

2018-19 Work Plan Template

All fields with an * are mandatory

Project Description Summary			Co-Chair Decision (March 8, 2018)
Date *	Project/Work Plan Identifier (if applicable)	Program Type and Strategic Alignment *	<p>* Decision Pool A: Workplan approved. * Approved at \$324,993 with contingency * Activities to be captured under the Oil Sands Monitoring Program Community Based Monitoring Initiatives * It is a requirement of funding that key members of the project team participate in a Community Based Monitoring Task Group to be informed by the Oil Sands Monitoring Secretariat. The Task Group will be coordinated by Gleb Raygorodetsky (AEP) and Krista Tremblett and will identify the options for managing and assessing CBM under the Oil Sands Monitoring Program. The Team is to recommend to the OSM Program Co-Chairs and Science-Co-Leads the preferred path forward. A preferred option is requested by May 31, 2018 * This project should consider linkages to the Focus and Long Term Monitoring programs currently underway in OSM. *Funding expectations: As a minimum, an annual progress report for this project is required by February 28, 2019. All publications or products resulting from this work requires acknowledgement of funding from the Oil Sands Monitoring Program and are to be provided to the Oil Sands Monitoring Secretariat for tracking and any programmatic communications purposes. Work funded through the Oil Sands Program will be available for public dissemination.</p>
Project Original Start Date: April 2017		OSM - Focus Study	
Program Category *	Status *	Dept. ID	
Indigenous Knowledge, Community Based Monitoring	Existing Project	69	
Project Leadership / Contact information			
Project Title *	Key Words (max 10) *		
Where are the Freshwater Clams? An Exploration Using Community-Based Methodologies Linking	clams, community, traditional ecological knowledge, western science		
Surname *	Given Name *	Title *	
Hopkins	Debra	Environmental Health Team Lead	
Organization *	Department	Division	
Alberta Provincial	Air, Biodiversity and Policy Integration Branch	Policy and Planning Division	
Branch *	Section/Unit (if applicable)	Phone *	
Air, Biodiversity, and Policy Integration Branch	Environmental Health Team	7806448371	
Email *	Mailing Address	City	
debra.hopkins@gov.ab.ca	9th floor, Oxbridge Place, 9820-106 Street	Edmonton	
Postal Code	EMSD Executive Owner (If Applicable)		
T5K 2J6	Marilea Perry-Patterson		
Project Information			
Project Objective(s) (Bullet Form) *	Project objectives are: 1) To apply traditional knowledge with western knowledge data systems to understand the freshwater clam story and to examine the distribution and density of freshwater clams in identified areas of interest; and, 2) To demonstrate innovative methodologies to engage interested Indigenous communities towards improved understanding of the status of freshwater clams in the lower Athabasca Region.		
Plain Language Overview (100 words) *	Indigenous communities in the northeastern oil sands region of Alberta, in particular the McMurray Métis, have expressed interest in the current status of freshwater clams. Oral history shared by traditional knowledge holders indicate that the gathering and eating of freshwater clams have historically been part of traditional cultural practices, but the clams seem to have disappeared from the region over the past 20 years. This Project is grounded in the idea of Community First, using a community-based action research approach that is driven by Métis TK/wisdom/methodology with aim to co-design an approach to answer community-based questions in a way that is meaningful to the community. This Project is about more than just "Where are the freshwater clams?" it encompasses who the community is as a Métis people which is in part reflected by their spiritual, cultural, physical connection to the land and social well-being.		
Project Duration *	Project Original Start Date *	Estimated Completion Date *	
Multi-Year	4/1/2017	2019	
Specify Objectives This Project Will Address in 2018/2019. *	For Year 2 (2018/2019), as directed by the McMurray Métis, we have increased our research study from the Year 1 (2017/18) area to ensure that we can better address the Project's three research questions. The map of the sampling area is located in the Monitoring Site Location Excel Sheet. We intend to stay on the river longer so to better document the density and distribution of freshwater clam populations using TK (Traditional Knowledge) and western science approaches similar to those used in Year 1. The larger study area will help us to better delineate density and distribution of freshwater clam populations and increase our clam, water and sediment sample size on the Athabasca and Clearwater rivers for analysis, while also revisiting Year 1 sites. Through ground truthing and the use of descriptive qualitative methods as used in Year 1, we will continue to document elders and traditional landuser TK and lived experiences on the land. While TK has been used to inform the research study area, it also extends beyond the physical and scientific boundary. Should time permit, we will also include a few lake sampling sites which have been identified through TK as historical clam locations. Opportunities to explore sites on the rivers/lakes by presenting to and potentially working with other Métis and First Nation peoples will be explored. Opportunities to include Indigenous youth and going to schools to talk about this research Project will be undertaken. A literature search of other publicly available research/monitoring data pertaining to clam/sediment/water quality information, clam sit locations and past land uses on the Athabasca and Clearwater rivers will be reviewed. Potential discussions with other Indigenous communities undertaking similar work outside of Alberta will also be explored.		
Specify Objectives This Project Will Address Beyond 2018/19 (if multi-year). *	Will depend on the outcome and findings from Year 2.		
List Key Questions/Hypotheses Related to Each Objective Stated Above. *	Research questions raised by the McMurray Métis: 1. "Where were freshwater clams in the past?" (Indigenous methods, TK, descriptive qualitative methods, western science [review past literature and monitoring data]) 2. "Where are the freshwater clams now?" (Indigenous methods (e.g., ground truthing) and the use of descriptive qualitative methods [lived experience], TK, population density/abundance observed in the field) 3. "Why are the freshwater clams not where they used to be?" (Indigenous methods, TK, descriptive qualitative methods, western science [laboratory chemical tissue/water/sediment analysis, environmental risk assessment, other lines of inquiry])		

