

TO: Mayor Robert E. Simison
Members of the City Council

FROM: *David Briggs, P.E., P.M.P.*

DATE: *May _____, 2023*

SUBJECT: WRRF TERTIARY FILTRATION UPGRADE – FINAL DESIGN WITH STANTEC FOR A NOT TO EXCEED OF \$2,256,927.00 PURSUANT TO THE MASTER AGREEMENT APPROVED BY CITY COUNCIL OCTOBER 01, 2020.

REQUESTED COUNCIL DATE:

I. RECOMMENDED ACTION

A. Move to:

1. Approve Task Order #11281.E with Stantec for the WRRF Tertiary Filtration Upgrade – Final Design

II. DEPARTMENT CONTACT PERSONS

David Briggs, PE, PMP - PM	208-489-0347
Clint Dolsby, PE, Assistant City Engineer	208-489-0341
Warren Stewart, City Engineer	208-489-0350
Laurelei McVey, Director of Public Works	208-985-1259

III. DESCRIPTION

A. Background

The WRRF Tertiary Filtration Project is designed to reduce the effluent phosphorus loadings to Five Mile Creek through installation of a tertiary membrane system. The WRRF is currently in year six (6) of a ten-year NPDES compliance schedule to reduce these loadings. As part of a previous Task Order

(TO1), Stantec progressed the tertiary filtration concept presented in the City's 2018 Wastewater Resource Recovery Facility Plan (WRRF) and submitted a Preliminary Engineering Report (PER) to the Idaho Department of Environmental Quality (DEQ). After TO1 was complete, the City indicated that the estimated capital cost of the project exceeded the budget amount that the City had dedicated for the tertiary facilities. Stantec volunteered to identify value engineering (VE) alternatives that may reduce or defer capital costs, thus allowing the City to stay within, or as close to, the City's budget as practical. The VE effort was performed under Task Order 11281.D (TO2B). Stantec also assisted the City pre-procure Membrane Equipment with Task Order 11281.B (TO2A) which was needed to progress the design beyond the 30 percent stage. Stantec is now being tasked to help prepare final designs to get this project to Construction.

B. Proposed Project

This project will incorporate work performed as part of Preliminary Design (TO1), recommendations from the VE design work (TO2B) and specifications from the Membrane Equipment design (TO2A) to get the project to 100% design.

C. Consultant Selection

Stantec was selected for this project due to their expertise in the design and analyses of wastewater treatment plants and their work on similar projects consisting of the same tertiary filtration technology that the City is looking to utilize.

IV. **IMPACT**

A. Strategic Impact:

This project meets the City's mission requirements to identify and prioritize work to anticipate, plan and provide public services and facilities that support the needs of our growing community, ensure modern, reliable facilities, while maintaining financial stewardship and maintaining the ability to meet the changing permit limit requirements.

B. Service/Delivery Impact:

Implementing tertiary filtration at the WRRF will support departmental objectives to develop and employ strategies that comply with current and pending National Pollutant Discharge Elimination System Permit (NPDES).

C. Fiscal Impact:

Project Costs:

<u>Fiscal Year 2022</u>		
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Tertiary Filtration Preliminary Design (TO1)		\$797,946.00
Survey Work		\$15,000.00
WRRF Membrane Pre-Procurement (TO2A)		\$218,105.00
	Total	<u>\$1,031,051.00</u>
<u>Fiscal Year 2023</u>		
WRRF VE Validation and Prelim Design (TO2B)	Total	\$268,809.00
WRRF Tertiary Filtration Upgrade – Final Design (TO2C)		\$2,256,927.00
	Total	<u>\$2,525,736.00</u>
	Total Project Cost	<u>\$3,556,787.00</u>

Project Funding

FY 2022 Tertiary Filter Expansion (approved)	(3590/96154)	\$1,500,000
<i>FY 2023 Tertiary Filter Expansion (approved)</i>	(3590/96154)	\$3,000,000
<i>FY 2024 Tertiary Filter Expansion (proposed)</i>	(3590/96154)	\$14,500,000
<i>FY 2025 Tertiary Filter Expansion (proposed)</i>	(3590/96154)	\$21,000,000
<i>FY 2026 Tertiary Filter Expansion (proposed)</i>	(3590/96154)	\$7,000,000
<i>FY 2031 Tertiary Filter Expansion (proposed)</i>	(3590/96154)	\$1,610,000
	Total Funding	<u>\$48,610,000.00</u>

V. **ALTERNATIVES**

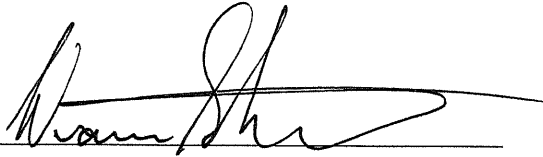
No alternatives to this project at this time.

VI. **TIME CONSTRAINTS**

Council's approval will allow this project to continue towards completing design and construction of the tertiary filtration facilities and meet the NPDES compliance date of June 30, 2027.

VII. **LIST OF ATTACHMENTS**

Approved for Council Agenda:

A handwritten signature in black ink, appearing to be "W. J. ...", written over a horizontal line. The signature is stylized and cursive.