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**Title:** Authorization for Long Lake Creek Subwatershed Watershed Assessment Contract Scope Adjustment and Extension

**Resolution number:** 21-019

**Prepared by:** Name: Brian Beck  
Phone: 952-471-8306  
bbeck@minnehahacreek.org

**Reviewed by:** Name/Title: District Counsel

**Recommended action:** Authorize Long Lake Creek Subwatershed Assessment Contract Scope Adjustment and Extension

**Schedule:** May 31<sup>st</sup>, 2021: End of Project

**Budget considerations:** Fund name and code: 5-5001-4320-001  
Fund budget: \$112,000  
Expenditures to date: \$93,845.77  
Requested amount of funding: No additional funding requested

**Past Board action:**

Res #: 18-043	Title: Authorization to execute an agreement with the Cities of Long Lake, Medina and Orono, and the Long Lake Waters Association, to partner on a carp assessment in Long Lake
Res #: 19-039	Title: Authorization to release RFP for the Long Lake Creek Subwatershed Assessment
Res #: 19-055	Title: Authorization to Execute Contract with Consultant to Conduct the Long lake Creek Subwatershed Assessment

**Summary:**

The Cities of Long Lake, Medina, and Orono; Long Lake Waters Association (LLWA); and Minnehaha Creek Watershed District (MCWD or District) have agreed to work together towards a common goal of improving water quality within the Long Lake Creek Subwatershed. This effort will help the cities meet state load reduction requirements for the five impaired lakes in the system and ensure that area lakes are swimmable and fishable.

To support this effort, the District has led a subwatershed assessment to provide a strong scientific understanding of the system, identify cost-effective projects and strategies, and develop a clear and actionable roadmap to implement them. This roadmap will include the data, methodology, and findings from the assessment; prioritized projects, costs, and benefits; and the recommended action steps, roles, timeline, and funding strategy for implementation.

In December 2018, the District was awarded an Accelerated Implementation Grant from the Board of Water and Soil Resources (BWSR) in the amount of \$112,000 for the Long Lake Creek Subwatershed Assessment. Subsequently, on

March 28th 2019, the MCWD Board authorized staff to issue two separate Requests for Proposal (RFP) to retain professional services to conduct 1) a carp assessment and 2) nutrient assessment to improve water quality in the Long Lake Creek subwatershed.

In 2019 and 2020, District staff, partners, and the consultants identified a variety of potential watershed improvement projects. The District retained WSB to perform a carp assessment in an amount not to exceed \$34,823, and retained Wenck to perform a watershed engineering assessment in an amount not to exceed \$50,000. WSB completed its work \$13,218 under budget, and District staff have identified additional engineering assessment work to be performed, as described in Wenck Associates (now Stantec Consulting Services) Proposed Scope and Budget Adjustment Overview, in the amount of just under \$11,000. District staff have confirmed with BWSR that the added work fits within the approved grant work plan and grant funds remain to cover that cost.

District staff recommends that \$11,000 of the BWSR grant funds previously allocated to the carp assessment be reallocated to the engineering assessment conducted by Wenck Associates, which would increase the engineering contract's not to exceed budget from \$50,000 to \$61,000.

**Supporting documents (list attachments):**

- Attachment 1: Wenck Associates Original Scope and Budget
- Attachment 2: Wenck Associates Proposed Scope and Budget Adjustment Overview



**RESOLUTION**

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**Resolution number:** 21-019

**Title:** Authorization to Amend Long Lake Creek Subwatershed Watershed Assessment

WHEREAS, the Minnehaha Creek Watershed District entered into a regional partnership in 2016 with the Cities of Medina, Long Lake and Orono, and the Long Lake Waters Association, to pursue water quality improvements in the Long Lake Creek (LLC) Subwatershed;

WHEREAS, the District’s watershed management plan acknowledges this regional partnership, with the partnership leveraging the skills and resources of each entity, by collaborating and identifying shared priorities for the implementation of projects to improve water quality in the LLC Subwatershed;

WHEREAS, MCWD applied for and was awarded a BWSR Accelerated Implementation Grant of \$112,000 to identify best management practices and develop an implementation plan for the LLC Subwatershed;

WHEREAS, on March 28, 2019 staff issued two requests for proposals (RFP) to a pool of consultants for carp assessment and watershed assessment services in the LLC Subwatershed;

WHEREAS, in May 2019 the Board of Managers approved a contract with WSB, Inc for the LLC Carp Assessment in an amount not to exceed \$34,823;

WHEREAS, in May 2019 the Board of Managers approved a contract with Wenck Associates for the LLC Watershed Assessment in an amount not to exceed \$50,000;

WHEREAS, WSB has completed the carp assessment for the LLC Subwatershed under budget by \$13,218;

WHEREAS, Wenck Associates (now Stantec Consulting Services) has submitted an additional scope of work to increase the number of projects that would be evaluated for the LLC Subwatershed Assessment. Staff recommend increasing the original contract’s amount not to exceed from \$50,000 to \$61,000;

WHEREAS, the additional scope of work has been approved by BWSR and the additional \$11,000 is supported entirely by the Accelerated Implementation Grant for the LLC Subwatershed Assessment;

NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers authorizes the District Administrator, on advice of counsel, to execute an amendment incorporating additional work into the Long Lake Creek Subwatershed Nutrient Assessment and increasing the not-to-exceed to \$61,000.

