Environmental Performance Report Guideline

September 2013
EPB 453

Ministry of Environment

Government of Saskatchewan

TABLE OF CONTENTS

1 DEFINITIONS

Definitions will be the same as those noted in The Environmental Management and Protection Act, 2010 (EMPA, 2010) and other applicable legislation.

Accepted Modelling
Accepted modelling refers to the most recent modelling work accepted by the Ministry of Environment for the EIS, ERA, or EP report. Monitoring program results will be compared to accepted modelling work where available to see if the models need to be updated.

Areas of Evaluation
Areas of valuation include air, surface water, groundwater, soils, sediments, waste and substances management, and aquatic and terrestrial biota and any other site specific areas that may need to be evaluated.

Environment
Environment means
(i) air and the layers of the atmosphere;
(ii) land, including soil, subsoil, sediments, consolidated surficial deposits and rock;
(iii) water;
(iv) organic and inorganic matter and living organisms; and
(v) the interacting natural systems and ecological and climatic interrelationships that include the components mentioned in (i) to (iv).

Groundwater
Groundwater means water beneath the surface of land.

Hydraulic Conductivity
Hydraulic conductivity refers to the proportionality factor between hydraulic gradient and flux in Darcy's Law. Hydraulic conductivity measures the inherent ability of a porous medium to conduct water.

Impact
Impact means any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organizations activities, products or services. (ISO 14001)

Industrial Facility
Industrial facility means any project, operation or activity permitted under EMPA, 2010 or its regulations.

Project
Project refers to the regulated industrial facility, project, operation or activity permitted under EMPA, 2010 or its regulations.

Project Boundary
Project boundary refers to the boundary or fence line of the project area; the Project Boundary should align with the perimeter of owned or leased land.

Reference Location, Site, or Station
Reference location, site, or station refers to a monitoring location or station in which the parameter(s) that are being monitored should not be impacted by the activities being undertaken by the project.

Other Impacts
Other impacts mean impacts not originating from the project and observed over a broad area.

Surface Water
Surface water means water that is above the surface of land and in a river, stream, lake, creek, spring, ravine, coulee, canyon, lagoon, swamp, marsh or other watercourse or water body, whether the water is there permanently or intermittently.

Waste
Waste means a solid or liquid that is one or more of the following:
(i) rubbish;
(ii) tailings;
(iii) effluent;
(iv) sewage;
(v) garbage;
(vi) refuse;
(vii) scrap;
(viii) discarded articles, bottles or cans;
(ix) any other substance and/or material that is prescribed or is set out in the Saskatchewan Environmental Code.

Water
Water means surface water, ground water, and/or drinking water.

2 INTRODUCTION

2.1 Purpose

As part of the Saskatchewan Ministry of Environment's (Ministry's) commitment to results based regulation, operators are required to demonstrate acceptable environmental performance of their projects. Environmental Performance (EP) reports are a tool for providing information on project performance. This guideline document provides operators with information to be used in the preparation of EP reports where such reports are required by the Ministry.

The purpose of EP reporting is to provide information that can be used by the Ministry to verify the following.

a) That the project is complying with all applicable regulatory requirements as described in legislation, any approvals/permits issued and any amendments to approvals/permits issued.
b) That the project is performing within the scope of any documents describing the project that have been approved by the Ministry. Typically, the Environmental Impact Statement (EIS) prepared for the environmental assessment of the project is used. Where there is no EIS, upon agreement between the operator and the Ministry, other documents including Ecological Risk Assessments and Environmental Site Assessments can be used.
c) That the project monitoring programs are gathering sufficient information to be able to verify a) and b).
d) That any models used to predict environmental performance continue to be valid.

EP reports are also a tool for reporting on and providing analysis of environmental trends observed at projects. This trend analysis is useful for tracking environmental performance and planning for future environmental requirements.

2.2 Legislation

2.2.1 Environmental Assessment Act

In Saskatchewan, under Section 9 of The Environmental Assessment Act, a proponent is required to conduct an Environmental Impact Assessment (EIA) of their "development" and to prepare and submit an EIS. With guidance from the Ministry, the proponent prepares and submits an EIS which contains project impact predictions. Section 2 (d) describes a "development".

