# California State Assembly

## ENVIRONMENTAL SAFETY AND TOXIC MATERIALS



**BILL QUIRK**
CHAIR

## AGENDA

Tuesday, June 28, 2022
1:30 p.m. -- State Capitol, Room 444

## HEARD IN FILE ORDER

| | | | |
|---|---|---|---|
| 1. | SB 230 | Portantino | State Water Resources Control Board: Constituents of Emerging Concern in Drinking Water Program. |
| 2. | SB 277 | Archuleta | Fireworks: dangerous fireworks: seizure: management. |
| 3. | SB 1124 | Archuleta | Public health goal: primary drinking water standard: manganese. |

## CONSENT

| | | | |
|---|---|---|---|
| 4. | SB 1188 | Laird | Safe Drinking Water State Revolving Fund: financial assistance. |

Date of Hearing: June 28, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Bill Quirk, Chair
SB 230 (Portantino) – As Amended June 22, 2022

**SENATE VOTE**: 37-0

**SUBJECT**: State Water Resources Control Board: Constituents of Emerging Concern in Drinking Water Program

**SUMMARY:** Authorizes the State Water Resources Control Board (State Water Board) to establish, maintain, and direct a dedicated program called the Constituents of Emerging Concern (CEC) in Drinking Water Program. Additionally, authorizes the State Water Board to convene a Science Advisory Panel to review and provide recommendations to the State Water Board on CECs for further action. Specifically, **this bill**:

1) Define "CEC" as a constituent of emerging concern.

2) Define "Program" as the Constituents of Emerging Concern in Drinking Water Program authorized by this bill.

3) Authorizes the State Water Board to establish, maintain, and direct a dedicated program for Constituents of Emerging Concern in Drinking Water.

4) Requires the State Water Board to build upon its existing work dealing with, and work to improve its knowledge of CECs in water. Requires the State Water Board to also work to improve its knowledge of CECs in drinking water by assessing the state of information, and may recommend areas for further studies, including, but not limited to, any of the following:

   a) The occurrence of CEC in drinking water sources and treated drinking water;

   b) Fate, transport, and biodegradation of CECs;

   c) Water treatment and laboratory analyses; and,

   d) The potential effects on public health of CECs in drinking water sources and treated drinking water.

5) Provides that nothing in the bill limits the State Water Board's authority to act on CECs or interferes with the State Water Board's ongoing activities on CECs.

6) Authorizes the State Water Board to convene a Science Advisory Panel (panel) for CECs in drinking water sources and treated drinking water.

7) Requires, if the State Water Board chooses to convene the panel, the panel to include at least nine members comprised of experts from the following fields: public health sciences; water and wastewater, including water treatment, engineering; toxicology; epidemiology; chemical sciences; biological science; including pathogens; one public health expert appointed by the Assembly Speaker; and one public health expert appointed by the President pro Tempore of the Senate.

8) Requires, if the State Water Board chooses to convene the panel, the panel to review and provide recommendations to the State Water Board on CECs for further action.

9) Provides that the panel shall serve at the direction of the State Water Board and the panel's duties may include, but are not limited to, any of the following activities at the State Water Board's request:

   a) Review existing data on CEC's collected by the State Water Board and nationwide by the United States Environmental Protection Agency's (US EPA) Unregulated Contaminant Monitoring Rule (UCMR);

   b) Identify CEC candidates based on potential public health effects;

   c) Incorporate recommendations from other ongoing state efforts evaluating CECs;

   d) Recommend a framework for a risk-based screening program for CECs;

   e) Review the existing CEC risk-based framework in aquatic and recycled water systems to see if the framework is applicable to drinking water;

   f) Review the results of any screening program and provide recommendations to assist the State Water Board in prioritizing, monitoring, evaluating health impacts, and making regulatory determinations for CECs; and,

   g) Address the US EPA's Contaminant Candidate List (CCL) and not create any impediments to complying with federal law or duplicative monitoring.

10) Allows the State Water Board, if it imposes CEC monitoring requirements, to provide financial assistance, upon appropriation by the Legislature, to a public water system upon a showing that the costs associated with testing drinking water would impose a financial hardship. Additionally, requires that this financial assistance be available to all public water systems, prioritized for use by public water systems serving fewer than 10,000 individuals and located in disadvantaged communities.

11) States the Legislature's intent that the program is intended to help inform the State Water Board in making regulatory determinations for CECs and is not intended to supersede any requirements related to setting a maximum contaminant level (MCL) or a public health goal (PHG).

12) Creates the CEC Action Fund (Fund) in the State Treasury and requires the State Water Board to administer the Fund. Requires moneys deposited in the Fund to be used, upon appropriation by the Legislature, in support of the following: costs associated with establishing and maintaining the panel; costs associated with developing standardized analytical methods internally by the State Water Board or through external contracts or grants; costs associated with contracts or grants to public or private external research organizations to fill research gaps; other costs borne by the State Water Board with implementing and administering the program; and costs associated with financial assistance provided to public water systems for monitoring CECs.

13) Requires the State Water Board to maintain a program internet website and make relevant research, reports, and data available to the public.

14) Requires the State Water Board to provide an annual program update as an informational item at a regularly noticed meeting of the State Water Board.

15) Requires the State Water Board, three years after the State Water Board convenes the panel, to provide a final report to the Legislature on the work conducted by the panel.

**EXISTING LAW**:

1) Requires the US EPA to establish criteria for a program to monitor unregulated contaminants and publish a list of up to 30 contaminants to be monitored every five years, known as the federal UCMR. (42 United States Code § 300(f))

2) Requires, pursuant to the federal Safe Drinking Water Act (SDWA) and California SDWA, drinking water to meet specified standards for contamination, or MCLs as set by the US EPA or the State Water Board. (Health & Safety Code (HSC) § 116270, et seq.)

3) Requires the State Water Board to adopt primary drinking water standards for contaminants in drinking water that are not less stringent than the national primary drinking water standards and are based on all of the following:

   a) The PHG for the contaminant published by the Office of Environmental Health Hazard Assessment (OEHHA);

   b) The national primary drinking water standard for the contaminant, if any, adopted by the U.S. EPA; and,

   c) The technological and economic feasibility of compliance with the proposed primary drinking water standard. (HSC § 116365)

4) Establishes the policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. (Water Code (WC) § 106.3)

**FISCAL EFFECT**: Unknown.

**COMMENTS**:

*Need for the bill:* According to the author, "Scientists can now detect thousands of CECs in trace amounts in drinking water, with little understanding of their public health risk. The regulatory development process in California is lengthy as it considers chemicals one-by-one. In addition, the state board lacks technical and financial resources to make a timely regulatory determination. For example, the revision to California's arsenic standard took four years after the OEHHA established the PHG. Similarly, while California is proposing to release draft MCL for perfluorocotanoic Acid (PFOA) and perfluorooctanesulfonic acid (PFOS) by Summer 2022, other states such as New York and New Hampshire already proposed draft MCLs in 2019. California is a couple of years behind in addressing the most prominent emerging contaminants in drinking water sources sometimes due to the lack of a certified method to detect CECs, a lack

of understanding where the CECs occur, or knowledge of the public health threats. SB 230 will establish a comprehensive and ongoing program to ensure CECs are addressing in a methodical and science-based manner, which will ultimately better protect public health. There is an urgency to have a systematic process in addressing CECs in drinking water for public health protection."

*Federal Safe Drinking Water Act:* The federal SDWA was enacted in 1974 to protect public health by regulating drinking water. California has enacted its own safe drinking water act to implement the federal law and establish state standards under the state SDWA. The U.S. EPA enforces the federal SDWA at the national level. Most states, including California, have been granted "primacy" by the US EPA, giving them the authority to implement and enforce the federal SDWA at the state level.

*California's drinking water program:* Through its Division of Drinking Water (DDW), the State Water Board is responsible for enforcing federal and state drinking water statutes and regulating public water systems (PWS). The State Water Board directly enforces the federal SDWA for all water systems with 200 or more service connections. For water systems with less than 200 connections, regulatory authority can be delegated to local health departments. The State Water Board adopts regulations for drinking water standards, monitoring requirements, cross-connections, design and operational standards, and operator certification.

Risks to human health and the environment are managed by federal and state standards for permissible levels of certain contaminants, known as MCLs. A drinking water contaminant's MCL is required to be established at a level as close to its PHG as is technologically and economically feasible, placing primary emphasis on the protection of public health. A PHG, which is established by OEHHA, is the level of a contaminant in drinking water that does not pose a significant risk to health. The process for establishing a PHG for a contaminant in drinking water is very rigorous. OEHHA scientists first compile all relevant scientific information available and perform health risk assessments in which they determine the levels of the contaminant in drinking water that could be associated with various adverse health effects. The State Water Board then goes through a lengthy, public regulatory process to develop an MCL that is informed by the PHG. The State Water Board has an MCL for about 100 chemicals, all of which have a PHG.

*Notification level (NL):* The DDW's precursor, the Drinking Water Program of California Department of Public Health, and earlier, the California Department of Health Services, established health-based advisory levels, called "notification levels" (referred to as "action levels" through 2004), as needed since the early 1980s. These are used to provide information to public water systems and others about certain non-regulated chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than these levels, certain requirement and recommendations apply.

Chemicals for which NLs are established may eventually be regulated by MCLs (through a formal regulatory process), depending on the extent of contamination, the levels observed, and the risk to human health. Most, however, have not proceeded to MCLs.

To date, of the 93 chemicals for which NLs have been established; 40 now have MCLs. Of the remaining 53 chemicals, 29 are chemicals with current NLs and the remaining 24 are chemicals with archived advisory levels.

There are tens of thousands of additional chemicals and constituents that do not have an MCL or an NL, for which we do not have enough information to determine whether they have a human health or environmental impact.

NLs are advisory in nature and not enforceable standards. However, state law (HSC §116455) requires a drinking water system to notify the governing body of the local agency in which users of the drinking water reside (i.e., city council and/or county board of supervisors) when a chemical in excess of a NL is discovered in a drinking water source.

*Response level (RL):* If a chemical is present in drinking water that is provided to consumers at concentrations considerably greater than the NL, the DDW recommends that the drinking water system take the source out of service. The level prompting a recommendation for source removal is the RL, and depends upon the toxicological endpoint that is the basis for the NL. For chemicals with a non-cancer toxicological endpoint, the RL is 10 times the NL.