Resolution Number 21-019 was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_. Motion to adopt the resolution \_\_\_ ayes, \_\_\_ nays, \_\_\_ abstentions. Date: [Click here to enter a date.](#)

\_\_\_\_\_  
Secretary Date: \_\_\_\_\_

**AGREEMENT BETWEEN  
MINNEHAHA CREEK WATERSHED DISTRICT and  
Wenck Associates, Inc.**

**Long Lake Creek Subwatershed Assessment**

This agreement is entered into by the Minnehaha Creek Watershed District, a public body with powers set forth at Minnesota Statutes chapters 103B and 103D (MCWD), and Wenck Associates, Inc., a Minnesota corporation ("CONSULTANT"). In consideration of the terms and conditions set forth herein and the mutual exchange of consideration, the sufficiency of which hereby is acknowledged, MCWD and CONSULTANT agree as follows:

1. Scope of Work

CONSULTANT will perform the work described in the April 19, 2019 Scope of Services attached as Exhibit A (the "Services"). Exhibit A is incorporated into this agreement and its terms and schedules are binding on CONSULTANT as a term hereof. MCWD, at its discretion, in writing may at any time suspend work or amend the Services to delete any task or portion thereof. Authorized work by CONSULTANT on a task deleted or modified by MCWD will be compensated in accordance with paragraphs 5 and 6. Time is of the essence in the performance of the Services.

2. Independent Contractor

CONSULTANT is an independent contractor under this agreement. CONSULTANT will select the means, method and manner of performing the Services. Nothing herein contained is intended or is to be construed to constitute CONSULTANT as the agent, representative or employee of MCWD in any manner. Personnel performing the Services on behalf of CONSULTANT or a subcontractor will not be considered employees of MCWD and will not be entitled to any compensation, rights or benefits of any kind from MCWD.

3. Subcontract and Assignment

CONSULTANT will not assign, subcontract or transfer any obligation or interest in this agreement or any of the Services without the written consent of MCWD and pursuant to any conditions included in that consent. MCWD consent to any subcontracting does not relieve CONSULTANT of its responsibility to perform the Services or any part thereof, nor in any respect its duty of care, insurance obligations, or duty to hold harmless, defend and indemnify under this agreement.

4. Duty of Care; Indemnification

CONSULTANT will perform the Services with due care and in accordance with national standards of professional care. CONSULTANT will defend MCWD, its officers, board members, employees and agents from any and all actions, costs, damages and liabilities of any nature arising from; and hold each such party harmless, and indemnify it, to the extent due to: (a) CONSULTANT's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty; or (b) a subcontractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty owed by CONSULTANT to MCWD. For any claim subject to this paragraph by an employee of CONSULTANT or a subcontractor, the indemnification obligation is not limited by a limitation on the amount or type of damages, compensation or benefits payable by or for

CONSULTANT or a subcontractor under workers' compensation acts, disability acts or other employee benefit acts.

5. Compensation

MCWD will compensate CONSULTANT for the Services on an hourly basis and reimburse for direct costs in accordance with Exhibit A. Invoices will be submitted monthly for work performed during the preceding month. Payment for undisputed work will be due within 30 days of receipt of invoice. Direct costs not specified in Exhibit A will not be reimbursed except with prior written approval of the MCWD administrator. Subcontractor fees and subcontractor direct costs, as incurred by CONSULTANT, will be reimbursed by MCWD at the rate specified in MCWD's written approval of the subcontract.

The total payment for the Services will not exceed \$50,000.00. Total payment in each respect means all sums to be paid whatsoever, including but not limited to fees and reimbursement of direct costs and subcontract costs, whether specified in this agreement or subsequently authorized by the administrator.

CONSULTANT will maintain all records pertaining to fees or costs incurred in connection with the Services for six years from the date of completion of the Services. CONSULTANT agrees that any authorized MCWD representative or the state auditor may have access to and the right to examine, audit and copy any such records during normal business hours.

6. Termination; Continuation of Obligations

This agreement is effective when fully executed by the parties and will remain in force until April 30, 2020 unless earlier terminated as set forth herein.

MCWD may terminate this agreement at its convenience, by a written termination notice stating specifically what prior authorized or additional tasks or services it requires CONSULTANT to complete. CONSULTANT will receive full compensation for all authorized work performed, except that CONSULTANT will not be compensated for any part performance of a specified task or service if termination is due to CONSULTANT's breach of this agreement.

Insurance obligations; duty of care; obligations to defend, indemnify and hold harmless; and document-retention requirements will survive the completion of the Services and the term of this agreement.

7. No Waiver

The failure of either party to insist on the strict performance by the other party of any provision or obligation under this agreement, or to exercise any option, remedy or right herein, will not waive or relinquish such party's rights in the future to insist on strict performance of any provision, condition or obligation, all of which will remain in full force and affect. The waiver of either party on one or more occasion of any provision or obligation of this agreement will not be construed as a waiver of any subsequent breach of the same provision or obligation, and the consent or approval by either party to or of any act by the other requiring consent or approval will not render unnecessary such party's consent or approval to any subsequent similar act by the other.

Notwithstanding any other term of this agreement, MCWD waives no immunity in tort. This agreement creates no right in and waives no immunity, defense or liability limit with respect to any third party.

## 8. Insurance

At all times during the term of this Agreement, CONSULTANT will have and keep in force the following insurance coverages:

- A. General: \$1.5 million, each occurrence and aggregate, covering both CONSULTANT's work and completed operations on an occurrence basis and including contractual liability.
- B. Professional liability: \$1.5 million each claim and aggregate. Any deductible will be CONSULTANT's sole responsibility and may not exceed \$50,000. Coverage may be on a claims-made basis, in which case CONSULTANT must maintain the policy for, or obtain extended reporting period coverage extending, at least three (3) years from completion of the Services.
- C. Automobile liability: \$1.5 million combined single limit each occurrence coverage for bodily injury and property damage covering all vehicles on an occurrence basis.
- D. Workers' compensation: in accordance with legal requirements applicable to CONSULTANT.

