

Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS  
Bill Quirk, Chair  
AB 1953 (Maienschein) – As Amended March 29, 2022

**SUBJECT:** Drinking water: accessible water bottle refill stations

**SUMMARY:** Requires, by January 1, 2025, the owner or operator of a transit hub, local park, public building, publicly owned building, shopping mall, or golf course to install and maintain at least one, or maintain at least one existing, accessible water bottle refill station at the transit hub, local park, public building, publicly owned building, shopping mall, or golf course. Specifically, **this bill:**

- 1) Requires, by January 1, 2025, the owner or operator of a transit hub, local park, public building, publicly owned building, shopping mall, or golf course to install and maintain at least one, or maintain at least one existing, accessible water bottle refill station at the transit hub, local park, public building, publicly owned building, shopping mall, or golf course.
- 2) Requires, for an office building owned by the state, the building to have at least one accessible water bottle refill station per 500 occupants authorized under the building's maximum occupancy.
- 3) Requires, for a shopping mall, an accessible water bottle refill station to be located in the public area of the mall and not within an individual retail space.
- 4) Requires the owner, or operator of a transit hub, local park, public building, publicly owned building, shopping mall, or golf course that has a water bottle refill station that is not accessible, to upgrade to an accessible water bottle refill station by January 1, 2025.
- 5) Defines "accessible" as being in compliance with both the applicable standards under the federal Americans with Disabilities Act of 1990 (42 United States Code § 12101 et. seq.) and accessibility requirements applicable to drinking water standards under the California Building Standards Code.
- 6) Defines "golf course" as a municipal golf course owned or operated by a local agency.
- 7) Defines "local park" as a park owned or operated by a local agency.
- 8) Defines "public building" as a publicly or privately owned building to which the public has access, excluding all of the following: residential building, restaurants, and retail stores.
- 9) Defines "shopping mall" as an indoor or outdoor shopping mall that houses different retail spaces.
- 10) Defines "transit hub" as including, but not limited to, train stations and bus stations.

**EXISTING LAW:**

- 1) Establishes the California Safe Drinking Water Act (SDWA) and requires the State Water Resources Control Board (State Water Board) to maintain a drinking water program. (Health & Safety Code (HSC) § 116270, *et seq.*)
- 2) Requires any person who owns a public water system to ensure that the system does all of the following:
  - a) Complies with primary and secondary drinking water standards;
  - b) Will not be subject to backflow under normal operating conditions;
  - c) Provides a reliable and adequate supply of pure, wholesome, healthful, and potable water;
  - d) Employs or utilizes only water treatment operators or water treatment operators-in-training that have been certified by the State Water Board at the appropriate grade; and,
  - e) Complies with the operator certification program. (HSC § 116555 (a))
- 3) Defines a "public water system" as a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. (HSC § 116275)
- 4) Defines "Community water system" as 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. (HSC § 116275(i))
- 5) Defines "Service connection" as the point of connection between the customer's piping or constructed conveyance, and the water system's meter, service pipe, or constructed conveyance. (HSC § 116275(s))
- 6) Prohibits the use of any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not "lead free" in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption. (Health & Safety Code (HSC) § 116875(a))
- 7) 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, "Combating climate change and protecting our environment is also one of my top priorities. According to Ocean Conservancy, between 24 and 35 million metric tons of plastic entered global aquatic ecosystems in 2020. Of that, plastic beverage bottles, which cannot properly biodegrade in our environments, were in the top 5 items collected from our waters. California has the opportunity and the means to protect the environment of not just our state, but our entire planet. I am proud to be taking action by introducing legislation to combat harmful plastic pollutants in California. To combat the overuse of single-use plastics and ensure clean drinking water is accessible, I introduced AB 1953."

*Human right to water:* In 2012, California became the first state to enact a Human Right to Water law, AB 685 (Eng, Chapter 524, Statutes of 2012). Public policy continues to be focused on the right of every human being to have safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation. Water supply, contaminants, costs of treatment and distribution systems, the number and nature of small public water systems, especially in disadvantaged communities, and many other factors will continue to challenge progress in addressing the Human Right to Water.

