



2023-2024 OSM WORK PLAN APPLICATION

This form will be used to assess the merits of the proposed work plan and its fit with the Oil Sands Monitoring (OSM) Program mandate and strategic priorities. Applicants must complete the form in its entirety. Applicants that fail to use this form and complete all sections in the timeframe will not be considered.

OSM Work Plan Submission Deadline: The deadline for submission of proposed work plans is October 31, 2022 at 4:30 PM Mountain Standard time . Late submissions will not be accepted.	October 31, 2022 4:30 PM MST
Decision Notification	Mid to Late March 2023

WORK PLAN COMPLETION

Please **Enable Macros** on the form when prompted.

The applicant is required to provide information in sufficient detail to allow the evaluation team to assess the work plan. Please follow the requirements/instructions carefully while at the same time being concise in substantiating the project's merits. The OSM Program is not responsible for the costs incurred by the applicant in the preparation and submission of any proposed work plan.

Privacy: The OSM Program is governed by the Freedom of Information and Protection of Privacy Act (FOIP) and may be required to disclose information received under this Application, or other information delivered to the OSM Program in relation to a Project, when an access request is made by anyone in the public. Applicants are encouraged to familiarize themselves with FOIP. All work plans are public documents.

Technical Requirements: When working on this form, please maintain Macros compatibility by always saving your draft and your final submission as a **Microsoft Word Macro-Enabled Document**, failure to do so will result in loss of form functionality. This form was created using Microsoft word 2016 on a PC and may not have functionality on other versions of Microsoft on PC or MACS.

Government Lead/Coordinator: All work plans under the OSM Program require either a government lead or a government coordinator. This will ensure that the financial tables (for Alberta Environment and Parks & Environment and Climate Change Canada) are completed accurately for work plan consideration. **However**, if an **Indigenous community, environmental nongovernmental organization** or any other **external partner** is completing a work plan proposal, they would **only** complete the **grant or contract budget component** of the **Human Resources & Financials Section** for their project. The government coordinator within Alberta Environment & Parks would be responsible for completing the remaining components of the Human Resources and Financial Section of this Work Plan Application, as they are responsible for contract and grant facilitation of successful submissions. All other sections outside of **Human Resources & Financials Section** of this work plan proposal are to be completed in full by all applicants.

Supplemental Materials: The OSM Program recognizes that majority of work planning submissions are a result of joint effort and monitoring expertise. Should the applicant wish to submit supplemental materials in addition to their application additional resources are available in the Work Planning Package accessible here: [2023-24 Work Planning Package \(Ctrl+CLICK\)](#)

Should you have any **questions** about completing this work planning form or uploading your final submission documents, please send all inquiries by email to: OSM.Info@gov.ab.ca.



WORK PLAN SUBMISSION

Upon completion of this application, please submit the appropriately named work plan (**Microsoft Word Macro-Enabled Document**) and all supporting documents to the link provided below. Failure to follow the naming convention provided may result in oversight of your application.

Please upload (by drag and dropping) the **WORK PLAN SUBMISSION & ALL SUPPORTING DOCUMENTS** here:

[**WORK PLAN SUBMISSION LINK \(CTRL+CLICK HERE\)**](#)

Please use the following file naming convention when submitting your **WORK PLAN**:

202324_wkpln_WorkPlanTitle_ProjectLeadLastNameFirstName

Example:

202324_wkpln_OilSandsResiduesinFishTissue_SmithJoe

If applicable, please use the following file naming convention when submitting your **supplementary or supporting files**. Please number them according to the guidance and examples provided:

202324_sup##_WorkPlanTitle_ProjectLeadLastNameFirstName

Examples:

202324_sup01_OilSandsResiduesinFishTissue_SmithJoe

202324_sup02_OilSandsResiduesinFishTissue_SmithJoe

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202324_sup10_OilSandsResiduesinFishTissue_SmithJoe

Do not resave your work plan or documents under any other naming conventions. If you need to make revisions and resubmit before the work planning deadline of October 31, 2022, **DO NOT** rename your submission. When resubmitting, simply resubmit with the exact naming convention so that it replaces the original submission. **DO NOT** add any additional components such as versioning or dates to the file naming convention. Please direct any questions regarding the submission or naming of submissions to OSM.Info@gov.ab.ca.



WORK PLAN APPLICATION

PROJECT INFORMATION	
Project Title:	A Braided Approach to Evaluating Fish Health Through Métis Community Monitoring
Lead Applicant, Organization, or Community:	Métis Nation of Alberta
Work Plan Identifier Number: <i>If this is an on-going project please fill the identifier number for 22/23 fiscal by adjusting the last four digits: Example: D-1-2223 would become D-1-2324</i>	Click or tap here to enter text.
Project Region(s):	Oil Sands Region
Project Start Year: <i>First year funding under the OSM program was received for this project (if applicable)</i>	2021
Project End Year: <i>Last year funding under the OSM program is requested Example: 2024</i>	2024
Total 2023/24 Project Budget: <i>For the 2023/24 fiscal year</i>	\$150,000
Requested OSM Program Funding: <i>For the 2023/24 fiscal year</i>	\$150,000
Project Type:	Community Based Monitoring
Project Theme:	Surface Water
Anticipated Total Duration of Projects (Core and Focused Study (3 years))	Year 3
Current Year	Focused Study: Year 1 of 3
	Core Monitoring: Choose an item.

CONTACT INFORMATION	
Lead Applicant/ Principal Investigator: <i>Every work plan application requires one lead applicant. This lead is accountable for the entire work plan and all deliverables.</i>	James Glasier, PhD
Job Title:	Environment Coordinator
Organization:	Métis Nation of Alberta
Address:	11758 Kingsway Ave Edmonton AB
Phone:	780-455-2200
Email:	jglasier@metis.org

PROJECT SUMMARY

Should your application be successful, The OSM Program reserves the right to publish this work plan application. Please check the box below to acknowledge you have read and understand:

I acknowledge and understand

In the space below please provide a summary (300 words max) of the proposed project that includes a brief overview of the project drivers and objectives, the proposed approach/methodology, project deliverables, and how the project will deliver to the OSM Program objectives. The summary should be written in plain language.

The Métis Nation of Alberta (MNA) proposes to study fish health in waterbodies and waterways within the oil sands regions (OSR) using community-based research. Previous engagements with MNA Citizens within the OSR highlighted key environmental concerns, including declines in fish populations, fish health, and water quality. To address Citizen concerns, the MNA launched projects in 2021 focused on community monitoring of fish health, investigating Métis Traditional Knowledge (TK) regarding fish health through interviews with Knowledge Holders, and the development of a Traditional Fish Health Assessment Tool. Using both the Assessment Tool and western-science methods, Citizens will be encouraged to act as Community Monitors by completing and submitting reporting forms when they harvest. Materials and methods for Community Monitoring, including the Assessment Tool and reporting forms will be tested and reviewed at community fishing events and through feedback surveys and engagements with MNA harvesters, Knowledge Holders, and Community Monitors. Data submitted through the reporting forms will be analyzed for indicators of poor and declining fish health for Citizen monitored waterbodies. A need for further investigation may be warranted if poor or declining fish health is detected in individual waterbodies or waterways. This project is important as it aims to address the concerns of MNA Citizens regarding surface water features in the OSR, provides a mechanism for the transfer of TK within the community, builds monitoring capacity within the community, empowers Citizens to monitor resources they rely on, and allows the MNA to detect changes in fish health and identify areas for future monitoring. The MNA is seeking support to continue the established Community Monitoring program and to expand the program by increasing Citizen participation, which will be achieved through hosting community fishing events, sharing the program on social media platforms, and providing incentives in the form of prize giveaways to participants.

1.0 Merits of the Work Plan

All work plans under the OSM Program must serve the mandate of the program by determining (1) if changes in indicators are occurring in the oil sands region and (2) if the changes are caused by oil sands development activities and (3) the contribution in the context of cumulative effects. In the space below please provide information on the following:

- Describe the key drivers for the project identifying linkages to Adaptive Monitoring framework particularly as it relates to surveillance, confirmation and limits of change (as per OC approved Key Questions).
- Explain the knowledge gap as it relates to the Adaptive Monitoring that is being addressed along with the context and scope of the problem as well as the Source – pathway – Receptor Conceptual Models .
- Describe how the project meets the mandate of the OSM Program or areas of limited knowledge is the work being designed to answer with consideration for the TAC specific Scope of Work Document (attached) and the Key Questions (attached)?
- Discuss results of previous monitoring/studies/development and what has been achieved to date. Please identify potential linkages to relevant sections of the State of Environment Report.

The proposed monitoring activities relate to the EEM framework by contributing to surveillance for the surface water category, focused on water and biological quality. The MNA’s proposed monitoring activities are intended to collect data to establish baseline conditions, from which subsequent years of data will be used to detect changes in fish health in surface water sources (waterbodies and waterways) throughout the OSR. Within the OSM program, some projects examined fish health indicators using TK perspectives (Brunet et al., 2020; Hick and Scrimgeour, 2020), usually as a part of larger monitoring efforts. However, little has been done to examine fish health indicators specific to Métis Citizens of Alberta. Métis Citizens have a long-standing relationship with Alberta fisheries, ranging in utilization for subsistence, to commercial fishing. The MNA proposes to continue a project established in 2021 that will facilitate the transfer of TK shared by MNA harvesters and Knowledge Holders with the MNA community in an accessible format that Citizens can use to assess their harvests, providing utilization to enhance food security and monitoring of the resource.

The MNA launched a fish health monitoring pilot study in 2020, examining fish sampled from lakes across Alberta using a combination of traditional means (gill nets) and modern harvesting techniques (rod and reel). Lakes were chosen to represent different MNA regions and harvesting areas. Fish caught via gill net were measured for species, length, weight, stomach contents, visually inspected for signs of poor health or abnormalities. The harvesters involved with this study were allowed to keep the lethally sampled fish to be used as food within their family units. The harvesters were then asked to fill out a palatability survey after eating fish. This project provided insight into the fish health of the sampled lakes and provided an opportunity for the MNA to develop and test fish health and palatability survey questions, which has been used to inform the MNA’s fish health Community Monitoring program, which launched in August 2021. The MNA also engaged MNA Citizens via an online survey in 2020 which asked Citizens about their fishing activities, fishing knowledge, and environmental concerns related to fish and their habitats. The survey results provided further insight into the fish knowledge of MNA Citizens and created a list of harvesters and Knowledge Holders who volunteered to engage with the MNA on future projects. This list has also been used to target communications and recruit Community Monitors for the MNA’s fish health community monitor program. More recently, the MNA has engaged with harvesters and Knowledge Holders to understand Métis perspectives on fish health and how to assess the health and quality of harvested fish and to develop a Traditional Fish Health Assessment Tool that can be shared with all MNA Citizens to empower them to harvest with confidence, enhance their food security, and monitor the resource.

Building on the work of previous years, the MNA intends to expand the Community Monitoring program and to use the 2023/24 year to accomplish the following main objectives:

1. Increase and expand Community Monitor participation and use of the Traditional Fish Health Assessment Tool, which will enable MNA Citizens to report on fishing effort, concerns, fish health, and the palatability of harvested fish.
2. Gather feedback on the community monitoring reporting forms and the Traditional Fish Health Assessment Tool to update and ensure ease of use.

3. Hold three community fishing events, one spring/summer and two winter, which will utilize the Traditional Fish Health Assessment Tool and provide an opportunity to train and recruit more fish health Community Monitors, while also encouraging the passing of knowledge to youth and community members.
4. Conduct waterbody/waterway specific monitoring, targeting water bodies of concern based on previous years' monitoring results.

The work the MNA proposes in this application intends to build and expand on the objectives noted above during the 2023-2024 fiscal year. Additional support will allow the MNA to continue to recruit more Community Monitors and to collect data regarding fish populations, health, and palatability, which will contribute to the development of waterbody and waterway specific baseline monitoring data. This support will also allow the MNA to collect feedback, refine, and re-test the Traditional Fish Health Assessment Tool.

Past studies have shown that community knowledge can enhance fisheries management. Cold Lake First Nations conducted a study to explore local concerns regarding fish consumption safety and population health, including a cultural consensus study of community members and a multi-evidence-based approach to examining fish health and toxicology (Brunet et al. 2020). This study highlights the value of TK and local perspectives, as this knowledge was often found to be a better indicator of ecosystem state than knowledge from intermittent sampling using western science methods, filling in knowledge gaps not captured by ongoing scientific monitoring. Similarly, our proposed project will capture and make Métis TK and Métis perspectives available to contribute to fisheries management within the OSR.

