Senate Budget and Fiscal Review—Senator Holly J. Mitchell, Chair

SUBCOMMITTEE NO. 2 Agenda

Senator Bob Wieckowski, Chair
Senator Mike McGuire
Senator Tony Mendoza
Senator Jim Nielsen

Thursday, March 16, 2017
9:30 a.m. or upon adjournment of session
State Capitol - Room 112

Consultant: Joe Stephenshaw

Vote Only Calendar

3860	**Department of Water Resources**	
Issue 1	San Joaquin River Quality Improvement Program	2
Issue 2	Safety of Dams Baseline Budget Increase	2
3940	**State Water Resources Control Board**	
Issue 1	Underground Storage Tank Cleanup Fund Site Cleanup Request	2
Issue 2	Lower Klamath Project Water Quality Certification	2
Issue 3	SB 828 Prop 98 for Schools – Drinking Water Grants	3
Issue 4	Underground Storage Tank Petroleum Contamination Orphan Sites	3
Issue 5	Technical Bond Adjustment	3
3840	**Delta Protection Commission**	
Issue 1	Delta Plan Implementation	4

Issues for Discussion

3860	**Department of Water Resources**	**5**
3940	**State Water Resources Control Board**	**7**
Issue 1	Proposition 1 Water Bond	9
Issue 2	Dam Safety and Emergency Flood Response	12
Issue 3	Sustainable Groundwater Management Act	16
3860	**Department of Water Resources**	
Issue 1	Delta Mine Drainage Impacts Abatement – Combie Reservoir	19
Issue 2	Delta Smelt Resiliency Strategy	21
Issue 3	Central Valley Flood Protection Board Permitting and Enforcement	23
3940	**State Water Resources Control Board**	
Issue 1	Irrigated Lands Management Program	24
Issue 2	Oil and Gas Monitoring – Underground Injection Control Project Review	26

Public Comment

Pursuant to the Americans with Disabilities Act, individuals who, because of a disability, need special assistance to attend or participate in a Senate Committee hearing, or in connection with other Senate services, may request assistance at the Senate Rules Committee, 1020 N Street, Suite 255 or by calling (916) 651-1505. Requests should be made one week in advance whenever possible.

VOTE-ONLY CALENDAR

3860 Department of Water Resources

Issue 1 – San Joaquin River Water Quality Improvement Program

The Governor's budget requests a reversion of prior year funds ($1.26 million) from the remaining balance of the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) and a new appropriation of the same amount in Proposition 84 funds to support improving water quality in the Lower San Joaquin River by eliminating discharge of agricultural subsurface drainage water. This proposal will support the administration and distribution of previously approved Proposition 84 funding for local assistance projects to improve drinking water quality to the Delta.

Issue 2 – Safety of Dams Baseline Budget Increase

The Governor's budget requests a one-time appropriation of $364,000 from the Dam Safety Fund for office relocation expenses, and an ongoing baseline increase of $242,000 from the Dam Safety Fund for increased rental costs. The office space for the Division of Safety of Dams, located in downtown Sacramento, no longer provides a suitable work environment. Due to the age of the building, there is an increased need for building maintenance. A major issue includes an insufficient and outdated HVAC system that continually breaks down, creating an unacceptable work environment of extreme cold and hot temperatures. The time and resources spent to resolve such issues negatively affects productivity and the timeliness of regular work duties.

3940 State Water Resources Control Board

Issue 1 – Underground Storage Tank Cleanup Fund Site Cleanup Request Processing Workload

The Governor's budget requests $1 million from the Underground Storage Tank Cleanup Fund and seven permanent positions to increase efficiency in processing claim payments. This would increase the speed of payment processing and reduce excessive payment times to persons who have incurred and paid out-of-pocket costs for regulatory compliance with cleaning up groundwater at petroleum-contaminated sites.

Stakeholders have expressed concern that they are not being paid on a timely basis. The current limitation on payments is due to lack of sufficient staff resources needed to review eligibility of costs. Funds are available to make eligible payments and for the increase in staff to review payment requests and issue payment of eligible costs.

Issue 2 – Lower Klamath Project Water Quality Certification

The Governor's budget requests $410,000 from the Water Rights Fund and 2.5 permanent positions to develop and implement water quality certification for the Lower Klamath Project. Certification conditions include restoration activities, environmental resource monitoring, adaptive management, and remediation plans that will occur for 10 to 50 years following dam removal activities.

Issue 3 – SB 828 Prop 98 for Schools – Drinking Water Grants: Reappropriation of Contract Funds

The Governor's budget requests an extension of the encumbrance and liquidation period of the state contract funds to conform to the period of availability of the local assistance grant funds included in SB 828 (Committee on Budget and Fiscal Review) Chapter 29, Statutes of 2016.

Existing state and federal law requires schools to serve safe, clean and cold drinking water during meal times. SB 828 appropriated $9.5 million General Fund for the program that includes the local assistance availability period of three years to encumber and two additional years to liquidate the funds. The Budget Act of 2016 appropriated $500,000 for state operations to provide technical assistance to schools with applications. The budget act did not include the same extended encumbrance and liquidation period as the local assistance. Technical assistance is necessary during the entire length of the projects to ensure appropriate implementation.

Issue 4 – Underground Storage Tank Petroleum Contamination Orphan Site Cleanup Fund Technical Adjustment

The Governor's budget requests reversion of the unencumbered local assistance authority in the Underground Storage Tank Petroleum Contamination Orphan Site Cleanup Fund (OSCF) from 2014-15 and a new appropriation of $6.8 million from OSCF to be available for encumbrance through 2020.

The Orphan Site Cleanup Program provides financial assistance for remediation of the harm caused by petroleum contamination from underground storage tanks where the financially responsible party has not been identified. The program was created to make funding available to persons that did not cause the petroleum contamination but are willing to undertake the cleanup. Without this proposal, funds would revert back to the Underground Storage Tank Cleanup Fund and not be available for these projects.

Issue 5 – Technical Bond Adjustment

The Governor's budget requests to revert and re-appropriate a total of $8.3 million in order to align budget authority to the actual expenditure plan. This includes:

State operations:

- Reduction of authority in Propositions 13, 84, and 204.
- Increase of authority in Proposition 13 and 50.
- Reversion of unencumbered funds in 2014-15 and 2015-16.

Local assistance:

- Reversion of unencumbered authority in 2008-09, 2012-13, 2013-14.
- Re-appropriation authority for 2015-16 to be available for encumbrance and liquidation of encumbrance until June 30, 2020.
- New appropriations of funds from Propositions 13, 50, and 84 to be available for encumbrance and liquidation of encumbrance until June 30, 2020.

