

Work Plan Application

Project Information	
Project Title:	Smith's Landing First Nation Community Based Monitoring Program
Lead Applicant, Organization, or Community:	Smith's Landing First 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	
Project Region(s):	Oil Sands Region
Project Start Year: First year funding under the OSM program was received for this project (if applicable)	2019/20 Fall Fish Camp
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	\$262,195.00
Project Type:	Community Based Monitoring
Project Theme:	Cross-Cutting
Anticipated Total Duration of Projects (Core and Focused Study (3 years))	Year 4
Current Year (choose one):	Focused Study Year 2 of 3
	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.	Alan Steel
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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**.

Members of the Smith's Landing First Nation (SLFN) have documented changes in the condition of the land, water, and air on Reserve lands and within their Territory. Historical studies have attempted to understand these changing environmental conditions, most notably the Northern Rivers Basin Study (NRBS) (1996) which examined the relationships between industrial, agricultural, municipal and other development, and the Peace, Athabasca, and Slave River basins.

Regardless of the findings and recommendations of this multi-million, multi-year program, Indigenous communities continue to note changes in the environment and in large, attribute these changes to cumulative industrial and agricultural developments to the south, specifically, hydroelectric, oil and gas, and pulp and paper development along the Peace River, and oil sands development including surface mines and tailings ponds along the Athabasca River.

The Peace and Athabasca Rivers and associated basins are the predominant water sources for the Slave River and Peace Athabasca Delta (PAD) within the Wood Buffalo National Park (WBNP) upon which SLFN community members rely for food, transportation and cultural practices.

Dënë Ch'anie is a sacred concept to Members that best translates into English as 'the path we walk' and visualizes 'walking in the path' of the Dënë ancestors, or 'living within their image. Dënë Ch'anie is fundamental in underpinning the worldview of SLFN members and their relationships with family, community and land. Within this understanding, is an intrinsic obligation to steward the land to ensure that it is healthy for future generations with the practices and principles taught by the ancestors.

The following workplan has been developed by following the SLFN Dënë Ch'anie protocol and evaluating the existing aquatic focused Community Based Monitoring (CBM) program executed seasonally by the SLFN CBM crew at key cultural areas in their territory against outstanding questions still being asked by SLFN community members. Where gaps were identified, new or adapted components are proposed, with a focus on addressing community concerns related to oilsands development.

1. Water and Sediment CBM (Core monitoring requiring funding)

This program was initiated by community concerns and observations of change throughout SLFN Territory related to water quality and quantity. Through several community meetings, both potentially impacted locations and background locations were identified by the community. Western science and Dene knowledge monitoring program was developed to monitor and understand these changes and concerns. Results are presented yearly to community by poster presentation and/or Powerpoint presentation and these presentations are the formal yearly project deliverables.

2. Hay Camp (Core monitoring, funded last 3 years under OSM, expanded to include fall activity indicators)

The Fish CBMP will continue to build community capacity to develop ICBM programs that can be fully integrated with OSM Core Monitoring programs, and address community concerns. This program seeks to build capacity within Smith's Landing First Nation to work towards Program objectives through the establishment of appropriate, culturally identified indicators, baseline data and triggers to be used to assess the state of the environment in the oil sands region in a culturally appropriate way. The program focuses developing IK indicators of change in fish texture, taste and appearance. Samples will be compared to Western Science indicators for chemical parameters linked to oilsands emission sources (trace elements, heavy metals, PAHs) and physical characteristics including lipid, protein and moisture content.

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.

Evaluation of the existing CBM program identified gaps in funding or monitoring for the following CBM components, identified by SLFN members, and supporting experts over the past 3 years). The CBM program described below reflects the seasonal activities of SLFN members and their reliance on different species and areas to live their way of life.

