MINNEHAHA CREEK
WATERSHED DISTRICT
QUALITY OF WATER, QUALITY OF LIFE

Meeting: Board of Managers
Meeting date: 3/25/2021
Agenda Item #: 7.1
Board Consent Item

Title:	Authorization to Execute a Contract for 2021 Annual Stormwater Pond Maintenance
Resolution number:	21-021
Prepared by:	Name: Janna Jonely Phone: 952.641.4523 jjonely@minnehahacreek.org
Reviewed by:	Name/Title: Tiffany Schaufler, Project and Land Manager
Recommended action:	Authorization to enter into a contract with Stantec Consulting Services Inc. for engineering, design services, and construction oversight for stormwater pond annual survey and maintenance. The contract costs reflect the high end of a pricing range dependent on services needed. The low end of the range is $20,950 for pond survey and reporting for 10 ponds, and increases up to $51,150 in the event that a single pond requires maintenance. If more than one pond is found to require maintenance, additional action will be requested of the Board of Managers at a future meeting.
Schedule:	Spring 2021 – Sediment surveys and sampling if applicable June 2021 – Technical report complete Fall 2021–Winter 2022 – Design, bid, and construction oversight if maintenance required
Budget considerations:	Fund name and code: 2-2003-4550 – Project Maintenance and Land Management Fund budget: $957,806 Expenditures to date: $9,066 Requested amount of funding: $56,265 ($51,150 + 10% contingency)

Past Board action:		
	Res # 17-018	Authorization of Design for Pond Maintenance
	Res # 18-023	Authorization of Design for Pond Maintenance
	Res # 18-111	Authorization to maintain Bde Maka Ska and Pamela Park
	Res # 19-078	Authorization to Award Contract for 2019 Stormwater Pond Annual Survey and Maintenance
	Res # 20-023	Authorization to Execute a Contract with Wenck for 2020 Stormwater Pond Annual Survey and Maintenance

Summary:
The District is responsible for the inspection and/or maintenance of 28 stormwater ponds through ownership or cooperative agreement with its partner communities. Inspection and maintenance of these facilities is necessary to ensure that the ponds function as designed and continue to accrue their designed water resource benefit. The MCWD Board of Managers has an established policy that dictates cyclical investigation and maintenance of its stormwater management infrastructure to ensure the long term function of the systems.

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 in order to adhere to the policy established by the Board. To conduct this work, the PMLM Program budgets approximately $250,000 for annual investigation and maintenance of stormwater facilities. This effort is guided by the PMLM Maintenance Plan, which identifies a maintenance interval and estimated cost for all MCWD infrastructure and facilities.

There are 10 ponds recommended for pond survey and potential maintenance in 2021 – Twin Lake Park Pond, SW Bde Maka Ska-Cell 1, Pamela Park Ponds 1-3, Gleason Ponds 1-3, South Katrina Pond, and Johnson/Rolling Hills (attachment A). The majority of these ponds were last surveyed in 2018, with the exception of Twin Lake Park Pond (2020) (attachment B).

<u>Stormwater Pond Annual Survey and Maintenance 2021-2022</u>
The annual pond survey and maintenance project requires, at a minimum, the consultant to perform sediment surveys, technical reporting, and maintenance recommendations for the 10 identified ponds. If sediment surveys from any pond indicate a loss of 50% wet volume, the contract scope then stipulates the consultant will perform sediment testing and analysis, design of construction and bidding documents, and conduct construction oversight. Based on previous survey data MCWD anticipates that Twin Lake Park Pond and Gleason Pond 1 may be nearing the 50% full threshold which would trigger dredging maintenance.

To facilitate clear cost estimation, the District requested pricing on a per task basis. Therefore, Stantec (formerly Wenck) has provided the cost for design, bid and construction oversight on a per pond basis, resulting in a price range that includes the cost for baseline pond survey and reporting for 10 facilities, and increases upward to account for sampling and analysis, design, bid and oversight if a single pond requires maintenance (attachment C).

The contract cost reflects the high end of a pricing range dependent on services needed. The low end of said range is $20,950 for pond survey and reporting for 10 facilities, and increases up to $51,150 in the event that a single pond requires maintenance. If more than one pond is found to require maintenance, additional action will be required by the Board of Managers.