<p>Main Assumptions, Constraints, Dependencies. *</p>	<p>The question "Where are the freshwater clams?" is a key concern for the McMurray Métis and other communities in the Lower Athabasca region.</p> <p>The McMurray Métis are leading this project, other communities have expressed interest in being involved. The McMurray Métis are looking for opportunities to include these communities with this work.</p> <p>The design, data collection, analysis and reporting of this project will be controlled by McMurray Métis (and other communities if involved). Dissemination of information related to this project will be determined by McMurray Métis (and other communities if involved).</p> <p>Constraints:</p> <p>Weather dictates access to the sample collection. Potential that Alberta Environment and Parks (AEP) may not have the scientific capacity required to participate in this project should there be changes in staff. Project becomes larger and more costly with the involvement of other communities and if other environmental endpoints need to be added.</p>	
<p>Partner Categories (select all that apply) * A partner is an individual, group, agency, community etc. that is an active participant in the project and in achieving the project deliverables.</p> <p><input type="checkbox"/> Federal Government</p> <p><input checked="" type="checkbox"/> Another AEP Division</p> <p><input checked="" type="checkbox"/> Another GoA Department</p> <p><input checked="" type="checkbox"/> University/Academic Institution</p> <p><input type="checkbox"/> Solely delivered by GoA</p> <p><input type="checkbox"/> Citizen Science</p> <p><input checked="" type="checkbox"/> Indigenous Community or Organization</p> <p><input type="checkbox"/> ENGO</p> <p><input type="checkbox"/> Other</p>	<p>Knowledge System *</p> <p>Both</p>	<p>Location (select all that apply) *</p> <p><input type="checkbox"/> Office or Laboratory</p> <p><input type="checkbox"/> Sub-regional</p> <p><input type="checkbox"/> Transboundary (provincial/territorial)</p> <p><input type="checkbox"/> Lower Peace Region</p> <p><input type="checkbox"/> Upper Peace Region</p> <p><input type="checkbox"/> North Saskatchewan Region</p> <p><input type="checkbox"/> Red Deer Region</p> <p><input checked="" type="checkbox"/> Lower Athabasca Region</p> <p><input type="checkbox"/> Upper Athabasca Region</p>
<p>AEP ONLY: Strategic Alignment to EMSD Outcomes</p>		
<p>AEP ONLY: Strategic Alignment to EMSD Science Plan, select 1-2 areas that apply (if Applicable)</p> <p>Human Relationship with the Environment</p> <p>Choose one</p>		
<p>AEP ONLY: Strategic Alignment to AEP Departmental Outcomes</p>		
<p>AEP ONLY: Environmental and Ecosystem Health and Integrity</p> <p>Biodiversity</p>	<p>AEP ONLY: Sustainable Economic Diversity</p> <p>Choose one</p>	<p>AEP ONLY: Social Well-Being</p> <p>Yes</p>
<p>AEP ONLY: Protected Public Health and Safety from Environmental</p> <p>Yes</p>		
<p>AEP ONLY: IMAG/IMSC Information Needs, Please Specify Which Need(s) is Being Addressed</p> <p>File location M:\EMSD\Common\Portfolio Mgmt\System Shared Docs</p>	<p>Biodiversity: Provincial scale monitoring of Alberta's aquatic and terrestrial species (what is the current and historic condition or status of indicator x in region y? and is it changing over time?)</p> <p>Environmental Health Risk: What are the contaminants of concern that need to be monitored? What are the levels of contaminants in country foods? where are the contaminants coming from?</p> <p>CBM in support of BMF implementation: what is the abundance and distribution of species that are valued by Indigenous community members?</p>	
<p>AEP ONLY: How This Project Will Address Each Strategic Theme Selected Above.</p>	<p>Human Relationship with the Environment: In this project, communities are defining questions for study, local harvesters and AEP are collecting samples and recording traditional knowledge (TK) observation with a view to address community information needs including whether there are freshwater clams (now and in the future) and whether the freshwater clams are contaminated.</p> <p>Environmental & Ecosystem Health & Integrity (Biodiversity): This project contributes to key strategy 1.4 under this business plan outcome: <i>Continue strengthening our relationship and engagement with Indigenous communities as we respect the objectives and principles of the United Nations Declaration on the Rights of Indigenous Peoples.</i></p>	
<p>Project Methodology</p>		
<p>List the Key Project Phases and Provide Bullets for Each Major Task Under Each Project Phase. *</p>	<p>Grounded in the three research questions were raised by the McMurray Métis:</p> <ol style="list-style-type: none"> 1. "Where were freshwater clams in the past?" 2. "Where are the freshwater clams now?" 3. "Why are the freshwater clams not where they used to be?" <p>For Year 1 (2017/18), which has already occurred, through a mutually agreed upon approach, we were able to successfully explore some components of questions 1 and 2. This was done through a process which the McMurray Métis have developed called ground truthing. This included:</p> <ul style="list-style-type: none"> • Community mapping of our research study area, using TK to identify clam research sites on the Athabasca and Clearwater rivers and going onto the river to identify locations in real-time with elders and traditional landusers. • Social media tools such as Facebook, Twitter and Instagram were also utilized to seek feedback on potential clam site locations as well as to communicate information about the Project to the McMurray Métis and the broader community. • Using a descriptive qualitative method, we completed semi-structured focus groups and recorded/video-taped unstructured conversations with elders and traditional landusers in the field while at the clam sites. • At the study sites we also documented site characteristics (field data sheet and pictures), water quality and collected samples of the clams and sediment for trace metal and polycyclic aromatic hydrocarbon analysis. <p>For Year 2 (2018/19) building on Year 1, as directed by the McMurray Métis, we have increased our research study area to ensure that we can better address the Project's three research questions (Excel sheet)</p> <ul style="list-style-type: none"> • We intend to stay on the river longer so to better document the density and distribution of freshwater clam populations using TK and western science approaches similar to those used in Year 1. • The larger study area will help us to better delineate density and distribution of freshwater clam populations and increase our clam, water and sediment sample size on the Athabasca and Clearwater rivers for analysis, while also revisiting Year 1 sites. • Through ground truthing and the use of descriptive qualitative methods as used in Year 1, we will continue to document elders and traditional landuser TK and lived experiences on the land. While TK has been used to inform the research study area, it also extends beyond the physical and scientific boundary. • Should time permit, we will also include a few lake sampling sites which have been identified through TEK as historical clam locations. 	