2.2.2 The Environmental Management and Protection Act, 2010

Applicable legislation includes Part II, Section 3 of The Environmental Management and Protection Act, 2010 (EMPA 2010), specifically clauses (2)(a) through (d), (g), (h), and, (l) through (n).

(1) The minister is responsible for all matters not by law assigned to any other minister or government agency relating to the environment and for enhancing and protecting the quality of the environment.

(2) For the purposes of carrying out the minister's responsibilities, the minister may:

(a) create, develop, adopt, co-ordinate and implement policies, strategies, objectives, guidelines, programs, services and administrative procedures or similar instruments respecting the management, protection and use of the environment;
(b) sponsor, undertake and co-ordinate planning, research and investigations respecting the environment;
(c) establish a system of monitoring the quality of the environment and collect, process, correlate, store and publish data on:
  (i) the quality of the environment; and
  (ii) activities that have or may have an adverse effect, including discharges and waste management;
(d) install, operate or maintain or cause to be installed, operated or maintained devices or other measures to obtain, secure or cause to be secured chemical and other analyses of the environment and activities that have or may have an adverse effect, including discharges and waste management;
(g) provide information to the public on:
  (i) the quality and use of the environment;
  (ii) the quantity of any substances or things in the environment; and
  (iii) any activity that has an adverse effect;
(h) inquire into or hold, or appoint a person to conduct, public hearings or inquiries respecting:
  (i) the management, protection or use of the environment; and
  (ii) any economic, social or other impacts relevant to the environment;
(l) develop or establish standards or requirements respecting any matter governed by this Act;
(m) designate individuals or classes of individuals who are qualified persons and impose terms and conditions that the minister considers appropriate on those designations;

(n) do any other thing that the minister considers appropriate to carrying out the minister's responsibilities or to exercising the minister's powers pursuant to this Act and the regulations.

2.3 Scope

EP reporting requirements will be described in approval/permit conditions issued by the Ministry for a project and are intended to be project specific. EP reporting is intended to cover all phases of a project from construction, operation, decommissioning and reclamation, post-decommissioning monitoring, through to release from decommissioning and reclamation requirements. EP reporting is required for the entire time that the project has impacts on the environment.

The EP reporting period will be described in the project approval/permit conditions. The reporting period should be reflective of the planned life of the project and the risks that the project presents to the environment. Since the EP report is intended for use as a planning tool as well as a means of determining environmental performance, the reporting period should not exceed five (5) years. Current legislation for mining facilities requires revision of the decommissioning and reclamation plans once every five (5) years at a minimum and it is expected that information from the EP reports will be used to revise these plans. Given that this requirement will apply to mining and other industrial facilities under EMPA 2010, and that the information from the EP report will be vital to revising decommissioning and reclamation plans, a period not exceeding five (5) years as an EP reporting period seems reasonable.

This guide is intended to be used to direct preparation of EP reports in any circumstance where they may be required. Operators should use this guide in conjunction with any requirements described in their project approval/permit conditions. Because EP reports are site specific, the requirements described in the project approval/permit conditions take precedence over those described in the guide in circumstances where there may be conflict between requirements. Where approval/ permit conditions do not include reporting requirements for certain aspects described in the report content, those aspects are not expected to form part of that project's EP report.

3 REPORT CONTENT

The EP report is expected to assemble, summarize and interpret historical data, study results and relevant technical literature in a "stand alone" report. The operator may wish to reference technical literature or publications to support the interpretation of monitoring program results. Where applicable, the following sections provide details on expectations.

3.1 General

The following general information is expected:

- Name of the facility;
- Name of the operator and contact information;
- Number of years in operation;
- The reporting period covered in this EP report;
- The reference documents for this EP report (EIS, ERA, Environmental Site Assessment, or other);
- Project boundary preferably with meta data;
- If the operator is not the landowner, provide contact information for the landowner;
- If partnership arrangements exist, provide contact information for the partners; and,
- If the property is leased, provide information regarding the length of the lease and expiry date along with information related to lease conditions that relate to environmental issues.

3.2 Operational Influences

The following information is expected:

General

- A brief description of each event or occurrence in the reporting period that resulted in or could have resulted in a significant risk to the environment (such as spills or unauthorized discharges), including a discussion on the corrective measures taken or proposed to remedy the observed and/or potential impacts;
- A brief description of major operational activities over the reporting period that would impact each area of evaluation;
- A brief description of type and quantity of products produced in the reporting period; and,
- A description of any significant process changes made during the reporting period as well as a discussion of how these changes impacted the environmental protection components of the operation.

