



2022-2023 OSM WORK PLAN APPLICATION

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

OSM Work Plan Submission Deadline: The deadline for submission of proposed work plans is October 5, 2021 at 4:30 PM Mountain Standard time.	October 5, 2021 4:30 PM MST
Decision Notification	Mid to Late January 2022

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

WORK PLAN COMPLETION

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

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

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

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

The OSM Program recognizes that majority of work planning submissions are a result of joint effort and monitoring expertise. Should the applicant wish to submit supplemental materials in addition to their application additional resources are available in the Work Planning Form and Distribution Package, accessible here: [Work Planning Form and Distribution Package](#)

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



WORK PLAN SUBMISSION

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

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

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

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

202223_wkpln_WorkPlanTitle_ProjectLeadLastNameFirstName

Example:

202223_wkpln_OilSandsResiduesinFishTissue_SmithJoe

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

202223_sup##_WorkPlanTitle_ProjectLeadLastNameFirstName

Examples:

202223_sup01_OilSandsResiduesinFishTissue_SmithJoe

202223_sup02_OilSandsResiduesinFishTissue_SmithJoe

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. .
. .

202223_sup10_OilSandsResiduesinFishTissue_SmithJoe

Do not resave your work plan or documents under any other naming conventions. If you need to make revisions and resubmit before the work planning deadline of October 5, 2021, **DO NOT** rename your submission. When resubmitting, simply resubmit with the exact naming convention so that it replaces the original submission. **DO NOT** add any additional components such as versioning or dates to the file naming convention. Please direct any questions regarding the submission or naming of submissions to OSM.Info@gov.ab.ca.



WORK PLAN APPLICATION

PROJECT INFORMATION	
Project Title:	Terrestrial Biological Integrated Indigenous Community Based Monitoring
Lead Applicant, Organization, or Community:	Alberta Biodiversity Monitoring Institute (ABMI)
Work Plan Identifier Number: <i>If this is an on-going project please fill the identifier number for 20/21 fiscal by adjusting the last four digits: Example: D-1-2020 would become D-1-2022</i>	Click or tap here to enter text.
Project Region(s):	Oil Sands Region
Project Start Year: <i>First year funding under the OSM program was received for this project (if applicable)</i>	2022
Project End Year: <i>Last year funding under the OSM program is requested Example: 2022</i>	Click or tap here to enter text.
Total 2022/23 Project Budget: <i>For the 2022/23 fiscal year</i>	\$376,300.00
Requested OSM Program Funding: <i>For the 2022/23 fiscal year</i>	\$376,300.00
Project Type:	Community Based Monitoring
Project Theme:	Terrestrial Biological Monitoring
Anticipated Total Duration of Projects (Core and Focused Study (3 years))	Year 3
Current Year	Focused Study: Choose an item.
	Core Monitoring: Year 1

CONTACT INFORMATION	
Lead Applicant/ Principal Investigator: <i>Every work plan application requires one lead applicant. This lead is accountable for the entire work plan and all deliverables.</i>	David Roberts
Job Title:	Cumulative Effects Analytical Scientist
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PROJECT SUMMARY

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

I acknowledge and understand

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

This work plan supports the establishment of integrated Indigenous Community Based Monitoring (ICBM) projects within the Terrestrial Biological Monitoring (TBM) program of OSM. This work will provide the technical capacity necessary to support the following outcomes:

1. Scope and develop ICBM projects and protocols collaboratively with communities on topics of interest related to land and biological diversity (species of wildlife and vegetation);
2. Provide training on terrestrial biological monitoring techniques, including data collection, processing, and interpretation, as well as necessary equipment to accomplish monitoring efforts;
3. Optimize opportunities for integration between ICBM projects and core TBM surveillance monitoring and adaptively improve the monitoring design based on Indigenous input; and
4. Build local operational monitoring programs within communities for land and biodiversity.

These projects will align with the overall objectives and adaptive monitoring/EEM structure of the core terrestrial Before-After-Dose-Response (BADR) monitoring design, and contribute standardized data that integrate with BADR monitoring to understand, through incorporation of Indigenous knowledge, if land and species are changing--over time and and multiple spatial scales--in response to oil sands activities. This work plan provides technical expertise, infrastructure, and other resources needed to support Indigenous communities in scoping, planning, and implementing community-led monitoring efforts over the long term.

Monitoring efforts under ICBM, along with associated SOPs, are focused on the following key monitoring groups: Mammals, Birds, Vegetation (Plants, Moss, Lichen, Soils), Landscape Disturbance (direct and indirect cumulative effects of oil sands footprint).

