

SUMMARY AND RESULTS OF THE SAN FRANCISCO ESTUARY NATIONAL WATER QUALITY MONITORING NETWORK PILOT STUDY

K.H. Harrold, M. Sedlak, S. Lowe, M. Connor, M. Williams
San Francisco Estuary Institute
7770 Pardee Ln
Oakland, CA 94621-1424

ABSTRACT

San Francisco Estuary was chosen as one of three pilot studies to test and improve the National Monitoring Network for the U.S. Coastal Waters and Their Tributaries design. The San Francisco Estuary inventory effort identified 47 significant studies in the region conducted by 22 organizations that collect environmental measures related to the Network target constituents including pollutants of concern, biological conditions, and physical characteristics and has strengthened local understanding of ongoing efforts and needs. The estimated cost of existing monitoring within the Network design is \$13.3 million and the estimated cost to fill the monitoring data gaps is \$1.35 M, for a total cost of \$14.65 M to fully implement the Network design. The major gaps identified in this pilot study include atmospheric deposition monitoring, select nutrients and contaminants, temporal monitoring of nutrients, temporal near-shore monitoring, and biology monitoring in near-shore, estuary, and river compartments. Additionally, further development of groundwater and wetland designs will allow for complete gap analyses. Each of the identified studies provides significant input to managers and stakeholders for making informed decisions. However, with a few notable exceptions, the data are not stored in a consistent format nor easily integrated into a national interpretive summary without significant local efforts. State agencies and some federal agencies are working to allow easy exchange between their water quality-related databases, but more work is needed. Coordination of data formats is important. Additionally, the national parameters could be further developed to be relevant to West coast estuaries.

KEYWORDS

National Water Quality Monitoring Network, San Francisco Estuary, monitoring, survey