*Federal Safe Drinking Water Act (SDWA):* 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 United States Environmental Protection Agency (US 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. In accordance with the federal SDWA, the US EPA provides funds to states for their drinking water loan programs, conducts an annual oversight review of each state's program, and issues an annual program evaluation report.

*California's drinking water program:* The State Water Board directly enforces the federal SDWA for all large water systems (those with 200 or more service connections). For small water systems (those with less than 200 connections), local health departments can be delegated to have regulatory authority as the local primacy agency. A "service connection" is usually the point of access between a water system's service pipe and a user's piping.

Along with the regulation of drinking water, the State Water Board and the Regional Water Quality Control Boards (Regional Water Boards) are responsible for protecting the waters of the state, including drinking water sources, both surface water and groundwater supplies. The State Water Board has adopted regulations for drinking water standards, monitoring requirements, cross-connections, design and operational standards, and operator certification.

The State Water Board regulates public water systems that provide water for human consumption and have 15 or more service connections, or regularly serve at least 25 individuals daily at least 60 days out of the year. The state does not regulate water systems with less than 15 connections; county health officers oversee those systems. At the local level, 30 of the 58 county environmental health departments in California have been delegated primacy—known as Local Primacy Agencies (LPAs)—by the State Water Board to regulate systems with between 15 and 200 connections within their jurisdiction.

*What is a public water system?* A public water system is defined as a system that provides water for human consumption to 15 or more connections or regularly serves 25 or more people daily for at least 60 days out of the year. Many people think of public water systems as large city or regional water suppliers, but they also include small housing communities, businesses, and even schools and restaurants that provide water. A public water system is not necessarily a public entity, and most public water systems are privately owned. There are three types of public water systems with legal distinctions: community, non-transient non-community, and transient. The type of water system is based on how often people consume the water. Drinking water regulations impose the most stringent monitoring requirements on community and non-transient non-community water systems because the people they serve obtain all or much of their water

from that system each day. Community water systems are city, county, regulated utilities, regional water systems, and even small water companies and districts where people live. Non-community non-transient water systems are places like schools and businesses that provide their own water. The customers of non-community non-transient water systems have a regular opportunity to consume the water, but they do not reside there. Drinking water regulations impose the most stringent monitoring requirements on community and non-transient non-community water systems because the people they serve obtain all or much of their water from that system each day. Transient water systems include entities like rural gas stations, restaurants, and State and National parks that provide their own potable water, where most consumers neither nor regularly spend time there.

There are approximately 7,500 public water systems in California. About one-third of these systems have between 15 and 200 service connections. The number of smaller systems—specifically, those with 14 or fewer connections—is unknown but estimated to be in the thousands.

*Lead in plumbing:* Beginning January 1, 2010, California law (AB 1953, Chan, Chapter 853, Statutes of 2006) banned for sale and use any pipe, pipe or plumbing fitting, or fixture intended to convey or dispense water for human consumption through drinking or cooking that is not "lead free."

That law defines "lead free" as not more than 0.2 percent lead when used with respect to solder and flux, not more than a weighted average of 0.25 percent when used with respect to the wetted surfaces of pipes and pipe fittings, plumbing fittings, and fixtures, and not more than 8 percent when used with respect to pipes and pipe fittings (HSC § 116875(e)-(f)). This applies to kitchen faucets, bathroom faucets, and any other end-use devices intended to convey or dispense water for human consumption through drinking or cooking.

*Water bottle refilling stations:* Water bottle filling stations are water fountains, indoors or outdoors, that pour tap water from a top spigot into a standing container, usually part of a drinking fountain. They are found in many places where people commonly use water bottles such as health clubs, offices, airports, schools and parks. Some of the benefits to a water refilling station include they are quick and easy to use, reduce the need for buying bottled water, provide greater access to drinking water at no cost to the user.

