Work Plan Application

Project Information	
Project Title:	FCMN Oilsands Focused Community Based Monitoring
Lead Applicant, Organization, or Community:	Fort Chipewyan Metis 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):	Athabasca
Project Start Year: First year funding under the OSM program was received for this project (if applicable)	
Project End Year: Last year funding under the OSM program is requested **Example: 2024**	
Total 2024/25 Project Budget: From all sources for the 2024/25 fiscal year	
Requested OSM Program Funding: For the 2024/25 fiscal year	$300,000.00
Project Type:	Community Based Monitoring
Project Theme:	Cross-Cutting
Anticipated Total Duration of Projects (Core and Focused Study (3 years))	Year 3
Current Year (choose one):	Focused Study Year 1 of 3
	Core Monitoring -Select One-

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.	Braya Quilty
Job Title:	Lands and Regulatory Coordinator
Organization:	Fort Chipewyan Metis 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**.

The proposed project is driven by observed changes to the land, air, water, wildlife, fish, and plants in local forest, wetland, and surface water ecosystems recorded by Fort Chipewyan Metis Nation (FCMN) members while they are in the bush. The objective is to better understand changes driven by oilsands development which can be addressed through the OSMP rather than other stressors (i.e., hydro dam projects,climate change). The FCMN developed a Way of Life Framework (W.O.L.F) which describes cultural values and the relationships between people and the social and ecological system that supports Métis culture and Rights. The W.O.L.F, traditional knowledge, and previous studies have been used to identify potential impact pathways and propose chemical, physical, biological indicators of health which are linked to FCMN culture, and can be measured using western science and traditional methods. An Indigenous community receptor focused Conceptual Site Model (CSM) will be developed using previously descibed methods (Olsgard, M and Dyck, T, 2021) and used to refine indicator selection. Once identified, indicators will be measured at culturally relevant areas around Lake Athabasca which FCMN members have observed to be relatively free of contamination and safe for harvesting foods, medicines and drinking water. Data will be analyzed using member guided protocols and published methods for statistical analysis of environmental monitoring data and health risk assessment. This integrated approach can better determine if changes are related to oilsands development (meeting a key OSM Program objective). The deliverable will include a final report to OSM. Release of the monitoring data will be at the discretion of FCMN and follow OSMP protocols for both TK and western (lab data). Results will be used to develop a seasonally representative monitoring program in Years 2 and 3 and contribute to development of OSMP standard operating procedures (SOPs).

1.0 Merits of the Work Plan

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

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

The proposed program relies on measuring chemical, physical, and biological indicators previously identified through the FCMN W.O.L.F. community studies in order to better understand how changes in the environment are affecting cultural use. The indicators that have been selected are culturally important to FCMN, broadly consider wetland, terrestrial, and aquatic ecosystem health, structure, and function, and have been documented as potentially affected by oilsands development.

OSMP questions will be evaluated within the proposed work plan by establishing reference conditions through IK observations of change documented through oral histories and community knowledge at the FCMN identified reference sites (Big Point; North end of the Lake) which are considered generally "healthy and safe" for hunting, trapping, and collecting foods/medicines but is impacted by changes to water quantity/levels. The project will attempt to determine the magnitude of changes at the reference sites from pre-development baseline by evaluating current data against historical TK and records when available, in instances when pre-development baseline data is not available this will be noted.

DEPOSITION
Proposed indicator: Acid deposition monitoring in lichen area at reference location(s)
Proposed Limits of Change: Alberta Acid Deposition Framework (2022); Community criteria for acceptable levels of change for aesthetic and cultural indicators (i.e. lichen cover and thickness)
OSM questions
Surveillance (effects): Is there an effect on the receiving environment? (endpoints relating to pathway: eutrophication, acidification, toxicity and endpoints relating to rights ie bog cranberry, berries)
Confirmation: What is extent of deposition of compounds of concern?
Focused (Indigenous Rights and Culture): Do changes to water quality impact harvesting and patterns of occupancy and use, harvesting volumes (food security), intergenerational transfer of knowledge (i.e., identification, harvesting protocols, processing skills, ethnotaxonomy), sharing of resources linked to the reinforcement of kinship bonds, people's relationship and obligations to the land? Develop Indigenous limits of change
Monitoring observations vs EIA predictions: How does OSM data compare to EIA predictions?
Limits of Change: What is deposition load compared to limits of change, including government standards and Indigenous indicators? For example, critical loads, CEMA N deposition, acid deposition thresholds