	<ul style="list-style-type: none"> • Opportunities to explore sites on the rivers/lakes by presenting to and potentially working with other Metis and First Nation peoples will be explored. Opportunities to include Indigenous youth and going to schools to talk about this research Project will be undertaken. • A literature search of other publicly available research/monitoring data pertaining to clam/sediment/water quality information, clam sit locations and past land uses on the Athabasca and Clearwater rivers will be reviewed. Potential discussions with other Indigenous communities undertaking similar work outside of Alberta will also be explored (e.g., New Brunswick).
Describe How Changes in Environmental Condition Will Be Assessed. *	Will be determined through discussions with the McMurray Métis and may or may not include the braiding of TK with western science.
Are There Benchmarks (e.g., objectives, tiers, triggers, limits, reference conditions, thresholds, etc.) Being Used to Assess Changes in Environmental Condition? If So, Please Describe, If Not, State "NONE". *	TK indices as defined by the community. For the western science component there are: aquatic water quality standards (e.g., CCME [Canadian Council of the Ministers of the Environment], Canadian fed/provincial), aquatic sediment standards (e.g., CCME, Canadian fed/provincial), ecotoxicity research (e.g., literature) and human oral exposure limits/or safe levels (e.g., Health Canada, US EPA [United States Environmental Protection Agency]).
Provide a Brief Description of the Methods By Project Phase. *	<p>See line 69 for more detail. Year 1 (completed) (relationship building, ground truthing, exploration). McMurray Métis and AEP worked together to co-develop and implement an approach to answer in a meaningful way the three questions identified by the community. The mechanisms to achieve this included: face-to-face meetings with the Core Clam Team (2 community members [one elder], AEP, consultant) and the Community Clam Project Team (6+ community members [including 4 elders, one youth], 3 staff from AEP, one consultant), community mapping, going out on the land and water with the Community Project Team as part of ground truthing and collecting sediment and clam tissue samples, communication with schools and youth in the community.</p> <p>Year 2 expands upon the work that was done in Year 2.</p> <p>During Phase 3 (reporting), results will be shared and discussed with communities to verify and approve.</p>
List the Key Indicators Measured. *	Will be determined in consultation with the McMurray Métis. Environmental media specifically (i.e., water, sediment and clam tissue): metals, polycyclic aromatic hydrocarbons, general water quality parameters
Describe Sample Handling Procedures, if Not Applicable, State N/A. *	<p>Sediment:</p> <p>Analyses Laboratory Method Analytical Method Hexavalent Chromium AB SOP-00063 SM 22 3500-Cr B m Elements by ICPMS - Soils AB SOP-00001 / AB SOP-00043 EPA 200.8 R5.4 m Moisture AB SOP-00002 CCME PHC-CWS m Soluble Ions AB SOP-00033 / AB SOP-00042 EPA 200.7 CFR 2012 m Soluble Paste AB SOP-00033 Carter 2nd ed 15.2m Soluble Boron Calculation AB WI-00065 Auto Calc</p> <p>Clam Tissue:</p> <p>Analyses Laboratory Method Analytical Method Elements by CRC ICPMS - Tissue Wet Wt BBY75OP-00021 BCLM2005,EPA6020bR2m</p> <p>Water:</p> <p>Analyses Laboratory Method Analytical Method Cadmium - low level CCME (Total) AB WI-00065 Auto Calc Elements by ICP - Total AB SOP-00014 / AB SOP-00042 EPA 200.7 CFR 2012 m Elements by ICPMS - Total AB SOP-00014 / AB SOP-00043 EPA 200.8 R5.4 m</p>
List SOPs that Will Be Used, if Not Applicable, State N/A. *	Standard operation practices (SOPs) were developed based on sampling plan and methods selected. SOPs include information on: Planning and Preparation, On-site Preparation, Sample Selection, Sample Collection, Sample Packing & Transport, Equipment Checklist, Essential Forms. For the 2017 field SOPs were developed for: Clam Sampling and Sediment Sampling. Individuals performing sampling were given proper instruction prior to filed work.

