



CITY OF THE DALLES
Department of Public Works
1215 West First Street
The Dalles, Oregon 97058

AGENDA STAFF REPORT CITY OF THE DALLES

MEETING DATE	AGENDA LOCATION	AGENDA REPORT #
August 31, 2015	Work Session	

TO: Honorable Mayor and City Council

FROM: Dave Anderson, Public Works Director

THRU: Nolan K. Young, City Manager *NK*

DATE: August 20, 2015

ISSUE: Review of alternatives for Wastewater Treatment Plant Upgrade 2015 Project

CITY COUNCIL GOALS: Goal A-4: *Complete Phase 1 improvements of the Wastewater Master Plan;*

Goal B-3: *Move toward use of renewable energy techniques for all city-owned properties; begin with Library in fiscal year 2015-16.*

PREVIOUS AGENDA REPORT NUMBERS: Agenda Staff Reports #14-027, #14-035, #15-009

BACKGROUND: A progressive design-build contract was awarded to the team of Mortenson Construction/Kennedy Jenks Consultants on February 9, 2015 for the Wastewater Treatment Plant Upgrade – 2015 project. The project was to consist of constructing improvements to increase influent pumping capacity, improve reliability of the headworks facility, convert an existing bio-solids storage tank into an anaerobic digester to provide digester redundancy, and provide aesthetic improvements to enhance the appearance of the plant from key viewing areas

The work for the project has been divided into three phases. During Phase 1A, the Design-Builder was to “undertake an extensive discover and explore process” with staff to “evaluate options and develop a design concept that fulfills the project objectives and provides the best long-term value” to the City. This is one of the benefits of the D-B process – the opportunity to utilize innovation and incorporate “best-value” concepts early in the design phases of a project which is when there are the greatest opportunities for cost savings. Phase 1A has been nearly completed pending this review with Council. The intent of this work session is to inform Council of the project alternatives that have been developed and evaluated, and to provide a recommendation to Council regarding a concept under which to complete the project.

Early in the development of the project, a number of concerns were identified related to some of the concepts provided in the Facility Master Plan. One concern was that if the current bio-solids storage tank was to be taken off-line for it to be renovated into an active anaerobic digester, there was no easy way to store bio-solids during the conversion. Another concern was related to the lack of space in the existing equipment room to accommodate the additional piping and equipment needed to convert Digester #2 into an active anaerobic digester. A third challenge related to maintaining operational access throughout the plant while a new influent pump station was being constructed in a 30-foot deep hole near the plant entrance. A final concern expressed by all three project proposers was whether the improvements identified in the Master Plan could be constructed for the budget provided in the Plan. The design-build method has provided an effective forum and process to proactively address these concerns.

At the work session, Council will receive information summarizing four different alternative process concepts that have been developed and evaluated. A recommended alternative will also be presented. While the details of the alternatives will be presented at the work session, the recommended alternative meets all of the project objectives and also provides the following benefits:

- Addresses the bio-solids storage concern;
- Provides needed space for the new piping and equipment;
- Eliminates the expensive deep-hole construction of a new pump station and headworks building by re-using the existing building;
- Provides opportunities for co-generation of heat and electricity;
- Creates opportunities for outside funding assistance for the project;
- While it requires higher Phase 1 project costs than those originally projected, the recommended alternative can be constructed less expensively than the current cost estimate to construct the Facility Master Plan Phase 1 alternative.
- Significantly reduces the total Capital Improvement Plan (CIP) costs over all three phases.

In addition to the treatment process upgrades, the project scope includes making modifications that improve the visual aesthetics of the plant. Council will be presented with three different concepts at a future meeting to address this project objective; at that time, the project team will be seeking direction from Council about which concept to incorporate into the final design.

Staff intends to distribute the Executive Summary from the Facility Master Plan Update to Council for review prior to the August 31st Work Session.

Next Steps:

Following the work session, staff will be seeking authorization from Council at a future meeting to proceed with the next phase of the project, Phase 1B. Under Phase 1B, the concepts selected under Phase 1A will be advanced to an 80% design completion and the Design-Builder will submit a proposed Guaranteed Maximum Price (GMP) for completion of the project under Phase 2.

Phase 2 of the project will provide for the completion of the design as well as construction, commissioning, and start-up of all improvements. Phase 2 will again require Council authorization of a contract amendment before it can proceed.