While NLs and RLs are not regulatory standards they provide important information about contaminants to public water systems and their customers. There are also significant actions imposed upon public water systems with the issuance of a NL or RL.

*Unregulated Contaminant Monitoring Rule:* US EPA uses the UCMR to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the SDWA.

The UCMR program was developed in coordination with the CCL. The UCMR provides US EPA and others with scientifically valid data on the occurrence of these contaminants in drinking water. This allows assessment of the population being exposed and the levels of exposure. UCMR data represent one of the primary sources of national occurrence data in drinking water that US EPA uses to inform regulatory and other risk management decisions for drinking water contaminant candidates. These data ensures science-based decision-making and helps to prioritize the protection of disadvantaged communities.

*Constituents of Emerging Concern:* There are tens of thousands of chemicals in commerce today, and many have the potential to be released into the environment. Most are not monitored in California's waters.

This class of unregulated chemicals are collectively referred to CECs and include, but are not limited to, personal care products; pharmaceuticals including antibiotics and antimicrobials; industrial, agricultural, and household chemicals; natural hormones; food additives (such as phytoestrogens, caffeine, and sweeteners); and, nanomaterials.

CECs are unregulated chemicals (in aquatic contexts) that originate from a variety of point and non-point source waste discharges. CECs, simply put, are the unknown class of constituents potentially impacting our water sources.

The US EPA maintains a CCL of drinking water contaminants, both chemical and microbial, that are known or anticipated to occur in public water systems and are not currently subject to US EPA drinking water regulations. The CCL includes 97 chemicals or chemical groups and 12 microbial contaminants. The list includes, among other things, chemicals used in commerce,

pesticides, biological toxins, disinfection byproducts, pharmaceuticals, and waterborne pathogens.

The CCL does not impose any requirements on public water systems. The US EPA continues to collect data and encourage further research on listed contaminants to better understand potential health effects and at what levels they occur in drinking water.

*Efforts to understand CECs in California:* To encourage expanded water reuse in a state that is experiencing water shortages, the State Water Board adopted a Recycled Water Policy in February 2009 to provide permitting clarity for recycled water projects, however, CECs presented a policy challenge for recycled water use. Many CECs are potentially present in recycled water, but the detection of many of these chemicals is so recent that robust methods for their quantification and toxicological data for interpreting potential human or ecosystem health effects are unavailable.

Recognizing that consideration of CEC's effects on human health and aquatic life is evolving, and that regulatory requirements need to be based on best available science, the State Water Board included a provision in the Recycled Water Policy to establish a Science Advisory Panel for Constituents of Emerging Concern in Recycled Water (Recycled Water Panel). The Recycled Water Panel's primary charge was to provide guidance for developing monitoring programs that assess potential CEC threats from various water recycling uses and update its recommendations every five years.

In June 2010, the Recycled Water Panel submitted a report titled *Monitoring Strategies for Chemicals of Emerging Concern (CECs) in Recycled Water,* which recommended a risk-based screening framework to identify CECs for monitoring. The report also suggested development of bioanalytical screening and predictive modeling tools to improve assessment of the presence of CECs and their potential risk to the environment.

The Science Advisory Panel for Chemicals of Emerging Concern in California's Aquatic Ecosystems (Ecosystems Panel) was also convened at the request of the State Water Board to provide unbiased science-based recommendations for monitoring of CECs in oceanic, brackish, and fresh waters across the state that receive discharge of treated municipal wastewater effluent and stormwater. Specifically, the Ecosystems Panel was directed to review existing scientific literature on CECs in aquatic ecosystems; determine the state of the current scientific knowledge regarding the risks that CECs in freshwater and marine water pose to human health and aquatic ecosystems; and, provide recommendations on improving the understanding of CECs for the protection of public health and the environment. Initiation of the Ecosystems Panel coincided with the final deliberations of the Recycled Water Panel, and was made up of 6 of the 7 members of the Recycled Water Panel.

The Ecosystems Panel's final report, *Monitoring Strategies for Chemicals of Emerging Concern (CECs) in California's Aquatic Ecosystems*, published April 2012, provided recommendations for the monitoring of CECs in aquatic ecosystems and stressed the need for further research on source contribution, occurrence, and toxicity of CECs. It also emphasized the need to evaluate the risk posed by CECs relative to other stressors, including priority pollutants and other currently monitored chemicals, to provide decision makers with the information needed to make efficient use of all monitoring resources.

Later in 2010, the State Water Board provided a grant to the Southern California Coastal Water Research Project to reconvene the Recycled Water Panel to review the conceptual framework from the 2010 report, evaluate the scientific literature since the Recycled Water Panel's last meeting; and assess potential health risks associated with CECs in various water recycling practices, and the use of recycled water for surface water augmentation. Among its various priorities, the Recycled Water Panel was charged with looking at the known toxicological information for the list of CECs, the indicators or surrogates that can be used to represent a suite of CECs, and the concentrations of CECs that should trigger enhanced monitoring. The Recycled Water Panel has done extensive research, data analysis, and bioanalytics on CECs in the context of recycled water.

In August 2016, the Expert Panel on the Feasibility of Developing Uniform Water Recycling Criteria for Direct Potable Reuse (Expert Panel) was convened by the National Water Research Institute on behalf of the State Water Board to provide research recommendations related to the feasibility of developing uniform water recycling criteria per SB 918 (Pavley, Chapter 700, Statutes of 2010) for direct potable reuse. The Expert Panel is separate from the Recycled Water and Ecosystem Panels, but did include two of the same expert panelists that also served on the previous panels.

The Expert Panel's final report, *Evaluation of the Feasibility of Developing Direct Potable Reuse Regulatory Criteria for the State of California*, stated that no additional research was needed to establish uniform water recycling criteria for direct potable reuse, but recommended several areas of research on potential health risks of specific CECs likely to be present in recycled water, improving source control, improving pathogen monitoring in raw wastewater and advanced treated water, improving treatment processes, and developing comprehensive analytical methods to identify unknown compounds.

*Improving CEC research*: The intent with this bill is to authorize the State Water Board to create a program dedicated to identifying, researching, and understanding CECs. It is estimated that there are more than 100,000 chemicals in commerce today that could be entering California's water sources through various routes. Attempting to identify as many of these chemicals, or constituents, as possible is a sizeable task. However, by providing this legislative direction which could result in additional staff scientists conducting research on CECs at the State Water Board, this bill is a step closer to clarifying the impacts to and the naturally-occurring chemicals in our drinking water.

*Arguments in Support:* According to a number of entities including the California Municipal Water Association and the Metropolitan Water District of Southern California, "On behalf of the public agencies and business organizations noted below, we are writing in support of SB 230 as amended on June XX, 2022 to require the State Water Resources Control Board (State Water Board) to improve its knowledge of constituents of emerging concern in drinking water. Senate Bill 230 seeks to address this problem by requiring the State Water Board to improve its knowledge of CECs in drinking water by assessing the state of information and recommending areas for further study including, but not limited to, occurrence of CECs in drinking water sources and treated drinking water; their fate, transport and biodegradation; water treatment and laboratory analyses; and the potential effects on public health. With this program, the State Water Board could form and direct a Science Advisory Panel to help prioritize CEC actions. The program if created would (1) identify the highest priority CECs; (2) bridge information gaps and coordinate scientific research; (3) remove barriers and improve timeliness for action on

CECs, including identifying new, cost effective treatment technologies; (4) provide financial assistance as needed for any new CEC monitoring requirements, and (5) solicit public input. The proposed legislation would be forward-looking and not interfere with any existing regulations or programs focused on CECs, including the process underway to regulate PFAS chemicals. If a Science Advisory Panel is established, a report on their work would be presented to the Legislature."

*Arguments in Opposition*: According to Clean Water Action, writing in opposition on a previous version of the bill, "On behalf of Clean Water Action and tens of thousands of Californians we represent, we write to express our opposition to SB 230 in its current form. In so doing, we wish to acknowledge our discussions with your office and the bill's sponsors and the inclusion of several amendments we had requested in this year's bill language. However, this is one of those unfortunate instances where the core elements of the bill remain problematic for us and we cannot support the bill with its current focus. While we support building a strong scientific understanding of CECs for California water in general, we believe that this program's unintended consequence will be to prolong what is already a robust scientific process to regulate contaminants in drinking water to the detriment of public safety. In addition, the drinking water program is supported by an already established CEC program for recycled water, which includes research for direct potable reuse (turning recycled water into potable water). Consequently, Clean Water Action could support expanding the existing recycled water CEC program to consider impacts on surface water, wastewater, agricultural water, and other non-drinking water pathways of both human and ecosystem exposure, such as consuming contaminated fish or produce as a result of polluted water. We would further recommend that instead of a standing Science Advisory Panel, which would require continuous Water Board resources, it be formed at the discretion of the Board when that body identifies specific needs. Thirdly, we ask that pollution prevention be incorporated into any Science Advisory Panel's scope of work to help stop CECs from becoming established pollution problems that require regulation and environmental remediation. This could include identifying primary sources of an emerging contaminant and developing recommendations to prevent further discharge into state waters. Finally, we would like to see more detail in the bill on how the CEC Action Fund would be established and sustained."

*Related legislation:*

1) AB 2560 (Quirk, Chapter 350, Statues of 2020). Requires the State Water Board to post on its internet website and distribute through e-mail that it has initiated the development of a NL or RL for a contaminant, as well as the draft NL or RL along with supporting documentation.

2) AB 2072 (Quirk, 2018). Would have required the State Water Board to establish and maintain a dedicated program to research the potential effects of CECs in water sources on human and ecosystem health. This bill was held on the suspense file in the Assembly Appropriations Committee.