3840 Delta Protection Commission

Issue 1 – Delta Plan Implementation

The Governor's budget requests $91,000 in 2017-18, $119,000 ongoing, from the Environmental License Plate Fund to coordinate and perform duties related to the implementation of the Delta Plan. The regularly recurring Delta Plan updates require consistency coordination, project review, and development of policies and procedures.

Staff Recommendation: Approve vote only items as budgeted.

3860 Department of Water Resources

Overview

The Department of Water Resources (DWR) protects, conserves, develops, and manages California's water. The Department evaluates existing water resources, forecasts future water needs and explores future potential solutions to meet ever-growing needs for personal use, irrigation, industry, recreation, power generation, and fish and wildlife. The Department also works to prevent and minimize flood damage, ensure the safety of dams, and educate the public about the importance of water and its efficient use.

The following table from the Governor's budget displays the positions and expenditures for DWR for the budget year, current year, and prior year. Of the $3.1 billion in total funding for 2017-18, $129.6 million is General Fund. The large decrease in funding from 2016-17 to 2017-18 is primarily due to large bond appropriations and a one-time $100 million General Fund appropriation in 2016-17.

		Positions			Expenditures		
		2015-16	2016-17	2017-18	2015-16*	2016-17*	2017-18*
3230	Continuing Formulation of the California Water Plan	329.1	334.2	334.2	$446,614	$535,681	$389,093
3240	Implementation of the State Water Resources Development System	1,883.4	1,883.4	1,883.4	668,721	1,684,744	1,679,738
3245	Public Safety and Prevention of Damage	492.7	429.0	429.0	242,681	757,525	87,714
3250	Central Valley Flood Protection Board	31.6	34.9	43.9	6,620	16,560	15,764
3255	Services	8.7	3.1	3.1	2,088	7,841	7,841
3260	California Energy Resources Scheduling	14.5	19.9	19.9	728,421	921,178	903,437
3265	Loan Repayment Program	-	-	-	-1,034	-1,405	-1,405
9900100	Administration	529.2	553.0	553.0	94,924	96,404	96,404
9900200	Administration - Distributed	-	-	-	-94,924	-96,404	-96,404
TOTALS, POSITIONS AND EXPENDITURES (All Programs)		**3,289.2**	**3,257.5**	**3,266.5**	**$2,094,111**	**$3,922,124**	**$3,082,182**

***Dollars in thousands**

Following are descriptions of DWR's budget programs:

Continuing Formulation of the California Water Plan. The California Water Plan is the state's strategic plan for the efficient use, management and development of the state's water resources. The plan is updated every five years and provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The plan evaluates current and future water conditions, challenges and opportunities. This program also identifies ways for the state to: 1) help local agencies and governments prepare integrated regional water management plans on a watershed basis and diversify their regional water portfolios to ensure sustainable water uses, reliable water supplies, better water quality, environmental stewardship, efficient urban development, protection of agriculture, and a strong economy, 2) help cities, counties and local agencies prepare a water element for their general plans, urban water management plans and agricultural water management plans, and 3) help local agencies and tribal governments improve coordination between water and land use planning.

Implementation of the State Water Resources Development System. The State Water Project is a water storage and delivery system that consists of 34 storage facilities (reservoirs and lakes), 20 pumping plants, 4 pumping-generating plants, 5 hydroelectric power plants, and over 700 miles of

conveyance (canals, pipelines, and tunnels). The Project provides water to over 25 million Californians and 750,000 acres of irrigated farmland. DWR plans, designs, constructs, operates, maintains, and manages State Water Project facilities which provide water to facilities located from Plumas County to Riverside County. The Delta Habitat Conservation and Conveyance Program is charged with improving the Delta ecosystem and ensuring water supply reliability in a safe, timely, and cost effective manner. This includes development of the Bay Delta Conservation Plan, project specific conservation measures, and the environmental impact report and environmental impact statement.

Public Safety and Prevention of Damage. This program supports the California Water Action Plan by protecting life and property from damage by floods, ensures proper construction and maintenance of jurisdictional dams and levees, and provides loans for the construction. Activities include assessing the state and regional investment needs to reduce risk, preventive floodplain management to discourage unwise use of areas subject to flooding, protection of floodplains, issuance of flood warnings, operation of flood control facilities, coordination and supervision of flood fight activities, and annual levee and flood channel maintenance and inspection in cooperation with other local, state, and federal partner agencies. This program also buys land, easements, and rights-of-way for federal flood control projects and supervises the design and construction of new dams and periodic inspection and reevaluation of all existing jurisdictional dams for proper operation and maintenance. Fiscal oversight and coordination activities associated with the Disaster Preparedness and Flood Prevention Bond Act of 2006 are administered under this program. The program also reviews federal dam projects in coordination with federal and other state agencies with regard to dam safety.

Central Valley Flood Prevention Board. The Central Valley Flood Protection Board has regulatory authority over the state plan of flood control facilities (SPFC), designated floodways and regulated streams in the Central Valley. The board regulates encroachments on the system by issuing permits and initiating enforcement action when necessary to maintain the integrity of the levees and floodways that protect the valley's people and property. The board manages the state's portfolio of real property held by the Sacramento San Joaquin Drainage District. The board serves as the non-federal sponsor to the United States Army Corps of Engineers on large joint state-federal levee improvement projects and assists the more than one hundred local maintaining agencies that operate and maintain the SPFC. The board conducts regular public meetings, workshops and tours, providing a public forum for stakeholders.

Services. This program provides technical support within the department and expertise in the fields of water resources planning, development and management; watermaster services; scientific analyses performed by DWR's chemical laboratory; information technology; and mapping, surveying and engineering services for other agencies.

California Energy Resources Scheduling. For a limited period of time, this program purchased electric power on behalf of the state's investor-owned utilities. Beginning January 1, 2003, the utility companies resumed responsibility for purchasing power from the spot market. The utilities, however, continued to receive power from the department's long-term energy contracts with energy suppliers, under which the Department retains legal and financial responsibility. All energy contracts signed by DWR have now expired or were terminated. However, litigation continues against some of the counterparties to these contracts. Additionally, DWR retains the legal and financial responsibility for administering $4.6 billion in revenue bonds issued to repay the General Fund for money borrowed for power purchases during the energy crisis and funding of reserve accounts necessary to maintain an investment grade credit rating associated with the revenue bonds.

3940 State Water Resources Control Board

Overview

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards preserve, enhance, and restore the quality of California's water resources and ensure proper allocation and effective use. These objectives are achieved through the Water Quality, Water Rights, and Drinking Water programs.