Describe the QA/QC Plan, If Not Applicable, State N/A. *	<p>QA/QC plan for the TK component consists of validation of the iterative and on-going process of all aspects of the project with the community throughout all phases or years of the Project. The validation or QA/QC of this work is being done collaboratively, using participative practice grounded in a community-based approach is the foundation of this Project. The community will be participating in all phases of this work, which is predicated on mutual ownership of the Project process and products as well as shared decision making.</p> <p>Scoping and Design:</p> <ul style="list-style-type: none"> • Sampling plan was developed prior to field days. • Type and method of sampling was selected. • Equipment was gathered in accordance with the selected sampling method. • Standard operation practices (SOPs) were developed based on sampling plan and methods selected (see line item 80): • Individuals performing sampling were given proper instruction prior to field work <p>Sample Collection:</p> <ul style="list-style-type: none"> • During sampling, steps were taken to prevent contamination of the sample (e.g., personal protective equipment and proper sampling tools). • Notes were taken to document sample data and information that could lead to bias in samples. • Quality control samples a taken are collected including field and trip blanks. • Replicate samples were taken for media where precision is anticipated to be low (e.g., 3 sediment samples were taken at each clam site in 2017). <p>Sample Analysis:</p> <ul style="list-style-type: none"> • Method certification was a criteria in Lab Selection : As part o this QA/QC procedures and data must be transparent; Laboratory quality control samples must be used (e.g., Reference materials and spikes were use by the laboratory analyzing the samples in 2017) <p>Data Validation and Storage:</p> <ul style="list-style-type: none"> • Original copies of laboratory reports and invoices were maintained. • Data is stored on a shared storage network. • Historical data was used to assess plausibility of results. • Results were reviewed by multiple members of the team.
	<p>Reporting:</p> <ul style="list-style-type: none"> • Reporting is transparent and verified
Describe How Indigenous Communities are Involved in the Project Design, Data Collection, and Analysis (Knowledge Co-creation) and How is their Consent Sought. If Not Applicable, State N/A.*	<p>The McMurray Métis lead the Project in all aspects of this work, which is predicated on mutual ownership of the Project process and products as well as shared decision making. The McMurray Métis have independence, power and control over how their research questions are being addressed. To date we meaningfully engage with a difference through connected knowing and engaging in dialogue that embodies human dignity, equal worth and respect which encourages people to relate to each other in ways that are mutual, reciprocal, trusting and cooperative, we have been able to date co-design an approach (design, analysis and dissemination) that has been meaningful to the community and the Alberta government. The Project by its very nature is a partnership to collaborate on an approach that first identifies specific areas of interest and then co-designs a process to address those concerns in a way that is meaningful to Indigenous people, government representatives and western scientists. Consent was obtained from the McMurray Métis CEO (Bull Loutitt) and Director (Harvey Sykes)</p>
Components Delivered by Others	
List by Project or Project Phase Each Component That Will Be Delivered by An External Party (including analytical laboratories) and Name the Party. State None if Not Required. *	<p>Contractor1: Willow Springs Strategic Solutions, Facilitation and collaborative writing of report/peer-review papers. Contractor 2: Analytic Laboratory: Maxxam Analytics</p>
Will These Components be Delivered Under Grant or Contract or Both? Please Describe and Name the Associate Work Plan/Grant/Contract for These Services if Not Included Within This Work Plan. *	Contract
Monitoring Site Locations and Coordinates (for all sites, please add them to the Monitoring Site Location tab - a separate excel sheet)	
Attach Map of Locations. Distinguish Indicators by Station if Necessary. Distinguish Sampling Frequency by Station if Necessary.	See Monitoring Site Location Excel Sheet
Project Schedule	
FOR OIL SANDS MONITORING PROJECTS ONLY: A coordinated field monitoring schedule for the OSM Program is required. Please complete the attached document named "OSM Program Field Monitoring Schedule" in addition to this work plan. Fill as much as you can recognizing that scheduling changes will occur and the scheduling document will be updated regularly. Please note the scheduling document will be shared with stakeholders.	Not connected with the OSM field monitoring program per se.
FOR OIL SANDS MONITORING PROJECTS ONLY: Have You Coordinated With Other Project Leads On Field Logistics? If So, Please Specify. *	Not connected with the OSM field monitoring program per se.
Other	
Additional Details.	
Will Capacity Building and Training be a Component of the Project and If So, Explain How If Not, State N/A.*	<p>Educational training for Indigenous youth who are interested about the work being completed. Mutual learning through the process of identifying the Project priorities, co-design of the Project plan to address the questions, co-implementation and reporting. Government learning about TEK, Indigenous culture and traditional ways of knowing from participating communities.</p>

