Work Plan Application

Project Information	
Project Title:	Willow Lake Métis Community Based Monitoring
Lead Applicant, Organization, or Community:	Willow Lake Métis Nation
Work Plan Identifier Number: If this is an on-going project please fill the identifier number for 24/25 fiscal by adjusting the last four digits: **Example:** D-1-2425 would become D-1-**2425**	B-CBM-30-2425
Project Region(s):	Athabasca
Project Start Year: First year funding under the OSM program was received for this project (if applicable)	2024
Project End Year: Last year funding under the OSM program is requested **Example: 2024**	2025
Total 2024/25 Project Budget: From all sources for the 2024/25 fiscal year	
Requested OSM Program Funding: For the 2024/25 fiscal year	$289,975.00
Project Type:	Community Based Monitoring
Project Theme:	Cross-Cutting
Anticipated Total Duration of Projects (Core and Focused Study (3 years))	Year 5
Current Year (choose one):	Focused Study -Select One-
	Core Monitoring Year 3 of 3

Contact Information

Lead Applicant/ Principal Investigator: Every work plan application requires one lead applicant. This lead is accountable for the entire work plan and all deliverables.	Destiny Martin
Job Title:	Sustainability Manager
Organization:	Willow Lake Métis Nation
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Project Summary

In the space below, please provide a summary 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 and **should not exceed 300 words**.

For the 24-25 cycle, WLMN will pursue several monitoring themes to continue to address key community questions about impacts of oil sands development on the Nation's lands, waters, and exercise of Section 35 rights.

WLMN's aquatics monitoring program will continue into its fourth year, adding benthics to the ongoing fish and surface water monitoring. WLMN will continue to work with ECCC, AEP, and ALMS to implement this monitoring in alignment with the regional aquatics monitoring program, using western science SOPs where applicable and sharing western science data with the regional program. WLMN will continue to develop IK indicators for aquatics and may implement/modify IK SOPs. Data collection will include fish camps and surface water sampling. Benthics training will be undertaken so that WLMN can participate in data collection. Discussions took place in 2023 regarding inclusion of WLMN sites in the benthics program.

WLMN will also continue the traditional food harvest monitoring from 23-24, with surveys and interviews to continue to build a baseline about traditional food harvest species, quantities, locations, and quality.

New in 24-25, WLMN will add a terrestrial wildlife camera trap component. Working with ABMI, WLMN will establish an integrated program where data can be shared with the regional terrestrial camera program. ABMI SOPs will be used and WLMN will work with ABMI to scope key community questions and determine placements of cameras.

To create efficiencies in data collection, storage, management and analysis, WLMN anticipates conducting a trial with Trailmark's cloud and mobile apps in 2024-2025. Learnings from this trial can be shared with other Nations in the program.

The work outlined will align with OSM's mandate to determine if changes are occurring in the oil sands region and whether these changes are caused by oil sands development and/or cumulative effects.

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.

Key drivers for this project are to continue to build WLMN monitoring capacity and to conduct surveillance regarding community concerns about water, fish, traditional food harvest and wildlife within the Nation's territory, including traplines and harvesting areas that are in proximity to or downstream of oil sands development. The knowledge gap being addressed through the aquatics work is whether oil sands development is resulting in impacts to surface water, fish and wildlife and subsequently affecting harvesting, land use, and Section 35 rights. The traditional food harvest research will collect information about changes to the quantity, quality, or feasibility of traditional food harvest as a result of oil sands development.

This project will build on Willow Lake's previous OSM projects, and continue the work of identifying culturally-relevant receptors and indicators and associated baselines. Data will be collected through fish camps and surface water monitoring, meetings, interviews and surveys. These activities will help address gaps in the aquatics core monitoring program and in understanding of current aquatic conditions in the portions of Willow Lake's traditional territory where oil sands development is occurring or has occurred in the past. Information generated from the traditional food harvest research will help refine methods that could be used for this work, and define a baseline regarding traditional food harvest. The camera trap program will align with the regional program to collect data in locations not currently under surveillance.