This project meets the OSM program mandate by empowering Métis citizens to monitor and report on fish health as an indicator species, which may be used to detect changes in water quality, pollution, or other potential impacts from oilsands development activities. Monitoring activities will be directed at waterbodies and waterways within the OSR. While the community-based monitoring program proposed will not investigate the cause of the stressors directly, it will establish baseline data and detect changes in fish health over time. Ongoing community monitoring is expected to continue using the resources developed during this project beyond the funding period, and the resources may contribute to future core and focused studies through the OSM program.

Literature Cited:

Brunet et al. 2020. Towards indigenous community-led monitoring of fish in the oil sands region of Canada: Lessons at the intersection of cultural consensus and fish science. *The Extractive Industries and Society* Volume 7, Issue 4, November 2020, 1319-1329.

Hicks, K., and Scrimgeour, G. 2020. Synthesis report of the enhanced monitoring program on the Lower Athabasca River 2019-2020. Government of Alberta, Ministry of Environment and Parks. ISBN 978-1-4601-4838-9. Available at: <https://open.alberta.ca/publications/9781460148389>.

2.0 Objectives of the Work Plan

List in point form the Objectives of the 2023/24 work plan below

1. Expand and improve the MNA's fish health Community Monitor program, which allows MNA Citizens harvesting in the OSR (MNA Regions 1, 2, 5, and 6) to share data regarding fishing activities, fish health, and fish palatability with the MNA.
 - a. Encourage the use Traditional Fish Health Assessment Tool when Community Monitors assess fish health for reporting.
 - b. Continually engage Citizens and increase reporting back on the results of Community Monitoring work as to ensure Citizens are aware of results and can use the information to assist with planning their harvesting activities.
2. Continue to develop, distribute, and refine resources which enable MNA Citizens to act as Community Monitors to assess and report on fish health for waterbodies and waterways in which they harvest.
 - a. Distribute the Traditional Fish Health Assessment Tool previously developed, collect feedback, and refine as needed.
 - b. Update the community monitor reporting forms based on comments and feedback from Citizens participating in the program.

3. Facilitate the transmission and protection of TK within the MNA community and build community capacity to ensure the success of the MNA's community-based monitoring project.
 - a. Host three community fishing events (one spring/summer and two winter) to encourage Citizens to participate in community-monitoring, provide materials and training to enable Citizens to become Community Monitors, share the Traditional Fish Health Assessment Tool, and provide an opportunity for knowledge transfer and sharing from harvesters and Knowledge Holders to youth and community members.
 - b. Complete targeted waterbody monitoring through ice-fishing at lakes of concern as shared by MNA Citizens and provide an opportunity for harvesters to connect with Métis youth to share the traditional methods used during the ice-fishing monitoring work, including setting gill nets.
4. Learn from and work with other OSM communities and the OSM Aquatics TAC to work towards project integration and develop a standard operating procedure (SOP).
5. Build internal capacity to ensure the success of the MNA's community-based monitoring project by having MNA staff members take training on software (ArcGIS, ESS) to facilitate data management, analysis, and reporting of fish health data.
6. Report back to the MNA community on the project progress and results through tradeshow booths, annual reports, social media posts, and website content.

3.0 Scope

Evaluation of Scope Criteria (Information Box Only- No action required)

Your workplan will be evaluated against the criteria below. A successful workplan would:

- be in scope of the OSM Program (e.g., regional boundaries, specific to oil sands development, within boundaries of the Oil Sands Environmental Monitoring Program Regulation)
- consider the TAC-specific Scope of Work document and the key questions
- integrate western science with Indigenous Community-Based Monitoring)
- address the Adaptive Monitoring particularly as it relates to surveillance, confirmation and limits of change as per approved Key Questions.
- have an experimental design that addresses the Pressure/Stressor, Pathway/Exposure, Response continuum
- produce data/knowledge aligned with OSM Program requirements and is working with Service Alberta
- uses Standard Operating Procedures/ Best Management Practices/ Standard Methods including for Indigenous Community-Based Monitoring

3.1 Sub Theme

Please select from the dropdown menu below the theme(s) your monitoring work plan relates to:

Surface Water

3.2 Core Monitoring or Focused study

Please select from the dropdown menu below if the monitoring in the work plan is "core monitoring" and/or a "focused study". Core monitoring are long term monitoring programs that have been in operation for at least 3 years, have been previously designated by the OSM program as core, and will continue to operate into the future. Focused studies are short term projects 1-2 years that address a specific emerging issue. For the purposes of 2023/24 work planning all Community Based Monitoring Projects are Focused Studies.

Focused Study (includes Community-Based Monitoring)

3.3 Sub Theme Key Questions

Please select from the dropdown menus below the sub-theme(s) your monitoring work plan relates to and address the Key Questions:

3.3.1 Surface Water Theme

3.3.1.1. Sub Themes:

Biological

3.4.1.2 Surface Water Key Questions

Explain how your surface water monitoring program addresses the key questions below.

1. Has baseline been established? Have thresholds or limits of change been identified?

The MNA launched a fish health monitoring pilot study in 2020, examining fish sampled from lakes across Alberta using a combination of traditional means (gill nets) and modern harvesting techniques (rod and reel). Fish caught during the sampling events were measured for species, length, weight, stomach contents, and visually inspected for signs of poor health or abnormalities. The MNA's project continued in 2021, re-sampling fish from most lakes previously visited and expanding the work to include fish toxicological testing. This work is expected to continue for a third year during the upcoming winter months (January – March 2023). Two of the lakes sampled each year were located within the OSR: Moose Lake (Cold Lake Oil Sands) and Lac La Biche (Athabasca Oil Sands). Through multi-year surveys targeting each lake, the MNA is aiming to establish baseline fish health and toxicological data at a lake-specific level. Once baseline data is established (3-years of consecutive sampling), sampling efforts can be shifted to other lakes of concern, as reported by MNA Citizens.

The MNA also launched a fish health community monitoring program in August 2021, through which MNA Citizens can report their fishing activities and observations on waterways and waterbodies in Alberta to the MNA. During the first year of this program, the MNA received over 300 reports from MNA Citizens and participation in the program is growing. The long-term goal of this program is to have ongoing participation from MNA Citizens in the program to obtain multi-year baseline fish health and productivity data for waterways and waterbodies across Alberta, including those within the OSR. If declines in fish abundance or fish health are detected for specific waterways or waterbodies, the MNA can consider launching a focused study to investigate the declines.

2. Are changes occurring in water quality, biological health (e.g., benthos, fish) and/or water quantity/flows relative to baseline? If yes, is there evidence that the observed change is attributable to oil sands development? (Describe source-pathway-receptor and/or conceptual models and what is the contribution in the context of cumulative effects?)

MNA's monitoring efforts since 2021 have yet to establish sufficient multi-year baseline data to detect changes in biological health (e.g., fish and fish habitat). However, previous engagements with MNA Citizens within the OSR highlighted key environmental concerns, including declines in fish populations, fish health, and water quality. Investigating these community concerns through both Western science and Traditional Knowledge perspectives is the purpose of the MNA's fish monitoring activities within the OSR.

Previous research on fish health within the OSR found that TK was often a more reliable indicator of ecosystem state than intermittent sampling using western science methods, whereby TK could fill in knowledge gaps not captured by ongoing scientific monitoring. Harvesters have been found to continuously observe changes in fish health, water quality, water quantity, and ice thickness throughout their lifetime. Their observations can be used as indicators for the health of aquatic ecosystems.

The MNA conducts annual sampling of waterbodies of concern, aided by a team of MNA harvesters, to collect primarily western science data (e.g., fish measurements, toxicological tests). However, to explore

TK perspectives, the MNA seeks to gather the observations of MNA harvesters through their fish health community monitoring program, through which online reports can be filled out by harvesters and shared with the MNA. To ensure the MNA understands TK indicators specific to MNA Citizens, they recently conducted work to interview Knowledge Holders and Elders to explore fish health indicators. These indicators are currently being incorporated into a Traditional Fish Health Assessment Tool to share with MNA Citizens and will be considered for future updates to the MNA's fish health community monitor program online forms.

3. Are there unanticipated results in the data? If yes, is there need for investigation of cause studies?

Unanticipated results have been identified at one of the OSR lakes targeted for monitoring. At Moose Lake, near Bonnyville, fishing success has been extremely low: after two eight-hour netting events during 2021 and 2022, only one fish was caught, and 64-man hours of rod and reel over the same period, also resulted in only one fish being caught, indicating potential for low fish density. Additionally, the fish caught in 2022 at Moose Lake had mercury levels three times higher (120mg/kg) than the average found at four other lakes targeted for sampling (40mg/kg). These findings, along with reported concerns from Citizens, reports of high phosphates and consequent algae blooms in the lake, indicates potential impacts to fish abundance and health. As these impacts are anticipated to have a negative impact Métis Citizens in their harvesting activities, this lake will continue to be a target for monitoring. The issues in this lake may not be directly connected to Oilsands developments, but from cumulative effects of developments near the lake, increased harvesting from the population in the area, and additional factors yet to be considered, but further investigation is needed to understand the impacts to Moose Lake. The goal for this proposal will be to continue to target lakes that MNA Citizens are concerned about, especially those within the OSR and near oilsands developments.

4. Are changes in water quality and/or water quantity and/or biological health informing Indigenous key questions and concerns?

The MNA regularly engages with its Citizens to gather and share information, obtain program feedback, and hear environmental concerns. Recent engagements have indicated the health of surface waters in the OSR and the fish within them are of concern to the MNA community, especially to those residing within MNA Regions which intersect with the OSR. Sixty-three percent of all environmental concerns shared by MNA Citizens within OSR-intersecting MNA Regions were related to water, fish health, and fish abundance. Declines in the availability and health of fish and degradation of their habitats can have a variety of negative impacts on MNA Citizens related to food security, connection to lands and waters, the transfer of Traditional Knowledge, and their ability to exercise their Section 35 rights. These are changes the MNA seeks to investigate through this project. Instances of poor or declining fish health detected from the MNA's community monitoring program and/or lake sampling efforts will be shared with MNA Citizens and flagged for potential future focused study to investigate causes.

5. Are data produced following OSM Program requirements and provided into the OSM Program data management system?

All scientific data collected in accordance with established OSM SOPs will be provided to be incorporated and stored in OSM Program data management system. However, the MNA reserves the right to withhold Traditional Knowledge that is deemed sensitive by Knowledge Holders and harvesters.

6. Do methodologies use relevant Standard Operating Procedures/ Best Management Practices/ Standard Methods?

Western science methodologies utilized for community fishing events, fish sampling activities, and taught to MNA Citizens who participate in the MNA's fish health community monitor program will be similar to those conducted by other fish studies within the OSM program (McMaster et al. 2018; Brunet et al. 2020), which includes measuring fish weight, length, sex, and visual health. Sampling protocol materials developed will draw on the Manual of Instructions – Fall Walleye Index Netting (Morgan, 2002) developed by the Percid Community Synthesis Diagnostics and Sampling Standards Working Group. The MNA will engage with the OSM Aquatics TAC to ensure methods align with those of other OSM Aquatics projects.

There is currently no Standard Operating Procedure (SOP) established for the OSM program which covers all activities the MNA has undertaken in recent years and aims to continue through the project described in this proposal. Last year, the MNA held preliminary discussions with the OSM Facilitation Centre to develop an SOP to share with other OSM communities interested in pursuing similar projects. These conversations have resulted in recent engagement with the OSM Aquatics TAC to initiate the SOP development process and receive commitment of their collaboration on these upcoming activities.

For the MNA's fish health community monitor program, they intend to develop an SOP focused on collecting waterway/waterbody specific fish health and abundance data from community monitors via report forms. The OSM Aquatics TAC will be working with the MNA directly to assist with SOP development. Once finalized, the SOP can be shared with other Indigenous communities in the OSR to encourage multi-community data collection and sharing to produce a stronger dataset for evaluating fish health and abundance and detecting changes through ongoing data collection by participants.

Literature Cited:

Brunet et al. 2020. Towards indigenous community-led monitoring of fish in the oil sands region of Canada: Lessons at the intersection of cultural consensus and fish science. *The Extractive Industries and Society* Volume 7, Issue 4, November 2020, 1319-1329.

Morgan, G.E. 2002. Manual of instructions — fall walleye index netting (FWIN). Percid community synthesis, diagnostics and sampling standards working group. Edited by Ontario Ministry of Natural Resources, Peterborough, pp. 20.

