

Summary of Engineering and Planning (E&P) Subcommittee November 5 and December 3, 2020 Meeting for December 2020 MWPAAC General Meeting

Asset Management – West Point Plant (Joint Topic with Rates and Finance)

In the 3rd and final presentation on asset management at WTD's 3 main treatment plants, Deputy Director Kessler described West Point's history and upgrades (1966-present) and the challenges that the plant faces. Like the other two plants, corrosion and chemical attack, aging control technology, and grit and rags require ongoing rehabilitation and maintenance of the equipment. West Point faces unique challenges from its marine environment that causes additional corrosion and its highly variable flow due to the combined sewer/stormwater system that flows to the plant.

Upcoming major asset improvements include:

- Raw sewage pumps - replacing the digester-gas fueled engines with electric motors and redundancy so that the plant can handle peak flows with one pump out of service
- Secondary aeration mixers – new equipment will be more energy efficient and sized to meet future flows and loadings
- Power monitoring upgrade and new switchgear
- Piping replacements
- Bypass weir - converting from a mechanical/electrical/hydraulic system to a passive system to increase reliability and reduce the risk of flooding to the plant
- Primary sedimentation tank roof removal – to prevent collapse during seismic event to protect workers and the primary treatment process

Infiltration/Inflow (I/I) Control Program Update

At the November subcommittee meeting, WTD presented the status of the Best Management Practices (BMPs) for I/I reduction in side sewers discussion with E&P's I/I Task Force. The consultant recommended BMPs under consideration are model language regarding unauthorized connections, courtesy notices when an agency's sewer television inspection reveals roots in the customer's side sewer, side sewer maintenance documents, and illicit source disconnection educational materials.

At the December meeting, WTD provided a review of the I/I Control Program (1999-present) and an overview of the three strategies being evaluated to help reduce I/I being contributed from side sewers (up to 70% of the I/I in the regional system): 1) the BMP strategy discussed at the November meeting, 2) the sewer inspector training/certification strategy, and 3) the private side sewer inspection strategy. The Task Force will meet during first quarter 2021 to finalize their report-out to E&P on the first two strategies. E&P expects to make a recommendation to full MWPAAC in second quarter 2021 regarding implementation of these strategies. The third strategy – private side sewer inspection – is being evaluated in the context of the Clean Water Plan, and therefore E&P expects that MWPAAC will not provide a recommendation to WTD on this strategy until the Clean Water Plan is complete.

Nutrients Management Update

In response to Northwest Environmental Advocates' push for tertiary treatment and nutrient removal at wastewater treatment plants around Puget Sound (Salish Sea), the Department of Ecology committed to 3 actions: set nutrient loading limits at current levels for all permitted dischargers, require planning for treatment to achieve different nitrogen targets, and set nitrogen limits for those plants that are capable of nitrogen removal at the level of their treatment capability and enforce the limits through the plants' NPDES permits. From WTD's perspective, issues include adequacy and accuracy of modeling and field data, the timing of the nutrient caps (South Plant and West Point will have nutrient caps imposed in Fall 2021), limited stakeholder involvement, cost, and lack of sufficient time for implementation which could limit growth.

Ecology began meeting with an NPDES General Permit Advisory Committee in April 2020 consisting of 5 caucuses - Federal, State, Tribal, Environmental, and Utility (WTD is participating with 6 other utilities). This past summer, Ecology presented a document to the Advisory Committee seeking unanimous approval of the "recommendations" in the document; WTD's position is that the document presented only meeting summaries, comments, and opinions and not the different perspectives or alternate proposals. Therefore WTD did not approve the document, although it was approved by a slight majority of the Advisory Committee. WTD feels that additional scientific research and time are needed to determine whether nutrient reductions at the wastewater treatment plants, at a cost of billions of dollars, will achieve improved water quality in the Salish Sea and whether alternate strategies (including nutrient trading and credits) can achieve greater benefits at lower costs. WTD plans to continue working with University of Washington and The Freshwater Trust, in coordination with Clean Water Healthy Habitat and the Clean Water Plan, to build a framework for water quality trading.

Questions?

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