2.0 Objectives of the Work Plan

List in point form the objectives of the 2024/25 work plan below

- increase Willow Lake Métis Nation capacity for environmental monitoring and effectively engage in environmental monitoring
- understand western science perspectives on the condition of water, fish and wildlife within WLMN traditional lands/traditional use areas
- further define/describe WLMN IK perspectives on water, fish and wildlife in the territory
- define WLMN indicators for surface water, fish, and wildlife
- contribute to regional OSM aquatics and terrestrial monitoring objectives/data collection
- develop methods for understanding changes to traditional food harvest
- understand changes/barriers to traditional food harvest
- understand connections between oil sands development and traditional food harvest

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 Theme

Please select the theme(s) your monitoring work plan relates to:

☐ Air	☐ Groundwater	☑ Surface Water	☐ Wetlands
☑ Terrestrial Biology	☐ Data Management Analytics & Prediction		☑ Cross Cutting

3.2 Core Monitoring, Focused Study or Community Based Monitoring

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.

Community Based Monitoring

Themes

Please select the theme from the options below. Select all that apply.

☐ Air	☐ Groundwater	☑ Surface Water	☐ Wetland
☑ Terrestrial	☑ Cross-Cutting		

3.3.1 Surface Water Theme

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

Cross Cutting

3.3.1.2 Surface Water Key Questions:

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

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

WLMN is collecting data to establish baseline. Thresholds and limits of change are established by western science and surface water data is provided to the regional program.

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?)

Baseline has not been established yet but changes have been observed. Attribution of the change has not been determined.

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

Unknown.

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

This project is entirely the result of questions and concerns about water noted by WLMN members.

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

All western science data that is collected will be considered ‘open’ and provided to the program. Willow Lake will determine which Indigenous Knowledge data will be provided, if any.

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

Data collected using western science methods will follow relevant SOPs, where appropriate. WLMN will collaborate with other CBM Nations/projects to strive for/develop/use common indicators and approaches, where possible.

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

The project will be integrated with the core aquatics monitoring program and will use any applicable existing methods. Willow Lake has worked and will continue to work with various OSM committees and other Indigenous Nations within the program.

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 project will respond to key community questions and build on previous work to define culturally relevant receptors and indicators. Using both WS and IK methods, the project will collect baseline data to understand whether and how changes WLMN has experienced in fish, water, and traditional food harvest can be linked to oil sands pressures and related stressors. After more monitoring cycles, WLMN will be better positioned to adapt monitoring methods based on results.

How will this work advance understanding transition towards adaptive monitoring?

This project will provide surveillance data, and expand the understanding of whether and how how oil sands development, particularly in the Athabasca non-minable area, is affecting the aquatic environment, traditional food harvest, and the exercise of Section 35 rights for WLMN. Continuing to refine Indigenous knowledge-based community questions, receptors, and Indicators can inform OSM key questions and conceptual models and create opportunities for adaptive monitoring.

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.

In the 23-24 cycle, WLMN provided a Condition of the Territory report and will do the same in 24-25 if requested by the Program.

3.3.5 Terrestrial Biology Theme

3.3.5.1 Sub Themes

Wildlife

3.3.5.2 Terrestrial Biology - Key Questions:

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

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

WLMN is preparing to scope an integrated program with the regional terrestrial wildlife camera program. WLMN assumes that western science thresholds and limits of change have been established and data will be provided to the regional program.

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?

This proposed wildlife monitoring is the result of observations and concerns about wildlife noted by WLMN members.

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

Not at this time. This is a new monitoring component.

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

Yes

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

Yes

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

Yes

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

The project will be integrated with the core terrestrial monitoring program and will use any applicable existing methods. Willow Lake has worked and will continue to work with various OSM committees and other Indigenous Nations within the program.

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?

To be determined through discussion with ABMI.

How will this work advance understanding transition towards adaptive monitoring?

To be determined through discussion with ABMI.

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.

In the 23-24 cycle, WLMN provided a Condition of the Territory report and will do the same in 24-25 if requested by the Program.

