



**TASK ORDER 2 TO
CONTINUING PROFESSIONAL SERVICES AGREEMENT
Between Heart of the Valley Metropolitan Sewerage District (Owner) and
Donohue & Associates, Inc. (Donohue)
Date of Original Executed Agreement: Sep 13, 2019**

TASK ORDER NAME/DESCRIPTION

Name	Facility Master Planning – Effluent Filtration
Description	The wastewater treatment facility (Facility) has six deep-bed anthracite filters to remove solids from the effluent. These filters were mothballed at the conclusion of the most recent major Facility upgrade (circa 2007). The NPDES Permit regulating the Facility was issued in January 2019. That Permit includes TMDL mass limits for Total Suspended Solids (TSS) and Total Phosphorus (TP). Consistent and reliable compliance with both of these parameters demands effective effluent filtration. The purpose of this Task Order is to evaluate the cost, expected performance, constructability, operability, and maintainability of competing effluent filtration alternatives and technologies.

A. SCOPE OF SERVICES

Task(s)	Description	Services
110	Evaluate Reconditioning and Operating Deep-Bed Filters	Visit the Facility to review the condition of the existing filters and interview staff with historical operating and maintenance experience. Formulate opinions of expected performance, TMDL mass limit compliance, capital costs, operating costs, and life-cycle costs based on engineering experience, engineering judgement, on-site observations, staff experience, record drawings, and manufacturer information.
120	Evaluate Installing and Operating Cloth Media Disk Filters	Formulate opinions of expected performance, TMDL mass limit compliance, capital costs, operating costs, and life-cycle costs based on engineering experience, engineering judgement, on-site observations, staff experience, record drawings, manufacturer information, and a previous pilot study (2013).
130	Consider Alternative Relevant Technologies	Perform a brief survey of other, less conventional technologies or flow trains that have been employed to remove effluent solids and phosphorus from treatment facility effluent.
140	Produce and Submit DRAFT Technical Memorandum	Produce and submit a DRAFT Technical Memorandum (TM) documenting the evaluation of competing effluent filtration alternatives and technologies.

		<p>For competing well-conceived alternatives using either the existing deep-bed filters or cloth media disk filters, this TM will include layout/configuration drawings; expected hydraulic and effluent quality performance; capital, annual, and life cycle cost opinions; and narratives outlining construction sequencing and constructability, operability, and maintainability considerations.</p> <p>Document the survey of other, less conventional technologies and flow trains that have been employed to remove effluent solids and phosphorus from treatment facility effluent. At this time, Donohue does not consider these alternative technologies to be strong candidates for the Facility because of their less favorable track record, cost, complexity, and/or performance.</p>
150	Conduct DRAFT Technical Memorandum Meeting	Conduct a meeting to review the DRAFT TM with Facility staff and receive their comments and revisions.
160	Present DRAFT Technical Memorandum to the Board	Deliver a PowerPoint presentation outlining the methodology and findings documented in the DRAFT TM.
170	Produce and Submit FINAL Technical Memorandum	Produce and submit a FINAL TM that addresses Board/staff comments and incorporates mutually-agreed-to revisions.

B. PROJECT TIMING

Donohue shall be authorized to commence the Services set forth herein upon execution of this Agreement and complete the Scope of Services within 90 days after receiving authorization to proceed. Donohue's services under this Agreement will be considered complete when Donohue has delivered to Owner the deliverables defined under Scope of Services.

C. COMPENSATION

Compensation for the work as defined in the Scope of Services (Part I) of this Agreement shall be a lump sum of \$24,925.

Tasks	CTL	Senior	Junior	Senior	Total	Expenses	Totals
	QA/QC	Process	Process	Discipline			
110 Evaluate Reconditioning and Operating Deep-Bed Filters	2	10	40	5	57	\$ 125	\$ 8,740
120 Evaluate Installing and Operating Cloth Media Disk Filters		5	40	5	50		\$ 7,150
130 Consider Alternative Relevant Technologies		5	5		10		\$ 1,625
140 Produce and Submit DRAFT TM	4	5	20		29		\$ 4,555
150 Conduct DRAFT TM Meeting	2	5			7	\$ 125	\$ 1,590
160 Present DRAFT TM to the Board	2					\$ 125	\$ 615
170 Produce and Submit FINAL TM			5		5		\$ 650
Total Hours	10	30	110	10	158		
Total Fee	\$2,450	\$5,850	\$14,300	\$ 1,950		\$ 375	\$24,925
% of Total Fee	10%	23%	57%	8%			

CTL = Client Team Leader

APPROVED FOR OWNER

By: _____

Printed Name: _____

Title: _____

Date: _____

APPROVED FOR DONOHUE

By: _____

Printed Name: Michael W. Gerbitz

Title: Senior Vice President

Date: _____