

Minnehaha Creek Watershed District

REQUEST FOR BOARD ACTION

MEETING DATE: March 22, 2018

TITLE: Authorization to Award Contract for 2018 Stormwater Pond Sediment Surveys

RESOLUTION NUMBER: 18-023

PREPARED BY: Laura Domyancich

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TELEPHONE: 952-641-4582

REVIEWED BY: Administrator Counsel Program Mgr.: Tiffany Schaufler
 Board Committee Engineer

WORKSHOP ACTION:

<input type="checkbox"/> Advance to Board mtg. Consent Agenda.	<input type="checkbox"/> Advance to Board meeting for discussion prior to action.
<input type="checkbox"/> Refer to a future workshop (date):_____	<input type="checkbox"/> Refer to taskforce or committee (date):_____
<input type="checkbox"/> Return to staff for additional work.	<input type="checkbox"/> No further action requested.
<input checked="" type="checkbox"/> Other (specify): Final action requested on March 22, 2018.	

PURPOSE or ACTION REQUESTED:

Authorization to enter into a contract with Wenck Associates, Inc. for engineering services related to sediment surveys at eleven ponds, including plotting, calculations, analysis of sediment samples, and report creation in the amount of \$47,700 and establish a not-to-exceed budget of \$52,470. (Contract budget amount is the maximum amount needed if all eleven surveyed ponds need sediment analysis.)

PROJECT/PROGRAM LOCATION: (See attached map.)

- SW Calhoun Pond – Cell 1, Minneapolis
- Pamela Park Ponds – Cells 1, 2, and 3, Edina
- Deer Hill Ponds North and South, Medina
- Gleason Lake North Ponds – Cells 1, 2, and 3, Plymouth
- Johnson/Rolling Hills Ponds – Minnetrista
- South Katrina Pond – Minnetrista

PROJECT TIMELINE:

Sediment surveys to be completed during April - May with final completion of report by June 1, 2018.

PROJECT/PROGRAM COST:

Fund name and number: Project Maintenance and Land Management, 2003

Current budget: \$754,198

Expenditures to date: \$6,392.05

Requested amount of funding: \$52,470

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PAST BOARD ACTIONS:

- RES 10-049, June 3, 2010, Contract with Wenck Associates for design and construction observation of stormwater pond dredging project
- RES 10-068, September 2, 2010, Contract for stormwater pond maintenance at Twin Lakes Pond and Amelia Pond
- RES 11-056, July 7, 2011, Authorization to Contract with Wenck Associates for Pond Sediment Surveys, to Solicit Bids for Regional Stormwater Pond Maintenance, and for Construction Management of Pond Maintenance
- RES 11-100, October 27, 2011, Authorization to Award Bid for the 2011-2012 Stormwater Pond Maintenance at Twin Lakes Pond, SW Calhoun Pond, and Gleason Lake Phase 2 Pond
- RES 13-045, April 25, 2013, Authorization to Award Contract to Wenck Associates, Inc. for Pond Sediment Surveys
- RES 14-045, May 8, 2014, Authorization to Award Contract for 2014 Pond Sediment Surveys to Wenck Associates, Inc.
- RES 15-022, March 26, 2015, Authorization to Award Contract for 2015 Stormwater Pond Sediment Surveys
- RES 15-093, November 12, 2015, Authorization to Award Contract for 2015-2016 Stormwater Pond Maintenance at Gleason North Ponds 2 and 3
- RES 16-034, April 14, 2016, Authorization to Award Contract for 2016 Stormwater Pond Sediment Surveys
- RES 17-018, March 9, 2017, Authorization to Award Contract for 2017 Stormwater Pond Sediment Surveys

SUMMARY:

The District is responsible for the inspection and/or maintenance of 28 stormwater ponds through ownership or cooperative agreements (see **Attachment A**, Map.) The MCWD Board of Managers has established a policy that dictates cyclical investigation and maintenance of its stormwater management infrastructure. In 2011, the Project Maintenance and Land Management Program (PMLM) recommended pond sediment surveys of six to eleven ponds each year on a three-year rotation (see **Attachment B**, Pond Inventory / Database.) This maintenance is needed to ensure that regional ponds function as designed. The PMLM Program budgets approximately \$230,000 for annual investigation and maintenance of these stormwater facilities. This work is guided by the PMLM Maintenance Plan, which identifies a maintenance interval and estimated cost. Of the eleven ponds recommended for Pond Sediment Surveys in 2018, the Pamela Park Ponds, Johnson/Rolling Hills Pond, and the South Katrina Pond were last surveyed in 2015, Deer Hill Pond North was last surveyed in 2013, Gleason Lake North Pond 1 was last surveyed in 2015 and Ponds 2 and 3 in 2016. SW Calhoun Pond was surveyed in 2017 and was found to have lost 38% of its wet volume. This pond is being surveyed again because of that volume's proximity to the 50% threshold for needing maintenance, and the maintenance constraints of these ponds' specific design. It is likely that the Pamela Park Pond Cell 1 will need maintenance as the 2015 survey showed that it had lost 36% of its wet volume. Through a cooperative agreement with the City of Edina, the City is responsible for the initial maintenance of this pond.