Supporting documents:
- Attachment A: Stormwater Pond Map
- Attachment B: Inventory / Database
- Attachment C: Stantec Consulting Services Inc. Proposal

MINNEHAHA CREEK
WATERSHED DISTRICT
QUALITY OF WATER, QUALITY OF LIFE

RESOLUTION

Resolution number: 21-021

Title: Authorization to Execute a Contract for 2021 Annual Stormwater Pond Maintenance

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

WHEREAS the MCWD has a policy that dictates cyclical investigation and maintenance of its stormwater management infrastructure and conducts pond sediment surveys of six to eleven ponds each year on a three-year rotation to ensure that regional ponds function as designed;

WHEREAS the Project Maintenance and Land Management Program (PMLM) annually budgets for this effort in accordance with the PMLM Maintenance Plan;

WHEREAS the 10 ponds recommended for pond surveys in 2021 are: SW Bde Maka Ska-Cell 1, Pamela Park Ponds 1-3, Gleason Ponds 1-3, South Katrina Pond, Johnson/Rolling Hills, and Twin Lakes Park Pond;

WHEREAS Stantec Consulting Services, Inc. (formerly Wenck) has surveyed the above ponds in the past and has specific knowledge of the ponds and their past maintenance;

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 Stantec'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 Stantec uniquely qualified to develop a sound and cost effective product;

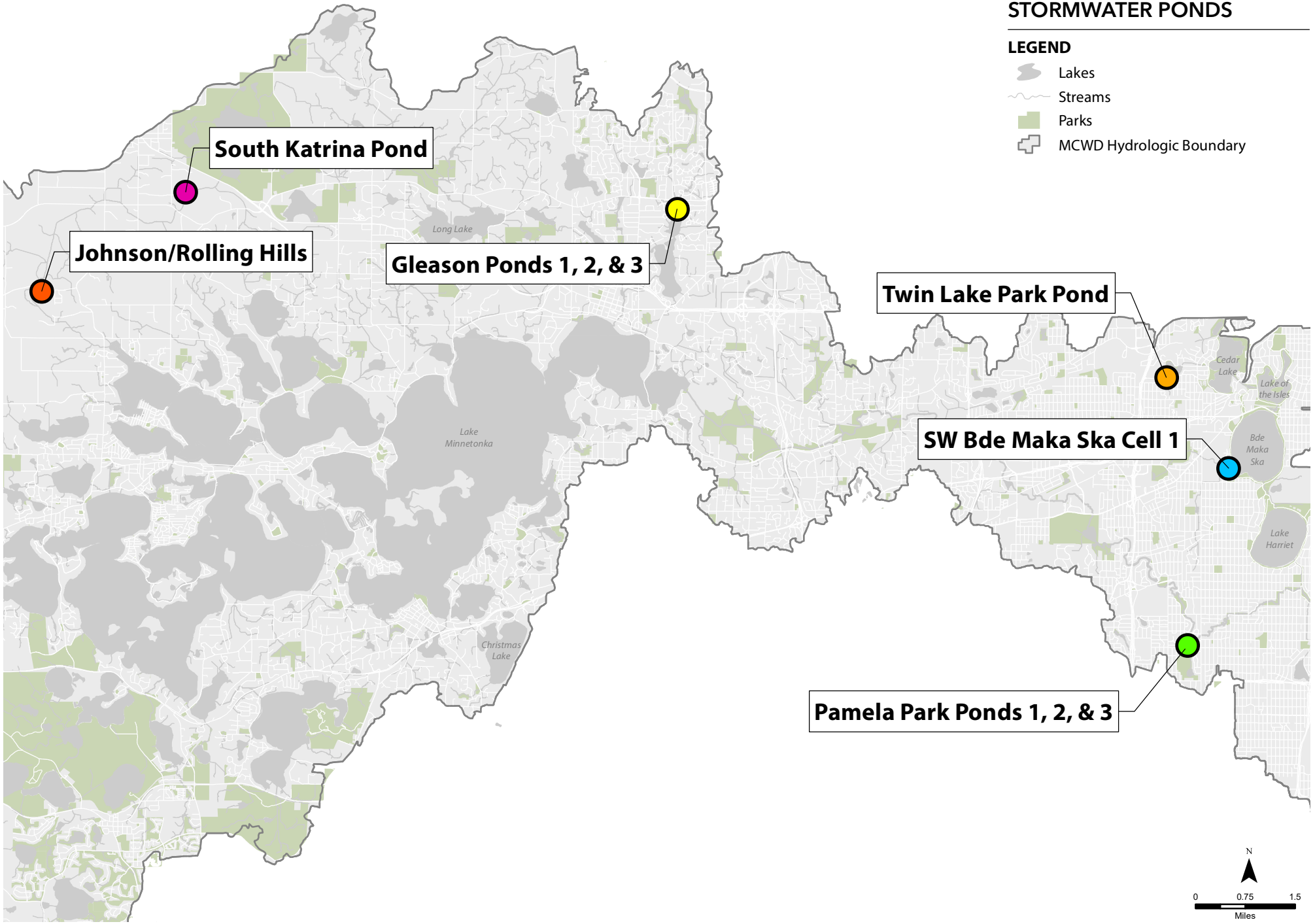
NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers authorizes the District Administrator, on advice of counsel, to execute a contract with Stantec Consulting Services, Inc. for the annual survey, technical memo, and maintenance recommendation of 10 ponds, and sediment sampling and analysis, design and bid documents**,** and construction oversight for the maintenance of one pond for $51,150, and authorizes the Administrator to execute change orders as necessary in the not-to-exceed amount of $56,265.