The following table from the Governor's budget displays the positions and expenditures for SWRCB for the budget year, current year, and prior year. Of the $991.7 million proposed for 2017-18, $48.9 million is from the General Fund. Federal funds, the Underground Storage Tank Cleanup Fund, and the Waste Discharge Permit Fund are the department's largest funding sources - $307.6 million, $290.1 million and $127.1 million, respectively, is proposed from these sources in 2017-18. Lastly, the significant reduction in total expenditures from 2016-17 to 2017-18 is primarily due to a large bond appropriation in 2016-17.

		Positions			Expenditures		
		2015-16	2016-17	2017-18	2015-16*	2016-17*	2017-18*
3560	Water Quality	1,301.4	1,299.6	1,297.6	$857,006	$2,920,037	$893,289
3565	Drinking Water Quality	235.7	232.0	230.0	44,114	51,009	50,626
3570	Water Rights	218.1	187.0	194.5	33,005	42,765	46,591
3575	Department of Justice Legal Services	-	-	-	1,217	1,217	1,217
9900100	Administration	257.9	215.0	215.0	33,915	33,894	33,893
9900200	Administration - Distributed	-	-	-	-33,915	-33,894	-33,893
TOTALS, POSITIONS AND EXPENDITURES (All Programs)		2,013.1	1,933.6	1,937.1	$935,342	$3,015,028	$991,723

***Dollars in thousands**

Following are descriptions of SWRCB's budget programs:

Water Quality. This program ensures the highest possible quality of water for the state. Specific activities include: 1) formulating, adopting, and updating water quality control plans and policies that set standards and provide guidance in water management decisions, 2) monitoring water quality to determine compliance with control plans, permit terms, conditions, and water standards and implementing the total maximum daily load program to address pollution in the state's most seriously impaired water bodies by developing plans that allocate responsibility for reducing pollution, 3) ensuring the waters of the state are not degraded by hazardous waste spills or tank leaks, or by spills or tank leaks from solid and hazardous waste treatment, storage, and disposal facilities, 4) requiring waste dischargers, including storm water dischargers, to prevent and abate water pollution and inspect dischargers to determine compliance with requirements, 5) assisting owners and operators of underground tanks in financing the cleanup of unauthorized releases from their tanks, and 6) administering financial assistance programs, that include loan and grant funding for construction of municipal sewage facilities, drinking water systems, water recycling facilities, watershed protection projects, and nonpoint source pollution control projects.

Drinking Water Quality. This program works to protect and improve the health of all California residents by ensuring the safety of drinking water. This program is responsible for enforcing the state and federal Safe Drinking Water Acts, adopting drinking water standards, and enforcing compliance with drinking water standards. The program also establishes criteria for water recycling projects;

supports and promotes water system security; provides support for improving technical, managerial, and financial capacity of public water systems; certifies laboratories that analyze environmental samples for regulatory purposes; and maintains a registry of certified water treatment devices.

Water Rights. This program ensures that California's water resources are put to beneficial use, while protecting prior rights, water quality, and the environment. Specific activities include: 1) allocating the unappropriated waters of the state to ensure water is used in accordance with state laws, 2) maintaining a record of title of appropriative water rights initiated and maintained since 1914, including those for stock-ponds, livestock, and small irrigation and domestic use ponds, 3) maintaining records of water diversion and use under riparian and pre-1914 rights and groundwater extractions in four southern counties, 4) enforcing permit and license terms and conditions, abating illegal diversions, protecting public trust resources, and preventing waste or unreasonable use under all rights, and 5) assisting the courts in determining existing rights to surface water throughout the state through court reference and statutory adjudication proceedings, and in determining rights to groundwater through the groundwater adjudication process.

Department of Justice Legal Services. This Program includes Department of Justice legal services to support the Water Boards in judicial proceedings related to the Water Boards' authorities.

3860 Department of Water Resources
3940 State Water Resources Control Board

Issue 1 – Proposition 1 Water Bond

Governor's Proposal. The Governor's budget assumes total spending of $837 million from Proposition 1 in 2017-18. Of this total, the Administration projects that the California Water Commission will award $416 million in grants for water storage projects (funding for water storage projects are continuously appropriated outside of the legislative budget process.) Additionally, $421 million is proposed to be appropriated in the budget. All of budgeted spending proposals represent additional funding for activities that have received initial appropriations in prior years. The largest proposal is for DWR to award $214 million in additional grants for integrated regional water management projects. This continues a program the state has also funded through previous bonds, in which local groups can apply for funding to implement water management projects on a regional scale.

Background. In November 2014, voters approved Proposition 1, a $7.5 billion water bond measure aimed primarily at restoring habitat and increasing the supply of clean, safe, and reliable water. The bond money is available to state agencies for various projects and programs, as well as for loans and grants to local governments, private water companies, mutual water companies (where water users own the company), Indian tribes, and nonprofit organizations. Most of the projects funded by Proposition 1 will be selected on a competitive basis, based on guidelines developed by state departments. Generally, the measure prohibits the Legislature from allocating funding to specific projects. The bond provides funding for eight categories of activities. These funds will be distributed across 16 state departments (including ten state conservancies). The Legislature already has appropriated a combined $3 billion of available bond funding. Given that the $2.7 billion for water storage projects is not subject to legislative appropriation, $1.8 billion in authorized Proposition 1 funding remains for the Legislature to appropriate.

Of the amount available for appropriation, $1.3 billion represents funding to continue activities initiated in prior years. (Departments do not plan to submit formal funding requests in budget change proposals for these funds unless they wish to deviate significantly from the multiyear plan presented to the Legislature in prior years). The remaining $500 million represents funding for two new activities that are not yet underway and for which the Legislature has not yet approved any appropriations: Los Angeles River restoration ($100 million) and flood management ($395 million). The Governor's dam safety and emergency flood proposal would appropriate $387.1 million from the flood management funds.

According to the annual report for Proposition 1 that was recently completed by the California Natural Resource Agency, to date, 453 projects have been awarded funding from Proposition 1. Project awards range in size from $250 million for removal of four dams along the Klamath River to $20,000 for cleanup and restoration work in the San Diego Bay National Wildlife Refuge. The total amount awarded from Proposition 1 for these projects is $960 million. The total project costs are $1.9 billion, which means that Proposition 1 funds were approximately matched one to one by other sources. New projects are being awarded on a regular basis by departments and this information is updated online on the agency's bond accountability website.

The following table from the Legislative Analyst's Office (LAO) displays a summary of Proposition 1 funds and appropriations by each of the eight activity categories.

