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DRAFT Proposal - RMP Status and Trends Program Benthic Studies – 2007

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As a recommendation from the Benthic Workshop in May, 2006, and of the EEPS Panel in December, 2006, the RMP should implement benthic macrofaunal sampling as part of the Status and Trends Program. Three options are suggested. In each, benthic sampling would be coordinated with RMP sediment contamination and toxicity sampling in order to obtain samples for all three lines of evidence recommended for use in the Sediment Quality Objectives program.

1. DWR Collaboration Pilot. To demonstrate the ability to collaborate to produce sediment assessments in San Pablo and Suisun Bays, SFEI staff would accompany DWR during their scheduled sampling effort at eight sites in San Pablo-, and Suisun Bays. DWR would collect and process benthic samples, and RMP would collect and process sediment chemistry and toxicity samples using current RMP protocols. The product would be a demonstration of collaboration and sediment assessments at those sites using the proposed Sediment Quality Objective methods.
Estimated Cost: \$47,000 (2 days SFEI labor, sediment analyses, toxicity testing, reporting)

2. DWR Pilot and RMP sampling in the remaining segments. This option would include 1. above, and additional RMP sampling for benthos at four sites in each of the five remaining Estuary segment (Extreme So. Bay, So. Bay, Central Bay, Carquinez, and Rivers). The sites sampled would be a subset of the RMP sites that would be sampled for sediment toxicity and sediment contamination in 2007. Thus, only benthic sampling would be added.
Estimated Cost: \$81,000 (Option 1 costs, additional taxonomy).

3. RMP sampling only. If the DWR pilot cannot be conducted for any reason, then RMP could conduct a pilot sediment assessment by collecting benthic samples at the 27 sites where sediment chemistry and toxicity are scheduled to be collected in 2007.
Estimated Cost: \$57,000 (additional vessel day, labor, taxonomy, reporting)

Cost Estimates include:

- Sediment chemistry and toxicity, Option 1 only ; 8 samples: \$34,000
- Benthic sample collection labor: \$800 / day
- Benthic taxonomy: \$1500 per sample.
- Sediment assessment report: 2 staff, 60 h each = \$10,800.

The sediment assessment report would not be completed until 2008, owing to the six to nine months needed to conduct the taxonomic analysis of the benthic samples, and normal turn-around times for chemistry analyses and toxicity testing.