APPROVAL OF THE 2022 – 2023 AMBIENT ENVIRONMENT MONITORING PLAN for OIL SANDS DEVELOPMENT

Marc D'Iorio, representing the Environment and Climate Change Canada (ECCC), and

Tom Davis, representing the Alberta Environment and Parks (AEP),

Hereby approve the attached 2022-2023 Ambient Environment Monitoring Plan for Oil Sands Development.

CONDITIONS

- 1. Approved funding envelopes will be fully released upon receipt and final Co-Chair approval of the updated work plans as required.
- 2. Budgets are to be managed to ensure approved activities are delivered efficiently without unnecessary spending or exceeding allocated amounts.
- 3. Any potential major change requests to approved activities and budgets are to be identified as early as possible, and communicated to Program Co-Chairs for approval.
- 4. Final total expenditures will not exceed \$58,195,173.
- 5. All data and information generated will be made publicly available and accessible as soon as possible following its collection and verification through quality assurance and quality control procedures, and will be accompanied by the appropriate context about the significance of the results.
- 6. Any data or information that has immediate and significant impact on human or ecosystem health will be provided to responsible agencies and potentially affected groups.
- 7. Alberta Environment and Parks, and Environment and Climate Change Canada will work collaboratively on any communication arising from this work.
- 8. All funding accepted in 2022-2023 will be based upon signed acknowledgement of the Funding Guidelines provided, which articulates expectations for project and financial updates, adherence to the product notification and review process, technical reporting requirements, and provision of data to the Oil Sands Monitoring Program.

APPROVED BY:

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Digitally signed by Diorio, Marc Date: 2022.0321615:04:30 -04'00'

Marc D'Iorio

Assistant Deputy Minister, Science and Technology, Environment and Climate Change Canada (ECCC) Government of Canada

Assistant Deputy Minister, Resource Stewardship, Alberta Environment and Parks (AEP) Government of Alberta





Environment and Climate Change Canada Environnement et Changement climatique Canada

Date: 18 March, 2022

2022 - 2023 AMBIENT ENVIRONMENT MONITORING PLAN for OIL SANDS DEVELOPMENT

Amounts **Activity Name** Approved (Mar. 4, 2022) Atmospheric Pollutant Active Monitoring Network \$13,606,788 Integrated Atmospheric Deposition Monitoring \$5,823,552 Surface Water Quantity Monitoring - Water Levels and Flows \$1,804,211 Surface Water Quality \$4,003,803 Core Biodiversity Monitoring - Benthic Macroinvertebrates \$2,169,483 Core Long-Term Fish Monitoring \$1,693,000 Enhanced Monitoring of the Lower Athabasca River \$245,000 Indigenous community-based monitoring, evaluation, and reporting in surface \$426,450 waters Integrated Terrestrial Biological Monitoring \$6,639,604 Wetland Ecosystem Monitoring Program \$2,196,103 Groundwater Monitoring \$2,538,564 **OSM Data Services** \$2,367,000 \$2,000,000 Cross Cutting Items (Geospatial) OSM monitoring framework \$268,000 Air Quality Monitoring in the Peace Athabasca Delta \$249,278 Fort McKay Métis Community-Based Wetland Monitoring \$291,500 2022–2023 Community-Based Environmental Monitoring Program (CBEMP): \$50,000 Groundwater 2022–2023 Community-Based Environmental Monitoring Program (CBEMP): Surface \$197,010 Water 2022-2023 Community Based Oil sands Monitoring Program-Surface Water and \$50,000 Near Surface Ground Water Athabasca Aquatic Monitoring Program – Documenting Local Environmental Change \$50,000 **ICBM Facilitation Centre** \$1,300,000 Lakeland Métis Community Moose Camera Tracking Project \$150,000

Note: approved allocations for some projects involving multiple delivery partners are lower than the original request; where required, work plans associated with those projects will be revised to reflect approved budget.





