

2016-2017 PROJECT PLAN SUMMARY

Project Name:	A3-1-1 Tailings Pond Emissions Study
Type of Project:	Focused Study
Delivery Agent:	Alberta Environment and Parks
Project Contact:	Kelly Munkittrick (COSIA) - kelly.munkittrick@cosia.org Bob Myrick (AEP) - bob.myrick@gov.ab.ca
Budget:	\$ 453,600

Project Description:

The 2016-17 area fugitive emissions monitoring campaign will involve monitoring at one tailings pond. Several monitoring technologies ranging from eddy correlation methods to ground-based remote sensing techniques will be used to improve emission measurements. The tailings pond approved for this activity is the Suncor Energy pond 2/3. The activity is a collaboration between Canada's Oil Sands Innovation Alliance (COSIA) and the industries it represents, AEP, ECCC, the University of Alberta and Alberta Innovates Technology Future (AITF).

Project Objectives:

- Develop a better understanding of the chemicals emitted from OS area fugitive sources, specifically at one tailings pond;
- Develop a better understanding of the actual performance and applicability of different methods for fugitive emissions measurements on one tailings pond;
- Recommend method(s) to improve the quantification of OS area fugitive emissions; and,
- Generate a better scientific understanding of the quantity of fugitive emissions, in terms of concentrations and fluxes/emission rates.

Key Outcomes:

- Evaluate several emissions monitoring techniques and methods to estimate fluxes and concentrations from one tailings pond.
- Assess feasibility and performance of micrometeorological techniques as alternatives to flux chamber measurements on one tailings pond.

Geographic Scope:

Athabasca oil sands north of Fort McMurray

Associated Data and Reports:

Quality assured and quality controlled data will be uploaded to the AEMERA/AEP website. Update State-of-Knowledge report to contain data from 2015 industry reporting and 2016 AFEM field campaign and provide a technical report summary.