



Title: Winter Commercial Seines in Six Mile Creek Halsted's Bay Subwatershed

Resolution number: 21-005

Prepared by: Name: Tom Langer
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Reviewed by: Name/Title: Anna Brown / Planner – Project Manager

Recommended action: Authorization to Contracts for Winter Commercial Seines in SMCHB Subwatershed

Schedule: Date: 1/15/2021
Date: 3/14/2021

Budget considerations: Fund name and code: 500-5007 SMCHB Carp Management
Fund budget: \$567,000
Expenditures to date: \$389,343
Requested amount of funding: \$41,515

Past Board action:

Res # 17-036	Title: Authorization to request funds from Lessard Sams Outdoor Heritage Council
Res # 18-060	Title: Authorization to execute contracts for carp removal
Res # 19-049	Title: Authorization to execute contracts for carp removal
Res # 20-009	Title: Authorization to Contracts for Winter Commercial Seines in SMCHB Subwatershed
Res # 20-043	Title: Authorization to Contract for 2020 Box-netting in Parley Lake

Summary:

In September 2017, the Lessard Sams Outdoor Heritage Council recommended the Six Mile Creek-Halsted Bay (SMCHB) Habitat Restoration Project for \$567,000 to the Minnesota State Legislature. The funding bill was approved by the legislature and funds were made available July 1, 2018 for project implementation.

The program takes a holistic and comprehensive approach to managing common carp in the SMCHB Subwatershed, consisting primarily of three management strategies:

- Adult biomass removal
- Barriers to prevent carp movement between waterbodies and assist with removal
- Aeration of shallow lakes to prevent successful carp reproduction

Consistent with the accomplishment plan approved by the Lessard Sams Outdoor Heritage Council, the grant funds will be used to pay for the capital cost of barrier installation, utility installation for aeration, and the fish removal contracts. The Minnehaha Creek Watershed District (MCWD) match includes equipment for removal and monitoring, the aeration units, and design services for barriers.

Since 2018, staff made significant progress implementing each of the carp management strategies. Barrier installation is complete at three of the four locations, with the fourth being constructed this year, utilities are installed for all projected aeration sites, and removal efforts have carried through the last three years of implementation. Carp removal will be a primary focus for the remaining two years of grant implementation.

To-date, MCWD has successfully implemented both box netting and winter seining removal methods. Most recently, in 2020, we worked with both Carp Solutions LLC and WSB and Associates to assist with carp removals. Carp Solutions specializes in box netting technique and WSB and Associates specializes in seining and working with commercial fisherman enterprises. In total we have removed approximately 13,000 carp totaling 134,000 pounds from the Subwatershed.

In winter 2021, MCWD is proposing to work with WSB to facilitate commercial seining on Parley and Zumbra Lakes. This will be the second winter contracting with WSB in this capacity, and the scope has been adjusted to reflect lessons learned in winter 2020. These lakes were selected because:

- Parley and Zumbra remain the highest carp abundances lakes in the watershed.
- Both lakes have historic efforts that have led to a similar approach (Parley) or an adapted approach (Zumbra) for the 2021 contracts.
- Carp form dense winter aggregation and are susceptible to this removal technique.

Carp removal via winter seining is inherently risky, with a number of factors that could potentially go wrong to limit the success of the seining attempt. The services and compensation are structured in phases to ensure clear expectations of services while providing fair compensation for commercial seining efforts. WSB operates under an hourly rate wage while commercial fisherman implement a flat fee (and bounty reward) payment structure. Staff have sought to structure the contracts in a way that maximizes oversight and manages that risk. Because there are two different commercial fisherman performing the work, each contract is set up with different logistical and implementation structures to meet the operator's needs.

Parley Lake:

The contract structure has a balanced payment structure with the fisherman being rewarded for carp captured. In doing so, the not to exceed contract terms have greater upside for the commercial fisherman and less upfront financial risk for the District. Contract payments are not to exceed a total of \$20,600 (WSB: \$6,600 & Don Geyer Commercial Fishing: \$14,000) for Parley Lake.

Zumbra Lake:

The contract structure is front loaded, placing more financial risk on the District regardless of the outcome, but has lowered the total benefit possible for the commercial fisherman. In doing so, contract structuring has additional phases in which District approval is needed to proceed to avoid unnecessary incurred fees. Contract payments are not to exceed a total of \$20,915 (WSB: \$10,145 & JR Commercial Fish: \$10,500) for Zumbra Lake.

Specific scope of work services, schedule, and fee schedules are provided in Supporting Documents.