7. How does the monitoring identify integration amongst projects, themes or with communities?

Indigenous Knowledge, as defined by the Canadian Government's Tri-council Policy Statement for Ethical Research Involving Humans (Chapter 9, pg. 113) (also cited in this document in section 13.0) is defined as being knowledge held by the Aboriginal peoples, specific to place, rooted in multi-generational experiences, and determined by the communities' land, environment, region, culture, and language. While there are ongoing fish health projects being conducted within the OSM program to investigate fish health, there are many Indigenous communities within the OSM areas; each with their own Traditional Knowledge.

The proposed project is to build upon the work the MNA completed over the previous two years of Aquatics research in the OSR, through which the MNA developed a Traditional Fish Health Assessment Tool based on Métis Traditional Knowledge and developed materials to enable MNA citizens to become Community Monitors who can contribute to monitoring fish health when engaged in fishing activities across the OSR. The assessment tool will be distributed for testing and feedback during the upcoming 2022/23 winter ice-fishing season, refined, and then shared more widely with MNA community members, harvesters, and Knowledge Holders for additional feedback and testing. Work will be completed to ensure the tool is easy to use, understand, complements the MNA's community monitor program, and ensures it follows Métis Traditional Knowledge.

The tools developed during the MNA's work will contribute to core monitoring studies of the OSM program by providing additional insight to fish health indicators identified through Traditional Knowledge, as Métis perspectives and knowledge may share similarities or differences from other Indigenous communities within the OSR. Methodologies for developing and deploying the assessment tool will also be shared with the OSM program and may be of assistance to other OSM communities who wish to explore Traditional Knowledge regarding fish health within their own community. Moreover, we will begin developing an SOP on community monitoring and reporting, so this will also be shared and contribute to future core monitoring (See 6.).

8. With consideration for adaptive monitoring, where does the proposed monitoring fit on the conceptual model for the theme area relative to the conceptual model for the OSM Program?

The monitoring intended to occur from the proposed project fits into the EEM framework by contributing to surveillance for the surface water category, focused on water and biological quality. The proposed monitoring work is intended to collect data to be used as baseline conditions and to detect changes in fish health in surface water sources throughout the OSR. This work will advance understanding transition towards the conceptual model of the EEM framework by providing further insight into Culturally Relevant Indicators for assessing fish health from Métis perspectives. As previously noted (See 4.), each Indigenous community has unique Traditional Knowledge. Culturally relevant indicators and receptors considered within the conceptual model should not be limited to communities who have previously engaged in work related to fish health. Our data fits into the adaptive monitoring framework, in that the data collected is standardised through community monitoring (for example: measuring fish weight, length, sex, and visual health), the use of the previously developed Traditional Fish Health Assessment Tool, and it will continue to engage with Citizens on fish health concerns. Additionally, as community monitors are Métis harvesters, who often return to the same body of water multiple times a year, we are able to see how health changes over time and adapt our monitoring if fish health changes are identified.

9. How will this work advance understanding transition towards adaptive monitoring?

This monitoring project directly compliments a transition to adaptive monitoring in that it uses community monitoring to establish baseline data and detect changes for waterways and waterbodies across the OSR. Regularly reviewing the data submitted by community monitors will allow us to detect changes in fish health, fish abundance, fishing success, and new Citizen concerns. Being actively aware of these developments enables us to direct focused monitoring efforts to quickly investigate these issues. Moreover, detections of poor fish health throughout monitoring activities may be relevant to other OSM fish health and water quality related programs. Using resources and methodologies developed through this program, including the development of community monitoring SOP for OSM, will help guide future monitoring and contribute to the broader monitoring efforts of the OSM program.

The following text is provided for question 10 below. The form does not allow for applicants to edit the textbox for the question, so we will provide it here in lieu.

10. This monitoring project will directly compliment other OSM fish monitoring projects (McMaster et al. 2018; Brunet et al. 2020) by investigating Traditional Knowledge perspectives on fish health, implementing the MNA's community monitoring program to obtain fish health and abundance data from across the OSR, and developing an SOP for community monitoring for the Aquatics TAC. Detections of poor fish health throughout monitoring activities may be relevant to other OSM fish health and water quality related programs. Using resources and methodologies developed through this program, the process for setting up other OSM Community Monitor programs would be expedited.

Literature Cited:

Brunet et al. 2020. Towards indigenous community-led monitoring of fish in the oil sands region of Canada: Lessons at the intersection of cultural consensus and fish science. *The Extractive Industries and Society* Volume 7, Issue 4, November 2020, 1319-1329.

McMaster et al. 2018. Aquatic ecosystem health assessment of the Athabasca River mainstem and tributaries using fish health and fish and invertebrate toxicological testing. *Oil Sands Monitoring Program Technical Report Series No. 1.8*, pp. 76.

10. Is the work plan contributing to Programmatic State of Environment Reporting? If yes, please identify potential linkages to relevant sections of the State of Environment Report.

Click or tap here to enter text.



3.3.2 Groundwater Theme

3.3.2.1 Sub Themes:

Choose an item.

3.3.2.2 Groundwater Key Questions

Explain how your groundwater monitoring program addresses the key questions below.

1. Has baseline been established? Have thresholds or limits of change been identified?

Click or tap here to enter text.

2. Are changes occurring in groundwater quality and/or quantity relative to baseline? If yes, is there evidence that the observed change is attributable to oil sands development? (*Describe source-pathway-receptor and/or conceptual models*) and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

3. Are there unanticipated results in the data? If yes, is there need for investigation of cause studies?

Click or tap here to enter text.

4. Are changes in groundwater quality and/or quantity informing Indigenous key questions and concerns Indigenous concerns and health?

Click or tap here to enter text.

5. Are data produced following OSM Program requirements and provided into the OSM Program data management system?

Click or tap here to enter text.

6. Do methodologies use relevant Standard Operating Procedures/ Best Management Practices/ Standard Methods?

Click or tap here to enter text.

7. How does the monitoring identify integration amongst projects, themes or with communities?

Click or tap here to enter text.

8. With consideration for adaptive monitoring, where does the proposed monitoring fit on the conceptual model for the theme area relative to the conceptual model for the OSM Program?

Click or tap here to enter text.

9. How will this work advance understanding transition towards adaptive monitoring?

Click or tap here to enter text.

10. Is the work plan contributing to Programmatic State of Environment Reporting? If yes, please identify potential linkages to relevant sections of the State of Environment Report.

Click or tap here to enter text.



3.3.3 Wetlands Theme

3.3.3.1 Sub Themes:

Choose an item.

3.3.3.2 Wetlands - Key Questions

Explain how your wetlands monitoring program addresses the key questions below.

1. Has baseline been established? Have thresholds or limits of change been identified?

Click or tap here to enter text.

2. Are changes occurring in wetlands due to contaminants and hydrological processes? If yes, is there evidence that the observed change is attributable to oil sands development? (Describe source-pathway-receptor and/or conceptual models) and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

3. Are there unanticipated results in the data? If yes, is there need for investigation of cause studies?

Click or tap here to enter text.

4. Are changes in wetlands informing Indigenous key questions and concerns?

Click or tap here to enter text.

5. Are data produced following OSM Program requirements and provided into the OSM Program data management system?

Click or tap here to enter text.

6. Do methodologies use relevant Standard Operating Procedures/ Best Management Practices/ Standard Methods?

Click or tap here to enter text.

7. How does the monitoring identify integration amongst projects, themes or with communities?

Click or tap here to enter text.

8. With consideration for adaptive monitoring, where does the proposed monitoring fit on the conceptual model for the theme area relative to the conceptual model for the OSM Program?

Click or tap here to enter text.

9. How will this work advance understanding transition towards adaptive monitoring?

Click or tap here to enter text.

10. Is the work plan contributing to Programmatic State of Environment Reporting? If yes, please identify potential linkages to relevant sections of the State of Environment Report.

Click or tap here to enter text.



3.3.4 Air Theme

3.3.4.1 Sub Themes:

Choose an item.

3.3.4.2 Air & Deposition - Key Questions

Explain how your air & deposition monitoring program addresses the key questions below.

1. Has baseline been established? Have thresholds or limits of change been identified?

Click or tap here to enter text.

2. Are changes occurring in air quality? If yes, is there evidence that the observed change is attributable to oil sands development? (Describe source-pathway-receptor and/or conceptual models) and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

3. Are there unanticipated results in the data? If yes, is there need for investigation of cause studies

Click or tap here to enter text.

4. Are changes in air quality informing Indigenous key questions and concerns?

Click or tap here to enter text.

5. Are data produced following OSM Program requirements and provided into the OSM Program data management system?

Click or tap here to enter text.

6. Do methodologies use relevant Standard Operating Procedures/ Best Management Practices/ Standard Methods?

Click or tap here to enter text.

7. How does the monitoring identify integration amongst projects, themes or with communities?

Click or tap here to enter text.

8. With consideration for adaptive monitoring, where does the proposed monitoring fit on the conceptual model for the theme area relative to the conceptual model for the OSM Program?

Click or tap here to enter text.

9. How will this work advance understanding transition towards adaptive monitoring?

Click or tap here to enter text.

10. Is the work plan contributing to Programmatic State of Environment Reporting? If yes, please identify potential linkages to relevant sections of the State of Environment Report.

Click or tap here to enter text.

3.3.5 Terrestrial Biology Theme

3.3.5.1 Sub Themes:

Choose an item.

3.3.5.2 Terrestrial Biology - Key Questions

Explain how your terrestrial biological monitoring program addresses the key questions below.

1. Has baseline been established? Have thresholds or limits of change been identified?

Click or tap here to enter text.

2. Are changes occurring in terrestrial ecosystems due to contaminants and landscape alteration? If yes, is there evidence that the observed change is attributable to oil sands development? (Describe source-pathway-receptor and/or conceptual models) and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

3. Are there unanticipated results in the data? If yes, is there need for investigation of cause studies?

Click or tap here to enter text.

4. Are changes in terrestrial ecosystems informing Indigenous key questions and concerns?

Click or tap here to enter text.

5. Are data produced following OSM Program requirements and provided into the OSM Program data management system?

Click or tap here to enter text.

6. Do methodologies use relevant Standard Operating Procedures/ Best Management Practices/ Standard Methods?

Click or tap here to enter text.

7. How does the monitoring identify integration amongst projects, themes or with communities?

Click or tap here to enter text.

8. With consideration for adaptive monitoring, where does the proposed monitoring fit on the conceptual model for the theme area relative to the conceptual model for the OSM Program?

Click or tap here to enter text.

9. How will this work advance understanding transition towards adaptive monitoring?

Click or tap here to enter text.

10. Is the work plan contributing to Programmatic State of Environment Reporting? If yes, please identify potential linkages to relevant sections of the State of Environment Report.

Click or tap here to enter text.



3.3.6 Cross-Cutting Across Theme Areas

3.3.6.1 Sub Themes:

Choose an item.

If "Other" was selected from the drop down list above please describe below:

Click or tap here to enter text.

3.3.6.2 Cross-Cutting - Key Questions

Explain how your cross-cutting monitoring program addresses the key questions below.

1. Is data produced following OSM Program requirements and provided into the OSM Program data management system?

Click or tap here to enter text.

2. Do methodologies use relevant Standard Operating Procedures/ Best Management Practices/ Standard Methods?

Click or tap here to enter text.

3. How does the monitoring identify integration amongst projects, themes or with communities?

Click or tap here to enter text.

4. With consideration for adaptive monitoring, where does the proposed monitoring fit on the conceptual model for the theme area relative to the conceptual model for the OSM Program?

Click or tap here to enter text.

5. How will this work advance understanding transition towards adaptive monitoring?

Click or tap here to enter text.

6. Is the work plan contributing to Programmatic State of Environment Reporting? If yes, please identify potential linkages to relevant sections of the State of Environment Report.

Click or tap here to enter text.

4.0 Mitigation

Evaluation of Mitigation Criteria (Information Box Only- No action required)

Your workplan will be evaluated against the criteria below. A successful workplan would potentially inform:

- efficacy of an existing regulation or policy
- an EPEA approval condition
- a regional framework (i.e., LARP)
- an emerging issue

Explain how your monitoring program informs management, policy and regulatory compliance. As relevant consider adaptive monitoring and the approved Key Questions in your response.