3.3.6 Cross-Cutting Across Theme Areas

3.3.6.1 Sub Themes

Other: (Describe in space below)

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

Traditional Food Harvest

3.3.6.2 Cross-Cutting - Key Questions:

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

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

Data produced will follow program requirements but will be IK data and will be retained by WLMN

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

WLMN understands that no SOPs yet exist for this. Standard social science research methods following ethical guidelines will be used.

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

Study of traditional food harvest integrates many OSM themes, including aquatics (surface water), terrestrial (vegetation, wildlife health, wildlife abundance). WLMN will work with any other Nations that are undertaking this kind of research within the program and thereby seek to integrate CBM results.

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?

Research will consist of reviewing existing data to determine a pre-development baseline timeframe, and collect preliminary baseline data about food harvest before, at, and after that timeframe.

How will this work advance understanding transition towards adaptive monitoring?

By helping to refine the key questions and conceptual models for the OSM program vis a vis Section 35 rights.

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.

In the 23-24 cycle, WLMN provided a Condition of the Territory report and will do the same in 24-25 if requested by the Program.

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.

The project will inform management, policy and compliance by contributing to the understanding of whether and how oil sands development is affecting traditional resources in the form of water, wildlife, and fish within WLMN's territory, and WLMN's harvesting of traditional foods. Water in sufficient quality and quantity to support a healthy environment underpins the exercise of all Section 35 rights, and a deeper understanding of any impacts of oil sands development on surface water, fish, wildlife, and traditional food harvest has implications for management, policy, regulatory compliance, and both local and regional land use planning.

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

The intent of this workplan is to address WLMN concerns and curiosity regarding aquatic and terrestrial resources within the Nation's territory. These concerns have been documented through previous monitoring work and regulatory and land use studies. Resulting information will fill gaps in the OSM program: being inclusive and responding to Indigenous concerns and understanding how changes to aquatic and terrestrial resources impacts Section 35 rights. Willow Lake has been and will continue to work collaboratively with the AEP and ECCC scientific and technical staff, ICBMAC, the Athabasca University Facilitation Centre and program partners like ALMS and ABMI to build Nation capacity in western science and community-based monitoring methods, as well as data management, analysis, and interpretation. The Nation's Sustainability Department Manager will continue to manage this project with the support of the Nation's guardian and Steering Committee. This will build on prior work done by the Nation and continue to develop monitoring capacity of WLMN staff and members.

Willow Lake Métis Nation's letter of support has been included, and given the research will be designed and led by Nation staff under the guidance of Nation leadership (with technical support from Certes Applied and Natural Sciences and OSM personnel), it will meet community protocols.

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

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

Are there any community specific protocols that will be followed?

The project is being conducted by Willow Lake Metis Nation and will follow all community-specific protocols. WLMN does not have formal ethical protocols but informal protocols will be followed regarding treatment of Indigenous knowledge, transparency (about project activities, timelines, outcomes), respectful notice of project activities, and compensation for time.

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.

Yes, the work plan does involve information sharing by WLMN members. All information gathering will be overseen and implemented by WLMN staff. Information will be requested from Steering Committee members, who are informed about the project intent and data sharing conditions. The majority of information requested of WLMN members will be in group settings and on a voluntary basis. Some individual interviews will also be conducted and consent forms will be completed for these interviews, describing study objectives, use of information, and confidentiality. No risks are anticipated to study participants. Risks and harms have been identified by an experienced social scientist and the Sustainability Department Manager.

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.

See above.

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

The project is being conducted by Willow Lake Metis Nation with the guidance of a Steering Committee.The Nation will conduct, interpret and apply monitoring results in a way that is appropriate for WLMN.

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

The project is being conducted by Willow Lake Metis Nation with the guidance of a Steering Committee and the Nation will identify the approach, methods, and indicators to be used in the study.

How does this work plan directly benefit Indigenous communities? How does it support building capacity in Indigenous communities?

The project is being conducted by Willow Lake Metis Nation and will directly benefit the community and continue to build the significant monitoring capacity that the Nation has been developing for the last 3 years.

