3.0 EROSION AND SEDIMENT CONTROL MANAGEMENT STRATEGY

3.1 Alberta Transportation Requirements

Alberta Transportation intends that the Erosion and Sediment Control Plans be prepared by experienced, competent individuals or firms. It is the intention that the contractor delivers the construction work in conformance with the specifications. Construction monitoring is provided and interim audits are conducted by AT or the consultant of record for the construction project.

Consultants and contractors are required to meet various responsibilities concerning environmental protection. Their responsibilities are discussed in the following sections.

3.1.1 Consultant Responsibility – Permanent Erosion and Sediment Control Plan

The design consultant is required to prepare the Permanent Erosion and Sediment Control Plan (PESC Plan) for the project.

This document is provided to the contractor for use in preparing the temporary erosion and sediment control strategy contained in the ECO Plan.

The requirements for the PESC prepared by the consultant are detailed in Section 9.0.

3.1.2 Contractor Responsibility – ECO Plan

During the execution of the contract, the contractor, as the prime occupant of the site, will be responsible for environmental protection of the site and to minimize potential environmental hazards that can arise as a result of his construction activities. The contractor is required to implement an Environmental Construction Operations (ECO) Plan detailing environmental protection measures under the guidelines of the ECO Plan Framework (AT et al. 2011). The most up-to-date details on the ECO Plan Framework are found on AT’s website at http://www.transportation.alberta.ca/571.htm.

3.1.3 Consultant’s Qualification to Design and Audit

Both the ECO Plan and PESC Plan must be completed by individuals or firms with appropriate experience in both highway design and construction and erosion and sediment control practice. The designer and auditor of the PESC Plan or reviewer of the erosion and sediment control strategy contained within the ECO Plan should also be one of the following:

- Registered Professional Engineer or Geoscientist (APEGGA Professional member);
- Certified Professional in Erosion and Sediment Control (CPESC).

3.2 Overview of Preparation of Erosion and Sediment Control Plans

The process involved in preparing an erosion and sediment control strategy as well as maintaining and revising the measures contained therein is presented in Figure 3.1. In this figure the general steps involved in preparing permanent and temporary erosion and sediment control plans throughout the various phases of a highway construction project are presented as a flow chart.
### Design Phase

Permanent Erosion & Sediment Control Plan

May Include:
- Soils information
- Environmental and hydrotechnical information
- Identification of erosion and sediment control issues
- Design of permanent erosion and sediment control measures

### Tender Phase

Contract Specifications & Special Provisions may include:
- Specific requirements related to Erosion & Sediment Control

### Construction Phase

ECO Plan Prepared by Contractor
(to include temporary erosion and sediment control measures)

Based on:
- Contract Specifications & Special Provisions
- ECO Plan Framework
- Erosion and Sediment Control Manual
- Permanent Erosion & Sediment Control Plan
- Design information
- Contractor experience
- Proper construction planning

### Implementation and Maintenance of Measures Contained in ECO Plan

- Update ECO plan to include information obtained during construction
- Maintain records for interim audits
- Ensure implemented measures result in compliance with environmental regulations

### Implementation of Measures Contained in Permanent Erosion and Sediment Control Plan

- Designer to update permanent measures to include information obtained during construction
- Contractor to implement permanent measures as part of construction as early as possible

### Post Construction Phase

Post Construction Monitoring

- AT and maintenance contractor(s) to verify permanent measures implemented result in compliance with environmental regulations

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**Figure 3.1:** AT Management Strategy for Erosion and Sediment Control on Construction Projects