SLFN members do not speak in terms of the “OSM Adaptive Monitoring Framework” or “OSM Key Questions”, they do however inherently link the changes they are observing in their traditional territory to upstream development which includes the oilsands. Western scientists have attempted to link member observations of change and concerns around the health and safety of traditional food and medicinal species to understand how oilsands stressors may be impacting the SLFN.

Ultimately, the proposed workplan provides one mechanism through which government and industry can meaningfully support reconciliation of Indigenous people with their land and culture and promote self-sufficiency and sovereignty by allowing SLFN members to understand how their Dënë Ch'anie is being impacted by stressors such as the oilsands.

This study will aim to fill the knowledge gap of the current health and possible trends of various resources using Indigenous knowledge from SLFN harvesters. The results will provide the basis for ongoing monitoring of SLFN resource changes considering cumulative effects, possible limits of change and adaptive monitoring of key indicators.

2.0 Objectives of the Work Plan

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

The key objectives of the workplan are as follows.

1. Evaluate and adapt the existing aquatics focused CBM program
2. Produce component specific reports to contribute to OSM State of the environment reporting

To achieve the overall workplan objectives, component specific objectives are required as described below.

CBM - Water and Sediment

- Collect water and sediment samples from locations identified by SLFN as areas of concern or interest
- Collect water and sediment samples for background and indications of contamination
- Build capacity amongst SLFN Lands Department crew to independently collect water and sediment samples.

Hay Camp

- Collect and analyze jackfish samples to understand risks to members consuming fish in the Slave River at the annual Hay Camp in Fall
- Produce a report addressing community questions

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:

- | | | | |
|--|---|---|-----------------------------------|
| <input type="checkbox"/> Air | <input type="checkbox"/> Groundwater | <input checked="" type="checkbox"/> Surface Water | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Terrestrial Biology | <input type="checkbox"/> Data Management Analytics & Prediction | <input checked="" type="checkbox"/> 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.

- | | | | |
|--------------------------------------|---|---|----------------------------------|
| <input type="checkbox"/> Air | <input type="checkbox"/> Groundwater | <input checked="" type="checkbox"/> Surface Water | <input type="checkbox"/> Wetland |
| <input type="checkbox"/> Terrestrial | <input checked="" type="checkbox"/> Cross-Cutting | | |

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.

Members of the Smith's Landing First Nation (SLFN) have documented changes in the condition of the land, water, and air on Reserve lands and within their Territory. Historical studies have attempted to understand these changing environmental conditions, most notably the Northern Rivers Basin Study (NRBS) (1996) which examined the relationships between industrial, agricultural, municipal and other development, and the Peace, Athabasca, and Slave River basins.

Regardless of the findings and recommendations of this multi-million, multi-year program, Indigenous communities continue to note changes in the environment and in large, attribute these changes to cumulative industrial and agricultural developments to the south, specifically, hydroelectric, oil and gas, and pulp and paper development along the Peace River, and oil sands development including surface mines and tailings ponds along the Athabasca River.

The proposed work plan focuses on monitoring indicators (physical and chemical) linked to oilsands development stressors as identified in the CMs for surface water and fish tissue. These same indicators are being reported under LARP annual reporting which has shown elevated concentrations of NO₂ and SO₂ associated with oilsands emissions and alterations in surface water quality parameters at Old Fort. Unfortunately, the LARP monitoring locations do not extend into the WBNP or more northern areas of SLFN territory. This workplan is a complement to current OSM monitoring which informs LARP reporting and helps to fill gaps in monitoring in the northern extents of the LAR.

Additionally, reporting will contribute to the State of Environment reporting for surface water and cross-cutting themes which are relied upon by the Government of Alberta to assess the efficacy of regulations and the AER to evaluate EPEA approval condition performance. However, results of this proposed workplan will be limited by the boundaries of the OSMP and lack of meaningful opportunities to engage with the GOA and AER under OSMP.

