

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.</p> <p>* Approved at \$180,700</p> <p>* This project was underspent in 2017/18. Quarterly updates on expenditures and accurate forecasts for 18/19 are required.</p> <p>* The Draft Network Optimization Report must be shared and reviewed with the Alberta Energy regulator and COSIA. The workplan should be modified to include this as a deliverable for 18/19.</p> <p>* Other Oil Sands Monitoring Projects (A-LTM_S-1-1819) are dependent upon this important project being completed.</p> <p>* This project is to be completed in the 2018/19 year.</p> <p>* Funding expectations: as a minimum a final report is required by March 31, 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>
21/12/2017	A-PD-3-1819	OSM - Focus Study	
Program Category *	Status *	Dept. ID	
Air/Atmosphere/Climate	Existing Project	1104 - 03418	
Project Leadership / Contact information			
Project Title *	Key Words (max 10) *		
Ambient Air Monitoring Network Optimization	Ambient Air Monitoring, Network Optimization, Air Network Assessment, Airshed Monitoring,		
Surname *	Given Name *	Title *	
Myrick	Bob	Director, Airshed Sciences	
Organization *	Department	Division	
Alberta Provincial	Alberta Environment and Parks	Environmental Monitoring and Science	
Branch *	Section/Unit (if applicable)	Phone *	
Science	Airshed Sciences	7802297290	
Email *	Mailing Address	City	
Bob.Myrick@gov.ab.ca	9888 Jasper Avenue	Edmonton	
Postal Code	EMSD Executive Owner (if Applicable)		
T5J 5C6	Bill Donahue		
Project Information			
Project Objective(s) (Bullet Form) *	<p>The primary objectives of the ambient air monitoring network assessment project are to:</p> <p>(1) Develop monitoring objectives and classifications for air monitoring in the Oil Sands region;</p> <p>(2) Assess the existing ambient air monitoring networks against the monitoring objectives and air quality model similarity analyses; and</p> <p>(3) Generate recommendations for optimizing the existing networks operated by the Wood Buffalo Environmental Association (WBEA), Lakeland Industry and Community Association (LICA) and Peace River Area Monitoring Program (PRAMP).</p>		
Plain Language Overview (100 words) *	<p>The existing long-term air monitoring networks in the oil sands region can be improved to remove redundancies and fill monitoring gaps to address defined monitoring objectives in the oil sands region. This can be done based on the results utilizing new numerical modeling methodologies for network design using the creation of network maps that identify the spatial extent of dissimilar regions (i.e., zones within which monitoring will generate statistically similar data sets).</p>		
Project Duration *	Project Original Start Date *	Estimated Completion Date *	
Multi-Year	4/1/2016	6/30/2019	
Specify Objectives This Project Will Address in 2018/2019. *	<p>In 2018-19, the objectives for this project will be to:</p> <ul style="list-style-type: none"> - Finalize monitoring objectives and classification for existing stations; - Prepare a knowledge synthesis report that compiles all previous and current network analyses; - Develop a monitoring network design using GEM-MACH and other tools (e.g. GIS spatial analysis) to identify regions which are statistically dissimilar and compare the maps against existing station parameter locations (e.g., one region with multiple measurements might indicate redundancy; a region without any measurements might indicate a gap); - Prepare recommendations based on modelling results, station objectives, logistics (e.g., access, power), and local needs (e.g., community monitoring). This comparison will be done in consultation with airsheds; and, - Summarize the above in a final report, to be shared with and reviewed by COSIA and AER. 		
Specify Objectives This Project Will Address Beyond 2018/19 (if multi-year). *			
List Key Questions/Hypotheses Related to Each Objective Stated Above. *	<p>Can the existing long-term air monitoring networks in the oil sands region be improved to remove redundancies and fill monitoring gaps to address defined monitoring objectives?</p>		
Main Assumptions, Constraints, Dependencies. *	<p>- The availability of ECCC air modelling expertise and AEP spatial analysis resources to develop the optimized ambient air monitoring network</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 checked="" type="checkbox"/> Federal Government <input type="checkbox"/> Another AEP Division <input type="checkbox"/> Another GoA Department <input type="checkbox"/> University/Academic Institution <input type="checkbox"/> Solely delivered by GoA <input type="checkbox"/> Citizen Science <input type="checkbox"/> Indigenous Community or Organization <input type="checkbox"/> ENGO <input checked="" type="checkbox"/> Other	Classical Science	<input type="checkbox"/> Office or Laboratory <input type="checkbox"/> Sub-regional <input type="checkbox"/> Transboundary (provincial/territorial) <input checked="" type="checkbox"/> Lower Peace Region <input checked="" type="checkbox"/> Upper Peace Region <input checked="" type="checkbox"/> North Saskatchewan Region <input type="checkbox"/> Red Deer Region <input checked="" type="checkbox"/> Lower Athabasca Region <input type="checkbox"/> 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		
Human Relationship with the Environment		
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
Air/Climate Change	Choose one	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	<p>•Info Need #5 (Air Management Framework Response Monitoring): data from the long-term air monitoring network is and will be used to investigate exceedances of thresholds identified by environmental management frameworks (e.g. SO₂ exceedance in LARP).</p> <p>•Info Need #6 (Air Monitoring Network Development, Evaluation, and Maintenance): Data from this monitoring network are used for comparison against LARP and CAAQS thresholds in annual reports.</p>	
AEP ONLY: How This Project Will Address Each Strategic Theme Selected Above.	<p>•Social Well-Being - Ambient air quality data from all stations in the network are publicly available in realtime the Alberta Air Quality Health Index and Fort McKay Air Quality Health Index are calculated for communities in the oil sands region and are available through airshed and provincial websites and mobile applications.</p> <p>•Protected Public Health and Safety from Environmental - Realtime air quality data is immediately available to emergency response agencies and health agencies so that acute and chronic health and safety issues related to air quality can be assessed.</p>	
Project Methodology		
List the Key Project Phases and Provide Bullets for Each Major Task Under Each Project Phase. *	<p>(1) Development and finalization of stations objectives and classifications</p> <p>(2) Preparation of knowledge synthesis report</p> <p>(3) Development and application of new theoretical monitoring design to identify regions of dissimilarity</p> <p>(4) Preparation of recommendations for optimization</p>	
Describe How Changes in Environmental Condition Will Be Assessed. *	Changes in Environmental Condition will be measured by the optimized monitoring network.	
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". *	NONE	
Provide a Brief Description of the Methods By Project Phase. *	<p>(1) Station Objectives and Classifications will be developed and finalized. This deliverable will involve stakeholder consultation and input at the appropriate stages of development.</p> <p>(2) Knowledge Synthesis report that compiles all previous and current network analyses. First draft report to be completed by June 2018 and involve stakeholder consultation and input.</p> <p>(3) New Theoretical Monitoring Design developed using GEM-MACH and/or other analysis tools. This work will identify regions within which monitoring results will produce statistically similar data sets. Anticipated completion date for this work is Q3 2018/19. The numerical modelling results will be used with station objectives and classifications to evaluate the utility of having multiple stations within the modelled region.</p> <p>(4) Recommendations for Optimization will be developed by evaluating model results (i.e., simulated regions of dissimilarity) against existing measurement locations, station objectives, logistics, and local needs. The recommendations will be documented in a final report that integrates the knowledge synthesis summary of model results, and discussion of potential gaps (e.g., dissimilar regions with no monitoring) and potential redundancies (e.g., multiple stations within on region) within the context of monitoring objectives and local needs. The approach is still being finalized but will be completed by Spring 2019 and will involve stakeholder consultation.</p>	