Previous engagements held by the MNA in 2018 found that 63% of all environmental and climate change concerns within OSR MNA Regions were related to declines in fish abundance, fish health, and water quality. Métis are recognized as an Aboriginal people of Canada in section 35 (2) of the Constitution Act, 1982. Hunting, fishing, and trapping have been important to Métis peoples' way of life throughout history and remains important to the culture today. Their Aboriginal right to hunt and fish for food is protected under section 35 of the Constitution Act, 1982. Métis in Alberta continue to exercise their right by harvesting fish for subsistence (food) purposes. The Government of Alberta supported the protection and sustainability of these harvesting rights for eligible Métis Citizens through the establishment of a Métis Harvesting Policy in 2018. As such, ongoing monitoring of fish health in Alberta is important for ensuring food security for Alberta Métis. Declines in fish abundance and health within the OSR is an emerging issue for MNA Citizens. A monitoring program involving Métis perspectives and using culturally relevant indicators is important to identifying areas of concern and ensuring the concerns of MNA Citizens are addressed. By increasing participation of Community Monitors the program will expand to cover more watercourses that are targeted by MNA Citizens, thus monitoring a larger area, and identifying potential impacts of development within the OSR. Hosting community events will help to build capacity within the community to expand monitoring, while the targeted waterbody monitoring will specifically address lakes within the OSR that have been cited as being of concern.

5.0 Indigenous Issues

Evaluation of Indigenous Issues Criteria (Information Box Only- No action required)

Your workplan will be evaluated against the criteria below. A successful workplan would potentially:

- Investigate Indigenous communities key questions and concerns
- Includes culturally relevant receptor(s) and indicator(s)
- Include or be driven by Indigenous communities (participatory or collaborative)
- Develop capacity in Indigenous communities
- Include a Council Resolution or Letter of Support from one or more Indigenous communities
- Describe how ethics protocols and best practices regarding involvement of Indigenous peoples will be adhered to
- Provide information on how Indigenous Knowledge will be collected, interpreted, validated, and used in a way that meets community Indigenous Knowledge protocols

Explain how your monitoring activities are inclusive and respond to Indigenous key questions and concerns and inform the ability to understand impacts on concerns and inform Section 35 Rights

Traditionally fishing has played an important role in Métis way of life, with many Métis families relying heavily on fish for their subsistence base. Fish also play an important role in Métis artistic expression, with fish scale art utilizing many indelible portions of the fish to create distinct Métis artwork. Beyond a utilitarian purpose, fish and the act of fishing provides for the preservation of Métis culture and intergenerational knowledge transfer as people gather sitting in a boat, on a shoreline, or around an ice hole. Regardless of location, engaging in fishing activities with friends, family, and community members allows Elders, Knowledge Holders, and harvesters to share their knowledge and stories with younger generations, ensuring the continuance of Métis cultural practices, traditions, knowledge, and beliefs. The MNA’s previous fishing survey, conducted with funding support from the OSM program in 2020-2021, found that a majority (71%) of MNA Citizens harvested fish with family, and many rely on fishing locations informed by familial connections (45%) or Traditional Knowledge (35%) for their harvesting activities, further supporting the importance and continuation of familial and cultural traditions related to fishing.

In late 2018 and early 2019 the MNA held engagement sessions with its Citizens across the province to hear their concerns related to climate change and environmental impacts and how these changes are impacting their health and ability to safely exercise their Section 35 rights. Citizens were also asked to share their thoughts on what they would like a MNA monitoring program to include, and what core values it should highlight. The concerns and thoughts expressed by Citizens were assessed and results demonstrate that concerns surrounding water quality and fish health are most common, with 41% of all shared environment and climate concerns focused on these factors. Looking more specifically at the Oil Sands Region (OSR) and the four MNA Regions that overlap it (Regions 1, 2, 5, and 6), specific concerns focused on water quality/level and fish health combined averaged 63% of all concerns, indicating that Citizens in these areas have heightened concerns regarding changes and impacts to water and fish in their region. More specifically, several Citizens commented on lake water becoming polluted and consequently impacting fish health, palatability, and increasing concerns over potential negative health impacts if the fish were consumed. Numerous comments also mentioned a decrease in the number of fish present. During the MNA’s 2020-2021 fishing survey, majority of fish related concerns shared by Citizens were regarding declines in the size and availability of fish. Moreover, changes in the composition of fish populations within waterways and waterbodies were also noted to have a negative impact on Citizen’s ability to harvest target species. Based on the high percentage of concerns related to water and fish, specifically the health and abundance of fish, it is clear this is a major area of concern for MNA Citizens in the OSR and that steps need to be taken to address these concerns.

The proposed project seeks to address MNA Citizens’ concerns regarding fish health and water quality, in part by

empowering Citizens to take an active role and become Community Monitors. The project will continue, expand, and improve the MNA's Community Monitor program, with which MNA Citizens can investigate and report on fish health from waterbodies and waterways from which they harvest for subsistence. Additionally, through sharing and encouraging the use of the Traditional Fish Health Assessment Tool, developed through support of OSM funding between 2021-2023, Citizens will be able to assess fish health using culturally sensitive and relevant materials. Furthermore, sharing the Assessment Tool with Citizens at community events and demonstrations from harvesters and Knowledge Holders will further encourage the sharing of TK within the community, especially as it pertains to understanding fish health. Up-to-date scientific information regarding fish health for waterbodies and waterways in Alberta is sometimes unavailable/inaccessible to Citizens or contended by TK perspectives. This project combats this while enabling MNA Citizens to monitor their environment and resources they rely on using knowledge and methods engrained in Métis culture and traditions.

Community Monitors will report data regarding fishing effort, fish health, and palatability to the MNA, which will be used to establish baseline data intended for use in a long-term monitoring program to detect waterbody and waterway-specific changes within the OSR. Summary information regarding fish health will be reported back to the MNA community to inform their fishing activities, or to highlight areas in need of further monitoring. This research will inform on Métis section 35 rights as to whether Citizens can safely exercise these rights and how these rights may be impacted in the future should it be determined that fish populations are experiencing declines in abundance and health in oil sand development areas.

Furthermore, the project will highlight many of the core values expressed by MNA Citizens as to what a monitoring program should entail. The planned community fishing events will bring together Elders, Knowledge Holders, youth, and Citizens alike to share in traditional teachings related to fishing and netting, fish preparation, and storytelling. The events will also provide an opportunity for MNA Citizens to learn about traditional Métis fish health assessment methods and indicators through sharing the Traditional Fish Health Assessment Tool previously developed. Additionally, the program will train Citizens in the scientific monitoring methods being utilized, including fish measurements and sample collection. Combined these fishing events will support intergenerational knowledge transfer, be community driven, provide training and education to Citizens, and will build capacity and knowledge amongst participants.

The intended result of the proposed project will be for MNA Citizens to have access to the tools and information necessary (using both western science and Métis TK methods) to evaluate fish health on the waterways and water bodies from which they harvest. With their own fish health assessments and community submitted fish health data, MNA Citizens will be able to make informed choices as to which waterways and waterbodies they preferentially select for fishing to ensure safe and sustainable practices of harvesting for subsistence can continue. The MNA Environment Team will analyze submitted fish health data to flag waterways and waterbodies of concern; potentially to be the focus of future investigation and monitoring activities. This information will be made available to Citizens to inform their fishing activities. This project ultimately empowers MNA Citizens to monitor waterways and waterbodies of cultural, economic, and dietary importance in the OSR, and to highlight areas of environmental concern regarding fish health.

Does this project include an Integrated Community Based Monitoring Component?

No

If YES, please complete the [ICBM Abbreviated Work Plan Forms](#) and submit using the link below

[ICBM WORK PLAN SUBMISSION LINK \(CTRL+CLICK HERE\)](#)



5.1 Alignment with Interim Ethical Guidelines for ICBM in the OSM Program

1. Are there any community specific protocols that will be followed?

Métis cultural protocols will be followed during the work proposed under this program. All community events and meetings will be opened by a prayer led by an Elder, tobacco will be offered to harvesters and Knowledge Holders to request and thank them for sharing their knowledge, and when appropriate, gifts will be offered to thank participants for their time and support of the project. Citizens will be awarded honorarium according to MNA's internal honorarium guidelines when requested to assist with project activities (e.g., opening/closing prayers, attending meetings, sharing knowledge, etc.).

2. Does the work plan involve methods for Indigenous participants to share information or knowledge (e.g. interview, focus group, survey/structured interview), or any other Indigenous participation? If yes, describe how risks and harms will be assessed, and the consent process that will be used.

This work plan involves utilizing research methodologies involving surveys and a focus group. MNA Citizens will be encouraged to participate in the MNA's fish health community monitor program, through which they can become Community Monitors who share information and knowledge from their fishing activities with the MNA through online report forms. Any MNA Citizen with access to a computer or mobile device and an internet or cellular connection can easily fill out the online forms during or after fishing activities occur. MNA Citizens are made aware of the benefits and risks of participating in the program and how data collected through the program will be stored, used, and shared through a consent form provided at the top of each report. For questions in which photos can be uploaded in the reports, MNA Citizens are asked to complete a consent form and model release form to indicate how the MNA may or may not use their photos. As photos of MNA Citizens and personal information are collected from these reports, there is a risk of loss of confidentiality. However, data is collected and stored on the MNA's secure database management system and photo and model consent forms indicate to MNA staff how images may or may not be used to ensure confidentiality is maintained, if the MNA Citizen chooses.

This work plan also includes holding a focus group with MNA Citizens to discuss and obtain feedback on the MNA's Traditional Fish Health Assessment Tool. Individual MNA Citizens will be recruited to participate in the focus group, which will likely be held in an online format (e.g., via Zoom). Participants will be meeting with and discussing the MNA's Assessment tool in a group with multiple participants, so confidentiality regarding their participation will not be able to be maintained. However, any personal information, including notes taken from the focus group, will not be shared externally and will only be used for note-taking purposes to inform future development of the Assessment Tool. Participants will be briefed on the session, its risks and benefits, and consent for the session to be recorded will happen at the beginning of the focus group session.

Lastly, the workplan will include community fishing events through which MNA Citizens will participate in fishing activities and fish health assessments. Participation in community events could carry some physical risk associated with fishing, such as exposure to adverse weather conditions, swift water, fall risks, hypothermia, among others. The MNA will mitigate these risks by encouraging MNA Citizens to come prepared with suitable clothing and equipment, selecting locations with ease of access, providing shelter and warming stations, and other accommodations as needed. The events will hold no emotional or psychological risk. Participants will be invited to attend the events to learn from local harvesters and Knowledge Holders and participate in the transmission of knowledge within the MNA Community.

3. Do the activities include any other collecting/sharing, interpreting, or applying Indigenous knowledge? Please describe how these activities will be conducted in alignment with the Interim Ethical Guidelines, and any community-based protocols and/or guidelines that may also apply.

MNA Community Monitor Program report forms ask MNA Citizens a variety of questions regarding fishing activities, fish health, and more. Some questions are left open to MNA Citizens to share comments and additional information beyond those contained within structured answers. The MNA will assess report data and be required to potentially interpret Traditional Knowledge. MNA Traditional Knowledge is also the foundation

of the MNA’s new Traditional Fish Health Assessment Tool. It was developed during 2022/2023 as part of the MNA’s OSM Workplan by analyzing fishing health data collected from interviews and discussion with MNA harvesters and Knowledge Holders. This Traditional Knowledge has been summarized and will be shared within the MNA community through the Assessment Tool.

Traditional Knowledge will also be shared at the planned MNA community events and monitoring activities. MNA harvesters and Knowledge Holders assisting with these events will share their knowledge, experience, and techniques with other participants and attendees. This information may also be recorded (with their consent) to be share more broadly with the MNA community through digital publications (e.g., website, social media). All information collected, shared, interpreted, and applied will be completed by MNA staff, on behalf of the MNA Community. All planned activities align with the OSM Interim Ethical Guidelines in that the community is the one gathering, storing, and using the data, ensuring that the community are the owners and stewards of the data. Prior and informed consent is always incorporated into the MNA’s activities (e.g., consent forms for reports, briefing and recording consent for a focus group, etc.). Furthermore, the project is designed to braid both knowledge systems, placing emphasis on not just western science methods, but validating and highlighting the importance of Traditional Knowledge systems. As this project is Métis-led, aiming to address the needs and concerns of MNA Citizens, it fully embodies and incorporates the ethical guidelines laid out in the OSM Interim Ethical Guidelines document.

4. Indicate how Indigenous communities / Indigenous knowledge holders will be involved to ensure appropriate analysis, interpretation and application of data and knowledge.