This work plan provides scoping, technical, equipment, and training support for multiple community projects, including:

- Beaver Lake Cree Nation (mammals, vascular plants, land access)
- Chipewyan Prairie Dene First Nation (mammals, specifically moose, pitcher plant)
- Cold Lake First Nation (mammals, vascular plants)
- Heart Lake First Nation (mammals)
- Duncan's First Nation (mammals, vascular plants)
- Little Red River Cree Nation (mammals, vascular plants)
- Conklin Métis Local 193 (vascular plants, specifically berries)
- Whitefish Lake First Nation 459 (mammals)
- Willow Lake Metis Nation (uncertain)
- Gift Lake Metis Settlement (vascular plants, moss and lichen)
- Zone 5, Regional Council of the Métis Association of Alberta (mammals, specifically caribou)
- Smith's Landing First Nation (mammals, specifically moose)

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 the EEM 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 EEM framework 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
- Discuss results of previous monitoring/studies/development and what has been achieved to date.

The Operational Framework Agreement (OFA) highlights the need for integration of ICBM projects into western science monitoring approaches. This work plan directly aligns with this need for terrestrial biological indicators of concern identified by Indigenous communities. It provides the technical support needed for capacity building, community engagement, science development, and implementation in order to establish integrated ICBM projects for terrestrial indicators. The ICBM projects will serve the mandate of OSM by working in an integrated approach with core BADR monitoring to address 1) Whether terrestrial indicators have changed? and 2) To what extent changes are attributable to oil sands activities, in the context of cumulative effects.

In 2021-22, ICBM projects on mammals and vegetation were initiated with Beaver Lake Cree Nation and Chipewyan Prairie Dene First Nation. These projects will expand in 2022-23, and the outcomes of those projects will be used to scope new ICBM projects using a standardized approach moving forward. In addition, staff and equipment will be available to support the needs of new communities interested in establishing TB monitoring projects (list provided above).

2.0 Objectives of the Work Plan

List in point form the Objectives of the 2022/23 work plan below

The objectives of this work plan include:

Relationship-building and scoping: Build strong, working relationships with Indigenous communities interested in delivering terrestrial biological monitoring projects. Build shared understanding of terrestrial biological monitoring and collaboratively scope and design ICBM projects that align with community priorities while maintaining standardization with the BADR design and SOPs.

Capacity-Building: Deliver training sessions with communities on relevant terrestrial monitoring techniques -- for example, camera deployment, footprint ground-truthing, and vegetation surveys.

Integrated Data Collection: Advance communities to operational implementation of local monitoring systems and establish work-flows for data integration and reporting.

Science Development: Work in partnership with Indigenous communities to improve the adaptive monitoring BADR approach to reflect Indigenous knowledge, concerns, and priorities.

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)
- integrate western science with Indigenous Community-Based Monitoring
- addresses the EEM framework particularly as it relates to surveillance, confirmation and limits of change as per approved Key Questions.

have an experimental design that addresses the Pressure/Stressor, Pathway/Exposure, Response continuum

- produce data/knowledge aligned with OSM Program requirements and is working with Service Alberta
- uses Standard Operating Procedures/ Best Management Practices/ Standard Methods including for Indigenous Community-Based Monitoring

3.1 Sub Theme

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

Terrestrial Biology

3.2 Core Monitoring or Focused study

Please select from the dropdown menu below if the monitoring in the work plan is "core monitoring" and/or a "focused study". Core monitoring are long term monitoring programs that have been in operation for at least 3 years, have been previously designated by the OSM program as core, and will continue to operate into the future. Focused studies are short term projects 1-2 years that address a specific emerging issue. For the purposes of 2022/23 work planning all Community Based Monitoring Projects are Focused Studies.

Core Monitoring

3.3 Sub Theme Key Questions

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

3.3.1 Surface Water Theme

3.3.1.1. Sub Themes:

Choose an item.

3.4.1.2 Surface Water Key Questions

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

1. Are changes occurring in water quality, biological health (e.g., benthos, fish) and/or water quantity/flows, to what degree are changes attributable to oil sands activities, and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

6. 7.6. Where does the monitoring fit on the conceptual model within the EEM framework for the theme area and relative to the conceptual model for the OSM Program theme area? How will this work advance understanding transition towards of the conceptual model EEM framework?

Click or tap here to enter text.

7. Is the work plan contributing to Programmatic State of Environment Reporting?

Click or tap here to enter text.



3.3.2 Groundwater Theme

3.3.2.1 Sub Themes:

Choose an item.

3.3.2.2 Groundwater Key Questions

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

1. Are changes occurring in groundwater quality and/or quantity, to what degree are changes attributable to oil sands activities, are changes affecting other ecosystems, and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

6. Where does the monitoring fit within the EEM framework and relative to the theme area? How will this work advance transition towards the EEM framework?

Click or tap here to enter text.