CONSULTANT will not commence work until it has filed with MCWD a certificate of insurance clearly evidencing the required coverages and naming MCWD as an additional insured for general liability, along with a copy of the additional insured endorsement establishing coverage for CONSULTANT's work and completed operations as primary coverage on a noncontributory basis. The certificate will name MCWD as a holder and will state that MCWD will receive written notice before cancellation, nonrenewal or a change in the limit of any described policy under the same terms as CONSULTANT.

## 9. Compliance With Laws

CONSULTANT will comply with the laws and requirements of all federal, state, local and other governmental units in connection with performing the Services and will procure all licenses, permits and other rights necessary to perform the Services.

In performing the Services, CONSULTANT will ensure that no person is excluded from full employment rights or participation in or the benefits of any program, service or activity on the ground of race, color, creed, religion, age, sex, disability, marital status, sexual orientation, public assistance status or national origin; and no person who is protected by applicable federal or state laws, rules or regulations against discrimination otherwise will be subjected to discrimination.

10. Data and Information

All data and information obtained or generated by CONSULTANT in performing the Services, including documents in hard and electronic copy, software, and all other forms in which the data and information are contained, documented or memorialized, are the property of MCWD. CONSULTANT hereby assigns and transfers to MCWD all right, title and interest in: (a) its copyright, if any, in the materials; any registrations and copyright applications relating to the materials; and any copyright renewals and extensions; (b) all works based on, derived from or incorporating the materials; and (c) all income, royalties, damages, claims and payments now or hereafter due or payable with respect thereto, and all causes of action in law or equity for past, present or future infringement based on the copyrights. CONSULTANT agrees to execute all papers and to perform such other proper acts as MCWD may deem necessary to secure for MCWD or its assignee the rights herein assigned.

MCWD may immediately inspect, copy or take possession of any materials on written request to CONSULTANT. On termination of the agreement, CONSULTANT may maintain a copy of some or all of the materials except for any materials designated by MCWD as confidential or non-public under applicable law, a copy of which may be maintained by CONSULTANT only pursuant to written agreement with MCWD specifying terms.

11. Data Practices; Confidentiality

If CONSULTANT receives a request for data pursuant to the Data Practices Act, Minnesota Statutes chapter 13 (DPA), that may encompass data (as that term is defined in the DPA) CONSULTANT possesses or has created as a result of this agreement, it will inform MCWD immediately and transmit a copy of the request. If the request is addressed to MCWD, CONSULTANT will not provide any information or documents, but will direct the inquiry to MCWD. If the request is addressed to CONSULTANT, CONSULTANT will be responsible to determine whether it is legally required to respond to the request and otherwise what its legal obligations are, but will notify and consult with MCWD and its legal counsel before replying. Nothing in the preceding sentence supersedes CONSULTANT's obligations under this agreement with respect to protection of MCWD data, property rights in data or confidentiality. Nothing in this section constitutes a determination that CONSULTANT is performing a governmental function within the meaning of Minnesota Statutes section 13.05, subdivision 11, or otherwise expands the applicability of the DPA beyond its scope under governing law.

CONSULTANT agrees that it will not disclose and will hold in confidence any and all proprietary materials owned or possessed by MCWD and so denominated by MCWD. CONSULTANT will not use any such materials for any purpose other than performance of the Services without MCWD written consent. This restriction does not apply to materials already possessed by CONSULTANT or that CONSULTANT received on a non-confidential basis from MCWD or another party. Consistent with the terms of this section 11 regarding use and protection of confidential and proprietary information, CONSULTANT retains a nonexclusive license to use the materials and may publish or use the materials in its professional activities. Any CONSULTANT duty of care under this agreement does not extend to any party other than MCWD or to any use of the materials by MCWD other than for the purpose(s) for which CONSULTANT is compensated under this agreement.

12. MCWD Property

All property furnished to or for the use of CONSULTANT or a subcontractor by MCWD and not fully used in the performance of the Services, including but not limited to equipment, supplies, materials and data, both hard copy and electronic, will remain the property of MCWD and returned to MCWD at the conclusion of the performance of the Services, or sooner if requested by MCWD. CONSULTANT further agrees that any proprietary materials are the exclusive property of MCWD and will assert no right, title or interest in the materials. CONSULTANT will not disseminate, transfer or dispose of any proprietary materials to any other person or entity unless specifically authorized in writing by MCWD.

Any property including but not limited to materials supplied to CONSULTANT by MCWD or deriving from MCWD is supplied to and accepted by CONSULTANT as without representation or warranty including but not limited to a warranty of fitness, merchantability, accuracy or completeness. However, CONSULTANT's duty of professional care under paragraph 4, above, does not extend to materials provided to CONSULTANT by MCWD or any portion of the Services that is inaccurate or incomplete as the result of CONSULTANT's reasonable reliance on those materials.

13. Notices

Any written communication required under this agreement to be provided in writing will be directed to the other party as follows:

To MCWD:

Administrator  
Minnehaha Creek Watershed District  
15320 Minnetonka Boulevard  
Minnetonka, MN 55345

To CONSULTANT:

Todd Shoemaker  
Wenck Associates, Inc.  
1800 Pioneer Creek Center  
PO Box 249  
Maple Plain, MN 55359

Either of the above individuals may in writing designate another individual to receive communications under this agreement.