The MNA will be leading the project on behalf of its Citizens. MNA Citizens are the ones who have directed the activities through concerns, guidance, and feedback shared during past engagement sessions. MNA Citizens are also the primary source of information to be collected, interpreted, and analyzed through this project. During each activity, MNA Citizens have an opportunity to consent to their participation, learn about the project and its goals, and how data is intended to be stored, collected, and used. Products produced through this project will be shared with MNA Citizens to inform and provide an opportunity for feedback and review. For example, during 2022/2023 the MNA sent out a feedback survey to all MNA Citizens who participated in their Community Monitor program. Likewise, the MNA intends to engage with MNA Knowledge Holders and harvesters through a focus group to review the Traditional Fish Health Assessment Tool they are developing based on interviews with MNA Citizens regarding fish health. MNA staff ensure community members, harvesters, Elders, and Knowledge Holders are actively involved in their project to ensure the work produced aligns with the needs, concerns, and knowledge shared by the MNA Community. In addition to engagement during project activities, the MNA also shares project updates and receives guidance from an Advisory Committee comprised

5. How are Indigenous communities involved in identifying or confirming the appropriateness of approach, methods, and/or indicators?

The MNA will be leading the project on behalf of its Citizens. Projects are designed to address concerns shared by MNA Citizens during past engagements. The MNA confirms the appropriateness of their approach through ongoing engagement and feedback from the community. For example, the MNA Fish Health Community Monitor Program provides opportunities for MNA Citizens to share additional comments at the end of each form. MNA staff periodically review these comments and have made edits to the form to address concerns or suggestions shared by Citizens. An annual feedback survey also provides MNA Citizens with an opportunity to share their thoughts and feedback on the MNA’s approach for the program. Ongoing participation of MNA harvesters, Elders, and Knowledge Holders in community events and fish sampling events provides opportunity for MNA staff to engage with Citizens directly. Conversations held with Citizens at past fishing events have helped shape the format of future events. A focus group is intended to be held to assess an Assessment Tool developed using Traditional Knowledge. The focus group will allow Citizens to share their feedback and influence the development and shape of the final product. Lastly, a citizen Advisory Committee is also in place, meeting quarterly, to review and provide guidance for the MNA’s projects.

6. How does this work plan directly benefit your community? How does it support capacity building in your community?

This work plan will have many direct benefits to the MNA community. Firstly, it will address the most shared environmental and climate change concerns from recent engagements: concerns regarding declines in fish health and water quality. The MNA's Fish Health Community Monitor program empowers Citizens to actively monitor this resource and any identified areas of concerns can then be targeted for more in-depth monitoring and testing if necessary. Secondly, it creates numerous opportunities for TK transfer, with harvesters and Knowledge Holders sharing their experiences and knowledge at community events and other monitoring events. Furthermore, the Community Monitor program rewards MNA Citizens for their participation with small financial incentives and prizes.

The dissemination of the Traditional Fish Health Assessment Tool will be another opportunity for Citizens to learn different methods and techniques for understanding and assessing fish health. The project will build capacity by teaching the MNA community both western-science and traditional methods for assessing fish health. Participation in fishing events will also provide MNA Citizens with the tools and knowledge to harvest fish, learn and share Traditional Knowledge, maintain a cultural connection to the natural world, and support food sovereignty and food security within the community.

7. How is the information from this work plan going to be reported back to your community in a way that is accessible, transparent and easy to understand?

The data reported by Community Monitors and gathered through other monitoring activities performed by MNA staff will be analyzed and summarized using ArcGIS StoryMaps, with links to these being shared on the MNA website and social media. Additionally, MNA Staff are working with their database management system provider, Environmental Systems Solutions (ESS), to develop dashboards to summarize and share aggregate data submitted by MNA Citizens participating in the Community Monitor program. The MNA also shared information with Citizens through an annual report for the MNA Annual General Assembly and through participation in multiple tradeshow by holding booths featuring project information.

6.0 Measuring Change

Evaluation of Measuring Change Criteria (Information Box Only- No action required)

Your workplan will be evaluated against the criteria below. A successful workplan would potentially:

- assess changes in environmental conditions compared to baseline (e.g., validation of EIA predictions)
- report uncertainty in estimates and monitoring is of sufficient power to detect change due to oil sands development on reasonable temporal or spatial scales
- include indicators along the spectrum of response (e.g., individual, population, community)
- focus on areas of highest risk (where change is detected, where change is greater than expected, where development is expected to expand (collection of baseline))
- measure change along a stressor gradient or a stressor/reference comparison

Explain how your monitoring identifies environmental changes and how can be assessed against a baseline condition. As relevant, consider adaptive monitoring, the TAC specific Scope of Work document and the Key Questions in your response.

This project will continue to work toward establishing baseline conditions from which poor fish health can be detected and changes in fish health can be monitored through a braided approach of western science sampling protocols (fork length, total length, weight, sex, and maturity) and Métis TK for fish health indicators, with the help of the Traditional Fish Health Assessment Tool. As the program expands to include more frequent sampling and additional waterways and waterbodies, the monitoring data submitted by MNA Citizens will allow the MNA to establish reliable baseline data specific to waterbodies and waterways within the OSR from which changes in fish health can be reliably detected. Waterways and waterbodies of concern may be flagged for further investigation, which then can be targeted for in-depth monitoring, including collecting samples for testing. The MNA is also working to investigate how changes have been experienced by MNA Citizens, this includes questions asked during surveys, interviews, and engagements that target perspectives on long-term changes. This data can be compared to the baseline data gathered through the Community Monitoring report forms to see if it reflects past experiences, or if the current state of the waterbodies, waterways, and fish populations have changed. Declines in fish health noted through surveys and engagements, supported by poor fish health data submitted through our monitoring program could also be collectively considered when determining locations for focused studies in the future.

Métis TK indicators related to fish health have not been widely investigated or evaluated against other methods for detecting changes in fish health, but similarly to other studies utilizing Indigenous Knowledge we anticipate the wealth of knowledge from MNA Knowledge Holders, Elders, and harvesters given their long-standing and intimate relationship with Alberta’s waterways, waterbodies, and fisheries, will be able to detect changes and fill in knowledge gaps similar to that of Indigenous Knowledge from other communities (e.g., Brunet et al. 2020: CLFN; Hicks and Scrimgeour 2020).

One limitation the MNA will face in their ability to monitor change through this program is its dependence on Community Monitors. Community participation in the program and repeated sampling of individual waterways and waterbodies will be required to provide data sufficient to detect change. As such, there will be a need for ongoing promotion and encouragement for MNA Citizens to participate in the program. One potential solution for limited data availability may be to combine data submitted for waterways and waterbodies studied by other communities which measured similar scientific and TK indicators. Combinations, if possible, may provide stronger support for conclusions regarding potential changes in fish health. This workplan includes having meetings with other communities to discuss greater OSM integration of the proposed project and the development of an SOP based on the MNA’s Fish Health Community Monitor program, which may facilitate the expansion of

these data collection activities to include members of additional Indigenous communities in the OSR.

Literature Cited:

Brunet et al. 2020. Towards indigenous community-led monitoring of fish in the oil sands region of Canada: Lessons at the intersection of cultural consensus and fish science. *The Extractive Industries and Society* Volume 7, Issue 4, November 2020, 1319-1329.

Hicks, K., and Scrimgeour, G. 2020. Synthesis report of the enhanced monitoring program on the Lower Athabasca River 2019-2020. Government of Alberta, Ministry of Environment and Parks. ISBN 978-1-4601-4838-9. Available at: <https://open.alberta.ca/publications/9781460148389>.

7.0 Accounting for Scale

Evaluation of Accounting for Scale Criteria (Information Box Only - No action required)

Your workplan will be evaluated against the criteria below. A successful workplan would potentially be:

- appropriate to the key question and indicator of interest
- relevant to sub-regional and regional questions
- relevant to organism, population and/or community levels of biological organization
- where modelled results are validated with monitored data
- where monitoring informs on environmental processes that occur at a regional scale. e.g. Characterizing individual sources to gain a regional estimate of acid deposition and understand signal from individual contributing sources.

Explain how your monitoring tracks regional and sub-regional state of the environment, including cumulative effects. As relevant, consider adaptive monitoring, the TAC specific Scope of Work document and the Key Questions in your response.

Our project asks the questions:

- Are there changes in fish health and water quality in waterways and waterbodies from which MNA Citizens rely on the harvest of fish for subsistence?
- Subsequently, where are declines in fish health and water quality occurring to warrant further investigation of impact sources?

The monitoring proposed for this project fits into the EEM framework by contributing to surveillance for the surface water category, focused on water and biological quality indicators. This project includes the continuation of a monitoring program which investigates fish health on waterways and waterbodies from which MNA Citizens harvest fish within the OSR. The project is intended to work toward the establishment of baseline monitoring data regarding fish health for individual waterways and waterbodies gathered by MNA Community Monitors. During the first year of the MNA’s Community Monitor program, the MNA received over 300 reports from MNA Citizens and participation in the program continues to grow. MNA Citizens harvesting within the four MNA regions within the OSR (MNA regions 1, 2, 5, and 6) will be encouraged to participate and investigate fish health in the areas they harvest. Data collected will help answer key questions regarding changes in fish health and water quality. As fish are often considered indicator species for aquatic ecosystems, detection of declines in fish health will provide insight into potential changes in water quality.

Previous engagements held by the MNA in 2018 found that 63% of all environmental concerns within the OSR were related to declines in fish abundance, fish health, and water quality. An MNA online fishing survey supported by OSM funds engaged approximately 400 MNA harvesters which investigated fishing habits, values, and knowledge of MNA harvesters. Survey analysis found strong preferences for the harvest of walleye, northern pike, perch, whitefish, burbot, and trout. Through the MNA’s current OSM fish health assessment project (2021-2023), fish health indicators are being investigated by interviewing MNA Knowledge Holders, Elders, and harvesters to assist with the development of a rubric for assessing fish health. The content of these interviews is being used to develop the Traditional Fish Health Assessment Tool and will help inform the focus of indicators and species to be assessed by the index; however, the responses, especially from harvesters that frequent the OSR, will provide further insight into species of concern and specific waterbody concerns in the OSR.

The MNA’s proposed continuation of this project during 2023-2024 will allow for continued surveillance of waterways and waterbodies across the OSR, increased capacity building for MNA Community Monitors, a continued effort to establish baseline data for monitoring, and further exploration of Métis TK regarding fish health.

8.0 Transparency

Evaluation of Transparency Criteria (Information Box Only - No action required)

Your workplan will be evaluated against the criteria below. A successful workplan would potentially include:

- a plan for dissemination of monitoring data, including appropriate timing, format, and aligns with OSM program data management plan
- demonstrated transparency in past performance
- identified an annual progress report as a deliverable
- reporting of monitoring results occurs at timing and format that is appropriate for recipient audience.

Explain how your monitoring generates data and reporting that is accessible, credible and useful. As relevant, consider adaptive monitoring, the TAC specific Scope of Work document and the Key Questions in your response.

In 2021-2023, Métis TK regarding fish health was gathered through semi-structured interviews with willing and experienced MNA Knowledge Holders, Elders, and harvesters. Interviews were transcribed, coded, and analyzed to provide the basis for the development of a Traditional Fish Health Assessment Tool. This work is currently ongoing, but the Assessment Tool is expected to be completed in late 2022 and will be field tested during community ice-fishing events and monitoring activities scheduled to occur in early 2023.

The Assessment Tool will be shared with MNA Citizens at community ice-fishing events to be held in early 2023, during which point feedback can be provided regarding the Assessment Tool, the ease of use, and any suggestions for changes or improvements. Following the completion of the winter monitoring, a focus group meeting with harvesters and Knowledge Holders will be held to evaluate the Assessment Tool. Feedback provided will be used in addition to comments shared from MNA Citizens during the 2023 community fishing to make changes to improve the content and utility of the Assessment Tool.

An annual OSM program report will be produced in March of 2023 which will provide details regarding the Assessment Tool development process and the initial testing of its use at the community fishing events. Once any revisions are made, the Assessment Tool will be reshared with the MNA community through digital distribution on the MNA website, newsletter, and social media accounts (estimated to occur in the summer of 2023). This redistribution will coincide with increased media pushes regarding the Community Monitoring program to encourage increased participation during the summer fishing season. The MNA launched its Fish Health Community Monitor program in August 2021 and data collection is ongoing. Once the Traditional Fish Health Assessment Tool is made available to MNA Citizens to compliment the MNA's Community Monitor Forms. If deemed beneficial, the MNA will revise the Community Monitor forms to integrate the Assessment Tool. MNA Citizens will be further encouraged to sign up as Community Monitors to submit fish health data from their harvests to the MNA for monitoring.

