

ASSEMBLY BILL

No. 1755

Introduced by Assembly Member Dodd

February 2, 2016

An act to add Part 4.9 (commencing with Section 12400) to Division 6 of the Water Code, relating to water data.

LEGISLATIVE COUNSEL'S DIGEST

AB 1755, as introduced, Dodd. The Open and Transparent Water Data Act.

Existing law imposes on the Department of Water Resources various duties with respect to water in the state. Under existing law, the State Water Resources Control Board administers a water rights program pursuant to which the state board grants permits and licenses to appropriate water. Existing law regulates water transfers and authorizes a permittee or licensee to change the point of diversion, place of use, or purpose of use due to a transfer or exchange of water or water rights if certain conditions are met.

This bill would enact the Open and Transparent Water Data Act. The act would require the department to establish a public benefit corporation that would create and manage (1) a statewide water information accounting system to improve the ability of the state to meet the growing demand for water supply reliability and healthy ecosystems, that, among things, would integrate existing water data information from multiple databases and (2) an online water transfer information clearinghouse for water transfer information that would include, among other things, a database of historic water transfers and transfers pending responsible agency approval and a public forum to exchange information on water market issues.

AB 1755

— 2 —

The act would require the department, the state board, and the Department of Fish and Wildlife to develop protocols for data sharing, documentation, quality control, public access, and promotion of open source platforms and decision support tools related to water data. The act would specify that a recipient of state funds for research or projects relating to the improvement of water data shall adhere to those protocols or be ineligible for state funding. The act would impose various other duties on the department, state board, and Department of Fish and Wildlife related to the improvement of water data, including submitting reports to the Legislature on the protocols the agencies develop and on the feasibility of creating a better surface water and groundwater monitoring network.

The act would create the Water Information System Administration Fund. The act would specify that moneys in the fund would be available, upon appropriation, to the department for the improvement of water data and for the purposes of the act.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Part 4.9 (commencing with Section 12400) is
2 added to Division 6 of the Water Code, to read:

3
4 PART 4.9. THE OPEN AND TRANSPARENT WATER DATA
5 ACT

6
7 CHAPTER 1. GENERAL PROVISIONS

8
9 12400. This part shall be known, and may be cited, as the Open
10 and Transparent Water Data Act.

11 12401. The Legislature finds and declares all of the following:

12 (a) The recent drought reveals that California needs a real-time,
13 accessible statewide water information accounting system to help
14 water managers operate California's water system more effectively
15 and help water users make informed decisions based on water
16 availability and allocation.

17 (b) California has a number of databases containing information
18 on hydrology, biology, water quality, the physical environment,
19 and water rights and use. The passage of the Sustainable

1 Groundwater Management Act (Part 2.74 (commencing with
2 Section 10720)) will result in more data on groundwater use and
3 availability. Unfortunately, current water data is often challenging
4 to obtain, outdated, and not always readily available to water
5 managers and the public due to its collection by numerous entities
6 and storage in disparate databases that often rely on tools that do
7 not keep pace with technological advances.

8 (c) The ability to measure stream flow is hampered for some
9 streams that lack gauges.

10 (d) The need to account for California’s water is essential, yet
11 water managers must make decisions about water resources while
12 relying on outdated and incomplete information. A greater
13 understanding of and ability to access existing water data will
14 support more timely and science-based decisions related to water
15 planning, water allocations, water transfers, and water use
16 efficiency that will lead California to a more sustainable water
17 future.

18 (e) On October 2, 2015, the Delta Stewardship Council released
19 a white paper entitled “Enhancing the Vision for Managing
20 California’s Environmental Information.” The white paper and the
21 Environmental Data Summit were a collaborative effort of the
22 Delta Stewardship Council and its Delta Science Program, the
23 Department of Water Resources, the Sacramento-San Joaquin
24 Delta Conservancy, the State Water Resources Control Board, the
25 Department of Fish and Wildlife, the San Francisco Estuary
26 Institute, the State and Federal Contractors Water Agency, and 34
27 North. The white paper recommended four necessary actions to
28 achieve the goal of streamlining the collaboration of huge amounts
29 of environmental data between various state and federal agencies
30 and identified the need for new policies for managing California’s
31 large amounts of data: development of a system where data could
32 be accessed from a centralized source, implementing new methods
33 for clear documentation of existing data, and developing business
34 models that will better facilitate the management of data.

35 (f) The California Water Plan Update 2013, Volume 1, Chapter
36 6 entitled “Integrated Data and Analysis: Informed and Transparent
37 Decision-Making” describes key actions needed to improve water
38 resources information and analysis for integrated water
39 management and urges agencies that collect data to work together

AB 1755

— 4 —

1 to prioritize and align water resources information that is collected
2 by multiple agencies.