14. Choice of Law; Venue

This agreement will be construed under and governed by the laws of the State of Minnesota. Venue for any action will lie in Hennepin County.




15. Whole Agreement

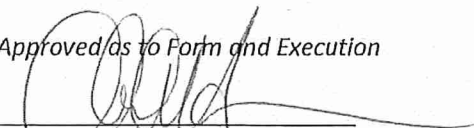
The entire agreement between the two parties is contained herein and this agreement supersedes all oral agreements and negotiations relating to the subject matter hereof. Any modification of this agreement is valid only when reduced to writing as an amendment to the agreement and signed by the parties hereto. MCWD may amend this agreement only by action of the Board of Managers acting as a body.

IN WITNESS WHEREOF, intending to be legally bound, the parties hereto execute and deliver this agreement.

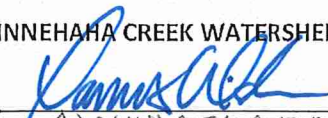
CONSULTANT

By   
Its Principal

Date: 5/20/19

*Approved as to Form and Execution*  
  
MCWD Attorney

MINNEHaha CREEK WATERSHED DISTRICT

By   
Its ADMINISTRATOR

Date: 6-13-19

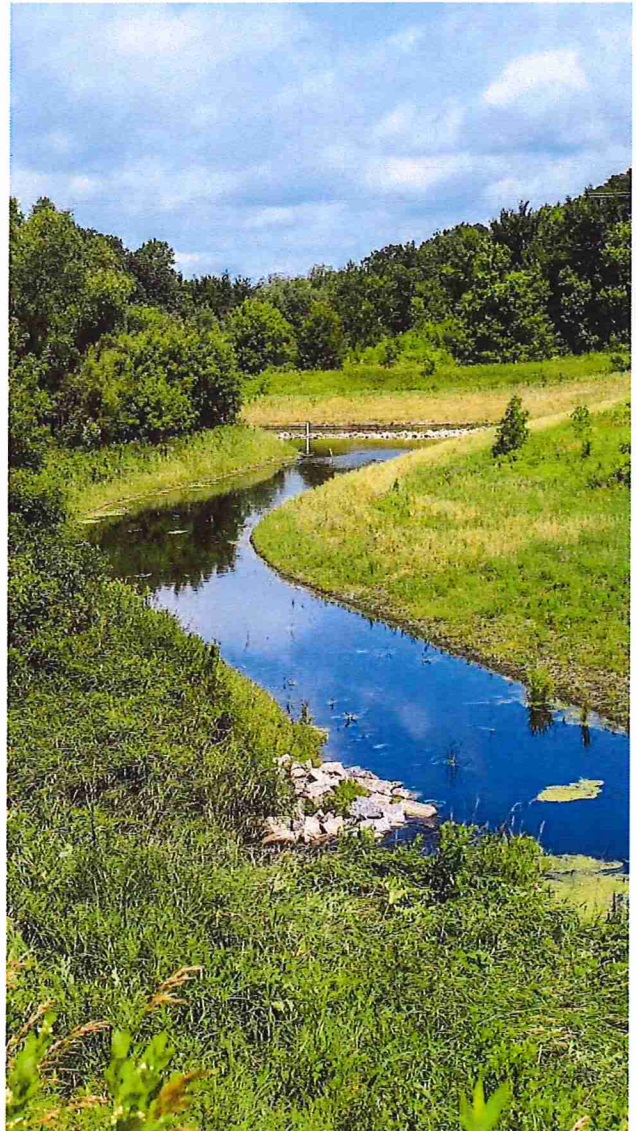
**Exhibit A**  
**Scope of Services**

### ASSESSMENT UNDERSTANDING

The purpose of this assessment is to identify watershed and in-lake Best Management Practices (BMPs) to improve water quality for the four impaired lakes in the Upper Long Lake Creek Subwatershed. As the consultant, Wenck will work collaboratively with District Staff and its local partners by providing water resources engineering and wetland expertise to first assess the nutrient and ecological conditions of the Subwatershed and then identify and prioritize water quality improvement projects.

Assisting the District in five of the six phases, Wenck's approach for this assessment is as follows:

- ▲ Serve as a resource for District Staff during development of the Subwatershed P8 model;
- ▲ Provide QA/QC of the P8 Model (Phase 1);
- ▲ Investigate and assess wetland habitat and biodiversity to develop wetland restoration/improvement opportunities (Phase 3);
- ▲ Identify possible in-lake and watershed BMPs for consideration by the District and local partners (Phase 4);
- ▲ Prioritize and develop concept designs for BMPs with calculated load reductions (Phase 5); and
- ▲ Assist in the preparation of the final assessment report and participate in discussion of the assessment's final results (Phase 6).



### SCOPE OF WORK

Wenck will follow the methodology described below to assist the District in completing Phases 1 and 3-6 of the assessment. We understand the District will complete Phase 2.

#### Phase 1

##### Tasks 1a-1c. Development of P8 Model

Wenck understands that the District will create and calibrate the Subwatershed P8 model. During development of the model, Wenck is pleased to serve as a resource for District Staff as part of our duty as District Engineer. We will offer up to eight hours to provide District Staff with advice and feedback on model development.

##### Task 1d. Project Kickoff Meeting

The Wenck Project Manager and Senior Engineer will attend the project kickoff meeting at the District Office to review the scope of work, project schedule, deliverables, and local partners / stakeholders.