Environmental Impact and Considerations.		
Data Management and Digital Assets		
Will Data be Produced as a Result Of This Project? *	Type of Quantitative Data Variables	Frequency Of Collection
Yes	Other	Other
Quantitative and Qualitative Data		
Data Collection Period: Start Date - End Date	Timeline For Upload Period: Start Date - End Date	
June, 2018-September, 2018	2019	
Is There a Data Sharing Agreement? (Yes or No).	Yes, data are protected via the Fisheries Research License. Data will be shared more broadly pending community approval.	
Will the Data Include Traditional Knowledge as Defined by and Provided by an Indigenous Representative, Community or Organization (Yes / No).	Yes	
Platform/Location of Data Storage.	AEP and McMurray Métis.	
Project Deliverables		
Proposed 2018-19 Deliverable Type (for each deliverable outline document, presentation, meeting, etc.)		
<input checked="" type="checkbox"/> Peer-reviewed Journal Publication	<input type="checkbox"/> Peer-reviewed Conference Proceeding	<input type="checkbox"/> Non-peer reviewed Conference Proceeding
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	Q1 - Deliverable, Comments
Co-developed paper by the Clam Project Team, led by McMurray Métis		
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	Q2 - Deliverable, Comments
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	Q3 - Deliverable, Comments
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	Q4 - Deliverable, Comments
<input type="checkbox"/> Technical Report	<input type="checkbox"/> Book Chapter	<input checked="" type="checkbox"/> Public Dissemination Document
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	Q1 - Deliverable, Comments
		Co-development of a report or information document for the community, led by McMurray Métis
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	Q2 - Deliverable, Comments
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	Q3 - Deliverable, Comments
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	Q4 - Deliverable, Comments