7. Where does the monitoring fit on the conceptual model for the theme area and relative to the conceptual model for the OSM Program? How will this work advance understanding of the conceptual model?

Click or tap here to enter text.

8. Is the work plan contributing to Programmatic State of Environment Reporting?

Click or tap here to enter text.



3.3.3 Wetlands Theme

3.3.3.1 Sub Themes:

Choose an item.

3.3.3.2 Wetland - Key Questions

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

1. Are changes occurring in wetlands due to contaminants and hydrological processes, to what degree are changes attributable to oil sands activities, and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

6. Where does the monitoring fit within the EEM framework and relative to the theme area? How will this work advance transition towards the EEM framework?

Click or tap here to enter text.

7. Where does the monitoring fit on the conceptual model for the theme area and relative to the conceptual model for the OSM Program? How will this work advance understanding of the conceptual model?

Click or tap here to enter text.

8. Is the work plan contributing to Programmatic State of Environment Reporting?

Click or tap here to enter text.



3.3.4 Air Theme

3.3.4.1 Sub Themes:

Choose an item.

3.3.4.2 Air & Deposition - Key Questions

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

1. Are changes occurring in air quality, to what degree are changes attributable to oil sands emissions, and what is the contribution in the context of cumulative effects?

Click or tap here to enter text.

2. Are changes informing Indigenous key questions and concerns?

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

6. Where does the monitoring fit within the EEM framework and relative to the theme area? How will this work advance transition towards the EEM framework?

Click or tap here to enter text.

7. Where does the monitoring fit on the conceptual model for the theme area and relative to the conceptual model for the OSM Program? How will this work advance understanding of the conceptual model?

Click or tap here to enter text.

8. Is the work plan contributing to Programmatic State of Environment Reporting? (Answer Box)

Click or tap here to enter text.

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.

1. Are changes occurring in terrestrial ecosystems due to contaminants and landscape alteration, to what degree are changes attributable to oil sands activities, and what is the contribution in the context of cumulative effects?

Terrestrial ecosystems are changing due to landscape alteration and contaminant deposition. Indigenous knowledge keepers have observed changes associated with development that have impacted their ability to exercise treaty rights. Western-science evidence has linked changes in biological ecosystems in the oil sands region to human activities, some related to oil sands development (Roberts et al. 2021, also described in the core TBM workpan). Such changes include, but are not limited to, widely observed positive and negative mammal responses to landscape disturbance (e.g. Toews et al. 2017, Fisher & Burton 2018), altered vegetation communities in response to soil nitrogen accumulation (Davidson et al. 2020), and increased wildlife contaminant burdens (e.g. Thomas et al. 2020, Fernie et al. 2018).

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

The terrestrial biological theme has as yet lacked formal opportunities to communicate with Indigenous communities about core monitoring results and thus has been largely unable to actively address community concerns. This work plan fills this gap; engagement between TBM and Indigenous communities started in 2021-22, and in 2022-23 we propose to continue and expand this work and provide capacity to on-board multiple new communities into the TBM program.

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

The ICBMAC provides clear instruction for ICBM projects for data management. Data produced from western science is "Open by default" and must be shared with the OSM program. Data produced from Indigenous Knowledge is "Protected by default"; Indigenous Knowledge data will be retained by BLCN.

Wildlife camera data will be stored and processed in WildTrax, the cross-party data repository used by the TBM theme.

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

The ICBMAC provides clear instructions for methodology. For ICBM projects based on western science approaches, it is a requirement to use methods or SOPs consistent with those used for core monitoring. This requirement will be adhered to for Indigenous communities that are engaged in this work plan. The ICBM Facilitation Centre at Athabasca University will be consulted for support in developing methodologies and study design. TBM partners and TAC members have engaged with communities via the Facilitation Centre through the 2022-23 workplanning process to support community work plan development.

Wildlife and vegetation sampling methodologies will be developed with support from project partners who are TBM PIs. One of the deliverables for the wildlife and vegetation projects in 2022-23 is to develop

plain-language “how to” field method guides. Where appropriate, the western science-based field protocols used in TBM will be incorporated to allow for future interoperability and pooling of data.

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

One of the primary purposes of this work plan is to provide resources to ensure meaningful integration amongst projects and communities -- ultimately to work with Indigenous communities to ensure approaches to terrestrial biological monitoring are aligned with the core BADR design and are standardized across communities. The ICBMAC provides clear integration expectations, including (i) ensuring respectful and equitable production of IK and western science data, (ii) using common methods or SOPs for field data collection and measurement, (iii) avoiding duplication, and (iv) avoiding knowledge silos and knowledge appropriation. These expectations will be followed during engagement, capacity building, and implementation of monitoring.

6. Where does the monitoring fit within the EEM framework and relative to the theme area? How will this work advance transition towards the EEM framework?

