

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 B: Workplan approved with contingency</p> <p>* Approved at \$2,429,000 contingent upon workplan amendments as below:</p> <p>* Project will support the scientific coordination of the OSM integration Workshops</p> <p>* An amended workplan and rationalized budget is to be submitted before March 23, 2018 to the Oil Sands Monitoring Secretariat.</p> <p>* Funding expectations: as a minimum an annual progress report 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>
12-Feb-18		Alberta Provincial - Long Term Monitoring	
Program Category *	Status *	Dept. ID	
Environmental Data, Analytics, Prediction	New Project		
Project Leadership / Contact information			
Project Title *	Key Words (max 10) *		
Integrated Analytics and Reporting on Environmental Condition in the Oil Sands Region	environmental condition, cumulative effects, oil sands		
Surname *	Given Name *	Title *	
Dube	Monique	Executive Director	
Organization *	Department	Division	
Alberta Provincial		EMSD	
Branch *	Section/Unit (if applicable)	Phone *	
Integrated Analytics and Prediction Branch		4032975917	
Email *	Mailing Address	City	
monique.dube@gov.ab.ca		Calgary	
Postal Code	EMSD Executive Owner (if Applicable)		
Project Information			
Project Objective(s) (Bullet Form) *	<ul style="list-style-type: none"> - To summarize existing literature published in journal publications and key technical reports from the oil sands monitoring program from 2012 onwards to report on the integrated assessment of changes in environmental condition. - To complete a database and searchable repository of existing and published literature (journal papers, technical reports) of Oil Sands Monitoring products for stakeholder access and awareness. - To identify conflicting evidence, gaps in knowledge and monitoring relative to integrated assessment and reporting on environmental condition. - To establish an 4 year analytical plan that progress through each environmental theme area and across theme areas including methodological consistency to assess environmental change including evaluation of benchmark (e.g., tiers, triggers, limits, threshold) approaches. 		
Plain Language Overview (100 words) *	<p>Assessment of the condition of the environment in the oil sands region and identification of any changes that may be occurring due to oil sands activities is fundamental to the core mandate of the program. The initial focus of the program has been on design of the monitoring program and collection of monitoring data at regional scales and for individual theme areas (e.g., water quality, quantity, air, deposition, biological response, etc.). Sufficient data and reporting on results has occurred for individual indicators and in some cases theme areas to now allow for integrated reporting on changes in environmental condition.</p>		
Project Duration *	Project Original Start Date *	Estimated Completion Date *	