**REGISTERED SUPPORT / OPPOSITION**:

**Support**

Anaheim Public Utilities
Association of California Water Agencies (ACWA)
BizFed - Los Angeles County

California Council for Environmental & Economic Balance (CCEEB)
California Municipal Utilities Association (CMUA)
California Special Districts Association
California-Nevada Section, American Water Works Association
Calleguas Municipal Water District
Central Basin Municipal Water District
Central City Association of Los Angeles
City of Glendale Water & Power
City of Pleasanton
City of Riverside Public Utilities
City of Santa Ana
City of Torrance
Cucamonga Valley Water District
Eastern Municipal Water District
El Monte/South El Monte Chamber of Commerce
El Segundo Chamber of Commerce
El Toro Water District
Elsinore Valley Municipal Water District
Emerald Bay Services District
Foothill Municipal Water District
Garden Grove Chamber of Commerce
Inland Empire Utilities Agency
Jurupa Community Services District
Las Virgenes Municipal Water District
LAX Coastal Chamber of Commerce
Long Beach Area Chamber of Commerce
Long Beach Board of Water Commissioners
Long Beach Water Department
Los Angeles Area Chamber of Commerce
Los Angeles County Business Federation (BIZFED)
Los Angeles County Sanitation Districts
Manhattan Beach Chamber of Commerce
Metropolitan Water District of Southern California
Municipal Water District of Orange County
Palos Verdes Peninsula Chamber of Commerce
Pasadena Water and Power
Pomona Chamber of Commerce
Rancho California Water District
Rancho Water
Redondo Beach Chamber of Commerce
San Diego County Water Authority
San Gabriel Valley Legislative Coalition of Chambers
Santa Margarita Water District
South Bay Association of Chambers of Commerce
Southern California Water Coalition
Three Valleys Municipal Water District
Torrance Area Chamber of Commerce
Upper San Gabriel Valley Municipal Water District
West Basin Municipal Water District

Western Municipal Water District
Westside Council of Chambers of Commerce

**Opposition**

Clean Water Action
Natural Resources Defense Council

**Analysis Prepared by**: Josh Tooker / E.S. & T.M. /

Date of Hearing: June 28, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Bill Quirk, Chair
SB 277 (Archuleta) – As Amended June 27, 2022

**SENATE VOTE**: 38-0

**SUBJECT**: Fireworks: dangerous fireworks: seizure: management

**SUMMARY:** Authorizes the State Fire Marshal (SFM) to manage, instead of requiring the SFM to dispose of, dangerous fireworks that are seized in the state, as specified. Requires the SFM to dispose of any seized dangerous fireworks that were identified as hazardous waste to be managed in accordance with California and federal hazardous waste laws and regulations. Specifically, **this bill**:

1) Replaces the requirement of the State Fire Marshal to "dispose of" dangerous fireworks seized in the state, as specified, with a requirement to "manage" these in a manner prescribed by the SFM and in accordance with hazardous waste laws and regulations, after final determination of petition or other specified proceedings, or if no petition proceedings are commenced.

2) Requires the State Fire Marshal to ensure that any dangerous fireworks seized, as specified, that are identified by the SFM as hazardous waste are managed in accordance with California and federal hazardous waste laws and regulations. Requires the SFM to ensure that the hazardous waste is shipped only by registered hazardous waste transporters and treated, stored, or disposed of only by authorized hazardous waste facilities.

3) Prohibits the State Fire Marshal, when managing seized fireworks, from repurposing, transferring, or selling the seized fireworks for purposes of retail sale.

4) Defines the management of seized fireworks as authorizing any of the following actions:

    a. Use by fire and law enforcement agencies for safety, education, training, testing, and enforcement purposes;

    b. Use by the Office of the State Fire Marshal and the federal Consumer Product Safety Commission for regulatory compliance testing and comparison;

    c. Held for testing, comparison, or disposal in the interest of public safety, if identified and seized pursuant to a recall issued by the federal Consumer Product Safety Commission;

    d. Reclassification by the Office of the State Fire Marshal from a consumer product to a hazardous waste, and disposed of in accordance with applicable laws governing hazardous waste;

    e. Deconstruction or alteration by the arson and bomb unit of the Office of the State Fire Marshal, local public safety bomb squads, the federal Bureau of Alcohol, Tobacco, Firearms and Explosives, or the Federal Bureau of Investigations, for purposes of

testing, as it relates to the investigation of criminal, terrorist, or civil disobedience acts;

f. Held for investigation, as it relates to counterfeit or illicit seals of the State Fire Marshal, product packaging, labeling, coding, inspection labeling, manufacturer labeling, or importer or exporter labeling;

g. Held by the Office of the State Fire Marshal as evidence for local, state, or federal criminal prosecution; and,

h. Use by the arson and bomb unit of the Office of the State Fire Marshal for fireworks education, testing, disposal, enforcement, and investigations not otherwise specified in the above.

**EXISTING LAW**:

1) Defines "dangerous fireworks" as any of the following:

   a. Any fireworks which contain any of the following:

      i. Arsenic sulfide, arsenates, or arsenites;
      ii. Boron;
      iii. Chlorates, except as specified;
      iv. Gallates or Gallic acid;
      v. Magnesium, except magnesium-aluminum alloys;
      vi. Mercury salts;
      vii. Phosphorous, red or white, except as specified;
      viii. Picrates or picric acid;
      ix. Thiocyanates;
      x. Titanium, except in specified sizes; and,
      xi. Zirconium.

   b. Firecrackers;

   c. Skyrockets and rockets, including all devices which employ any combustible or explosive material and which rise in the air during discharge;

   d. Roman candles, including all devices which discharge balls of fire into the air;

   e. Chasers, including all devices which dart or travel about the surface of the ground during discharge;

   f. Sparklers more than 10 inches in length or one-fourth of one inch in diameter;

   g. All fireworks designed and intended by the manufacturer to create the element of surprise upon the user, including, but not limited to, auto-foolers, cigarette loads, exploding golf balls, and trick matches;

   h. Fireworks known as devil-on-the-walk, or any other firework which explodes through means of friction, unless otherwise classified by the State Fire Marshal pursuant to state law;

i. Torpedoes of all kinds which explode on impact;

j. Fireworks kits;

k. Such other fireworks examined and tested by the State Fire Marshal and determined by the State Fire Marshal, with the advice of the State Board of Fire Services, to possess characteristics of design or construction which make such fireworks unsafe for use by any person not specially qualified or trained in the use of fireworks. (Health and Safety Code (HSC) § 12505)

2) Defines "exempt fireworks" as any special item containing pyrotechnic compositions which the State Fire Marshal, with the advice of the State Fire Advisory Board, has investigated and determined to be limited to industrial, commercial, agricultural use, or religious ceremonies when authorized by a permit granted by the authority having jurisdiction. (HSC § 12508)

3) Defines "safe and sane fireworks" as any fireworks not under the definition of "dangerous fireworks" or "exempt fireworks". (HSC § 12529)

4) Authorizes the State Fire Marshal to issue any of several licenses (HSC § 12570), including:

a. A manufacturer's license allowing the manufacture of fireworks and other pyrotechnic devices of all types and the sale and transport to licensed wholesalers in California only and the sale to special effects pyrotechnic operators, as specified (HSC § 12571);

b. A wholesaler's license allowing the sale and transportaion of all types of fireworks to licensed retailers, or retailers operating under a permit, licensed public display operators, and others, as specified (HSC § 12572);

c. An importer's and exporter's license allowing fireworks to be imported into or exported from the state, as specified (HSC § 12573);

d. A retail sales license allowing the retail sale of safe and sane fireworks for private use (HSC § 12574);

e. A special public display license allowing the holding and conducting at various times of public displays of dangerous fireworks at a single location only (HSC § 12575);

f. A general public display license allowing the holding and conducting of public displays of dangerous fireworks at various locations and at various times (HSC § 12576); and,

g. A limited public display license allowing the performance of a single public display action of a single nature with dangerous fireworks at one location to be executed at one or more performances or exhibitions (HSC § 12577).

5) Authorizes, through a retail license, the retail sale of safe and sane fireworks within the state only during the period of noon on the 28th of June through noon on the 6th of July of a calendar year, unless prohibited by local ordinance. (HSC § 12599)

6) Authorizes the State Fire Marshal, his or her salaried deputies, or any chief of a fire department, or his or her authorized representatives, any fire protection agency, or any other public agency authorized by statute to enforce the State Fire Marshal's regulations, to seize any fireworks described in HSC § 12500 – 12728. (HSC § 12721)

7) Authorizes the seizure of dangerous fireworks, including fireworks kits, used, possessed, stored, manufactured, or transported by a person who does not possess a valid permit authorizing an activity listed in HSC § 12500 – 12728. (HSC § 12722(h))

8) Requires the State Fire Marshal to dispose of dangerous fireworks seized pursuant to state law in a manner prescribed by the State Fire Marshal at any time after final determination of petition proceedings pursuant to HSC § 12724, or upon final termination of proceedings under HSC § 12593, whichever is later. Authorizes the State Fire Marshal to dispose of the seized fireworks, if no petition proceedings are commenced, after all of the following requirements are satisfied (HSC § 12726(a)):

    a. A random sampling of the dangerous fireworks has been taken, as defined by regulations adopted by the State Fire Marshal pursuant to HSC § 12552;

    b. The analysis of the random sampling has been completed;

    c. Photographs have been taken of the dangerous fireworks to be destroyed; and,

    d. The State Fire Marshal has given written approval for the destruction of the dangerous fireworks. This approval shall specify the total weight of the dangerous fireworks seized, the total weight of the dangerous fireworks to be destroyed, and the total weight of the dangerous fireworks not to be destroyed.

9) Requires local government entities, if administrative fines or penalties are collected upon seizure of dangerous fireworks pursuant to a local ordinance, to forward 65 percent of the collected moneys to the Controller for deposit in the State Fire Marshal Fireworks Enforcement and Disposal Fund. (HSC § 12726(c))

10) Establishes the State Fire Marshal Fireworks Enforcement and Disposal Fund in the State Treasury and requires all moneys collected pursuant to state law and deposited in the fund to be available, upon appropriation by the Legislature, to the State Fire Marshal for the exclusive use in statewide programs for the enforcement, prosecution related to, disposal, and management of seized dangerous fireworks, and for the education of public safety agencies in the proper handling and management of dangerous fireworks. (HSC § 12728 (a-b))

**FISCAL EFFECT**: Unknown.

**COMMENTS**: *Need for the bill*: According to the author, "Senate Bill 277 would provide the California Department of Forestry and Fire Protection's (CAL FIRE's) Office of the State Fire Marshal (OSFM) the authority to manage – instead of only dispose of – illegal fireworks. Allowing the OSFM to manage instead of only dispose of seized fireworks could cut disposal costs by up to 50%."

