

12.0 ENVIRONMENTAL INSPECTION AND MONITORING

This section provides a statement of monitoring activities that are necessary to ensure that proposed mitigation is implemented and functioning as expected, and actions necessary to maintain the effectiveness of mitigation as long as required to provide the required level of environmental protection.

12.1 Pre-construction Monitoring

Pre-construction monitoring is undertaken to provide baseline conditions for comparison to conditions during and after construction. The EA and studies for this report provide baseline for some environmental features.

A number of activities will be undertaken by the City of Ottawa prior to construction. These include:

- Acquisition of applicable permits;
- Environmental training for the contractor including programs for:
 - Species At Risk awareness (Identification, What to do if encountered);
 - Working around water and dewatering requirements;
 - Erosion and Sediment Controls and Maintenance;
 - Site tidiness and pollution controls;
 - Spills and emergency notification (MOE);
 - Species at Risk notification numbers (MNR);
 - This training usually occurs with the construction manager, his site foremen and all staff working on the project during the project start-up and then reinforced through the weekly “Health, Safety & Environment” tailgate meetings;
 - Each worker will be issued a helmet sticker upon completion of the training program and will be required to wear it while on site; and,
- A pictorial record of conditions is compiled to compare restoration efforts with pre-construction conditions.

Conditions of regulatory approvals may require additional pre-construction monitoring programs as well.

12.2 Environmental Compliance Monitoring

Environmental Compliance Monitoring (ECM) can be divided into two elements: regulatory environmental surveillance; and self-regulatory environmental compliance monitoring. Regulatory environmental surveillance is carried out by the regulatory authorities and may include conservation officers, transportation officers and inspectors. Self-regulatory environmental compliance monitoring is that which the proponent undertakes to monitor their own activities against internal and external environmental standards. Self regulatory ECM overlaps with regulatory environmental surveillance where the external standards which are being monitored are regulatory in nature. However, self-regulatory ECM is a much broader concept and is an important tool for the implementation of mitigation, particularly where government regulations are vague or non-existent. Self-regulatory ECM can involve:

- Monitoring of all environmentally-sensitive activities to ensure compliance with internal and external non-regulatory environmental standards;
- Daily logs of background stream turbidity, water level elevations and rainfall;

- Daily logs of dewatering activities, estimates of volume of water ‘taken’ and turbidity measurements at the point of discharge;
- Notes of Species at Risk observation;
- Periodic sampling of turbidity within 50 m downstream of project during rainfall events to measure the erosion and sediment control measures against the background rates of turbidity; a Delta threshold of <20 NTU is proposed as a target threshold;
- Coordination of communication with regulatory authorities; and,
- Provision of on-site environmental advice to Project personnel.

An Environmental Inspector, if necessary, will be present during construction to ensure that the contractor is working in an environmentally acceptable fashion and for any other environmental issues that may develop during roadway construction. The primary objective of environmental inspection/compliance monitoring during construction is to ensure that all activities are carried out pursuant to pertinent environmental legislation, regulations and industry standards and to adhere to the mitigation measures prescribed in this environmental assessment screening report. In addition, post-construction follow-up will be completed to ascertain the success of the restoration / mitigative efforts.

In order to ensure the implementation of mitigation measures specified in this report a compliance monitoring report will be prepared by the City of Ottawa (or its’ contractor) during construction (and afterwards if applicable) and will be submitted to Infrastructure Canada after the project is completed (including the removal of all temporary works).

12.3 Follow-up Programs

No specific follow-up programs consistent with Section 38(1) of CEAA have been identified.

Follow-up with respect to Species at Risk will be undertaken through the Provincial ESA process.

The Ontario Ministry of Culture requires that Stage 4 mitigation of the Richardson Farm site (south component) be undertaken prior to development (Sherratt, 2009). The extent of the mitigation is to be determined in consultation with the Ontario Ministry of Culture.

The Ontario Ministry of Natural resources requires follow up 3-5 year monitoring programs be undertaken for the mitigation programs for Butternut, American Ginseng and Blanding’s turtle.