



Title:	Approval of Winter Commercial Seines in Six Mile Creek Halsted Bay Subwatershed
Resolution number:	21-086
Prepared by:	Name: Jill Sweet Phone: (952) 930-1976 jsweet@minnehahacreek.org
Reviewed by:	Name/Title: Anna Brown, Planner-Project Manager
Recommended action:	Approve two contracts with WSB for the management and removal of common carp in the Six Mile Creek-Halsted Bay subwatershed
Schedule:	December 2021-March 2022: Winter seine on Parley and East Auburn March 2022-June 2022: Open water seine on East Auburn (Alternative)
Budget considerations:	Fund name and code: SMCHB Carp Management 5-5007 Fund budget: \$567,000 Expenditures to date: \$496,000 Requested amount of funding: \$43,312
Past Board action:	Res # 17-036 Authorization to request funds from Lessard Sams Outdoor Heritage Council

Summary:

In September 2017, the Lessard Sams Outdoor Heritage Council awarded the Minnehaha Creek Watershed District (MCWD) \$567,000 for the Six Mile Creek-Halsted Bay (SMCHB) Habitat Restoration Project.

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

The grant funds are being used to support the capital cost of barrier installation, utility installation for aeration, and the fish removal contracts, which consistent with the accomplishment plan approved by the Lessard Sams Outdoor Heritage Council. The 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 all four locations, aeration sites are operational, and approximately 22,093 carp totaling 210,468 pounds from the SMCHB subwatershed over the past three years. Carp removal will be the primary focus for the remainder of grant implementation.

District staff consulted with WSB, Stantec, and Carp Solutions in Q1 of 2021 to develop a removal plan for 2021-22 within SMCHB subwatershed utilizing the remaining LSOHC grant dollars intended for carp removals. Approximately \$70,000 of grant funding remains for carp removals with plans to target six waterbodies with carp densities still exceeding 100kg/ha utilizing strategies appropriate for each waterbody. Under this plan, staff are proposing winter removal activities on East Auburn and Parley Lake.

Parley Winter Seine

Parley and Mud Lake have a combined carp density of approximately 305 kg/ha and require the removal of 2,475 carp to achieve the target density of 100 kg/ha on each lake. Carp move freely between the two waterbodies, so they are grouped for both assessment and management purposes. MCWD has removed a total of 15,493 carp in Parley over the past three years through both baited box net trapping and winter seining.

The total cost for this winter seine is \$19,430. This includes fees for both WSB and the commercial fisherman.

East Auburn Winter Seine

East and West Auburn Lake have a net carp density of 293 kg/ha and require the removal of approximately 1,196 individuals to achieve the target density of 100 kg/ha. Carp move freely between the two waterbodies, so they are grouped for both assessment and management purposes. MCWD has previously attempted removal in these two lakes through both baited box net trapping and stream trapping at the outlet to limited success.

In spring 2021, MCWD contracted with WSB to complete a reconnaissance effort on both lakes to inform a removal approach. In late summer 2021, MCWD contracted with WSB to implant radio tags to facilitate the proposed removal attempts and to proceed with an open water seine in the fall of 2021. Conditions did not merit a full seine attempt, so as allowed for in the scope, an alternative test seine approach was used to inform winter seine efforts.

The cost for the winter seine is \$12,916. This includes fees for both WSB and the commercial fisherman.

If winter seining isn't possible due to poor carp aggregation, poor ice conditions, or if the attempt is not successful, MCWD has the option to proceed with an open-water seine attempt this spring in 2022. Ability to proceed with a spring attempt will be determined by MCWD staff and will be contingent upon the radiotagged carp being aggregated in a suitable location

The cost for the spring open-water seine is \$10,966. This includes fees for both WSB and the commercial fisherman.