SURFACE WATER QUALITY
Proposed indicators; The following will be monitored at natural surface water bodies at reference locations used as drinking water source (current and historical) when members are/were on the land; species vary by test, see blow
- Toxicity tests (ECCC standard biological tests - aquatic invertebrates, benthic invertebrates, aquatic macrophyte, amphibian, fish (culturally relevant species)),
- Chemical (oilsands COPCs: pH, hydrocarbons (VOCs, PAHs, PHC F1-F2), naphthenic acids, metals, acrylamide/PAM) measured in surface water and biological tissues (fish, semi-aquatic mammals (herbivore (beaver), omnivore (muskrat), carnivore (river otter), semi-aquatic birds (mallard, goose), non-emergent

macrophytes (lily pad))
-Aesthetic/observational measurements by members and TK evaluation of health and safety to consume and use indicator species and water (see indicators above)
- Physical (flow, depth, temp),

Proposed limits of change
- Aquatic Life, wildlife, plants: Alberta and CCME Surface Water and Sediment Quality Guidelines for PAL, irrigation, agriculture, wildlife watering; Comparison of estimated chemical exposure to toxicity reference values (CCME 2021)
- Members - Canadian Drinking Water Quality Guidelines (supplemented with US EPA and WHO guidelines); Community criteria for acceptable levels of change for aesthetic and cultural indicators; Comparison of estimated chemical exposure to toxicity reference values (Health Canada 2021)

OSM Questions (considered and can be fully or partially addressed with data generated by workplan)
Surveillance (effects): Do contaminants of concern have effects on aquatic resources, ecological and human health and wellbeing? (endpoints relating to pathway: fish and benthos, and endpoints relating to rights)
Surveillance (focused): How does changes to aquatic resources impact Indigenous health, wellbeing and culture? What are unanticipated pathways of affect? What is the role of sediment transport in the water quality and aquatic health downstream (Peace Athabasca Delta)?
Focused (Indiginous Rights and Culture): Do changes to water quality impact harvesting and occupancy patterns, harvesting volumes (food security), intergenerational transfer of knowledge (i.e., identification, harvesting protocols, processing skills, ethnotaxonomy), sharing of resources linked to the reinforcement of kinship bonds, people's relationship and obligations to the land? Develop Indigenous limits of change
Source (stressor): What are the sources and amounts of compounds that may affect surface water quality?
Source (modellineg): What are pathways and fate of waterborne contaminants
Monitoring observations vs EIA predictions: How does OSM data compare to EIA predictions?
Limits of Change: What is water quality compared to limits of change, including government standards and Indigenous indicators? For example, CCME guidelines, Indigenous guidelines, EPA guidelines, EEM fish and benthic end points?

TERRESTRIAL
Proposed indicators: The following will be monitored in forest areas at reference location(s); soil, forest ecosites, caribou lichen, blueberries, plantain, birch bark, Labrador tea
-Toxicity (ECCC standard biological tests for terrestrial plants and invertebrates)
- Chemical and physical: soil quality measurements (moisture, texture, grain size, salinity, oilsands COPCs: pH, hydrocarbons (VOCs, PAHs, PHC F1-F2), naphthenic acids, metals, acrylamide/PAM)
-Chemical: tissue residues for PAHs, metals, bioaccumulative organics in terrestrial wildlife (food) and plant tissues (food and medicines) submitted by hunters and aligned with seasonal practices.
-Aesthetic/observational measurements by members and TK evaluation of health and safety to consume and use indicator species
-Noise levels - measured during traditional activities at reference location(s) this is linked to changes in terrestrial wildlife habitat, migration patterns and peaceful enjoyment

Proposed limits of change
- Soil, plants, wildlife, members: Alberta Tier 1 and 2 Soil Remediation Guidelines; CCME Soil Quality Guidelines for protection of Environmental and Human Health; Comparison of estimated chemical exposure to toxicity reference values (CCME 2021)
- Members - Community criteria for acceptable levels of change for aesthetic and cultural indicators; Comparison of estimated chemical exposure to toxicity reference values (Health Canada, 2021)

OSM Questions (considered and can be fully or partially addressed with data generated by workplan)
Surveillance (source): Has the nature and quality of terrestrial habitat changed?
Surveillance (effects): How have terrestrial ecosystems changed from baseline (species distributions, communities, populations, health)?
Focused: What is the contamination burden of key resources? What are social and cultural barriers to increased harvesting? What are barriers to accessing resources? What is critical level of disturbance before s. 35 rights cannot be exercised?
Focused (Indigenous Rights and Culture):Do changes to terrestrial environments (OSM questions incorrect and states groundwater) impact harvesting and occupancy patterns, harvesting volumes (food security), intergenerational transfer of knowledge (i.e., identification, harvesting protocols, processing skills, ethnotaxonomy), sharing of resources linked to the reinforcement of kinship bonds, people's relationship and obligations to the land? Develop Indigenous limits of change. How have the social and ecological baselines for these indicators changed over time? Accessibility: how have disturbance and operations impacted people's ability to access important areas? Assess hunting effort, distance required to access locations.
Investigation of cause (modeling): What are pathways of effect for terrestrial systems?
Monitoring observations vs EIA predictions: How does OSM data compare to EIA predictions?
Limits of Change: What is the population status of species of concern compared to limits of change, including government standards and Indigenous indicators?

