

# Assessment and Management Framework of Sediment in Canadian Waters

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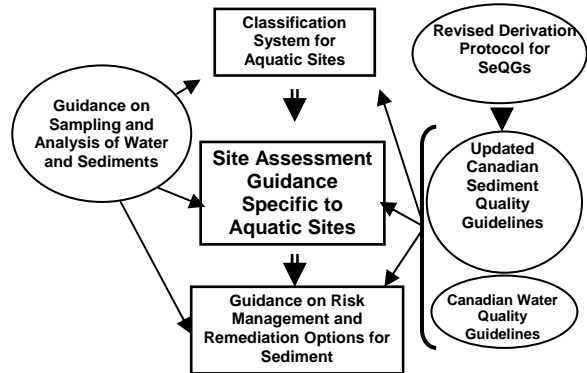
**Introduction:** Canadian Sediment Quality Guidelines are used in both regulatory and non-regulatory instruments to assess and manage sediment quality and quantity. The Canadian federal government is working with provincial governments to develop an Assessment and Management Framework of Sediment in Canadian Waters to address different environmental quality goals of embodied in protection, dredging, disposal and remediation programs.

**Discussion:** Our aim is to incorporate elements of existing assessment and management tools including Canada-Ontario Decision-Making Framework for Assessment of Contaminated Sediment [1]; Criteria for the Assessment of Sediment Quality in Quebec [2]; and, Assessment of Sediment Quality for the Canadian Disposal at Sea [3] in a single management framework that will help improve national consistency.

The role of guidelines in the framework is to (i) help prevent pollution by providing targets for acceptable environmental quality; (ii) assist in deciding the significance of concentrations of chemical substances currently found in the environment; (iii) be a scientific basis for clean-up targets for contaminated sites; and (iv) serve as performance measures of the success of risk management and remediation activities.

Within the framework, sediment quality guidelines may be adjusted to account for intended use. For example, in cases of pollution prevention, a high level of protection is desired while for remediation of contaminated sites, a clean-up target that will help restore ecological function is required.

We welcome discussion on this framework.



**Fig. 1:** Conceptual Illustration of the Canadian Framework as it could apply to aquatic contaminated sites.

**References:** [1] Canada and Ontario. 2008. Canada-Ontario Decision-Making Framework for Assessment of Contaminated Sediment ISBN 978-0-662-46147-0; [2] Environment Canada and Ministère du Développement durable, de l'Environnement et des Parcs du Québec. 2007. Criteria for the Assessment of Sediment Quality in Quebec and Application Frameworks: Prevention, Dredging and Remediation. 39 pp.; [3] Environment Canada. 2008. The Application of Sediment Quality Guidelines (SQGs), Sediment Chemical Data and Bioaccumulation/Biomagnification Considerations in First Tier of the Assessment of Sediment Quality for the Canadian Disposal at Sea Program.