## SCOPE OF WORK & BUDGET (CONT.)

### *District to Provide:*

- ▲ *Meeting Agenda*
- ▲ *Output and discussion from Tasks 1a-1c (if completed prior to Task 1d)*

### *Wenck Deliverables:*

- ▲ *Meeting Minutes including refined task deliverable schedule*

### **Task 1e. Review (QA/QC) P8 Watershed Model**

Wenck will review the District's Subwatershed P8 input parameters and compare model results to monitored loads for total suspended solids (TSS) and total phosphorus (TP). Wenck will also review the hydrologic (GIS shapefiles), hydraulic, and calibration inputs. After review, Wenck will issue a technical memorandum including comments and suggestions to finalize calibration.

Wenck will conduct a second QA/QC review after the District updates/revises the model based on our first QA/QC review. Wenck will ensure the updates/revisions were made correctly and if there are any remaining modeling concerns.

### *MCWD to Provide:*

- ▲ *Draft P8 model with input files and supporting data*
- ▲ *Model results and calibration parameters with supporting data*

### *Wenck Deliverables:*

- ▲ *Technical memorandum summarizing QA/QC methods and comments to finalize model*

## **Phase 3**

### **Task 3b. Assess Wetland Habitat and Biodiversity**

Wenck will perform a desktop review on a preliminary list of approximately 20 wetlands identified for potential restoration based on output from Task 3a. Based on our review of the preliminary list, Wenck will recommend 7-10 wetlands from the list on which to perform a habitat and biodiversity assessment. With the District's approval of Wenck's recommended wetland list, Wenck will perform up to 10 wetland quality assessments using the Rapid Floristic Quality Assessment method as outlined by the Minnesota Pollution Control Agency.

### *District to Provide:*

- ▲ *List of wetlands identified from Task 3a*
- ▲ *Future land use and FAW data, along with relevant partner input form Task 3a*

### *Wenck Deliverables:*

- ▲ *Rapid Floristic Quality Assessemnts for up to 10 wetlands for Task 3c*

### **Task 3d. Wetland Habitat Restoration Cost Estimates**

Wenck will review the phosphorus nutrient cycling results from the District and develop planning level cost estimates for up to three wetland restorations. Using GIS, the conceptual plans will layout the estimated restored boundaries and vegetation re-establishment plan. The planning costs will provide estimaes for restoration, re-vegation, and vegetation maintainance.

### *MCWD to Provide:*

- ▲ *Phosphorus nutrient cycling results from Task 3c*

### *Wenck Deliverables:*

- ▲ *Technical memorandum summarizing wetland restoration techniques and planning-level cost estimates for up to three wetlands*

**Phase 4**

**Task 4c. Identify BMPs to Reduce Watershed Loading**

Wenck will identify potential BMPs after a review of wetland assessments, water quality data, and P8 watershed modeling results. Some of the potential projects will be identified by study partners as part of Task 4a; Wenck will identify additional BMPs for a total of up to approximately 20-25 preliminary BMPs. Wenck will provide a preliminary list of potential BMPs, along with a location of the BMPs, and a matrix outlining high-level feasibility and potential concerns for each BMP. Additionally, Wenck will provide a location map of the potential BMPs.

Alternative	Infiltration Basin
Initial Capital Investment	\$ 57,598.50
Annual Maintenance	\$ 500.00
10-year Cost	\$5,000
20-year cost	\$5,000
30-year cost	\$5,000
Annual Benefit	\$ -
Inflation	2.30%
Discount Rate	3.50%
<b>Total Lifecycle Cost</b>	<b>\$ 89,599.05</b>

MCWD to Provide:

- ▲ Initial list of potential BMPs/projects identified by the District and its local partners

Wenck Deliverables:

- ▲ Preliminary list/matrix of potential BMPs
- ▲ Location map of BMPs and associated GIS shapefiles

**Task 4d. Develop BMP Cost Estimates and Phosphorus Load Reductions**

Wenck will assess up to 15 selected BMPs from the list of 20-25 BMPs identified in Task 4c and develop planning level cost estimates and potential load reductions. The selected BMPs will be built into the P8 Model developed in Phase 1 to assess load reductions, where applicable. If selected BMPs cannot be assessed via P8, an alternative assessment method will be suggested (i.e. MIDS Calculator, Simple Method) and discussed with the District. At the end of this task, Wenck will compile a summary memo outlining the estimated planning level costs, phosphorus load reductions, and estimation methodologies for up to 15 BMPs.

Our cost estimates will be prepared using Wenck’s “Project Cost Calculator” to determine the true lifetime cost of each potential BMP. Our “Project Cost Calculator” (snapshot at right) calculates a present value to account for the current construction cost; future annual maintenance costs (i.e. sediment removal, weeding); and future periodic maintenance costs (i.e. 20-year repair costs). Accounting for these costs will provide stakeholders with a comprehensive comparison of the lifetime cost (30 years) for each potential BMP solution.

Use of the “Project Cost Calculator” also assists in comparing “shiny new objects” to more proven stormwater management practices. For example, despite their eight year history in Minnesota, iron-enhanced sand filters are still relatively new, and therefore, require a bit more maintenance than a traditional stormwater pond. Our “Project Cost Calculator” allows us to include this additional maintenance effort of a 30-year project life span in order to provide a true “apples-to-apples” comparison of present cost.