Resolution Number 21- 021 was moved by Manager _____, seconded by Manager _____. Motion to adopt the resolution ___ ayes, ___ nays, ___abstentions. Date: 3/25/2021

_____ Date: March 25, 2021
Secretary

MINNEHAHA CREEK WATERSHED DISTRICT

STORMWATER PONDS



Path: Q:\Departments\GIS\Projects\SW_Ponds\GIS\MCWD_SWPond_VegRFP_2021.mxd 3/22/2021

	Background Information			Survey Information					Future Planning		Past Dredging Information			
Subwatershed & Pond Name	Year Built	Maintenance Responsibilty	As-Built Design (CY)	Next Survey	Surveys	Accumulated Sediment (CY)	% Full	Sediment Accumulation Rate (%/yr)	Estimated Cleanout Year	Estimated Cleanout Cost	Dredge Years	Dredge Cost	Dredge Amount Removed (CY)	Cost per Cubic Yard
Minnehaha Creek														
60th and 1st Pond	2000	Minneapolis			2013		North Bay: 0" of sediment; SW Bay: 37.2" of sediment; SE Bay: 9.6" of sediment							
Cedar Meadows-Basin 1 (West)	1996	MCWD	13,000	2023	2004		Dredged	6%	2025		2004	$41,574	2750	$15.12
					2007		2" of sed.							
					2010		9%							
					2014		Insignificant							
					2017		Insignificant							
					2020 - May	2,280	18%							
Cedar Meadows - Basin 2 (East)	1996	MCWD	5,710	2023	2020 - May	2,180	38%	3%	2023					
Excelsior Pond	2013	MCWD	2,385	2022	2016		14%	1.30%	2039					
					2019 - Sept	377	16%							
Nokomis-Amelia	2001	MCWD	22,247	2022	2010		13%	5%	2022	$200-$600k;	2010/11	$48,175	2147	$22.44
					2011		Dredged							
					2016		21%							
					2019 - Sept	7,956	36%							
Nokomis-Gateway	2001	MCWD	5,516	2022	2010		2%	0.70%	2039+					
					2016		4%							
					2019 - Sept	321	6%							
Nokomis-Knoll	2001	MCWD	6,743	2022	2005		NR		2039					
					2013		Depth of sediment							
					2016		16%							
					2019 - Sept	1,075	16%							
SW Bde Maka Ska - Cell 1	1999	MCWD		2021	2004		Dredged				2004	$57,417	3120	$18
					2007		< 12" sediment							
					2011		27%							
					2011		Dredged				2011/12	$116,039	2024	$57
					2017		38%**							
					2018 - May		42%				2018/19	$57,500	2000	$28.75
					2018-2019		Dredged							
SW Bde Maka Ska - Cell 2	1999	MCWD	12,690	2022	2004		Dredged		2030; dependent on Cell 1					
					2007		Insignificant							
					2011		Insignificant							
					2020 - May		22%	3%						
Pamela Park - Cell 1	2001	Edina completed first, now MCWD thereafter		2021	2011		Insignificant							
					2015		36%							
					2018 - May		59%				Dec. 2018 - Feb. 2019	$77,850 (Edina paid)	1800	$43.25
					2018-2019		Dredged							
Pamela Park - Cell 2	2001	Edina-1st dredging, MCWD thereafter		2021	2011		Insignificant							
					2015		21%							
					2018 - May		38%							
Pamela Park - Cell 3	2001	Edina-1st dredging, MCWD		2021	2011		Insignificant							
					2015		4%							
					2018 - May		18%							
Twin Lakes Park Pond	1996	MCWD	6,840	2021	2004		Dredged		2022	$85K-$256K	2004	$19,945	3403	$6
					2007		NR							
					2010		31%							
					2011		41%							
					2012		Dredged				2012	$99,359	2080	$48
					2014 - May		11%							
					2017 - April		14%							
					2020 - May	2,610	38%	8%						
Long Lake Creek														
County Road 6 Pond	1998	MCWD	19,602	2022	2005		NR							
					2011		Insignificant							
					2016		6%							
					2019 - Sept	1,883	10%	1.30%	2039					
Deer Hill Pond-North	1996	MCWD		2022	2007		< 12" of sediment							
					2013		4.8" of sediment							
					2018 - May		5%							
Deer Hill Pond-South	1996	MCWD		2022	2007		Insignificant							
					2018 - May		Insignificant							
Long Lake Park-North	1996	MCWD	4,930	2022	1998		6%		2022	$61k-$184k				
					2004		Dredged				2004	$16,578	2410	$6.88
					2010		Insignificant							
					2014		20%							
					2017		10%**							
					2020 - May	1,750	35%	8%						
Long Lake Park-South	1996	MCWD	2,510	2022	2006		Dredged		2022 - Dredge with North pond for cost eff.	$31K-$94K	2006			
					2010		Insignificant							
					2014		29%							
					2017		21%**							
					2020 - May	750	30%	3%						
Gleason Lake Creek														
Gleason Lake North - Pond 1	1995	MCWD		2021	2006		NR							
					2011		85%							
					2012		Dredged				2012	$62,995	900	$70
					2015		0%							
					2018 - May		37%							
Gleason Lake North - Pond 2	2008	MCWD		2021	2006		NR							
					2015		57%							
					2016		Dredged				2016	$45,064	892 (2&3)	$51
					2018 - May		19%							
Gleason Lake North - Pond 3	2008	MCWD		2021	2006		NR							
					2015		68%							
					2016		Dredged				2016	$45,064	892 (2&3)	$51
					2018 - May		12%							
Glenbrook Pond	1994	Wayzata		2032	2013		Depth of sediment							
					2016		44%							
					2017		Dredged				2017/18	$463,500	16,000	~$29
Lake Minnetonka														
Lakeside Pond	1994	Wayzata			2006		NR							
					2010		30%							
					2014		42%							
Gideon Glen	2006	Shoreview	1,965	2022	2016		8%	0.30%	2039+					
					2019 - Sept		9%							
Swan Lake	2008	MCWD	15,800	2023	2014		21%	2%	2039					
					2017		7%**							
					2020 - May	2,130	13%							
Painter Creek														
Johnson/Rolling Hills	2008	MCWD		2021	2013		6" of sediment							
					2015		21%							
					2018 - May		26%							
Painter Marsh	1985*	MCWD	46,800	2025?	2007		9" of sediment	0%	2040+					
					2010		Insignificant							
					2015		18%							
					2020 - May	8,540	18%							
South Katrina Pond	1985*	MCWD		2021	2011		Insignificant							
					2015		5%							
					2018 - May		17%							
Six Mile Creek														
Steiger Wetland Pond (1988)***	1988	MCWD			2015		75%							