The integration of terrestrial ICBM projects will follow guidance from the OSM program and, specifically, from the TBM TAC (OSM TAC member presentation, K. Munkittrick et. al 2021). Changes in community-identified indicators included in this project are assumed to be detected and confirmed. This project will thus align with surveillance approaches developed for core terrestrial monitoring, with the aim of detecting the extent, magnitude, and any continued direction of change. This project will also contribute to the development of indicators and triggers based on community-identified concerns, as also highlighted in the core TBM work plan.

7. Where does the monitoring fit on the conceptual model for the theme area and relative to the conceptual model for the OSM Program? How will this work advance understanding of the conceptual model?

The focus of ICBM projects supported by this work plan are traditional resources and cultural practices, as well as access to land, all identified as Valued Components in the OSM programmatic conceptual model (Roberts et al. 2021, Swanson et al. 2019). This work plan, and the ICBM projects it supports, will provide important Indigenous context for the pathways defined in the current TBM conceptual model, and may define or introduce new pathways via non-Western science ways of knowing--currently an identified gap in the TBM program (Roberts et al. 2021).

8. Is the work plan contributing to Programmatic State of Environment Reporting?

Data from ICBM projects, be they based on Western science or Indigenous Knowledge, have not yet been incorporated into OSM's State of Environment Reporting effort. The intention of this work plan is, with adequate support from project partners, to contribute reporting and analyses of ICBM-generated monitoring data to future State of Environment Reporting, should these data be included there.



3.3.6 Cross-Cutting Across Theme Areas

3.3.6.1 Sub Themes:

Choose an item.

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

Click or tap here to enter text.

3.3.6.2 Cross-Cutting - Key Questions

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

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

Click or tap here to enter text.

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

Click or tap here to enter text.

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

Click or tap here to enter text.

4. Where does the monitoring fit within the EEM framework and relative to the theme area? How will this work advance transition towards the EEM framework?

Click or tap here to enter text.

5. Where does the monitoring fit on the conceptual model for the theme area and relative to the conceptual model for the OSM Program? How will this work advance understanding of the conceptual model?

Click or tap here to enter text.

6. Is the work plan contributing to Programmatic State of Environment Reporting?

Click or tap here to enter text.

4.0 Mitigation

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

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

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

Explain how your monitoring program informs management, policy and regulatory compliance. As relevant give consideration for the EEM framework and the approved Key Questions.

Data collected by ICBM projects will feed into the core TBM program, thus further contributing to the informing of management, policy, and regulatory requirements supported in that core program. The major recurring terrestrial approval conditions that appear in most of the mining EPEA deemed compliance documents, and that fall within the scope of OSM, include: Long-term monitoring of cumulative effects on biodiversity and wildlife; Long-term monitoring of species at risk; and Analysis & collection of regional data to validate Habitat Suitability Index (HSI) models.

LONG-TERM MONITORING OF CUMULATIVE EFFECTS ON BIODIVERSITY AND WILDLIFE

Regional monitoring of biodiversity is a required activity for oil sands operators under EPEA approval conditions. The exact wording of this requirement varies across operators but generally refers to the requirement to monitor the long-term cumulative effects on biodiversity and wildlife. In some cases, these conditions make reference to specific programs or organizations such as ABMI and the former Ecological Monitoring Committee for the Lower Athabasca (EMCLA). The TBM component of OSM is the activity which facilitates compliance with these clauses. In other cases, the approval-holder is to select appropriate monitoring methods and actions and demonstrate that these are adequate, and in these instances, data produced in TBM programs (e.g., MAPS, regional yellow rail monitoring) may fulfil the requirements. The BADR design will contribute scientific information with which to judge the efficacy of existing regulations and compliance with approvals as they apply to "beyond the fence line" responses to oil sands stressors at local, sub-regional and regional scales.

LONG-TERM MONITORING OF SPECIES AT RISK

In addition, TBM monitoring either directly fulfils or provides relevant information to other, more specific clauses. These include long term species at risk monitoring programs, in particular for at-risk bird species such as yellow rail, Canada warbler and others. The bird monitoring component of this work plan provides data for several provincially listed species, including demographics for species monitored within the MAPS program.

REGIONAL DATA TO VALIDATE HABITAT SUITABILITY INDEX (HSI) MODELS

Data collected under the TBM work plan to date has been used to generate multiple species-habitat models which are available at the regional scale. These models have applications for HSI clause requirements. They could be used to build maps for specific areas of concern, and for comparison with site-specific models to determine the appropriateness of a regional approach to model construction. We have models for hundreds of species regionally and provincially. In some cases, these models have been validated by using them to more efficiently find new locations where the species are present vs. absent (i.e. yellow rail, Canadian toad). Most importantly, these models are built from existing data and can be used to adaptively change our sampling design to identify the habitat conditions for which we need additional information versus those habitats and species we understand well.