List the Key Indicators Measured. *	Key Indicators will be defined by the network optimization process.
Describe Sample Handling Procedures, If Not Applicable, State N/A. *	N/A
List SOPs that Will Be Used, If Not Applicable, State N/A.*	N/A
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.*	Indigenous communities are involved through inclusion in WBEA, LICA and PRAMP.
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. *	(1) Development of monitoring objectives and station classifications - will be delivered by AEP (2) Knowledge Synthesis report - will be delivered by AEP (3) New Theoretical Monitoring Design - will be delivered by ECCC and AEP Technical Teams (4) Recommendations for Optimization - will be delivered jointly by AEP, ECCC and airshed zones
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. *	Work will be delivered by AEP or ECCC.
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.	Maps of the WBEA, LICA and PRAMP air monitoring networks are contained in project plans A-LTM-S-1-1819, A-LTM-S-2-1819, A-LTM-S-3-1819 and A-LTM-S-4-1819.
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.	
Will Capacity Building and Training be a Component of the Project and If So, Explain How. If Not, State N/A. *	N/A
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
No	Choose one	Choose one
Data Collection Period: Start Date - End Date	Timeline For Upload Period: Start Date - End Date	
N/A	N/A	
Is There a Data Sharing Agreement? (Yes or No).	No	
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.	Simulated air quality data generated by ECCC and AEP models will be stored in local computers (Regular storage).	
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 type="checkbox"/> Public Dissemination Document
Q1 - Deliverable, Comments	Q1 - Deliverable, Comments	Q1 - Deliverable, Comments
Finalized objectives and classifications for continuous networks.		
Q2 - Deliverable, Comments	Q2 - Deliverable, Comments	Q2 - Deliverable, Comments
Knowledge Synthesis report that compiles all previous and current network analyses. (DRAFT)		
Q3 - Deliverable, Comments	Q3 - Deliverable, Comments	Q3 - Deliverable, Comments
Q4 - Deliverable, Comments	Q4 - Deliverable, Comments	Q4 - Deliverable, Comments

