80: CWS reserves the right to conduct updates to its system development charges (SDCs) and may impose “supplemental SDCs” or “Regional Stormwater Management Charges” (RSMC) on URA 6D or subareas.

Page 81: remove “SS” dashed areas in graphics of sub pump station areas. As stated above, this graphic implies that CWS is considering 4 new PS, which is not correct. Make one polygon over the entire area to designate area served by gravity and/or PS.

Page 82: Explain which roads need culverts and why culverts are listed as a separate project and not part of the associated road improvement project.

Page 83: table only shows sanitary fees (called “sewer”) in table, but need to add row for stormwater management costs, which is more than the WQ fee.