*Expanded in 1997

** New sediment survey technique used

***Not built by MCWD, aquired through property purchase.

NR = No Record

WENCK
now part of
Stantec

Stantec Consulting Services Inc.
7500 Olson Memorial Hwy, Suite 300, Golden Valley MN 5527

Date March 19, 2021
File: 0185-21-506

Attention: **Janna Jonley**
Project & Land Management Technical
Minnehaha Creek Watershed District
15320 Minnetonka Boulevard
Minnetonka MN 5545

Reference: 2021 Stormwater Pond Annual Survey and Maintenance

Dear Ms. Jonely

Wenck, now part of Stantec (Stantec) is pleased to present Minnehaha Creek Watershed District our qualifications to provide pond survey and design services for the District. We are committed to providing MCWD with the highest level of quality and service, driving maximum value into your projects and conducting business with your best interests in mind - all at a very competitive price.

The enclosed Proposal provides an overview of our extensive experience, expertise, and summary of our approach. We can provide the following unique qualifications to the District:

- **Long History Serving the District –** Stantec has partnered with MCWD over the last 30-years; together we have successfully implemented more than one hundred projects.
- **Striving for Improvement –** we are always learning and developing new techniques, identifying new areas of improvement that provide our clients with additional value. We look forward to continuing to refine our approach to provide MCWD with greater “bang for the buck”.
- **Wholistic Approach –** we approach this project understanding that this is not “just” a pond survey project. We understand how the ponds are connected to the Creek itself, and how this study relates to other District objectives, such as the Long Lake Study and Minnehaha Creek Greenway. Our institutional knowledge will help us go the extra mile to provide the District with a deliverable that does not “just” check a box but will be a planning document to direct future District funding and actions.

Project Understanding

Stantec understands this is simply not a pond survey and dredging project, it is part of a wholistic approach to water resources management. Through a comprehensive assessment of these pond systems, the District may improve operation of these current assets while also better understanding how future ponds will function. Our vision for this scope of work is to evaluate current pond performance, and identify potential ways to optimize the systems, whether it be improving maintenance protocol, design improvements, or otherwise.

We recognize stormwater ponds are a tactic to manage an entire ecosystem. If managed properly stormwater ponds protect, improve and maintain the health of Minnehaha Creek. Studies have shown that neglected ponds can become phosphorus sources. As a partner with the District for over 30-years, Stantec continues to collaboratively partner with the District to further understand these systems to optimize future operations. We propose a collaborative approach with the District Project Maintenance and Land

management along with Research and Monitoring (R&M) departments to better diagnose what is working in the existing ponds and what can be improved. Questions like:

- How are existing forebays functioning? Are they too big, too small, or, just right?
- How do pond functionality and maintenance requirements compare in single-celled versus multi-celled ponds?
- Do we need to be more proactive in pond management as they are now becoming a source of nutrients?
- Are undersized ponds even worth constructing in the future?

These are a sampling of questions we believe we can help the District answer through implementation of this project. We see potential improvements to the plan including looking at delaying the survey of certain ponds after they have been surveyed two to three times and are demonstrating low sediment accumulation rates. Conversely, if they have not accumulated sediment at a rate typical in ponds, filling in 7-12 years, there may be a need to review if they are truly as effective as originally designed. Much like managing any ecosystem there needs to be continuous review and adjustment to a system.