Figure 7
Summary of Proposition 1 Bond Funds
(In Millions)

Purpose	Implementing Departments	Bond Allocation	Prior Appropriations	2017-18 Proposed
Water Storage		**$2,700**	**$10**	**$416**
Water storage projects	CWC	2,700	10	416
Watershed Protection and Restoration		**$1,496**	**$792**	**$162**
State obligations and agreements	CNRA	475	448[a]	17
Watershed restoration benefiting state and Delta	DFW	373	93	37
Conservancy restoration projects	Conservancies	328	163	60
Enhanced stream flows	WCB	200	78	39
Los Angeles River restoration	Conservancies	100	—	—
Urban watersheds	CNRA	20	10	9
Groundwater Sustainability		**$900**	**$825**	**$35**
Groundwater cleanup projects	SWRCB	800	764[a]	—
Groundwater sustainability plans and projects	DWR	100	61	35
Regional Water Management		**$810**	**$290**	**$217**
Integrated Regional Water Management	DWR	510	87	214
Stormwater management	SWRCB	200	105	3
Water use efficiency	DWR	100	98	—
Water Recycling and Desalination		**$725**	**$648**	**$1**
Water recycling	SWRCB	725	598[a]	—
Desalination	DWR		51	1
Drinking Water Quality		**$520**	**$475**	**$5**
Drinking water for disadvantaged communities	SWRCB	260	248	3
Wastewater treatment in small communities	SWRCB	260	227	2
Flood Management		**$395**	**—**	**—**
Delta flood management	DWR and CVFPB	295	—	—
Statewide flood management	DWR and CVFPB	100	—	—
Administration and Oversight		**—**	**$2**	**$1**
Administration[b]	DWR and CNRA	—	2	1
Totals		**$7,546**	**$3,042**	**$837**

[a] Reflects reversion of some previously appropriated funds, as proposed in the *2017-18 Governor's Budget*.
[b] Bond does not provide a specific allocation for bond administration and oversight, but allows a portion of other allocations to be used for this purpose.
CWC = California Water Commission; CNRA = California Natural Resources Agency; DFW = Department of Fish and Wildlife; WCB = Wildlife Conservation Board; SWRCB = State Water Resources Control Board; DWR = Department of Water Resources; and CVFPB = Central Valley Flood Protection Board.

LAO Recommendations. The LAO recommends that the Legislature adopt the Governor's Proposition 1 proposals (not accounting for the dam safety and emergency flood proposal) because they continue implementing Proposition 1 projects consistent with the bond language and with an appropriation schedule previously approved by the Legislature. The LAO also recommends that the Legislature continue to monitor Proposition 1 through its oversight capacity.

Staff Comment. Some issues the Legislature may wish to consider as it continues to monitor progress of Proposition 1 expenditures include: how the demand for funding compares to the amount available throughout the programs, if there are prevalent issues that create obstacles in terms of project approval or proceeding as planned, and how the funds are meeting program goals.

In addition, Proposition 1 contained specific provisions to address needs in disadvantaged communities, including for public water system infrastructure improvements. The Legislature may wish to assess how resources intended for disadvantaged communities are being utilized.

Staff Recommendation. Informational item, no action necessary.

Issue 2 – Dam Safety and Emergency Flood Response

Governor's Proposal. On February 24th, the Administration notified the Legislature of its dam safety and emergency response proposal. Specifically, the Administration is proposing a current year appropriation's bill, trailer bill language, and the redirection of existing authority as follows:

- Appropriations totaling $8.3 million General Fund, including:

    1) $6.5 million as a General Fund loan to the Dam Safety Fund, to be repaid from revenue generated from dam safety fees, to support the following program enhancements: $3 million for DWR's Division of Safety of Dams to conduct more extensive evaluations of appurtenance structures, such as spillways, gates, and outlets; and, $3.5 million for DWR to review and approve required inundation maps and coordinate the review of emergency plans.

    2) $1.8 million General Fund for the Office of Emergency Services (OES) to review and approve dam-related emergency response plans, and coordinate with local emergency management agencies on incorporation into all-hazard emergency plans.

- Appropriation of $387.1 million in Proposition 1 funding for DWR to accelerate a portfolio of flood control projects over the next two fiscal years. The funds would be provided from the flood management allocation of Proposition 1 and are intended to enhance flood protection in the Central Valley, the Sacramento-San Joaquin Delta, and in other areas of the state with significant flood risk. The following table from the department provides further detail on the intended use of these funds:

	Program Area	Prop 1 Available	Total Appropriation
Delta	Urban Flood Risk Reduction	$295	$65
	Delta Levee Subventions		$27
	Delta Special Projects		$57.1
	"Systemwide" Flood Risk Reduction		$130
	Emergency Response		$10
Central Valley and Coastal Watersheds	Coastal Watershed Flood Risk Reduction	$100	$27
	Central Valley Tributary Projects		$50
	"Systemwide" Flood Risk Reduction		$21
		Total	$387.1

Dollars in millions

- Under his emergency powers, the Governor is redirecting at least $50 million of DWR's $100 million current year deferred maintenance appropriation for emergency preparedness, response, and coordination, and flood risk reduction project implementation activities.

- Trailer bill language to require dams to have an emergency action plan that is updated every ten years, updated inundation maps every ten years, or sooner if specific circumstances change, and provide DWR with enforcement tools, including fines and operational restrictions for failure to comply.

Background. California has the "leading dam safety program in the nation" according to a peer review conducted by the Association of State Dam Safety Officials in 2016. Currently, 1,250 dams are subject to the state's jurisdiction with respect to safety and regulated by DWR's Division of Safety of Dams and are inspected annually. These dams are currently classified in three categories consistent with federal definitions; 678 high hazard, 271 significant hazard and 289 low hazard. Two dams are under review for classification.

The current inspection process focuses heavily on the dam itself and includes a visual inspection of the appurtenant structures. In light of the February 2017 spillway failure at Oroville, a more extensive evaluation of the adequacy, stability and structural integrity of appurtenant structures is necessary. In addition, Emergency Action Plans are not currently required for all jurisdictional dams; however, 70 percent of the high-hazard dams have them, including Oroville. Inundation maps, which provide the basis for Emergency Action Plans, are only created at the time a dam is built or enlarged and are only required for a complete sunny day dam failure scenario. They do not take into account a failure of an appurtenant structure as occurred at Oroville. Furthermore, the DWR Division of Safety of Dams has no enforcement power to mandate completion of Emergency Action Plans or inundation maps.

The Administration proposes to strengthen the evaluation of dam safety and establish new requirements for preparing and updating Emergency Action Plans and inundation maps, including improved coordination between DWR and OES.

The DWR is requesting $3 million Dam Safety Fund in the current fiscal year, and on an ongoing basis, to support eight new positions to develop a focused Safety Re-Evaluation Program for a detailed review of appurtenant structures, beginning with the evaluation of 108 large spillways considered to pose the greatest downstream risk if they were to fail.

