

Oil Sands Monitoring (OSM)

2016-2017 PROJECT PLAN SUMMARY

Project Name:	A1-1-7 Instrumented Meteorological Towers
Type of Project:	Long Term
Delivery Agent:	Wood Buffalo Environmental Association (WBEA)
Project Contact:	Bob Myrick (AEP) - bob.myrick@gov.ab.ca Sanjay Prasad (WBEA) - sprasad@wbea.org
Budget:	\$ 234,000

Project Description:

Six instrumented towers currently provide near real-time data on meteorological (four levels per tower; above/below jack pine canopy conforming to Environmental Protection Agency (EPA) Clean air Status and Trend Network (CASTNet) Multi-layer Model (MLM) conditions and other environmental parameters. These instrumented towers are strategically placed within the region to provide data which enables stakeholders to make informed decisions. Specifically, these towers are used to characterize wind flows within the 68,454 square kilometres the air shed represents. The data collected is used in the calculation of deposition and evaluation of ecological data. The data is also evaluated to determine its application in improving predictive modeling of air quality and deposition. The towers measure key above and below ground (seasonal) parameters as few continuous data sources exist outside of the Athabasca River Valley.

Project Objectives:

To provide high quality, continuous meteorological and pollutant data for use in air quality and deposition modeling, cumulative effects, and evaluation of ecosystem responses

Key Outcomes:

Long-term continuous data set in the Boreal Forest for use in evaluation of ecosystem responses/effects

Geographic Scope:

Five tower sites located in the Regional Municipality of Wood Buffalo (RMWB) and one site in north-western Saskatchewan.

Associated Data and Reports:

All WBEA air monitoring data are quality-assured and sent within four weeks of month-end to the WBEA website for public reporting. Monitoring data is summarized and reported annually as part of AEP assessments. Results will be published as appropriate in peer-reviewed scientific literature with open access privileges.