3 (g) The California Water Action Plan recognizes the need to
4 take bold action to transfer the state’s water management system
5 to face the challenges of the 21st century. Climate change,
6 population growth, and vulnerable ecosystems create greater
7 uncertainty in future water availability. To address these challenges
8 California needs to do both of the following:

9 (1) Invest in a 21st century water management system that can
10 adapt to wide variations in rainfall.

11 (2) Safeguard and restore California’s freshwater ecosystems
12 so they can withstand variations in climate and competing demands
13 for water.

14 (h) Standards for transparent access to data have changed with
15 the public demanding real-time information on demand. However,
16 the demand for available data currently outstrips the ability to
17 deliver information to water managers and the public.

18 (i) Clear data standards and protocols help to promote
19 compatibility among datasets, allowing for sharing, aggregation,
20 and analysis by multiple groups.

21 (j) Metadata summarizes basic information about data, which
22 can make finding and working with particular data easier. Clear
23 documentation of metadata avoids misunderstandings, reduces
24 disputes, and increases the effectiveness of management decisions.

25 (k) Water data and research that is gathered using state funds
26 should be made publicly accessible. State delegation of data
27 management to contractors should not result in the public losing
28 access to its own information.

29 (l) The availability of cheap and open-source tools could help
30 produce an online water transfer information clearinghouse without
31 the need to create an expensive new centralized database.

32 (m) An effective water market is one of several water
33 management tools needed to improve the state’s water supply
34 reliability.

35 12402. Unless the context otherwise requires, the following
36 definitions govern the construction of this part:

37 (a) “Clearinghouse” means the online water transfer information
38 clearinghouse created pursuant to Section 12415.

39 (b) “Department” means the Department of Water Resources.

40 (c) “Metadata” means data that describes data.

1 (d) “NGO” means a nongovernmental organization.

2 (e) “State board” means the State Water Resources Control
3 Board.

4 (f) “Water information system” means the statewide water
5 information accounting system created pursuant to Section 12410.

6
7 CHAPTER 2. PUBLIC BENEFIT CORPORATION PARTICIPATION

8
9 Article 1. General Provisions

10
11 12405. (a) The department shall establish a public benefit
12 corporation to house, manage, and oversee the statewide water
13 information accounting system created pursuant to Section 12410
14 and the online water transfer information clearinghouse created
15 pursuant to Section 12415.

16 (b) The public benefit corporation may, notwithstanding any
17 other law and not subject to otherwise applicable provisions of the
18 Government Code and Public Contract Code, operate the water
19 information system and the clearinghouse on its own, through a
20 third party, or by engaging the services of private consultants,
21 educational institutions, and NGOs to render professional and
22 technical assistance with and advice for carrying out creation and
23 management activities.

24 (c) To the extent permitted by federal law, the public benefit
25 corporation may receive gifts, grants, or donations of moneys from
26 any agency of the federal government, any agency of the state, or
27 any municipality, county, or other political subdivision thereof, or
28 from any individual, association, foundation, or corporation for
29 achieving any of the purposes of this part. These moneys shall be
30 deposited in the Water Information System Administration Fund
31 created pursuant to Section 12425.

32
33 Article 2. Statewide Water Information Accounting System

34
35 12410. (a) The public benefit corporation established pursuant
36 to Section 12405 shall establish a statewide water information
37 accounting system to improve the ability of the state to meet the
38 growing demand for water supply reliability and healthy
39 ecosystems. The public benefit corporation shall create the water

AB 1755

— 6 —

1 information accounting system in collaboration with state and
2 federal agencies, water data users, and water experts.

3 (b) The water information accounting system shall, at a
4 minimum, do all of the following:

5 (1) Integrate existing water data information from multiple
6 autonomous databases managed by federal, state, and local agencies
7 and academia using consistent and standardized formats.

8 (2) Integrate, at a minimum, the following datasets:

9 (A) The department's information on State Water Project
10 reservoir operations, groundwater use, and groundwater levels
11 through California Statewide Groundwater Elevation Monitoring
12 (CASGEM), urban water use, and land use.

13 (B) The state board's data on water rights, water diversions,
14 and water quality through California Environmental Data Exchange
15 Network (CEDEN).

16 (C) The Department of Fish and Wildlife's information on fish
17 abundance and distribution.

18 (D) The United States Geological Survey's stream flow
19 conditions information through the National Water Information
20 System.

21 (E) The United States Bureau of Reclamation's federal Central
22 Valley Project operations information.