Sample collection, handling, and analysis will be done for ponds identified by the surveys to need maintenance. The not-to-exceed (\$52,470) amount covers costs to analyze sediments for up to all eleven ponds including standard contingency of 10%. The scope of services, which details tasks associated with performing the sediment surveys, can be viewed in **Attachment C**, Stormwater Pond Survey Scope.

ATTACHMENTS:

- **Attachment A:** Map,
- **Attachment B:** Inventory / Database,
- **Attachment C:** Stormwater Pond Survey Scope.

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RESOLUTION

RESOLUTION NUMBER: 18-023

TITLE: **Authorization to Award Contract for 2018 Stormwater Pond Sediment Surveys**

WHEREAS, the Minnehaha Creek Watershed District (MCWD) engages in regional capital improvement projects as described in its Water Resources Management Plan; and

WHEREAS, the MCWD has constructed or maintains regional treatment facilities at the Southwest Calhoun Ponds, Pamela Park Ponds, Deer Hill Ponds, Gleason Lake North Ponds, the Johnson/Rolling Hills Ponds, and South Katrina Pond; and

WHEREAS, these facilities periodically need maintenance to continue functioning as designed; and

WHEREAS, the Project Maintenance and Land Management Program annually budgets for, inspects, and maintains regional stormwater infrastructure on a pre-determined, cyclical basis established in the PMLM Maintenance Plan; and

WHEREAS, Wenck Associates, Inc. has surveyed some of the above ponds in the past and has specific knowledge of the ponds and their past maintenance; and

WHEREAS, internal Governance Policy #6 provides for a competitive process when purchasing any professional service in excess of \$25,000, but staff recommends, and the Board finds, that it is appropriate to deviate from that policy in light of Wenck's unique knowledge of the hydrologic and hydraulic behavior of the Minnehaha Creek watershed and the organizational goals of the District, as well as its work to date in monitoring stormwater ponds in the District, which together make Wenck uniquely qualified to develop a sound product cost-effectively; and

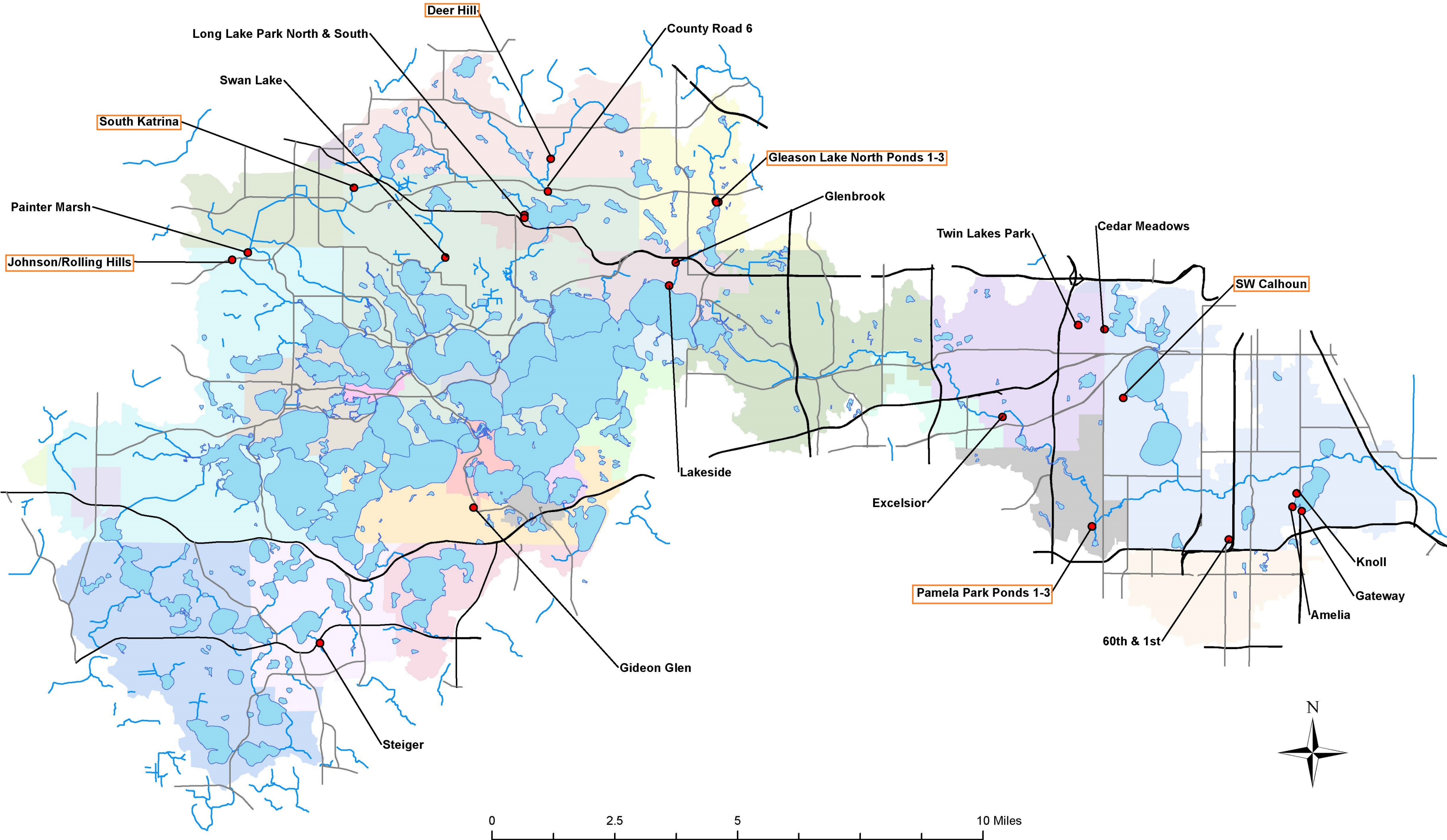
NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers authorizes the District Administrator to execute a contract with Wenck Associates, Inc. not-to-exceed \$47,700 and authorize the administrator to execute change orders as necessary up to a not-to-exceed amount of \$52,470 for the survey of eleven ponds, composite sediment samples analyzed for up to eleven ponds, and a technical memo summarizing results of the analysis.

