

Subject: Recycled Water Program Timing

Date: October 11, 2019

The Issue

The timing of recycled water production is an important decision for the City of Nampa (City). The Facility Plan assumed recycled water production would begin in 2031, which is when the Nampa Wastewater Treatment Plant's temperature limits become effective. Design Review Committee (DRC) Briefing #11 presented considerations for the timing of the Recycled Water Program based on the current status of the recycled water permit negotiations with the Idaho Department of Environmental Quality (IDEQ). The City is reaching the end of the recycled water permit negotiations and direction is needed from the DRC to set the timing for the Recycled Water Program and, therefore, the scope and budget for Project Group F.

Background and Analysis

The City anticipates the draft recycled water permit will be issued by the IDEQ within the coming weeks. It is expected that this permit will contain effluent total phosphorus (TP) limits of 0.35 milligrams per liter (mg/L) during the irrigation season for discharge to Phyllis Canal. Therefore, the City will have an effluent TP limit of 0.35 mg/L year-round, which is higher than the assumed limits from the Facility Plan. As described in DRC Briefing #11, the City's ability to negotiate this TP limit provides an opportunity to accelerate the Recycled Water Program timing and reduce the overall cost of the Phase II/III Upgrades. The accelerated timeline is shown in the figure below, which was taken from DRC Briefing #11.

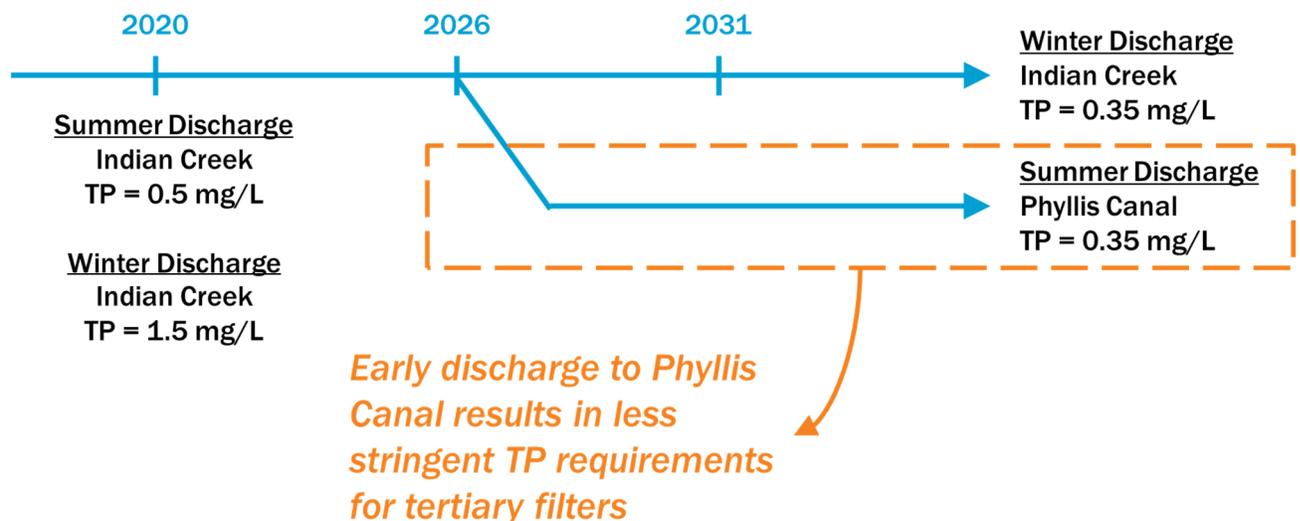


Figure 1. Accelerated timeline and discharge limits for the City's recycled water program

Potential Consequences

The DRC should take into account the following considerations:

- **Shifting the Recycled Water Program Costs to Phase II:** Producing and distributing Class A recycled water will require the inclusion of several projects in the Phase II Upgrades (completed by 2026) that the City originally planned to be completed as part of the Phase III Upgrades (completed by 2031). These projects

would include the recycled water irrigation pump station and distribution pipeline and have a total cost of approximately \$10M (2019 dollars).

- **Reducing Filtration Costs:** The negotiated limits allow for cost savings with the tertiary filtration selection from the assumed costs in the Facility Plan. Based on the work completed during the preliminary design, the change in effluent limits is projected to reduce the cost of tertiary filtration approximately \$17M (2019 dollars). Final selection of the tertiary treatment technology will be completed by the selected progressive design-build team for Project Group F.

Recommendation

The Preliminary Design Technical Team recommends officially accelerating the City's recycled water program for irrigation discharge by 2026. This acceleration will enable the City to reduce the overall cost for the Phase II/III Upgrades.