Approval/ Permit Changes

- A brief description of changes to approvals and/or permits issued during the reporting period including new approvals/permits issued, renewals of existing approvals/permits, amendments, and cancelations. Where applicable, information should include dates issued, issuing agency and expiry dates.

Operational Changes

- A description of any modifications made to pollution control facilities and their effect on facility emissions.
- Reporting period trending summaries of the following:
  - A brief description of the amount of surface water and groundwater used in the process annually as well as a description of any water minimization/ optimization efforts undertaken during the reporting period;
  - A brief description of the amounts and dispositions of any hazardous or industrial wastes annually shipped from the facility during the reporting period; and,
  - A brief description of the annual amounts and dispositions of any materials recycled during the reporting period.

Decommissioning and Reclamation

- A brief description of any decommissioning and reclamation activities carried out during the reporting period;
- A comparison between the total reclamation work carried out and the EIS or equivalent predictions for reclamation and decommissioning for the EP reporting period;
- If applicable, a comparison between total reclamation work carried out in the reporting period and work presented in the most recent approved Decommissioning and Reclamation Plan;
- Evaluation of the success of decommissioning and reclamation activities as verified by monitoring programs (for example, demonstration of attenuation of contaminants in a plume);
- A comparison of decommissioned and reclaimed plant communities and undisturbed plant communities at the reference location, commenting on species, community structure, plant density and incidents of disease and parasites within the plant community;
- A brief description of revisions made to the decommissioning plan and financial assurance;
- An outline of the proposed enhancements and modifications to the reclamation and decommissioning program; and,
- Changes in the amount of land disturbed, specifying any changes to land classification as a result of operational or reclamation activities.

3.3 Monitoring

Monitoring programs should be designed as per the most recent version of the Ministry's publication "Environmental Monitoring Guidelines for Mining and Industrial Operations". The following monitoring information is expected:

- An overview of all monitoring programs in place and their results and conclusions, including any harmonized or cooperative monitoring requirements;
- A site plan showing the location of each monitoring site/station, both current and historic, noting the type of monitoring;
- GPS information for current monitoring site/station locations. Meta data and spatial coordinates, including approximate elevation data, is preferred;
- Frequency of monitoring, parameters measured and applicable regulatory criteria; and,
- Other monitoring as described in the project's approval/permit.

3.4 Air Data Analysis

The following information is expected:

- The most recent EIS or equivalent predictions for air and noise related impacts. More specifically, predictions made with regards to the EP reporting period.
- An analysis of the complete air and noise monitoring data for the reporting period, including the following:
  - A review of background levels or conditions that have changed since operation began.
  - A comparison between the monitoring data and the EIS or equivalent predictions for the EP reporting period. If applicable, include information from previous EP reports in comparison.
  - Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
  - Suggested reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
  - Identification of erroneous data and data gaps.
  - Comparison of monitored parameters at impacted stations with monitored parameters at reference stations.
  - Description of the observed range in variation (seasonally and annually) for the monitored parameters at both the reference and impacted monitoring stations.
- A brief description of the observed site specific weather patterns and climatic data for the reporting period, describing any variance from the historic patterns and trends during the project life and any consequential impacts on monitoring data. This would include wind direction, wind speed, temperature, and precipitation.
- The intended purpose of each monitoring station – when and why the monitoring station was established, what were the station objectives and how long was monitoring originally proposed?
- Whether or not the intended purpose of each monitoring station is being met, considering weather data gathered and the quality of data attained.
- Other impacts that have been identified during the reporting period and discussion

of their environmental significance. This may include influences from other projects, jurisdictions or naturally occurring events.
- A description of proposed enhancements and modifications to the air monitoring program.

