

MANAGING TURBIDITY, SUSPENDED SOLIDS AND BEDDED SEDIMENTS UNDER THE CLEAN WATER ACT– THE EPA PERSPECTIVE

William F. Swietlik, Program Manager
Biocriteria Program, Health and Ecological Criteria Division
Office of Science and Technology, Office of Water
US EPA
1200 Pennsylvania Ave., NW; Washington, DC 20460

ABSTRACT

Excessive erosion, transport and deposition of suspended solids and bedded sediments in surface waters is a major form of pollution resulting in extensive water quality problems throughout the Nation's waters. The 1998 National Water Quality Inventory ranks suspended solids and sediments as the leading cause of water quality impairment of rivers and lakes.

The States and Tribes are required by the Clean Water Act (CWA) to adopt water quality standards to protect public health and welfare, protect designated uses, enhance the quality of water and serve the purposes of the CWA. Water quality standards consist of designated uses, water quality criteria to protect those uses, and an antidegradation policy.

States and Tribes may adopt numeric water quality criteria into their water quality standards using CWA Section 304(a) criteria guidance; Section 304(a) criteria guidance modified to reflect site-specific conditions; or other scientifically defensible methods. EPA has published aquatic life criteria guidance for 31 chemicals and human health criteria for 110 chemicals. However, EPA has not yet published new criteria guidance for turbidity, suspended solids, bedded sediments or other indicators. Only an old solids and turbidity criterion remains from the 1970s.

In lieu of useful criteria for turbidity, suspended solids and bedded sediments, and given the large number of impaired water bodies and potential litigation, the States and Tribes are using a variety of approaches to managing these pollutants through the Total Maximum Daily Load (TMDL) program and are imposing National Pollutant Discharge Elimination System (NPDES) permit requirements on point sources and recommending best management practices (BMPs) on non-point sources to control turbidity and sediment throughout watersheds across the Country.

This presentation provides an overview of EPA's approach for dealing with turbidity, suspended solids and bedded sediments, top priority research needs, EPA research strategy to help resolve this problem, what States are currently doing, EPA's plans for developing water quality criteria and how EPA envisions suspended solids and embedded sediments be dealt with under the CWA legal and regulatory framework.