<input checked="" type="checkbox"/> Conference Presentation(s)	<input type="checkbox"/> Stakeholder Presentation	<input checked="" type="checkbox"/> Key Engagement/Participation Meeting *
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	Q1 - Deliverable, Comments
Platform	Platform	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
Explore possible conferences to present the Project learnings and findings to. Led by McMurray Métis.		On-going meetings with the Core Project Team and the community Clam Project Team as required. As well as, more public meetings with the broader community at large. Led by McMurray Métis.
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	Q2 - Deliverable, Comments
Choose one	Choose one	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	Q3 - Deliverable, Comments
Choose one	Choose one	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	Q4 - Deliverable, Comments
Choose one	Choose one	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
<input type="checkbox"/> EMSD Strategic & Operational Publication	<input type="checkbox"/> Other Documents	
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	
Proposed Deliverables After 2018/2019 for the project funds received in 2018/2019		
<input type="checkbox"/> Peer-reviewed Journal Publication	<input type="checkbox"/> Peer-reviewed Conference Proceeding	<input type="checkbox"/> Non-peer reviewed Conference Proceeding
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	Q1 - Deliverable, Comments
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	Q2 - Deliverable, Comments
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	Q3 - Deliverable, Comments

Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	Q4 - Deliverable, Comments
<input type="checkbox"/> Technical Report	<input type="checkbox"/> Book Chapter	<input checked="" type="checkbox"/> Public Dissemination Document
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	Q1 - Deliverable, Comments
		Co-development of a report or information document for the community, led by McMurray Métis
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	Q2 - Deliverable, Comments
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	Q3 - Deliverable, Comments
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	Q4 - Deliverable, Comments
<input type="checkbox"/> Conference Presentation(s)	<input type="checkbox"/> Stakeholder Presentation	<input checked="" type="checkbox"/> Key Engagement/Participation Meeting *
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	Q1 - Deliverable, Comments
Choose one	Choose one	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
		On-going meetings with the Core Project Team and the community Clam Project Team as required. As well as, more public meetings with the broader community at large. Led by McMurray Métis.
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	Q2 - Deliverable, Comments
Choose one	Choose one	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	Q3 - Deliverable, Comments
Choose one	Choose one	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	Q4 - Deliverable, Comments
Choose one	Choose one	Name of Meeting, Year, Location, Dates, Participant Groups and Number of Participants.
<input type="checkbox"/> EMSD Strategic & Operational Publication	<input type="checkbox"/> Other Documents	
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	

Q3 - Deliverable, Comments	Q3 - Deliverable, Comments
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments

All Completed Products if a multi-year project,
specify all completed products to date (consistent format for the fields below). Add rows as required.

Journal Paper

Required Format: Author (follow APA citation format), Year, Title, Journal, Volume, Page Numbers, Open or Closed and Document Location
Example: Jacoby, W. G. (1994). Public Attitudes Toward Government Spending. American Journal of Political Science, 38(2), 336-361.
Fearon, J. D., & Laitin, D. D. (2003). Ethnicity, Insurgency, and Civil War. American Political Science Review, 97(01), 75. doi: 10.1017/S0003055403000534

- 1) McMurray Métis Fresh Water Clam Project 2017 report to the community (authored by the community Clam Project Team)
- 2) McMurray Métis reseach colloquium 2017: Reflections of the Community-Based Freshwater Clam Project (Harvey Sykes and Debra Hopkins)
- 3)
- 4)
- 5)

Technical Report

Required Format: Author, Year, Title, Publisher Location, Name of Publisher, Publisher, Document Location
Example: Author, F.M. (Publication Year). Title of Report (Report No. XXX). Publisher City, State: Publisher

- 1)
- 2)
- 3)
- 4)
- 5)

Book Chapter

Required Format: Author, Year, Title of Paper, Editors, Title of Book, Page Numbers, Location of Publisher, Name of Publisher, Document Location
Example: Hemingway, E. (1999). The Killers. In J. Updike & K. Kenison (Eds.), The Best American Short Stories of the Century (pp.78-80). Boston, MA: Houghton Mifflin)

- 1)
- 2)
- 3)
- 4)
- 5)

Conference Proceeding

Required Format: Author, Year, Title of Paper, Editors, Title of Proceedings, Name of Conference Location of Conference, Publisher Location, Name of Publisher, Document
Example: Author of Paper, A., & Author of Paper, B. (Year, Month date). Title of Paper. In A. Editor, B. Editor, & C. Editor. Title of Published Proceedings. Paper Presented at Title of Conference: Subtitle of Conference, Location (inclusive page numbers). Place of Publication: Publisher.)