*California Fireworks Program:* According to the Office of the State Fire Marshal, California's Fireworks Law, passed in 1938, established the Office of the State Fire Marshal as the only

fireworks classification authority in California. Today, the SFM is located within the California Department of Forestry and Fire Protection (CalFIRE). Fireworks are classified through laboratory analysis, field examinations, and test firing of items. As part of the program, SFM requires the licensing of all pyrotechnic operators, fireworks manufacturers, importer-exporters, wholesalers, retailers, and public display companies. Pyrotechnic operators who discharge fireworks at public displays or launch high-powered and experimental rockets, must also pass a written examination and provide proof of experience.

State law defines "dangerous fireworks" as any firework containing any of a specified list of chemicals such as, among others, arsenic sulfide, boron, mercury salts, red or white phosphorous, picrates, and thyocyanates. Types of dangerous fireworks include firecrackers; skyrockets; Roman candles; chasers; large sparklers; any firework designed to create an element of surprise, including but not limited to auto foolers, cigarette loads, exploding golf balls, and trick matches; devil-on-the-walk; torpedoes of all kinds that explode on impact; fireworks kits; and other fireworks examined and tested by the SFM and determined to possess characteristics of design or construction that make the fireworks unsafe for use by a person not specially qualified or trained in the use of fireworks.

The SFM can also deem a firework to be "exempt" if it is limited to industrial, commercial, agricultural use, or religious ceremonies. All fireworks that are neither dangerous nor exempt are, by definition, "safe and sane" fireworks. The retail sale of these is legal in California between noon on June 28 and noon on July 6 of every calendar year, but may be prohibited locally through ordinances. For example, the City of Los Angeles prohibits all fireworks. Public fireworks shows can be conducted by state-licensed pyrotechnicians with licenses obtained from the State Fire Marshal.

Currently, there are approximately 290 communities in California that permit the sale and use of state-approved fireworks for the July Fourth holiday. Retailers must obtain a license to sell safe and sane fireworks from the SFM annually and pay associated fees to the state. Local jurisdictions may include an administrative fee related to the processing of permits and a percentage of gross sales collected by the jurisdiction. The revenue is generally used for education, over-time staffing, enforcement duties, and other fireworks related activities.

It is a misdemeanor crime to violate the California State Fireworks Law. Violators are subject to a maximum $1,000 fine and up to one year in a county jail. However, penalties increase for possession of large quantities of dangerous fireworks, and prosecutors could charge the violator with a felony, punishable by up to three years in state prison and fines up to $50,000. Federal law also prohibits the transport of fireworks across state lines to a state where the use or possession of the firework is illegal. This is particularly relevant as dangerous fireworks often make their way into California from neighboring states.

*Fire risk:* According to the National Fire Protection Association (NFPA), an estimated 19,500 fires were started by fireworks nationwide in 2018. These fires caused five civilian deaths, 46 civilian injuries, 17,100 outside and other fires, 1,900 structure fires, 500 vehicle fires, and $105 million in direct property damage. In the same year, United States (U.S.) emergency rooms treated over 9,000 people for fireworks related injuries, with children younger than age 15 accounting for 36% of all injuries, according to a U.S. Consumer Product Safety Commission (CPSC) report.

The hot and arid conditions, in combination with the prolonged drought conditions plaguing the state, significantly increase the risk of fires due to fireworks and accelerate the spread of fires. In 2022, California experienced the driest period between January and March on record and as of June 14, 2022, over 70% of the state were in a state of either extreme or exceptional drought, according to data from the National Oceanic and Atmospheric Administration.

In a July 2021 LA Times article titled "No such thing as 'safe and sane' fireworks in a bone-dry California primed to burn", the LA County fire chief, Daryl Osby, said about the situation in the county, "It's out of control. Every year, we confiscate more illegal fireworks. We think that's a good year, but if you live in Los Angeles County, you can see all the aerial fireworks that go up. They're all illegal."

In 2020, the San Francisco Fire Department reported over 100 grass fires and the Los Angeles Fire Department nearly 400 fires, many thought to have been started by fireworks. Fireworks at a gender-reveal party in Yucaipa set off the El Dorado fire in September 2020, a blaze that killed one firefighter and took until November of the year to extinguish. Data reported by the SFM in June 2022 on fires caused by fireworks in the state between 2012 and 2021 demonstrate the magnitude of the problem (see table). In the 10-year period, 8,427 fires caused by fireworks were reported to the SFM.

| YEAR | FIREWORKS FIRES | PROPERTY LOSS ($) | ACRES BURNED |
|---|---|---|---|
| 2012 | 584 | 2,213,934 | 2,903 |
| 2013 | 565 | 1,556,883 | 305 |
| 2014 | 528 | 1,599,376 | 8,658 |
| 2015 | 561 | 5,931,945 | 411 |
| 2016 | 663 | 1,661,670 | 422 |
| 2017 | 907 | 3,364,471 | 568 |
| 2018 | 780 | 2,624,044 | 1,084 |
| 2019 | 877 | 2,541,424 | 743 |
| 2020 | 2,046 | 8,069,210 | 3,201 |
| 2021 | 916 | 3,293,844 | 472 |
| TOTAL | 8,427 | 32,856,801 | 18,767 |

Firework fires reported to the State Fire Marshal between 2012 and 2021. Data reported on June 8, 2022 by the Office of the State Fire Marshal.

*Seized fireworks*: Unburned fireworks may be hazardous because they are reactive (i.e., explosive), and may contain a number of toxic metals and chemicals, as described above. Each year, the Office of the State Fire Marshal seizes hundreds of thousands of pounds of unburned and confiscated fireworks. Under current law, all seized fireworks, including safe and sane fireworks seized in a jurisdiction in which they are illegal, are classified as hazardous waste by default. No distinction is made between fireworks in their original packaging and those that are opened or loose. In fact, fireworks are often seized in their original packaging with unaltered carton markings.

According to the Department of Toxic Substances Control (DTSC), thousands of tons of consumer fireworks are shipped into California each year, only a fraction of which are confiscated by local law enforcement. According to the SFM, seizures of illicit fireworks have been increasing each year and mostly occur from March through the July Fourth celebrations. Notably, several previous legislative attempts to establish a second legal period for fireworks use over the New Year's holiday in the state have failed; though, from a fire risk perspective, fireworks set off in summer are riskier than those ignited in winter.

The magnitude of the problem in the state is exacerbated by the arrival of fireworks that may be headed for other (western) states in the Ports of Long Beach, Los Angeles, and Oakland. In recent years, there have been major seizures of illegal fireworks that had arrived in the ports of LA and Long Beach, ranging from 15 to 25 tons each.

*Disposal of seized fireworks:* Upon seizure, DTSC regulations require the hazardous waste to be transferred to a permitted hazardous waste facility within 90 days. The disposal is complicated by the sheer volume of seized fireworks, the associated cost, and logistical challenges. Currently, local law enforcement agencies notify the SFM of seized fireworks. These have to be separated into dangerous and safe and sane fireworks and are held in trust by local agencies until disposal is available. Loose fireworks must be placed in labeled, quality cardboard boxes with functional lids. The SFM recommends local agencies to store seized fireworks in storage buildings, trailers, semitrailers, metal shipping containers, or magazines. Consequently, storage space is an issue when thousands of pounds of material are seized.

For disposal, the SFM contracts with a federally approved hazardous waste transporter to ship the fireworks to a facility in Utah, one of only two facilities nationwide permitted to process final disposal of fireworks. No such authorized facility exists in California. The facility in Louisiana is currently not being used by the state due to location and its close proximity to inhabited housing and the potential for groundwater contamination at the site. Transport and disposal costs $10 per pound of fireworks, bringing the annual cost to the state to the low millions. This does not include the cost of storage.

Cost pressures imposed by the requirement to dispose of seized fireworks limit the ability of local agencies to better enforce the state's fireworks laws. Conversely, the more fireworks are seized, the greater the cost pressures on the state to dispose of them. Ultimately, the more fireworks are set off, the greater the risk of injuries and fires. This bill, therefore, seeks to reduce cost associated with disposal, by permitting the State Fire Marshal to manage those seized fireworks that are not deemed hazardous waste, in a number of ways outlined in the bill, including training and testing by local and federal law enforcement. Importantly, those fireworks that are deemed hazardous waste will still be disposed of according to the law.

*Environmental pollution by fireworks*: According to the American Chemical Society, most fireworks contain a small tube, known as the aerial shell, made of gunpowder and small inclusions of explosive materials, called stars. The explosion of these stars is what gives fireworks their colors and shapes. Each star contains four chemical ingredients: an oxidizing agent, a fuel, a metal-containing colorant, and a binder. In the presence of an ignition source, the oxidizing agent and the fuel react chemically to create intense heat and gas. The energy from the high temperatures excites electrons in the colorants' metals. Almost immediately after excitation, the electrons return to their original energy state, emitting their distinct color spectrum in the process. Different metals in the fireworks produce different colors of light when

heated. For example, lithium (Li) salts produce pink, sodium (Na) salts yellow or orange, strontium (Sr) salts red, barium (Ba) salts green, and copper (Cu) salts blue colors.

Given the toxic chemicals, including metals and perchlorates, in fireworks and the aerial dispersal of chemicals that can move into local soil and water, setting off fireworks can contribute significantly to environmental pollution. The oxidized metal compounds are aerosolized and can have negative health impacts on people and wildlife. The combustion reaction further releases gases such as carbon dioxide, carbon monoxide, and nitrogen.

In a 2015 study published in *Atmospheric Environment*, Dian Seidel and colleagues explored the effects of fireworks set off over the Fourth of July holiday on air quality at 315 sites across the U.S. over multiple years. The researchers investigated particulate matter with particle diameters smaller than 2.5 micrometers (PM2.5) as a measure of air quality, since PM2.5 particles are inhalable and can reach the lungs and bloodstream where they can have systemic adverse health effects. On average, the concentrations of PM2.5 for the 24-hour period starting 8pm on July 4 were 42% greater than on control days. In addition to greenhouse gases, according to the U.S. Environmental Protection Agency, the spike in emissions includes perchlorate which has the ability to disrupt the thyroid to produce hormones critical to normal growth and development.