OTHER LINKS TO MANAGEMENT AND REGULATORY COMPLIANCE

In addition to these three areas related to regulatory compliance, TBM outcomes will provide an understanding of the effects of oil sands land disturbance, by type, on a range of indicators. These results will have implications for company management programs and regulatory agency policy decisions such as industry environmental management procedures, regulatory limits on disturbance, disturbance-buffer selection, and restoration management requirements.

The protocols used by TBM are also used by other research and monitoring groups funded by forestry companies. This expands the ability to develop and validate HSI models at a regional scale, bringing in data from parallel programs to expand the scope of questions and analyses that can be conducted in support of indicator responses to regional stresses, at a cumulative effects scale. For example, landbird use of well pads can be compared to use of harvest blocks to provide an alternative reference comparison related to time since disturbance, using data collected in collaboration with numerous forestry companies in Alberta.

The BADR design incorporates spatial stratification based on land use, allowing the monitoring to contribute directly relevant information to regional frameworks such as LARP regarding observed changes in response to oil sands stressors and cumulative effects.

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

This project provides support for Indigenous communities to scope and deliver community-led monitoring projects that address Indigenous questions and concerns related to land and biodiversity, and to include Indigenous communities in the TBM program in order to understand impacts of the oil sands industry on valued components related to land and species. ICBM projects supported under this work plan will focus on relevant indicators identified by each community, and programs will be developed collaboratively by building off the foundation of the BADR design and existing terrestrial SOPs. Technical staff from the ABMI will work closely with the involved communities, ICBMAC, and the Facilitation Centre to ensure projects are approached collaboratively, respectfully, and following the guidance and practices being developed by OSM. Knowledge-sharing agreements will be used to protect the IP rights of communities, and relationship-building will be a guiding objective of the work.

This project will directly increase Indigenous community capacity and involvement in terrestrial monitoring. It provides needed technical and logistical support for ICBM work plans submitted by the following communities:

- Beaver Lake Cree Nation
- Chipewyan Prairie Dene First Nation
- Cold Lake First Nation
- Heart Lake First Nation
- Duncan's First Nation
- Little Red River Cree Nation
- Conklin Métis Local 193
- Whitefish Lake First Nation 459
- Willow Lake Metis Nation
- Gift Lake Metis Settlement
- Zone 5, Regional Council of the Métis Association of Alberta
- Smith's Landing First Nation

Does this project include an Integrated Community Based Monitoring Component?

Yes



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 can be assessed against a baseline condition. As relevant give consideration for the EEM framework and the approved Key Questions.

ICBM projects will be scoped and designed in order to inform the core BADR adaptive monitoring framework and its approach to measuring change along multiple oil sands stressor-gradients. ICBM projects for 2022-23 will focus on building off of work initiated in 2021-22 in order to refine and implement indicators and SOPs for Indigenous community monitoring of mammals, vegetation, and land disturbance as it relates to access for Indigenous peoples. Existing SOPs are being implemented under the core TBM work plan, serving as the foundation off of which to build ICBM projects.

The BADR design identifies environmental change attributable to oil sands activity against a reference or baseline condition. It achieves this by:

1. Using ecologically relevant spatial units that align with other TACs;
2. Examining environmental response along stressor gradients at various spatial scales;
3. Including reference/baseline sampling units in both space and time;
4. Including indicators at the individual, population, and community level;
5. Incorporating areas of planned oil sands expansions; and
6. Producing results which can be used for model validation and forecasting purposes.

Details on the approach used under the BADR design are provided in Bayne et al. 2020. The two key elements of BADR that contribute to measuring change against a baseline are:

1. BEFORE-AFTER: Monitoring at different phases of oil sands development (before and after development occurs); and
2. DOSE-RESPONSE: Monitoring along a gradient of current oil sands disturbance (high to low).

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 give consideration for the EEM framework and the approved Key Questions.

ICBM projects developed under this work plan will be highly integrated with the core BADR design being developed by the TBM Project Team and TAC, and will help to inform the ongoing development of its adaptive monitoring approach.

BADR addresses two elements related to scale:

1. Scale of ecological organization. Data are collected on individual behaviour and health as well as populations and communities. ICBM projects will be focused on the ecological scale that individual communities are interested in (eg. specific species or landscape metrics of highest concern).

2. Spatial scale. Monitoring locations under BADR are selected with intentional variation in local and regional disturbance to ensure that the program provides knowledge relevant to local, landscape, and regional questions, efficiently addressing indicators at several relevant organizational scales (organisms, communities, and populations). BADR is able to integrate data across scales and address regional and sub-regional questions, which allows for Indigenous communities to implement monitoring in local areas of interest and provide complementary data to the core TBM work.