This approach will build on the District's reputation as a value-add partner and may assist many of the District's municipal partners who are truly just starting to understand the magnitude of effort required to maintain and successfully operate a stormwater management system. By being able to provide insight and assistance to partners through proven data and analysis, the District can prioritize their ponds in addition to helping partners identify key attributes to manage their systems with limited maintenance dollars. Additionally, taking a focus on continuous improvement will better inform how the design of new ponds may be developed to limit future expenditures. As the District continues to assume ownership of these practices, effective design, operation and maintenance of stormwater systems watershed wide is critical given the continual push to ensure diligent spending of every dollar.

As a long-term partner of the District, we have reviewed sediment accumulation trends in the ponds to be surveyed this year and estimate that Twin Lake Park Pond, Gleason Pond 1, and Pamela Park Pond 2 will likely be more than 40-percent full and may need to have sediment samples collected. Based on the results of the sediment survey, we are prepared to quickly collect sediment samples as needed.

Pond	Previously Measured Percent Sediment Accumulation	2021 Percent Sediment Accumulation (Estimate)[1]
Twin Lake Park Pond	38% (2020)	40-42%
SW Bde Maka Ska – Cell 1	0% (2019)	4-8%
Pamela Park – Pond 1	64% (2018)	4-8%
Pamela Park – Pond 2	38% (2018)	44-50%
Pamela Park – Pond 3	18% (2018)	24-30%
Gleason Pond 1	37% (2018)	43-49%
Gleason Pond 2	19% (2018)	25-31%
Gleason Pond 3	12% (2018)	18-24%
South Katrina Pond	17% (2018)	23-29%
Johnson/Rolling Hills	16% (2018)	22-28%

[1] Stantec's and the District's studies have shown average pond sediment accumulation rate is approximately two to four percent per year.

Again, our understanding of this scope of work is that it is not simply a routine check and dredge exercise, it is taking review of a system to understand and communicate how it is currently operating and identifying how to continually improve its health.

Project Approach

Task 1 – Sediment Survey. Due to the timing this year's surveys, Stantec understands scheduling is somewhat flexible to achieve the District's goal of winter construction of any identified pond cleanout projects. Therefore, we anticipate waiting until the spring melt occurs and peak water levels have receded prior to conducting the surveys. In the interim, we will stay in communication with the District to ensure we all are on the same page regarding timing. Based on this year's number and location of ponds, we expect our survey will take approximately four days, where we will survey two to three ponds per day. Listed below are our expected groupings.

- Day 1: Twin Lake Park and SW Bde Maka Ska Cell 1;
- Day 2: Pamela Park Ponds 1, 2, and 3;
- Day 3: Gleason Ponds 1, 2, and 3; and
- Day 4: Katrina and Johnson/Rolling Hills.

The survey will utilize GPS and survey rod readings to record depth of water and depth to refusal measurements. This method collects a high density of points, which enables a better understanding of pond geometry.

Through the survey we will collect the below information as requested in the request for proposal (RFP). Additional, "upland" topographic information will be collected under a separate task if necessary, to facilitate a pond cleanout project.

- Water surface elevation;
- Top of sediment elevation;
- Depth to refusal;
- Above water level inlet and outlet structures; and
- Visible and accessible subsurface structures.

We will also profile dissolved oxygen concentrations and conductivity measurements throughout the ponds to evaluate potential anoxic conditions (not likely given the time of the year) and chloride accumulation in the ponds (likely elevated given the time of the year).

Included in Task 1 is a kickoff meeting, held virtually. Two Stantec staff will prepare agenda for, attend, and provide the District our minutes from the meeting. It is anticipated that the Stantec project manager and District Engineer will attend the kickoff meeting, and topics of discussion will include reviewing existing information, scheduling, and any other relevant District initiatives.

Other than meeting minutes, no specific deliverables are included as part of Task 1. Data generated as part of Task 1 will be processed and shared as deliverables in separate Tasks.

Reference: **2021 Stormwater Pond Annual Survey and Maintenance**

Task 2 – Technical Report. Stantec will consolidate information obtained in the pond surveys along with sediment analysis in one concise report that documents the status of the surveyed ponds. Per District protocol, ponds that have lost greater than 50-percent of their permanent pool volume to accumulated sediment will be recommended for cleanout projects.

The report will include the methods and approach to collecting the data, including any unique observations noted during the survey. As with our past reports we will look to provide documentation of as-built volume and compare results to the surveyed remaining volume. This will lead to the calculation of the accumulated sediment in the pond. Succinctly in table format will be a summary of the remaining capacity of the pond determining if it has passed the 50-percent capacity threshold.

The technical report will recommend ponds which should be dredged in addition to ponds which could have future surveys delayed due to low sediment accumulation rates. If sediment accumulation rates are unusually low, we will recommend potential next steps for a performance evaluation.