*Environmental justice and pollution considerations with SB 277*: While this bill has the potential to significantly reduce the cost associated with disposal of seized fireworks on the State Fire Marshal, and redirect funds toward enforcement and more seizures, the Legislature should also consider the potential environmental health and environmental justice impacts of this bill. It is conceivable that, if the measure is enacted, more fireworks will be set off in the state than are currently. The definition of "manage" would allow the SFM to use seized fireworks for a number of purposes, including training, testing, and education. As of the writing of this analysis, it is not clear whether the use of these seized fireworks would simply supplant the need to purchase or otherwise obtain the fireworks for these purposes, or might rather lead to an increase in the use of fireworks due to their availability. An increase in the use of fireworks could pollute the environment to a greater extent and, if testing and training sites are located near low-income, disadvantaged communities, expose these communities to more air, soil, and water pollution than they already experience. The author may wish to consider clarifying that the quantity of fireworks managed, but not disposed of, under the provision of this bill can only supplant the quantity otherwise obtained for training, testing, education, and other necessary activities.

It is noteworthy that this bill prohibits the retail sale of seized fireworks. Without such a provision, the environmental issues and fire risk would be exacerbated in California and beyond as the state would have an incentive to sell seized fireworks.

*This bill:* SB 277 would reduce the cost pressures on the State Fire Marshal due to requirements to dispose of all seized fireworks by authorizing the SFM to manage these fireworks instead. It is the understanding of the Committee that the SFM would consider all loose fireworks or those with opened original packaging hazardous waste and dispose of them in accordance with hazardous waste laws and regulations. Fireworks that are seized in their original packaging would be evaluated, and if not deemed hazardous waste, could be managed according to the provisions of the bill.

*Arguments in support:* Phantom Fireworks writes in support, "Each year, California enforcement officials confiscate tens of thousands of pounds of illegal fireworks which are

turned over to the state, designated as "hazardous waste," and sorted until they can be transported to a disposal facility some time later in the year. While the cost of confiscation is static, the storage, transportation, and disposal of these fireworks is a significant financial, and logistical, challenge for the state. Today, these seized fireworks are required to be sent to a disposal facility in either Utah or Louisiana which costs the state in the low-millions each year.

The practice of disposing out of state will remain an option for seized fireworks the SFM classifies as hazardous waste however, SB 277 will also allow the SFM to best determine the proper disposal method. These small but important changes will give the SFM the flexibility necessary to better manage seized fireworks which will result in cost savings that can then be redirected to better enforcement activities."

*Related legislation:*

1) AB 2740 (Carrillo, 2020). Would have expanded the definition of dangerous fireworks; required the SFM to identify and evaluate methods to track all containers containing dangerous fireworks, as specified; repealed existing law relating to a model ordinance governing enforcement and administrative fine procedures; required any seized dangerous and safe and sane fireworks to be managed by the SFM; and would have required commercially viable, federally approved dangerous consumer fireworks or safe and sane fireworks, seized and managed pursuant to the bill, to be made available for sale by any California licensed fireworks importer-exporter or wholesaler of fireworks, as specified. This bill was never referred to committee, and subsequently died on file.

2) SB 794 (Stern, 2017). Would have, until January 1, 2024, established the Fireworks Stewardship Program to create a uniform statewide policy regarding a state, county, special district, and local government entity's safe seizure, storage, repurposing, destruction, or disposal of 1.4G federally approved dangerous fireworks and 1.4G California-classified safe and sane fireworks. This bill was referred to, but not heard, in the Assembly Governmental Organization Committee.

3) SB 677 (Mendoza, 2015). Would have authorized the sale of safe and sane fireworks during the week preceding New Year's Day and would have made numerous changes to the state laws governing fireworks sales and disposals. This bill failed passage in the Senate Governmental Organization Committee.

4) AB 1371 (V. Manuel Pérez, 2011). Would have allowed New Year's fireworks sales and authorized local governments to impose permit fees. This bill was held in the Assembly Governmental Organization Committee.

5) SB 839 (R. Calderon, Chapter 563, Statutes of 2007). Established the SFM Fireworks Enforcement and Disposal Fund. Created a mechanism for fireworks enforcement and disposal through new and increased fines and penalties with a revenue sharing component for local jurisdictions as an incentive for increased enforcement of illegal fireworks.

6) AB 475 (Redwine, Chapter 534, Statutes of 1939). Established California's Fireworks Law, which, among other things, defined "dangerous fireworks" and "safe and sane fireworks", and prohibited any person without a permit from manufacturing, possessing, or selling any

dangerous fireworks, from selling any safe and sane fireworks as a retailer, and from discharging dangerous fireworks in any place.

**REGISTERED SUPPORT / OPPOSITION**:

**Support**

American Promotional Events, Inc.
City of Long Beach
Phantom Fireworks Western Region, LLC
Sacramento; County of

**Opposition**

None on file.

**Analysis Prepared by**: Manar Zaghlula / E.S. & T.M. /

Date of Hearing: June 28, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Bill Quirk, Chair
SB 1124 (Archuleta) – As Amended June 23, 2022

**SENATE VOTE**: 31-5

**SUBJECT**: Public health goal: primary drinking water standard: manganese

**SUMMARY:** Requires the Office of Environmental Health Hazard Assessment (OEHHA) to publish a public health goal (PHG) for manganese; requires the State Water Resources Control Board (State Water Board) to adopt a primary drinking water standard, establish monitoring requirements, and consider establishing a notification level or response level for manganese; authorizes the State Water Board to continue providing funding for treatment, source protection, and alternative water supplies; and authorizes the State Water Board to require community water systems to monitor manganese in their source waters and distribution systems. Specifically, **this bill**:

1) Requires, on or before July 1, 2025, OEHHA to prepare and publish a PHG, pursuant to Health and Safety Code (HSC) § 116365 (c), for manganese.

2) Requires the State Water Board, after OEHHA publishes a PHG for manganese, to adopt, pursuant to HSC § 116365 (a) and (b), a primary drinking water standard for manganese.

3) Requires the State Water Board, after OEHHA publishes a PHG for manganese and for the period before the primary drinking water standard for manganese is adopted, to establish appropriate monitoring requirements for manganese that include, but are not limited to, routine distribution system monitoring, distribution system monitoring after flushing activities, and monitoring when water is discolored or after a customer complains of discolored water.

4) Prohibits the monitoring requirements established under this bill from being construed to limit the State Water Board's authority to order distribution system monitoring for contaminants, other than manganese, that have secondary drinking water standards.

5) Requires, on or before January 31, 2024, the State Water Board to consider establishing, pursuant to HSC § 116456, a notification and response level for manganese that would remain in place until the State Water Board adopts a primary drinking water standard for manganese.

6) Authorizes the State Water Board, before adopting a primary drinking water standard for manganese, to continue to require community water systems to monitor manganese in their source waters and within their distribution systems.

7) Authorizes the State Water Board, before adopting a primary drinking water standard for manganese, to continue providing funding for treatment, source protection, and alternative water supplies, and to use exceedances of the secondary drinking water standard for manganese as a basis for prioritizing funding, to the extent authorized by the funding source.

**EXISTING LAW**:

1) Authorizes, pursuant to the federal Safe Drinking Water Act (SDWA), the United States Environmental Protection Agency (US EPA) to set standards for drinking water quality and to oversee the states, localities, and water suppliers that implement those standards. (42 United States Code § 300 (f), et seq.)

2) Establishes the California Safe Drinking Water Act (SDWA) and requires the State Water Board to maintain a drinking water program. (HSC § 116270, et seq.)

3) Requires, pursuant to the California SDWA, the State Water Board to regulate drinking water and to enforce the federal SDWA and other regulations. (HSC § 116275 et seq.)

4) Requires the State Water Board to adopt regulations needed to carry out the purposes of the California SWDA, including the monitoring of contaminants, which includes the frequency and method of sampling and testing and the reporting of results. (HSC § 116375, et seq.)

5) Defines "maximum contaminant level" (MCL) to mean the maximum permissible level of a contaminant in water. (HSC § 116275 (f))

6) Defines primary drinking water standards to mean:

   a) MCLs that may have an adverse effect on human health;

   b) Specific treatment techniques adopted by the State Water Board in lieu of MCLs; or,

   c) The monitoring and reporting requirements as specified in regulations, adopted by the State Water Board, that pertain to MCLs. (HSC 116275 § (c))

7) Defines "secondary drinking water standard" to mean standards that specify MCLs that are necessary to protect public welfare and may apply to contaminants that may adversely affect the odor or appearance of drinking water, cause a substantial number of persons served by a public water system to discontinue its use, or otherwise adversely affect public welfare. (HSC § 116275 (d))

8) Establishes a secondary MCL for manganese at 0.05 mg/L. (22 California Code of Regulations (CCR) § 64449 (a))

9) Requires community water systems to monitor groundwater sources or distribution system entry points every three years and surface water sources or distribution system entry points annually for specified contaminants regulated under secondary MCLs, including manganese. (22 CCR § 64449, et seq.)

10) Requires community water systems that exceed a secondary MCL for specified contaminants, including manganese, to engage in specified monitoring activities and to report a violation—defined as an average of four consecutive quarterly samples that exceed the MCL—to the State Water Board. (22 CCR § 64449 (c))

11) Requires OEHHA to prepare and publish an assessment of the risks to public health posed by each contaminant for which the State Water Board proposes a primary drinking water standard, as provided. (HSC § 116365, et seq.)

12) Requires the risk assessment, prepared by OEHHA, to contain an estimate of the level of the contaminant in drinking water that is not anticipated to cause or contribute to adverse health effects, or that does not pose any significant risk to public health, also known as the PHG for the contaminant. (HSC § 116365, et seq.)

13) Requires the State Water Board to consider specified criteria when it adopts a primary drinking water standard, including the PHG for the contaminant published by OEHHA. (HSC § 116365, et seq.)