The DWR Dam Safety Program is comprised of four basic safety activities including: annual maintenance inspections, construction oversight, application reviews, and re-evaluation of existing dams. The re-evaluation component of the program over the last 10 years has focused on the highest risk to California dams including a seismic re-evaluation of dams in areas that have a high probability of a major earthquake occurring. The recent seismic re-evaluation program has led to over $1 billion in repairs to dams. As a result of the February 7, 2017 incident at the Oroville Dam spillways, it is necessary to immediately expand the re-evaluation program to include spillways of large dams. The re-evaluation program will need to continue at the expanded level in order to remediate dams associated with other high risk factors.

By October 1, 2017, DWR is proposing to complete a reconnaissance of the geologic, hydraulic, hydrological, and structural adequacy of the identified 108 largest spillways in the state. By January 1, 2018, DWR will complete a thorough site investigation and evaluation of those spillways that are

found to be potentially at risk. Immediate action, such as emergency repairs or reservoir operation restrictions, will be required of dam owners as necessary to reduce the risk of any spillway identified to be in poor condition as a result of the study. DWR will complete evaluations of the remaining spillways by January 1, 2019, and direct dam owners to make required repairs or restrict reservoir operations as needed.

Continued review of spillways at significant-hazard dams will also be required. In addition, for all high and significant-hazard dams, other high risk factors that need to be considered include the adequacy of emergency outlet systems, and drainage systems within the dam and its foundation, implementation of robust vegetation/rodent management programs, as well as continued seismic re-evaluations of dams reflecting advancements in earthquake engineering.

DWR and OES are requesting a total $5.3 million, 14 positions and new legislation to implement a comprehensive approach to dam safety by requiring the development and review of inundation maps and emergency action plans.

Currently, inundation maps, the cornerstone of emergency plans, are only created or updated at the time the dam is built or enlarged. A dam inundation map delineates the area that would be flooded by a particular dam breach or failure. It includes downstream effects and shows the probable path by water released due to the failure of a dam or from abnormal flood flows released through a dam's spillway and/or other appurtenant works. Furthermore, these maps are currently only required for a sunny day full dam failure scenario, and do not take into account a failure of an appurtenant structure or failure of downstream flood facilities such as a levee breach. Additional inundation maps for other critical flow control structures and saddle dams will be identified by DWR.

Emergency Action Plans are a critical component of a strong dam safety program, however; California currently has inadequate inundation maps, as well as insufficient requirements for the development of those plans. The plans outline the action steps that are taken to protect life and property and include the components of detection measures through inspections and maintenance, determinations of emergency levels based upon the threat of flooding, notification protocols for local government and the public, and other preventive measures dam owners/operators can take. The emergency plans utilize dam inundation mapping to guide actions and notification protocols since they show the potential area of flooding and its impacts

Under the Administration's proposal, DWR's Division of Safety of Dams will re-classify jurisdictional dams as extremely high, high, significant or low risk. DWR will require inundation maps and Emergency Action Plans for all jurisdictional dams allowing a waiver for low hazard dams. During regular inspections, DWR will track any dams where the hazard classification has changed and reassess the waiver as necessary.

DWR will identify which scenarios beyond a complete dam failure require a separate inundation map. The dam owner will create the inundation map and submit to DWR, which will be reviewed and approved by DWR's Division of Flood Management. The approved maps will then be posted publicly on DWR's website and linked to OES' website.

Dam owners will be responsible for creating Emergency Action Plans in accordance with federal guidelines and based on their updated inundation maps. OES will provide guidelines regarding the coordination between dam owners and local emergency management agencies to create local

emergency response plans. Dam owners will submit the plans through DWR, who will work with OES to review and confirm that plan components are acceptable for incorporation into and to guide local emergency response plans. The dam owner will send the final Emergency Action Plans and inundation map to DWR, OES and local emergency management agencies.

OES will coordinate emergency response drills with dam owners and local emergency management agencies. The dam owner will be required to update the Emergency Action Plans regularly in accordance with federal guidelines and update the inundation maps every ten years or sooner if there is a change in dam status or change in downstream risk.

The proposal will provide DWR additional enforcement power over dam owners who are not complying with the new emergency plan/inundation maps requirements. The proposal includes revisions to the Water Code to incorporate penalties such as fines and reservoir operation restrictions when dam owners violate DWR's directives and orders.

Staff Comment. Given that recent incidents have highlighted the urgent need to ensure California's dam infrastructure is sufficient and that the state is doing all that it can to prevent or mitigate potential flooding scenarios, it is encouraging to see that the Administration is proposing initiatives intended to immediately enhance dam safety. However, in reviewing the Governor's proposals, the Legislature should ensure that these initiatives can be implemented as intended. For example, the Governor's proposal includes significant changes to dam owner responsibility, such as financial responsibility and planning requirements, and it is important to ensure that they can be effectively implemented. Additionally, accelerating Proposition 1 funding raises concerns that projects can be initiated in such a short timeline or that the projects remain consist with the funding's intended purposes.

Staff Recommendation. Hold open.

Issue 3 –Sustainable Groundwater Management Act

Governor's Proposal. The Governor's budget includes two proposals related to Sustainable Groundwater Management Act (SGMA) implementation that total $17.3 million:

- **State Water Resources Control Board (SWRCB).** $2.3 million ($750,000 ongoing and $1.5 million on a one-time basis) from the Water Rights Fund and five additional positions to develop the SGMA reporting unit in order to implement enforcement and intervention requirements. SGMA requires SWRCB to intervene in groundwater basins that do not form local governance structures or develop sustainable plans.

- **Department of Water Resources (DWR).** $15 million General Fund and 28.9 existing positions in 2017-18 (growing 54.1 positions in 2020-21) to continue and significantly expand services currently paid for with General Fund which will soon expire, for DWR to assist in implementing the SGMA and support local agencies to achieve regional sustainability. Consistent with SGMA, the work is phased and resource needs ramp up and taper off as the regions build capacity over the next 20 years, with the exception of services (such as collection/analysis/sharing of statewide data and Bulletin 118 updates) that DWR will provide in perpetuity. The proposal requests $15 million in new baseline funding beginning Fiscal Year 2017-18 to support.

Background. In 2014, the Legislature passed and the Governor signed three new laws – SB 1168 (Pavley), Chapter 346, Statues of 2014, AB 1739 (Dickerson), Chapter 347, Statues of 2014, and SB 1319 (Pavley), Chapter 348, Statues of 2014 - collectively known as the SGMA. With the goal of achieving long term groundwater resource sustainability, the legislation represents the first comprehensive statewide requirement to monitor and operate groundwater basins to avoid overdraft. The act's requirements apply to the 127 of the state's 515 groundwater basins that DWR has found to be high and medium priority based on various factors, including overlying population and irrigated acreage, number of wells, and reliance on groundwater. While only comprising about one fourth of the groundwater basins in California, the 127 high and medium priority basins account for 96 percent of California's annual groundwater pumping and supply water for nearly 90 percent of Californians who live over a groundwater basin. The remaining basins ranked as being lower in priority - generally smaller and more remote - are encouraged but not required to adhere to SGMA.