Resolution Number 18-023 was moved by Manager _____, seconded by Manager _____.
Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: _____, 2018.

Secretary

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MCWD Stormwater Ponds



Attachment B: Pond Inventory/Database

Ponds to be surveyed in 2018

Subwatershed & Pond	Installed	Last Surveyed	Year Dredged	Cost	Amt. Removed	Maintenance Responsibility
Minnehaha Creek						
60th and 1st Pond	2000	2013				Minneapolis
Cedar Meadows-Basin 1	1996	2017	2004	\$41,574	2750 CY	MCWD
Excelsior Pond	2013	2016				MCWD
Nokomis-Amelia	2001	2016	2011	\$48,175	2147 CY	MCWD
Nokomis-Gateway	2001	2016				MCWD
Nokomis-Knoll	2001	2016				MCWD
SW Calhoun-Cells 1	1999	2017	2004	\$57,417	3120 CY	MCWD
			2011	\$116,039	2024 CY	
SW Calhoun-Cells 2	1999	2011	2004	"	"	MCWD
Pamela Park cell 1	2001	2015				Edina: first dredging, MCWD subsequent
Pamela Park cell 2	2001	2015				"
Pamela Park cell 3	2001	2015				"
Twin Lakes Pond	1996	2017	2004	\$19,945	3403 CY	MCWD
			2012	\$99,359	2080 CY	
Long Lake Creek						
County Road 6 Pond	1998	2016				MCWD
Deer Hill Pond-North	1996	2013				MCWD
Deer Hill Pond-South	1996	2007				MCWD
Long Lake Park North	1996	2017	2004	\$16,578	2410 CY	MCWD
Long Lake Park South	1996	2017	2006			MCWD
Gleason Lake Creek						
Gleason Lake North 1	1995	2015	2012	\$62,995	900 CY	MCWD
Gleason Lake North 2	2008	2016	2016	\$45,064	892 CY	MCWD
Gleason Lake North 3	2008	2016	2016			
Glenbrook Pond	1994	2016				Wayzata
Lake Minnetonka						
Lakeside Pond	1994	2014				Wayzata
Gideon Glen	2006	2016				Shorewood
Swan Lake	2008	2017				MCWD
Painter Creek						
Johnson/ Rolling Hills	2008	2015				MCWD
Painter Marsh	1985	2015				MCWD
South Katrina Pond	1985	2015				MCWD
Six Mile Creek						
Steiger Wetland	1988	2015				MCWD



March 14, 2018

Laura Domyancich

Project and Land Technician
Minnehaha Creek Watershed District
15320 Minnetonka Blvd
Minnetonka, MN 55345

RE: Proposal and Scope of Services for 2018 Stormwater Pond Sediment Surveys and Sampling
P2018-0390

Ms. Domyancich:

In the interest of improving stormwater treatment throughout the Minnehaha Creek watershed, the District manages 28 stormwater ponds that are surveyed on a three-year rotation to measure sediment accumulation. Ponds are surveyed in the spring to determine which ponds need to be dredged. Sediment samples are collected and analyzed for heavy metals, PCBs, chromium, mercury, nutrients, and cPAHs. If needed, ponds are scheduled for dredging during the following winter, which will restore their permanent pool volume and capacity to improve water quality.