14) Specifies that notification levels are non-regulatory, health-based advisory levels established by the State Water Board for contaminants for which MCLs have not been established, and that notification levels are established as precautionary measures for contaminants that may be considered candidates for establishment of MCLs, but have not yet undergone or completed the regulatory standard setting process required for the development of MCLs. (HSC § 116455 (c)(3))

15) Defines "response level" to mean the concentration of a contaminant in drinking water at which the State Water Board recommends additional steps, beyond notification, to reduce public exposure to the contaminant. (HSC § 116455 (c)(4))

16) Defines "water distribution system" to mean any combination of pipes, tanks, pumps, and other physical features that deliver water from the source or water treatment plant to the customer. (HSC § 116275 (x))

17) Establishes as the policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. (Water Code § 106.3)

**FISCAL EFFECT**: Unknown.

**COMMENTS**:

*Need for the bill*: According to the author, "SB 1124 will address the problem of manganese in California's water systems. Manganese in water can cause aesthetic issues such as metallic-tasting water and black stains on tubs, showers, toilets, plumbing fixtures, and laundry. Studies have also suggested an association between exposure to manganese in drinking water and neurological issues in infants and children. This includes changes in behavior, lowered IQ, speech and memory difficulties, and lack of coordination and movement control. It is thought that manganese has a disproportionate impact on children, the elderly, and people suffering from liver disease.

The central basin region in my district has had chronic issues with our water and specifically manganese. Most median-income water systems with manganese voluntarily install treatment at the water source, whereas disadvantaged water systems cannot afford to do this. This bill will help to ensure that our poorest systems are able to address manganese in their water."

*California's general approach to regulating water quality:* With a growing population of more than 39 million people, a limited supply of fresh water, and a range of impacts on both terrestrial and marine habitats and resources, the protection of water for beneficial uses is of paramount concern for all Californians. Water quality is a concern for all bodies of freshwater, both surface

water and groundwater, and depends on a variety of chemical and biological factors regulated by a number of local, state, and federal agencies.

In California, the state manages contaminants with negative health implications using a regulatory process that typically begins with the development of a PHG and ends with the establishment, implementation, and enforcement of a primary MCL. A PHG is the concentration of a contaminant in drinking water that is estimated to pose no significant health risk to individuals consuming the water on a daily basis over a lifetime. OEHHA scientists perform extensive reviews of the available literature on a drinking water contaminant to set PHGs based on the most sensitive health effects. The final PHG values then serve as guideposts to the State Water Board in setting a primary MCL. A drinking water contaminant's MCL must be established at a level as close to its PHG as is technologically and economically feasible. While primary MCLs place emphasis on public health, they must also account for factors such as detectability, treatability, and cost of treatment. Once the State Water Board establishes an MCL through the regulatory process, public water systems must meet it within the prescribed compliance period, though the State Water Board is not required to provide such a compliance period upon adoption of an MCL.

For some contaminants without primary MCLs, the State Water Board maintains health-based advisory levels called "notification levels," which are used to provide information to public water systems and others about certain chemicals in drinking water. Chemicals with notification levels may eventually be regulated by primary MCLs, developed through the formal regulatory process described above, although not all have proceeded to MCLs. According to the State Water Board, of the 93 chemicals for which notification levels have been established, 40 now have MCLs. Of the remaining 53 chemicals, 29 continue to have notification levels and 24 have archived notification levels. As described below, manganese currently has a notification level and is regulated only on the basis of its aesthetic effects; it is not regulated under a primary MCL.

*Federal and state regulation of manganese in drinking water:* The US EPA maintains a secondary MCL of 0.05 mg/L for manganese due to the contaminant's aesthetic effects on drinking water, which can include black to brown coloration, black staining, and bitter taste. The US EPA establishes secondary MCLs for contaminants that are not considered to pose a risk to human health when present at the MCL. US EPA secondary MCLs are established for guidance purposes only and are non-enforceable. However, due to potential health effects associated with chronic exposure to manganese, the US EPA also maintains a non-enforceable lifetime health advisory level of 0.3 mg/L for chronic exposure and a 1-day and 10-day health advisory level of 1 mg/L for acute exposure. For infants younger than 6 months old, the US EPA suggests a health advisory level of 0.3 mg/L for both chronic and acute exposure. These health advisory levels serve only as technical guidance to assist regulatory officials with protecting public health.

California also maintains a secondary MCL for manganese, set at 0.05 mg/L, based only on the contaminant's aesthetic effects. The state's secondary MCLs, unlike the US EPA's, are enforceable. In addition, California maintains a notification level of 0.5 mg/L for manganese. When manganese is present in water at concentrations greater than the notification level, the following requirements and recommendations apply:

- Systems with drinking water sources with manganese concentrations greater than the notification level must notify local city and county governing bodies.
- Consumer notification is recommended at levels greater than the notification level.

- Source removal is recommended at ten times the notification level. This is also referred to as the "response level" for manganese.

On March 29, 2022, the State Water Board initiated the process for developing revised notification and response levels for manganese.

*Health effects of manganese in drinking water:* According to the 2017 edition of *Reproductive and Developmental Toxicology,* manganese naturally occurs in soil and water and is also used in various industrial processes, including the production of alkaline batteries, chlorine, steel, and stainless-steel. Unlike many metals, in trace amounts manganese is an essential nutrient in the human diet and plays important roles in normal processes, including neurological function. However, chronic exposure to manganese, especially through inhalation in occupational settings, can cause manganism, a disease characterized by higher levels of manganese in the brain, brain damage, and symptoms similar to Parkinson's disease, including muscular dysfunction, tremor, and dementia.

In California, manganese in drinking water is regulated based on its aesthetic effects. However, a research review in a 2017 study, "Depth Stratification Leads to Distinct Zones of Manganese and Arsenic Contaminated Groundwater," by researchers at the University of California, Riverside and Stanford University, reports that numerous studies have documented detrimental health effects in children exposed to manganese concentrations as low as 100 micrograms (µg)/L, which is 5 times lower than the state's current notification level of 0.5 mg/L. Manganese ingested in water is associated with neurotoxic effects that include intellectual impairment, muscular weakness, and delayed reproductive development. Chronic exposure in children and infants is associated with neurobehavioral issues, as well as lower scores on math, language, and IQ tests.

Similarly, a 2012 research review, "World Health Organization Discontinues Its Drinking-Water Guideline for Manganese," stated that the World Health Organization's (WHO) previous guideline of 400 µg/L—20 percent lower than the state's current notification level—was "too high to adequately protect public health" and merited revision. The authors noted that in children, manganese is a "powerful neurotoxin" associated with learning disabilities and deficits, compulsive behaviors, emotional challenges, hallucinations, and attention disorders. Manganese is also associated with manganism in both adults and children, and high maternal levels are associated with low birth weight and increased infant mortality.

According to the State Water Board, of those drinking water sources that monitor for manganese, historically about 30 percent in California report detections. From July 2011 through March 2019, 435 sources belonging to 322 water systems, spread across 47 of the state's 58 counties—more than 75% of counties—reported detections greater than the state's 0.5 mg/L notification level. The relatively large number of sources with manganese detections reflects its natural occurrence in the state. Detections exceeding the notification level occurred most often in the counties of Sonoma, Napa, San Diego, Santa Barbara, Lake, and San Luis Obispo.

*Manganese in distribution systems:* According to the State Water Board, most monitoring for contaminants occurs in source waters and not within the distribution systems that carry treated water to consumers. However, an extensive literature review by the WHO, *Manganese in Drinking Water,* finds that even when present at low levels in source or treated water, manganese can accumulate within distribution systems and periodically release, particularly due to changes

in water chemistry or physical or hydraulic disturbances (e.g., main breaks). This can result in high levels of the contaminant exiting from a consumer's tap. Although these manganese releases may sometimes cause discolored water, they can also go unnoticed by consumers since manganese in its dissolved form is clear and does not cause discoloration. In either case, the WHO notes that "both types of releases can result in manganese exposure from drinking water at the tap."

The WHO also reports that other contaminants—including arsenic, barium, chromium, lead, and uranium—can deposit with manganese in the distribution system and may be released with manganese into the water reaching consumers' taps. Manganese can also negatively impact the stability of lead scales in lead pipes, lead service lines, lead solders, and lead-containing fixtures, which can increase the risk of lead release into drinking water in distribution systems.

To reduce exposure to manganese and potentially co-occurring contaminants such as lead, the WHO notes that it is important to implement controls within the distribution system to minimize the likelihood of manganese release events. Strategies include maintaining stable water chemistry, as well as minimizing the amount of manganese entering the distribution system, reducing physical or hydraulic disturbances, and reducing manganese deposits in the distribution system using best practices for cleaning water mains.

*This bill:* Manganese has documented health implications, particularly for children and infants, but is regulated in California on the basis of its aesthetic effects on drinking water. By requiring OEHHA to publish a PHG for manganese and the State Water Board to subsequently adopt a primary drinking water standard for manganese, SB 1124 initiates the state's existing regulatory process for establishing PHGs and primary drinking water standards for contaminants with health implications. The bill also requires the State Water Board to consider establishing a notification and response level for manganese, which would remain in place until adoption of a primary drinking water standard. In March 2022, the State Water Board took initial steps along these lines by beginning the process for updating the notification and response levels for manganese. Finally, the bill requires the State Water Board to adopt appropriate monitoring requirements that include monitoring in distribution systems. According to the WHO, manganese deposits within distribution systems can play an important role in contributing to drinking water contamination by manganese and other co-occurring contaminants, including lead and arsenic.

*Arguments in support*: The California Association of Professional Scientists writes, "The Central Basin Region has had chronic issues with water, especially manganese. Manganese in water can cause aesthetic issues such as metallic-tasting water and black stains on tubs, showers, toilets, plumbing fixtures, and laundry. Studies have also suggested an association between exposure to manganese in drinking water and neurological issues in infants and children.

Most median-income water systems with manganese voluntarily install treatment at the water source, whereas disadvantaged water systems cannot afford this without grants. Untreated manganese can accumulate in the pipe distribution system. Preventing the accumulated pollutants from moving from the distribution system to customers' taps takes expert, certified water systems operators to properly flush the pipeline system regularly and replace dead-end pipes. The poorest systems have difficulty paying for water system operators that have this expertise.

In 2012 California became the first state in the nation to legislatively recognize the human right to water. The state statutorily recognizes that 'every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.' Establishing manganese as a primary health goal will help to ensure that California meets that ambitious goal."