The act assigns primary responsibility for ongoing groundwater management to local entities. Local groundwater sustainability agencies (GSAs) are responsible for developing and implementing long term groundwater sustainability plans (GSPs) defining the specific guidelines and practices that will govern the use of individual groundwater basins. These GSAs will be formed by a single or combination of local public agencies with existing water or land management duties, such as cities, counties, or special districts. The GSAs are vested with broad management authority, including the ability to (1) define the sustainable yield of a groundwater basin, (2) limit extractions from that basin, (3) impose fees to pay for management costs, and (4) enforce the terms established in the GSP. Basins that are already legally adjudicated are not required to form GSAs or develop GSPs; provided they can prove they are already being managed sustainably. Additionally, certain basins that can display existing plans and sustainable practices can submit alternative plans in lieu of formal GSPs.

The legislation tasks DWR and SWRCB with discrete roles in carrying out SGMA. DWR has primary responsibility for the initial phases of implementation, including defining and prioritizing groundwater basins, collecting and disseminating data and best practices, providing technical and financial assistance to GSAs, and reviewing GSPs. Previous budgets have provided DWR with roughly $15 million annually to begin these activities; however, this initial funding was only provided through 2019 20.

SWRCB is tasked with enforcing the law and intervening when local entities fail to follow SGMA's requirements. Specifically, SWRCB is responsible for intervening when it designates a basin as being in "probationary status" due to (1) failing to form a GSA (referred to as an "unmanaged basin"), (2) failing to complete a GSP, or (3) developing or implementing an inadequate or ineffective GSP (one that will cause significant depletion of groundwater or interconnected surface water). SWRCB's intervention activities may include imposing reporting requirements around groundwater extractions and use, issuing fees, assuming management responsibilities, developing interim management plans governing how groundwater may be used in the basin, and conducting enforcement actions for noncompliance. SWRCB currently receives $1.9 million from the General Fund annually for ten staff to conduct SGMA related activities. Over time, funding support for these positions will transfer to fee revenue as the board's SGMA-related responsibilities and fee authorities increase.

Given the magnitude of the changes it entails, SGMA is designed to be implemented over a period of several decades. Local entities currently are in the process of forming GSAs to oversee the management of individual groundwater basins, with a requirement to do so by June 30, 2017. Basins that fail to meet this deadline are subject to intervention from SWRCB. The deadline for implementing a GSP is expedited for the 21 groundwater basins that DWR has defined as being in critical overdraft status—January 2020, as compared to 2022 for the remaining basins.

Legislative Analyst's Office (LAO). The LAO points out that the next five to seven years represent a critically important period for establishing how SGMA will guide local operations and practices in future years. Local agencies must negotiate and collaborate to form functional GSAs, then undertake the difficult work of gathering and analyzing data about their areas' groundwater use, defining sustainability targets for their basins, and developing enforceable plans and practices for how the basins can be managed to achieve those sustainability goals. The comprehensiveness and effectiveness of these processes and plans will determine the overall success of the act and of the state's nascent efforts at comprehensively managing its groundwater resources.

The LAO also points out that the state plays an important role in the ultimate success of SGMA implementation. The significant and complex workload facing local agencies in the coming years heightens the importance of assistance from state agencies during this period. In particular, the state can help by providing GSAs with baseline data to inform their GSPs. When possible, collecting data on a statewide basis—such as through remote sensing technology—can save funding by taking advantage of economies of scale, and ensure that data are valid and consistent across different areas of the state. Additionally, the state can play an important role in providing technical assistance, offering neutral facilitation services, monitoring local agency progress, and providing additional support when needed to ensure GSAs stay on track to meet deadlines. Finally, the state serving as a "backstop" if local agencies fail to meet SGMA's requirements both raises the pressure for local compliance as well as increases the likelihood that the act's sustainability goals ultimately will be met.

LAO Recommendation. Given the essential function that successful implementation of SGMA plays in the state's overall approach to water management, the LAO recommends the Legislature adopt governor's proposals and continue to monitor the successes and challenges of SGMA implementation.

Staff Recommendation. Approve as budgeted.

3860 Department of Water Resources

Issue 1 – Delta Mine Drainage Impacts Abatement – Combie Reservoir

Governor's Proposal. The Governor's budget requests reversions of approximately $3.08 million and a new appropriation of $6.13 million over three years ($5.7 million in 2017-18, $211,000 in 2018-19, and $204,000 in 2019-20) from the Bay-Delta Multipurpose Water Management Program (Proposition 13) to develop facilities to remove and treat mercury-laden sediment derived from abandoned gold mines at Combie Reservoir. The sediment, derived from historic mining, contains mercury and adversely affects Delta water quality if it escapes the reservoir.

Background. Mercury is naturally occurring in some geologic formations in the Coast Range, but is a pollutant throughout the Sierra Nevada Mountains, where it was used to process mining ore for gold recovery. Mercury contamination is now wide-spread in the Central Valley and Sierra watersheds in sediments derived from historic mining.

Once in the environment, mercury undergoes various chemical transitions and can occur in a number of chemical states. Generally problems arise as elemental mercury is transformed into methyl-mercury, a form that is readily taken up by zooplankton and animals, where it exerts toxic effects. The transformation to methyl-mercury occurs as sediments laden with mercury descend from river reaches where gold mining occurred to warm water valley floor and delta reaches. Evidence shows that methylation is accelerated as mercury is exposed to the wetting and drying sequences of agricultural lands on the valley floor and in the Delta. Rapid biomagnification has been demonstrated that results in delta fish containing mercury at concentrations that are adverse for human consumption. Warnings to limit eating delta fish have been in place for years. Warnings also exist for Combie Reservoir.

Combie Reservoir, the site of the proposed project, sits upstream of the Delta on the Bear River, below many historic mining operations and above the warm water valley floor reaches. Combie Reservoir is listed on the state's 303(d) list of impaired waters due to the mercury in the sediment and water. Prior to 2003, some dredging occurred as a means to maintain reservoir capacity. But with the detection of mercury in the sediments and being released by the dredging operations, the Regional Water Quality Control Board restricted the dredging. Since that time options for managing the mercury and sediment have been evaluated. Combie represents a common condition in the Bear River, American River, Calaveras River, and Yuba River watersheds. Perfecting the methods proposed in this project provides a path to clean up other contaminated sediments in these watersheds and elsewhere, and to reduce the threats of mercury poisoning in the mountains and the valley and Delta.