Multi-Year	1/4/2018	3/31/2022
Specify Objectives This Project Will Address in 2018/2019. *	<p>To review the published literature on air quality in the oil sands to summarize reported changes in an integrated manner.</p> <p>To review the published literature on aquatic ecosystems in the oil sands to summarize reported changes in an integrated manner.</p> <p>To review the published literature on terrestrial biological responses in the oil sands to summarize reported changes in an integrated manner.</p> <p>To integrate the results from the air quality, aquatic ecosystem and terrestrial biological response reviews for a cross theme review of the published literature produced in the oil sands over the past 5 years.</p> <p>To complete a database and searchable repository of the above literature for public access and use.</p> <p>To develop an analytical plan based on the reviews conducted that identifies gaps and next steps to move from reporting on the published literature to analysis of raw data in an integrated and cumulative manner.</p> <p>To begin to build the integrated analytics component of the OSM Program.</p>	
Specify Objectives This Project Will Address Beyond 2018/19 (if multi-year). *	<p>To conduct cumulative effects analysis on integrated environmental condition within and across environmental theme areas in the oil sands region using monitoring data collected by the program.</p> <p>To compare oil sands monitoring data and results to those from monitoring conducted by other researchers working in the oil sands region.</p> <p>To examine the use of benchmarks to assess environmental change in the oil sands across environmental theme areas including tiers, triggers, limits and thresholds (including those used in land use planning).</p> <p>To examine and co-develop methodological approaches to assess changes in environmental condition including the use of appropriate and relevant benchmarks between western science and traditional ecological knowledge as well as inclusion where appropriate, of community based monitoring data.</p>	
List Key Questions/Hypotheses Related to Each Objective Stated Above. *	<p>When the published literature is examined from an integrated perspective were changes in air quality, aquatic ecosystems and terrestrial biodiversity observed in the oil sands region?</p> <p>Based on this analysis, are there gaps in the current monitoring and analysis that would affect assessment and analysis of cumulative effects?</p> <p>What is a reasonable, progressive and accountable analytical plan to assess and report on cumulative environmental effects in the oil sands region to be implemented after year 1 of this program?</p>	
Main Assumptions, Constraints, Dependencies. *	<p>The primary focus on the Integrated Analytics and Prediction Branch of EMSD in 2018/19 is 1) accelerated data management, coordination and access for the oil sands region under OSM (see data management OSM work plan) and 2) integrated analysis and reporting of results on environmental condition including access of products to the public and stakeholders. The main assumption to delivery of this work plan is stability of the OSM program and the ability to resource, hire and implement the program under a stable foundation. The first year of the analytics plan will be on synthesis of the literature that has been published under OSM by individual project leads. Currently over 550 publications have been produced but the integrated synthesis of that work has not been conducted nor are the products available in an easily accessible manner to the public and stakeholders. This focus for year 1 will allow results to be compiled and integrated while allowing stability for focus on the integrated OSM data management program. In year 2, once integrated data are more available and accessible to all - then integrated analysis of those data (rather than of the results of published papers) in the interest of cumulative effects assessment will occur.</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.	Knowledge System *	Location (select all that apply) *
<input type="checkbox"/> Federal Government <input type="checkbox"/> Another AEP Division <input type="checkbox"/> Another GoA Department <input checked="" type="checkbox"/> University/Academic Institution	Classical Science	<input checked="" type="checkbox"/> Office or Laboratory <input type="checkbox"/> Sub-regional <input type="checkbox"/> Transboundary (provincial/territorial) <input type="checkbox"/> Lower Peace Region

- Solely delivered by GoA
- Citizen Science
- Indigenous Community or Organization
- ENGO
- Other

- Upper Peace Region
- North Saskatchewan Region
- Red Deer Region
- Lower Athabasca Region
- Upper Athabasca Region

AEP ONLY: Strategic Alignment to EMSD Outcomes

AEP ONLY: Strategic Alignment to EMSD Science Plan, select 1-2 areas that apply (If Applicable)

Ecosystems and Predicting Change
Choose one

AEP ONLY: Strategic Alignment to AEP Departmental Outcomes

AEP ONLY: Environmental and Ecosystem Health and Integrity

AEP ONLY: Sustainable Economic Diversity

AEP ONLY: Social Well-Being

Choose one
All of the above

Yes

Yes

AEP ONLY: Protected Public Health and Safety from Environmental
Yes

AEP ONLY: IMAG/IMSC Information Needs, Please Specify Which Need(s) is Being Addressed. File location
M:\EMSD\Common\Portfolio Mgmt System Shared Docs

Air 5, 10, 17 30
Biodiversity 19, 30, 35, 23
Water 7, 9, 18, 4, 23

AEP ONLY: How This Project Will Address Each Strategic Theme Selected Above.

This project will provide an integrated synthesis of and access to literature that has been published under the Oil Sands Monitoring program for the past 5 years (since 2012).