Supporting documents (list attachments):

- Parley Lake Removal Scope
- East Auburn Removal Scope



RESOLUTION

Resolution number: 21-086

Title: Approval of Winter Commercial Seines in Six Mile Creek Halsted Bay 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, in September 2017, the Lessard Sams Outdoor Heritage Council recommended the SMCHB Habitat Restoration project for \$567,000 in funding, and the funding was approved by the MN Legislature in May 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, MCWD has established a goal of achieving carp densities of 100 kg/ha system wide, and Parley-Mud, Zumbra, Steiger, and East and West Auburn Lakes remain above that target density;

WHEREAS, WSB & Associates has developed proposals for carp removal on Parley and East Auburn Lakes, that District staff finds responsive to the 2021/2022 program at a not to exceed fee that staff, in its experience, considers competitive;

WHEREAS, WSB & Associates, is the only contractor providing commercial fisherman coordination and open water seining services, and therefore is uniquely qualified to perform this work.

NOW, THEREFORE, BE IT RESOLVED that on the basis of the specific experience of WSB & Associates and the finding of District staff that the contract fee is competitive, the Minnehaha Creek Watershed District Board of Managers finds it appropriate to authorize a professional services contract with that firm without competitive process;

BE IT FURTHER RESOLVED that the District Administrator is authorized, on advice of counsel, to execute a contract with WSB & Associates, for services to remove common carp in Parley Lake within the Six Mile Creek-Halsted Bay Subwatershed, consistent with the Lessard-Sams Outdoor Heritage Council Grant Accomplishment Plan, in an amount not to exceed \$19,430.00;

BE IT FINALLY FURTHER RESOLVED that the District Administrator is authorized, on advice of counsel, to execute a contract with WSB & Associates, for services to remove common carp in East Auburn Lake in an amount not to exceed \$23,882.00;

Resolution Number 21- **086** was moved by Manager _____, seconded by Manager _____. Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: 12/16/2021

 Secretary Date: _____

Scope of Work: Parley Lake Carp Management Removal Plan - Winter 2021-2022

This statement of work applies to Parley Lake and addresses carp biomass reduction in Parley Lake to meet Minnehaha Creek Watershed District's (MCWD) carp management goals to improve water quality and ecological integrity within this waterbody and connected basins.

The 2021 carp biomass estimate for Parley Lake shows the lake supports an estimated 7,000 carp or 54,106 pounds of carp biomass and requires a reduction of 2,500 individuals or 19,891 pounds of carp biomass to reach a density of 100 kg/ha (critical threshold).

Under this scope of work, WSB will work collaboratively with the commercial fisherman for MN inland commercial fishing area 20, 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 communicated with Don Geyer and MCWD that a coordination check-in will occur prior to commercial fishing operations to limit flat fee expensing. At these check-ins, MCWD staff will have final approval prior to executing the task. 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.*

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 Coordination

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. If telemetry data shows a sufficient aggregation, MCWD will give approval to proceed with the mobilization of the seine. This information will be communicated to Don Geyer (by WSB) to schedule the day of netting based on this data as well as weather and ice condition, 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 oversee commercial fishing activity. This oversight will involve confirming fish are aggregated in the area identified by telemetry data and observe if any issues arise with netting to report these issues to MCWD staff. If fish are captured in this event in low numbers, it may be necessary to process netted carp and scan for radio-tag and PIT tags that day. WSB staff will also be on-site the day fish are loaded off the lake and assist with collecting biological data and processing netted carp, likely 1-4 days after the capture event. It is understood under this statement of work that MCWD staff will be present on load-out date 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 for WSB, which may be used during the day of removal, load-out date and for additional site visits if necessary, before or after removal, to facilitate the project.

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.

Schedule

Task	January	February	March
Task 1			
Task 2			

This project is anticipated to begin in January 2022 and conclude the first week of March 2022. Exact dates will ultimately be dictated by weather and ice thickness, fish aggregations and behavior, suitability of the aggregation area to be netted in coordination with MCWD and the commercial fishermen.

Project Budget

Task/Activity	Cost
WSB	
Task 1. Project Management	\$ 794.00
Task 2. Removal Coordination	\$ 4,656.00
Commercial Fishing	
Crew Mobilization	\$ 1,500.00
Seine Haul Attempt	\$ 2,500.00
Carp Bounty	Not to exceed- \$10,000
Project Total	\$19,430.00

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.