3.5 Water Data Analysis

The following water information is expected:

3.5.1 Surface Water

- The most recent EIS or equivalent project predictions related to impacts on surface water. More specifically, include predictions made for the EP reporting period.
- An analysis of the complete surface water monitoring data for the reporting period, including the following:
  - A review of background levels or conditions that have changed since operation began.
  - A comparison between the monitoring data and the EIS or equivalent project predictions for the EP reporting period. If applicable, include information from previous EP reports in comparison.
  - Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
  - Reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
  - Identification of erroneous data and data gaps.
  - Comparison of monitored parameters at impacted stations with monitored parameters at reference stations.
  - Description of the observed range in variation (seasonally and annually) for the monitored parameters at both the reference and impacted monitoring stations.
  - Loadings of metals and nutrients that have been discharged into the aquatic ecosystems from industrial sources.
  - Analysis of discharged parameters of concern, what portion remains in the dissolved form, what is taken up by sediments and what is taken up by biota.
- The intended purpose of each of monitoring station – when and why the monitoring station was established, what were the station objectives and how long was monitoring originally proposed?
- Whether or not the intended purpose of each monitoring station is being met, considering the quality of data attained.
- Other impacts that have been identified during the reporting period and discussion of their environmental significance. This may include influences from other projects, jurisdictions or naturally occurring events.
- A description of proposed enhancements and modifications to the surface water monitoring program.

3.5.2 Groundwater

- The most recent EIS or equivalent project predictions related to impacts on groundwater. More specifically, include predictions made for the EP reporting period.
- An analysis of the complete groundwater monitoring data for the reporting period, including the following:
  - A review of background levels or conditions that have changed since operation began.
  - A comparison between the monitoring data and the EIS or equivalent project predictions for the EP reporting period, specifying hydrogeological properties of the unit, such as hydraulic conductivity, and if total or dissolved metals are being monitored and why. If applicable, include information from previous EP reports in comparison.
  - If applicable, a comparison between proposed dewatering impacts and observed dewatering impacts.
  - Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
  - Reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
  - Identification of erroneous data and data gaps.
  - Comparison of monitored parameters at impacted stations with monitored parameters at reference stations.
  - Description of the observed range in variation (seasonally and annually) for the monitored parameters at both the reference and impacted monitoring stations.
  - Evaluation of the potential for parameters to attenuate concentration along the flow path before reaching receptors.
- The intended purpose of each of monitoring station – when and why the monitoring station was established, what were the station objectives and how long was monitoring originally proposed?
- Verification that monitoring wells are performing as intended including a comparison between current hydraulic conductivity and hydraulic conductivity at the time of well installation/ development and any other performance verification tests.
- Whether or not the intended purpose of each monitoring station is being met, considering the quality of data attained, well installation details, and well performance.
- Other impacts that have been identified during the reporting period and discussion of their environmental significance. This may include influences from other projects, jurisdictions or naturally occurring events.
- A description of proposed enhancements and modifications to the groundwater monitoring program.

3.6 Soil Data Analysis

The following soil information is expected:

- The most recent EIS or equivalent project predictions related to impacts on soil. More specifically, include predictions made for the EP reporting period.
- An analysis of all monitoring data for the reporting period, including the following:
  - A review of background levels or conditions that have changed since operation began.
  - A comparison between the monitoring data and the EIS or equivalent predictions for the EP reporting period. If applicable, include information from previous EP reports in comparison.
  - Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
  - Suggested reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
  - Identification of erroneous data and data gaps.
  - Comparison of monitored parameters at impacted stations with monitored parameters at reference stations.
  - Description of the observed range in variation (seasonally and annually) for the monitored parameters at both the reference and impacted monitoring stations.
- The intended purpose of each of monitoring station – when and why the monitoring station was established, what were the station objectives and how long was monitoring originally proposed?
- Whether or not the intended purpose of each monitoring station is being met, considering the quality of data attained.
- Other impacts that have been identified during the reporting period and discussion of their environmental significance. This may include influences from other projects, jurisdictions or naturally occurring events.
- A description of proposed enhancements and modifications to the soil monitoring program.