WETLANDS
Proposed indicators: The following will be monitored in wetland areas at reference location(s); sediment, surface water/groundwater (i.e. muskeg), frogs, wild mint, frogs pants, cranberries
-Toxicity (ECCC standard biological tests for semi-aquatic plants and invertebrates)
- Chemical and physical: sediment and water quality measurements (moisture, texture, grain size, salinity, oilsands COPCs: pH, hydrocarbons (VOCs, PAHs, PHC F1-F2), naphthenic acids, metals, acrylamide/PAM)
-Chemical: tissue residues for PAHs, metals, bioaccumulative organics in semi-aquatic wildlife (food) and plant tissues (food and medicines) submitted by hunters and aligned with seasonal practices.
-Aesthetic/observational measurements by members and TK evaluation of health and safety to consume and use indicator species
-Noise levels - measured during traditional activities at reference location(s) this is linked to changes in terrestrial wildlife habitat, migration patterns and peaceful enjoyment

Proposed limits of change
- Sediment and surface water/groundwater: Alberta and CCME Sediment Quality Guidelines supplemented with BC, Ontario and Quebec; Comparison of estimated chemical exposure to toxicity reference values (CCME 2021)
- Members - Community criteria for acceptable levels of change for aesthetic and cultural indicators; Comparison of estimated chemical exposure to toxicity reference values (Health Canada, 2021)

OSM Questions:
Surveillance (source): Has the nature and quality of wetland habitat changed?
Surveillance (effects): How have wetland ecosystems changed from baseline (species distributions, communities, populations, health)?
Focused: What is the contamination burden of key resources? What are social and cultural barriers to increased harvesting? What are barriers to accessing resources? What is critical level of disturbance before s. 35 rights cannot be exercised?
Focused (Indigenous Rights and Culture):Do changes to wetland environments (OSM questions incorrect and states groundwater) impact harvesting and occupancy patterns, harvesting volumes (food security), intergenerational transfer of knowledge (i.e., identification, harvesting protocols, processing skills, ethnotaxonomy), sharing of resources linked to the reinforcement of kinship bonds, people's relationship and obligations to the land? Develop Indigenous limits of change. How have the social and ecological

baselines for these indicators changed over time? Accessibility: how have disturbance and operations impacted people's ability to access important areas? Assess hunting effort, distance required to access locations.
Investigation of cause (modeling): What are pathways of effect for wetland (OSM questions incorrect and states terrestrial) systems?
Monitoring observations vs EIA predictions: How does OSM data compare to EIA predictions?
Limits of Change: What is the population status of species of concern compared to limits of change, including government standards and Indigenous indicators?

2.0 Objectives of the Work Plan

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

1. Finalize methods and SOPs for integrated WS-IK CBMs and test in year 1 (pilot/focused study)
2. Establish reference condition at Big Point and cultural use areas further North on Lake Athabasca
3. Complete fall sampling at Big Point to ensure preservation of the current condition while moving towards improving deteriorated conditions (when identified) and initiate the same sampling program at north Lake reference site.
4. Build capacity for FCMN members to engage in monitoring and assessing impacts to community and environmental health from oilsands development

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:

- [x] Air
- [ ] Groundwater
- [x] Surface Water
- [x] Wetlands
- [x] Terrestrial Biology
- [x] Data Management Analytics & Prediction
- [x] 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.

- [x] Air
- [ ] Groundwater
- [x] Surface Water
- [x] Wetland
- [x] Terrestrial
- [x] 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?

Baseline will be assessed through TK observations of change documented through oral histories and community knowledge and also by comparison to the FCMN identified reference sites (Big Point; North end of Lake (locations TBD)) which is considered safe for hunting, trapping, and collecting foods/medicines but is impacted by changes to water quantity/levels.The current baseline will be assessed by evaluating current data against historical TK and records when available, in instances when pre-development baseline data is not available change will be assessed by comparison to the reference site.

