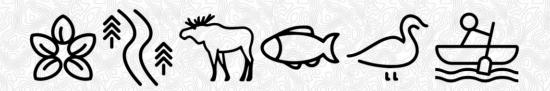




FINAL

Aquatics Field Logistics Work Plan for 2021 Field Studies

July 2021





Aquatics Field Logistics Work Plan for 2021 Field Studies

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Aquatics Field Logistics Work Plan for 2021 Field Studies

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Aquatics Field Logistics Work Plan for 2021 Field Studies

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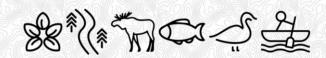




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EA..... Environmental Assessment



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HaSEP Health and Sa	afety and Environmental Protection Plan
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IA Impact Assessment

IAA Impact Assessment Act

IS Impact Statement

JSEA..... Job Safety and Environmental Analysis

km..... kilometre

MECP Ontario Ministry of the Environment, Conservation and Parks

MFFN..... Marten Falls First Nation

TISG Tailored Impact Statement Guidelines

ToR Terms of Reference VC..... Valued Component





Aquatics Field Logistics Work Plan for 2021 Field Studies

1. Introduction

The Proponent of the Community Access Road (CAR or the Project) is Marten Falls First Nation (MFFN), a remote First Nation community in northern Ontario located at the junction of the Albany and Ogoki rivers, approximately 430 kilometres (km) from Thunder Bay, Ontario. The MFFN community is proposing an all-season CAR that will connect the MFFN community to Ontario's provincial highway network (Highway 643) to the south via the existing Painter Lake Road. MFFN, as the Proponent of the Project, has formed a MFFN CAR Project Team that includes MFFN CAR Community Member Advisors and MFFN CAR Project Consultants who act with input, guidance, and direction from the MFFN Chief and Council.

This document outlines the work plan to implement the 2021 field studies for surface water and fish and fish habitat (described herein as 'aquatics'), recognizing that the results of these field surveys will be used to support a coordinated Impact Assessment (IA), required for Project review by the Impact Assessment Agency of Canada (the Agency) under the federal *Impact Assessment Act* (IAA), and an Environmental Assessment (EA), required for Project review by the Ontario Ministry of the Environment, Conservation and Parks (MECP) under the Ontario *Environmental Assessment Act*. The Aquatics Work Plan (i.e., for surface water and fish and fish habitat) describes the proposed methods and schedule to complete the 2021 field program and considers both the Agency's Tailored Impact Statement Guidelines for the Marten Falls Community Access Road Project (TISG) (IAAC 2020) and the comments received on the Draft Terms of Reference (ToR) (AECOM 2020).





Aquatics Field Logistics Work Plan for 2021 Field Studies

2. Overview and Approach

The approach and associated study areas for the aquatics field program are detailed in the Surface Water Study Plan and Fish and Fish Habitat Study Plan (MFFN CAR 2021a,b). These considerations were developed based on guidance from and discussions with both federal and provincial regulators. A brief description of the proposed methodology and staffing plan to complete the aquatics field program is provided below, with the understanding that the technical content is limited to supplementary information not previously included in the Surface Water and Fish and Fish Habitat Study Plans.

2.1 Methodology

The proposed methodology for the 2021 aquatics field program is described in **Table 2-1** and the corresponding survey locations are shown in **Figure 2-1**. The proposed methodology described below is in line with what was initially detailed in the Surface Water Study Plan and Fish and Fish Habitat Study Plan. No deviations are anticipated at this time.

Table 2-1: Methodology for Aquatics Field Study

	Fish and Fish Habitat Assessments
Permits to Conduct Field Study	 ■ MECP Letter of Authorization to Conduct Research in a Provincial Park or Conservation Reserve: valid from August 14, 2021 to December 31, 2022 ■ MNRF Licence to Collect Fish for Scientific Purposes: valid from August 1, 2021 to August 31, 2021
Field Study Methods	 The 2021 aquatic field program will consist of a summer field survey. 57 waterbody crossings have been targeted for aquatic field surveys in 2021 (fish and fish habitat and / or surface water) as a percentage of the total number of waterbody crossings (n = 98), with the understanding that the following tasks / studies for a subset of the crossing locations were determined based on the remaining requirements from the 2019 and 2020 field programs to reach the 50% subset of total crossings for fish and fish habitat and 25% subset of total crossings for benthic invertebrates: Fish habitat assessments will be completed at 33 waterbody crossings in 2021. Fish community sampling will be completed at 50 waterbody crossings in 2021. Benthic invertebrate community sampling will be completed at 18 waterbody crossings in 2021. Contingency locations will be assessed as substitutes if the selected crossing locations are shown to be inaccessible (e.g., no clear landing area for helicopter within 300 m, site flooded with no possibility of safe landing). Detailed methods for fish and benthic invertebrates are described in the Fish and Fish Habitat Study Plan.
Lab Analysis Methods	■ Benthic invertebrate taxonomic identification and enumeration to lowest taxonomic level possible will be completed by ZEAS Laboratories Inc. (Nobleton, ON).