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 give consideration for the EEM framework and the approved Key Questions.

As per the overall guidance from ICBMAC, all Western science generated by this project will be "Open by Default", and all Indigenous Knowledge generated will be "Protected by Default." The primary mechanism for disseminating monitoring information with Indigenous communities involved in this work plan will be in-person and/or virtual verbal communication. This work plan includes budget to support staff travel to communities to facilitate regular, ongoing dialogue, presentations, brainstorming, and training, as well as budget to provide necessary equipment needed for community-led data collection. The timing of these communications will be guided by the cycle of monitoring activities in order to build community capacity on all areas of terrestrial monitoring over time (design, site selection, protocols, data processing, analysis, reporting).

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 give consideration for the EEM framework and the approved Key Questions.

All ICBM work supported via this work plan will be fully integrated with the core TBM monitoring activities and will provide supplementary data in order to enhance the ability to measure change, add additional information that addresses Indigenous concerns directly, and collect local-scale information that is standardized and feeds into the broader regional ambient biological monitoring system.

ICBM projects for 2022-23 will focus on questions related to:

- How have the density and health of culturally-important wildlife species, such as moose and other mammals, changed due to oil sands activities in the context of cumulative effects?
- How has access to land for Indigenous community members changed due to oil sands activities in the context of cumulative effects?
- How have the availability and quality of culturally-important plant species, such as medicinal plants, changed due to oil sands activities in the context of cumulative effects?

10.0 Work Plan Approach/Methods

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

Phase 1: Community Engagement and Scoping

- Continuing and new meetings/workshops with communities to scope wildlife, vegetation, and land disturbance indicators, monitoring plans, as well as IK indicator integration into regional monitoring efforts

Phase 2: Training and Capacity Building

- Training sessions with communities to build capacity around monitoring methods, including wildlife camera deployment, WildTrax use, vegetation monitoring, and/or access-barrier data monitoring

Phase 3: Monitoring Implementation Support

- Support for implementation of monitoring activities (variable by community in terms of scale and protocol; guided by scoping discussions and state of readiness)

Phase 4: Reporting and Communications

- Development of plain language "how to's" of field methods for broad community use
- Ongoing presentations and sharing of information to communities at in-person discussions

10.2 Describe how changes in environmental Condition will be assessed *

Community engagement, capacity building, and implementation of ICBM projects will enable communities to identify receptors and indicators, develop baselines, and generate data for surveillance of local natural and subsistence resources, documenting (confirm) change, and investigating cause. Thus, ICBM projects will serve the mandate of the OSM program in an adaptive framework in an integrated approach with the core BADR program.

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

A standard approach to setting triggers/thresholds for terrestrial biological diversity does not currently exist for Alberta, or in many jurisdictions globally. The TBM team has initiated work in 2021-22 to lead the development of establishing triggers for TBM in the context of OSM's adaptive monitoring approach. This work is expected to take multiple years to complete and requires Indigenous community input. ICBM projects delivered under this work plan will have the opportunity to simultaneously provide input into the core approach being developed, while also developing Indigenous-defined indicators and benchmarks.

In the meantime, the proposed terrestrial monitoring design includes monitoring in low-impact areas to establish a comparative reference condition against which to assess monitoring data from higher stress regions and locations. Implementation of the design will include consideration of effect size (i.e., what constitutes a significant change from reference) and the sample sizes needed to detect the effect size within a specified degree of confidence. Resources will be dedicated this fiscal year towards developing and testing a TBM framework of approaches to a review of options for development baselines and associated triggers development for priority indicators.

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

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

As required by ICBMAC, methods for the collection of western-science data will be consistent (identical to) methods (field SOPs and lab analyses) used for core monitoring. Please see core work plans for mammal, vegetation, and land disturbance details.

For IK indicators, TBD, but efforts will be made to allow for comparison with the core monitoring data where possible.

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

Western Science Indicators:

Mammals: Occupancy, abundance, distribution, habitat selection

Birds: Occupancy/density, habitat selection, functional group or guild abundance, species richness/diversity

Vegetation: Height, cover, growth, density, structural complexity, fecundity

Land Disturbance: Land use and land cover data, Human footprint inventories

IK Indicators are still being determined but will include:

Wildlife: Moose health/quality (coat colour)

Land Disturbance: Land accessibility metric, focusing on locations of access barriers; land disturbance extent (% of traditional territory under development)

Vegetation: TBD

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.

Western science data is "Open by Default" and will be shared with the OSM program. IK is "Protected by Default". This project will follow guidelines and direction provided by ICBMAC on knowledge translation in the context of Indigenous Community Based Monitoring.