A brief discussion of how each component will contribute is provided below:

Water and Sediment CBM

Baseline data collection is building a solid understanding of current conditions and how they relate to Knowledge holders' observation of change over time. Each year the results are presented and discussed with community to verify assumptions, ask questions, add new monitoring sites and determine if the information collected answers the questions posed by the community. This translates to a live and ongoing SLFN policy document of water and sediment data collection and indicators of change.

Hay Camp (Fall)

This work focuses on assessing the safe consumption of fish (Jackfish) in the Slave River during fall and may be useful for regional or subregional frameworks. Concerns identified within OSR in the SLFN Regions maybe related to changes in biodiversity, declines in fish abundance, fish health, and water quality. Fishing remains important to the culture today. Our Aboriginal right to hunt and fish for food is protected under section 35 of the Constitution Act, 1982. SLFN continues to exercise their right by harvesting fish for subsistence (food) purposes. Ongoing monitoring of fish health in Alberta is important for ensuring food security. Declines in fish abundance and health and changes in biodiversity within the OSR is an emerging issue. A monitoring program involving SLFN perspectives and using culturally relevant

indicators is important to identifying areas of concern and ensuring the concerns are addressed.

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

Water and Sediment CBM

Program is entirely directed by SLFN knowledge holders and conducted by trained SLFN Lands Department staff. Western scientists assist with scoping of sampling parameters that may indicate change and with data analysis. Program evolves every year with the addition of monitoring sites based on community concerns and/or observations. Each year new monitors are trained to continually increase community capacity to ensure the long-term success of the monitoring program.

Hay Camp (Fall)

An expansion of the Fall Hay Camp is being proposed to align with SLFN members traditional seasonal use in this area. The fall CBM program which will study jackfish addresses key questions around health, population dynamics, access and availability and impacts from an integrated, basin scale approach to cumulative effects on aquatic systems. Fish health and safe consumption of fish (and other traditional foods) have been identified by SLFN members based on their Dënë Ch'anie assessment methods which is directly ties to Aboriginal Rights under s. 35.

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?

Yes. SLFN community protocols are available (listed below) and will be relied on to guide both the external researchers supporting the community and empower the community to lead the research.

- Smith's Landing First Nation Déné Ch'anie Rights Impact Assessment Framework.
- Smith's Landing First Nation Cultural Safety Protocols

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.

Risks to members will be mitigated and managed by adopting SLFN cultural safety protocols which include trauma informed assessment methods and identifying and providing supports to members through in person, phone and online counselling resources at the discretion of the member). The SLFN Lands department and staff do not provide counselling services but rather make members aware of services available through the federal government and Indigenous counselling services. See below for an example of supports provided to members.

If you are looking for someone to talk to or need some support after completing a survey, please reach out to the resources below or contact the lands department to help you contact the resources:

1. Indigenous Psychological Services (<https://indigenoupsychological.schedulista.com/>)
Indigenous Psychological Services and Rise Above offers counselling throughout Alberta for Indigenous and Non-Indigenous Populations. We are located in Slave Lake, Enoch, Edmonton and Calgary.

This initial session is free. This service will help you enroll for services. It can help you connect with a provider that matches your needs. It can also help set you up for programs such as FNIHB or IRS .This initial session can be in person at our Edmonton office or Telehealth/Video/Phone session. Clients will receive an invite through email at the time of the session. You can cancel your session at any time. If you are already set up with a provider and would like to access your Booking OWL Portal, or your client account, click: <https://oab.owlpractice.ca/indigenoupsych/booking>

2. The National Indian Residential School Crisis Line provides 24-hour crisis support to former Indian Residential School students and their families toll-free at 1-866-925-4419.
3. Individuals impacted by the issue of Missing and Murdered Indigenous Women and Girls are encouraged to contact the MMIWG Crisis Line toll-free at 1-844-413-6649.
4. First Nations, Inuit and Métis seeking immediate emotional support can contact the Hope for Wellness Help Line toll-free at 1-855-242-3310, or by online chat at hopeforwellness.ca.

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.

SLFN will follow our own protocols and practices for community engagement and documentation of knowledge.

