

1.0 INTRODUCTION

Erosion and sedimentation are naturally occurring processes of loosening and transport of soil through the action of wind, water or ice and its subsequent deposition. However, construction activities can result in accelerated rates of erosion and sedimentation where soil surfaces are exposed and initially not revegetated. If left uncontrolled, these processes may result in an adverse impact to the environment, such as degradation of surface water quality, damage to adjacent land and degradation of aquatic habitat. Erosion and sediment control techniques are activities or practices, or a combination of practices that are designed to protect an exposed soil surface, to prevent or reduce the release of sediment to environmentally sensitive areas, and to promote revegetation as soon as possible.

The purpose of this document is to provide guidelines and standard procedures so that construction and maintenance activities are carried out in a manner to minimize erosion and sediment transport particularly where there are potential impacts to environmentally sensitive areas.

In this document, the process of sedimentation control is synonymous to sediment control.

1.1 Objectives

The objectives of this document are:

- Provide reference to the regulatory requirements related to sediment control;
- Clarify the roles and responsibilities of the owner (Alberta Transportation (AT)), their consultants, and the contractors involved in a construction project;
- Provide guidelines and standard procedures for selecting, designing and implementing erosion and sediment control measures for highway construction and maintenance;
- Provide details of erosion and sediment control measures commonly used on Alberta highway construction sites as well as their applications and limitations; and
- Provide a platform to assist AT in educating consultants and contractors with regards to erosion and sediment control.

This document is intended for use in the design, construction and maintenance of erosion and sediment control measures for terrestrial (land-based) highway infrastructure. The information, guidelines and reference material presented in this document is intended to supplement the experience and judgement of the individual or firm responsible for preparing an erosion and sediment control plan. **This document is not applicable for instream works.** The guidelines presented in the AT document "Fish Habitat Manual" (AT, 2009) are recommended for instream works.

A Field Guide titled "Field Guide for Erosion and Sediment Control" compliments this document.