A dredging spoil treatment system was developed and bench tested to ensure efficacy of the process. Bench testing indicates the potential for 93 percent removal of mercury from dredged sediments. The pilot project process includes a suction dredge with special cutting head designed to limit turbidity, a mixing tank to maintain the slurry by agitation, a coarse material filter, sand removal, and several steps of turbidity removal, leaving clear water and pressed silt and clay. Salvageable aggregate will be sold. Mercury and gold will be extracted. Gold will be sold to offset operational costs. Mercury will be disposed of if it cannot be recycled.

Proposition 13 provided $17 million to address the adverse impacts of mine drainage on the Delta. Primary among those impacts are the problems caused by mercury pollution and the potential for mercury poisoning. DWR is charged with managing the mine waste funds. A number of projects have

been supported to this point. Most have focused on mercury issues, but progress has been limited chiefly due to the complexity of mercury chemistry and the limited ways it can be separated from sediments. Water Code Section 79196(b) allows funds not expended on dissolved oxygen control in the San Joaquin River (another focus of the Bay-Delta Multipurpose Water Management Program) to be reallocated by DWR to controlling drainage from abandoned mines that adversely affects the Delta. A balance of approximately $11 million exists in the dissolved oxygen control allocation. This request includes reallocating $6.13 million from the dissolved oxygen balance to the mine drainage work.

Staff Recommendation. Approve as budgeted.

Issue 2 – Delta Smelt Resiliency Strategy

Governor's Proposal. The Governor's budget proposes $2.6 million from General Fund and $900,000 from the Harbors and Watercraft Revolving Fund, on a one-time basis, to support four critical actions to combat the decline of Delta smelt, a species listed under both state and federal law as endangered.

Background. Recent field surveys conducted by the Department of Fish and Wildlife (DFW) have found the lowest-ever abundance of Delta smelt in decades of similar measurements. Delta smelt have experienced extremely poor habitat conditions during the last five years of unprecedented drought. Populations of smelt are at historic lows, and the scientific community has begun assessing the viability of the species. However, the relatively positive response of the smelt populations in 2011 suggests that it retains the ability to respond to improved conditions. Thus, in July 2016 state and federal agencies launched a new plan to help recover the smelt population, the Resiliency Strategy.

The Resiliency Strategy is a science-based plan prepared by the state to voluntarily address both immediate and near-term needs of Delta smelt, as well as to promote smelt resilience to ongoing drought conditions and future variations in habitat conditions. The Resiliency Strategy addresses each life history stage of the fish, acknowledging that there is no single driver to population decline (and thus population recovery). The Resiliency Strategy relies on peer-reviewed science and inter-agency consensus to articulate a suite of actions that can be implemented over the next few years. The actions are aggressive and can be implemented with minimal involvement outside of state and key federal agencies.

Initial implementation of the Resiliency Strategy has proven promising. General Funds made available in 2016 supported an agricultural water management pilot project in the North Delta that produced significant amounts of phytoplankton, the food-web precursor to zooplankton, which in turn is a critical food source for Delta smelt.

This proposal includes funding support for the following Resiliency Strategy actions:

- **Aquatic Weed Control ($900,000 Harbors and Watercraft Revolving Fund).** DWR will coordinate with the Department of Boating and Waterways to increase the treatment of aquatic weeds that negatively affect Delta water quality for smelt in locations permitted by the U.S. Fish and Wildlife Service. In addition to Franks Tract, likely treatment areas would include Sherman Lake, Decker Island, and Cache Slough.

- **North Delta Food Web Adaptive Management ($800,000 General Fund).** In July 2016, flows in the Yolo Bypass were augmented by closing the Knights Landing Outfall Gates and routing water pumped from the Sacramento River into the Yolo Bypass. Local reclamation districts assisting with the effort were reimbursed for their pumping costs by the state. This resulted in increased food availability for Delta smelt downstream of the Bypass in Cache Slough and the lower Sacramento River. DWR will use the requested funds to again augment flows in July and/or September 2017, and 2018, to promote food production and export into areas where Delta smelt are known to occur. Food web enhancement flows will also be considered for additional months in ways that will not conflict with agricultural and waterfowl management actions.

- **Roaring River Distribution System Food Production ($1.0 million General Fund).** DWR will install new drain gates on the western end of the Roaring River Distribution System in Suisun Marsh. These gates will operate during most months of the year to move food-rich water from the distribution system into key areas of Suisun Marsh where smelt are known to occur. DWR will also repair the existing outfall gate structure at the eastern end of the distribution system, facilitating additional operational flexibility to benefit smelt food production and delivery. DWR will use the requested funds to plan, design, permit, and construct the new and repaired gate structures.

- **Coordinate Managed Wetland Flood and Drain Operations ($800,000 General Fund).** Based on the findings of a current study on Joice Island in Suisun Marsh, DWR will coordinate with the Suisun Resource Conservation District and DFW to develop a management plan for managed wetland flood and drain operations that can promote food export from the wetlands to adjacent tidal sloughs and bays. Proposed funds would be used to develop a management plan applicable to Suisun Marsh managed wetlands.

Staff Recommendation. Approve as budgeted.

Issue 3 – Central Valley Flood Protection Board Permitting and Enforcement

Governor's Proposal. The Governor's budget proposes $2.2 million General Fund and nine new positions and one existing position for three years to allow the Central Valley Flood Protection Board (CVFPB) to perform its statutory mandate for permitting and enforcing encroachments and operating and maintaining facilities of the State Plan of Flood Control to limit the state's liability from a flood event.

Background. The CVFPB was created by SB 17 (Florez), Chapter 365, Statutes of 2007, and AB 5 (Wolk), Chapter 366, Statutes of 2007, and replaced the Reclamation Board as of January 1, 2008. The Legislature designated the CVFPB as the lead authority for flood protection in the Central Valley and designated it to act independently of DWR.

The CVFPB serves as the non-federal sponsor to the United States Army Corps of Engineers (USACE) on large joint state-federal levee improvement projects and assists the more than one hundred local maintaining agencies (LMAs) that operate and maintain facilities of the SPFC. The CVFPB conducts regular public meetings, hearings, workshops, and tours, providing a public forum for stakeholders - State of California, its residents and property owners, Central Valley agencies and non-government organizations, and the United States government, with the goal of providing the highest level of flood protection possible to California's Central Valley, while also considering environmental and habitat restoration. The CVFPB also manages real estate matters on behalf of the Sacramento-San Joaquin Drainage District (SSJDD). In 1911, the Legislature created the California State Reclamation Board, which was given regulatory authority over Sacramento Valley LMAs, with the objectives of assuring a logical, integrated system for controlling flooding in cooperation with USACE; cooperating with various agencies in planning, constructing, operating, and maintaining flood control works; and maintaining the integrity of the flood control system. In 1913, the Reclamation Board was given regulatory authority over San Joaquin Valley's LMAs. The Legislature also created the SSJDD to acquire and hold the properties and easements necessary for flood control, the management of which is vested in the CVFPB.