Project Methodology

<p>List the Key Project Phases and Provide Bullets for Each Major Task Under Each Project Phase. *</p>	<p>YEAR 1:</p> <p>Phase 1: Review published literature on air quality, aquatic ecosystems and terrestrial biological responses in the oil sands. Task 1: Identify products that have been produced for air, water and biodiversity/biological response as a start Task 2: Begin validation and acquisition of these products (published papers and key technical reports) and development of searchable database for products produced under the oil sands monitoring program for the past 5 years. Task 3: Develop summary tables for each theme area that captures authors, research, objectives, indicators measured, reported changes in environmental response including magnitude, direction and frequency of change if reported. Task 4: Work with each author of the published work to verify and validate the synthesis of their work from an integrated perspective.</p> <p>Phase 2: Summarize the acquired and verified literature to report any changes in environmental condition in an integrated manner. Task 5: Produce layman's summaries and fact sheets for each synthesis, verified bibliography referenced within the summaries, and links, where possible, to the individual published papers included within the summaries. Task 6: Produce a series of integrated technical reports under the OSM Technical Report Series that synthesizes the research as reported. Task 7: Produce a series of review papers in a journal of the integrated results.</p> <p>Phase 3: Gap analysis and analytical plan Task 8: Conduct a gap analysis of the published work to identify areas where improvements are needed in the monitoring program design to better support integrated analysis in the interest of cumulative effects assessment and reporting in the oil sands region. Task 9: Develop an analytical plan for future years based on the reviews and gap analysis.</p> <p>Phase 4: Build the integrated analytics component of the OSM Program. Task 10: Assessment and phased implementation of strategic resourcing and hiring needed to support the integrated of the data management, analytics and prediction components of the OSM Program. Includes air, surface water quality, surface water quantity, climate, wetlands, groundwater, community based monitoring, terrestrial and aquatic biological response including biodiversity.</p>
<p>Describe How Changes in Environmental Condition Will Be Assessed. *</p>	<p>Changes will be assess as reported in the initial published literature. We are assuming how change was measured, reported and presented will differ amongst authors, environmental themes and papers. This will serve as a very important step to understanding the diversity in assessing change in environmental condition and determining if change in environmental condition was reported as such and using which particular methodologies. Cumulative effects assessment requires consistency in how environmental change is measures, analyzed and reported. Gaps identified through our review of the published literature will then be captured in the analytical plan for more quantitative analysis in Years 2-4.</p>
<p>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". *</p>	<p>If benchmarks were identified in the published literature- they will be captured in the review.</p>

<p>Provide a Brief Description of the Methods By Project Phase. *</p>	<p>Phase 1: Review published literature on air quality, aquatic ecosystems and terrestrial biological responses in the oil sands. We will approach this as one would for a typical review paper commonly compiled in the primary literature although with an accelerated schedule to ensure public access in more accessible format. Acquisition of the literature, review, discussion with the authors and compilation into a database for access.</p> <p>Three analytical teams will be established; one for air, biological response and water. The specific nature of the review will be dependent upon the results published to date. For example, the decision to focus on surface water quality or quantity or groundwater within the "water synthesis" will depend upon the quantity, type and quality of work published to date. The analytical teams will consist of a dedicated scientific analyst for that theme with expertise in publishing and review paper preparation for that theme but also with experience in integrated assessment and reporting in the context of cumulative effects assessment. Each Cumulative Effects Analytical Scientist will work with internal (AEP and ECCC scientists) for verification of the work (Phase 2) and with an external team of experts to support, review, revise and critique the review work produced. Members of the AEP Science Advisory Panel, Indigenous Wisdom Panel, OSM Governance Structure may also be involved in critical review of the work as necessary.</p> <p>Phase 2: Summarize the acquired and verified literature to report any changes in environmental condition in an integrated manner. As per typical compilation methodology for review papers, results of each paper will be reviewed in a consistent manner for entry into a common synthesis table of results (by author, citation, location, type of monitoring, indicators measured, environmental change reported, etc.). Synthesis tables are a very powerful mechanism to compile large volumes of results into a similar and consolidated format. These tables will then form the basis for verification with external experts and the scientists of the work as well as for the production of layman's summaries of findings and publishing in the OSM Technical Report Series. Ultimately the integrated synthesis of reported results within an environmental theme area and across them areas will be published in a special series of a scientific journal. This approach will allow for a) results to be integrated and summarized, 2) communicated in various formats from layman to scientific audiences and 3) for the summary and compilation to be supported by a verified bibliography and searchable database to support on-going public and stakeholder access to reported results. This approach will also serve to support the scientists of the OSM program to report out on their work in an integrated manner and from a programmatic perspective.</p> <p>In addition to the three Cumulative Effects Analytical Scientist mentioned above, a OSM Program Coordinator will be responsible and accountable for tracking products produced now and into the future, maintaining the publications and products database for the OSM Program and responding to inquiries from the public for OSM products.</p> <p>Phase 3: Gap analysis and analytical plan. As result syntheses are being compiled as described above, a gap analysis will be conducted to better understand the monitoring and analytical needs to assess and report on cumulative effects assessment in a quantitative manner and using the monitoring data acquired through the OSM Program as opposed to the published literature from individual project scientists or independent environmental themes operating under the OSM program. An analytical plan will be developed for stakeholder review with the goal of establishing a work plan for 19/20 under OSM that aligns the OSM program</p>
<p>List the Key Indicators Measured. *</p>	<p>Dependent upon what was published. Will report on what was published.</p>
<p>Describe Sample Handling Procedures, If Not Applicable, State N/A. *</p>	<p>N/A</p>
<p>List SOPs that Will Be Used, If Not Applicable, State N/A. *</p>	<p>N/A</p>

