

Wood Buffalo Environmental Association

Environmental Monitoring Services
2018-2019
PROJECT PLAN
Q3 PROGRESS REPORT
OCTOBER-DECEMBER 2018

CONTRACT NO. 19AEM815

Submitted to
WBEA Governance Committee

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1 Contract Scope and Delivery

This Progress Report is submitted quarterly by WBEA on behalf of its members to the Environmental Monitoring and Science Division (EMSD) of Alberta Environment and Parks (AEP) in accordance with delivery of the Environmental Monitoring Services as per Schedule A of Government of Alberta, Environment and Parks Contract No. 19AEM815.

As per the contract by the EMSD, the WBEA provides environmental monitoring services through the following 2018/19 Oil Sands Monitoring (OSM) work plan and associated costs:

1. Community Led Traditional Knowledge – Berry Contamination Study (2018-19 Work Plan Reference B-CBM-3-1819)



2 Introduction

The WBEA is a multi-stakeholder, community-based, not-for-profit association, and operates the largest air shed, in the largest municipality, in Canada. The WBEA monitors the air in the RMWB 24 hours a day and 365 days a year through a variety of air, land, and odour monitoring programs. The information collected from the WBEA's 25 air monitoring stations (20 permanent, 5 portable) between Conklin and Fort Chipewyan - most located at or near oil sands plants - is openly and continuously shared with stakeholders and the public on the WBEA's website (www.wbea.org) and through annual reports, community engagement, and outreach activities.

An Air Quality Task Force was established in 1985 to address environmental concerns raised by the Fort McKay First Nation related to oil sands development. In 1990, this Task Force became the Regional Air Quality Coordinating Committee which was endorsed by the Clean Air Strategic Alliance (CASA) as a regional air shed in 1996. In 1998, the Wood Buffalo Environmental Association (WBEA) assumed responsibility for air quality monitoring, and the regional air shed was aligned with the boundaries for the Regional Municipality of Wood Buffalo. The WBEA became a working partner of the Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA) in 2014. With the dissolution of the organization on June 30, 2016, the WBEA began working with the new Environmental Monitoring and Science Division (EMSD) of Alberta Environment and Parks (AEP) to fulfill its mandate to provide independent ambient air monitoring in the region.

The project plan presented below came directly from the Oil Sands Monitoring (OSM) project plans that were created in partnership with EMSD. Under each program title is the program description from the OSM plan; the Milestone/Deliverables for each quarter, with the actions taken by the WBEA, presented below.



3 Project Plans

3.1 Community Led Traditional Knowledge – Berry Contamination Study (2018-19 Work Plan Reference B-CBM-3-1819):

This program builds upon work done by Fort McKay First Nation and the Wood Buffalo Environmental Association (WBEA) since 2011. The Fort McKay project has seen the documentation of Fort McKay First Nation members' observations about changes in berry health and quality due to oil sands industrial development through community-led, traditional environmental knowledge-based monitoring of culturally significant berry patches. The project, which has been driven by a steering group of Fort McKay Elders is of great value to the community of Fort McKay and neighbouring Indigenous communities and organizations who are members of WBEA's Traditional Knowledge Working Group (TKWG) have expressed an interest in expanding the Fort McKay project to their own territories. This expansion began in 2017 alongside a 5 year review of Fort McKay's program. In 2018, program participants have expressed a desire to continue building and growing the program while Fort McKay First Nation is ready to mature the program into a long term, community led initiative.

The Community Led Berry Contamination Program is now part of a suite of community based monitoring (CBM) programs that are supported through the Oil Sands Monitoring Program.

Q3 Deliverables

3.1.1 Laboratory Analysis:

- Berry Trace Metals
- Berry Health Promoting Compounds
- VOC (radiellos)
- SO₂/NO₂/NH₃/HNO₃ (passives)
- Meteorological Data

October:

Contract negotiation with laboratories conducting trace metals and health promoting compounds was delayed due to laboratory resource constraint and was on-going through October.

VOC analysis completion was delayed due to unexpected instrument repairs. Results are expected to be reported to the WBEA in mid-November.

Passive analysis for the Fort McKay berry sites is completed and reported to the WBEA.

Meteorological data was collected at the Fort McKay berry sites from June to September. Three of the four sites are equipped with telemetry, therefore data was automatically loaded onto the WBEA server. The remaining site was manually downloaded at site and then manually uploaded to the WBEA server. All meteorological data is currently stored on the server. Data will be validated by WBEA prior to use in the annual summary report.

November:

Contract was fully executed with National Research Council (NRC) for berry health promoting compounds on November 27, 2018. Contract negotiations with UofA SWAMP lab for trace metal analysis were completed. Waiting for contract from UofA.



VOC analysis for the Fort McKay berry sites was completed and reported to the WBEA.

December:

Contract was fully executed with SWAMP lab for trace metal analysis of berries and soil.

Berry samples were received by National Research Council.

- 3.1.2 [Maintain program management and business support services to ensure deliverables of the workplan are completed and maintain and conduct financial procedures and policies to meet Alberta Government contract terms and generally accepted accounting principles.](#)

Refer to 3.1.7 of the WBEA Project Plan Project Report Q3 (Contract no. 19AEM812).