According to a 2019 pilot study, *Agua4All: Providing Safe Drinking Water in Rural California Communities*, "it was observed that there was an increase in water consumption when water bottle refilling stations, along with a promotional campaign, were provided." Also, according to the study, "increasing the number of water bottle refilling stations present a promising avenue to address issues of safe drinking water access, which commonly affect disadvantaged communities and communities of color the most."

*This bill:* Requires water bottle refilling stations to be installed in a variety of public buildings and public places. AB 1953 seeks to reduce the demand for buying plastic water bottles while, also increasing access to safe drinking water in many places where the public works, plays and visits.

*Arguments in Support:* According to a coalition in support, including Californians Against Waste and the Clean Seas Lobbying Coalition, "AB 1953 will improve water accessibility,

reduce waste, and support consumer choices by requiring various public areas to install and maintain accessible water bottle refill stations in addition to existing water fountains. Ensuring water refill stations not only improves accessibility to drinking water, but also creates lasting infrastructural support for consumers opting for reuse. In addition to bridging the gap in water access, making water refill stations more accessible and investing in reuse infrastructure to support reuse systems for reusable water bottles and other refillable containers can prevent pollution and waste. Around 60 million plastic bottles end up in landfills every single day, and Americans alone send more than 38 billion water bottles to landfills every year, the equivalent of 912 million gallons of oil."

*Related Legislation:*

- 1) AB 2638 (Bloom). Requires a school district to ensure that each school is equipped with a water bottle refilling station. This bill is pending action in the Assembly Education Committee.
- 2) AB 2060 (Holden, 2020). Requires end use plumbing fixtures to meet a performance standard to meet conditions for "lead free." This bill was held on the suspense file in the Senate Appropriations Committee.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

Californians Against Waste (Co-Sponsor)  
 Heal the Bay (Co-Sponsor)  
 Northern California Recycling Association (Co-Sponsor)  
 Plastic Oceans International (Co-Sponsor)  
 Plastic Pollution Coalition, a Project of Earth Island Institute (Co-Sponsor)  
 Save Our Shores (Co-Sponsor)  
 Seventh Generation Advisors (Co-Sponsor)  
 The 5 Gyres Institute (Co-Sponsor)  
 The Center for Oceanic Awareness, Research, and Education (Co-Sponsor)  
 Upstream (Co-Sponsor)  
 Wishtoyo Chumash Foundation (Co-Sponsor)  
 Zero Waste USA (Co-Sponsor)  
 California Product Stewardship Council  
 Center for Oceanic Awareness, Research, & Education  
 Chico Bag  
 Ecology Center  
 Facts: Families Advocating for Chemical & Toxins Safety  
 Friends of Harbors, Beaches and Parks  
 Monterey Bay Aquarium Foundation  
 National Stewardship Action Council  
 Plastic Pollution Coalition  
 Sierra Club California  
 WeTap

**Opposition**

None on file.

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Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS  
Bill Quirk, Chair  
AB 2440 (Irwin) – As Amended March 28, 2022

**SUBJECT:** Responsible Battery Recycling Act of 2022

**SUMMARY:** Creates the Responsible Battery Recycling Act (Act) of 2022, which requires producers of covered batteries and covered battery-embedded products, as defined, to establish a stewardship program for the collection and recycling of covered batteries and covered battery-embedded products. Specifically, **this bill:**

