

Minutes from the May 22, 2003 Contaminated Sediment Task Force, Sediment Thresholds Subcommittee

Steve Bay discussed SCCWRP's analysis of the off-the-shelf SQGs using the CSTF database of 336 stations from the LA Region and comparing these to the national database. The national database has more heavily contaminated samples than the CSTF sediment quality database. The subcommittee discussed the goals of the Level I (clean) and Level II (really bad) thresholds; generally, the subcommittee believed that Level I is the more important threshold and that the emphasis should be on being correct about the sediments being clean (not producing toxicity) most of the time. Steve pointed out that even the best SQGs probably can only be expected to be correct about 90% of the time. This issue will be discussed more at the next meeting with a decision to be made on the comfort targets for accuracy and efficiency. All three guidelines tested were relatively similar; most of the data falls in the center between Level I and II (i.e., the range where clear decisions about sediment toxicity are difficult to make).

Jay Fields made a presentation on his logistic regression model, a non-threshold approach. This approach requires development of a regression curve and then the setting of the threshold wherever it is decided is appropriate. This model is based on 37 individual chemical models (10 metals, 22 PAHs and 5 pesticides/PCB) which are integrated into a single model. It was difficult to determine if this model would work better than the other three (ERM, SQG-QI from Moss Landing or consensus approach).

The subcommittee agreed that the next step would be to establish CSTF performance goals, particularly focusing on Level I non-toxicity efficiency (i.e., correctly predicting lack of toxicity based on chemistry). SCCWRP also will evaluate alternative approaches beyond the off-the-shelf methods. SCCWRP will look more closely at the chemical-specific relationships and attempt to identify those chemicals that are "drivers" and those that are "confusers" in the SQGs. SCCWRP will explore incorporating additional constituents into the LRM approach (e.g., chlordane, grain size, TOC), as well as deleting some constituents.

The subcommittee discussed the CSTF database in particular the changes Peggy Myre has made in the database structure to eliminate duplication and accommodate some other types of data. The Ports are interested in continuing to add to the database, so they want MEC and AMEC to be able to provide electronic data files for future projects. The Ports will work with Peggy to develop Excel/Access templates for this purpose. There was interest in continuing to support the enhanced query tool, although it appears that only a few people currently are using the database.

Next meeting (June 23, 1:00-3:30pm at the Port of Los Angeles Port Plaza). Topics to be discussed include performance goals and objectives, and implementation (how the thresholds would be used, and the ramifications of errors in Level I). Additionally, the CSTF Management Committee has requested the Sediment Threshold Subcommittee make a recommendation on threshold levels for CAD materials (i.e., should CAD materials be relatively similar in terms of chemical contamination to background levels in Los Angeles Harbor - Los Angeles River Estuary).