Task 3 – Sediment Sampling and Testing. Stantec will remobilize to the site to collect sediment samples for ponds that are identified as requiring maintenance. If a pond is deemed close to the 50-percent, we may recommend sample collection to allow for understanding of future dredging costs associated with the collected sediment as there is significant variability in cost per cubic yard for contaminated sediments.

We will collect the sample at the site, and subcontract with a testing laboratory to evaluate sediments for pollutants. We will follow protocols described in MPCA's 2017 *Managing Stormwater Sediment Best Management Practices Guidance*. Specifically, sediments collected will be analyzed for cPAHs, PAHs, arsenic, copper and total phosphorus. Based on our understanding of the area and District history, no additional pollutants are proposed to be tested for at this point in time.

Our estimate for sampling ponds includes sample collection, transport and lab analysis. Through the analysis we will summarize sediment characteristics and disposal requirements (i.e. Level 1, 2, 3).

Pond	Area (ac)	Number of Samples
Twin Lakes Park	1.5	2
SW Bde Maka Ska – Cell 1	0.8	2
Pamela Park – Pond 1	0.7	2
Pamela Park – Pond 2	0.5	2
Pamela Park – Pond 3	0.7	2
Gleason Pond 1	0.4	2
Gleason Pond 2	0.2	2
Gleason Pond 3	0.2	2
South Katrina Pond	0.6	2
Johnson/Rolling Hills	0.2	2
TOTAL		20

Deliverables for Task 3 include sediment pollutant test results. This data will be processed, analyzed and shared with the District as a deliverable under a separate task.

Task 4 – Design and Construction Administration. If a pond is determined to need maintenance Stantec will develop plans and specifications to accommodate bidding the project in late October or early November, such that the project will be bid during a favorable bidding timing as contractors look to fill their winter work schedule. Our unmatched experience working the District's specifications ensures an efficient and clear bidding package will be developed.

The design process includes developing a technical report, construction documents, specifications, opinion of probable cost, assistance in obtaining permits from state and local entities, and construction observation.

Site Survey. As described above, our initial site survey will focus on the evaluating ponds' permanent pools and immediately adjacent inlets and outlets. Prior to surveying, we expect to have open conversations with the District as to overall construction scope and to identify any potential pond improvement options, or other "upland" oriented improvements. Our team is prepared to collect that data such that bidding documents are clear and concise for potential bidding contractors. Items completed as part of the survey include:

- Request Gopher State One Call private utility locate;
- Locate existing infrastructure within construction limits and adjacent areas;
- Locate and tag potential trees of interest;
- Confirm access road location and any potential conflicts;
- Locate public and private utility lines marked as a result of a Gopher One Call locate request and based on visible above ground evidence; and
- Install up to 3 durable on-site survey control points.

Preliminary Engineering and Design Draft Report. Upon District approval of the project, Stantec will quickly leverage our depth of experience completing projects for MCWD to assemble 60% Plans. As we go through the process, we will be aligning staff resources to quickly turn around plans. Our team has the existing formats for each of the 10 sheets which will need to be completed allowing our team to quickly pull in collected data and develop plans in a seamless integration. We understand the initially desired sheets are:

- Title Sheet with Location Map
- Topographic Survey
- Statement of Estimated Quantities
- Removal Plan
- Construction Notes
- Stormwater Pollution Prevention Plan
- Grading and Drainage Plan
- Erosion Control Plan & Details
- Site Details
- Restoration Planting Plan

Using over 75 bid tabs Stantec has obtained the past year for similar projects, along with our depth of past experience completing dredging projects, an opinion of probable cost will be developed for bidding purposes. We expect this will be a refinement of the estimate provided in our Technical Report with more specificity around project details defined by MCWD and partner communities.

Reference: **2021 Stormwater Pond Annual Survey and Maintenance**

We will also develop concurrently a technical report that lays out the objective, approach, and assumptions. A draft of this will accompany the 60-percent plans for MCWD team members to review.

Stantec will look to deliver 60-percent Plans and the draft technical report such that MCWD has adequate time to review and provide comments. After the District has had adequate time to review, Stantec staff will meet at District offices to review comments in person. It is anticipated that the Stantec project manager and District Engineer will attend the 60-percent design meeting.

Final Engineering and Design Report. Through the review process Stantec will incorporate identified edits by MCWD, partner City or review agency into our plans. We assume changes from the 60-percent design to the final design efforts will be minor changes. Our ongoing experience with the District will streamline the review process and limit rework delays.

The incorporation of these final edits will lead to a 100% Final Design and Report meeting where focus will turn to bidding and finalization of specification needs. It is anticipated that the Stantec project manager and District Engineer will attend the final design meeting at District offices or virtually.

Permitting Assistance. Stantec will work collaboratively with the District throughout the design process to develop materials necessary for permit submittals. As the District Engineer, we are very experienced assisting with submittal of District permits as well as necessary permits from MN DNR, Local Municipalities and MPRB. As a collaborative partner we look to review necessary permits ahead of time with staff along with going through submittal requirements such that each partner focuses on their expertise for timely submittal. We will also work with staff through the development of the bid package to ensure it is clear which permits are required by the contractor (SWPPP, dewatering, any necessary hauling permits).