Building community capacity for data collection and data management is an important objective of this project. Knowledge translation will occur during scoping conversations, training sessions, and follow-up discussion, both within classrooms and in the field. This will include preparation of maps, summary results, and other information requested by the community during the course of the project. With the support of this project, individual communities will be responsible for disseminating knowledge gained in a way that is best received by their members. The general approach will be both internal community workshops/engagement sessions and plain-language reports, for both field methods and project results.

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

Indigenous community projects that will be supported by this work plan include:

Beaver Lake Cree Nation
 Chipewyan Prairie Dene First Nation
 Cold Lake First Nation
 Heart Lake First Nation
 Duncan's First Nation
 Little Red River Cree Nation
 Conklin Métis Local 193
 Whitefish Lake First Nation 459
 Willow Lake Metis Nation
 Gift Lake Metis Settlement
 Zone 5, Regional Council of the Métis Association of Alberta
 Smith's Landing First Nation

The Alberta Biodiversity Monitoring Institute will be the delivery agent for this work and will work in collaboration with the Athabasca University Facilitation Centre, AEP Program Leads, ICBMAC, and the University of Alberta. .

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

13.0 Data Sharing and Data Management

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

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

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

Indigenous Knowledge is defined as:

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

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

Data Sharing and Data Management *Continued*

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

YES

13.2 Type of Quantitative Data Variables:

Both

13.3 Frequency of Collection:

Annually

13.4 Estimated Data Collection Start Date:

2022-04-01

13.5 Estimated Data Collection End Date:

2023-03-31

13.6 Estimated Timeline For Upload Start Date:

2022-04-01

13.7 Estimated Timeline For Upload End Date:

2023-03-31

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

YES

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

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

Name of Dataset	Location of Dataset (E.g.: Path, Website, Database, etc.)	Data File Formats (E.g.: csv, txt, API, accdb, xls, etc.)	Security Classification
ICBM Western Science Camera (Mammal) Data	WildTrax Database	csv	Open by Default
ICBM Western Science Vegetation Data	ABMI Data and Informatics Portal	csv	Open by Default
ICBM IK Veg/Cam Data	TBD	TBD	Protected by Default



ICBM Western Science Access Data	ABMI Data and Informatics Portal	GIS Shapefile, etc.	Open by Default
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ICBM IK Access Data	TBD	TBD	Protected by Default
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14.0 2022/23 Deliverables

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

Type of Deliverable	Delivery Date	Description
Stakeholder or Community Presentation	Q4	Presentations and knowledge-sharing with multiple communities on TBM monitoring and scoping of ICBM projects
Key Engagement/Participation Meeting	Q4	Training workshops with multiple communities for wildlife, vegetation, and footprint monitoring
OSM Program Annual Progress Report (required)	Q4	Annual report summarizing progress to date
Public Dissemination Document	Q4	Plain language "How-to" field method guides for wildlife, vegetation, and/or footprint monitoring
Public Dissemination Document	Q4	Maps, results summaries, and other relevant monitoring results presented and shared directly with communities

15.0 Project Team & Partners

In the space below please provide information on the following:

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

The project team is well situated to complete the project. Its members hold expertise and experience across a variety of fields, including extensive community-based monitoring experience: project management, project coordination and relationship building/maintenance, geospatial analytics, scientific design and analysis, wildlife camera logistics/set-up/maintenance, and environmental fieldwork.

Monica Kohler, Application Centre Director, ABMI - Project lead

Crisia Tabacaru, ICBM Lead, ABMI - Project coordinator

Mateen Hessami, ICBM support, ABMI - Coordination support

Cris Gray, GIS coordinator, ABMI - Geospatial support

Eric Dilligeard, GIS Scientist, ABMI - Geospatial and study design support

Marcus Becker, Ecologist, ABMI - Mammal science

Jacqueline Dennett, Ecologist, U of A --Vegetation science

Jenet Dooley, Ecologist, ABMI - BADR science

David Evans, Field biologist, InnoTech Alberta - Camera training/fieldwork support

16.0 Project Human Resources & Financing

Section 16.1 Human Resource Estimates

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

Table 16.1.1 AEP

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

Name (Last, First)	Role	% Time Allocated to Project
Roberts, David	OSM Core TBM Workplan Lead / TBM TAC Lead	0%

Table 16.1.2 ECCC

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

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

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

Section 16.2 Financing

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

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

Table 16.2.1 Funding Requested BY ALBERTA ENVIRONMENT & PARKS

Organization – Alberta Environment & Parks ONLY	Total % time allocated to project for AEP staff	Total Funding Requested from OSM
Salaries and Benefits <i>(Calculated from Table 16.1.1 above)</i>	0.00%	\$0.00
Operations and Maintenance		
Consumable materials and supplies		\$0.00
Conferences and meetings travel		\$0.00
Project-related travel		\$0.00
Engagement		\$0.00
Reporting		\$0.00
Overhead		\$0.00
Total All Grants <i>(Calculated from Table 16.4 below)</i>		\$376,300.00
Total All Contracts <i>(Calculated from Table 16.5 below)</i>		\$0.00
Sub- TOTAL <i>(Calculated)</i>		\$376,300.00
Capital*		\$0.00
AEP TOTAL <i>(Calculated)</i>		\$376,300.00

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

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

Table 16.2.2 Funding Requested BY ENVIRONMENT & CLIMATE CHANGE CANADA

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

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

Table 16.3

Complete ONE table per Grant recipient.