Final Report that integrates: (a) a synthesis of knowledge of previous network analyses; (b) station objectives; and (c) modelling results that identify regions of dissimilarity. The final report will also contain recommendations for an optimized oil sands monitoring network.		
<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.
	Presentation by ECCC Technical Team on theoretical atmospheric monitoring network designs optimized through numerical simulations.	
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.
	Presentation on current status of the work, including updates following the interim report, summaries from submitted paper, and current status of phases 3 and 4. This presentation will also contain recommendations for changes that optimize the efficiency and effectiveness of the existing networks.	
<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
Final paper on phases 3 and 4 submitted to <i>Atmospheric Chemistry and Physics</i>		

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 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., & Laitin, D. D. (2003). Ethnicity, Insurgency, and Civil War. American Political Science Review, 97(01), 75. doi: 10.1017/S0003055403000534		
1) Soares, J., Makar, P.A., Aklilu, Y., Akingunola, A. (2018) Associativity Analysis of SO2 and NO2 for Alberta Monitoring Data Using K2 Filtering and Hierarchical Clustering. Atmospheric Chemistry and Physics. Accepted for review. https://www.atmos-chem-phys-discuss.net/acp-2017-1126/		
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) Dann, T. and Edgerton, E., 2011. Review of the WBEA Air Monitoring Network. Unpublished report prepared for the Wood Buffalo Environmental Association (WBEA), #100 – 330 Thickwood Boulevard, Fort McMurray, Alberta, T9K 1Y1. 72pp.		
2) Soares, J., Makar, P.A., Aklilu, Y., Akingunola, A. (2017) Hierarchical Clustering Network Analysis of Ambient Air Monitoring in Alberta: Phases 1 and 2. DRAFT report.		
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		
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) AEP and ECCC. 2017. Ambient Air Monitoring Network Optimization Matrix.		
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) Makar, P.A., Morrison, H. Use of the high resolution air quality model for monitoring network design, Air CAC Focused Studies Meeting, Edmonton, November 24-25, 2015.		
2) Makar, P.A. et al, Air Theme: Modelling to Integrate Data, Air CAC Focused Studies Meeting, November 24-25, 2015.		
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
Bob Myrick	Alberta Environment and Parks	Project Lead
Paul Makar	Environment and Climate Change Canada	GEM MACH Air Modelling lead
Joana Soares	Environment and Climate Change Canada	Post-doctoral fellow
Yayne Aklilu	Alberta Environment and Parks	Network Assessment Scientist
Greg Wentworth	Alberta Environment and Parks	Preparation of Synthesis Report
Naomi Tam	Alberta Environment and Parks	GIS Specialist
Sanjay Prasad	Wood Buffalo Environmental Association	Airshed lead
Mike Bisaga	Lakeland and Industry and Community Association / Peace River Area Monitoring Program Committee	Airshed lead
Karla Reesor	Peace River Area Monitoring Program Committee	Airshed lead

AEP ONLY: Additional Human Resources Required from EMSD		
Name & Role	Branch - Section	Estimated time (% of annual FTE)
Yayne Akilu	Science	30
Greg Wentworth	Science	30
Financial Details and Budget Request		
Source of Funding Requested Year 1 - 2018/19		
	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		\$72,000
Salaries and Benefits - New OSM Staff		\$0
Salaries and Benefits-non AEP		\$64,690
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		\$3,000
Field work travel		
Project-related travel		\$2,000
Engagement		
Reporting		\$6,000
External Contracts -		
Organization/Vendor/Suppliers		
ECCC Overhead		\$33,010
Grants		
Capital		
Total budget request for the year	0	\$180,700
Total budget approved		
Source of Funding Requested Year 2 - 2019/20		
	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		\$50,000
Salaries and Benefits - New OSM Staff		\$0
Operations and Maintenance		
Consumable materials and supplies		
Conferences and meetings travel		\$6,000
Field work travel		
Project-related travel		
Engagement		
Reporting		
External Contracts -		
Organization/Vendor/Suppliers (LICA)		
Overhead		
Grants		
Capital		
Total budget request for the year		\$56,000
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 (LICA)		
Overhead		
Grants		
Capital		
Total budget request for the year		\$0
Total budget approved		
Source of Funding Requested Year 4 - 2021/22		
	AEP ONLY: EMSD	OSM
Salaries and Benefits - AEP Chargeback		\$0
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 (LICA)		\$0
Overhead		
Grants		
Capital		
Total budget request for the year		\$0

Total budget approved		
Budget Request for the Entire Project		\$236,700
Project Approval(s)		
Proposal Submitted by		
Surname	Given Name	Organization
Myrick	Bob	AEP
Signature	Date	
	12-Feb-18	
Proposal for OSM Reviewed by		
<input checked="" type="checkbox"/> Bob Myrick Director, Airshed Sciences	Signature	Date
<input checked="" type="checkbox"/> AEP Administrator/Coordinator - Review	<input checked="" type="checkbox"/> for Bill Donahue Executive Director, Science	Date
<input type="checkbox"/> 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		
List the Condition(s)		
Condition(s) Addressed / Approval Granted		
Choose one		
OSM / EMSD Approval Post Removal of Condition(s)		
Name & Title	Signature	Date