Supporting documents (list attachments):

- 1) SMCHB 2020 Carp Density Map
- 2) Parley Lake contract agreement
- 3) Parley Lake scope of work
- 4) WSB Fee Schedule
- 5) Zumbra Lake contract agreement
- 6) Zumbra Lake scope of work



RESOLUTION

Resolution number: 21-005

Title: Authorization to Contracts for Winter Commercial Seines in SMCHB Subwatershed

WHEREAS, pursuant to Resolution 14-047 the MCWD Board of Managers has identified the Six Mile Creek-Halsted Bay (SMCHB) subwatershed as a priority area for focusing District planning activities and coordination efforts with subwatershed partners; and

WHEREAS, on October 10, 2013, the MCWD Board of Managers authorized the execution of a contract with Dr. Peter Sorenson and the University of Minnesota to conduct a three-year carp assessment of the SMCHB subwatershed to identify recruitment, carp census, and management strategies;

WHEREAS, in September 2017, the Lessard Sams Outdoor Heritage Council recommended the SMCHB Habitat Restoration program for \$567,000 in funding, and the funding was approved by the MN Legislature in May of 2018;

WHEREAS, The District has outlined a carp removal strategy utilizing commercial seining, baited box-net trapping and trapping within stream channels during carp migration;

WHEREAS, District policy specifies that professional services in excess of \$25,000 will not be secured without competitive procurement;

WHEREAS, WSB & Associates, is the only contractor providing large-scale commercial fisherman coordination of winter seining services, and therefore is uniquely qualified to perform this work, and accordingly an exception to this policy is warranted.

NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers authorizes the District Administrator, on advice of counsel, to execute contracts with WSB & Associates to aid in the removal of common carp in the Six Mile Creek-Halsted Bay Subwatershed consistent with the Lessard-Sams Outdoor Heritage Council Grant Accomplishment Plan in an amount not to exceed \$41,515.

Resolution Number 21- **005** was moved by Manager _____, seconded by Manager _____. Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: 1/14/2021

 Secretary Date: _____

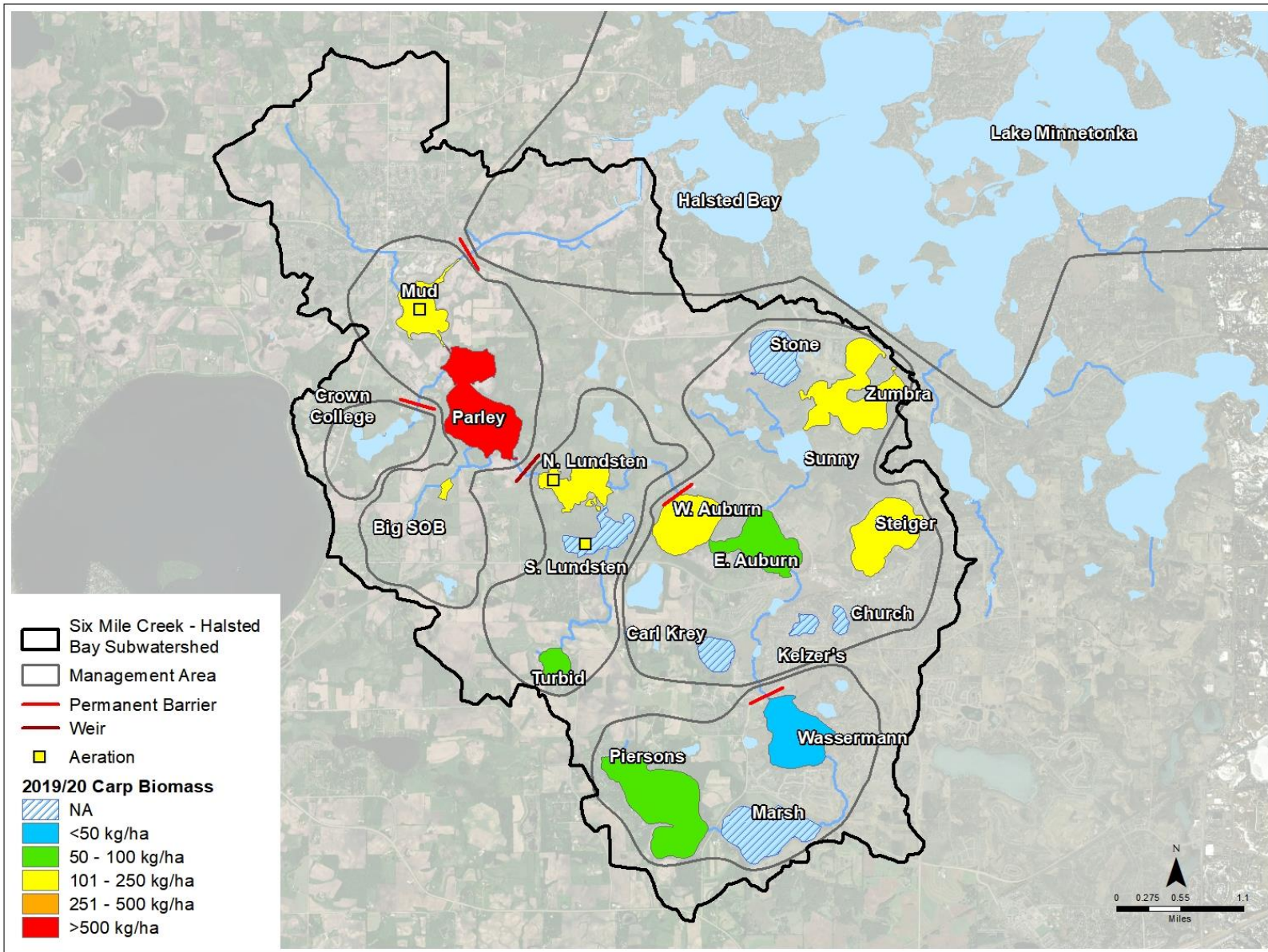


Figure 1. Six Mile Creek – Halsted’s Bay Subwatershed 2019/20 biomass with management areas & structures.

