Exposure and Effects Pilot Study Workgroup Meeting (2005)

Background:
The purpose of the Exposure and Effects Pilot Study (EEPS) is to identify exposure and effect indicators that can be used to monitor contaminant exposure and effects at different trophic levels, biological organization levels (e.g., biochemical, individual, population, and community levels), and spatial scales (e.g., locally or regionally). The goals of EEPS are:

- To develop indicators of Estuary exposure and effects for potential incorporation into the RMP Status and Trends Program. Long-term monitoring of these indicators will provide information to SFBRWQCB that can be used to evaluate the condition of the Estuary and, if needed, to implement management strategies to protect the Estuary; and
- To advance understanding of contaminant exposure and effects in the Bay through short-term special studies.

In 2004, an extensive literature review and evaluation process was conducted to select the indicators for EEPS. This work was summarized in the Conceptual Framework Model. Based on this report, the following indicators proposed for inclusion into EEPS:

- Terns
- Cormorants
- Benthos
- Diving Ducks
- Fish
- Clapper Rail
- Seal
- Sediment and Aquatic Toxicity

EEPS is funded at $200,000 per year for the next three years (2005 through 2008).

Meetings and Milestones:
EEPS met on April 4th and June 13th to discuss the research that will be undertaken on indicators. EEPS will meet again in late 2005. EEPS has added Dr. Daniel Schlenk of UC-Riverside to replace Dr. Spies who is resigning to conduct the fish effects work.

Four-Year Workplan
The RMP staff developed a draft Four-year Workplan outlining the indicator research conducted to date and the proposed research for the next three years (2005 – 2008). Based on a review of data and the criteria for incorporation of indicators into Status & Trends, research was proposed for:

- Terns

- Cormorants
- Benthos/Sediment Indicators
- Fish Effects
- Clapper Rail

Four-year Draft Budget
2005
Research proposed for 2005 included:

- Terns -- $3,000 Analyses of Hg in Caspian Effects
- Benthos/Sediment Indicators - $10,000 for evaluation of benthic archive samples/scoping out 2006-2008
- Fish Effects - $50,000 (funded) + $20,000 for development of laboratory culture
- Clapper Rail - $5,000 for scoping feeding studies or other useful effect studies

2006 and beyond
Research proposed for 2005 included:

- Terns – Egg Injection study
- Cormorants – Potentially moving into Status and Trends
- Benthos/Sediment Indicators – Validation of SQO work
- Fish Effects – Continuation of work (funded) and proposed work for 2007/2008
- Small Fish -
- Clapper Rail Effects -

EEPS Science Advisory Panel will review draft budget over next several weeks. Once comments on the budget are received, the budget will be incorporated into the Four-Year Workplan. This document and the budget will be sent to the TRC for comment.