STAFF REPORT

Meeting Type:	City Council
Meeting Date:	November 2, 2026
From:	AJ Thorne, Public Works Director
Subject:	Wastewater Update; MBR Treatment Plant Engineering Design Services Contract Discussion

DECISION TO BE MADE:

No decision is required at this meeting. A decision to authorize the City Manager to execute a contract for Engineering Design Services for the MBR Treatment Plant project with be requested at the December 7, 2026 meeting.

APPLICABLE COUNCIL GOAL:

- **Goal 7.6**: Continue to comply with the terms of the consent decree.
- **Goal 7.7:** Complete ARPA-funded grant projects before grant expiration

BACKGROUND / CONTEXT:

Projects to Release 190 Additional ERUs

In September 2023, the City of Sandy (City) executed a Consent Decree with the EPA, DEQ and DOJ. City staff and consultants have been actively working on addressing deficiencies at the wastewater treatment plant (WWTP) identified during the Consent Decree process. These projects address Equalization Basin Capacity, Effluent Pump Station Capacity, and upgrading the WAS/Scum pumping system. In completing these projects, the City will have 'unlocked' an additional 190 Equivalent Residential Units (ERUs) of sewer capacity in our system. As of today, the Equalization Basin expansion is complete, the Effluent Pump Station upgrade will be substantially complete on November 20, 2026 and the WAS/Scum pumping will be complete November 23, 2026. Simultaneously, the UV disinfection system is being upgraded and will be substantially complete in December 2026. The Consent Decree team will be notified as each of these projects are completed. Once all are through final completion, the formal request for a release of 190 ERUs will be submitted.

Long Term Wastewater Facility Plan Projects

In addition to the 190 ERU projects, central to the City's compliance with the Consent Decree was completion of a Facility Plan Amendment, replacing the 2019 facility plan which was determined in 2022 to be inadequate regarding the long-term discharge options, flow quantities, and project estimates. In June 2026, after multiple iterations regarding long-term discharge, the City Council adopted a final version of the Facility Plan Amendment. The plan recommended upgrading the

treatment plant to a Membrane Bioreactor (MBR) and incorporated groundwater recharge using highly treated recycled water. This option removed the possibility of pumping raw wastewater to the City of Gresham's treatment plant and ties the City to either a groundwater recharge or the backup discharge option of the Sandy River.

Sandy quickly began work on the preferred alternative, starting by separating it into two projects that can advance in tandem. Groundwater recharge requires additional evaluation of hydrogeologic conditions, permitting requirements, and regulatory approvals before a preferred approach can be confirmed. As a result, City staff and Stantec Program Management team have continued feasibility and pre-design efforts for the groundwater recharge project, while the other component – the MBR treatment plant project which had fewer uncertainties – was able to proceed directly into design.

On October 7, 2026, the City accepted proposals for design engineering for the new MBR treatment plant project. Part of this process included a mandatory pre-proposal meeting to discuss the project. Among the attendees were representatives from three potential design consultants for this project. Two of these teamed up and submitted a proposal, the other did not submit. This project will be designed by Keller Associates and Kennedy Jenks (the Keller/KJ Team). Both consultants have intimate knowledge of the City's plant, with Kennedy Jenks completing the Facility Plan Amendment and Keller completing design on the effluent pump station project which is currently under construction. Per the proposal, Keller will be the lead contractor, so the contract will be between the City and Keller.

Due to the high cost of the design and engineering services, Staff believe it's appropriate to spend some time walking through the current status of wastewater projects and provide the Council with additional information on the scope of work before seeking contract approval. Staff will bring the final contract for the MBR treatment plant engineer design services to the Council for approval on December 7, 2026. This staff report provides additional context regarding the project scope and complexities.

KEY CONSIDERATIONS / ANALYSIS:

MBR Project Elements

This project will lead to a holistic upgrade to our treatment plant converting our treatment method from Conventional Activated Sludge (CAS) treatment to a Membrane Bioreactor (MBR) treatment method. The key component will be the MBR equipment. To support this, the City will need to upgrade its headworks (screening and grit removal) to avoid damaging the MBR with material that cannot be treated. Additional fine screening will be installed to reduce maintenance and increase treatment efficiency by protecting the MBR.

Existing processes will also be altered for the conversion of the plant from CAS to MBR. The existing clarifiers will be converted to anoxic basins. Existing aeration basins will be converted for the MBR process. Additional pumping will be added or altered in the WAS/Scum pumping and the Mixed Liquor Suspended Solids (MLSS) pumping. Our solids handling process will also be upgraded, which was initially put on hold while the Gresham option was under consideration.

MBR Project Complexity

While on the surface this project appears similar to the Membrane treatment upgrade at our Alder Creek Water Plant, this MBR upgrade will be considerably more complex. The Alder Creek Water Treatment Plant is being constructed alongside our existing plant with minimal disruptions and additional water sources available. In contrast, **MBR treatment at the plant must be constructed as an integral part of the plant while not interrupting the function of the facility, which is extremely**

difficult and expensive. This becomes especially complex as processes are converted to MBR treatment, reducing treatment capacity during construction. Constructability and phasing will be critically important to project success.

To successfully deliver this project, this design effort will extend beyond developing the final MBR facility layout on the existing site. The design team will establish a phased implementation approach that allows the CAS treatment process and current level of treatment performance until the MBR facilities are fully operational. The Keller/KJ team will use their knowledge of the plant to determine the optimal construction sequence and timing, recognizing that the WWTP has greater operational flexibility during the summer months when flows are lower and are not discharging to Tickle Creek.

MBR Project Delivery

Due to the complexity of this project and the criticality of constructability and timing, there is an extremely high likelihood that this project will not be completed as a standard Design-Bid-Build project delivery method. To improve constructability reviews, build partnerships, and reduce change orders and delays, this project may need to be executed using Construction Manager/General Contractor (CM/GC) delivery method. This will involve selecting and bringing a contractor on board early in the design process, allowing a contractor to collaborate closely with the City and Keller/KJ team from design through project completion. Once the use of CM/GC delivery method is confirmed, the decision of whether to formally authorize this method will be brought to the Council, allowing the team to move forward with advertising for and selecting a contractor. Sandy has successfully used the CM/GC delivery method for both wastewater collection system work and in the Phase 1 WWTP upgrades that concluded in 2024.

BUDGET IMPACT:

At the time of this writing, negotiation on scope and fee are in progress with the Keller/KJ team. A final fee amount will be solidified prior to the December 7, 2026 Council meeting. The fee for this design work will be between $7M and $8.3M. The construction phase services will be between $2.4M and $2.9M. A comprehensive program budget will be provided at the Council meeting.

This project will be funded through a combination of WIFIA and SRF funds. There is also a possibility of segmenting this project to acquire further SRF funding.

LIST OF ATTACHMENTS / EXHIBITS:

- Keller/KJ Draft Scope of Work
- Keller/KJ Proposal