**AGREEMENT BETWEEN
MINNEHAHA CREEK WATERSHED DISTRICT and
WSB**

Carp Removal Services, Parley Lake

The Minnehaha Creek Watershed District (MCWD) and WSB (“CONTRACTOR”) enter into this agreement for mutual consideration, the sufficiency of which hereby is acknowledged. MCWD and CONTRACTOR agree as follows:

1. Scope of Work

CONTRACTOR will perform the work described in the 1/14/2021 Scope of Services attached as Exhibit A (the “Services”). Exhibit A is incorporated into this agreement and its terms and schedules are binding on CONTRACTOR as a term hereof. At its discretion, MCWD may at any time suspend work or amend the Services to delete any task or part thereof by notifying CONTRACTOR in writing. Authorized work by CONTRACTOR 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

CONTRACTOR is an independent contractor under this agreement. CONTRACTOR will select the means, method and manner of performing the Services. Nothing herein contained is intended or is to be construed to constitute CONTRACTOR as the agent, representative or employee of MCWD in any manner. Personnel performing the Services on behalf of CONTRACTOR 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. No Subcontract or Assignment

CONTRACTOR 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 hereby approves the use of Don Geyer as a subcontractor.

4. Duty of Care; Indemnification

CONTRACTOR will perform the Services with due care and in accordance with the terms of this agreement, and will be responsible for the subcontractor’s performance to the same standard. CONTRACTOR will defend MCWD, its 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 CONTRACTOR’s or the subcontractor’s negligent or otherwise wrongful act or omission, or breach of a specific contractual duty. For any claim subject to this paragraph by an employee of CONTRACTOR or the subcontractor, the indemnification obligation is not limited by a limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or the subcontractor under workers’ compensation acts, disability acts or other employee benefit acts.

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.

5. Compensation

MCWD will compensate CONTRACTOR for the Services in accordance with Exhibit A. Invoices will be submitted no more frequently than monthly. Payment for undisputed work will be due within 30 days of receipt of invoice. Total payment for the Services will not exceed \$20,600.

CONTRACTOR 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. CONTRACTOR 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 3/26/2021 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 CONTRACTOR to complete. CONTRACTOR will receive full compensation for all authorized work performed, except that CONTRACTOR will not be compensated for any part performance of a specified task or service if termination is due to CONTRACTOR'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. Insurance

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

- A. Commercial general liability: \$1.5 million or CONTRACTOR's actual coverage, whichever greater, each occurrence and aggregate, covering CONTRACTOR's work on an occurrence basis. Policy must cover standard commercial boat operator liability risk including accidental environmental release, and include contract liability.
- B. Automobile liability: \$1.5 million or CONTRACTOR's actual coverage, whichever greater, combined single limit each occurrence coverage for bodily injury and property damage covering all vehicles on an occurrence basis.
- C. Workers' compensation: in accordance with legal requirements applicable to CONTRACTOR.

CONTRACTOR 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 CONTRACTOR's work 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 CONTRACTOR.

8. Compliance With Laws

CONTRACTOR 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, CONTRACTOR 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.

9. Data Practices

The requirements of Minnesota Statutes §13.05, subdivision 11, apply to this agreement.

10. Notices

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

To MCWD:

Aquatic Ecologist
Minnehaha Creek Watershed District
15320 Minnetonka Boulevard
Minnetonka MN 55345

To CONTRACTOR:

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

11. 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 Carver County.

12. 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.

Intending to be legally bound:

CONTRACTOR

By _____

Date: _____

Approved as to Form and Execution

MCWD Attorney

MINNEHAHA CREEK WATERSHED DISTRICT

By _____
James Wisker, Administrator

Date: _____

Exhibit A
Scope of Services

Draft

Scope of Work for Carp Removal on Parley Lake Through Winter Seining

This statement of work applies to Parley Lake only and addresses carp biomass reduction in Parley Lake to meet Minnehaha Creek Watershed District (MCWD) carp management goals to improve water quality and ecological integrity. The 2019 carp biomass estimate for Parley Lake (provided by MCWD) shows the lake supports 135,144 pounds of carp biomass (130,279-140,010) and requires a reduction of 124,444 pounds of carp biomass to reach a density of 100 kg/ha (critical threshold).

Under this statement of work, WSB will work collaboratively with Don Geyer Commercial Fishing** (Don Geyer) to complete winter carp removal.

WSB operates using an hourly wage rate* while Don Geyer operates under a flat fee and bounty schedule. WSB has pre-communicated with Don Geyer and MCWD that a coordination check-in will occur prior to each of the two commercial fishing phases to limit flat fee expensing. At these check-ins, MCWD's Aquatic Ecologist, will have final approval prior to proceeding with executing the task and payment to be received. A detailed description of the tasks as well as a budget and project schedule are provided below.

*WSB staff time will be billed at an hourly rate according to the attached rate sheet and only under approval by MCWD.

**Don Geyer is the licensed commercial fisherman for MN inland commercial fishing area 20, in which the Six Mile Creek-Halsted Subwatershed falls, and all proposed activities are covered under his permit. Therefore, WSB does not need to secure a permit for activities to be completed under this statement of work.