- 1)
- 2)
- 3)
- 4)
- 5)

Public Dissemination Document

Required Format: Author, Year, Title, Journal / Report, Volume, Publisher, Page Number, Number of Pages, Document Location

- 1)
- 2)
- 3)
- 4)
- 5)

AEP ONLY: EMSD Strategic and Operational Publication

Required Format: Author, Year, Title, Publisher Location, Name of Publisher, Publisher, Document Location

- 1)
- 2)
- 3)
- 4)

5)		
Other Documents		
Detailed Information of Other Documents		
1)		
2)		
3)		
4)		
5)		
Conference Presentation		
Required Format: Presenter, Date, Location, Title, Platform or Poster, Conference Name		
1)		
2)		
3)		
4)		
5)		
Stakeholder Presentation		
Required Format: Presenter, Date, Location, Title, Platform or Poster, Name of Meeting		
1)		
2)		
3)		
4)		
5)		
Key Engagement/Participation Meeting		
Required Format: Meeting Host, Date, Location		
1)		
2)		
3)		
4)		
5)		

**Human Resources / Staffing Plan
(roles and responsibilities)**

Name & Role	Organization	Responsibilities
AEP Project Team		
Debra Hopkins	AEP-PP	Government Project Lead
Kaitlyn Wall	AEP-PP	Project Coordination
Caroline Bampfyde	AEP-PP	Advisor - Ecosystem
McMurray Métis		
Harvey Sykes	Board of Directors McMurray Métis and Community Elder	Project Lead, Elder
Carmen Wells	McMurray Métis (MNA Local 1935)	Heritage and Traditional Knowledge Administrator
Almer Waniandy	McMurray Métis (MNA Local 1935)	Elder
John Frank	McMurray Métis (MNA Local 1935)	Elder
Len Hansen Sr	McMurray Métis (MNA Local 1935)	Elder
Lorrie Gallagher	McMurray Métis (MNA Local 1935)	Elder
Len Hansen Jr	McMurray Métis (MNA Local 1935)	Traditional Land User
Lee Henry	McMurray Métis (MNA Local 1935)	Traditional Land User
Internal AEP Advisory Working Group		
Laurie Cheperdak	AEP-PP	Advisor - Environmental Health
Tracy Howlett	AEP-EMSD	Advisor - Indigenous
Karin Smith-Fargey	AEP-EMSD	Advisor - Indigenous
Trish Kelley	AEP-Operations	Advisor - Fish/Aquatic
Richa Sharma	AEP-PP	Advisor - GIS
Kevin Bellman	AEP-PP	Advisor - GIS
Rod Hazewinkel	AEP-PP	Advisor - Aquatic
Dave Prescott	AEP-Operations	Advisor - Species at Risk
External Advice from:		
Dr. François Gagne	Environment Canada and Climate Change	Biochemical Ecotoxicology Researcher
Dr. André L. Martel	Canadian Museum of Nature	Zoology, Research and Collections
Dr. Jouni Taskinen	University of Jyväskylä, Finland	Aquatic Sciences, Department of Biological and Environmental Science
Dr. Cam Goater	University of Lethbridge	Department of Biological Sciences

AEP ONLY: Additional Human Resources		
Name & Role	Branch - Section	Estimated time (% of annual FTE)
Debra Hopkins	Air, Biodiversity and Policy Integration - Policy Analysis, Coordination and Health Section	35
Kaitlyn Wall	Air, Biodiversity and Policy Integration - Policy Analysis, Coordination and Health Section	25
Caroline Bampfyde	Biodiversity, Ecosystem Services & Science Section - Air, Biodiversity and Policy Integration Branch	10
Internal AEP Advisory Working Group		

Laurie Cheperdak	Air, Biodiversity and Policy Integration - Policy Analysis, Coordination and Health Section	1
Tracy Howlett	Indigenous Knowledge - Community Monitoring and Citizen Science Branch	1
Karin Smith-Fargey	Indigenous Knowledge - Community Monitoring and Citizen Science Branch	1
Trish Kelley	Regional Resource Management - Lower Athabasca Region	1
Richa Sharma	Biodiversity, Ecosystem Services & Science Section - Air, Biodiversity and Policy Integration Branch	1
Kevin Beilman	Biodiversity, Ecosystem Services & Science Section - Air, Biodiversity and Policy Integration Branch	1
Rod Hazewinkel	Surface Water Quality Section – Water Policy Branch	1
Dave Prescott	Regional Resource Management - Red Deer - North Saskatchewan Region	1