*Arguments in opposition*: Several opposing organizations have made arguments similar to that of the California Municipal Utilities Association, which writes, "CMUA members' highest priority is delivering a safe and reliable water supply to their customers including addressing contaminants like manganese. Public health protection is job one and we appreciate the author's desire to protect Californians' drinking water supplies. Unfortunately, SB 1124 would circumvent important regulatory processes and assume the best available science points toward a primary drinking water standard for manganese.

Manganese is currently regulated with a secondary drinking water standard (MCL) and also has a notification level. A secondary MCL is enforceable in California and water systems can apply for funding to mitigate the effects of a contaminant with this type of MCL. These levels are based on aesthetics (discoloration) and not health concerns but importantly, based on adequate intake levels for manganese (an essential nutrient) and the level at which health effects are seen, it may turn out that if a primary MCL were to be developed for manganese it could be higher than the secondary MCL.

SB 1124 would require OEHHA to develop a PHG for manganese and once that is complete, require the State Water Board to develop a primary MCL. The bill also includes monitoring requirements and funding prioritization. CMUA's primary concern is the circumvention of the regulatory process and the assumption that a PHG and/or primary MCL is even needed for manganese. The State has robust regulatory processes to determine the best approach for addressing contamination in drinking water and this should be the default when looking at whether more work is needed to address manganese."

*Related legislation:*

1) SB 230 (Portantino, 2022). Authorizes the State Water Board to establish, maintain, and direct a program called the Constituents of Emerging Concern in Drinking Water Program, to provide the state with information and recommend areas for further study on, among other things, the occurrence of constituents of emerging concern in drinking water. This bill is pending action in the Assembly Committee on Environmental Safety and Toxic Materials.

2) AB 2560 (Quirk, Chapter 350, Statutes of 2020). Requires the State Water Board to post on its internet website and distribute through e-mail that it has initiated the development of a notification level or response level for a contaminant and the draft notification or response level along with supporting documentation.

3) SB 5 (De Leon, Chapter 852, Statutes of 2017). Enacted the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018, which, following approval by voters as Proposition 68 in June 2018, authorized the issuance of bonds to finance the program. The bill made funds available for, among other things, competitive grants to support treatment and remediation activities that prevent or reduce the contamination of groundwater that serves as a source of drinking water. Funds could be used to address manganese contamination.

4) AB 890 (Perez, Chapter 259, Statutes of 2009). Required the public water systems serving the City of Maywood (located in Los Angeles County) to conduct a study of the city's water that addressed the impacts of manganese on water quality. Required the city to conduct a public hearing and the public water systems to respond in writing to public comment.

5) AB 1354 (Baca, 2005). Would have required the Department of Health Services to establish an MCL for perchlorate, to be phased in over a period of 2 years commencing January 1, 2006. This bill was held in the Assembly Committee on Environmental Safety and Toxic Materials.

6) SB 1067 (Kehoe, 2005). Would have required the Department of Health Services to adopt a PHG for total trihalomethanes by January 1, 2007 and a PHG for total haloacetic acids by January 1, 2008. Would have required the department to adopt regulations to ensure that a public water system notified customers if it had levels of total trihalomethanes or total haloacetic acids that posed a potential risk to public health, and would have set forth specific notices to be included in the consumer confidence report if public water systems exceeded the MCLs for these contaminants. This bill was vetoed by the Governor.

7) SB 351 (Ortiz, Chapter 602, Statutes of 2001). Required the Department of Health Services to establish a primary drinking water standard for hexavalent chromium on or before January 1, 2004.

**REGISTERED SUPPORT / OPPOSITION**:

**Support**

California Association of Professional Scientists

**Opposition**

American Water Works Association California-Nevada Section
Association of California Water Agencies
California Municipal Utilities Association
California Special Districts Association
Community Water Systems Alliance
Orange County Water District
Rancho California Water District
Metropolitan Water District of Southern California
Water Replenishment District of Southern California

**Analysis Prepared by**: Naomi Ondrasek / E.S. & T.M. /

Date of Hearing: June 28, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Bill Quirk, Chair
SB 1188 (Laird) – As Amended March 15, 2022

**SENATE VOTE**: 39-0

**SUBJECT**: Safe Drinking Water State Revolving Fund: financial assistance

**SUMMARY:** Authorizes the State Water Resources Control Board (State Water Board) to provide grants, principal forgiveness funding, and zero percent financing from the state's Drinking Water State Revolving Fund (DWSRF) by deleting certain existing requirements, including limiting such funding to water systems serving severely disadvantaged communities. Specifically, **this bill**:

1) Defines "community water system" to mean a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system, as established in Health and Safety Code (HSC) 116275.

2) Deletes the requirement that zero percent financing be limited to water systems serving severely disadvantaged communities.

3) Authorizes the State Water Board to provide up to 100 percent grant funding and principal forgiveness on loans to a community water system or not-for-profit noncommunity water system, to the extent permitted by federal law.

4) Deletes the requirement for the State Water Board to authorize funding in the form of a loan or other repayable financing for the amount that a water system is capable of repaying, and instead authorizes the State Water Board to issue funding in the form of a loan or other repayable financing up to the amount that the State Water Board determines a water system is capable of repaying.

5) Deletes statute that limits the State Water Board's authorization to issue a grant or principal forgiveness, only to a community water system or not-for-profit noncommunity water system that serves a disadvantaged community, and only to the extent the water system is unable to repay the full costs of financing.

6) Deletes limitations on financial assistance provided to water corporations regulated by the Public Utilities Commission.

7) Deletes the requirement for interest rates to be zero percent if financing is for a public water system that serves a disadvantaged community with a financial hardship, or if the financing is for a public water system that provides matching funds.

8) Authorizes the State Water Board to provide reduced or zero percent financing to further the purposes of the Safe Drinking Water State Revolving Fund Law of 1997, to the extent authorized by federal law.

9) Makes other technical and conforming changes.

**EXISTING LAW**:

Existing federal law:

1) Provides, under federal DWSRF statute, financial assistance to help water systems and states achieve the health protection objectives of the Safe Drinking Water Act (SDWA). (42 United States Code (USC) § 300j-12, et seq.)

2) Requires states to establish a drinking water treatment revolving loan fund to be eligible for a federal DWSRF capitalization grant. (42 USC § 300j-12(a)(1)(B))

3) Requires states to deposit into the state loan fund, using state dollars, an amount equal to at least 20 percent of the total amount of the federal grant to be made to the state. (42 USC § 300j-12(e))

4) Specifies that, except as otherwise authorized, amounts deposited into a state loan fund shall only be used to provide loans or loan guarantees, as a source of reserve and security for leveraged loans, or other authorized financial assistance to community water systems and nonprofit community water systems. (42 USC § 300j-12 (a)(2)(A))

5) Requires the state to prepare annual intended use plans for the DWSRF funds, which are subject to public review and comment, and are submitted to the United States Environmental Protection Agency (US EPA). (42 USC § 300j-12(b))

6) Requires that between 12 percent and 35 percent of the capitalization grant be used for subsidies to disadvantaged communities, to the extent that there are sufficient applications from such communities. (42 USC § 300j-12(d)(2))

7) Requires, to the maximum extent practicable, that priority for the use of funds be based on:

   a) The most serious risks to human health;

   b) Compliance with the requirements of the SDWA; and,

   c) Assisting systems most in need on a per household basis according to state affordability criteria. (42 USC § 300j-12(b)(3)(A))

Existing state law:

1) Establishes the California Safe Drinking Water Act (SDWA) and requires the State Water Board to maintain a drinking water program. (HSC §116270, et seq.)

2) Establishes the state DWSRF to provide financial assistance for the design and construction of projects for public water systems to meet safe drinking water standards. (HSC §116706, et seq.)

3) Requires the State Water Board's eligibility criteria for project financing under the DWSRF law to be consistent with federal requirements. (HSC §116760.50(a))

4) Defines "disadvantaged community" to mean a community that meets the definition provided in HSC 116275, which defines "disadvantaged community" as the entire service area of a community water system, or a community therein, in which the median household income is less than 80 percent of the statewide annual median household income level. (HSC § 116760.20(e))

5) Defines "severely disadvantaged community" to mean a community with a median household income that is less than 60 percent of the statewide average. (HSC §116760.20(n))

6) Defines "financing" to mean financial assistance awarded under the state DWSRF, including loans, refinancing, installment sales agreements, purchase of debt, loan guarantees for municipal revolving funds, and grants. (HSC §116760.20(h))

7) Authorizes the State Water Board, to the extent permitted by federal law, to provide up to 100 percent grant funding, and principal forgiveness and zero percent financing on loans, from the DWSRF to a project for a water system that serves a severely disadvantaged community. (HSC §116760.50(b))

8) Requires the interest rate for repayable financing provided from the state DWSRF to be zero percent, if the financing is for a public water system that serves a disadvantaged community with a financial hardship or if the financing is for a public water system that provides matching funds. (HSC §116761.65)

9) Allows planning and preliminary engineering studies, project design, and construction costs incurred by community water systems and not-for-profit noncommunity water systems to be funded by loans and other repayable financing from the DWSRF and requires the State Water Board to determine what portion of the full costs the water system is capable of repaying. (HSC § 116761.20)

10) Authorizes providing grant or principal forgiveness to those water systems from the state DWSRF only to the extent the State Water Board finds the water system is unable to repay the full costs of the financing. (HSC §116761.20)

11) Imposes limitations on the financial assistance provided pursuant to the DWSRF to water corporations regulated by the Public Utilities Commission. (HSC §116761.20)

12) Authorizes the State Water Board, where a public water system or a state small water system serving a disadvantaged community consistently fails to provide an adequate supply of safe drinking water, to order a physical or operational consolidation with a receiving water system. (HSC §116682 (a))

13) Establishes as the policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. (Water Code §106.3)

**FISCAL EFFECT**: Unknown.

**COMMENTS**:

*Need for the bill:* According to the author,

> "State DWSRF law is out of step with the terms of federal funding. Contrary to the terms of the federal capitalization grants, state law limits grants and principal forgiveness to disadvantaged communities. These restrictions prevent the State Water Board from adequately funding some of the most urgent drinking water projects.
>
> Of the 7,800 public water systems in California, approximately 345 of those systems do not meet safe drinking water standards. That number has remained consistent because as some water systems have come into compliance, other water systems have begun to fail. Additionally, the State Water Board has identified 617 small public water systems (less than 3,300 connections or K-12 schools) at-risk of failing to provide safe and adequate drinking water. Small water systems often cannot afford new infrastructure projects because they lack the economies of scale to spread the cost among their rate payers. While many of these small water systems qualify for financial assistance from the State Water Board, some that have failed or are at-risk of failing to provide safe and adequate drinking water do not qualify for grant or principal forgiveness funding because they do not serve a disadvantaged community. Some of these applicants may have median household incomes that are barely above the threshold for qualification as 'disadvantaged.' Others may be unable to afford projects due to exigent circumstances. For those small water systems that are not currently eligible, the projects needed to alleviate their failures or at-risk conditions are likely to not move forward without such funding.
>
> The consolidation of two neighboring water systems is often a viable way to ensure that a struggling community has access to safe and reliable drinking water. Larger water systems are often resistant to absorbing a smaller water system because new infrastructure is usually required to connect the systems and there is often fear that the added service connections will put too much strain on available water sources. The State Water Board is currently limited on how financial assistance can be provided to address the larger water system's needs during a consolidation. The State Water Board needs more flexibility in how it uses financial assistance to assist with different costs and concerns that exist during a consolidation."