Describe the QA/QC Plan, If Not Applicable, State N/A. *	N/A
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.*	In year 1- N/A
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. *	Phases 1, 2 and 3 will be supported by four external teams (1 for air, water and biological response and gap analysis/analytical plan) that will be established and led by an academic institution or institutions. Each academic lead will have experience in integrated reporting and synthesis of published results and will work with the AEP Cumulative Analytical Scientist for that theme area. Given the urgency and need for accountability for this work to be produced on a timely basis and to the level of scientific excellence needed - at this time it is anticipated that contracts will be issued to the academic institution as opposed to a grant. The final decision on this will be based on discussions with the institution and the level of accountability that can be assured for a timely delivery of results.
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. The academic institutions that we will collaborate with will be determined once the work plan is approved and after initial discussions on timelines and expectations are held. We are anticipating contracts with the University of Calgary, University of Alberta, University of Waterloo and Wilfrid Laurier University although final decisions will be based on suitability, competency and availability.
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.	N/A
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.	N/A
FOR OIL SANDS MONITORING PROJECTS ONLY: Have You Coordinated With Other Project Leads On Field Logistics? If So, Please Specify. *	N/A
Other	

Additional Details.	A series of "Pelston-type" workshops may be held to produce initial summaries of the published literature. These formats allow a small group of experts to gather for an intense working period to discuss, write, compile and produce integrated summaries of results and next steps. While each team may come from separate institutions or groups of institutions, the approach taken will need to be relatively consistent to ensure the integrated results from each theme can then be integrated across themes. The analytical plan and approach that is developed will then serve the program as the model going forward into subsequent years.	
Will Capacity Building and Training be a Component of the Project and If So, Explain How. If Not, State N/A.*	Graduate students may be hired by the institutions to complete the work which would be a significant training opportunity on writing integrated synthesis from the perspective of cumulative effects analysis. The number and type of trainees will depend upon timelines and availability to deliver within the 18/19 year.	
Environmental Impact and Considerations.	N/A	
Data Management and Digital Assets		
Will Data be Produced as a Result Of This Project? *	Type of Quantitative Data Variables	Frequency Of Collection
Yes	Choose one	Choose one
Deliverables data		
Data Collection Period:	Start Date - End Date	Timeline For Upload Period: Start Date - End Date
	1-Apr-18	31-Mar-22
Is There a Data Sharing Agreement? (Yes or No).	N/A	
Will the Data Include Traditional Knowledge as Defined by and Provided by an Indigenous Representative, Community or Organization (Yes / No).	No	
Platform/Location of Data Storage.	TBD- OSM database linked to work planning and product/publication production. OSM program portal-based.	
Project Deliverables		
Proposed 2018-19 Deliverable Type (for each deliverable outline document, presentation, meeting, etc.)		
<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 checked="" 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
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
Technical report series on the integrated synthesis of the OSM published scientific literature for air, water and biological response.		Layman summaries on the integrated synthesis of the OSM published scientific literature for air, water and biological response.
<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.
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.
		OSM Science Integration Workshops
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.
		OSM Science Integration Workshops