MCWD to Provide:

- ▲ Subset list of up to 15 selected BMPs from Task 4c

Wenck Deliverables:

- ▲ Technical memorandum summarizing planning level cost estimates, phosphorus load reductions, and normalized costs

**Task 4e. Review Meeting for Planning-level BMP Cost and Load Reduction Results**

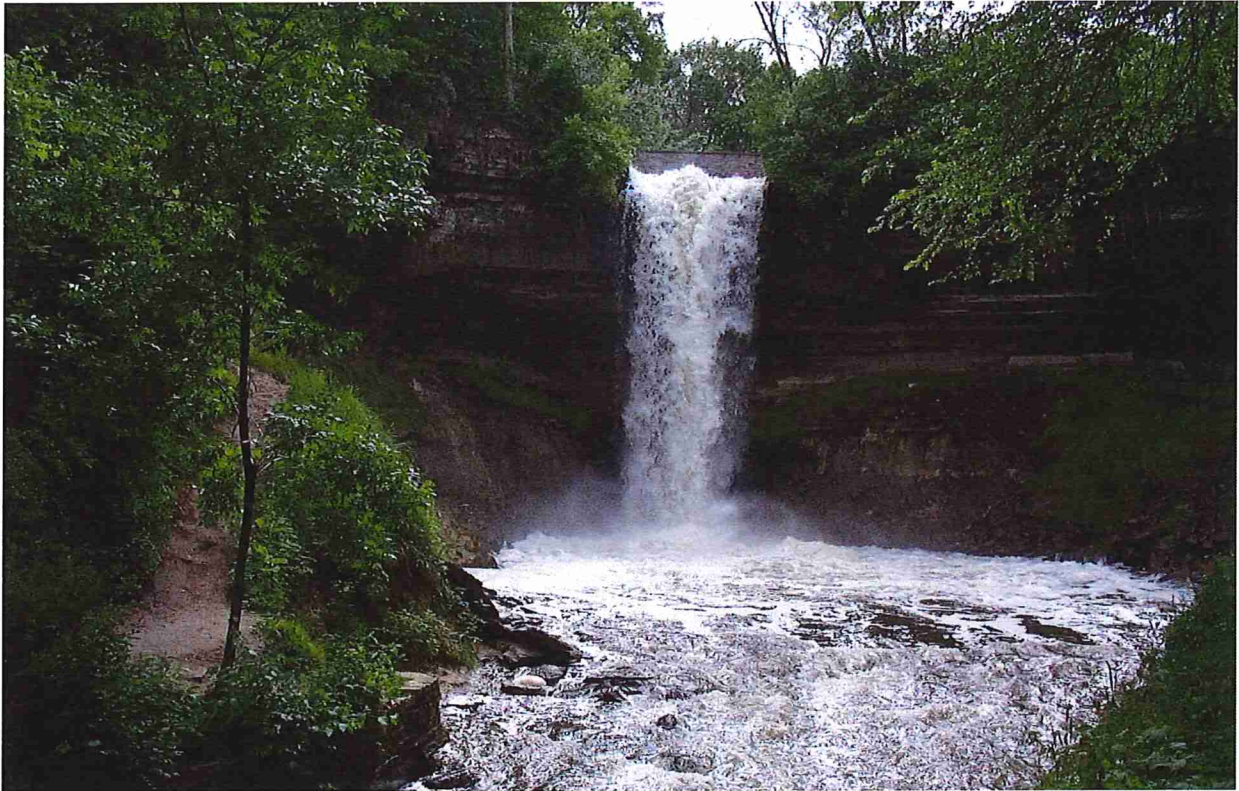
The Wenck Project Manager and Senior Engineer will attend a meeting at the District Office to review results from Task 4d.

*MCWD to Provide:*

- ▲ *Meeting agenda*

*Wenck Deliverables:*

- ▲ *Meeting minutes*



### **Phase 5**

#### **Task 5b. Final Selection of BMP for Concept Design**

From the list of up to 15 BMPs in Task 4d, Wenck, in cooperation with the District and local partners, will select up to seven BMPs for concept design. These BMPs will be chosen based on high-level feasibility and the cost-benefit/effectiveness of each BMP to reduce nutrient loading to impaired waterbodies.

*MCWD to Provide:*

- ▲ *Relevant partner input from Task 5a*

*Wenck Deliverables:*

- ▲ *Final list of up to 7 BMPs, agreed upon by Wenck, the District, and local partners*

#### **Task 5c. Concept Design for Selected BMPs**

Wenck will create 30% design concept drawings and cost estimates for up to seven BMPs selected in Task 5b. Additionally, Wenck will further refine and update the TP and TSS load reductions estimated in Task 4d.

Two of the seven concept designs will be selected in collaboration with District staff and its partners to further update and refine the concept drawings and cost estimates. As necessary,

## SCOPE OF WORK & BUDGET (CONT.)

Wenck will further refine and update the TP and TSS load reductions estimated by the P8 model.

### *MCWD to Provide:*

- ▲ *Sign-off on final list of up to 7 BMPs from Phase 4*

### *Wenck Deliverables:*

- ▲ *30% concept design drawings and cost estimates for up to seven BMPs*
- ▲ *Concept design nutrient load reduction estimates and associated modeling/calculations*
- ▲ *Updated/refined concept design drawings, cost estimates and pollutant load reduction for two of the seven BMPs*

## Phase 6

### Task 6b. Final Report Preparation Assistance

Wenck will compile and reformat technical memoranda from Tasks 3d and 4d, along with the output from Task 5d, to include in the District's Final Report. The report will include complete documentation of our methods, findings, results and recommendations for implementing water quality BMP(s) and wetland restoration/creation improvements. Wenck will revise text pertaining to Tasks 3b/d, 4c/d, and 5b/c per written comments issued by the District and local partners.