Staff Recommendation. Approve as budgeted.

3940 State Water Resources Control Board

Issue 1 – Irrigated Lands Management Program

Governor's Proposal. The Governor's budget proposes $1 million from the Waste Discharge Permit Fund and 5 permanent positions to support ongoing regulatory efforts to protect sources of drinking water and reduce nitrate loading to groundwater from irrigated agriculture in California.

Background. In 2013, the SWRCB's report to the Legislature, "Recommendations Addressing Nitrate in Groundwater" identified nitrate contamination in groundwater as a widespread water quality problem that can pose serious health risks to pregnant women and infants. Agricultural fertilizers and animal wastes applied to cropland are by far the largest sources of nitrate in groundwater. The report revealed that almost 97 percent of nitrate loading to groundwater in the Central Valley and Central Coast can be directly linked to irrigated agriculture. The State Water Board made 15 specific recommendations to address issues associated with nitrate contaminated groundwater. The State Water Board and the Regional Water Quality Control Boards (collectively, the Water Boards) are engaged in numerous efforts to address nitrate contamination in groundwater. This proposal focuses on the Water Boards' efforts to regulate discharges with the Irrigated Lands Regulatory Program (ILRP).

Division 7 of the California Water Code (known as the Porter-Cologne Water Quality Control Act, or "Porter-Cologne") requires persons who discharge waste, or propose to discharge waste that affect, or may affect, the waters of the state to file a report of waste discharge with the appropriate Regional Water Quality Control Board. The Regional Water Board, after any necessary hearing, shall prescribe waste discharge requirements as to the nature of the discharge. The Water Boards may waive these waste discharge requirements under certain conditions. Any person subject to these requirements shall submit an annual fee into the Waste Discharge Permit Fund according to a fee schedule established by the State Water Board. In 1999, amid concerns that waivers in place for agricultural dischargers were inadequately protective of water quality, the Legislature passed Senate Bill 390 (Alpert), Chapter 686, Statutes of 1999, requiring the Water Boards to review their existing waivers and either renew them with conditional waivers, or replace them with individual or general waste discharge requirements. In 2004, the State Water Board requested resources to develop and implement the ILRP. The request was approved, providing resources to initiate the protection of water quality through the regulation of agricultural discharges.

Many recent developments justify an increase in resources for the ILRP. The Governor's Water Action Plan discusses specific measures to mitigate the effects of long-term drought, stating that water recycling, expanded storage, and serious groundwater management must be part of the mitigation efforts. Also in 2014, Governor Brown signed historic legislation to strengthen local management and monitoring of groundwater basins most critical to the state's water needs. The Sustainable Groundwater Management Act allows local agencies to adopt groundwater management plans that are tailored to the needs of those communities. The Brown Administration has used the Water Action Plan as a roadmap to put California on a path to sustainable water management. The 2016 update of the Water Action Plan recognizes that inconsistent and inadequate tools, resources, and authorities have made managing groundwater difficult in California and have impeded our ability to address problems including water quality degradation.

The ILRP currently is supported by $4.5 million and 23.1 positions. Identification of water quality concerns related to agricultural practices and operations has resulted in a systematic increase in workload over the last decade. The positions in this BCP will be funded from waste discharge permit fees from agricultural dischargers. To the extent that the existing fee payer base for these dischargers cannot support the increased program oversight costs, the current fee structure for these dischargers may be increased to cover the costs of regulating these facilities to protect sources of drinking water, public health, and the state's groundwater.

Staff Recommendation. Hold open.

Issue 2 – Oil and Gas Monitoring Program Supplement for Existing Underground Injection Control Project Review

Governor's Proposal. The State Water Resources Control Board (State Water Board) requests $1 million in spending authority from the Oil, Gas, and Geothermal Administrative Fund for three years to collaborate with the Division of Oil, Gas and Geothermal Resources (DOGGR) in its annual review of active Class II underground injection control (UIC) projects in order to ensure these projects comply with the federal Safe Drinking Water Act and applicable state statutes and regulations, safeguarding groundwater resources.

Background. In 1982, the United States Environmental Protection Agency (USEPA) gave DOGGR primary responsibility and authority over all oil and gas related Class II UIC wells in the state. This "primacy" agreement requires DOGGR to review all active UIC projects on an annual basis. A typical UIC project consists of dozens to hundreds of wells used to enhance oil recovery and/or to dispose of oilfield related waste water (produced water). UIC wells used to enhance oil recovery predominantly inject water or steam into a hydrocarbon-bearing formation to extract oil and gas. An audit conducted by the USEPA in 2011 identified that DOGGR had not been performing its required annual review of active UIC projects. DOGGR submitted their Renewal Plan for Oil and Gas Regulation to the Legislature in December 2015, and identified a path forward to bring its UIC program into compliance with the federal Safe Drinking Water Act, as well as applicable state statutes and regulations. This path forward includes participation by the Water Boards in the annual review of active UIC projects in cases where an update or modification to a project is required. Currently, there are more than 900 active UIC projects consisting of more than 50,000 UIC wells that are slated for annual review by DOGGR.

Since 1988, the Water Boards and DOGGR memorandum of agreement addresses each agency's roles and responsibilities pertaining to oilfield related discharges, which includes UIC project reviews by Water Boards. In 2015, the Water Boards requested and received resources related to reviewing aquifer exemption proposals from DOGGR, reviewing UIC wells identified by DOGGR as injecting into aquifers that may not have been properly exempted, reviewing UIC project proposals, reviewing discharges of produced water to surface ponds, and taking appropriate enforcement action where necessary. The 2015 staff resources comprised $2.9 million and 19 permanent positions, including $250,000 for contracts funding for analytical laboratory testing of water samples collected during the review of UIC wells and oilfield produced water ponds. However, the resources received in 2015 did not account for the Water Boards participation in DOGGR's required annual review of active UIC projects, at that time the Water Boards were not informed about the need for the retroactive review of all active UIC projects permitted by DOGGR since 1983 and the sheer number and complexity of these projects.

This BCP would provide resources to increase the Water Boards' role in assessing the potential impacts of oil and gas related UIC projects on water quality and bring the UIC program back into compliance with the federal Safe Drinking Water Act, as well as applicable state statutes and regulations. An effective program of reviewing oil and gas related UIC projects will help safeguard groundwater resources, will address the public's concerns, and help decision makers assess potential impacts on the state's groundwater supply to assist in the development of good public policy.

Staff Recommendation. Approve as budgeted.