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

Willow Lake's OSM projects are managed by the Nation's Sustainability Department and conducted under the direction of the Steering Committee. The Sustainability Department meets regularly with the Steering Committee to share monitoring outcomes and get input on the project. In 2024-2025, Willow Lake anticipates that ALMS and ECCC/AER will also be able to share some of the western science monitoring results with the Steering Committee, and will ensure that all materials presented to the committee in an accessible format. There is open communication between the Steering Committee and the Sustainability Department, so that any questions or concerns of the Committee can be brought forward at any time.

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.

Building on WLMN OSM projects conducted since 2021, the aquatics portion of this 2024-2025 project will continue to collect western science data and pilot IK indicators and receptors relevant to WLMN to address key questions about potential impacts of oil sands development on water quality and quantities and fish populations and health in WLMN territory. The addition of benthics in the 2024-2025 cycle will provide more information about the aquatic environment in WLMN's locations of interest in the Athabasca Oil Sands region. Monitoring of indicators such as fish health and water quality will contribute to defining a baseline and evaluating the state of the existing environment using both western science and IK monitoring approaches.
Engagement, capacity building, and monitoring activities will provide opportunities for Willow Lake to define and document IK baselines and measure change of IK indicators.Collecting both western science and IK data will allow comparisons of the two knowledge systems.

In the first year of conducting terrestrial wildlife work, WLMN will be focused on defining community questions and scoping the camera program. Data collection will evaluation will align with work being done by the Terrestrial TAC.

In the second year of implementation by WLMN, the traditional food harvest portion of the workplan will continue to collect data to understand IF there have been changes in traditional food harvest by talking to harvesters and Elders who are old enough/have enough experience to help pinpoint a timeframe or timeframes when harvesting outcomes changed for the Nation, to provide information about harvesting levels at a pre-disturbance baseline, or multiple points along a spectrum, and to talk about barriers that have impacted harvesting. This is preliminary work that will help define key questions related to food harvest, and will lead to methodological refinements such as measuring change against baseline.

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.

Willow Lake is working with the aquatics and terrestrial monitoring TACs to ensure that proposed western science data collection and methods contribute to the regional programs at an appropriate scale. The traditional food harvest research will focus on the norther portions of WLMN’s territory and WLMN traplines (present and past), where much of the Nation’s harvesting occurs. This scale is relevant to community harvesting.

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.

Western science data must be “Open by Default” and will be provided to the Program to disseminate via standard channels. IK is “Protected by Default” and will be provided to the Program at WLMN’s discretion. WLMN will communicate results to members through the Steering Committee, community meetings, harvests camps, and web/social-media platforms, as appropriate. Progress reporting will be undertaken as required by the Program.

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 aquatics and terrestrial wildlife portions of the project are integrated with the regional programs/ TACs. This is a community-based project that will be run by WLMN through collaboration with OSM/AEP/ ECCC and affiliates - ALMS and ABMI. WLMN is aware of other CBM programs in the region and will adjust monitoring plans to avoid duplication.
The traditional food harvest portion of the program will be implemented through collaboration with any other CBM programs pursuing this topic.
WLMN will use the same Nation resources (Sustainability Dept Manager, Guardian, Steering Committee and technical consultants) for all monitoring to create efficiencies in human resources.