3.7 Sediment Data Analysis

The following sediment information is expected:

- The most recent EIS or equivalent project predictions related to impacts on sediment. More specifically, include predictions made for the EP reporting period.
- An analysis of all monitoring data for the reporting period, including the following:
  - A review of background levels or conditions that have changed since operation began.
  - A comparison between the monitoring data and the EIS or equivalent predictions

for the EP reporting period. If applicable, include information from previous EP reports in comparison. Information provided should include the following:
    - Concentrations of parameters of concern;
    - Uptake of parameters of concern downstream of discharges, commenting on the extent of downstream loading;
    - Estimation of deposition rates; and
    - Particle size analysis.
  - Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
  - Reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
  - Identification of erroneous data and data gaps.
  - Comparison of monitored parameters at impacted stations with monitored parameters at reference stations.
  - Description of the observed range in variation (seasonally and annually) for the monitored parameters at both the reference and impacted monitoring stations.
- The intended purpose of each of monitoring station – when and why the monitoring station was established, what were the station objectives and how long was monitoring originally proposed?
- Whether or not the intended purpose of each monitoring station is being met, considering the quality of data attained.
- Other impacts that have been identified during the reporting period and discussion of their environmental significance. This may include influences from other projects, jurisdictions or naturally occurring events.
- A description of proposed enhancements and modifications to the sediment monitoring program.

3.8 Waste and Substance Data Analysis

The following waste and substance information is expected:

- A brief description of the project's waste and substance management system including the amount and type of materials deposited or disposed in the approved waste management facilities.
- If waste is segregated, a brief description of the waste segregation program and its performance. Examples would include any segregation of waste such as materials for recycling or low level radioactive waste.
- The most recent EIS or equivalent project predictions for volumes and types of waste and substances generated. More specifically, include predictions made for the EP reporting period.
- If effluent is produced, compare effluent quality and quantity for the reporting period to predicted effluent quality and quantity.
- If there is a tailings management facility, an analysis of tailings characterization data

for the reporting period, including the following:

- The current tailings management plan.
- A comparison between the monitoring data and the EIS or equivalent project predictions for the EP reporting period for the following tailings performance aspects:
    1. Geochemistry: overall geochemical performance for pond water and in-situ tailings, including both pore water and tailings solids.
    2. Geotechnical: geotechnical performance as compared to original predictions, including hydraulic conductivity, density, void ratio, percent solids and segregation.
    3. Hydrogeology: including identification of solute transport pathways, including pathways caused by piping, tailings segregation and sand sloughing.
    4. Capacity: including generated volumes for each type of waste during the EP reporting period, total cumulative volumes generated for each type of waste, storage capacity, consolidation rates, ice lens management, pore pressure dissipation and settlement.
- A comparison of the monitoring data outlined above for the current EP reporting period to the previous EP reporting period.
- Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
- Reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
- Identification of erroneous data and data gaps.
- Description of the range in variation (seasonally and annually) for the monitored parameters.

- A description of any waste related monitoring or analysis not included in other areas of evaluation. This may include vibrating wire piezometers, acid base accounting or tailings analysis for geochemical or physical properties. The description should confirm if the intended purpose of each monitoring station is being met.
- A description of proposed enhancements and modifications to the waste management program.

3.9 Ecological Data Analysis

The following ecological information is expected:

3.9.1 Aquatic Biota/ Ecosystems

- The most recent EIS or equivalent project predictions related to impacts on aquatic biota and resources. More specifically, include predictions made for the EP reporting period.
- An analysis of all monitoring data for the reporting period, including the following:

  - A description of each monitoring location.
  - Type and number of organisms collected at each monitoring location. For fish, species level identification is expected. Identification of other biota (such as plants or invertebrates) to at least the family level is expected with identification to the species level where practical.
  - Comparison of community metrics at each monitoring station, including total abundance, taxa present and taxa absent that had previously been observed.
  - A review of background levels or conditions that have changed since operation began.
  - A comparison between the monitoring data and the EIS or equivalent project predictions, or previous EP reports if applicable, for the EP reporting period, including the following:
    - Concentrations of parameters of concern;
    - Uptake of parameters of concern by biota, commenting on the extent of downstream loading;
    - Where applicable, an analysis of present and historic benthic communities; and,
    - Incidents of disease, parasites, and deformities within the aquatic ecosystem where identified.
  - Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
  - Reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
  - Identification of erroneous data and data gaps.
  - Comparison of monitored parameters in biota at impacted stations with monitored parameters in biota at reference stations.
  - Description of the observed range in variation (seasonally and annually) for the monitored parameters in biota at both the reference and impacted monitoring stations.
- The intended purpose of each of monitoring station – when and why the monitoring station was established, what were the station objectives and how long was monitoring originally proposed?
- Whether or not the intended purpose of each monitoring station is being met, considering the quality of data attained.
- Other impacts that have been identified during the reporting period and discussion of their environmental significance. This may include influences from other projects, jurisdictions or naturally occurring events.
- A description of proposed enhancements and modifications to the program.

