South Bay Salt Pond Restoration Project

Sediment Work Group
March 18, 2005 Meeting #2

I. Background: The purpose of the Workshop was to build on the outcomes from the first sediment workshop held in December 2004. During the first workshop, attendees focused on these questions:

- What are the results of the Consultant Team's LSGA and how was the approach modified based on comments from the first Sediment Workshop?
- What is the status of bathymetric data collection for the Project?
- What studies and data collection could be conducted during the planning phase to help inform planning decisions?
- What studies and data collection should be conducted for Adaptive Management and longer-term modeling?

Specific outcomes for the second sediment workshop included developing the following:

- Ideas on how to advance modeling in the future for increased predictive power.
- List of study ideas for short-term studies.
- List of study ideas for long-term ecosystem understanding and adaptive management.

II. Working Group Organization: The Project Management Team convened the meeting and the following individuals participated:

Steve Ritchie, SBSP Project	Dilip Trivedi, Moffatt and Nichol
David Schoellhamer, USGS	Fred Hetzel, Regional Water Quality Control Board
Lester McKee, SFEI	Liang Xu, Santa Clara Valley Water District
Jim McGrath, Port of Oakland	Jen-Men Lo, Santa Clara Valley Water District
Kris May, PWA	Thomas Bawden, USACE
Laurel Collins, Watershed Sciences	Bruce Jaffe, USGS
Jessie Lacy, USGS	Don Woodrow, USGS
Lynne Trulio, San Jose State University	

III. Key Outcomes - <u>Presentation 1</u>: Kris May, from PWA, presented the preliminary results of the LSGA and Kris addressed how the LSGA changed based on input from the first Sediment Workshop. With respect to Outcome 1, we thought modeling could be advanced in the future by:

- Better understanding of tributary inputs;
- Better understanding of whether processes in small marshes can be scaled up;
- Inclusion of surface rebound;
- Understanding and including mechanisms for long and short-term erosional/depositional changes;
- Use of more sophisticated models that are specifically developed to model sediment dynamics and long-term geomorphic change.

<u>Presentation 2</u>: Dr. Bruce Jaffe gave an update on bathymetric data collection. There was significant discussion about the role of tributaries in the South Bay sediment budget. A clearer understanding of how much sediment is coming from local watersheds and how far it is transported into the Bay is needed.

With respect to Outcome 2, specific short-term studies might include:

- Research to determine how major sediment supply and storage has changed in the large South Bay watersheds over the last 150 years and link these data to changes in land use and depositional history to Jaffe's South Bay bathymetric change estimates.
- Studying the relative contribution of sediment from different tributaries and the distribution of that material. For instance, we could use trace element analysis to determine what percentage of sediment is of Bay versus tributary origin.
- Collecting data on any localized slough and evaluating mudflat changes that have accompanied smaller restoration projects.
- A tidal flat equilibrium versus disequilibrium study.
- Collecting sediment and water outflow data below existing stations, which are located too far upland to understand the amount of material supplied to the Bay by local watersheds.
- Combining Fred Nichol's short-term mudflat change data with Bruce's long-term data to get a better handle on short-term variability and its effects on net deposition or accretion.
- Outcome 3, on long-term studies and Adaptive Management, was not addressed.

IV. Next Steps: We agreed that we should hold a third Sediment Workshop focusing on sediment transport from watersheds to the Bay and adaptive management questions. It will be on June 17.