Our team will be prepared to assist staff with necessary permit submittals. We assume District staff will take the lead on filling out permit applications and formally applying, and we will provide supporting information, such as plans or figures. We also assume any required permit fees will be paid directly by the District.

Design Meetings. Open and continuous communication is critical for the success of any project and even though this could be seen as a simple “dredging project” it still requires the same approach. As such Stantec is prepared to maximize in person meetings to address perceived/current project hurdles, update on status. Our team will look to have the Project Manager and District Engineer present at all meetings. We anticipate the following meetings:

- Kickoff meeting with MCWD staff;
- Up to two, one-hour in person meetings with MCWD, City, and/or MPRB Staff to facilitate project coordination;
- Meeting with MCWD staff to review 60% Preliminary Design Report and site plans;
- Meeting with MCWD staff to review 100% Final Design Report and site plans; and
- Up to eight, half hour check-in calls/updates with Janna.

Bid Documents. Working collaboratively with the District, a specification package with signed plans will be assembled specifically for the unique project and site. Stantec will use our knowledge developing specifications for MCWD and in particular pond dredging projects to customize bid documents to ensure a successful project. Customization may include such items as haul routes, work hours, or dewatering requirements specific to the project.

Reference: **2021 Stormwater Pond Annual Survey and Maintenance**

Additionally, an engineer's cost estimate will be finalized for bidding purposes. Division 0 from MCWD will be combined with technical specifications from Stantec to produce a completed bid package. Upon completion, Stantec will provide three hard copy versions for the District along with PDF and WORD versions.

During the bidding process Stantec will prepare the advertisement for bids along with posting the project documents to Quest CDN bidding system to maximize exposure. Stantec will develop pre-bid agenda, walkthrough the project with bidders at pre-bid meeting, and answer questions bidders may have. If necessary, addenda will be issued through Quest. Stantec assumes the project manager and District Engineer will attend the pre-bid meeting.

Upon receiving bids, Stantec will tabulate and provide a recommendation as to how to proceed. Stantec has a proven history of providing the tabulation and recommendation within four hours of receiving the bids for quick incorporation into the District's Board Packet. Stantec assumes the District Engineer will attend the bid opening.

Construction Observation and Administration. Once bidding is complete our team is prepared to provide assistance as necessary to the District to escort the project through construction. Our team will cover key components with the selected contractor at the pre-construction meeting with a targeted agenda which emphasizes critical components to the project along with a communication plan.

Through feedback at the meeting our team of surveyors will provide key construction staking needs in addition to benchmarks the contractor will need. We assume two visits from Stantec surveyors will be necessary to facilitate a successful construction project. We expect access route limits, construction and removal limits, up to five control points and pipe and structure offsets if feasible will be staked on the first visit. The second visit will involve staking pipe and structure offsets if infeasible to stake on the first visit, control point replacement if necessary, and to verify the contractor's stakes or grading.

Throughout the construction process, we assume the District will lead the day to day inspection tasks and contractor communication. We have budgeted eight, two-hour site visits throughout the duration of the project. A Stantec inspector will be available to mobilize to the site to offer insight at key construction junctures and to answer questions. Additionally, the inspector will attend up to four onsite progress meetings we expect will occur every other week.

At the conclusion of excavation, the Stantec inspector and District staff will conduct a walkthrough where a final punch list will be developed to ensure loose ends are tied up.

Finally, as-built plans will be completed to confirm excavation quantities and release final payment to the contractor.

Through the entire project our team will track quantities provided by the contractor in relation to estimates. We will also work with the contractor to provide pay requests in advance of MCWD Board meetings, creating an efficient payment process. Additionally, if there are field orders and change orders necessary, Stantec will look to develop and process them. We have budgeted to handle one field order along with one change order. We do not expect any field orders or change orders will be required, but our goal is to ensure the District has an adequate budget number for moving forward with the project.

Reference: **2021 Stormwater Pond Annual Survey and Maintenance**

Schedule

We assume our scope, schedule and budget will be approved at the Districts meeting on March 25th, 2021 and understand any pond cleanout projects will be constructed over the winter of 2021-22 as noted in the RFP. We believe our schedule below provides adequate time for thoroughly reviewing and assessing our findings, before moving onto future phases of the project. Several key check points are provided as well that offer the District opportunity to provide input to direct final study and design outcomes.