23 (F) The United States Fish and Wildlife's, United States Forest
24 Service's, and National Oceanic and Atmospheric Administration
25 Fisheries' fish abundance information.

26 (3) Incorporate clear and careful documentation of data quality
27 and data formats through metadata.

28 (4) Adhere to data protocols developed by state agencies
29 pursuant to Section 12420.

30 (5) Be able to receive both spatial and time series data from
31 various sources.

32 (6) Enable custom dashboards, visualizations, graphing, and
33 analysis.

34

35 Article 3. Online Water Transfer Information Clearinghouse

36

37 12415. The public benefit corporation established pursuant to
38 Section 12405 shall establish an online water transfer information
39 clearinghouse for water transfer information that shall include all
40 the following:

- 1 (a) A database of historic water transfers and transfers pending
2 responsible agency approval.
3 (b) A public forum to exchange information on water market
4 issues.
5 (c) Information to assist proponents with responsible agency
6 approval water transfer processes.

7
8 CHAPTER 3. STATE AGENCY RESPONSIBILITIES
9

10 12420. (a) The department, the state board, and the Department
11 of Fish and Wildlife shall develop an open, transparent process to
12 develop protocols for data sharing, documentation, quality control,
13 public access, and promotion of open source platforms and decision
14 support tools related to water data. The agencies shall develop and
15 submit to the Legislature, in compliance with Section 9795 of the
16 Government Code and before the establishment of a statewide
17 water information accounting system pursuant to Section 12410,
18 a report describing these processes and protocols.

19 (b) Grant recipients for research or projects relating to the
20 improvement of water data that receive state funds shall adhere to
21 the protocols developed by state agencies pursuant to subdivision
22 (a) for data sharing, transparency, documentation, and quality
23 control.

24 (c) A researcher or grant recipient that does not comply with
25 subdivision (b) is not eligible for state funding until the researcher
26 or grant recipient complies with those requirements.

27 12421. (a) The department, the state board, and the Department
28 of Fish and Wildlife shall, by _____, prepare and submit to the
29 Legislature in compliance with Section 9795 of the Government
30 Code a report that identifies priority basins and subbasins that need
31 additional surface water or groundwater monitoring sites, evaluates
32 the feasibility of creating a better surface water and groundwater
33 monitoring network, and estimates the cost of and provides options
34 for funding the water information system.

35 (b) The department shall develop both of the following:

36 (1) A consistent method for estimating groundwater budgets.

37 (2) A system for forecasting water supply availability and
38 subbasin flows during wet, average, and dry periods.

39 12422. The state board shall do all of the following:

1 (a) Develop a consistent and documented approach for
2 estimating wet, average, and dry year water availability based on
3 existing water use data collected from all surface water right
4 holders that are required to file statements of diversion and use,
5 including riparian and pre-1914 appropriative rights, and, where
6 available, groundwater use information.

7 (b) (1) Require surface water right holders to electronically
8 report return flow quantities and develop criteria for the reporting
9 frequency that is required for different water rights holders.

10 (2) The state board may adopt a policy that requires more
11 frequent monitoring and reporting from water right holders with
12 water rights that are more likely to affect water availability than
13 others.

14 (c) (1) Set and make public other water allocation priorities
15 and quantities for wet, average, and dry periods for the environment
16 and public health and safety.

17 (2) Categories of environmental flows shall include all of the
18 following:

19 (A) Biological opinions pursuant to the federal Endangered
20 Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.).

21 (B) Federal Clean Water Act (33 U.S.C. Sec. 1251 et seq.) flows
22 for water quality.

23 (C) Federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703 et
24 seq.) requirements for wetlands.

25 (D) Section 5937 of the Fish and Game Code, which requires
26 fish flows downstream of dams.

27 12423. The Department of Fish and Wildlife shall share fish
28 and stream habitat data for inclusion in the water information
29 accounting system established by Section 12410.

30

31 CHAPTER 4. WATER INFORMATION SYSTEM ADMINISTRATION
32 FUND

33

34 12425. The Water Information System Administration Fund
35 is hereby created. All moneys in the fund are available, upon
36 appropriation, to the department for the improvement of water
37 data, including installing stream gauges and maintaining stream
38 gauge networks, and for the purposes of this part, including, but
39 not limited to, maintaining surface water and groundwater
40 monitoring networks, establishing and operating the public benefit

- 1 corporation created pursuant to Section 12405, maintaining and
- 2 updating the statewide water information accounting system and
- 3 online water transfer information clearinghouse, including the cost
- 4 to verify data, and modernizing water information databases.

O