

25 September 1996

Carol,

The following information is provided to address the problem definition statement with respect to "sediment criteria". Sediment criteria set forth in dredging permits and dredge material reuse projects should not be used in the context of assessing sediment and its impact on the ecosystem. The permit values are based on a wide variety of issues not directly related to ecosystem health. For some projects, permit values are designed to protect ecosystem health (like for an "open water" dredge material disposal or reuse project).

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Phase II -

For sediment assessment purposes we are using sediment quality guidelines developed by NOAA (ERL, ERM) and USEPA sediment quality criteria as a first pass. If no guidelines are available or if the assessment is in a gray (is it a hit or not) we use "working criteria" from **British Columbia Ministry of Environment Lands and Parks** and sediment quality guidelines taken from **Guidelines for the Protection and management of Aquatic Sediment Quality in Ontario**.

Ecosystem
sustainability

DWR produced a document entitled "Quality Assurance Technical Document 7, Compilation of Sediment & Soil Standards, Criteria and Guidelines, February 1995. This document is also a good reference.

I can provide a list of the above guidelines and criteria if you would like.

The following is a list of reference documents for the above information.

1. Long, E.R., et al, Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments, 1994
2. USEPA - various, see attached bibliography from Document No. 5 below
3. British Columbia Ministry of Environment Lands and Parks - See attached Fraser River Action Plan - bibliography for review of environmental quality criteria and guidelines (guidelines also attached)
4. Guidelines for the Protection and management of Aquatic Sediment Quality in Ontario - see attached bibliography from Document No. 5 below
5. Quality Assurance Technical Document 7, Compilation of Sediment & Soil Standards, Criteria and Guidelines, February 1995. copy of document bibliography attached.

I have circled many of the reference documents we would use for sediment assessments. As you can see we need Delta specific sediment quality criteria to better agree on the health of the system. With out criteria we will continue to rely on various guidelines for assessment activities.

I have also provided copies of various reports that show that there are problems and/or may be problems. However, much of the past sediment assessment work performed by DWR others in the Delta was to assess impacts to ground water and surfacewater with respect to drinking water protection and not ecosystem health. Only limited sediment toxicity testing has been completed.

State of California

Environmental Protection Agency
California Regional Water Quality
Control Board
Central Valley Region



WILLIAM A. CROYLE, P.E.

Associate Water Resource Control Engineer
Standards, Policies and Special Studies

3443 Routier Road, Suite A
Sacramento, CA 95827-3098
billc@bptcpl.swrcb.ca.gov

(916) 255-3091
CALNET 494-3091
FAX 255-3015

Bill Croyle
255-3091