



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

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OFFICE OF  
GENERAL COUNSEL

MEMORANDUM

TO: David K. Sabock  
Chief, Criteria and Standards Section

FROM: Catherine A. Winer *CAW*  
Attorney, Water Division

SUBJECT: Development of Sediment Criteria

To assist in your exploration of possible approaches to development of sediment 1/ criteria, you have asked me to address EPA's authority under the Clean Water Act to develop sediment criteria and the legal basis, if any, for using such criteria in a regulatory fashion.

Your memorandum states that scientific data indicate that contaminated sediments can be responsible for significant adverse effects on certain aquatic organisms (I presume largely from ingestion or physical contact) even when ambient water column criteria are not exceeded. Under those circumstances, I believe that sections 104 and 304(a)(1) and (2) provide authority to develop sediment criteria.

Section 104 authorizes the Administrator to conduct and promote research into the causes, effects, extent, prevention, reduction, and elimination of pollution, and to publish relevant information. Section 104(n)(1) in particular provides for study of the effects of pollution, including sedimentation, in estuaries on aquatic life.

Section 304(a)(1) directs the Administrator to develop and publish "criteria for water quality" reflecting the latest scientific knowledge on, inter alia, the kind and extent of effects on plankton, fish, shellfish, and wildlife which may

1/ Sediment refers to bottom sediments in streams, lakes, and other "waters of the United States".

be expected from the presence of pollutants in any body of water, including ground water, and on the effects of pollutants on biological community diversity, productivity, and stability. Given the principle that the Clean Water Act should generally be construed broadly to achieve its purposes (see, e.g., Scott v. Hammond, 7th Cir., Aug. 16, 1984), I see no great difficulty in interpreting the phrase "pollutants in any body of water" in this context to include pollutants in the river bed or lake bed or wetland substrate, where those pollutants may affect aquatic life. Similarly, "criteria for water quality" could be construed to mean criteria directly protecting the biological integrity of waters of the United States, since aquatic life is part of "water quality" in the broad sense.

Section 304(a)(2) directs the Administrator to develop and publish information on, inter alia, the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters. This section too could be interpreted to cover the development of information on the effects of contaminated sediments on aquatic life.

Your second question relates to the use of such criteria in a regulatory effort. As in the case of other section 304(a) criteria, they would simply be informational. However, there are some additional steps which could be taken to give them a regulatory role. If the Administrator found that including sediment criteria was necessary to meet the requirements of the Act, e.g., protect the designated water use, he could include them in water quality standards he promulgated under section 303(c)(4). Assuming state law did not limit criteria in water quality standards to water column criteria, states could also adopt such criteria as part of their standards process. (Indeed, states need not rely on section 303(c), as section 510 would protect their right to adopt and enforce such sediment criteria even if section 303 were read narrowly.) Once incorporated as criteria in water quality standards, sediment criteria could be enforced through NPDES permits, 404 permits, and the like.

In addition, to the extent that sediment criteria could be developed which addressed the concerns of the section 404(b)(1) Guidelines (for discharges of dredged or fill material under the Clean Water Act) or ocean dumping criteria (under the Marine Protection, Research, and Sanctuaries Act), they could also be incorporated into those regulations.

As your work on sediment criteria develops, other regulatory applications may be possible. I would be glad to consider the matter further at that time.