The first comprehensive analysis of community-submitted fish health reports is expected to occur in March and April 2023, for which data will be summarized and shared with the MNA community via formal reports, website content, and social media posts. This comprehensive reporting will then be repeated yearly, as part of both community reporting and funder reporting. Some preliminary analyses and reporting activities may be produced at an earlier date to update Community Monitors and Citizens on the programs progress, findings, and success. Lastly, a final public report will be produced to ensure all methods and findings from our monitoring program is available to the public and the OSM program to ensure transparency. All results, aside from those deemed sensitive or confidential in nature, will be shared openly through these processes.



9.0 Efficiency

Evaluation of Efficiency Criteria (Information Box Only- No action required)

Your workplan will be evaluated against the criteria below. A successful workplan would include:

- appropriately addressed a risk-informed allocation of resources
- identified the role and justification for each staff member on the proposed work plan
- identified in-kind and leveraged resources (e.g., resources and approaches are appropriately shared with other OSM projects where possible)
- established partnerships (value-added) and demonstrated examples of coordinated efficiencies (e.g., field, analytical)
- identified co-location of monitoring effort
- demonstrated monitoring activities and information collected are not duplicative
- considered sampling/measurement/methods compatibility to other data sources (e.g., AER)

Explain how your monitoring is integrated with other OSM projects and incorporates community-based participation and/or engagement in proposed monitoring activities. As relevant, consider adaptive monitoring, the TAC specific Scope of Work document and the Key Questions in your response.

The monitoring proposed for this project fits into the EEM framework by contributing to surveillance for the surface water category, focused on water and biological quality indicators. This project includes the continuation of a monitoring program which investigates fish health on waterways and waterbodies from which MNA Citizens harvest fish within the OSR. The project is intended to work toward the establishment of baseline monitoring data regarding fish health for individual waterways and waterbodies gathered by MNA Community Monitors. MNA Citizens harvesting within the four MNA regions within the OSR (MNA regions 1, 2, 5, and 6) will be able to participate and investigate fish health in the areas they harvest. Data collected will help answer key questions regarding changes in fish health and water quality. As fish are often considered indicator species for aquatic ecosystems, detection of declines in fish health will provide insight into potential changes in water quality.

While there are ongoing fish health projects being conducted within the OSM program to investigate fish health, there are many Indigenous communities within the OSR; each with their own TK. Métis fish health indicators have not yet been explored for the collective MNA community (MNA regions 1, 2, 5, and 6) aside from some preliminary work undertaken by the MNA during the 2021-2023 fiscal year, and thus their knowledge and perspectives cannot be considered and incorporated into fisheries management until it has been investigated and made available. This proposed project seeks to rectify this situation by gathering Métis TK on fish health and developing materials to support MNA Community Monitors in monitoring the health of fish harvested and relied on for subsistence. Métis TK perspectives are expected to be used in a similar fashion to Indigenous Knowledge from other OSM communities in recent studies (e.g., Brunet et al. 2020: CLFN).

The tools developed through this project may also contribute to core monitoring studies of the OSM program by providing additional insight to fish health indicators identified through Métis TK, as MNA Citizen perspectives and knowledge may share similarities or differences from other Indigenous communities doing similar assessments in the OSR. Methodologies related to the MNA's Fish Health Community Monitor program and for developing the Traditional Fish Health Assessment Tool will also be shared with the OSM program and may be of assistance to other OSM communities who wish to explore TK regarding fish health within their own community. The MNA proposes in this workplan to have meetings with other communities and to work towards more OSM integration and the development of an SOP for the monitoring project.

The monitoring goal of this project is to gather western science and Métis TK-based fish health data for the purpose of a long-term monitoring effort to detect changes and highlighting areas of concern for further

investigation of impact sources. The MNA hopes to continue the monitoring program in future years to ensure the MNA community can continue to be empowered to monitor and gain awareness of the state of fish health in waterways and waterbodies from which they harvest. The continuation of this program is also important to ensure waterbody and waterway-specific baseline data is established from the efforts of MNA Community Monitors. A single year of data collection from a new program will not be sufficient to establish baseline data for monitoring fish health, so it is important for this program to continue for subsequent years. The quality and geographic coverage of fish health data collected could also be further enhanced through similar efforts by other Indigenous communities in the OSR, from which data could be pooled. This could be enabled through the development of an SOP, as mentioned above.

Another potential area for integration with other OSM projects is to establish a shared data set regarding TK fish health indicators. While TK is unique to each individual community, there is likely to be some overlap in data collection methods and culturally relevant fish health indicators. Wider consideration of fish health indicators may enhance the ability of community members for monitoring fish health across the OSR.

Staff resources within the MNA Environment team will be allocated to complete all necessary tasks related to this project. While the team concurrently manages a variety of projects, individuals from within the team will allocate time to complete each of the tasks they are best suited for throughout different phases of the proposed project. A detailed overview of the MNA Environment Team's key members for this project and their roles and expertise will be provided in section 15 of this application.

Literature Cited:

Brunet et al. 2020. Towards indigenous community-led monitoring of fish in the oil sands region of Canada: Lessons at the intersection of cultural consensus and fish science. *The Extractive Industries and Society* Volume 7, Issue 4, November 2020, 1319-1329.

10.0 Work Plan Approach/Methods

10.1 List the Key Project Phases and Provide Bullets for Each Major Task under Each Project Phase *

Phase 1: Share Traditional Fish Health Assessment Tool and increase Community Monitoring

- Activity I: May-June 2023. Collaborate with MNA Communications team to share the Traditional Fish Health Assessment Tool, through targeted social media posts and sharing at community events. Increase participation as Community Monitors, especially in OSM Regions, with targeted social media posts, sharing information and documents at community events, and increasing prize availability to incentivize participation.
- Activity II: All 2023-24. Report fish health community monitor form results regularly to MNA Citizens through digital content such as MNA social media pages, bi-weekly newsletter, website content, and StoryMaps.
- Activity III: August-October 2023. Plan and hold a focus group with MNA harvesters and Community Monitors to receive feedback on the monitoring program, including the reporting forms and the Traditional Fish Health Assessment Tool. Obtain feedback through a semi-guided discussion.
- Activity IV: All 2023-24. Community Monitoring seasonal reporting, feedback, and thank-you. Use survey to gather feedback from monitors and provide thank-you honoraria for participation.

Phase 2: Traditional Fish Health Assessment Tool /Data Form Revisions

- Activity I: October-December 2023. Analyze feedback from MNA harvester focus group and use it to inform revisions to the MNA Traditional Fish Health Assessment Tool and Community Monitor reporting forms.
- Activity II: January-March 2024. Collaborate with MNA Communications team to share the updated Traditional Fish Health Assessment Tool and continue to encourage Citizens to participate as Community Monitors.

Phase 3: Community and Fish Health Monitoring

- Activity I: April-May 2023. Plan one shoreline community fishing camp to educate Citizens on how to utilize the Traditional Fish Health Assessment Tool, how to collect data (fork length, weight, sex, calcified structures for aging, and etc.) for the Community Monitor Reporting forms, and work with Citizens to complete the forms on the fish they catch. This activity will build Citizen research capacity and provide an opportunity for community science and monitoring, while facilitating knowledge transfer between Citizens (especially elder to youth) within the MNA community. Citizens will also gain experience using the Traditional Fish Health Assessment Tool and Community Monitor reporting forms. Community Events will be held in the OSM regions, at a lake to be determined based on community feedback of concerns.
- Activity II: June-August 2023. Hold shoreline fishing camp and record photos and videos at the event to be used for videos to promote the Traditional Fish Health Assessment Tool and Community Monitor reporting forms to the broader MNA community.
- Activity III: September-December 2023. Plan two community ice-fishing camps to educate Citizens on how to utilize the Traditional Fish Health Assessment Tool, how to collect data (fork length, weight, sex, calcified structures for aging, and etc.) for the Community Monitor Reporting forms, and work with Citizens to complete the forms on the fish they catch. This activity will build Citizen research capacity and provide an opportunity for community science and monitoring, while facilitating knowledge transfer between Citizens (especially elder to youth) within the MNA community. Citizens will also gain experience using the Traditional Fish Health Assessment Tool and Community Monitor reporting forms. Community Events will be held in the OSM regions, one at Lac La Biche and the second at a lake to be determined based on community feedback of concerns.
- Activity IV: January - March 2024. Hold ice-fishing camps and record photos and videos at the event to be used for videos to promote the Traditional Fish Health Assessment Tool and Community Monitor reporting forms to the broader MNA community.
- Activity V: October-December 2023. Plan fish health monitoring events with harvesters at two lakes within the OSM region that have been listed as lakes of concern by MNA Citizens. These events will utilize the Traditional Fish Health Assessment Tool and collect data (fork length, weight, sex, calcified structures for aging, and etc.) from caught fish. This activity will monitor lakes of concern for MNA Citizens and water bodies not targeted for monitoring by other OSM projects.
- Activity VI: January - March 2024. Conduct fish health monitoring events with MNA harvesters in OSM areas, with focus on lakes of concern, as per Activity V.

Phase 4: OSM integration and SOP development

- Activity I: June-September 2023. Meet with other OSM fish and surface water researchers and communities to identify project overlap for potential future integration.
- Activity II: June-December 2023. Meet with and work with other OSM researchers to develop a Standard Operating Procedure (SOP) for the MNA Community Monitoring program.
- Activity III: January - March 2024. Implement SOP for the MNA Community Monitoring program.

Phase 5: Training

- Activity I: January - March 2024. MNA staff will participate in GIS software training to aid with the production of maps for their final report and future communications with MNA Citizens regarding community monitoring projects.

Phase 6: Assessment & Reporting

- Activity I: March - April 2024. Compile, analyze, and store data from fish health project monitoring sources, including Community Monitor reporting forms.
- Activity II: March - April 2024. Summarize project findings, compile Final Report and upload shared data to ESS.
- Activity III: March - April 2024. Update fish monitoring project Story Maps for reporting back to Citizens.

10.2 Describe how changes in environmental Condition will be assessed *

Our monitoring project will assess changes in environmental condition by establishing baseline fish health data submitted by MNA Community Monitors for waterbodies and waterways from which they harvest. Data will be collected using a series of online reporting forms and western science sampling protocols (measuring variables such as fork length, round weight, total length, weight, sex, and maturity), assisted by the Traditional Fish Health Assessment Tool which was developed during the 2022-2023 fiscal year. The data collected will continually be stored and analyzed by MNA staff members as a part of the Community Monitor program. As successive reports are submitted for an individual waterbody or waterway, the MNA can compare the fish health data submitted to determine if there are changes in fish health. Additionally, for waterbodies and waterways for which there is no successive reporting available, predominant reports of poor fish health for a given year may also suggest the need for further investigation. Community Monitor forms are available at the following link: <https://albertametis.com/fish-health/>

10.3 Are There Benchmarks Being Used to Assess Changes in Environmental Condition? If So, Please Describe, If Not, State "NONE" *

None

(e.g., objectives, tiers, triggers, limits, reference conditions, thresholds, etc.)

10.4 Provide a Brief Description of the Western Science or Community-Based Monitoring Indigenous Community-Based Monitoring Methods by Project Phase *

Phase 1: Share Fish Health Index and increase Community Monitoring

- Community Monitor report forms will follow methods as detailed in Phase 3. Sharing of the program and the use of the form and the Traditional Fish Health Assessment tool will be done via social media, newsletters, and direct emails where appropriate.
- Analysis and reporting of the reporting forms submitted by Community Monitors will be through the internal database management system, the use of ArcGIS to produce cartographic representation of monitoring

locations, and excel to summarize and display data and trends. Summary results will be updated regularly using the database dashboard function and ArcGIS StoryMaps.

- Fish health data submitted by MNA Community Monitors will be reviewed and Community Monitors will be awarded prizes as incentives to encourage participation. Items of greater value will be awarded seasonally through prize draws including all citizens who submitted a form in the given 3-month period. Prizes will be mailed to the winners.

Phase 2: Traditional Fish Health Assessment Tool /Data Form Revisions

- The MNA will use IAP2 techniques to engage with harvesters and the community on improving the Traditional Fish Health Assessment Tool and Community Monitor report forms.
- The focus group meeting will be recorded and session notes will be compared to recordings for accuracy. Notes will be compiled using NVivo software and analyzed to summarize participant feedback and suggestions for revision of the Traditional Fish Health Assessment Tool. Data analyses and summaries produced will be used to inform revisions to the Traditional Fish Health Assessment Tool and materials.