10.0 Work Plan Approach/Methods

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

1. Project Management (ongoing throughout the project)
  - biweekly meetings between PI and technical consultant
  - regular steering committee meetings
  - communications, financial management, meeting/training/data collection coordination
2. Capacity Development
  - safety and methods training (including regional workshops, ALMS, ABMI, CABIN)
  - regional meeting or conference attendance
  - equipment purchase
3. Methods Development/Refinement
  - community engagement to continue to refine IK indicators/receptors
  - work with TACs to continue training in applicable SOPs
  - continue to develop/refine IK data collection methods
  - introduce and scope terrestrial wildlife study to define key questions, develop methods
  - develop methods for traditional food harvest baseline study
4. Database/Data Management
  - possible transition to Trailmark software/appplication for data collection and management
  - data management and analysis training
5. Data Collection
  - conduct surface water monitoring at Gregoire, Cheecham and Surmont lakes using IK and WS methods in coordination with ALMS
  - conduct fish camps/monitoring at Willow (Gregoire) Lake and Winefred Lake with support from ECCC/AEP
  - participate in any AEP fish or surface water monitoring opportunities that arise in WLMN's territory
  - participate in benthics data collection as opportunities are defined by ECCC
  - conduct traditional land use mapping interviews and traditional food harvest/environmental monitoring surveys with WLMN members
  - deploy wildlife cameras and collect one round of data if feasible within annual cycle
  - continue environmental observations at locations throughout key harvesting areas/member traplines to document environmental conditions and disturbances
6. Data Management and Analysis
  - complete site forms/upload data to appropriate databases (WLMN or AEP/ECCC/OSM)
  - conduct analysis of IK data and western science data as applicable
7. Reporting
  - hold regular Steering Committee meetings throughout the course of the project to discuss activities and outcomes
  - provide periodic updates to WLMN leadership
  - present project outcomes to the broader WLMN community at the AGM

Describe how changes in environmental Condition will be assessed

The tasks in this work plan are designed to confirm culturally relevant WLMN indicators and receptors and to collect baseline aquatic, terrestrial wildlife, and traditional food harvest data to understand existing conditions in the Nation's territory. Changes will not be assessed at this time.

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.)

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

WLMN will follow the ICBM Facilitation Centre SOP "Aquatic Ecosystem Health integrated Community-

Based Monitoring: Fish Health Exam and Data Collection for Whitefish Camp" – adapting as needed to local conditions and species with support from the aquatics TAC.
WLMN will use the ALMS protocols for lake/surface water monitoring, based on training is provided by ALMS and additional training pursued by WLMN. Terrestrial wildlife monitoring using camera traps will follow ABMI protocols, as provided by ABMI. WLMN will adapt methods as required based on additional training and local conditions.
WLMN has developed draft fish and surface water IK indicators that will continue to be piloted through this project.
WLMN will continue to implement survey and interview methods for the traditional foods harvest component and continue to connect with Ave Dersch regarding coordination of methods for this.

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

Western Science key indicators for surface water will follow ALMS/AEP/ECCC SOPs and recommendations. IK indicators are still being developed but preliminary indicators include water levels, water flow, water clarity, water smell, presence of algae or weeds, condition of surrounding environment (disturbance, contaminants), navigability, presence/condition of riparian plants, presence/condition of water-dependent wildlife (such as beaver, muskrat, otter, and waterfowl).

Western Science indicators for fish will follow AEP/ECCC SOPs and recommendations for fish health and populations. IK indicators include:
- fish health – general appearance, size, smell, texture, taste, amount of fat, worms, cysts, deformities, quality of water the fish is living in, presence of dead fish
- fish populations – number of fish of each species caught per time unit of harvest effort, variety and number of each species caught, age of fish

Key Indicators for terrestrial wildlife will align with ABMI SOPs and the regional program with adaptation to align with WLMN Indigenous Knowledge indicators as these are determined.

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.

Knowledge gained through this project will be distributed to WLMN members through presentations at in-person meetings and via the Nation website or Facebook page. WLMN will also participate in regional/ subregional meetings and share knowledge with other Indigenous Nations as opportunities arise.

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

Certes Applied and Natural Sciences (Keely Winnitoy) will provide technical support throughout this project. Keegan Hicks (AEP), Mark McMaster (ECCC), Lucie Levesque (ECCC), and their teams will support the application of western science aquatics methods. ALMS will support training and execution of surface water monitoring. ABMI will support the terrestrial wildlife camera program. Note that laboratory analysis costs for fish will be passed through AEP and the ALMS contract will cover the surface water monitoring costs. All benthics data collection and analysis costs are covered within the ECCC program.

*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 2024-25 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.

