

IEP Data Management Plan

Project Element Number:

029

Year:

2024

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Start Date:

2023-10-01

Study Title

San Francisco Bay Salinity and Temperature Monitoring

Principal Investigator

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Data Description

Specific conductance and water temperature at 15-min interval at different sites throughout SF Bay:

San Francisco Bay at Dumbarton Bridge; San Francisco Bay at San Mateo Bridge near Foster City; San Francisco Bay at Alcatraz; San Francisco Bay at Richmond Bridge; Carquinez Strait at Carquinez Bridge; Suisun Bay at Benicia Bridge

All stations except Alcatraz include instruments located at two depths, typically one each in the lower and upper half of the water column. The Alcatraz station has a single instrument located roughly at mid-depth.

Related Data

Turbidity and suspended-sediment concentration are co-located with salinity and temperature stations at the following sites:

San Francisco Bay at Dumbarton Bridge; San Francisco Bay at Alcatraz; San Francisco Bay at Richmond Bridge; Suisun Bay at Benicia Bridge. All stations except Alcatraz include instruments located at two depths, typically one each in the lower and upper half of the water column. The Alcatraz station has a single instrument located roughly at mid-depth.

Collection of these data is cooperatively funded by US Army Corps of Engineers.

Metadata

The USGS has a uniform set of specific definitions that are assigned to parameters using parameter codes.

Definitions of parameters and parameter codes collected for this work are available at <https://help.waterdata.usgs.gov/codes-and-parameters/parameters>

Metadata associated with current water quality conditions are available for each station at <https://waterdata.usgs.gov/nwis>.

Storage and Backup

At all stations, data are telemetered hourly and stored in a nationwide USGS database (NWIS), which is backed up daily in multiple locations. Additional backup data files are stored on the equipment which are downloaded during field visits every 3-6 weeks; these files are managed at the project level and stored on an internal server that is backed up daily and managed by USGS IT staff.

Archiving and Preservation

Archiving and preservation of data are of utmost importance and are supported by the USGS at the national level. All data collected at a station are permanently stored under the station ID number in a database with redundant backups. Data are permanently accessible by the public via the website <http://waterdata.usgs.gov/nwis>.

Format

User has a choice of formatting: tab-separated text file or web page table.

Quality Assurance

Quality assurance is addressed through rigorous USGS protocols.

Wagner RJ, Boulger R Jr, Oblinger CJ, Smith BA (2006) Guidelines and standard procedures for continuous water-quality monitors—station operation, record computation, and data reporting. US Geological Survey Techniques and Methods 1–D3. <https://pubs.usgs.gov/tm/2006/tm1D3/>

All data are required to undergo a rigorous review process prior to approval, and must be made available to the public.

Access and Sharing

Access and sharing of data are supported by the USGS at the national level. <http://waterdata.usgs.gov/nwis>.

Access is available to the public at no cost; provisional data are available immediately and approved data are available approximately 1 year after collection.

Rights and Requirements

There are no requirements for data use by the public.