All work conducted by and in collaboration with SLFN selected experts within the OSM program follows the Smith's Landing First Nation Déné Ch'anie Rights Impact Assessment Framework, which expands on and supplements the Interim Ethical Guidelines.

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

All work conducted by and in collaboration with SLFN selected experts within the OSM program follows the

Smith's Landing First Nation Dene Ch'ane Rights Impact Assessment Framework, which expands on and supplements the Interim Ethical Guidelines.

SLFN members, staff and leadership guide selected technical experts by providing community questions which guides study design and data analysis. Results are presented to members for feedback and verification. SLFN controls the release of any information. All data is collected by the SFLN CBM crew which is comprised of members and staff.

Interviews and focus group discussions will be conducted with SLFN knowledge holders. Participants will be invited, consent will be sought for documenting the knowledge they share, and information will be verified with participants to confirm the records of their information

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

SLFN will follow our own protocols and practices for community engagement and documentation of knowledge.

SLFN members, staff and leadership guide selected technical experts by providing community questions which guides study design and data analysis. Results are presented to members for feedback and verification. SLFN controls the release of any information. All data is collected by the SFLN CBM crew which is comprised of members and staff.

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

This workplan is a culmination of the SLFN CBM crew efforts and successes over the past 3 years. The SLFN CBM team has successfully developed a comprehensive aquatic focused CBM program based on key indicators identified by community members as changing or sensitive indicators of change (water and sediment quality, water quality, fish and invertebrates) across seasons and in key cultural areas in their territory. The proposed workplan will allow SLFN to continue this program which has become central in answering community members questions around the health and safety of their land and water.

This workplan is adaptive to communities' questions and proposes additional indicators to answer questions which cannot be addressed under the current program.

This workplan will continue to build SLFN CBM capacity through additional training in semi-aquatic mammal protocols and defining additional indicators. SLFN members will lead this study with support from consultants. SLFN youth will be involved to learn from harvesters and engage in a study that they could support in their future work as Guardians.

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?

SLFN Lands Department provides communication to members through Facebook and Instagram posts and newsletters. These materials are drafted in a plain language format and provide members the opportunity to reach out to the Lands department if they have feedback. SLFN also holds in person meetings to present findings of CBM programs and engage members for feedback and guidance. All reports produced as deliverables are owned by the community and available to all members.

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.

Water and Sediment CBM

Currently on Year 4 of CBM program and still collecting baseline information. Year 5 (this application) will begin to assess seasonal trends in data and potentially trends year over year. Will align data analysis with assessment of change informed by Knowledge Holders and how Dene Knowledge has evaluated change to water quality and quantity over last several decades.

Hay Camp (Fall)

This project will create a program to establish 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 SLFN Traditional Knowledge for fish health indicators. Interpretation of previous years results should determine needs for long term core monitoring of Fish in the Slave River and if monitoring data is sufficient to answer community questions regarding fish health and biodiversity. Baseline information will be determined using Indigenous Knowledge consultation and the development of Indigenous Indicators. In Year 4 (this year, Hay Camp was cancelled last year due to wildfires) the project will continue and build on the work completed in Years 1-3.

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.

The proposed CBM framework for surface water and fish monitoring is based on SLFN member feedback on existing CBM programs and addresses gaps which have been identified by community members related to the impacts of oilsands development on their territory.

The components described below propose to measure indicators of quality and quantity on a sub-regional scale (focus on northern WBNP and Slave River) to understand health risks to members from exposure to oilsands associated chemicals in traditional foods and drinking water, availability and abundance of traditional foods and medicines, and accessibility.

Each component of the proposed CBM is discussed below.

Water and Sediment CBM

Monitoring locations include background/healthy locations as identified by community. Potentially impacted areas identified by community directly from oil sands water contamination (ie Slave River at Hay Camp). Potentially impacted areas identified by community as impacted by oil sands via air deposition. Potentially impacted areas identified by community as impacted by oil sands to the use of water for cultural practices and the perception of “safe” and “trusted” water for use by the community downstream of oil sands development.