3.9.2 Terrestrial Biota/ Ecosystems

- The most recent EIS or equivalent project predictions related to impacts on terrestrial habitat. More specifically, include predictions made for the EP reporting

period.

- An analysis of all monitoring data for the reporting period, including the following:
  - A description of each monitoring location.
  - Type and number of organisms collected at each monitoring location. For animals, species level identification is expected. Identification of other biota (such as plants or invertebrates) to at least the family level is expected with identification to the species level where practical.
  - A review of background levels or conditions that have changed since operation began.
  - A comparison between the monitoring data and the EIS or equivalent project predictions, or previous EP Report if applicable, for the EP reporting period including the following:
    - Changes in plant community structure and density and the growth of indicator species;
    - Discuss air emission loading on components of terrestrial ecosystems;
    - Uptake of parameters of concern by biota commenting on aerial extent;
    - Incidents of disease and parasites within the terrestrial ecosystem if identified; and,
    - Indirect impacts on the movement and behaviour of wildlife species.
  - Trend analysis of the monitoring data assessing deviations, if any, from the EIS or equivalent project predictions.
  - Reasons for any deviations in the monitoring data from the EIS or equivalent project predictions.
  - Identification of erroneous data and data gaps.
  - Comparison of monitored parameters in biota at impacted stations with monitored parameters in biota at reference stations.
  - Description of the observed range in variation (seasonally and annually) for the monitored parameters in biota at both the reference and impacted monitoring stations.
- The intended purpose of each of monitoring station – when and why the monitoring station was established, what were the station objectives and how long was monitoring originally proposed?
- Whether or not the intended purpose of each monitoring station is being met, considering the quality of data attained.
- Other impacts that have been identified during the reporting period and discussion of their environmental significance. This may include influences from other projects, jurisdictions or naturally occurring events.
- A description of proposed enhancements and modifications to the program.

3.10 Verification of Modelling

The following information is expected:

- A discussion regarding the original modelling that was conducted for the EIS or equivalent including:
  - Validity of assumptions made;
  - Project changes approved during the EP period that may change the validity of the original model assumptions;
  - Timeframe modelled;
  - A brief description of long term trends and deviations compared to the original modelling;
  - Reasons for deviations; and
  - Information regarding the accuracy/applicability of the model used.
- Information on updates/reruns of models including a discussion on the use of monitoring information for recalibration where applicable.
- Information on the current relevancy of software used for modelling and any updates that may improve results. Where modelling has been updated, justification for software selection.
- Where applicable, a discussion on conclusions from the previous EP reports and identification of new trends or observations.

3.11 Implication of Deviations

The current state of the environment should be evaluated to determine if the impacts presented remain within the scope of those described in the original EIS or equivalent project predictions. Deviations outside the scope of the EIS or equivalent project predictions must be addressed. If significant deviations occur, regulatory action may be required and could include reassessment as per The Environmental Assessment Act.

3.12 Action Plan

It is expected that opportunities for rationalization of the monitoring program will be identified as a consequence of reviewing and reporting monitoring information for a project. An Action Plan should be included as part of the EP report to describe how and when the monitoring program for their project will be rationalized. The Action Plan is expected to include the following:

- Identification of data gaps and a description of the work that will be initiated to close the gaps, including a schedule for completion of the work.
- Identification of additional monitoring that may be required including a schedule for the establishment of new monitoring sites/stations where needed.
- Identification of monitoring sites/stations that no longer provide useful information suggested for deletion from the monitoring program.
- Identification of monitoring sites/stations if the information gathered during the reporting period suggests that monitoring frequency should be modified, including a schedule for implementation.

- A description of and schedule for any additional work that may need to be conducted as a result of identification of issues noted in the monitoring data. This would include follow up work to provide additional detail on any identified deviations beyond the scope of previous assessments and updates of models where needed.

4 REPORT SUBMISSION

The requirements regarding EP report submission will be described in the project permit/approval. As EP reporting is expected to be a major undertaking, due dates will be negotiable between the Ministry and the operator. The format of the report submission will be discussed and agreed upon by the operator and the Ministry representative(s) responsible for review.