

5- YEAR LONG-TERM DATA MANAGEMENT ACTIVITY WORK PLAN

Changes to this Work Plan are only accepted via an Approved Addendum.

General Information	
Monitoring Category: <i>(From OSM long-term plan; choose from drop-down menu)</i>	Standards, QA/QC, Data Mgt.
Strategic Monitoring Objective: <i>(From OSM long-term plan; choose from drop-down menu)</i>	Objective: Establish and Maintain an Integrated Data Management System for Archiving and Retrieval of Oil Sands Monitoring Program data.
Work Plan Unique Identifier:	D-5-1718
Monitoring Activity Title:	AEP Data Management Program
Geographic Location <i>(choose from drop-down menu, if Project Location is in more than one area choose from second drop-down)</i>	Location Not Applicable
Monitoring Site(s) Coordinates <i>(latitude and longitude)</i>	N/A
Monitoring Organization and Responsible Manager:	Alberta Environment and Parks Rita Lazar-Tippe
Date Activity initiated:	2017
Specific Project Objective: <i>(State the activity objective)</i>	<p>The intent of this project is to provide the fundamental design (blueprint) that will be used to implement the OSM data management system (D-2-1718 AEP Data Management System).</p> <p>The OSM data management system is based on the federated model that both AEP and ECCC have agreed upon, as the guiding principle for creating and managing the OSM data.</p> <p>In the federated model the data provider(s) are the organizations that create, manage and house the data, while the data publisher make data available (publically exposed). In order for the OSM data to be searchable, easily accessible and publically available, both the data providers and data publishers require standards and guidelines.</p> <p>This project will develop the consistent data standards and guidelines that will be used to implement the data management system.</p>

Deliverables (Annual):		These standards and guidelines will include; data governance (policies and procedures), processes (planning, collection, validation and publishing), data and metadata stewardship (organizational roles, responsibilities and accountability), data catalog, and establishing requirements for data mining and data availability.		
<i>Milestone/ Deliverable</i>		<i>Start Date</i>	<i>Expected Completion Date</i>	<i>Human Resources (identify who and how many staff are delivering the activity)</i>
Deliverables (provide enough information to support status reporting)				
2017-2018				
Q2 – July to September				
1.	Deliverable: Media specific process and data maps throughout the OSM data process life-cycle, across all data management stages. Phase to include: - Design & planning - Collection & process - Analysis & validation - Report & share	Sept. 18, 2017	Nov. 17, 2017	AEP Internal resources (PM – Elis Valera, SA – Massie Kitagawa, SME from all media) External subject matter experts (2 – Business Analysts contractors, \$ 63,000) 9 weeks = 315 hours * 100 per hour * 2 resources
Q3 – October to December				
2.	Deliverable: Validate the created maps with each media and receive AEP executive team signed-off	Nov. 20, 2017	Dec. 1, 2017	AEP Internal resources (PM – Elis Valera, SA – Massie Kitagawa, SME from all media) External subject matter experts (2 – Business Analysts contractors, \$ 14,000) 2 weeks = 70 hours * 100 per hour * 2 resources
All the outlined items below are dependent on what is discovered in items 1 and 2.				

3.	Deliverable: AEP Data governance, stewardship and data architecture is built out and adopted.	Dec. 4, 2017	Feb. 2, 2018	AEP Internal resources (PM – Elis Valera, SA – Massie Kitagawa, SME from all media) External subject matter expert (Governance, Stewardship and Architecture Specialists contractors, \$ 157,500) 9 weeks = 315 hours * 200 per hour * 2.5 resources
Q4 – January to March				
4.	Deliverable: AEP to standardize on a data format that all data providers will adopt.	Jan. 15, 2018	Mar. 2, 2018	AEP Internal resources (PM – Elis Valera, SA – Massie Kitagawa, SME from all media) External subject matter experts (2 – Data Specialists contractors, \$ 122,500) 7 weeks = 245 hours * 250 per hour * 2 resources
5.	Deliverable: Develop mature standard templates to be utilized by the AEP Standards and Protocols group in order to support consistency in data collection and validation.	Jan. 15, 2018	Mar. 2, 2018	AEP Internal resources (PD – Elis Valera) External subject matter experts (2 - SOP and standards contractor, \$ 73,500) 7 weeks = 245 hours * 150 per hour * 2 resources
6.	Deliverable: Adopt AEP descriptive metadata standards across all OSM media. Direct all data providers to adopt OSM metadata standard in order to make the data searchable.	Mar. 5, 2018	Mar. 16, 2018	AEP Internal resources (PM – Elis Valera, SA – Massie Kitagawa) External subject matter expert (1 – Data Specialist contractors, \$ 14,000) 2 weeks = 70 hours * 100 per hour * 2 resources
7.	Deliverable: Create AEP OSM data catalog and data inventory.	Mar. 5, 2018	Mar. 30, 2018	AEP Internal resources (PM – Elis Valera, SA – Massie Kitagawa)