Activity Name	Amounts Approved (Mar. 4, 2022)
Ni ho ghe di – Athabasca Chipewyan First Nation Community Based Monitoring	\$400,000
Métis Fish Health Assessment: Exploring Fish Health Indicators through a Métis Lens	\$143,692
CLFN integrated Community Based Monitoring Program	\$492,960
Community Led Berry Contamination Study - Conklin	\$45,078
Community Led Berry Contamination Study – Fort McKay First Nation	\$48,278
Community Led Berry Contamination Study – Fort McKay Métis	\$48,278
Community Led Berry Contamination Study – Fort McMurray 468 First Nation	\$45,078
Community Led Berry Contamination Study – McMurray Métis 1935	\$45,078
Mikisew Cree First Nation – Community Based Monitoring	\$432,560
Mikisew Cree First Nation – Community Based Wetlands Monitoring	\$133,020
Terrestrial Biological Integrated Indigenous Community Based Monitoring	\$150,000
Willow Lake Métis Aquatics Monitoring	\$181,528
Christina Lake Monitoring Program	\$50,000
Conklin Wetland Project	\$279,896
Fort McKay Community Odour Monitoring	\$300,689
Fort McKay Community Dust Monitoring	\$119,725
CPDFN Community Based Monitoring Program	\$270,940
Smith Landing First Nation Fish CBM (Year 3)	\$151,195
BLCN Community Based Monitoring Program	\$153,280
Camera Monitoring of Wildlife	\$100,000
2022-23 Terrestrial Biological Monitoring	\$50,000
Community Based Monitoring	\$50,000
Peavine Hydrology	\$50,000
Oil Sands Monitoring Program Administration	\$2,459,953
Indigenous Capacity and ICBMAC	\$3,874,600
GRAND TOTAL	\$58,195,173





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Summary of 2022-23 OSM Funding by Program Theme Areas

Program Theme	OC Consensus Funding Recommendations to Co- Chairs (March 4, 2022)
Air & Deposition Monitoring (Core)	\$19,430,340
Water Monitoring (Core)	\$9,670,496
Water Monitoring (FS)	\$671,450
Biodiversity Monitoring (Core)	\$6,639,604
Wetlands Monitoring (Core)	\$2,196,103
Groundwater Monitoring (Core)	\$2,538,564
Data Management, Integrated Analytics, & Cumulative Effects	\$2,635,000
Cross Cutting - Geospatial	\$2,000,000
Community Based Monitoring	\$6,079,063
Program Administration – Science Secretariat and Program Office	\$6,334,553
	\$58,195,173





Glossary

- Long-term Monitoring Surveillance (LTM-S): refers to the routine monitoring of status and trends of physical/chemical/biological parameters related to oils sands development activities to detect and evaluate changes in the environment over a period of time, typically >5 years.
- Long-term Monitoring Effects (LTM-E): refers to the monitoring and assessment of the effects
 of oils sands development activities on biological endpoints (individual, population and
 community). This monitoring is implemented over a period, typically >5 years.
- Focused Study (FS): A class of purposeful, requested projects with definite start- and end-dates (typically 3 years), according to the characteristics described below.
- Method Development (MD): refers to a study carried out to address limitation or deficiency identified in current monitoring design and/or protocols that may impair the effective monitoring of residual risk. This study requires a statement describing how the deficiency will be mitigated.
- Effects Confirmation (EC): refers to a study carried out to confirm or quantify an initial observation of significant effect.
- Investigation of Cause (IC): refers to hypothesis-driven studies designed to characterize the potential cause of an observed adverse effect. This study is launched only when a specific observation or monitoring result warrants mitigation.
- Establishing Reference Conditions (RC): refers to the monitoring and assessment of existing conditions to characterize an anthropogenically undisturbed or minimally disturbed environmental state as distinct from a disturbed state relative a particular stressor. This study requires a statement of the expected outcome.
- Community Based Monitoring (CBM): refers to collaboration between concerned citizens, government agencies, industry, academia, community groups, and local institutions to monitor issues of common concern.