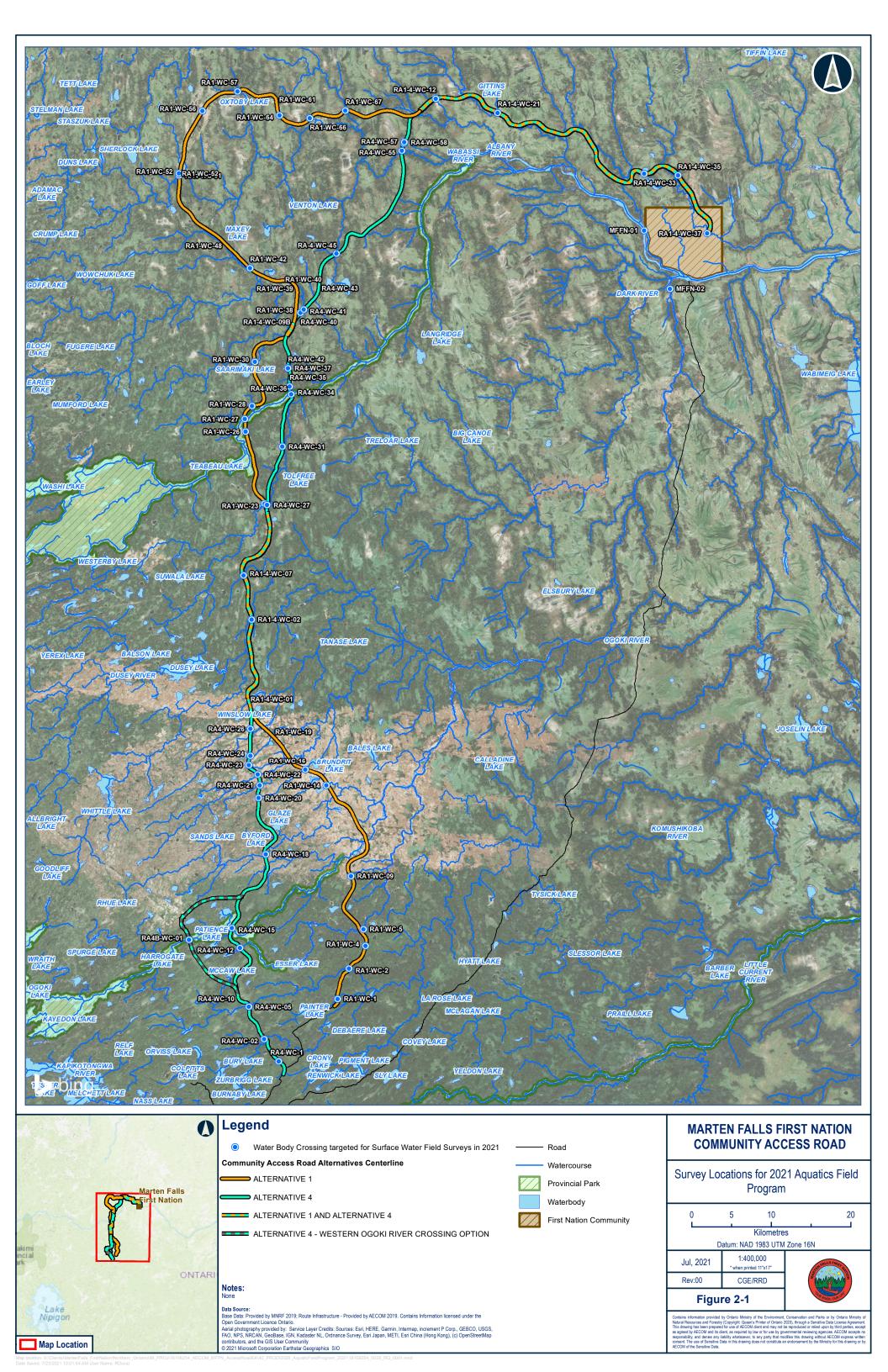




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	Surface Water Assessments
Permits to Conduct Field Study	■ MECP Letter of Authorization to Conduct Research in a Provincial Park or Conservation Reserve: valid from August 14, 2021 to December 31, 2022
Field Study Methods	 The 2021 aquatic field program will consist of a summer field survey. Surface water assessments will be targeted at all 57 waterbody crossings that have been selected for the 2021 summer field program (refer to details and rationale above from the concurrent fish and fish habitat assessment). Field surveys at each site will include general waterbody assessments, streamflow measurements, topographic surveys, water quality sampling, and sediment quality sampling. It is understood that the plan to target 57 waterbody crossing locations for field surveys could result in data collection activities being completed at a larger number of crossings than originally identified in the Surface Water Study Plan (where field surveys had been proposed at approximately 40% of the total number of crossing locations during each field campaign). However, based on past experience at the Project site, it is expected that field surveys will not be practical or even required at all of the proposed sites, given that (1) access for safe helicopter landings may not be possible at a subset of the crossing locations and (2) conditions at one or more of the unmapped / assumed waterbody crossing locations may not actually satisfy the criteria for a waterbody feature (i.e., incised channel with a defined bank and / or bed), and, hence, eliminate the need for data collection. To that end, site selection for the aquatics field surveys has been developed with the goal of collecting ground-based field data at a minimum of 40 crossing locations, with a plan to target a higher number of crossings from the outset of the program to account for access constraints or the absence of defined channel conditions. Detailed methods for surface water are described in the Surface Water Study Plan.
Lab Analysis Methods	 The analysis of surface water quality samples will be performed by Bureau Veritas Environmental Services Laboratory (Mississauga, ON). The analysis of sediment quality samples will be performed by Bureau Veritas Environmental Services Laboratory (Mississauga, ON).





Aquatics Field Logistics Work Plan for 2021 Field Studies

2.2 Program Staffing

The proposed staff participating in the 2021 aquatics field program are outlined in Table 2-2.

Table 2-2: Personnel Qualifications

Name	Title	Project Role	Credentials	Years of Experience*
Andrew Forbes	Senior Consultant and Associate	Technical Director for Water Program; Surface Water Senior Reviewer	M.Sc., P.Geo.	20
Kristine Mason	Principal, Senior Fisheries Biologist	Fish and Fish Habitat Senior Reviewer	M.Sc., P.Biol.	25
Zsolt Kovats	Associate, Senior Aquatic Ecologist	Benthos Senior Reviewer	M.Sc.	25