Task 1. Project Management

Project management includes reviewing and ensuring scope items are being completed and tracking budget, as well as miscellaneous administrative items that need to be addressed during the course of the project.

Task 2. Removal Operations

Under ice winter seining for carp removal can be logistically challenging and requires good communication and planning between the fishing crews, project manager, and sponsoring entity. WSB staff will coordinate with Don Geyer to schedule mobilization and netting. This will be guided in part by telemetry data provided by MCWD once before pre-lining, once after pre-lining, and within 48 hours of when the seine haul is planned to occur. This information will be communicated to Don Geyer (by WSB) to schedule the day of netting based on this data as well as weather, fish behavior, tightness of the aggregation, and suitability of the lake bottom to netting in the area of the aggregation.

WSB staff will be present the day of the seine haul to ensure fish are aggregated in the lined-out area, and that the net is deployed. WSB staff will also be present should any issues arise with netting and be available to process and handle fish. It is understood under this statement of work that MCWD staff will be present once fish are netted to obtain biological data and scan for radio and PIT tags, and WSB is not solely responsible for obtaining biological data and processing netted carp. This task includes 30 hours of labor, which may be used during the day of removal and for additional site visits if necessary, before or after removal, to facilitate the project.

Task 3. Reporting

Post removal, WSB will provide a concise report to document the removals efforts completed under this statement of work. This report may be in the form of a technical memo or other format and will provide details on dates, aggregations, net specifics, and biomass removed; as well as any issues observed to enhance future seining and/or commercial fishing operations.



Schedule

Task	January	February	March
Task 1			
Task 2			
Task 3			

This project is anticipated to be conducted from mid-January and conclude the first week of March 2021. Exact dates will ultimately be dictated by ice thickness, fish aggregations and behavior, suitability of the aggregation area to be netted, and weather in coordination with MCWD and the commercial fishermen. WSB will coordinate with MCWD and the commercial fisherman over three phases as outlined here:

- 1) Phase 1 Mobilization: Snow plowing, site visit, preparation for pre-lining. Pre-lining and preparation for seine haul attempt.
- 2) Phase 2 Seine Haul Attempt.
- 3) Phase 3 Demobilization: Loading Carp (if captured during seine attempt). Equipment removal and safety sign posting.

Project Budget

Task/Activity	Cost
Task 1.	\$730
Task 2.	\$4,476
Task 3.	\$1,394
WSB Fee Total	\$6,600
Don Geyer Mobilization	\$1,500
Don Geyer- Netting	\$2,500
Don Geyer- Carp Bounty	Not to exceed- \$10,000
Project Total	\$20,600

Don Geyer Commercial Fishing operates under a lump sum fee schedule. Mobilization may include preparing and maintaining equipment, plowing, moving fish traps, disposal containers, or any other necessary gear or equipment to and from the lake, winter pre-lining the seine haul, visits to the site to check fish aggregations, disposal of seined carp, and coordination and communications. If further mobilization activities occur outside of the proposed schedule they will be covered by the proposed fee schedule (permit reporting, removal of thin ice signs, net patching). At any time prior to confirming the mobilization phase, WSB and MCWD may consult and determine that mobilization should not occur. In that circumstance, MCWD would not be responsible for any commercial fishing fees.



The contractual fees from Don Geyer for netting includes activities associated with seining and includes drilling holes in ice to deploy seine, deploying seine net, and seining. At any time during the premobilization phase, the parties may consult and determine that the seine attempt should not proceed. In that circumstance, MCWD will only be responsible for fees incurred to date.

Don Geyer Commercial Fishing implements a bounty for carp captured. The carp bounty is calculated at \$0.25/pound of carp removed not to exceed \$10,000 (40,000 pounds of carp). Any carp captured above the maximum bounty reward are expected to be removed from the lake. It is also understood that MCWD maintains a number of PIT and radio tags in fish in Parley Lake. Any PIT tagged or radio tagged fish will be returned to the lake after being identified and these carp will not be included in the bounty payment.

2021 Rate Schedule



	Billing Rate/Hour
PRINCIPAL ASSOCIATE	\$154 - \$197
SR. PROJECT MANAGER SR. PROJECT ENGINEER	\$154 - \$197
PROJECT MANAGER	\$137 - \$152
PROJECT ENGINEER GRADUATE ENGINEER	\$92 - \$150
ENGINEERING TECHNICIAN ENGINEERING SPECIALIST	\$59 - \$148
LANDSCAPE ARCHITECT SR. LANDSCAPE ARCHITECT	\$71 - \$152
ENVIRONMENTAL SCIENTIST SR. ENVIRONMENTAL SCIENTIST	\$59 - \$147
PLANNER SR. PLANNER	\$71 - \$152
GIS SPECIALIST SR. GIS SPECIALIST	\$71 - \$152
CONSTRUCTION OBSERVER	\$95 - \$121
SURVEY	
One-Person Crew	\$152
Two-Person Crew	\$199
Three-Person Crew	\$214
OFFICE TECHNICIAN	\$54 - \$95

Costs associated with word processing, cell phones, reproduction of common correspondence, and mailing are included in the above hourly rates. Vehicle mileage is included in our billing rates [excluding geotechnical and construction materials testing (CMT) service rates]. Mileage can be charged separately, if specifically outlined by contract. | Reimbursable expenses include costs associated with plan, specification, and report reproduction; permit fees; delivery costs; etc. | Multiple rates illustrate the varying levels of experience within each category. | Rate Schedule is adjusted annually.