Hay Camp (Fall)

The monitoring proposed for this project fits into the EEM framework by contributing to surveillance for the surface water and TBM category, focused on water and associated biological indicators. Our project seeks to establish a monitoring program which investigates fish biodiversity and fish health on waterways and waterbodies from which SLFN citizens harvest fish within the OSR. The project will be establishing data on baseline conditions of fish health gathered by SLFN Community Monitors. Data collected will help answer key questions regarding changes in fish health and can expand into assessments of 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.

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.

Water And Sediment CBM

Water and sediment data are uploaded to the MacKenzie Datastream on a yearly basis to communicate our results to other stakeholders in the region and to add to the growing collective understanding of water and sediment quality downstream of the oil sands region. CBM program is presented to community on a yearly basis at a community meeting for verification. Annual reporting is delivered in a visual format either by poster presentation or powerpoint presentation. Large, technical written reports are not used as they are not acceptable to the recipient community audience.

Hay Camp (Fall)

Monitoring data for lab analysis is made available to the OSM program for use in publications and other research work. We report directly to SLFN leadership and the community at large. We will produce a final report on the program after the fiscal year has ended

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.

Water and Sediment CBM

The program was originally scoped by extensive discussions with both SLFN community members and other agencies including ECCC, GNWT, Government of Alberta agencies and First Nation communities in the Oil Sands region. Monitoring locations and analyses were specifically chosen to not duplicate data from other programs, while also ensuring data analysis techniques are complementary to other programs in the region to ensure comparability of data.

Hay Camp (Fall)

This proposed project hopes to gather Traditional Knowledge on fish health and abundance and develop materials to support Community Monitors in monitoring fish harvested and relied on for subsistence. SOPs will be developed to support community training and tissue collection for traditional food species when directed by members.

Methodologies for identifying a fish health could 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.

The monitoring goal of this project is to gather western science and SLFN Traditional Knowledge based fish health data for the purpose of a long-term monitoring effort to detect changes and highlight areas of concern for further investigation of impact sources. We hope to continue the monitoring program in future years to ensure the SLFN community members can continue to be empowered to monitor and gain awareness of the state of fish health in water ways and water bodies from which they harvest. Where appropriate, communities could pool fish health data from various surveys across the OSR to provide further insight into the state of waterways and waterbodies in the area.

10.0 Work Plan Approach/Methods

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

Water and Sediment CBM

- Quarterly water and sediment sampling at approximately 13 locations
- Data trend analysis upon collection of 3-4 full years of quarterly data
- Presentation of yearly report and results to community at a community meeting to verify results and determine if questions are answered or being addressed.
- Addition of sampling locations based on community recommendations.

Hay Camp (Fall)

- Community Engagement, Planning, and Conference Calls
- Jackfish sampling (to align with year 1 -3 sampling)
- 5-Day Fall Camp including
 - Jackfish sampling (to align with year 1 -3 sampling), power analysis will be used to determine sampling numbers based on 4 year data set. In Year 3 40 samples were collected based on similar analysis.
- 4. Lab Analysis based on standardized sampling using MCFN Whitefish camp methods from 2018 with the addition of chlorinated compounds to try and understand the degree to which pulp and paper on the Peace is contributing chemical body burdens in Jackfish. Additional tissue sampling may be required if members observe health conditions that warrant testing or concerns around safe consumption are identified by members during the fall season.
- 5. Data analysis (year over year comparisons, descriptive statistics)
- 6. Reporting (including contribution to OSM SOE reporting)

Describe how changes in environmental Condition will be assessed

Water and Sediment CBM

- Seasonal and yearly trend analysis upon receipt of 3 to 4 years of data (will assess sufficient number of data points for analysis based on data quality indicators). Comparison and alignment with community observations over last several decades.