Craig DeVito	Water Resources Engineer	Surface Water Component Lead, Lead Author on Baseline Report	P.Eng.	15
Barb Fortin	Aquatic Biologist	Fish and Fish Habitat Component Lead, Lead Author on Baseline Report	M.Sc., P.Biol.	13
Jill LaPorte	Aquatic Biologist	Benthos Specialist	B.Sc.	15
Brian Lingelbach	Surface Water Technician	Surface Water Field Crew 1 Lead	B.Sc., C.Tech.	5
Jason Fregoe	Environmental Technician	Fish and Fish Habitat Field 1 Crew Lead	Dipl. Tech	15
Kevin Easton	Surface Water Technician	Surface Water Field Crew 2 Lead	B.E.S.	4
Jamie Weir	Fish and Wildlife Technologist	Fish and Fish Habitat Field Crew 2 Lead	Dipl. Tech	15

Note: * Experience as of March 2021

Please note that the staffing for the aquatics field program may also rely on additional members from the MFFN CAR Project Consultant Team and / or members from local Indigenous communities.



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3. Discipline Specific-Schedule

The proposed schedule for the aquatics field program is presented below in **Table 3-1**. This schedule is subject to change based on evolving climactic conditions in the Project Area, including forest fires.

 Table 3-1:
 Aquatics Program Schedule

Task / Program	Start Date (MM/YR)	Approximate Duration	Targeted VC Interaction
■ Field Surveys	■ August 2021	■ Ten days	■ Surface Water
		-	■ Fish and Fish Habitat

Prior to field programs commencing, the following groups from the Project Contact List will be notified:

- Indigenous Community Key Contacts
- Tribal Councils, Provincial Territorial Organizations, and Métis Nation of Ontario
- Other Indigenous Persons Identified for Consultation (including MFFN community members)
- Businesses
- Tourism Operators
- Community and Interest Groups and Non-Governmental Organizations
- Interested Parties / Potential Stakeholders Unaffiliated
- Government Review Team
- Non-Government Review Team agency representatives
- Forest Management Companies
- Mining Claim Holders
- Emergency Medical Services and Law Enforcement
- Neighbouring Projects and their Contacts
- Other Agency Representatives (elected Members of Parliament and Provincial Parliament of Ontario)





Aquatics Field Logistics Work Plan for 2021 Field Studies

4. Health and Safety

4.1 General

Golder is committed to the health and safety of employees, clients, contractors and the public, with the understanding that all work performed by Golder is subject to strict health and safety policies and applicable federal, provincial, and municipal acts and regulations. Golder has internal Work Safe Practices for aerial work, remote work, cold weather work, and working around water. All field crew members will be expected to review these protocols prior to commencing surveys. In addition, the Golder survey teams will develop a project specific Health and Safety and Environmental Protection Plan (HaSEP) prior to conducting field work. The Project's HaSEP will be reviewed and discussed with all field crew members (including pilot and Indigenous crew members) prior to the survey's commencement.

