

SEDIMENT TOXICITY FOCUS GROUP
SEDIMENT TOXICITY RECOMMENDATION #2
TIMING AND FREQUENCY FOR SEDIMENT TOXICITY TESTING
4 August 2006

OBJECTIVE: The objective of this recommendation is to clarify the requirements for the timing and frequency of sediment toxicity testing by Coalitions.

PROBLEM STATEMENT: The Assessment Monitoring section of the draft Coalition Group MRP does not clearly specify the timing and frequency required for sediment monitoring by the Coalitions. Footnote "c" to Table 1 in the draft MRP states that, "Sediment Monitoring frequency is one sample during the irrigation season and one sample during the storm season." Concerns were expressed regarding the consistency and representativeness of data, based on different interpretations of the text. There were also health and safety concerns based on the interpretation that sampling during storms, high flow, or dangerous conditions may be required.

Recent research indicates that most sediment toxicity observed in agriculturally influenced channels is related to the presence of hydrophobic pesticides. Generally, much of the in-season use of pesticides is complete by early August. Mid-August through Mid-October is a likely period of time for sediment to reflect the combined input of pesticides from all in-season pesticide use. Sampling in spring, after peak flows from rain events decline would be likely to appropriately evaluate impacts caused by storm related transport of any residual pesticides remaining from in season use or off-site transport of pesticides from dormant season applications. The beginning of March through the end of April is estimated to be an appropriate range for evaluating dormant season activities. Although more frequent analysis could provide additional information, the timing and frequency described above should provide a reasonable baseline for evaluating impacts to benthic organisms from agricultural discharges. If Coalitions wish to use alternatives to the timing and frequency requirements stated, the Coalition representative must provide written justification for the change, and this change must be approved by the Executive Officer.

Therefore, the Sediment Toxicity Focus Group is making the following recommendation to the TIC:

RECOMMENDATION:

Each monitoring location that is sampled by the Coalition for water column toxicity should also be monitored for sediment toxicity, if appropriate sediment (i.e. silt, clay) is present at the site. The frequency of sediment toxicity sampling by Coalitions should be twice per year, to evaluate baseline impacts to sediment quality from agricultural discharges. The timing of the twice-yearly samples should be: one sample collected between August 15 and October 15, and one sample collected between March 1 and April 30 of each year.

It is recommended that the narrative in the draft MRP be changed to include the following text:

"Sampling and analysis for sediment toxicity shall be carried out at each location established by the Coalition for water quality monitoring, if appropriate sediment (i.e. silt, clay) is present at the site. Sediment samples shall be collected and analyzed for toxicity twice per year, with one sample collected between August 15 and October 15, and one sample collected between March 1 and April 30, each year. If Coalitions wish to deviate from the

written timing and frequency requirements, the Coalition representative must provide written, scientifically defensible justification for the change for review by the Executive Officer. This would recognize that geographic or watershed specific characteristics may justify modifications to the baseline MRP requirements, but that such changes must address the intent of the requirements, be scientifically based, and be approved by the EO.