Task	Start Date	Completion Date
MCWD Approves Scope, Schedule and Budget	3/25/21	3/31/21
Task 1 – Sediment Survey	*3/29/21*	*5/15/21*
1.01 Kickoff Meeting	3/29/21	4/9/21
1.02 Sediment Surveys[2]	4/12/21	5/15/21
Task 2 – Technical Report	*5/3/21*	*6/25/21*
2.01 Draft Report and Supporting Documents	5/3/21	5/28/21
2.02 Final Report and Supporting Documents	5/31/21	6/25/21
Task 3 – Environmental Tests for Sediment Samples	5/3/21	6/25/21
3.01 Sample Sediment for Ponds Less than 1.0-ac	5/3/21	6/25/21
3.02 Sample Sediment for Ponds Between 1.0- and 4.0-ac	5/3/21	6/25/21
MCWD Approves Technical Report Findings and Orders Design and Construction of Select Ponds	*6/24/21*	*7/9/21*
Task 4 – Site Design and Construction	7/12/21	11/18/21
4.01 Site Survey	7/12/21	7/30/21
4.02 60% Design	8/2/21	8/27/21
4.03 60% Design Meeting	8/30/21	9/10/21
4.04 Final Design	9/13/21	10/8/21
4.05 Final Design Meeting	10/11/21	10/22/21
4.06 Permitting Assistance	7/12/21	11/18/21
4.07 Additional Design Meetings	7/12/21	11/18/21
4.08 Prepare and Administer Bid Documents	10/25/21	11/18/21
Bid Project	*10/25/21*	*11/12/21*
Review Bids	*11/12/21*	*11/17/21*
Award Bid	*11/18/21*	*11/18/21*
4.09 Construction Observation and Administration	11/21/21	6/30/22

[2] Timing for in pond surveys will be somewhat flexible, as Stantec will target surveying the ponds after the spring melt, but before significant in pond vegetation is established.

Reference: **2021 Stormwater Pond Annual Survey and Maintenance**

Budget

Stantec proposes the following budget, on a time and materials basis not to exceed the budget without written consent from the District.

Task	Proposed Budget
Task 1 – Sediment Survey	*$16,000*
1.01 Kickoff Meeting	$800
1.02 Sediment Surveys	$15,200
Task 2 – Technical Report	*$4,950*
2.01 Draft Report and Supporting Documents	$4,550
2.02 Final Report and Supporting Documents	$400
*Task 3 – Environmental Tests for Sediment Samples**	*$1,950-$3,150*
3.01 Sample Sediment for Ponds Less than 1.0-ac	$1,950
3.02 Sample Sediment for Ponds Between 1.0- and 4.0-ac	$3,150
*Task 4 – Site Design and Construction**	$27,050
4.01 Site Survey	$2,500
4.02 60% Design	$4,400
4.03 60% Design Meeting	$750
4.04 Final Design	$2,550
4.05 Final Design Meeting	$750
4.06 Permitting Assistance	$650
4.07 Additional Design Meetings	$1,950
4.08 Prepare and Administer Bid Documents	$3,000
4.09 Construction Observation and Administration	$10,500

*Costs listed for Task 3 and Task 4 are on a per pond basis.

As Stantec's final scope of work is a function of our findings in Task 1, the table below presents several scenarios ranging from what we believe is the most likely (one or two of the ponds require sediment samples or dredging) to the most unlikely (all of the ponds require sediment sampling and dredging). In the (extremely) unlikely event where all ponds require dredging, Stantec's fees could exceed $300,000 based on the way the RFP is structured. In the event multiple ponds are identified for cleanout projects, Stantec would be happy to discuss a revised scope, schedule and budget as it is expected significant economies of scale may be realized in Task 4 as the number of design projects increase (such as meetings to discuss multiple projects, shared specifications, etc.).

Furthermore, Task 4.09 Construction Observation and Administration is by far the largest single task (other than surveying all ponds). Based on our experience in working with pond dredging projects, we believe our assumed hours and tasks are adequate to be onsite to observe construction at critical junctures. However, in the event of differing site conditions, or a nonresponsive contractor, or other unexpected construction issues, we will alert the District immediately of the changed conditions, and once half of our budgeted hours have been consumed to determine a course of action. In the scenario where less effort and budget is required to complete our scope of work for construction administration, the District will only be billed for budget consumed on a time and materials basis.

Reference: **2021 Stormwater Pond Annual Survey and Maintenance**

Scenario	Task 1 Costs	Task 2 Costs	Task 3 Costs	Task 4 Costs	Total Costs
A – Zero Ponds Require Sampling/Dredging	$16,000	$4,950	$0	$0	$20,950
B – One Pond Requires Sampling/Dredging	$16,000	$4,950	$1,950-$3,150	$27,050	$49,950-$51,150
C – Two Ponds Require Sampling/Dredging	$16,000	$4,950	$3,900-$6,300	$54,100	$78,950-$81,350
D – All Ponds Require Sampling/Dredging	$16,000	$4,950	$22,800	$270,500	$314,250

Stantec's wholistic approach to project delivery by truly acting as partner through the process ensures the District's risk is limited while ensuring resources are protected through successful maintenance and improvement of the existing stormwater management system.

On behalf of the 300+ employee-owners of Stantec, thank you for this opportunity to work with Minnehaha Creek Watershed District. Should you have any questions or need clarification of anything presented in the attached proposal, please do not hesitate to call Dan at 651-395-5225 or Chris at 763-252-6844.

Regards,

Stantec Consulting Services Inc.

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