**AGREEMENT BETWEEN
MINNEHAHA CREEK WATERSHED DISTRICT and
WSB**

Carp Removal Services, Zumbra Lake

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1. Scope of Work

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2. Independent Contractor

CONTRACTOR is an independent contractor under this agreement. CONTRACTOR will select the means, method and manner of performing the Services. Nothing herein contained is intended or is to be construed to constitute CONTRACTOR as the agent, representative or employee of MCWD in any manner. Personnel performing the Services on behalf of CONTRACTOR 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. No Subcontract or Assignment

CONTRACTOR 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 hereby approves the use of Jeff Riedemann as a subcontractor.

4. Duty of Care; Indemnification

CONTRACTOR will perform the Services with due care and in accordance with the terms of this agreement, and will be responsible for the subcontractor’s performance to the same standard. CONTRACTOR will defend MCWD, its 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 CONTRACTOR’s or the subcontractor’s negligent or otherwise wrongful act or omission, or breach of a specific contractual duty. For any claim subject to this paragraph by an employee of CONTRACTOR or the subcontractor, the indemnification obligation is not limited by a limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or the subcontractor under workers’ compensation acts, disability acts or other employee benefit acts.

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.

5. Compensation

MCWD will compensate CONTRACTOR for the Services in accordance with Exhibit B. Invoices will be submitted no more frequently than monthly. Payment for undisputed work will be due within 30 days of receipt of invoice. Total payment for the Services will not exceed \$20,915.

CONTRACTOR 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. CONTRACTOR 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 3/26/2021 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 CONTRACTOR to complete. CONTRACTOR will receive full compensation for all authorized work performed, except that CONTRACTOR will not be compensated for any part performance of a specified task or service if termination is due to CONTRACTOR'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. Insurance

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

- A. Commercial general liability: \$1.5 million or CONTRACTOR's actual coverage, whichever greater, each occurrence and aggregate, covering CONTRACTOR's work on an occurrence basis. Policy must cover standard commercial boat operator liability risk including accidental environmental release, and include contract liability.
- B. Automobile liability: \$1.5 million or CONTRACTOR's actual coverage, whichever greater, combined single limit each occurrence coverage for bodily injury and property damage covering all vehicles on an occurrence basis.
- C. Workers' compensation: in accordance with legal requirements applicable to CONTRACTOR.

CONTRACTOR 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 CONTRACTOR's work 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 CONTRACTOR.

8. Compliance With Laws

CONTRACTOR 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, CONTRACTOR 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.

9. Data Practices

The requirements of Minnesota Statutes §13.05, subdivision 11, apply to this agreement.

10. Notices

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

To MCWD:

Aquatic Ecologist
Minnehaha Creek Watershed District
15320 Minnetonka Boulevard
Minnetonka MN 55345

To CONTRACTOR:

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

11. 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 Carver County.

12. 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.

Intending to be legally bound:

CONTRACTOR

By _____

Date: _____

Approved as to Form and Execution

MCWD Attorney

MINNEHAHA CREEK WATERSHED DISTRICT

By _____
James Wisker, Administrator

Date: _____

Exhibit B
Scope of Services

Draft

Scope of Work for Carp Removal on Zumbra Lake

This statement of work applies to Zumbra Lake only and addresses carp biomass reduction efforts in Zumbra Lake to meet Minnehaha Creek Watershed District (MCWD) carp management goals to improve water quality and ecological integrity.

The current carp biomass estimate for Zumbra Lake (provided by MCWD) shows the lake supports 37,109 pounds of carp biomass (27,513-46,705) and requires a reduction of 15,411 pounds of carp biomass to meet management goals.

WSB and MCWD staff collaborated on an under-ice seining attempt in February 2020 which was not successful due to a combination of steep bottom slopes, dense submerged aquatic vegetation, and ice conditions (slush) which impeded the expedient deployment and landing of the seine net. These factors allowed the majority of the carp aggregation, that was identified by radio telemetry, to escape the end of the seine net which resulted in an unsuccessful removal attempt.

Based on our experience in 2020, we have developed an alternative strategy that has been utilized in other applications and waterbodies, that will shift the location of the netting area, deploy additional gear types, and exploit carp behavior to increase the likelihood of a successful carp removal.

Under this statement of work, WSB will work collaboratively with JR Commercial Fish (Jeff Riedemann and Tim Adams) and MCWD's Aquatic Ecologist to determine the feasibility of an alternative approach to removing Zumbra Lake Carp using an adapted modified unified method (MUM) to drive carp into an area of the lake that may be suitable for netting.

A detailed description of tasks, as well as a budget and project schedule are provided below.

Project Approach

The historic monitoring and winter seining have confirmed carp prefer to school in the north bay of Zumbra Lake. The proposed removal plan is to get the carp school to move south into the shallow narrows using MUM technologies, entrap/entangle them, then remove them through the ice.