2022 Rate Schedule



	Billing Rate/Hour
PRINCIPAL ASSOCIATE	\$162 - \$206
SR. PROJECT MANAGER SR. PROJECT ENGINEER	\$162 - \$206
PROJECT MANAGER	\$143 - \$159
PROJECT ENGINEER GRADUATE ENGINEER	\$97 - \$158
ENGINEERING TECHNICIAN ENGINEERING SPECIALIST	\$62 - \$154
LANDSCAPE ARCHITECT SR. LANDSCAPE ARCHITECT	\$73 - \$154
ENVIRONMENTAL SCIENTIST SR. ENVIRONMENTAL SCIENTIST	\$60 - \$151
PLANNER SR. PLANNER	\$75 - \$159
GIS SPECIALIST SR. GIS SPECIALIST	\$72 - \$159
CONSTRUCTION OBSERVER	\$98 - \$128
SURVEY	
One-Person Crew	\$159
Two-Person Crew	\$207
OFFICE TECHNICIAN	\$56 - \$97

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.

Scope of Work: East and West Auburn Lakes Carp Management Removal Plan – Winter 2021-2022

This statement of work applies to both East and West Auburn Lakes and addresses carp biomass reduction efforts in these lakes to meet Minnehaha Creek Watershed District (MCWD) carp management goals to improve water quality and ecological integrity.

East and West Auburn Lakes are basins roughly the same size (148 and 145 acres, respectively) and have a frequent exchange of carp during the open water season. Within these two lakes there are an estimated 4,500 individuals or approximately 30,100 lbs of carp. To achieve the 100kg/ha threshold in both systems an estimated removal of ~1,200 individuals or ~7,900 lbs of carp is required. However, without the ability to control movement between the lakes, it isn't clear how the carp may distribute themselves at any point of the season, therefore, could easily surpass 100kg/ha in a single lake if only 1,200 carp were removed. Therefore, exploring methods that have the ability to remove more than 1,200 carp is important for our current carp management efforts on the Auburn Lakes.

Under this statement of work, WSB will coordinate removal effort with area commercial fishermen in collaboration with MCWD staff. This plan for carp removal has been determined through a reconnaissance effort that was completed in Spring 2021 with MCWD staff and Jeff Reidemann (JR Commercial Fishing) that determined feasibility of seine netting attempts in one or both basins. This effort was followed by radiotagging fifteen carp on the Auburns and test netting in the fall of 2021. Removal on East and West Auburn will be covered under a Class C Permit that was submitted to the MN DNR in December 2021. If this permit is unable to be obtained, removal will be covered under MCWD's Class B permit.

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

Project Approach

Both East and West Auburn support carp population densities that exceed the management threshold identified by the MCWD (100 kg/ha). Efforts have been made to reduce the carp population through baited box-netting on East and West Auburn and stream trapping at the West Auburn outlet, but have had limited success. An alternative method that employs commercial netting of the lake has been identified and deemed feasible in a number of circumstances. Commercial seine netting on East Auburn is recommended to reduce the population of carp in both basins.

In the Fall of 2021, an aggregation of carp was not identified using radiotagged carp locations and a test netting was pursued as an alternative to a capture event as specified in the accepted 2021 SOW. The test net was pulled through areas of East Auburn where carp are known to aggregate and helped to identify heavily vegetated areas (lily pad rhizomes) that will need to be avoided in a winter haul scenario. Additionally, an access point on East Auburn through a private residence was secured that ensures a safe and effective way for fishermen to move equipment and fish on and off the lake. These efforts make it feasible to recommend a winter seine haul that targets an aggregation of carp for removal on East Auburn.



Summary of Recommendations Based on Reconnaissance Effort

Each lake possesses unique challenges to seining, however, two options can be pursued with a standard commercial seining effort and approach. Our recommended actions and order of pursuit:

- 1) Fall or spring open water seining on East Auburn
- 2) Winter under-ice seining on East Auburn

Any other type of seining efforts would require additional feasibility or operational adjustments greater than a standard commercial seining effort. Some of these options could consider:

- 1) Vegetation management & MUM technologies leading into Seining effort on West Auburn
- 2) Shoreline/ access improvements at Locations #2 or #3 on East Auburn to Winter Seine

Alternatively, other removal options could be pursued that implement different gear types to target these aggregations. However, these can be viewed as escalated removal efforts that may require some level of using traditional methods (seining) prior to permit approval and use of these techniques. Feasibility of these efforts were beyond the scope of the reconnaissance effort.