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:

May 1, 2024

13.5 Estimated Data Collection End Date:

Mar 30, 2025

13.6 Estimated Timeline For Upload Start Date:

Jun 1, 2024

13.7 Estimated Timeline For Upload End Date:

Mar 31, 2025

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 add row 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, xlsx, etc.)	Security Classification
ICBM western science dat	TBD	TBD	Open by Default
ICBM IK data - aquatics, wildlife, traditional food harvest	WLMN computers/server	accdb, xlsx	Protected by Default

14.0 2024/25 Deliverables

Add an additional deliverable by clicking on the add row on the bottom right side of table

Type of Deliverable	Delivery Date	Description
Key Engagement/Participation Meeting	Q1	Steering Committee Meeting
Key Engagement/Participation Meeting	Q2	Steering Committee Meeting
Key Engagement/Participation Meeting	Q3	Steering Committee Meeting
Key Engagement/Participation Meeting	Q4	Steering Committee Meeting
Other (Describe in Description Section)	Q2	Fish Camp - Winefred Lake
Other (Describe in Description Section)	Q4	Fish Camp - Gregoire Lake
Stakeholder or Community Presentation	Q2	Community Presentation
OSM Program Annual Progress Report (required)	Q4	

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.

Willow Lake Metis Nation
- Destiny Martin – WLMN Sustainability Manager and Principal Investigator/Project Manager
- Jason McKenzie - WLMN Guardian
- Stella Lavallee - WLMN President (elected official, not included in budget)
- Jessica VanEe – WLMN Executive Assistant
- Willow Lake Metis Nation Steering Committee
- Keely Winnitoy – Contractor, Certes Applied and Natural Sciences, and Technical Lead
- Lauren Swan - Contractor, Certes Applied and Natural Sciences, GIS and Data Management

AEP/ECCC Integration
- Keegan Hicks, AEP Aquatics Monitoring Lead and Western Science Advisor
- Mark McMaster and Erin Ussery, ECCC Aquatics Monitoring Leads
- Lucie Levesque, ECCC Benthics Lead

ICBM Integration
- Ave Dersch, ICBMAC and Community Based Monitoring Advisor

Other collaborators:
ALMS Lake Keepers (ALMS provides training; sampling equipment, bottles, and COCs; coordination of laboratory analyses; data management; and support for evaluation and reporting)
ABMI (workshops and training on terrestrial wildlife camera trap program, camera deployment)

With support from the OSM Facilitation Centre, the team outlined above has the expertise to complete the project. The Willow Lake Sustainability Manager and the Certes Technical Lead will meet on a bi-weekly basis to discuss project methods, timelines, and budget, and the Sustainability Manager will provide this information back to Willow Lake leadership. The Sustainability Manager will also conduct regular meetings with the Steering Committee to provide updates and get feedback regarding the project.

Willow Lake Métis Nation and Certes have been working together since 2017 and have completed multiple regulatory land use studies, culture camps, and have been conducting community based monitoring programs since 2018 under ECCC and OSM.

Keegan Hicks, Mark McMaster, Erin Ussery and Lucie Levesque have offered to provide western science support to Willow Lake's program and Ave Dersch has offered to provide guidance regarding community based monitoring methods and the traditional food harvest work so that Willow Lake's approach can be aligned with western science SOPS in and regional monitoring programs, and with what other Nations in the program are doing within the ICBM program. WLMN will work with ALMS to implement surface water quality monitoring and with ABMI on the terrestrial wildlife camera trap program.

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 AEPA 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 AEPA

Add an additional AEPA Staff member by clicking on the add row below the 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
Hicks, Keegan	Aquatics TAC lead - support for water/fish sampling	5

Table 16.1.2 ECCC

Add an additional ECCC Staff member by clicking on the add row below the table. The total FTE (Full Time Equivalent) is Auto Summed (in Table 16.2.2) and converted to a dollar amount.

Name (Last, First)	Role	%Time Allocated to Project
McMaster, Mark	Support for fish sampling	5
Levesque, Lucie	Support for benthics program	5

The tables below are the financial tables for Alberta Environment & Protected Areas (AEPA) 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. Please note that completion of this Project Finance Breakdown Template is mandatory and must be submitted along with each workplan.