Phase 3: Community and Fish Health Monitoring

- Our Traditional Fish Health Assessment Tool and community monitoring use Traditional Knowledge weaved with Western Science. Western science methodologies taught to Métis Community Monitors will be similar to those conducted by other fish studies within the OSM program (McMaster et al. 2018; Brunet et al. 2020), which includes measuring fish weight, length, sex, and visual health. Sampling protocol materials developed will draw on the Manual of Instructions – Fall Walleye Index Netting (Morgan, 2002) developed by the Percid Community Synthesis Diagnostics and Sampling Standards Working Group. Additionally, we will discuss with the OSM Aquatics TAC to ensure our methods are appropriate and approved.

Phase 4: OSM integration and SOP development

- For OSM and SOP development, the MNA will work closely with Aquatics TAC to develop the SOP. We will also follow the standards that OSM put forth to develop the SOP.

Phase 5: Training

- Training will include IAP2 training and the use of ArcGIS and NVivo software.

Phase 6: Assessment and Reporting

- Fish health data submitted by MNA Community Monitors will be compiled and entered into the MNA’s database management system (ESS). ArcGIS software will be utilized to examine the spatial coverage of Community Monitor reports, and to produce cartographic representations of the data to be shared with the MNA Community and the OSM program through reporting processes. Geospatial data will be represented at a level specific to individual waterways and waterbodies as to avoid sharing sensitive information related to harvesting locations. A final public report will be produced to ensure all methods and findings from our monitoring program are available to the public and to the OSM program to ensure transparency.

Literature Cited:

- Brunet et al. 2020. Towards indigenous community-led monitoring of fish in the oil sands region of Canada: Lessons at the intersection of cultural consensus and fish science. *The Extractive Industries and Society* Volume 7, Issue 4, November 2020, 1319-1329.
- Morgan, G.E. 2002. Manual of instructions — fall walleye index netting (FWIN). Percid community synthesis, diagnostics and sampling standards working group. Edited by Ontario Ministry of Natural Resources, Peterborough, pp. 20.

10.5 List the Key Indicators Measured, If Not Applicable, State N/A *

Key Indicators:

- baseline fish health conditions collected using western science sampling protocols (e.g., fork length, round weight, total length, weight, sex, and maturity).
- abnormalities noted through visual inspection of fish sampled by MNA Community Monitors.

- changes in fish health conditions for waterbodies and waterways within the OSR, as determined by analysis of reports from MNA Community Monitors.
- Métis TK indicators, as per the Traditional Fish Health Assessment Tool being developed based on the results of the interviews with Knowledge Holders and harvesters. The Assessment Tool is currently in development but will be completed and will be in use during the proposed project plan.

11.0 Knowledge Translation

In the space below, please provide the following:

- Describe the plan for knowledge transfer and distribution of learnings from the project. This could include workshops, publications, best practice documentation, marketing plan, etc.
- Demonstrate that the knowledge transfer plan is appropriate for the intended end-users.

The MNA shares information with many of its Citizens through digital platforms, such as their website, newsletter, and social media accounts. The MNA's Facebook Page has approximately 22,500 followers, its Twitter account has nearly 5,000 followers, and the bi-weekly email newsletter is sent to over 25,000 individuals. The MNA also manages a database of over 4,000 harvesters and environmentally concerned Citizens who have agreed to be contacted by the MNA about environmental issues. These platforms are frequently used to share program information and updates, recruit volunteers, and promote MNA community events.

During our current year of funding (2022-2023), Métis TK regarding fish health has been gathered through semi-structured interviews with willing and experienced Knowledge Holders, Elders, and harvesters throughout summer and fall 2022. The MNA has identified experienced Knowledge Holders, Elders, and harvesters who volunteered to engage with the MNA on fish health during our fishing-related engagement survey held in 2020 and through regular feedback surveys with Community Monitors. It was through these means that individuals were targeted to participate in the interviews. The data obtained through the interviews is informing the current development of the Traditional Fish Health Assessment Tool.

This Traditional Fish Health Assessment Tool will be made available to Citizens for use at community ice-fishing events to be held in early 2023, during which feedback on the Assessment Tool will also be obtained. Community fishing events will be promoted to MNA Citizens through website and social media posts on the MNA social media accounts. At the fishing events, western science fish sampling protocols will also be made available to attendees for review and feedback. The materials and feedback from the camps will also be presented back to the Knowledge Holders, Elders, and harvesters who participated in the interviews through a focus group meeting, for review and an opportunity to provide further knowledge and feedback for improvements on the Assessment Tool. These sessions are intended to be held in spring 2023, with participants being contacted by email and phone. Once a revised version of the Traditional Fish Health Assessment Tool is created it will be shared again with Citizens via digital distribution on the MNA website, newsletter, and social media accounts (estimated to occur in summer 2023). Once the Assessment Tool and sampling protocols are made available to MNA Citizens, the MNA will be encouraging Citizens to use these resources and join the MNA's Fish Health Community Monitor program to contribute to the collection and submission of fish health data to the MNA for monitoring. These materials and details or updates regarding the MNA's fish health community monitor program will be shared with the MNA community via formal reports, website content, and social media posts. Additionally, regular call-outs encouraging Citizens to become Community Monitors and report on their fish harvesting activities throughout the year will be done to encourage greater participation in the project, with participation being incentivized through prize giveaways.

The first comprehensive analysis of community-submitted fish health reports is expected to occur in March and April 2023, for which data will be summarized and shared with the MNA community via formal reports, website content, and social media posts. This comprehensive reporting will then be repeated yearly, as part of both community reporting and funder reporting. Some preliminary analyses and reporting activities may be produced at an earlier date to update Community Monitors and Citizens on the programs progress, findings, and success. A final report will be produced to ensure all methods and findings from our monitoring program is available to the public and the OSM program to ensure transparency. Methods and findings will also be reported to Métis Citizens and the public in a condensed and plain-language format created for public consumption and dissemination. This may include the use of applications such as ESRI ArcGIS StoryMaps.

This analysis of the Community Monitor reporting forms will be duplicated at regular intervals to ensure regular reporting back to Citizens through the updating of any publicly shared documents, such as website content, social media posts, and ArcGIS StoryMaps. Work will also be done to create a dashboard on the database management system that houses the Community Monitor reporting forms so that regular summaries can be generated.



12.0 External Partners

List by project or project phase each component that will be delivered by an external party (including analytical laboratories) and name the party. Describe and name the associate work plan/grant/contract for these services. * state none if not required

None

*To ensure complete work plan proposal submission, all grants and contracts listed in this section should also be captured in Grants & Contracts.

13.0 Data Sharing and Data Management

For 2022-23 the following approach will be taken by the OSM Program related to data sharing.

For all work plans of a **western science** nature funded under the OSM Program, data sharing is a condition of funding and must align with the principle of "**Open by Default**". In this case, all data is to be shared with the OSM Program as directed by the OSM Program Data Management work plan.

For all work plans involving **Indigenous Knowledge** as defined below and funded under the OSM Program, data sharing is a condition of funding and the Indigenous Knowledge components of the work plan must align with the principle of "**Protected by Default**". In this case, all data as defined as Indigenous Knowledge, are to be retained by the Indigenous community to which the Indigenous Knowledge is held.

Indigenous Knowledge is defined as:

"The knowledge held by First Nations, Inuit and Métis peoples, the Aboriginal peoples of Canada. Traditional knowledge is specific to place, usually transmitted orally, and rooted in the experience of multiple generations. It is determined by an Aboriginal community's land, environment, region, culture and language. Traditional knowledge is usually described by Aboriginal peoples as holistic, involving body, mind, feelings and spirit. Knowledge may be expressed in symbols, arts, ceremonial and everyday practices, narratives and, especially, in relationships. The word tradition is not necessarily synonymous with old. Traditional knowledge is held collectively by all members of a community, although some members may have particular responsibility for its transmission. It includes preserved knowledge created by, and received from, past generations and innovations and new knowledge transmitted to subsequent generations. In international or scholarly discourse, the terms traditional knowledge and Indigenous knowledge are sometimes used interchangeably."

This definition was taken from the Canadian Government's Tri-council Policy Statement for Ethical Research involving Humans (Chapter 9, pg. 113) and is an interim definition specific to the Oil Sands Monitoring Program.

Data Sharing and Data Management *Continued*

13.1 Has there, or will there be, a Data Sharing agreement established through this Project? *

NO

13.2 Type of Quantitative Data Variables:

Both

13.3 Frequency of Collection:

Other

13.4 Estimated Data Collection Start Date:

2023-04-01

13.5 Estimated Data Collection End Date:

2024-02-29

13.6 Estimated Timeline For Upload Start Date:

2024-02-29

13.7 Estimated Timeline For Upload End Date:

2024-03-31

13.8 Will the data Include traditional knowledge as defined by and provided by an Indigenous representative, Community or Organization?

YES

TABLE 13.9 Please describe below the Location of Data and Data Type:

Add a Data Source by clicking on the table and then clicking on the blue "+" symbol on the bottom right side of table

Name of Dataset	Location of Dataset (E.g.: Path, Website, Database, etc.)	Data File Formats (E.g.: csv, txt, API, accdb, xls, etc.)	Security Classification
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.

14.0 2023/24 Deliverables

Add an additional deliverable by clicking on the table and then clicking on the blue "+" symbol on the bottom right side of table.

Type of Deliverable	Delivery Date	Description
Stakeholder or Community Presentation	Q1	Social media posts to share Traditional Fish Health Assessment Tool and Community Monitoring program
Stakeholder or Community Presentation	Q3	Focus group to provide feedback and revision suggestions for Traditional Fish Health Assessment Tool
Key Engagement/Participation Meeting	Q2	Shoreline community fishing event
Key Engagement/Participation Meeting	Q4	Winter community ice-fishing events
Other (Describe in Description Section)	Q3	Monitoring program SOP
Other (Describe in Description Section)	Q4	Revised Traditional Fish Health Assessment Tool
OSM Program Annual Progress Report (required)	Q4	Final Report
Public Dissemination Document	Q4	Community Final Reporting, ArcGIS StoryMaps

15.0 Project Team & Partners

In the space below please provide information on the following:

- Describe key members of the project team, including roles, responsibilities and expertise relevant to the proposed project.
- Describe the competency of this team to complete the project.
- Identify any personnel or expertise gaps for successful completion of the project relative to the OSM Program mandate and discuss how these gaps will be addressed.
- Describe the project management approach and the management structure.

The MNA's Environment and Climate Change Department is a diverse team of individuals with wide-ranging expertise and competencies. The team's work is directed by a vision established by an MNA Provincial Council Resolution on Environment, focusing on ensuring MNA Citizens can continue to practice their culture and traditions in a resilient and interconnected ecosystem supported by clean air, water and land. The Environment Team engages with MNA Citizens about environmental concerns, and works to research, monitor, report on, and address those concerns for the benefit of the Métis Nation of Alberta and its Citizens.

The MNA Environment Team has been, and continues to be, involved in the successful management and delivery of variety of programs focused related to Chronic Wasting Disease, migratory birds, traditional plant monitoring, Indigenous community monitoring and capacity building, and Indigenous Protected and Conserved Areas. Projects undertaken through these programs have worked to investigate and address concerns of MNA Citizens regarding issues such as food security, the state of the environment (including fish, wildlife, and plant populations and habitats), and the preservation of Métis culture and traditions.

Key Members from the Métis Nation of Alberta:

Project Lead: James Glasier PhD., Environment Coordinator. Is a Professional Biologist who has a PhD in Ecology and MSc in Conservation Biology. Expertise in Ecology, Conservation Biology and Scientific Methods. Responsibilities will include project management, including planning and leading monitoring activities, engaging with Knowledge Holders and harvesters, overseeing data entry and analysis, and report writing.

Project Support: Kimberly Mosicki MA, Environment Manager. Has an MA in Anthropology. Experience working in community engagements, Traditional Knowledge projects, and field work. Responsibilities will include assisting with project management, including planning and running events, engaging with Knowledge Holders and harvesters, report writing, and leading public dissemination with the assistance of the MNA Communications team.

Project Support: Jordan York MES., Environmental Programs Manager. Has an MES in Environmental Studies: Northern Environments and Cultures. Expertise in Traditional Knowledge and Wildlife Management. Experience working in community engagement, traditional ecological knowledge projects, environmental monitoring, and field work. Responsibilities will include assisting with project management, including planning and running events, engaging with Knowledge Holders and harvesters, data entry and analysis, report writing, and leading public dissemination with assistance of the MNA Communications team.