Hay Camp (Fall)

Indigenous Knowledge (Dene Chanie) Indicators and thresholds (for cultural aspects)
Western Science indicators and thresholds (for integrated Dënë Ch'anie and western science aspects). The past 2 years of data have been assessed for consumption risks to community members using Health Canada (2012 updated in 2021) guidance.

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

Water and Sediment CBM

Still in baseline data collection stage.

Hay Camp (Fall)

Yes. Dënë Ch'anie indicators and thresholds have been identified by SLFN in their impact assessment methodology which described SLFN specific values and aspects which are used as Rights indicators and thresholds for assessing status and changes.
Western science guidelines for tissue consumption will be adopted from Health Canada (Toxicity Reference Values to support Human Health Risk Assessment (Health Canada 2010) and the US EPA safe consumption limits (<https://www.epa.gov/sites/default/files/2015-06/documents/volume2.pdf>)
Western science methods for assessing trends and changes over the 3 year period will be adopted from standard statistical methods for environmental monitoring data (Statistical Procedures for Analysis of Environmental Monitoring Data and Risk Assessment

(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

Water and Sediment CBM

Trained SLFN Lands crew visit each community identified site location with community knowledge holders and/or Elders. Western science samples are collected and western science data and Dene knowledge is recorded using specialized surveys in ArcGIS Survey 123 platform.

Hay Camp (Fall)

Dënë Ch'anie indicators and thresholds have been identified by SLFN in their impact assessment methodology which described SLFN specific values and aspects which are used as Rights indicators and thresholds for assessing status and changes.

Western science guidelines for tissue consumption will be adopted from Health Canada (Toxicity Reference Values to support Human Health Risk Assessment (Health Canada 2010) and the US EPA safe consumption limits (<https://www.epa.gov/sites/default/files/2015-06/documents/volume2.pdf>)

Western science methods for assessing trends and changes over the 3 year period will be adopted from standard statistical methods for environmental monitoring data (Statistical Procedures for Analysis of Environmental Monitoring Data and Risk Assessment

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

The following Dënë Ch'anie indicators will be assessed in each component;

- NíChu Ku (Land & Water): Will the land be healthy for our grandchildren?
- Háyorl̥a (Community): Will the community be filled with love?
- Dëne Ch'anie (Culture): Will the culture be treasured?
- Lá k'e (Economy): Can we provide for our families?
- Dëne t'ez̥l̥ (Responsibilities): Will SLFN ethics and protocols be respected?
- Dëne Dáy̥n̥é (Spirituality): Will spiritual relationships be valued?

Component specific indicators are described below.

Water and Sediment CBM

- Dene Knowledge of observed change over generations
- Western science data including field measurements of water quality and laboratory analysis of potential contaminants of concern related to oil sands.

Hay Camp (Fall)

- baseline fish health conditions collected using western science sampling protocols (e.g., fork length, round weight, total length, weight, sex, and maturity).
- Contaminant Indicators Mercury, Metals, BV, PAHS, SGS-AXYS, Ageing, N-S, stable isotopes
- abnormalities noted through visual inspection of key cultural species sampled by Community Monitors.
- changes in health conditions for waterbodies and waterways within the OSR, as determined by analysis of reports from Community Monitors
- exposure dose (estimated using risk assessment methods)

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.

A communication expert and anthropologist have been included in the project team to support the translation of the western science components to community appropriate and accessible materials. Materials will include plain language summaries with supporting visual aids. These will be presented to SLFN members who participate in fish camp at a workshop. Materials will also be broadcast within the community using social media feeds the Lands Department maintains.

