



Interagency Ecological Program 2023 Work Plan Element Delta Flows Network

Project Manager and Affiliation

Jon Bureau, US Geological Survey

Principal Investigator and Affiliation

Catherine Ruhl, US Geological Survey

Costs (thousands) and Funding Sources

\$836 (DWR-DES); \$83 (USGS Matching Funds)



*USGS Autonomous Vessel Measuring at Flow Station 11455095
in the Sacramento Deepwater Shipping Channel*

Description

The Delta Flow Network consists of 35 flow and water quality monitoring stations located throughout the Sacramento-San Joaquin Delta; eleven of these stations are supported by the DWR-DES through the IEP, many of the remaining stations are supported through a separate agreement with BOR and are not included in this fact sheet. Data from this network of stations are used by Delta managers and scientists to make decisions and plan for future events, such as climate change, water operations, and restoration projects. In addition, these data are used to calibrate and validate numerical models that are used to predict water levels, flows, and spatial and temporal evolution of salinity in the Delta. The data also play a significant role in interdisciplinary investigations and will be the foundation for large-scale adaptive management experiments in the future.

Need

The Delta Flow Network is critical to understanding the inflows to and outflows from the Delta. The Delta Flow Network is integral to management decisions regarding the ecosystem as well as the state and federal water projects by providing a foundation for

decisions based on knowing both what is happening and why it is happening. These data will be critical as the drought conditions continue in WY2022 and possibly beyond.

Objectives

- Document hydrodynamic change (e.g. status and trends) at a variety of spatial scales (e.g. within channel scale, regional scale, Delta-wide scale)
- Support process-based understanding of Delta systems and the role that hydrodynamics plays in those systems.

Schedule of Milestones

These data are collected in real-time throughout the year. Data are collected every 15 minutes and uploaded to CDEC and NWIS Web hourly.

Realtime – Time-Series Data sent to CDEC and NWIS-Web