8.	<p>Deliverable: Implement tools (methods, procedures, processes, SOP's) for data visibility, data mining, data export and public availability.</p>	Feb. 5, 2018	Mar. 30, 2018	<p>AEP Internal resources (PM – Elis Valera, SA – Massie Kitagawa)</p> <p>External subject matter expert (2 – Data Mining and Analytics Specialist contractors, \$112,000)</p> <p>8 weeks = 280 hours * 200 per hour * 2 resources</p>
2018-2019				
9.	<p>Once the Data Management Program framework is built out in 2017-18, further clarity will be established and recommendations will be provided in 2018-2019 work plan accordingly. Some anticipated items:</p> <ul style="list-style-type: none"> • Appropriate resourcing for data management • Continuous improvement opportunity and efficiencies (root-cause analysis, gap analysis, processes etc.) • Automation • Change management 			

Project Plan Summary: *Please summarize the monitoring including relevant information such as background, objectives, monitoring area, methods/monitoring design, assumptions, outcomes, and references. These should align with the information provided in Appendix 1: Annual Monitoring Schedule.*

In February of 2012, the governments of Canada and Alberta signed an agreement and committed to provide public access to monitoring information from the Oil Sands Region. The Data Management Component of the OSM project continues to maintain and upgrade the OSM data management framework. "The Implementation Plan will produce a data management framework that will allow information to be uploaded, organized and publicly-available in a timely, standardized, coordinated manner such that it is transparent and freely accessible." AEP and ECCC have agreed in principle to implement a federated model for creating and managing OSM data, and making it publically available.

Currently AEP does not have a data management program in place for OSM program and as quality data is the most important asset of the program, it is essential that a data management program is developed and adopted to ensure the commitments outlined above are met.

As this initiative will contribute to scientifically credible data sets and interpretations to inform on the ambient environmental condition in oil sands region of Alberta.

Appendix 1 – Detailed Multi-Year Financial Breakdown: if changes are to be made then an Addendum must be Complete and Approved.

(Complete the following detailed financial breakdown; add or delete categories as required)

Budget requirements	Year 1 (201X- 201Y)		Year 2 (201X- 201Y)		Year 3 (201X- 201Y)		Year 4 (201X- 201Y)		Year 5 (201X- 201Y)	
	OSM Funding	External Funding	OSM Funding	External Funding	OSM Funding	External Funding	OSM Funding	External Funding	OSM Funding	External Funding
1) Salaries and benefits										
a) Lead (Non IT) (\$ 100 / hour)	55,000									
b) Project Manager (\$ 80 / hour)	45,000									
c) Trainer (\$ 50 / hour)	15,000									
d) Lead (IT) (\$ 100 / hour)	50,000									
e) Support Analyst (\$ 80 / hour)	45,000									
a) SME from all medias(\$ 100 / hour)	55,000									
2) Operations and Maintenance										
a)										
3) Consumable Materials and supplies										
a) <i>(Describe Consumable Supply)</i>										
4) Travel										
a) Conferences and meetings <i>(identify conference/meeting)</i>										



b) Field work – travel										
c) Project-related travel										
5) External Contracts										
a) Contracted resources to help build out the program (Business Analysts, Data Specialists, Governance and stewardship Specialists, Data Architect, Data Mining and Integration Specialist)	556,500									
Grand Total	821,500									

Appendix 2 – Staffing Plan

(Complete the following detailed staffing plan; add or delete categories as required)

Responsible Role	Year 1 – Budget Allocation		Year 2 – Budget Allocation		Year 3 – Budget Allocation		Year 4 – Budget Allocation		Year 5 – Budget Allocation	
	OSM Funding	External Funding	OSM Funding	External Funding	OSM Funding	External Funding	OSM Funding	External Funding	OSM Funding	External Funding
Science Expertise										
Technical/Field Staff										
Administrative and Program Coordination										
Grand Total <i>(inserted into Appendix 2)</i>										\$

Appendix 3 - Approvals

Project Submitted by:		
Name: Rita Lazar-Tippe		
Organization: EMSD/AEP	Signature:	Date:
Project Approved by:		
Dr. Monique Dubé (AEP)		Dr. Kevin Cash (ECCC)
Signature		Signature
		
Date		Date