



**Yukon
Water Board**

*Office des eaux
du Yukon*

SEDIMENT AND EROSION CONTROL PLAN GUIDELINES

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1. Purpose and Objectives

The purpose of these guidelines is to assist applicants in preparing a Sediment and Erosion Control Plan (Plan) that meets the requirements and expectations for plans submitted in accordance with the Water Licensing process. The specific information requirements presented in these guidelines are not intended to serve as fixed standards for licensing. Rather, they are intended to set out minimum information to be submitted in support of water licence applications for projects that have the potential to introduce or disturb sediment in watercourses.

Instream works such as bridge and culvert replacements and diversions can result in the release of sediment into watercourses. This sediment can be harmful to fish and other aquatic organisms as well as to fish habitat. A range of mitigation activities and project management strategies are available to manage sediment release and protect water quality.

A Sediment and Erosion Control Plan describing mitigation activities must be included as part of a water licence application submitted for projects involving instream works. Note that this guideline does not apply to placer undertakings as those projects are subject to limits set out in the *Fish Habitat Management System for Yukon Placer Mining*.

The objectives of the Sediment and Erosion Control Plan are:

- To outline measures that will ensure releases of sediment to the watercourse are prevented or minimized,
- To identify remedial actions that will be taken should turbidity concentrations approach or exceed the adaptive management level threshold concentrations, and,
- To outline a water sampling program that will ensure sediment control strategies are effective in maintaining suspended sediment levels below the authorized concentrations and also for timely adaptive management to prevent environmental harm.

2. Water Quality Limits

The Board will include water quality limits for turbidity and total suspended solids (TSS) in most water licences authorizing instream works. The limits are based on the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Aquatic Life. Turbidity concentrations are used as an adaptive management level threshold which triggers the implementation of additional mitigation strategies. Licensees will be expected to monitor turbidity levels during all instream works to ensure that sediment control measures are effective.

Total suspended solids concentrations are the compliance level threshold, and TSS concentrations are to remain below the compliance level at all times. It should be noted that while turbidity measurements can be used to estimate total suspended solids, it is only an

estimate. To ensure that TSS concentrations are below the compliance level Licensees may choose to collect TSS samples in addition to monitoring turbidity levels.

These water quality limits will be applied in licences unless the applicant can provide evidence that different standards would be protective of the receiving environment.

Turbidity and TSS water quality limits in a licence will usually apply to any instream works associated with the project. This includes all works during construction and any long-term maintenance authorized by the licence. These guidelines apply to instream works lasting 30 days or less. Please contact the Yukon Water Board Secretariat to discuss projects with instream works lasting more than 30 days.

3. Plan Requirements

The purpose of the Sediment and Erosion Control Plan is to describe the site specific operational procedures and best management practices that will be applied to the project which minimize the potential release of sediment to watercourses. The detail required in the plan will vary in accordance with the scope and scale of activities proposed in the application. The Sediment and Erosion Control Plan may be presented as part of the main application, and is not required to be drafted as a standalone document. The Plan must include, at a minimum, the following information:

1. Introduction

- An overview of the project description, scope of work, project schedule and the areas where sedimentation/erosion may be a concern
- A summary of the objectives of the Plan.
- A summary of any timing windows that may restrict the scheduling of instream works.
- A site plan indicating:
 - the location of instream works and infrastructure to be removed/installed
 - the locations where erosion and sediment control mitigation features will be installed
 - water diversions (if applicable)
 - areas of dewatering (if applicable)
 - on-site settling features
 - proposed upstream and downstream monitoring locations

2. Erosion and Sediment Sources

- Identify all areas where erosion or sedimentation may be a concern, a characterization of materials, a discussion of if the areas can be avoided, and the level of concern associated with each area.

3. Erosion and Sediment Control Measures

- Provide a detailed description of the methods of sedimentation and erosion prevention, the controls that will be used, the specific situations that they will be used in, and the implementation procedures that will be followed. Applicants are encouraged to implement best management practices for sediment and erosion control.

4. Monitoring Strategies

- Provide details of the proposed monitoring program, including:
 - who will be responsible for implementing the monitoring program
 - the proposed frequency, method and duration of sampling at upstream and downstream locations. Sampling will generally be required every hour for instream works of less than 24 hours, and daily sampling during instream works of between 24 hours and 30 days. Applicants are requested to contact the Yukon Water Board Secretariat to discuss projects where instream works will last more than 30 days.
 - parameters to be tested (generally turbidity and TSS).
 - a commitment to follow CCME Water Quality Guidelines or proposed alternative water quality limits with rationale and supporting evidence.

4. References and Links

Canadian Council of Ministers of the Environment. 1999. Canadian environmental quality guidelines. Turbidity, clarity and suspended solids factsheet. Canadian Council of Ministers of the Environment, Winnipeg. <http://ceqg-rcqe.ccme.ca/download/en/217>

Approved: Board Approved

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