<input type="checkbox"/> EMSD Strategic & Operational Publication	<input checked="" type="checkbox"/> Other Documents	
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	
	Posting key bibliography of OSM products from 2012-2017 on website.	
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	
OSM Analytical Plan and Gap Analysis to Support Integrated Reporting on Environmental Condition and Cumulative Effects Assessment.	Searchable database for public access on OSM products (papers and technical reports produced).	
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
Dependent upon the analytical plan.		
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 type="checkbox"/> Public Dissemination Document
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"/> Conference Presentation(s)	<input type="checkbox"/> Stakeholder Presentation	<input 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.

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., & Latin, D. D. (2003). Ethnicity, Insurgency, and Civil War. American Political Science Review, 97(01), 75. doi: 10.1017/S0003055403000534	
N/A as new project.	
2)	
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 Location
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
Dr. Monique Dube	EMSD - IEAP	Project Principle Investigator
Rita Lazar-Tippe	EMSD-IEAP	Chief Information Office and Advisor- OSM Integrated Data Management and Decision Support
Anil Gupta	EMSD-IEAP	Senior Advisor- OSM Integrated Environmental Prediction
NEW - OSM Science Advisor/Program Coordinator	AEP-OSM	Program Coordination including tracking product delivery, managing the product database, tracking grants, contracts, stakeholder communications and requests, communications.
NEW- OSM Cumulative Effects Analytical Scientist	AEP-OSM	Integrated analysis of water results and support for integrated data management under this theme for the OSM Program.
NEW- OSM Cumulative Effects Analytical Scientist	AEP-OSM	Integrated analysis of air results and support for integrated data management under this theme for the OSM Program.
Air Data Sci/Analyst	AEP-OSM	Integrated data management for the OSM Program - Air
CBM Data Sci/Analyst	AEP-OSM	Integrated data management for the OSM Program - CBM

Groundwater Data Sci/Analyst	AEP-OSM	Integrated data management for the OSM Program - groundwater
Geospatial Scientist	AEP-OSM	Geospatial analysis for the OSM program
Geospatial Scientist	AEP-OSM	Geospatial analysis for the OSM program
AEP ONLY: Additional Human Resources Required from EMSD		
Name & Role	Branch - Section	Estimated time (% of annual FTE)
Dr. Monique Dube	EMSD - IEAP	30
Rita Lazar-Tippe	EMSD-IEAP	20
Anil Gupta	EMSD-IEAP	10
Science Advisor/Program Coordinator	AEP-OSM	100
CE Analytical Scientist 1	AEP-OSM	100
CE Analytical Scientist 2	AEP-OSM	100
Air Data Sci/Analyst	AEP-OSM	100
CBM Data Sci/Analyst	AEP-OSM	100
Groundwater Data Sci/Analyst	AEP-OSM	100
Geospatial Scientist	AEP-OSM	100
Geospatial Scientist	AEP-OSM	100
Financial Details and Budget Request		
Source of Funding Requested Year 1 - 2018/19		
	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		72000
Salaries and Benefits - New OSM Staff		960000
Operations and Maintenance		15000
Consumable materials and supplies		10000
Conferences and meetings travel		20000
Field work travel		
Project-related travel		40000
Engagement		17000
Reporting		30000
External Contracts - Organization/Vendor/Suppliers		950000
Overhead		95000
Grants		220000
Capital		
Total budget request for the year	0	2429000
Total budget approved		
Source of Funding Requested Year 2 - 2019/20		
	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		Depends upon analytical plan
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 3 - 2020/21

	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		Depends upon analytical plan
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		Depends upon analytical plan
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	0	2,429,000
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Project Approval(s)

Proposal Submitted by

Surname	Given Name	Organization
Dube	Monique	EMSD
Signature	Date	

X

12/2/2018

Dr. Monique Dube
Executive Director-IEAP

Proposal for OSM Reviewed by

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