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# Canadian-wide Standards for the Erosion and Sediment Control Industry



**TRIECA CONFERENCE 2018**

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- Context
- Standards vs guidelines
- ESC Inspection and Monitoring
- Summary and questions

- In response to industry concerns about inconsistent practices leading to project failures, IECA Canada developed the idea to write standards for the ESC Industry
- CSA Group, an accredited standards development organization in Canada, was hired by IECA Canada to manage the development of these new ESC standards
- IECA Canada and CSA Group reached out to industry stakeholders from across Canada and formed a CSA Technical Committee to oversee the drafting and development process
- Inspection and Monitoring is the first of 3 standards planned for development

## Standards:

- Outline (minimum) requirements that a user “shall” follow
- Are typically concise, focusing just on the information needed to effectively carry out the requirements
- Are compatible with legislation, contracts, permits etc. because they allow an authority to perform due diligence, and a user the ability to demonstrate compliance

## Guidelines:

- Provide information that a user might consider when making a decision
- Are typically broad and may include extensive and high-level information on multiple facets of an industry
- Are non-requirement-based and therefore not documents that are easily or typically referenced in legal documents or by the regulatory community

One is not necessarily better than the other – it’s all about need!

## SCOPE

This standard specifies minimum requirements to be adhered to with respect to the inspection of ESC measures through the duration of a project, as well as minimum requirements for monitoring and other water quality parameters for projects of varying complexity and sensitivity. It also includes a description of the required qualifications for a Qualified Environmental Inspector (QEI) and QEI in training (QEI-IT). This standard further details the required documentation and communication procedures to be followed with respect to erosion and sediment control inspection, monitoring and other compliance.

## GENERAL

The standard provides:

- defined experience and education requirements for those considered to be qualified to perform the tasks outlined in this document;
- minimum requirements for the inspection of ESC measures and plan implementation;
- minimum requirements for monitoring compliance with ESC plans; and
- minimum requirements for documenting compliance with and intended results of the erosion and sediment control plans.

## USERS

The standard is intended for use by those with a vested interest in the ESC elements of construction projects which may include a regulatory authority, design engineers, qualified environmental inspectors, contractors, consultants, contract administrators, and others assigned to the inspection of ESC measures and plan implementation.

## APPLICABILITY

The standard applies to the inspection and monitoring of ESC measures designed and implemented during the following types of construction activity:

- Buildings, roads, highways and other infrastructure, bridges and culverts, parking lots, construction of pipeline, fibre optics or other utilities, and additions and/or significant modifications of any of these structures.

The standard does not apply to:

- Construction projects < 1ha in size that do not drain directly to sensitive environmental features or infrastructure
- Natural resources extraction operations
- Normal farming practices that do not cause intrusion into the natural environment
- Projects capable of demonstrating no erosion or risk of sedimentation;
- Insignificant additions/modifications that can demonstrate low erosion/sediment risk.



## QUALIFIED ENVIRONMENTAL INSPECTOR (QEI)

....QEI shall possess the education and experience necessary to properly inspect and monitor erosion and sediment controls. To meet this requirement, a QEI shall have....education, experience, and/or professional organization membership and certifications.

TC approach: ensure that the people assigned to inspect and monitor ESC measures know what they are doing so as to avoid failures leading to environmental loss, health and safety risks, and damage to infrastructure. The standard also aims to raise the bar for this role within the industry.

## INSPECTION

Covers pre-construction, during construction, and post construction requirements including actions to be taken, frequency, and other considerations relevant to ensuring effective erosion control and the avoidance of sedimentation.

TC approach: foster greater project success by establishing minimum requirements for inspecting ESC measures that reflect national knowledge and best practice (starting at the point measures are installed through the point at which stabilization requirements are met).

## MONITORING

Covers pre-, during, and post-construction environmental monitoring requirements, and outlines a turbidity monitoring protocol linked to site sensitivity.

TC approach: establish minimum requirements for monitoring the effectiveness of ESC measures, and promote greater monitoring at sensitive project sites with an awareness and communication system triggered by certain NTU readings.

## Installation and Maintenance:

- Geared toward contractor's installation personnel
- Will outline minimum requirements and key considerations to ensure that an ESC measure was installed properly and is adequately maintained
- Will not dictate which products to use
- Will not mention specific brand or trademarked names
- Is not intended to replace or take precedent over the instructions provided by the manufacturer

## Planning and Design:

- Risk assessment
- ESC plan development
- Site planning and preparation best practices
- Other recommendations for successful project implementation

- ESC is a growing industry with an opportunity to clean up inconsistencies through common approaches based on the knowledge and experience of industry experts from across Canada
- Raising the bar for personnel qualifications and setting minimum requirements for ESC inspection and monitoring is one piece of the solution; future standards in other key areas are needed to maximize effectiveness
- Through continued industry engagement and a process for periodic updates, these standards should help drive good industry practice and protection of the environment

**Your input and feedback is encouraged - the Inspection and Monitoring standard will be out for public review in April!**

# *Thank You!*

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**CSA  
Group**

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