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

GRANT RECIPIENT - ONLY: Name	Monica Kohler
GRANT RECIPIENT - ONLY: Organization	Alberta Biodiversity Monitoring Institute
Category	Total Funding Requested from OSM
Salaries and Benefits	\$267,600.00
Operations and Maintenance	
Consumable materials and supplies	\$26,500.00
Conferences and meetings travel	\$0.00
Project-related travel	\$47,400.00
Engagement	\$0.00
Reporting	\$0.00
Overhead	\$34,800.00
GRANT TOTAL <i>(Calculated)</i>	\$376,300.00

Table 16.4

Complete ONE table per Contract recipient.

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

CONTRACT RECIPIENT - ONLY: Name	Click or tap here to enter text.
CONTRACT RECIPIENT - ONLY: Organization	Click or tap here to enter text.
Category	Total Funding Requested from OSM
Salaries and Benefits	\$0.00
Operations and Maintenance	
Consumable materials and supplies	\$0.00
Conferences and meetings travel	\$0.00
Project-related travel	\$0.00
Engagement	\$0.00
Reporting	\$0.00
Overhead	\$0.00
CONTRACT TOTAL <i>(Calculated)</i>	\$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 <i>Sums totals for salaries and benefits from AEP and ECCC ONLY</i>	\$0.00
Operations and Maintenance	
Consumable materials and supplies <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Conferences and meetings travel <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Project-related travel <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Engagement <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Reporting <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Overhead <i>Sums totals for AEP and ECCC ONLY</i>	\$0.00
Total All Grants (from table 16.2.1 above) <i>Sums totals for AEP Tables ONLY</i>	\$376,300.00
Total All Contracts (from table 16.2.1 above) <i>Sums totals for AEP Tables ONLY</i>	\$0.00
Sub- TOTAL	\$376,300.00
Capital* <i>Sums total for AEP</i>	\$0.00
GRAND PROJECT TOTAL	\$376,300.00

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.

AEP component leads (David Roberts, AEP) and/or contract/grant managers will perform quarterly reviews of budgets and deliverables. Deviations from the proposed work plan will be reported to the OSM program office, and management actions may be taken to facilitate meeting of budget and deliverable expectations. All partners will follow good financial management practices as required by their agencies, institutions or corporations.

Foreseeable risks to the program include:

- Delays in contracts and grants, either due to modification of the work planning schedule or due to bureaucratic delays in grant/contract execution.
- Lack of clear direction for integration. Absence of strong direction on a clear, single integration process would create a risk of individual communities establishing siloed and disparate projects.
- The COVID-19 pandemic may preclude in-person community engagement and capacity building and postpone monitoring. We will proceed as allowed by Federal, Provincial, and Indigenous governments.



18.0 Alternate Sources of Project Financing – In-Kind Contributions

Table 18.1 In-kind Contributions

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

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



19.0 Consent & Declaration of Completion

Lead Applicant Name

Click or tap here to enter text.

Title/Organization

Click or tap here to enter text.

Signature

Click or tap here to enter text.

Date

Click or tap to enter a date.

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

Click or tap here to enter text.

Title/Organization

Click or tap here to enter text.

Signature

Click or tap here to enter text.

Date

Click or tap to enter a date.



PROGRAM OFFICE USE ONLY

Governance Review & Decision Process

this phase follows submission and triggers the Governance Review

TAC Review (Date):

Click or tap to enter a date.

ICBMAC Review (Date):

Click or tap to enter a date.

SIKIC Review (Date):

Click or tap to enter a date.

OC Review (Date):

Click or tap to enter a date.

Final Recommendations:

Decision Pool:

Choose an item.

Notes:

Click or tap here to enter text.

Post Decision: Submission Work Plan Revisions Follow-up Process

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

ICBMAC Review (Date):

Click or tap to enter a date.

SIKIC Review (Date):

Click or tap to enter a date.

OC Review (Date):

Click or tap to enter a date.

Comments:

Decision Pool:

Choose an item.

Notes & Additional Actions for Successful Work Plan Implementation:

Click or tap here to enter text.