Project Support: Jenn Pylypiw MSc., Engagement Coordinator & Policy Analyst. Has a MSc in Climate Change, Impacts, Adaptation, and Mitigation. Has experience developing and conducting community engagements, qualitative data analysis, and providing policy recommendations. Responsibilities will include leading the focus group meeting; qualitative data entry, analysis, and presentation; and assisting during project events.

Project Support: Craig Letendre, Harvesting Manager. Experienced harvester, including fishing using gill net. Responsibilities will include assisting with the planning and leading of monitoring activities and community events.

Project Support: Courtney Anderson BAsC, Environment Coordinator. Has a Bachelor of Applied Science degree in Environmental Management with expertise in environmental monitoring techniques and plant ecology. Has experience in vegetation identification and assessment, field data collection, community engagement, event

organization, technical report writing, data analysis, and geographic information systems (GIS). Responsibilities will include serving as support throughout the project lifecycle including assisting with events, data collection, data entry and analysis, mapping, and report writing.

Project Support: Dylan Hall, BA, Engagement Assistant. Dylan has a BA in Environmental Studies: Environments and Peoples of Canada. Experience with multiple forms of interviewing, qualitative data analysis, and report writing. Responsibilities will include assisting with the planning and implementation of engagement events, including the focus group meeting, data entry and analysis, and assisting during monitoring activities.

Administrative Assistant: Caitlin Wagner, has a diploma in Forest Technology and Environmental Sciences. Has knowledge in field work, and office admin. Responsibilities include data entry, report writing, invoice and expense form processing, assisting with projects and engagements, office admin duties.

Project Support: Cody Roberts, Environment Monitoring Field Assistant. Has a double diploma in Wildlife and Fisheries Conservation and Conservation and Restoration Ecology. Experience working in GIS projects, environmental monitoring and field work. Responsibilities will include assisting with monitoring activities, community events, and data entry.

Director: Andres Filella, Director of MNA Environment and Climate Change. Expertise in employee and project management, government relations, and citizen engagement. Responsibilities will include providing Senior project oversight and advice.

Partners:

Over the past several years the MNA Environment team has worked with several experienced and knowledgeable MNA harvesters to assist with the fishing activities and to share Traditional Knowledge and expertise with community members present. These include:

Keith Grant, Dwight Knull, Kirsten Letendre, Joshua Letendre, and Dean Foster.

Expertise gaps:

Additional MNA staff will be brought onto the team to assist with planning and implementing community engagements, data entry and analysis, and assisting with coordinating and expanding the Fish Health Community Monitoring project to be supported through this proposal. Additionally, some MNA staff members who will be working on this project would benefit from training on QSR Nvivo software to support the coding and analysis of the focus group responses and would also benefit from basic training in ArcGIS software for management of geospatial data and StoryMaps for community reporting purposes.



16.0 Project Human Resources & Financing

Section 16.1 Human Resource Estimates

Building off of the competencies listed in the previous section, please complete the table below. Add additional rows as necessary. This table must include **ALL staff involved** in the project, their role and the % of that staff's time allocated to this work plan. The AEP calculated amount is based on an estimate of \$120,000/year for FTEs. This number cannot be changed. The OSM program recognizes that this is an estimate.

Table 16.1.1 AEP

Add an additional AEP Staff member by clicking on the table and then clicking on the blue "+" symbol on the bottom right side of table. The total FTE (Full Time Equivalent) is Auto Summed (in Table 16.2.1) and converted to a dollar amount.

Name (Last, First)	Role	% Time Allocated to Project
Click or tap here to enter text.	Click or tap here to enter text.	0%

Table 16.1.2 ECCC

Add an additional ECCC Staff member by clicking on the table and then clicking on the blue "+" symbol on the bottom right side of table. The total FTE (Full Time Equivalent) is Auto Summed in Table 16.2.2

Name (Last, First)	Role	% Time Allocated to Project
Click or tap here to enter text.	Click or tap here to enter text.	0%

The tables below are the financial tables for Alberta Environment & Parks (AEP) and Environment & Climate Change Canada. All work plans under the OSM Program require either a government lead or a government coordinator.

Section 16.2 Financing

The OSM Program recognizes that many of these submissions are a result of joint effort and monitoring initiatives. A detailed "PROJECT FINANCE BREAKDOWN" must be provided using the Project Finance Breakdown Template provided, accessible here (ctrl + click the link below). Please note that completion of this Project Finance Breakdown Template is mandatory and must be submitted along with each workplan.

[PROJECT FINANCE BREAKDOWN TEMPLATE \(CTRL+CLICK HERE\)](#)

Table 16.2.1 Funding Requested BY ALBERTA ENVIRONMENT & PARKS

Organization – Alberta Environment & Parks ONLY	Total % time allocated to project for AEP staff	Total Funding Requested from OSM
Salaries and Benefits <i>(Calculated from Table 16.1.1 above)</i>	0.00%	\$0.00
Operations and Maintenance		
Consumable materials and supplies		\$0.00
Conferences and meetings travel		\$0.00
Project-related travel		\$0.00
Engagement		\$0.00
Reporting		\$0.00
Overhead		\$0.00
Total All Grants <i>(Calculated from Table 16.4 below)</i>		\$0.00
Total All Contracts <i>(Calculated from Table 16.5 below)</i>		\$150,000.00
Sub- TOTAL <i>(Calculated)</i>		\$150,000.00
Capital*		\$0.00
AEP TOTAL <i>(Calculated)</i>		\$150,000.00

* The Government of Alberta Financial Policies (Policy # A600) requires that all **capital asset** purchases comply with governmental and departmental legislation, policies, procedures, directives and guidelines. **Capital assets** (Financial Policy # A100, Government of Alberta, January 2014) are tangible assets that: have economic life greater than one year; are acquired, constructed, or developed for use on a continuing basis; are not held for sale in ordinary course of operations; are recorded and tracked centrally; have a cost greater than \$5,000.

Some **examples of capital asset equipment include:** laboratory equipment, appliances, boats, motors, field equipment, ATV's/snowmobiles, stationary equipment (pier/sign/weather), fire/safety equipment, pumps/tanks, heavy equipment, irrigation systems, furniture, trailers, vehicles, etc. (Financial Policy # A100, Government of Alberta, January 2014).

Table 16.2.2 Funding Requested BY ENVIRONMENT & CLIMATE CHANGE CANADA

Organization – Environment & Climate Change Canada ONLY	Total % time allocated to project for ECCC staff	Total Funding Requested from OSM
Salaries and Benefits FTE <i>(Please manually provide the number in the space below)</i>		
Salaries and Benefits		\$0.00
Operations and Maintenance		
Consumable materials and supplies		\$0.00
Conferences and meetings travel		\$0.00
Project-related travel		\$0.00
Engagement		\$0.00
Reporting		\$0.00
Overhead		\$0.00
ECCC TOTAL <i>(Calculated)</i>		\$0.00

* ECCC cannot request capital under the OSM program. Any capital requirements to support long-term monitoring under the OSM program should be procured by Alberta and captured in that budget table.

Table 16.3

Complete ONE table per Grant recipient.

Add a Recipient by clicking on the table and then clicking on the blue "+" symbol on the bottom right side of table. The total of all Grants is Auto Summed in Table 16.2.1

GRANT RECIPIENT - ONLY: Name	Click or tap here to enter text.
GRANT RECIPIENT - ONLY: Organization	Click or tap here to enter text.
Category	Total Funding Requested from OSM
Salaries and Benefits	\$0.00
Operations and Maintenance	
Consumable materials and supplies	\$0.00
Conferences and meetings travel	\$0.00
Project-related travel	\$0.00
Engagement	\$0.00
Reporting	\$0.00
Overhead	\$0.00
GRANT TOTAL <i>(Calculated)</i>	\$0.00

Table 16.4

Complete ONE table per Contract recipient.

Add a Recipient by clicking on the table and then clicking on the blue "+" symbol on the bottom right side of table. This section is only to be completed should the applicant intend to contract components or stages of the project out to external organizations. The total of all Contracts is Auto Summed in Table 16.2.1

CONTRACT RECIPIENT - ONLY: Name	Click or tap here to enter text.
CONTRACT RECIPIENT - ONLY: Organization	Métis Nation of Alberta
Category	Total Funding Requested from OSM
Salaries and Benefits	\$75,000.00
Operations and Maintenance	
Consumable materials and supplies	15000
Conferences and meetings travel	1500
Project-related travel	18500
Engagement	25000
Reporting	0
Overhead	15000
CONTRACT TOTAL <i>(Calculated)</i>	\$150,000.00

Table 16.5 GRAND TOTAL Project Funding Requested from OSM Program

The table below is auto calculated, please do not try to manually manipulate these contents.

Category	Total Funding Requested from OSM
Salaries and Benefits <i>Sums totals for salaries and benefits from AEP and ECCC ONLY</i>	\$0.00
Operations and Maintenance	
Consumable materials and supplies <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Conferences and meetings travel <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Project-related travel <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Engagement <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Reporting <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Overhead <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Total All Grants (from table 16.2.1 above) <i>Sums totals for AEP Tables ONLY</i>	\$0.00
Total All Contracts (from table 16.2.1 above) <i>Sums totals for AEP Tables ONLY</i>	\$150,000.00
Sub- TOTAL	\$150,000.00
Capital* <i>Sums total for AEP</i>	\$0.00
GRAND PROJECT TOTAL	\$150,000.00

Some **examples of capital asset equipment include:** laboratory equipment, appliances, boats, motors, field equipment, ATV's/snowmobiles, stationary equipment (pier/sign/weather), fire/safety equipment, pumps/tanks, heavy equipment, irrigation systems, furniture, trailers, vehicles, etc. (*Financial Policy # A100, Government of Alberta, January 2014*).

17.0 FINANCIAL MANAGEMENT

The OSM Program reserves the right to reallocate project funding during the current fiscal year on the basis of project performance and financial overspend or underspend.

Please check this box to acknowledge you have read and understand

In the space below please describe the following:

- Discuss how potential cost overruns and cost underruns will be managed.
- If this is a continuing project from last year, identify if this project was overspent or underspent in the previous year and explain why.
- Describe what risks and/or barriers may affect this project.

Regular financial updates and expenditure tracking will ensure there is no overrun or underrun of project funds. Potential risks or barriers that could impact the work is a resurgence of the COVID-19 pandemic, which could result in health and safety restrictions that prevent gatherings. In this event the focus group could be moved online, but in-person community events could be impacted. Should this happen a scope change might be needed to ensure safety of all Citizens and to prevent potential community transmission. Other risks could be inclement weather that impact or delay the proposed fishing activities, especially ice-fishing events, which could be impacted by too warm of weather or too cold of weather. Ice thickness will be tested to ensure safety for all participants and if inclement weather is expected, dates will be moved to ensure project deliverables are met.



18.0 Alternate Sources of Project Financing – In-Kind Contributions

Table 18.1 In-kind Contributions

Add an In Kind Contribution by clicking on the table and then clicking on the blue "+" symbol on the bottom right side of table.

DESCRIPTION	SOURCE	EQUIVALENT AMOUNT (\$CAD)
Click or tap here to enter text.	Click or tap here to enter text.	\$0.00
TOTAL		\$0.00



19.0 Consent & Declaration of Completion

Lead Applicant Name

James Glasier PhD

Title/Organization

Environment Coordinator, Métis Nation of Alberta

Signature

James Glasier

Date

2022-10-31

Government Lead / Government Coordinator Name (if different from lead applicant)

Click or tap here to enter text.

Title/Organization

Click or tap here to enter text.

Signature

Click or tap here to enter text.

Date

Click or tap to enter a date.

PROGRAM OFFICE USE ONLY

Governance Review & Decision Process

this phase follows submission and triggers the Governance Review

TAC Review (Date):

Click or tap to enter a date.

ICBMAC Review (Date):

Click or tap to enter a date.

SIKIC Review (Date):

Click or tap to enter a date.

OC Review (Date):

Click or tap to enter a date.

Final Recommendations:

Decision Pool:

Choose an item.

Notes:

Click or tap here to enter text.

Post Decision: Submission Work Plan Revisions Follow-up Process

This phase will only be implemented if the final recommendation requires revisions and follow-up from governance

ICBMAC Review (Date):

Click or tap to enter a date.

SIKIC Review (Date):

Click or tap to enter a date.

OC Review (Date):

Click or tap to enter a date.

Comments:

Decision Pool:

Choose an item.

Notes & Additional Actions for Successful Work Plan Implementation:

Click or tap here to enter text.