Wenck Associates, Inc. has prepared the following Scope of Services to provide a cost estimate of the sediment surveys and subsequent sample analysis. In 2018 11 ponds will be surveyed to measure sediment accumulation. Ponds with sediment accumulation greater than 50% of the permanent pool volume will be sampled and analyzed for various compounds in preparation for pond dredging. The ponds identified for dredging will be excavated in the winter of 2018-2019.

In addition to the 10 ponds surveyed in this three-year cycle, Calhoun SW will be surveyed to measure sediment accumulation. During the 2017 surveys Calhoun SW was at 38% capacity. This survey will document the additional sediment accumulation and provide insight to the rate of sedimentation. Sediment samples will also be collected during this time in the event of scheduled dredging maintenance.

The cost estimate for these services is provided in Table 1 below. Each task includes the expected minimum level of effort using the most efficient discounted hourly rates that are currently used by MCWD along with direct expenses covering mileage, survey equipment, etc. It is anticipated the scope of work, including reporting, will be completed by June 1st, 2018.

Table 1. Cost Estimate for Sediment Surveys and Sampling at Eleven Ponds – March 2018

Task	Hours/Rate	Description	Cost
Grid Surveys	84/\$124	Summer surveys of sediment depth, GPS coordinates for 11 sites	\$11,950*
Plot Data, Calculations, Drawings	60/\$124	Volume calculations and drawings for 11 sites	\$7,450*
Technical Report	14/\$124	Report on survey and sampling results, analysis of results to be completed by 6/1/2018**	\$1,750*
Sample Collection Laboratory Coordination	60/\$124	Sample Collection, composting, delivery, and handling	\$8,500**
Sieve Analysis	\$120/Sample	Grain size analysis	\$2,650***
Sample Analysis	\$700/Sample	Analytical work: For ponds with significant sediment accumulation, testing for parameters listed below.	\$15,400***
Total Cost		Not to exceed for project	\$47,700

* Estimated cost per task. The total payment for all tasks not to exceed the total cost.

** Technical Report to supply sufficient data to develop scope of maintenance for bid.

*** The number of samples required for each pond are based on the surface area of the pond. Two samples will be collected for Calhoun SW Cell 1.

Parameter List for Task 6	
Arsenic	Total Phosphorus
Cadmium	Nitrate + Nitrite
Chromium III	Ammonia-Nitrogen
Chromium VI	Total Kjeldahl Nitrogen
Copper	PCBs (Total)
Lead	Total Organic Carbon
Mercury	Total PAH Value
Nickel	Zinc
Selenium	

Ponds to be Surveyed
Pamela Park – Cells 1, 2, and 3, Edina
Deer Hill Ponds North and South, Medina
Gleason Lake North – Cells 1, 2, and 3, Plymouth
Johnson/Rolling Hills – Minnetrista
South Katrina Pond – Minnetrista
Calhoun SW Cell 1 – Minneapolis

(Edina – Pamela Park Cell 1, 2 Samples; Edina – Pamela Park Cell 2, 2 Samples; Edina – Pamela Park Cell 3, 2 Samples; Medina – Deer Hill Ponds North and South, 4 Samples; Plymouth - Gleason Lake North Cell 1, 2 samples; Plymouth - Gleason Lake North Cell 2, 2 samples; Plymouth - Gleason Lake North Cell 3, 2 samples; Minnetrista – Johnson/Rolling Hills, 2 samples; Minnetrista – South Katrina Pond, 2 samples; Minneapolis – Calhoun SW Cell 1, 2 samples)

Laura Domyancich
Project and Land Technician
MCWD
March 14, 2018



Wenck appreciates the opportunity to provide you with our proposal. If you have any questions or comments regarding this proposal, please call me at (763) 479-5175.

If this proposal is acceptable, please sign and return.

Sincerely,

Accepted By:

Wenck Associates, Inc.

Minnehaha Creek Watershed District

A handwritten signature in black ink, appearing to read 'Hagen Kaczmarek', with a long horizontal flourish extending to the right.

Hagen Kaczmarek
Environmental Scientist

Laura Domyancich, Project and Land Technician

(Date)