Limits of change are available through published regulatory guidelines for environmental and human health and preliminary community criteria will be finalized and applied to analyze monitoring data for health and safety of human consumption, environmental effects and ecosystem structure and function (community indicators).

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?)

Yes, See Laceby, J.P and Emmerton, C. 2023. 2021 Status of Surface Water Quality, Lower Athabasca Region, Alberta. Government of Alberta, Environment and Protected Areas. ISBN 978-1-4601-5858-6. Available at: https://open.alberta.ca/publications/status-ofsurface-water-quality-lower-athabasca-region-alberta.

The FCMN W.O.L.F guides the CSM development. See Merits of the workplan section which describes source-pathway-receptor components which are a key focus of the proposed CSM and expands core monitoring to an area not previously monitored under OSM and includes receptor effect based testing (i.e., toxicity and tissue residues).

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

Unknown, year 1

Are changes in water quality and/or water quantity and/or biological health 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?

See Merits of the workplan section which describes source-pathway-receptor components which are a key focus of the proposed CSM.

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?

It expands the CM to consider pathways (fate and transport) and receptors (health risk) in a more focused way that aligns with provincial and federal guidance and considers Indigenous criteria for health, safety, and change.

How will this work advance understanding transition towards adaptive monitoring?

It expands the CM to consider pathways (fate and transport) and receptors (health risk) in a more focused way that aligns with provincial and federal guidance and can be used to adapt the exisiting core monitoring to be receptor and effects focused.

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.

Potentially. This will be at direction of the FCMN focus group.

3.3.3 Wetland Themes

3.3.3.1 Sub Themes

Cross-Cutting

3.3.3.2. Wetlands - Key Questions:

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

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

Baseline will be assessed through TK observations of change documented through oral histories and community knowledge and also by comparison to the FCMN identified reference site (Big Point) which is considered safe for hunting, trapping, and collecting foods/medicines but is impacted by changes to water quantity/levels. Further, changes to baseline will be assessed by evaluating current data against historical TK and records when available, in instances when pre-development baseline data is not available change will be assessed by comparison to the reference site.

Limits of change are available through published regulatory guidelines for environmental and human health and preliminary community criteria will be finalized and applied to analyze monitoring data for health and safety of human consumption, environmental effects and ecosystem structure and function (community indicators).

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

Unknown if effects are occurring as OSM has not produced state of environment report for wetlands and not specifically reported under LARP EMFs.

The FCMN W.O.L.F guides the CSM development. See Merits of the workplan section which describes source-pathway-receptor components which are a key focus of the proposed CSM. The program will expand wetland monitoring to include fate and transport of contaminants by way of measuring tissue residues.

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

Unknown. First year of the program, no results to date

Are changes in wetlands 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?

See Merits of the workplan section which describes source-pathway-receptor components which are a key focus of the proposed CSM.

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?

It expands the CM to consider pathways (fate and transport) and receptors (health risk) in a more focused way that aligns with provincial and federal guidance and considers Indigenous criteria for health, safety, and change.

How will this work advance understanding transition towards adaptive monitoring?

It expands the CM to consider pathways (fate and transport) and receptors (health risk) in a more focused way that aligns with provincial and federal guidance and can be used to adapt the exisiting core monitoring to be receptor and effects focused.

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.

Potentially. This will be at direction of the FCMN focus group.

3.3.4 Air Themes

3.3.4.1 Sub Themes

Deposition

3.3.4.2 Air & Deposition - Key Questions:

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

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

Yes. Alberta acid deposition management framework [2022]

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

Yes, See Thi, A. 2021. 2019 Status of Air Quality, Lower Athabasca Region, Alberta. Government of Alberta, Ministry of Environment and Parks. ISBN 978-1-4601-5230-0. Available at: https://open.alberta.ca/publications/status-of-air-quality-lower-athabasca-region-alberta

The FCMN W.O.L.F guides the CSM development. See Merits of the workplan section which describes source-pathway-receptor components which are a key focus of the proposed CSM and expands core monitoring to an area not previously monitored under OSM and includes receptor effect based testing.

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

Unknown. First year of the program, no results to date

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

Yes. Members have identified caribou lichen at Big Point as very healthy and want to understand the air quality so they can establish criteria to protect lichen in areas closer to oilsands development

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 - hope to integrate with Air TAC and have WBEA install and conduct depositon monitoring while training FCMN staff in Year 1.

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

See above

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?

Pathway (deposited acid forming compounds) Receptor (Lichen)

How will this work advance understanding transition towards adaptive monitoring?

