
Methodology for Flow and Salinity Estimates in the Sacramento-San Joaquin Delta and Suisun Marsh

**16th Annual Progress Report
June 1995**

Chapter 11: Data Assembly

Author: Ralph Finch

11 Data Assembly

The data assembly process for time series data was explained in the 1992 Annual Report. This section provides an update of the new data added to the database.

As of June 1995, the Delta Modeling Section has assembled and checked 17.3 million time series data points, an increase of about 42 percent from one year ago. Included in this number are 7.3 million regular time series (RTS) stage data points, 6.5 million RTS water quality points, 2.8 million RTS miscellaneous data such as flow, velocity, gate positions, air and water temperature, etc., and 181,000 grab-sample data points, collected on an irregular time basis.

Additionally, there are 34 million time series points in the nonpermanent database, which is used to store data prior to checking for validity. The non-permanent database includes a large number of 15-minute stage and EC data from the Central District, DWR, which we have not had time to thoroughly check.

Last year's annual report mentioned several major sources of data that we expected to access. We review the status of those sources here:

- 1) Central District, DWR, Salinity, Stage, and Temperature.

DWR's Central District has many years of 15-minute salinity, stage, and temperature data. The Delta Modeling Section has obtained copies of the 15-minute salinity and stage data from the beginning of record through water year 1993, and has loaded this into the non-permanent database. We need to check this and copy to the permanent area, as well as get more recent data (through water year 1994) and get temperature data.

- 2) Information Systems and Services Office (ISSO), DWR.

The Water Information Management System, WIMS, database is maintained by ISSO. A copy of some data from the Delta was obtained, but the format was difficult to use and did not include pesticide data. Therefore we are working with ISSO again to get a complete set of data pertaining to the Delta in a more usable format. This is grab-sample data and some of it goes back to the 1950's, so it is especially valuable for certain uses.

- 3) Operations and Maintenance, DWR.

We obtained an account to use and access the MAPPER database. The software used to access this database only runs on our PC machines, and is difficult to automate. Therefore we are only making weekly downloads of hourly USBR salinity data which would otherwise be lost after a week. We would still like to

explore the MAPPER system more thoroughly and see what other data would be useful to obtain.

4) U.S. Geological Survey.

USGS maintains a very large collection of data for both the San Francisco Bay and the Delta. The total collection is about 600 MB of compressed ASCII files. We are still unsure what fraction would be useful to our efforts. We have accessed their database to get Old and Middle River stage and flow data.

5) U.S. Army Corps of Engineers

The Corps is continuing its monitoring of surface and bottom velocity and salinity at three different locations in the Sacramento River. They have reworked the data and are ready to release it again. We have ASCII files of their new data but have not yet processed it into the HECDSS database.

There were several efforts started in the last year to organize data pertaining to the Delta. This is a description of three of them.

1) IEP Data Collection.

This is a database of the data collected by agency members of the Interagency Ecological Program. Once in place it would greatly simplify data usage for everybody. An effort is being made to agree on an ASCII file format and have a central server, based on the Internet World Wide Web. The DWR contact person is Karl Jacobs, Environmental Services Office.

2) Water Online.

This is an effort by Kevin Wolfe to identify data sources and make the information known through the Internet. More information may be had by contacting Mr. Wolfe at kjwolf@wheel.dcn.davis.ca.us (916-758-4211).

3) Bay-Delta Model Forum Data, GIS, and Internet Sub-Committee.

The BDMF is an effort to have modelers cooperate more and exchange data and modeling information. The DWR contact for the Data, GIS, and Internet Sub-Committee is Ralph Finch.