PROJECT FINANCE BREAKDOWN TEMPLATE

Table 16.2.1 Funding Requested BY ALBERTA ENVIRONMENT & PROTECTED AREAS

Organization - Alberta Environment & Protected Areas ONLY	Total % time allocated to project for AEPA staff	Total Funding Requested from OSM
Salaries and Benefits (Calculated from Table 16.1.1 above)	5	$6,000.00
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		
Project-related travel		

Engagement	
Reporting	
Overhead	
Total All Grants (Calculated from Table 16.4 below)	$271,975.00
Total All Contracts (Calculated from Table 16.5 below)	$0.00
Sub-Total (Calculated)	$277,975.00
Capital*	
AEPA TOTAL (Calculated)	$277,975.00

* 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 (Please manually provide the number in the space below)	10	$12,000.00
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		
Project-related travel		
Engagement		
Reporting		
Overhead		
ECCC TOTAL (Calculated)		$12,000.00

* 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 add table below the table. The total of all Grants is Auto Summed in Table 16.2.1

GRANT RECIPIENT - ONLY: Name	Destiny Martin
GRANT RECIPIENT - ONLY: Organization	Willow Lake Metis Nation
Category	Total Funding Requested from OSM
Salaries and Benefits FTE	$160,800.00
Operations and Maintenance	
Consumable materials and supplies	$37,850.00
Conferences and meetings travel	$6,000.00
Project-related travel	$16,225.00
Engagement	$34,600.00
Reporting	$4,000.00
Overhead	$12,500.00
GRANT TOTAL (Calculated)	$271,975.00

Table 16.4

Complete ONE table per Contract recipient.

Add a Recipient by clicking on add row below the 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	
CONTRACT RECIPIENT - ONLY: Organization	
Category	Total Funding Requested from OSM
Salaries and Benefits	
Operations and Maintenance	
Consumable materials and supplies	
Conferences and meetings travel	
Project-related travel	
Engagement	
Reporting	
Overhead	
CONTRACT TOTAL (Calculated)	$0.00

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 Sums totals for salaries and benefits from AEPA and ECCC ONLY	$18,000.00
Operations and Maintenance	
Consumable materials and supplies Sums totals for AEPA and ECCC ONLY	$0.00
Conferences and meetings travel Sums totals for AEPA and ECCC ONLY	$0.00
Project-related travel Sums totals for AEPA and ECCC ONLY	$0.00
Engagement Sums totals for AEPA and ECCC ONLY	$0.00
Reporting Sums totals for AEPA and ECCC ONLY	$0.00
Overhead Sums totals for AEPA and ECCC ONLY	$0.00
Total All Grants (from table 16.2.1 above) **Sums totals for AEPA Tables ONLY**	$271,975.00
Total All Contracts (from table 16.2.1 above) **Sums totals for AEPA Tables ONLY**	$0.00
SUB-TOTAL (Calculated)	$289,975.00
Capital* **Sums total for AEPA**	
GRAND PROJECT TOTAL	$289,975.00

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.

Project financials will be reviewed by the Project Manager/PI and the technical lead on a monthly basis to determine any cost overruns/underruns. Any budget reallocation between phases will be determined and proposed to WLMN leadership for approval.

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 add row on the bottom right side of table.

Description	Source	Equivalent Amount ($CAD)
	TOTAL	$0.00

19.0 Consent & Declaration of Completion

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.

Lead Applicant Name

Destiny Martin

Title/Organization

Sustainability Manager, Willow Lake Metis Nation

Signature

Destiny Martin Digitally signed by Destiny Martin Date: 2023.11.02 15:48:31 -06'00'

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

Title/Organization

Signature

Please save your form and refer to the instructions page for submission link.

Program Office Use Only

Governance Review & Decision Process

this phase follows submission and triggers the Governance Review

TAC Review (Date):

ICBMAC Review (Date):

SIKIC Review (Date):

OC Review (Date):

Final Recommendations:
Decision Pool:

Notes:

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):

SIKIC Review (Date):

OC Review (Date):

Comments:
Decision Pool:

Notes & Additional Actions for Successful Work Plan Implementation:

Signature