Acid deposition and potential effects have not been monitored in this area and results from AEP and OSM on the spatial extent of acid depositon impacts from oilsands development emissions could nhot be located so not clear if monitoring in the proposed area aligns with adaptive monitoring or is filling a monitoring gap.

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.

Potentially. This will be at direction of the FCMN focus group.

3.3.5 Terrestrial Biology Theme

3.3.5.1 Sub Themes

Cross-Cutting

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?

Baseline will be assessed through TK observations of change documented through oral histories and community knowledge and also by comparison to the FCMN identified reference site (Big Point) which is considered safe for hunting, trapping, and collecting foods/medicines but is impacted by changes to water quantity/levels. Further, changes to baseline will be assessed by evaluating current data against historical TK and records when available, in instances when pre-development baseline data is not available change will be assessed by comparison to the reference site.

Limits of change are available through published regulatory guidelines for environmental and human health and preliminary community criteria will be finalized and applied to analyze monitoring data for health and safety of human consumption, environmental effects and ecosystem structure and function (community indicators).

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?

The FCMN W.O.L.F guides the CSM development. See Merits of the workplan section which describes source-pathway-receptor components which are a key focus of the proposed CSM and expands core monitoring to an area not previously monitored under OSM and includes receptor effect based testing (i.e., toxicity and tissue residues).

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

Unknown. first year

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?

See Merits of the workplan section which describes source-pathway-receptor components which are a key focus of the proposed CSM.

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?

It expands the CSM to consider pathways (fate and transport) and receptors (health risk) in a more focused way that aligns with provincial and federal guidance and considers Indigenous criteria for health, safety, and change.

How will this work advance understanding transition towards adaptive monitoring?

It expands the CM to consider pathways (fate and transport) and receptors (health risk) in a more focused way that aligns with provincial and federal guidance and can be used to adapt the exisiting core

monitoring to be receptor and effects focused.

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.

Potentially. This will be at direction of the FCMN focus group.

3.3.6 Cross-Cutting Across Theme Areas

3.3.6.1 Sub Themes

-Select One-

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

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?

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

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

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?

How will this work advance understanding transition towards 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.

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 workplan addresses each criteria as it was developed to consider, align with, and rely on the current process used to assess impacts of oilsands development and inform regulatory decisions on oilsands projects under EPEA, CEPA, and IAA. The program is designed to assess multiple indicators of ecosystem health and uses a risk based approach by evaluating chemical, physical and biological changes and effects across aquaic, terrestrial and wetland ecosystems that align with federal and provincial guidance on conducting environmental impact assessments, human and environmental health risk assessments and best practices for assessing impacts to culture and Rights of Indigenous people.
Several of the chemical, physical and biological indicators proposed in the workplan align with surrogate species and environmental media measured and predicted in the project applications (EIA; HHRA; ERA) in the local and regional study areas which were defined in those applications. The sampling program will align with published SOPs and sample analysis and toxicity testing will be conducted by accredited labs. The chemical, physical, and biological (toxicity tests) indicators and LOCs also align with the release limits and monitoring programs defined in project specific EPEA approval conditions.

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 proposed project is driven by observed changes to the land, air, water, wildlife, fish, and plants in local forest, wetland, and surface water ecosystems recorded by Fort Chipewyan Metis Nation (FCMN) members while they are in the bush. The objective is to better understand changes driven by oilsands development which can be addressed through the OSMP rather than other stressors (i.e., hydro dam projects,climate change). Year 1 of the program will focus on establishing current reference conditions at cultural sites deemed safe for harvesting foods, medicines and drinking water and spiritual and cultural practices. Years 2 and 3 will establish the reference site as a core monitoring locations and expand the program to an impacted site (FCMN member trapline close to development) to start to monitoring and identify oilsands specific stressors and impacts to the Way of Life.

The FCMN developed a Way of Life Framework (W.O.L.F) which describes cultural values and the relationships between people and the social and ecological system that supports Métis culture and Rights. The W.O.L.F, traditional knowledge, and previous studies have been used to identify potential impact pathways and propose chemical, physical, biological indicators of health which are linked to FCMN culture and land use and can be measured using western science and traditional methods.

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. The work will be conducted under approval by FCMN leadership and directed by the FCMN focus group relying on previously developed community based guidelines, cultural safety plans, and the W.O.L.F.

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.