The aerial / helicopter support for the Project will be designed and scheduled according to Golder's and the client's health and safety policies, procedures, and training. Restrictions on aircraft type and pilot proficiency will apply. Prior to daily take-off, the pilot will provide an aircraft orientation and safety briefing to all members of the survey team. The briefing will include identifying hazards, emergency response plans and procedures, and general helicopter protocol (including how to exit and enter an aircraft). As part of these briefings, hazards specific to the day's task will also be identified, discussed, and documented on a job safety and environmental analysis (JSEA) form, with a plan for all crew members to sign the JSEA. Field surveys will only occur when weather conditions allow safe aircraft operations, recognizing that (1) field crew members have the right to refuse substandard actions or conditions if the worker feels that these actions / conditions are imminently dangerous to their safety or to the safety of others and (2) field crew members should rely on pilot judgement as well as their own experience and comfort level to determine if flights should occur or be prematurely terminated.

As part of each field day, field crew members will pack extra food, water, and clothing in case of aircraft mechanical trouble and unexpected delays. In addition, each field crew will carry a survival and first aid kit for emergency situations (supplementary to the aircraft emergency survival kit). Daily check-in times with a designated contact will be pre-determined as part of the HaSEP, noting that satellite phones or satellite communication devices (e.g., Garmin inReach) will be used in areas where cell phone coverage is not reliable.





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4.2 COVID-19

All COVID-19 related risk mitigation and recovery measures have been established in line with government protocols and AECOM corporate measures. Field crews will employ preventative COVID-19 actions including daily screening questionnaires and the use of Personal Protective Equipment such as gloves, masks, regular disinfection, and social distancing.

Members of the field crews are not to attend site, or must remove themselves from site, if they fit any of the following criteria:

- They have symptoms associated with COVID-19 (e.g., fever, cough, sore throat, shortness of breath, sneezing / running nose, or loss of sense of smell);
- They have been confirmed for COVID-19 or are awaiting the results from being tested for COVID-19;
- They have been in close contact with a known or suspected case of COVID-19 in the past 14 days; and / or
- They have returned, or been in contact with someone who has returned, from overseas in the past 14 days.

When working in the community, field crews will strictly adhere to the COVID-19 preventative measures as described above. Where community access is required to facilitate a field survey, entry will be discussed with the community in advance. As needed, a negative COVID-19 test will be presented prior to entering Indigenous communities.

Field crews will have access to an adequate supply of sanitizer, and, as part of this, the crew members will regularly sanitize their hands. Further to this: field crews will minimize use of shared tools and equipment, as practical (including the use of hand tools, electronic devices, pens, clipboards, and notepads); all work surfaces and equipment used in the course of work will be adequately cleaned and disinfected at the end of the work shift or more frequently when visibly soiled or used repeatedly; and cloth or surgical masks (as a minimum) will be worn by field crews at all times during the course of work and in transit to the work site in line with government direction.

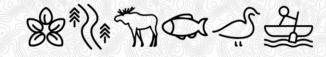




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For all workers, regardless of specific exposure risks, it is always a good practice to:

- Frequently wash your hands with soap and water for at least 20 seconds, noting that, when soap and running water are unavailable, use of an alcohol-based hand rub with at least 60% alcohol is suggested.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Avoid close contact with people who are sick.
- Cover your mouth and nose with your bent elbow or tissue when you cough or sneeze, and immediately dispose of the used tissue.
- Stay home if you are sick.





Aquatics Field Logistics Work Plan for 2021 Field Studies

5. References

AECOM (AECOM Canada Ltd.), 2020:

Marten Falls First Nation Proposed Terms of Reference Marten Falls Community Access Road – Environmental Assessment

Impact Assessment Agency of Canada (IAAC), 2020:

Tailored Impact Statement Guidelines for the Marten Falls Community Access Road Project. https://iaac-aeic.gc.ca/050/documents/p80184/133937E.pdf

Marten Falls First Nation Community Access Road Project (MFFN CAR), 2021a: Surface Water Study Plan

Marten Falls First Nation Community Access Road Project (MFFN CAR), 2021b: Fish and Fish Habitat Study Plan





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