*Human right to water:* In 2012, by enacting Assembly Bill (AB) 685 (Eng, Chapter 524, Statutes of 2012), California became the first state with a Human Right to Water law. AB 685 established state policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation. Water supply issues, contaminants, costs of treatment and distribution systems, climate change, the number and nature of small public water systems, especially in disadvantaged communities, and many other factors continue to challenge progress in implementing the Human Right to Water.

While most drinking water in California meets requirements for health and safety, surface waters and aquifers used for drinking water can be contaminated by various chemicals, microbes, and radionuclides. According to the Office of the Environmental Health Hazard Assessment, disadvantaged communities and people in rural areas are exposed to contaminants in their drinking water more often than people in other parts of the state. The State Water Board reports that more than half a million Californians are currently without clean drinking water because of systems that contain contaminants such as arsenic, nitrates, and 123-TCP. More than 500 rural and small water systems with less than 100 connections face the greatest risk—these systems are least likely to be able to afford necessary upgrades or absorb the cost of consolidating with another system. By contrast, more than 400 of the largest systems (with 3,000 or more customers), which serve more than 90 percent of the state's 39.5 million residents, have delivered safe drinking water to customers for decades.

*Providing safe, affordable drinking water to disadvantaged communities*: According to the State Water Board, for common sources of drinking water contamination, such as arsenic and nitrates, expensive systems must be installed and operated to treat water to meet drinking water standards. In many cases, technological advances are not yet sufficient to make such treatment systems affordable, especially for small disadvantaged communities. In addition, many small, disadvantaged communities do not have the technical, managerial, or financial capacity to maintain and operate what are sometimes complex drinking water systems.

*Consolidation of water systems:* According to the US EPA, restructuring can be an effective means to help small water systems achieve and maintain technical, managerial, and financial capacity, and to reduce the oversight and resources that states need to devote to these systems. Restructuring can involve consolidation, which is the physical or managerial joining of two or more water systems. Physical consolidation involves the merging or sharing of physical infrastructure, such as distribution pipelines or water treatment facilities. Managerial, or operational, consolidation involves sharing financial, managerial, or technical capacity. The State Water Board maintains that consolidating public water systems reduces costs and improves reliability. Consolidation does this by extending costs to a larger pool of ratepayers.

*Drinking Water State Revolving Fund*: The federal DWSRF was created as part of the 1996 Amendments to the federal SDWA and is administered by the US EPA, with the principal aim of facilitating compliance with national primary drinking water regulations and advancing the public health objectives of the SWDA. The federal DWSRF is structured as a federal-state partnership in which the federal government provides capitalization grants to states and states provide a 20 percent match. The federal program has supported the creation of a permanent drinking water infrastructure revolving loan fund in every state. In California, federal funds flow into the state DWSRF, which is administered by the State Water Board. For each year from 2018 through 2021, the US EPA appropriated capitalization grants of about $97 million to California for the state's DWSRF.

The federal program is intended to provide states with considerable flexibility regarding the use of their capitalization grant funds. According to the US EPA, the most common use of the DWSRF capital funds is financing the construction of water infrastructure projects, which may support the repair, replacement, or rehabilitation of existing infrastructure or the construction of new infrastructure. Loans may be issued to fund the entire project or phases of a project, including planning and design.

*Federal eligibility and subsidization rules for the Drinking Water State Revolving Fund:* In California, state law requires the state DWSRF statute to be consistent with federal requirements (HSC § 116760.50). In recent years, annual federal appropriations laws have modified eligibility terms and rules for additional subsidization (called "additional subsidy authority"), which includes principal forgiveness, grants, and negative interest loans, as well as the buying, refinancing, or restructuring of water system debt.

For example, federal appropriations law in 2022 specified additional subsidy authorities that continue to prioritize a portion of funds for disadvantaged communities, while also opening financing options—including grants, negative interest loans, and principal forgiveness—to *any* DWSRF-eligible recipient, including those that do not serve disadvantaged communities. Specifically, under the Congressional Additional Subsidy Authority, 14 percent of the base 2022 DWSRF capitalization grant must be made available to provide additional subsidization to any eligible recipient. Under the Safe Drinking Water Act Disadvantaged Community Additional Subsidy Authority, states must use from 12 percent to 35 percent of the capitalization grant amount for subsidies for disadvantaged communities.

*This bill:* In the last several years, the US EPA has allocated funding for grants and principal forgiveness for *any* eligible DWSRF recipient, not just for disadvantaged communities. SB 1188 aligns the state DWSRF statute with the terms of federal assistance. SB 1188 also broadens eligibility for subsidization options to water systems serving non-disadvantaged communities, which could incentivize more consolidations by allowing more water systems considering consolidation with a smaller water system to become eligible for funding from the DWSRF. Although water system consolidations are one of the most cost-effective ways to ensure small communities have access to safe and reliable drinking water, they generally require new infrastructure to connect the merging water systems, which the receiving water system often cannot afford on its own.

In cases where a consolidation is impracticable, this bill would also allow the State Water Board to assist non-disadvantaged communities, particularly small communities, to address public health problems with additional financing options needed to make a project affordable, including grant or principal forgiveness funding, or reduced or zero percent financing. According to the State Water Board, some small water systems that have failed or are at-risk of failing to provide safe and adequate drinking water do not qualify for grant or principal forgiveness funding because they do not serve a disadvantaged community. Some of these applicants may have median household incomes that are barely above the threshold for qualification as "disadvantaged." For those small water systems that are not currently eligible, the projects needed to alleviate their failures or at-risk conditions are likely to not move forward without such funding.

*Arguments in Support:* The Association of California Water Agencies writes, "The DWSRF is a critical source of funding for water projects that increase or maintain access to safe drinking water. Recently, federal law has expanded the DWSRF to allow grant and principal forgiveness funding for more communities, not solely those that serve disadvantaged communities. In addition, the Infrastructure Investment and Jobs Act (IIJA) as well as state funds direct billions of dollars in additional funding to the DWSRF, allowing the State Water Board to fund many more projects over the next several years.

This bill would conform state law with federal law by authorizing the State Water Board to provide grants and principal forgiveness funding to non-disadvantaged communities for investments in drinking water infrastructure. By expanding grant and principal forgiveness funding to a wider range of projects, the DWSRF can be used to help more communities maintain or increase reliable access to safe drinking water."

*Related legislation:*

1) SB 776 (Gonzalez, Chapter 187, Statutes of 2021). Extends several provisions of SB 200 to apply to state small water systems, including authorizing the State Water Board to adopt emergency regulations to quickly address drinking water emergencies, clarifying that certain existing enforcement authorities apply to state small water systems, and allowing the State Water Board to make limited advance payments and funding for projects without a written agreement.

2) SB 403 (Gonzalez, Chapter 242, Statutes of 2021). Authorizes the State Water Board to order the consolidation of at-risk domestic wells and at-risk water systems.

3) SB 200 (Monning, Chapter 120, Statutes of 2019). Establishes the Safe and Affordable Drinking Water Fund to help water systems provide an adequate and affordable supply of safe drinking water in both the near and long terms. Requires the State Water Board to annually develop a Fund Expenditure Plan and to develop a map of aquifers that are used or likely to be used as a source of drinking water for state small water systems or domestic wells and that are at high risk of containing contaminants that exceed safe drinking water standards. Transfers annually, until June 30, 2030, to the Fund five percent of the proceeds of the Greenhouse Gas Reduction Fund, up to $130 million. Authorizes monies from the Fund to be used for the administration of drinking water programs.

4) AB 2501 (Chu, Chapter 871, Statutes of 2018). Authorizes the State Water Board to order consolidation with a receiving water system when a disadvantaged community is reliant on a domestic well that consistently fails to provide an adequate supply of safe drinking water; prohibits, for an ordered consolidation, the receiving water system from charging specified fees or imposing specified conditions on customers of the subsumed water system that it would not otherwise charge or impose; and, makes other changes to ordered consolidation law.

5) SB 623 (Monning, 2017). Would have created the Safe and Affordable Drinking Water Fund, administered by the State Water Board, to assist communities and individual domestic well users in addressing contaminants in drinking water that exceed safe drinking water standards. This bill was held in the Assembly Rules Committee.

6) SB 88 (Budget Committee, Chapter 27 Statutes of 2015). Authorizes the State Water Board to require water systems that are serving disadvantaged communities with unreliable and unsafe drinking water to consolidate with or receive service from public water systems with safe, reliable, and adequate drinking water.

7) AB 685 (Eng, Chapter 524, Statutes of 2012). Declares that it is the established policy of the state that every human being has the right to clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes and requires relevant state agencies,

including the Department of Water Resources, the State Water Board, and the State Department of Public Health, to consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria pertinent to the human uses of water.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

Association of California Water Agencies
California Catholic Conference
California Municipal Utilities Association
City of Santa Cruz Water Department

**Opposition**

None on file.

**Analysis Prepared by**: Naomi Ondrasek / E.S. & T.M. /