The Project has been designed to comply with community consultation guidelines, cultural safety plans, the OSM Interim Ethical Guidelines and international best practices for Free Prior and Informed Consent and on-going consent. Participants in the program will have the opportunity review the proposed program plan prior to providing consent orally or using standard FCMN Consent forms. They will be able to ask questions and make comments on the terms of consent. Participants will be informed of their right to withdraw from the program during the informed consent process and reminded they may withdraw from this program at any time including during focus group and monitoring activities, or upon review of the results report or any other materials developed as a result of this monitoring program.
Participants will have the opportunity to collectively participate in reviewing and validating the monitoring results and will have the opportunity to individually review and revise their quotations and other contributions (photographs, videos, etc).

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.

Raw data will be summarized and presented by the WS research team to the focus group who will provide direction on how to analyze the data, criteria, and other requirements. FCMN has successfully used this process with two other community led studies and is confident the approach will ensure community members and their knowledge guide data analysis and interpretation.

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

See above. The focus group guides all decisions and confirms approaches, methods and indicators in each objective described previously.

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

The community requested this monitoring program after a field study at Big Point. This program will help members understand any risk associated with wild food and water harvesting and help define thresholds and set limits of change to help protect treasured areas within the territory. This program will support training of community members who wish to monitor the land using both indigenous methods and scientific methods. It will empower the community by supporting them in accessing Big Point by providing tools and resources.

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?

The information is not reported back. The FCMN focus group will be the lead researchers and dictate how information is analyzed, reported and presented more broadly within the community. Past projects have shared results at community meals, using social media (facebook and instagram posts), videos and community newsletters (drafted by the focus group). The focus group may also present results at

conferences similar to past projects.

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.

As discussed in merits of the workplan, the proposed sampling program is designed to assess changes and effects which may be attributed to oilsands development by comparing variability in chemical, physical and biological indicators between a reference location (Big Point) considered healthy and a historical trapline of FCMN members close to oilsands development which is considered impacted/ deteriorated by development. Tis foal will not be achieved until year 3 however. In line with OSM protocols the workplan uses a staged approach to establish reference conditions and limits of change which are then relied on to detect oilsands specific/ related stressors and determine the extent and magnitude of oilsands influences downstream of development. This design considers a stressor/reference comparison in the statistical analysis as well as TK observations by FCMN members to determine the level of change and impact related to oilsands development.

Following complation in Year 3, the workplan will consider spatial scale and stressor gradients by monitoring near and far from development. The data collected can then be used to validate EIA predictions as they align with the multi-media approach adopted in both human and ecological risk assessments but this comparison is not being proposed within the workplan and would have to be undertaken by the OSMP.

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.

As discussed in merits of the workplan, the proposed sampling program considers the holistic ecosystem and food web which supports the FCMN Way of Life.). The W.O.L.F describes cultural values that the community lives by and recognizes there is no division between human beings and nature. The wellness of the community is dependent on the wellness of the environment; the people and the land are one. Indicators represent each trophic level and dietary/ feeding characteristics which dictate the fate and transport of chemicals within the food web and chemical exposure potential and risk. Cumulative effects assessment must consider these holistic indicators of environmental and human health across broad spatial and temporal scales (Years 2 and 3), as proposed here.

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.

Release of data will be at the discretion of the FCMN focus group and will align with IOSM protocols. Transparency from the OSMP will be required to ensure EIA and industry conducted ambient monitoring data is accessible.

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 lead researcher has extensive experience with developing and conducting OSM CBM programs and has developed program wide SOPs (berry focused). This previous experience ensures efficacy in project management, study design, and execution. The research team is also aware of TAC specific gaps and has designed the program to include indicators linked to regulatory and policy requirements as well as Indigenous community concerns, again ensuring the proposed workplan is a good allocation of resources and can be executed efficiently.
The workplan considers health risks which may not reflect OSMP risk informed allocation of resources which are assessed through non-health metrics. However, it is the view of FCMN that the proposed workplan could decrease program workloads over time if the study methods and results are integrated in each of the TACs identified in this workplan.

10.0 Work Plan Approach/Methods

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

1: Secure and access OSMP funding by May 2024
2: Establish FCMN focus group
3: Develop FCMN focused CSM referencing previous SOPs for CBM development(Olsgard, M and Dyck, T., 2021)
4: Finalize study design including field sampling and lab schedule
5: CBM training for FCMN sampling team
6: Execute fall sampling program at North site and complete additional sampling at Big Point
7. Submit samples for lab analysis
8: Develop database with results
9: Analyze data (methods co-developed by focus group and researchers)
10: Reporting (focus group, community, OSMP)
11: Recommendations for year 2 program (incorporate impacted site monitoring plan and seasonality)

Describe how changes in environmental Condition will be assessed

1. Statistical analysis to establish reference conditions for chemical, physical, biological, and cultural FCMN W.O.L.F indicators at reference location(s) within FCMN traditional territory around Lake Athabasca
2. Comparison of environmental monitoring data to FCMN environmental quality guidelines for protection of vulnerable/sensitive populations and published regulatory guidelines for ecological and human receptors
3. Risk based evaluation to establish reference levels for risk (comparing measured (tissue residues, media) and estimated chemical exposures (multi-media fate and transport) to derived and published Toxicity Reference Values for ecological and human (sensitive/vulnerable population) receptors)
4. TK observations and assessment of change over time - comparison of historical condition to observed conditions using FCMN traditional knowledge

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

Yes. See Merits of workplan.

