VI. IEP Data Management Plan

YEAR:	PEN:	DATE UPDATED:
2019	029	2018-06-04

STUDY TITLE:

San Francisco Bay Salinity Stations

PRINCIPAL INVESTIGATOR: Individual(s) responsible for the project. Include name, agency, e-mail, & phone.

Maureen Downing-Kunz
USGS - California WSC, Sacramento
mdowning-kunz@usgs.gov; 916.278.3051

POINT OF CONTACT: Individuals who data users should contact for access to the data or questions about the data. Include name, agency, e-mail, & phone number or write “same as above.”

Patricia Orlando
USGS - California WSC, Sacramento
porlando@usgs.gov; 916.278.3008

DATA DESCRIPTION: A very brief description of the information to be gathered; the nature and scale of the data that will be generated or collected.

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.
data set size varies depending on time period of interest. File size for each parameter for 1 year is approximately 2 MB.

RELATED DATA: Optional. Existing datasets that you incorporate into analysis and reporting for this program element, existing data that are relevant to your study, or data that are collected simultaneously.

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: A description of the metadata to be provided along with the generated data, including the metadata standards used. Provide the file name and information on how users can access the metadata (e.g., a link).

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 from https://catalog.data.gov/dataset?metadata_type=geospatial&q=nwis&organization=usgs-gov&sort=score+desc%2c+name+asc&vocab_category_all=Water&_undefined_sortAlpha=asc

STORAGE & BACKUP: A description of the short-term storage methods and backup procedures for the data, including the physical and electronic resources to be used for the short-term storage of the data.

At most 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.
Supplemental information on NWIS is available here:
https://catalog.data.gov/harvest/object/1be255f4-a82c-447c-aa75-109454e0f0ac/html/original

ARCHIVING & PRESERVATION: The procedures for long-term archiving and preservation of the data, including succession plans for the data should the expected archiving entity go out of existence.

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.
Supplemental information on NWIS is available here:
https://catalog.data.gov/harvest/object/1be255f4-a82c-447c-aa75-109454e0f0ac/html/original

ACCESS & SHARING: A description of how data will be shared. Include (1) access procedures, (2) embargo periods, (3) technical mechanisms for dissemination (e.g., website addresses, listserv information), (3) whether access will be open or granted only to specific user groups, and (4) a timeframe for data sharing and publishing.

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.

FORMAT: Formats in which the data will be generated, maintained, and made available. Include BOTH general data type (e.g., spreadsheet, relational database) and file format (extension). Include approximate size (in MB) of the resulting data set.

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

QUALITY ASSURANCE: Brief description of procedures for ensuring data quality. Provide links to Quality Assurance Project Plan and/or QA/QC Standard Operating Procedures.

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.
link: 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.

RIGHTS & REQUIREMENTS: A link to or instructions to locate the agency's rights and requirements for data use

There are no requirements for data use by the public.