

Open and Transparent Water Data Legislative Concept

January 2016

Background

The recent drought reveals that California needs a real-time, accessible water data information system to help water managers operate our water system more effectively and water users make informed decisions based on water availability and allocation.

California has a number of databases containing information on hydrology, biology, water quality, the physical environment, and water rights and use. The passage of the Sustainable Groundwater Management Act will result in more data on groundwater use and availability. Unfortunately, water managers have been unable to harness the growing amount of information to make timely and science-based decisions that will lead us to a more sustainable water future. Therefore, California needs a statewide water data policy framework that sets out goals to achieve water data integration, consistency in data reporting and real-time reporting, and to identify gaps in water data and how to fill them.

Establish a statewide water information system

Establish a water information accounting system to improve the ability of the state to meet the growing demand for water supply reliability and healthy ecosystems. The data sharing platform would integrate existing water data information from multiple autonomous databases managed by federal, state, and local agencies and academia using consistent and standardized formats. Types of datasets that should be integrated include: Department of Water Resources information on state water project reservoir operations, groundwater use, groundwater levels (CASGEM), urban water use, and land use; State Water Resources Control Board data on water rights, water diversions, and water quality (CEDEN); Department of Fish and Wildlife fish abundance and distribution; US Geological Survey stream flow conditions (National Water Information System); US Bureau of Reclamation Central Valley Project operations; and US Fish and Wildlife, US Forest Service, and National Oceanic and Atmospheric Administration Fisheries fish abundance.

Create an online water transfer information clearinghouse

Establish an online information source for water transfer information that will include: database of historic transactions and those pending responsible agency approval; public forum to exchange information on water market issues; information to assist proponents with responsible agency approval processes.

Create a public benefit corporation

Establish a new public benefit corporation to house and manage the water information system and the water transfer clearinghouse. The corporation will have the flexibility to operate the water information system by a third party and engage services of private consultants, educational institutions, and non-governmental organizations.

Develop “open data” protocols for data sharing, transparency, documentation, and quality control

Data information should be standardized and use consistent formats. The state agencies responsible for collecting data will develop protocols for data sharing, documentation, quality control, public access, and promotion of open source platforms and decision support tools. Clear standards help to promote compatibility among datasets, allowing for sharing, integration, and analysis by multiple groups.

Data sharing efforts must incorporate clear and careful documentation of data quality and data formats through metadata, which is data that describes the data. Clear documentation of metadata avoids misunderstandings, reduces disputes, and increases the effectiveness of management decisions.

Improve quality and availability of water data

The ability to measure stream flow is hampered for some streams that lack gages. DWR, SWRCB, and DFW shall submit a report to the legislature that identifies priority basins and sub-basins that need additional surface water and groundwater monitoring sites, evaluate the feasibility of creating a better surface water and groundwater monitoring network, estimate the cost and provide options for funding a new network.

The State Water Resources Control Board will: develop a consistent and documented approach for estimating wet, average, and dry year water availability based on existing water use data collected from all surface water right holders that are required to file statements of diversion and use, including riparian and pre-1914 appropriative rights, and where available groundwater use information; require surface water right holders to electronically report return flow quantities using criteria consistent with adopted SB 88 emergency regulations; set and make public other water allocation priorities and quantities for wet, average, and dry periods for the environment and public health and safety.

The Department of Water Resources will develop a consistent method for estimating groundwater budgets and develop a system for forecasting water supply availability and sub-basin flows during wet, average, and dry periods.

Support financing for water information system and water data management

Establish a water information system administration fund. All money in the fund could be used to maintain and update the water information and management system.

Give the public benefit corporation the authority to receive gifts, grants, or donations of moneys from any agency of the United States, any agency of the state, or any municipality, county, or other political subdivision thereof, or from any individual, association, foundation, or corporation for achieving any of the purposes of the act.

Require that grantees and consultants that receive state funding for water data projects adhere to the same standards and guidelines developed by the state

Water data and research that is gathered using state funds should be made publicly-accessible. State delegation of data management to contractors should not result in the public losing access to its own information. Likewise, grant recipients for research or projects that receive state funds should adhere to the same standards and guidelines developed by the state for data sharing, transparency, documentation, and quality control.