Financial Details and Budget Request

Source of Funding Requested Year 1 - 2018/19

	AEP - *****in kind contribution (estimate)	OSM
Salaries and Benefits - AEP Chargeback	150,000	0
Salaries and Benefits - New OSM Staff		0
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		
Field work travel		
Project-related travel		30000
Engagement		
Reporting		
External Contracts - Organization/Vendor/Suppliers		84863
Overhead		
Grants		210130
Capital		
Total budget request for the year	150,000	324993
Total budget approved		

Source of Funding Requested Year 2 - 2019/20

	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback	TBD	TBD
Salaries and Benefits - New OSM Staff		
Operations and Maintenance	TBD	TBD
Consumable materials and supplies	TBD	TBD
Conferences and meetings travel	TBD	TBD
Field work travel	TBD	TBD
Project-related travel	TBD	TBD
Engagement	TBD	TBD
Reporting	TBD	TBD
External Contracts - Organization/Vendor/Suppliers	TBD	TBD
Overhead	TBD	TBD
Grants	TBD	TBD
Capital	TBD	TBD
Total budget request for the year	0	0
Total budget approved		

Source of Funding Requested Year 3 - 2020/21

	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		
Salaries and Benefits - New OSM Staff		
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		
Field work travel		
Project-related travel		
Engagement		
Reporting		
External Contracts - Organization/Vendor/Suppliers		
Overhead		
Grants		
Capital		
Total budget request for the year	0	0
Total budget approved		

Source of Funding Requested Year 4 - 2021/22

	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		
Salaries and Benefits - New OSM Staff		
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		
Field work travel		
Project-related travel		
Engagement		
Reporting		
External Contracts - Organization/Vendor/Suppliers		
Overhead		
Grants		
Capital		
Total budget request for the year	0	0
Total budget approved		

Budget Request for the Entire Project	150,000	324,993
Project Approval(s)		
Proposal Submitted by		
Surname	Given Name	Organization
Signature	Date	
Proposal for OSM Reviewed by		
EMSD Executive Director	Signature	Date
AEP Administrator/Coordinator - Review	Signature	Date
ECCC Administrator/Coordinator - Review	Signature	Date
OSM Project Approved by		
AEP Co-Lead for OSM	Signature	Date
ECCC Co-Lead for OSM	Signature	Date
AEP ONLY: Proposal for EMSD Reviewed by		
EMSD Director	Signature	Date
AEP ONLY: EMSD Project Approved by		
EMSD Executive Director	Signature	Date
EMSD Chief Scientist	Signature	Date
OSM / EMSD Project Has Not Been Approved		
Project Status	Date Notified	Date Required
The project is conditionally approved. The following conditions are required before approval is granted.		
List the Condition(s)		
Condition(s) Addressed / Approval Granted		
Choose one		
OSM / EMSD Approval Post Removal of Condition(s)		
Name & Title	Signature	Date

Add All Monitoring Site Locations and Coordinates (insert more rows if required)

Site Identifier *	Location Name *	Long/Lat *
Site 1		
Community Defined Sites	Athabasca River (up and down stream of Fort McMurray), some tributaries	56.520972, -112.574158 to 58.607976, -111.099243
Site 2		
Community Defined Sites	Clearwater River (Fort McMurray to the Saskatchewan Boarder), some tributaries	56.747240, -111.382484 to 56.704653, -110.001984
Site 3		
Control Site	Narrow Lake	54.614203, -113.618031
Site 4		
Community Defined Sites	Gregoire Lake	56.480960, -111.186673
Site 5		
Community Defined Sites	Winnefred Lake	55.491824, -110.529775
Site 6		
Site 7		
Site 8		
Site 9		
Site 10		
Site 11		
Site 12		
Site 13		
Site 14		
Site 15		

2018-2019 Grant

Notes:

Salaries and Benefits	45000	Honoraria
Operations and Maintenance		
Consumable materials and supplies	2880	Meeting meals Mc
Conferences and meetings travel		
Field work travel	69600	Boat/Outfitter costs only
Project-related travel	28143	AEP costs, including field work
Engagement		
Reporting	15000	Consultant Costs
External Contracts - Organization/Vendor/Suppliers	77650	Consultant Cost, which includes 2 community members salaries
Overhead		
Grants		
Capital		
Total	210130	
	Grant to McMurray Métis	