Wenck has been extremely successful in securing grant funds for our clients. We will keep this in-mind throughout the study and in preparing the final report. Our intent will be to set-up the District and local partners as best as possible to secure Clean Water Legacy and perhaps other funding to initiate implementation of the recommended projects.

### *MCWD to Provide:*

- ▲ *Draft report or outline from Task 6a*

### *Wenck Deliverables:*

- ▲ *Reformatted sections including memoranda from Tasks 3d and 4d*
- ▲ *Figures and concept drawings from Task 5c*
- ▲ *Cost estimates formatted as an appendix*

### Task 6c. Final Review Meeting

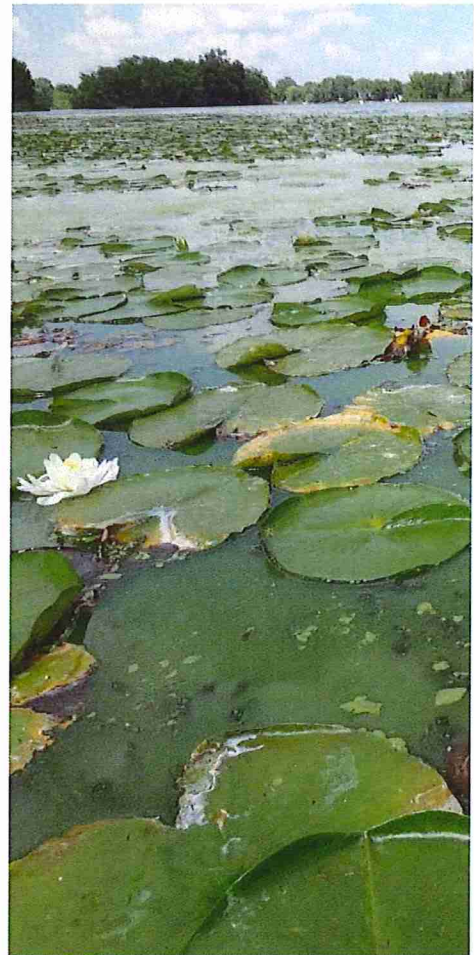
The Wenck Project Manager and Senior Engineer will attend the the Final Review meeting at the District Office to discuss the results and outcomes of the Assessment.

### *MCWD to Provide:*

- ▲ *Final report for review*

### *Wenck Deliverables:*

- ▲ *No deliverable*



## SCOPE OF WORK & BUDGET (CONT.)

The table below details the project budget, staff hours and expenses anticipated by Wenck to complete the scope of work. Our fee estimate has been prepared on a time and materials basis and will not exceed the amount reported in the table below without prior authorization from the District.

Phase and/or Task Code	Task Description	Total Cost \$	Meehan \$ 198.00	Shoemaker \$ 198.00	Boll \$ 158.00	Megow \$ 145.00	Watson \$ 120.00	Osterdyk \$ 120.00	Mathern \$ 86.00	Travel \$
			Enter hours (not \$) below							
<b>1</b>	<b>Refine P8 Watershed Model</b>									
1a	Collect watershed geospatial data from local partners									
1b	Delineate subwatersheds based on LIDAR data									
1c	Calibrate P8 watershed model based on MCWD monitoring data	1874	4	4					2	50
1d	Project kickoff meeting									
1e	QA/QC P8 model	3750				6			24	
<b>2</b>	<b>Build BATHUB lake response model</b>									
2a	Data collection and analysis to support lake model									
2b	Develop and calibrate lake response model									
<b>3</b>	<b>Wetland Assessment</b>									
3a	Select wetlands for habitat, biodiversity and nutrient cycling assessment									
3b	Assess wetland habitat and biodiversity	8564			8		60			100
3c	Assess wetland phosphorus cycling									
3d	Develop planning-level cost estimates to restore wetland habitat and nutrient cycling	2236			2		8		8	
<b>4</b>	<b>In-lake and Watershed Project Identification</b>									
4a	Work with local partners to identify potential projects									
4b	Develop in-lake restoration projects based on BATHUB model and field assessment									
4c	Identify watershed BMPs based on Tasks 4a, 4b, and consultant input	1372		4		4				
4d	Develop planning-level cost estimates and phosphorus load reductions for BMPs	6794	1	2		8			42	
4e	Meeting to discuss BMP costs & load reductions	2114	4	4					4	50
<b>5</b>	<b>Prioritize and Develop Concept Designs and Load Reductions for BMPs</b>									
5a	Work with local partners to select cost-effective projects for concept design									
5b	Select cost effective BMPs in conjunction with MCWD	1372		4		4				
5c	Concept design for BMPs selected by MCWD and local partners	17050		11		18			102	
<b>6</b>	<b>Reporting</b>									
6a	MCWD develop comprehensive report to summarize Phases 1-6									
6b	Prepare final report that contains narrative, figures, concepts for BMPs developed in T	3240		2		4			16	4
6c	Final meeting to discuss final results of subwatershed assessment	1634	4	4						50
<b>Total</b>		\$ 50,000	13	35	10	44	68	198	4	\$ 250



**Long Lake Subwatershed Study  
Scope Adjustment & Budget  
September 11, 2020**

- 1) MCWD and Wenck staff met on 8/27/2020 to discuss project status and next steps.
- 2) The discussion was focused on budget, timeline, deliverables, and expectations.
  - a. The remaining budget for the project is \$11,227 as of September 11, 2020. However, MCWD has requested that Wenck determine if additional budget is needed to finish the tasks as they were discussed during the meeting.
  - b. MCWD also discussed the reporting deliverables and outlined what needs to be included.
- 3) MCWD provided an overview of the projects that need further investigation or questions answered, which have been outlined below.
- 4) MCWD requested that Wenck provide a scope of work based on the updated project needs. The updated scope of work, budget and schedule are provided below.