To ensure we are maximizing the likelihood of a success removal event, we have broken this approach down into 5 project tasks outlined below. These phases outline in greater detail the steps in this approach, the rationale of the approach, the remaining risk points, and the communication points between MCWD, WSB, and commercial fisherman.

Task 1. Project Management

Project management includes reviewing and ensuring scope items are being completed and tracking budget, as well as miscellaneous administrative items that need to be addressed during the course of the project.

Task 2. Site Reconnaissance and Modified Unified Method (MUM) Feasibility

The goal of task 2 is to determine if carp can effectively be moved into a more desirable location for seine netting and if the reaction of carp to noise stimuli can be exploited. This feasibility assessment has two advantages: 1) condition the carp to move to the desired area during the removal event, and 2) it will ensure that the carp will actually move into the area before the commercial fisherman is mobilized (fee based compensation).

To facilitate carp removal, we propose to complete a brief pilot utilizing the modified unified method (MUM). The MUM utilizes underwater speakers deployed in a coordinated effort to stimulate carp to aggregate and move into an area conducive to netting.



Under this scope, we propose to deploy the MUM on Lake Zumbra to move fish out of the deep-water area in the north bay of the lake (where they were during the February 2020 seine attempt) into the narrows just to the south. It is anticipated that this will be a one-day event.

Under this task, WSB will coordinate with MCWD staff to determine when an aggregation of radio tags form in the north bay of Zumbra Lake. Once it is determined that carp have aggregated, and in consultation with MCWD staff, WSB will coordinate with Jeff Reidemann and Tim Adams to deploy and observe the MUM.

Deployment will consist of WSB staff preparing and sinking each of the two (2) speaker systems we have built, along the far northern shore. We will leapfrog the speakers towards the narrows as we observe the carp aggregation moving out of the north bay. Deployment may consist of a series of 3 or more holes drilled into the ice to allow for the speaker unit to be lowered under the ice, all while in communication with radio tag and sonar observers.

Observation will consist of MCWD staff listening to radio signals while speakers are functioning. This will provide the first indication of movement. Radio tags observations will be tracked by noting the location of each tag during 5-10 minute intervals. Jeff Riedemann and Tim Adams will be positioned in the narrows in different locations to observe the movement of the aggregation using forward looking sonar. This will provide additional information as to how, when, and where the carp move in addition to radio telemetry. Only one (1) feasibility event is planned under this scope and will be dependent on fish position, weather, and ice thickness.

While this method is relatively new it has shown promise. The MUM was adopted from China by the United States Geological Survey (USGS) as a technique to drive Asian carp species into aggregations in areas that are conducive to seine netting. WSB collaborated with USGS staff to develop and deploy the MUM in Nebraska in 2019. This deployment was successful in enhancing large scale Asian carp removal. WSB applied the MUM to Upper Prior Lake in the Prior Lake Spring Lake Watershed District in 2020 to successfully move two separate aggregations of carp in separate areas of the lake during separate occasions. This movement resulted in successful carp biomass removal operations which would not have been possible without the carp aggregations being moved.

At the conclusion of this Task, if carp do not move into the desired netting location, the remaining tasks will not be pursued. If the carp do move into the desired area, WSB will communicate with MCWD and commercial fisherman to confirm that a removal event should be pursued.

Tasks to be completed by WSB include deployment of the MUM as described and submittal of a brief report describing the effort and associated results. MCWD will complete telemetry surveys prior to MUM deployment to confirm and identify that carp have aggregated in an area similar to winter 2020. Lastly, the JR Commercial Fish will be present the day of MUM deployment to monitor the carp aggregations behavior and gather information on carp movement to develop a strategy for removal using gill and/or seine nets.





Figure 1. MUM Configuration

Task 3. Permitting

Carp removals are subject to both commercial fisherman permit requirements and research permits pending the removal methods pursued. The nets we are preparing to utilize will require both permit types. WSB will handle all permit requirements (obtaining, fulfilling, reporting).

The commercial fishing permit: New legislation enacted in 2019, provides local government units (LGU) the ability to contract with individuals/entities to complete carp removals within areas in which they are not the licensed commercial fisherman. This requires submittal of a class C commercial fishing permit to the Area MN DNR Fisheries office which lists the LGU (MCWD) and contractor (JR Commercial Fishing). WSB will facilitate the completion, submittal, and issuance of this permit to allow for this project to move forward.

The research permit: Permitting will include coordination with MN DNR to receive authorization to use gill nets under a MN DNR Fisheries Research permit issued to WSB. Conditions under this permit require us to provide a brief memo describing the number of carp caught, the amount of bycatch by species, and a 48-hour period where bycatch is held in nets/exclosures to observe if there is delayed mortality.



Task 4. Removal Operations-Seine/Gill Net/Combination Seine and Gill Net

The goal of Task 4 is to remove carp that were successfully moved as described in Task 2.

If results of the MUM feasibility show that carp are able to be directed into the narrow portion of the lake shown as *Carp Aggregation Position 2* in Figure 2, the MCWD's Aquatic Ecologist may approve proceeding with winter carp removal on Zumbra. Removal operations may utilize a seine net, gill net, or combination of both gear types simultaneously. The decision on which gear type to be used will be determined by commercial fishing crews and WSB based on observational data from Task 2.