(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

1: Secure and access OSMP funding by May 2024 - none
2: Establish FCMN focus group - FCMN staff identify youth, adult and elders from the community to sit as focus group members
3: Develop FCMN focused CSM guided by OSM CMs and published SOP - aligns with methods described in with adaptations for non-vegetation species Olsgard, M and Dyck, T. (2022) "Framework and Standard Operating Procedures for Community Based Monitoring – Berry Focused"
4: Study Design including field study and lab schedule - Previous field study with FCMN members was relied on to propose indicators and lab analysis. The final design will be developed by focus group and also consider indicators at other locations deemed safe by FCMN members in and around Lake Athabasca (north end fishing, caribou hunting areas, cabins on west side of lake)
5: CBM training for FCMN sampling team - Follow Eco-Canada BEAHR guidance (M. Olsgard is instructor in this program and will provide training) in addition to SOPs described in Olsgard, M and Dyck, T (2022) and CCME sampling guidance for soils, surface water and sediment.
6: Execute fall sampling program - relies on protocols described above and community protocols for hunting, fishing, harvesting plants.
7. Submit environmental media and biological tissues to lab testing (chemcial characterization and toxicity tests) - GLP accredited labs will follow ECCC, ASTM and standard published procedures
8: Develop database with lab and field results - western science protocols for data management
9: Analyze data (methods co-developed by focus group and researchers) - standard methods for analysis of environmental monitoring data; ECCC guide for analyzing toxicity test data; community guidance on

observations and cultural indicators; criteria based on FCMN status as a vulnerable/ sensitive population
10: Reporting (focus group, community, OSMP) - standard WS reporting for technical report, visual plain language for community reports and researcher led presentations.
11: Recommendations for year 2 program (incorporate impacted site and seasonality) - see above

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

Chemical indicators in environmental media (surface water, sediment, soil, air deposition)
-contaminants associated with oilsands deposits and approved chemical emissions or treatments specifically; hydrocarbons (PAHs, VOCs, NAs, PHCs), PAM/ acrylamide, other flocculants and coagulants, metals, ammonia, general parameters, salinity, hardness, pH, acid forming compounds

Chemical indicators in biological tissues (blueberries, cranberries, plantain, caribou lichen, moose, ducks, geese, frog pants, mint, fish Note: species are harvest dependent))
-bioaccumulative and persistent substances (CEPA SOR) associated with oilsands deposits and approved chemical emissions or treatments may include; hydrocarbons (PAHs, VOCs, NAs, PHCs), PAM/ acrylamide, organic flocculants and coagulants, metals

Physical (Aesthetics)
- taste, smell, colour, texture, visual

Physical (General - dependent on media)
- grain size, flow, moisture

Biological
- Toxicity tests using standard biological species in collected surface water, soil, and sediment
- Observations of migration patterns during hunting and trapping
- Observations of abundance, biodiversity, health during gathering

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.

This workplan is founded in intergenerational learning amongst FCMN members including but not limited to the focus group made up of youth, adults, and elders (please also see section 5.1). The focus group will work hand-in-hand with western science experts to integrate western science methodologies, baselines, and limits of change, with culturally defined baselines and criteria. As identified in section 2 above, methods and SOP's for integrated WS-IK CBM's, will be collaboratively developed, finalized, and tested in year 1. As well, FCMN members will be engaged throughout the work to build capacity in monitoring and assessing potential impacts from oilsands development on environmental and community health.

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

Need to work with OSMP to determine best labs to use for the described analysis but below are proposed for interim use

Phase 7
Chemical analysis in media and biological tissues
ALS Canada Ltd.

Toxicity testing
Nautilus environmental

FCMN Grant
Phases 1-11
Integrated Toxicology Services
Mandy L Olsgard M.Sc., P. Biol

Human Environment Group Ltd
Carrie Oloriz B.Sc. M.A.