Water and Sediment CBM

- Annual upload of data to MacKenzie datastream
- Annual reporting of results to community via poster and/or powerpoint presentation at community meetings.
- Community workshops (annual) to determine if questions are being answered, what additional questions arose and/or additional concerns

Hay Camp (Fall)

- Annual reporting of results to community via poster and/or powerpoint presentation at community meetings.
 - Community workshops (annual) to determine if questions are being answered, what additional questions arose and/or additional concerns
- Facebook and Instagram posts and postcards have also been used to communicate updates and results with members

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

AEP Laboratory analysis and processing
Prairie Fish consulting (Déné Ch'anie values and aspects analysis and knowledge translation, reporting)
PGL (field program sampling coordination, data analysis and reporting)

*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? *

13.2 Type of Quantitative Data Variables:

13.3 Frequency of Collection:

13.4 Estimated Data Collection Start Date:

13.5 Estimated Data Collection End Date:

13.6 Estimated Timeline For Upload Start Date:

13.7 Estimated Timeline For Upload End Date:

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

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
			-Select One-

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	Q3	Hay Camp Fall Camp
Condition of Environment Report	Q4	Hay Camp Fall Camp
Stakeholder or Community Presentation	Q4	CBM water and sediment
Condition of Environment Report	Q4	CBM water and sediment

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.

SLFN

-Alan Steel, CEO and Acting Lands & Resources Manager
 -Sadele Paulette, Lands Officer
 -Cochise Paulette, Lands Coordinator
 -Lawrence Beggair, Crew Leader
 - Kelly Mandeville (CBM lead)
 -Lands Crew

SLFN Consulting team

Matt Hammond - impact assessment and methods
 Christina Trotter - hydrogeologist, sampling, training, data analysis and reporting
 Sara Cook, Prairie Fish Consulting - Data analysis, D ne Ch'anie- WS integrations, reporting

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

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

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)		
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)		\$262,195.00
Total All Contracts (Calculated from Table 16.5 below)		\$0.00
Sub-Total (Calculated)		\$262,195.00
Capital*		
AEPA TOTAL (Calculated)		\$262,195.00

* 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)		
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		
Project-related travel		
Engagement		
Reporting		
Overhead		
ECCC TOTAL		
(Calculated)		\$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 add table below the table. The total of all Grants is Auto Summed in Table 16.2.1

GRANT RECIPIENT - ONLY: Name	
GRANT RECIPIENT - ONLY: Organization	
Category	Total Funding Requested from OSM
Salaries and Benefits FTE	\$85,000.00
Operations and Maintenance	
Consumable materials and supplies	\$9,000.00
Conferences and meetings travel	\$0.00
Project-related travel	\$15,000.00
Engagement	\$8,000.00
Reporting	\$8,000.00
Overhead	
GRANT TOTAL (Calculated)	\$125,000.00
GRANT RECIPIENT - ONLY: Name	
GRANT RECIPIENT - ONLY: Organization	
Category	Total Funding Requested from OSM
Salaries and Benefits FTE	\$61,195.00
Operations and Maintenance	
Consumable materials and supplies	\$6,000.00
Conferences and meetings travel	
Project-related travel	\$15,000.00
Engagement	\$30,000.00
Reporting	\$15,000.00
Overhead	\$10,000.00
GRANT TOTAL (Calculated)	\$137,195.00

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	
Salaries and Benefits	Total Funding Requested from OSM
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	\$0.00
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	\$262,195.00
Total All Contracts (from table 16.2.1 above) Sums totals for AEPA Tables ONLY	\$0.00
SUB-TOTAL (Calculated)	\$262,195.00
Capital* Sums total for AEPA	
GRAND PROJECT TOTAL	\$262,195.00

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.

Grant requests were calculated based on previous year program for Hay Camp and Sediment and Surface Water Core CBM Program. Additional funds were requested for tissue residue analysis for wildlife species.

Costs will be risk managed by SLFN when identified. Barriers affected this project are related to the Oil Sands program oversight and procedures. The process for application and timeliness in receiving grants limits Indigenous communities to effectively participate and access funds in a timely manner. The program office has implemented timelines that cause undue stress and limit participation.

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

Alan Steel

Title/Organization

Smith's Landing First Nation

Signature

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.

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