Under ice carp removal can be logistically challenging and requires good communication and planning between the fishing crews, project manager, and sponsoring entity. Under this task, WSB staff will coordinate with Jeff Reidemann and Tim Adams to schedule mobilization and netting (assuming the C permit is obtained). This will be guided in part by telemetry data provided by MCWD within 48 hours of when the seine haul is planned to occur. This information will be communicated to Jeff Riedemann and Tim Adams to schedule the day of netting based on this data as well as weather and fish behavior.

Gill netting on Zumbra along with the use of the MUM and the narrow construction may provide an ideal scenario to effectively trap and remove carp in this location. Gill nets would be 7" stretch to reduce or eliminate bycatch and would not be dead site but used as drive sets then lifted within 3-4 hours. This could also be combined with seining. In this scenario, gill nets would be used as block nets then the seine would be deployed between the blocking gill nets capturing carp within the haul and driving remaining carp into the blocking gill nets. A permit will need to be secured from MN DNR by WSB to allow for large scale gill netting. Costs to do this are included in the permitting section.

Removal operations will begin with MCWD staff confirming the carp aggregation is present in or near the area shown in Figure 2 as *Carp Aggregation Position 1* using radio telemetry. Once confirmed, JR Commercial fish will deploy block net 2. After securing the net, WSB staff will deploy two (2) MUM along the north shore of Zumbra as shown in Figure 2. During the operation of the MUM arrays, JR Commercial Fish will observe the carp aggregation movement into the haul using forward looking sonar, shown as carp aggregation position 2 in Figure 2. Once most carp are observed to be within the haul area, block net 1 will be deployed, sealing off the aggregation. At this point, either a seine or additional gill nets will be deployed to capture and remove the carp aggregation.

JR Commercial Fish will be responsible for loading carp out after capture and satisfying requirements of the C permit.

It is understood under this statement of work that MCWD staff will be present once fish are netted to obtain biological data and scan for radio tags, with the assistance of WSB. Any radio tagged carp that are captured will be returned to the lake after being identified by MCWD staff.