*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? *

Yes

13.2 Type of Quantitative Data Variables**:**

Discrete

13.3 Frequency of Collection:

Annually

13.4 Estimated Data Collection Start Date:

September 2024

13.5 Estimated Data Collection End Date:

November 2024

13.6 Estimated Timeline For Upload Start Date:

May 2025

13.7 Estimated Timeline For Upload End Date:

June 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
Lab data -Not available yet	n/a	n/a	Open by Default
TK - Not available yet	n/a	n/a	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
Stakeholder or Community Presentation	Q1	Focus group Initial Meeting and CSM development
Stakeholder or Community Presentation	Q2	Focus Group Meeting Presentation - CBM training and field sampling program
Technical Report	Q4	Study Report and Findings

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.

FCMN Staff
Braya Quilty - Project manager
Nikki Jane - Project Assistant
Carmen Wells - Manager

FCMN Member Focus Group
TBD

Researcher - Toxicology and Health Risk
Mandy L Olsgard (Integrated Toxicology Solutions)
-Brings over 15 years of experience working as a regulator, consultant and researcher in the oilsands focusing on toxicity and health risk assessment. Mandy has supported several Indigenous communities in the area on developing and executing CBMs, developing health risk protective guidelines for environmental media that consider Indigenous ways of life and interacted with government and industry on complex technical issues. Mandy previously acted as the IC rep on the Data Analytics and Cumulative Effects TAC.

Researcher - Social Science and Ethnobotany
Carrie Orlitz (Senior Partner, Human Environment Group)
Carrie has worked as an ecologist and environmental assessment practitioner for over twenty years. For the last 15+ years her work has focused on Aboriginal issues related to large-scale development and the inclusion of traditional knowledge in environmental planning, assessment and monitoring. Her background includes cultural impact assessment and traditional land use assessments, integrated resource management, and community-based monitoring program design and implementation.

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)		$195,980.00
Total All Contracts (Calculated from Table 16.5 below)		$103,390.00
Sub-Total (Calculated)		$299,370.00
Capital*		
AEPA TOTAL (Calculated)		$299,370.00

* 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	Carmen Wells
GRANT RECIPIENT - ONLY: Organization	Fort Chipewyan Metis Nation
Category	Total Funding Requested from OSM
Salaries and Benefits FTE	$195,980.00
Operations and Maintenance	
Consumable materials and supplies	
Conferences and meetings travel	
Project-related travel	
Engagement	
Reporting	
Overhead	
GRANT TOTAL (Calculated)	$195,980.00
GRANT RECIPIENT - ONLY: Name	
GRANT RECIPIENT - ONLY: Organization	
Category	Total Funding Requested from OSM
Salaries and Benefits FTE	
Operations and Maintenance	
Consumable materials and supplies	
Conferences and meetings travel	
Project-related travel	
Engagement	
Reporting	
Overhead	
GRANT TOTAL (Calculated)	$0.00

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	Megha Whalia
CONTRACT RECIPIENT - ONLY: Organization	ALS Canada Ltd
Category	Total Funding Requested from OSM
Salaries and Benefits	$78,840.00
Operations and Maintenance	
Consumable materials and supplies	
Conferences and meetings travel	
Project-related travel	
Engagement	
Reporting	
Overhead	
CONTRACT TOTAL (Calculated)	$78,840.00

CONTRACT RECIPIENT - ONLY: Name	Leila Oosterbroek
CONTRACT RECIPIENT - ONLY: Organization	Nautilus Environmental
Category	Total Funding Requested from OSM
Salaries and Benefits	$24,550.00
Operations and Maintenance	
Consumable materials and supplies	
Conferences and meetings travel	
Project-related travel	
Engagement	
Reporting	
Overhead	
CONTRACT TOTAL (Calculated)	$24,550.00

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**	$195,980.00
Total All Contracts (from table 16.2.1 above) **Sums totals for AEPA Tables ONLY**	$103,390.00
SUB-TOTAL (Calculated)	$299,370.00
Capital* **Sums total for AEPA**	
GRAND PROJECT TOTAL	$299,370.00

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.

Management of reporting and finances will be the responsibility of project manager, Braya Quilty, quarterly reporting will be required against project scope to ensure project activities and related costs are tracked on a regularly basis, this will allow for early identification of derivation of scheduled activities and corresponding cost underruns or overruns to be identified. Given that this program is field dependent, any unforeseen cost due to weather, etc. will be adaptively managed within the existing scope and budget.

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

Braya Quilty

Title/Organization

Lands and Regulatroy Coordinator/ Fort Chipewyan Metis Nation

Signature

Braya Quilty Digitally signed by Braya Quilty
Date: 2023.11.03 14:11:12 -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