- 1) Gill netting in East and West Auburn
- 2) Scale up stream trapping at inlets and outlet

This scope of work covers the first two recommended actions: open water seining and winter-under ice seining. WSB will work with MCWD to scope other methods dependent on the outcome of this scope of work and MCWD's desire to pursue additional removal attempts.

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. Seine Event Coordination

WSB will coordinate with MCWD and Commercial Fishermen to pursue one (1) under-ice seine netting event in the winter of 2021-2022 or one (1) open water netting attempt in Spring 2022. This effort will be scheduled based on radiotag locations on East Auburn and in consultation with MCWD. It is expected that MCWD staff will monitor the locations of radiotags that were implanted in the fall of 2021 and report findings to WSB staff to help inform this decision. Areas on East Auburn have been identified as historic aggregation sites and the feasibility of seining these areas was completed during the reconnaissance effort and test netting. Once an aggregation has been identified in an area deemed appropriate by all parties for seining and weather and ice conditions allow, an effort to coordinate a seine event will be pursued.

If carp removal via seine netting is not deemed feasible in the winter of 2021-2022, radiotracking will continue as needed by MCWD staff to inform future removals attempts late winter to early spring of 2022 in open water.

Task 3. Under Ice Seine Event & Carp Removal

Under ice seine netting can be pursued on East Auburn with the secured access point and advanced knowledge of bottom conditions in areas where carp are known to aggregate. Under this SOW fishermen will be scheduled to visit East Auburn based on fish locations and weather in the winter of 2021-2022. Up to two WSB staff will be on-site the day of event to assist with and oversee the operation. It is expected that MCWD will provide telemetry equipment to monitor locations of the radiotagged fish to help guide operations and to check for tags in the fish that are captured so that an effort can be made to release them back to the basin. The decision to schedule and pursue an under-ice seine will be decided with consultation between WSB and MCWD staff.

Carp that are captured in the seine event will be kept in a fish net pen to be held until removal from the lake. The captured carp will be moved off the lake through a private residence on the south east side of the lake. Depending on the commercial viability of the fish that are captured the fish may be hauled off in a commercial hauling truck. If this is not possible, the fish will be removed and disposed of properly by fishermen and WSB staff. Up to three (3) WSB staff will be onsite to aid in the transport of carp off the lake and to collect data including number of fish captured and approximate weight. Any radiotagged carp will be released back to the basin for future monitoring efforts.

Alternative/Task 4. Open Water Seine Event & Carp Removal

If fish aggregations or weather conditions do not prompt an under-ice seine event in the winter of 2021-2022, it may be decided to continue to track carp into late winter to spring open water season of 2022 and pursue an open water attempt if carp are found to be aggregating. The method for this seine event will be similar to an under-ice seine event but the carp would be loaded off the lake through the public launch site on West Auburn.

Task 5. Reporting

A report that details a seine event and number and biomass of carp captured and removed from East and West Auburn will be delivered at the end of the project period. This report will provide recommendations for next steps if the need for additional biomass removal is needed to meet MCWD carp management goals.



Schedule

Task	January	February	March	April	May	June
Task 1						
Task 2						
Task 3						
Task 4						
Task 5						

We anticipate the project starting in January 2022 and concluding in June 2022 with the submission of a report detailing the project activities and recommendations for next steps.

Project Budget Summary

Task/Activity	WSB Cost (Hourly)	Alternative
Task 1. Project Management	\$ 774.00	\$ 774.00
Task 2. Seine event coordination	\$ 1,008.00	\$ 1,008.00
Task 3. Under-ice seine event	\$ 10,020.00	
Task 4.* Open water seine event		\$ 8,070.00
Task 5. Reporting	\$ 1,114.00	\$ 1,114.00
Totals	**\$12,916.00	\$10,966.00

* Alternative to Task 3 – if pursued, project budget equal to \$10,966.00

**.-Not to exceed limit.

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.



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