Can training enable Indigenous participation in environmental monitoring in the oil sands region?

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Introduction

Technical capacity can be a limiting factor to Indigenous participation in environmental monitoring. To address this, an Environmental Monitoring Technician Training Program Pilot for First Nations and Métis communities in the oil sands region of Alberta was initiated in 2015/16. The training program was designed with cultural sensitivity and accessibility as guiding principles.

Objectives

- To enable Indigenous participation in field monitoring within communities, with industry or government;
- To provide technical competence in the field in surface water quality monitoring, wildlife monitoring and safety;
- To provide an opportunity for scientists and Indigenous communities to build connections to enable productive relationships.

Methods

Curriculum Design: In 2015/16, the curriculum focused on surface water quality monitoring, wildlife monitoring techniques and fieldwork safety courses which followed the standards and protocols laid out by the Province. In 2016/17 the curriculum expanded to include fish health monitoring. These areas of curriculum focus considered both the practicality of training delivery within the designed time frame and the interests and needs of both Indigenous communities and scientists.



Transportation of Dangerous Goods training

Program Delivery: The program brought participants to Edmonton one week each month from August to December, 2015. The format of the training included both in-class sessions and a hands-on component. All participant expenses were covered.

Recruitment: A call for trainee applications was sent out to 53 Indigenous communities in the oil sands region. Applicants were screened based on their qualifications, community support and demonstration of interest and commitment.



Swiftwater Rescue training 2015/16

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Results 2015/16 Implementation

Fifteen participants from eight First Nation and Métis communities successfully completed the five-week training program. The training program demonstrated that our experiential learning approach in Indigenous communities is feasible, and can contribute to increased participation by communities in environmental monitoring. Outcomes of the training program include:

- Awareness and relationship building between communities and environmental monitoring staff from several organisations.
- New opportunities to work together were identified and pursued, such as increased water quality monitoring within communities, project proposal development, job opportunities and further experiential learning.
- Participants from the 2015/2016 cohort became the first members of the Aboriginal Environmental Services Network^[2]. The goal of the Network is to be a hub for management, communication, resource sharing and promotion of Indigenous participation in the delivery of environmental services. Continued engagement with trainees will occur through this Network.



2016/17 Implementation

The Government of Alberta's Environmental Monitoring and Science Division (EMSD) has continued the pilot program in 2016/17, with ten new participants from eight First Nation and Métis communities in the Upper Peace, North Saskatchewan, and Lower Athabasca regions of Alberta participating in the program in 2016/17.

Building upon an evaluation of implementation in 2015/16 and recommendations from the previous cohort, the program curriculum has been adapted to:

- Cover the full life-cycle of monitoring, including design, delivery, evaluation and reporting.
- More closely align with the approved oil sands monitoring work plan for 2016/17^[3], including surface water and fish health monitoring.

Photo: Lake monitoring training 2016/17

References

- 1. Chai S-L & Hiltz M. Environmental Monitoring Technician Training Program for First Nations and Métis Communities in Northeastern Alberta 2015 Pilot Final Project Report. February 2016. 41 pp. Unpublished Report.
- 2. Aboriginal Environmental Services Network. Retrieved from <u>www.aesninfo.ca</u>.
- 3. Environmental Monitoring in the Oil Sands 2016-2017 work plan projects summary table. Retrieved from http://environmentalmonitoring.alberta.ca/activities/projects-summary/.



Most participants had some previous work experience in the environmental services field, and some were already employed as consultation coordinator, land manager, technician or safety coordinator. The training program enhanced participant awareness around environmental service careers, including environmental monitoring (Figure 1). In a post-training survey, all respondents rated their learning from the program highly. Most participants described their reason for undertaking the training program as professional development (87%) and improvement of skills or knowledge (80%; Figure 2)^[1].

Graduation celebration held to honour 2015/16 program participants

environmental service career (n=15)