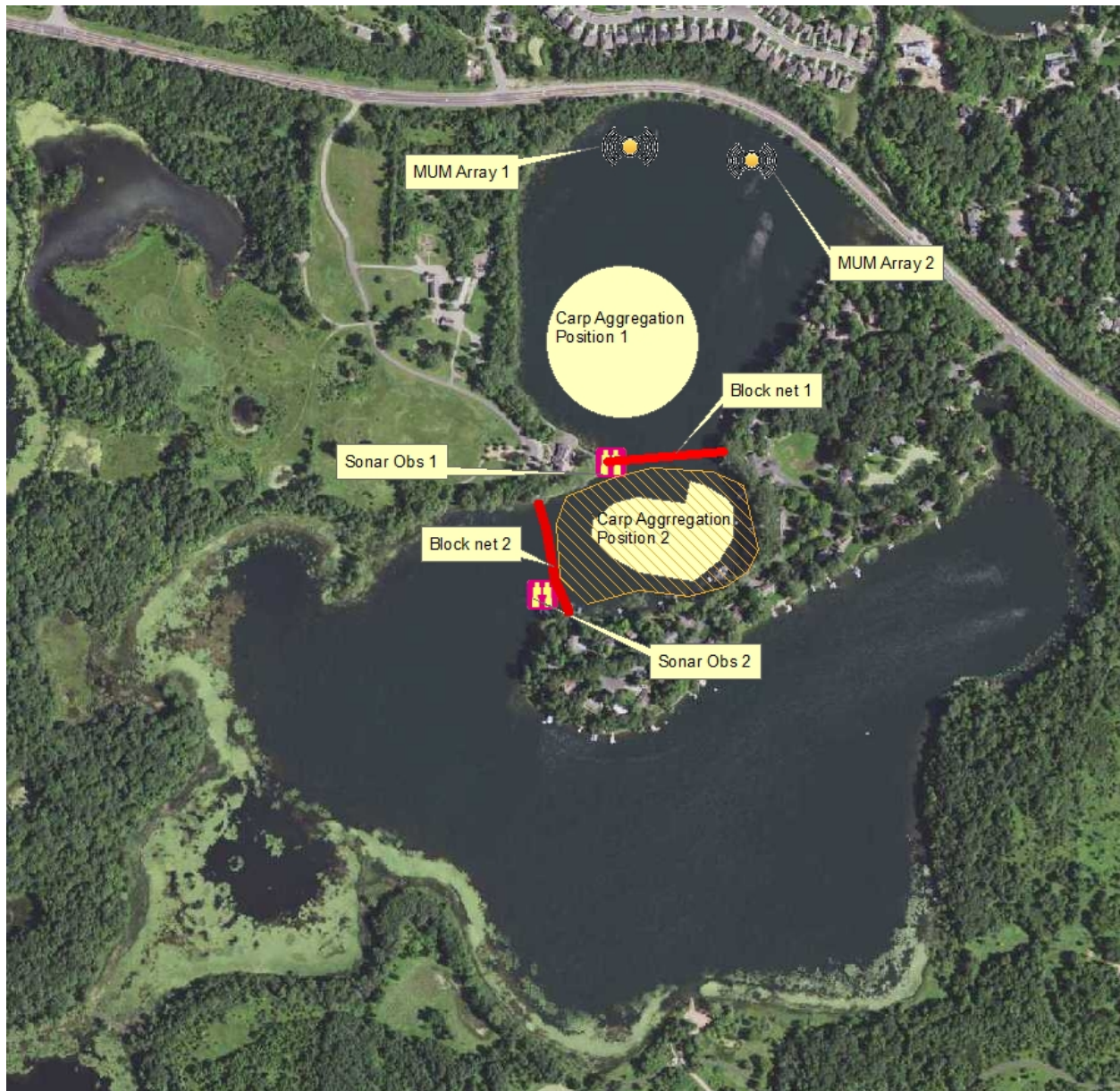


Figure 2. Netting Operations and MUM Deployment

Task 5. Reporting

Post removal, WSB will provide a concise report to document the removal efforts completed under this statement of work. This report may be in the form of a technical memo or other format and will provide details on dates, permitting, aggregations, net specifics, and biomass removed; as well as any issues observed to enhance future efforts. Reporting would only be completed if removal operations are carried out and successful.

Schedule

Task	January	February	March
Task 1			
Task 2			
Task 3			
Task 4			
Task 5			

We anticipate the project starting in mid to late January 2021 and concluding in March 2021, but this will ultimately be dictated by ice thickness, fish aggregations and behavior, suitability of the aggregation area to be netted, permit issuance, and weather.

Project Budget Summary

Task/Activity	WSB Rate (Hourly)	JR Commercial Fish Rate (Flat Fee)
Task 1. Project Management	\$438	\$0
Task 2. MUM Feasibility/Recon	\$3,384	\$1,500 (Sonar and consulting)
Task 3. Permitting	\$2,446	\$0
Task 4. Carp Removal	\$3,036	\$2,500 (Mobilization) \$6,500** (Netting Operations)
Task 5. Reporting	\$1,111	
Totals	\$10,415	\$10,500
Project Total Not to Exceed		\$20,915

**Not to exceed limit for netting/removal operations. See below for detailed description of costs.

The MUM feasibility and reconnaissance will be the first task to be completed as described above. This involves WSB staff, MCWD staff, and the commercial fishing crew. Fees for the commercial crew are to cover daily cost for sonar deployment and site observation. While MCWD staff will be there to observe radio transmitter signals, observation using sonar will provide critical information on how the aggregation moves as a whole; i.e., how quickly does the aggregation front come through the narrows and how long does it take for the majority of the aggregation to clear the area where block nets would be deployed, how does the aggregation spread out and condense as the move through the narrows, and observations of unanticipated behavior/movement during MUM operations. These cannot be observed or observed with great detail with the radio transmitters.

If the results from the MUM feasibility show that carp can be directed into the narrows as desired, then WSB staff would coordinate permitting for removal and use of gill nets. This next task/gate would only be completed with



authorization from MCWD. Fees for permitting include coordination for the C permit, and WSB securing a research permit for gill netting. MN DNR requires strict coordination and observation of bycatch, as well as reporting on netting observations and any delayed mortality. To satisfy the requirements of a permit that allows for gill netting, additional time is charged for WSB staff to monitor bycatch held in cribs on Zumbra. The budget provides 3.5 hours/day for 2 additional days post removal, to document mortality/survival of bycatch and report to MN DNR.

Once the necessary permits are secured, MCWD staff may authorize commercial fishing crews to mobilize or prepare for removal operations. JR Commercial Fish mobilization fee include a lump sum of \$2,500 which may include permitting, snowplowing, signage, signage removal, and loading fish. Mobilization would be dictated through communication between MCWD and WSB and based on radio telemetry surveys indicating that the carp aggregation driven by the MUM has returned to its original location providing an opportunity to deploy the MUM again.

Netting operations would be structured similarly to February 2020, where MCWD staff would provide regular updates on radio tagged carp locations, and the commercial fishing crew would mobilize to prepare for removal operations. The day of the removal operation, WSB staff would deploy the MUM to drive fish into the proposed haul area.

The removal operations line item under the JR Commercial Fish Rate (see table) shows a maximum budget of \$6,500 for Carp Removal: Netting Operations. This \$6,500 fee would be applied if both gill nets and a seine are deployed in combination the day of removal operations. Deployment of just the seine net would be a lump sum fee of \$5,000, and gill netting alone would be a lump sum of \$4,500. Carp Removal: Netting Operation fees will not be charged unless nets used for removal (outside of block nets) are deployed for a removal attempt. Additional fees apply to the combination netting since it takes a longer period of time to “pick” fish from gill nets rather than scooping them from the seine. Gill netting can only happen if authorized by MN DNR. Gill nets are large mesh size to reduce by catch and are not dead set.

WSB fees for removal provide a maximum budget of \$3,036 which includes coordination, deployment of speakers (2 staff), and additional time for one staff to assist with data collection on carp captured in the haul with assistance from MCWD staff.

The reporting line item provides time for WSB staff to draft a brief memo/report to MCWD staff documenting MUM deployment and removal operations.

WSB fees are calculated on an hour hourly basis. Additional WSB staff time will be billed at an hourly rate according to the attached rate sheet, and only under approval by MCWD.