**Scope Adjustment & Budget**

- 1) City of Long Lake Project Assessment (\$4,420)**
  - a. Analyze the potential water quality reduction of different combinations of projects in the downtown Long Lake area.
  - b. Include combination of LL04-C, LL03, LL05
    - i. Assess the efficiency of Nelson Lakeside Park ponds based on the addition of upstream treatment improvements to each combination of LL04-C, LL03, and LL05
  - c. Site visit to Nelson Lakeside Park. MCWD staff will meet Todd Shoemaker at the Nelson Lakeside park ponds to investigate any potential issues with the functionality of the BMP system
- 2) Willow Lake Rd Flooding Project Potential (MD02) (\$3,620)**
  - a. Todd Shoemaker and/or Wes Boll will meet MCWD District staff at MD02 to investigate the potential for water quality, hydrology, and biological improvements of wetland D-118-23-22-038 and wetland D-118-23-22-017.
  - b. MCWD will contact staff from the City of Medina to see if they have information on culverts or other related stormwater infrastructure that would impact the drainage of wetland D-118-23-22-038 and wetland D-118-23-22-017.
- 3) OR04 Water Reuse Assessment (\$1,830)**
  - a. Wenck will develop high level load reduction and cost estimates for a water reuse system that would reuse water from the wetland on Spring Hill Golf Course.
  - b. This project has a variety of unknowns, which include the buy-in of Spring Hill Golf Course.
  - c. Wenck will outline potential unknowns and the actions needed to fill informational/partnership/data/engineering gaps
- 4) Long Lake Carp Barrier (\$1,670)**
  - a. Wenck will develop a cost estimate for a carp barrier at the outlet of Long Lake.

- b. The project location is unclear, however, Wenck can move forward with the assumption it will be located somewhere on the property owned by Long Lake just south of Hwy 12 (adjacent to District’s Wastewater Treatment Pond Restoration project).

**5) MD07 and MD08 Landuse Conversion (\$1,390)**

- a. Wenck will determine the water quality benefit if agricultural property transitions to rural residential.
- b. Wenck can assume that any future development will meet MCWD rules.

**6) Alum treatment cost estimate QA/QC (\$1,930)**

- a. MCWD developed preliminary alum costs for several lakes in the Long Lake Creek Subwatershed. Wenck will check the calculations and make recommendations based on industry best practices.
- b. MCWD will provide cost spreadsheets and all other relevant data used to calculate the alum cost estimates

**7) Swamp Lake Drawdown Cost Estimate (\$2,150)**

- a. Wenck will develop a cost estimate for a drawdown on Swamp Lake, which will include the cost and potential engineering approach based on Wenck’s understanding of local hydrology and hydraulics of the area.

**8) 2011 Long Lake Creek Feasibility Study (\$4,740)**

- a. Wenck will review specific projects (see table below plus Tanager Lake alum treatment) from the 2011 Long Lake Creek Feasibility Study to update costs based on inflation and life-cycle and review engineering approach. Link to report [here](#).

Prioritization (Preliminary)	Project Name	Project/Strategy Description	Net TP Improvement (lb/yr)	Construction Cost
2011 Project	Brown Rd Outfall Stabilization	2011 Feasibility Study: Stabilization of Brown Rd Outfall Sites (Sta 7650-7675)	11.6	\$49,731
2011 Project	Reach 2 Stream Restoration	2011 Feasibility Study: Stream remeander around Smith Dump Site	30.1	\$396,100
2011 Project	City golf course wetland restorations	2011 Feasibility Study: Enhancement of wetlands D-117-23-02-013 and D-117-23-02-039	11.2	\$206,900
2011 Project	YMCA wetland restoration	2011 Feasibility Study: Restoration of wetland D-117-23-03-016	4.9	\$34,500
2011 Project	Main channel wetland restoration	2011 Feasibility Study: Restoration of wetland D-117-23-03-044A by installing grade control structure(s) at outlet	36.8	\$138,500

**Wenck Deliverables**

Each project or project assessment will have a memo, cut sheet, or one pager that includes:

- Map of project location and project footprint
- Provide any new shapefiles to incorporate into interactive map
- Project cost, load reduction, and other standard metrics
- Brief project narrative
- Engineering details that would help other engineers understand project
- Overview of next steps required to move the project forward from an engineering standpoint
  - Assumptions made during development of costs
  - Potential areas of uncertainty that should be addressed before project moves forward
  - Data gaps that need to be filled to reduce uncertainty if the project moves forward

- The original scope of work indicated the final projects would be brought to 30% design. MCWD no longer needs projects to be moved to 30% design. Each project was discussed during the meeting to determine what additional information was needed for the final deliverable.

Wenck will provide an example of a single project assessment deliverable to ensure that MCWD and Wenck have a shared understanding of the deliverable before moving forward.

### **Budget**

The eight project areas noted above total \$21,750. Because we have \$11,227 remaining in our previously approved budget, we request an amendment to include an additional \$10,523 to complete the scope of work as noted above.

### **Schedule**

Wenck will complete one or two of the eight project areas listed above per week. We will attempt to complete one project area and deliverable before moving to the next but recognize there will be some overlap. Deliverables for all eight of the project areas will be provided by May 31st, 2021.