



**TO:** Board of Contracts and Awards  
**FROM:** Michael P. Slevin III, P.E., Director, Environmental Services  
John Burk, P.E., Division Manager, Science and Engineering  
**COPY:** City Council, City Manager, City Clerk, SBE Coordinator, LEAP Coordinator,  
Eric Johnson, P.E., Assistant Division Manager, Teresa Peterson, P.E., Project  
Manager, and Samol Hefley, Senior Buyer, Finance/Purchasing  
**SUBJECT:** NETP Trickling Filter Upgrade Engineering Services, Citywide Architectural and  
Engineering (A&E) Roster – September 24, 2019  
**DATE:** September 6, 2019

*H.F.C.*

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**RECOMMENDATION SUMMARY:**

The Environmental Services Department recommends a contract be awarded to Brown and Caldwell, Inc., Tacoma, WA, in the amount not to exceed \$604,896.00, plus any applicable taxes, budgeted from the ES Wastewater Fund 4300, for engineering design services associated with the North End Wastewater Treatment Plant (NETP) trickling filter upgrade improvements, including regulatory assistance through December 31, 2020.

**STRATEGIC POLICY PRIORITY:**

- Assure outstanding stewardship of the natural and built environment.

This project will replace the treatment media other components in the NETP trickling filter. These improvements will extend the design life of this necessary wastewater treatment process and will result in a positive environmental impact.

**BACKGROUND:**

The NETP utilizes a trickling filter in the wastewater treatment process to reduce Biochemical Oxygen Demand in order to meet permit discharge requirements. The tank was originally constructed in 1967 and converted into a trickling filter in the mid-90's. This proposed professional services contract will allow for capital infrastructure improvements in the trickling filter by replacing components that are beyond the recommended design life and are at risk of failure.

**ISSUE:**

The trickling filter system has no built in treatment redundancy and the filter media used in the treatment process is beyond its recommended design life. In addition, some structural and mechanical components are in need of maintenance and replacement. Failure of this system could result in wastewater discharges to the Puget Sound that do not meet required permit limits, which could be hazardous to human health and the environment.

This contract will provide engineering design and construction support services to assist the City in the development of a preliminary design report, regulatory compliance report, design plans and specifications, and assistance with necessary permit submittals with the Washington State Department of Ecology (Ecology). The contract also includes a contingency due to the unknown condition of the interior of the trickling filter structure, which cannot be identified until the system is taken offline and inspected during construction. This contingency will cover any additional assistance needed from Brown and Caldwell, Inc. to support the City with additional regulatory



requirements with Ecology and design and construction support services due to unforeseen conditions.

ALTERNATIVES: One alternative is taking no action and accepting the eventual failure of the trickling filter, which will result in permit violations and fines. If the trickling filter upgrades are not performed, the failure risks will only continue to increase over time.

**COMPETITIVE SOLICITATION:** Brown and Caldwell, Inc. was selected using the A&E Roster. Four consulting firms were evaluated to find the most qualified consultant for this project. This evaluation process resulted in the determination that Brown and Caldwell, Inc. is the most qualified to perform the proposed work.

<u>Respondent</u>	<u>Location (city and state)</u>	<u>Rank</u>
<b>Brown and Caldwell, Inc.</b>	<b>Tacoma, WA</b>	<b>1</b>
Carollo Engineers, Washington, P.C.	Seattle, WA	2
HDR Engineering, Inc.	Bellevue, WA	3
Parametrix, Inc.	Puyallup, WA	4

CONTRACT HISTORY: New contract.

SUSTAINABILITY: Replacement of the trickling filter media and other necessary repairs will reduce the risk of failure thereby reducing the potential for discharge of undertreated wastewater into the Puget Sound; resulting in positive environmental impacts.

SBE/LEAP COMPLIANCE: Not applicable.

**FISCAL IMPACT:**

**EXPENDITURES:**

FUND NUMBER & FUND NAME *	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300 ES Wastewater Fund	ENV-04016-08	5310100	Up to \$604,896.00
<b>TOTAL</b>			<b>Up to \$604,896.00</b>

**REVENUES:**

FUNDING SOURCE	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300 ES Wastewater Fund	523900	Rate Revenues	\$604,896.00
<b>TOTAL</b>			<b>\$604,896.00</b>

FISCAL IMPACT TO CURRENT BIENNIAL BUDGET: \$604,896.00

ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED? Yes