- 1) Defines "covered battery" as a device consisting of one or more electrically connected electrochemical cells designed to receive, store, and deliver electric energy. (These are commonly thought of as household batteries such as single use alkaline and lithium batteries and rechargeable lithium metal, nickel cadmium, and nickel metal hydride batteries of various sizes (AAA, AA, C, D, 9-Volt, and small sealed lead-acid batteries))
- 2) Provides that "covered battery" does not include any of the following:
  - a) A primary battery weighing over two kilograms that is a non-rechargeable battery, including but not limited to alkaline, carbon-zinc, and lithium metal batteries;
  - b) A rechargeable battery weighing over five kilograms and having a watt-hour rating of more than 300 watt-hours;
  - c) A lead acid battery;
  - d) A battery contained in a motor vehicle (this exclusion does not apply to a battery in a motorized scooter, motorized skateboard, a motorized hoverboard, or a device intended to propel or move upon a highway only one individual person); and,
  - e) A fuel cell electrical generating facility.
- 3) Defines "covered battery-embedded product" as a product containing a battery or battery pack that is not designed to be removed from the product by the consumer.
- 4) Provides that "covered battery-embedded product" does not include any of the following:
  - a) A medical device;
  - b) A covered electronic device; and,
  - c) An energy storage system.
- 5) Defines "distributor" as a company that has a contractual relationship with one or more producers to market and sell covered batteries or covered battery-embedded products.

- 6) Defines "producer" as the person who manufactures the covered battery or covered battery-embedded product and who sells, offers for sale, or distributes the covered battery or covered battery-embedded product in or into the state.
- 7) Defines "rechargeable battery" as a battery that contains one or more voltaic or galvanic cells, electrically connected to produce electric energy, and that is designed to be recharged.
- 8) Provides that "rechargeable battery" does not include a battery that contains electrolytes as a free liquid or a battery that employs lead-acid technology, unless that battery is sealed and contains no free liquid electrolytes.
- 9) Defines "retailer" as a person who sells covered batteries or covered battery-embedded products in or into the state to a person through any means, including, but not limited to, sales outlets, catalogs, the telephone, the internet, or any electronic means.
- 10) Defines "stewardship organization" as an organization exempt from taxation under Section 501(c)(3) of the federal Internal Revenue Code that is established by a group of producers in accordance with this bill to develop and implement a stewardship program.
- 11) Defines "stewardship plan" or "plan" as a plan developed by a stewardship organization or producer for the collection, transportation, and recycling, and the safe and proper management, of covered batteries or covered battery-embedded products.
- 12) Defines "stewardship program" as a program established by a producer or stewardship organization for the free and convenient collection, transportation, and recycling, and the safe and proper management, of covered batteries, covered battery-embedded products, or covered batteries and covered battery-embedded products pursuant to a plan approved by CalRecycle.
- 13) Requires, on or before January 1, 2025, the Department of Resources, Recycling, and Recovery, (CalRecycle), in consultation with the Department of Toxic Substances Control (DTSC), to adopt regulations to implement the Act.
- 14) Requires a producer, no later than 90 days after the effective date of the Act, to provide to CalRecycle a list of covered batteries and covered battery-embedded products that the producer sells or offers for sale in the state.
- 15) Authorizes producers to establish one or more stewardship organizations to develop and implement the covered battery and covered battery-embedded product recycling program established by this Act.
- 16) Requires, within six months of the effective date of the regulations adopted by CalRecycle, a producer or stewardship organization to develop and submit to CalRecycle a stewardship plan for the collection, transportation, recycling, and safe and proper management, of covered batteries and covered battery-embedded products in the state.
- 17) Requires a stewardship plan for covered batteries and covered battery-embedded products to include multiple standards and elements including:



- a) The names of producers, distributors, importers, manufacturers, brands and covered batteries covered under the stewardship plan;
  - b) A free and convenient collection system for covered batteries in each county of the state that meets specified requirements;
  - c) Collection sites with the necessary equipment, training, signage, safety guidance, and educational materials;
  - d) A funding mechanism to provide sufficient funding for the producer or stewardship organization to implement the plan;
  - e) A description of the process by which covered batteries will be processed and recycled following collection at collection sites;
  - f) Developing strategies, in consultant with the California Environmental Protection Agency's Environmental Justice Task Force and other relevant stakeholders, for collecting covered batteries for recycling in areas and communities that face unique challenges associated with proper waste management, such as poverty, language barriers, and illegal disposal;
  - g) A comprehensive statewide education and outreach program designed to promote participation in the collection and recycling program offered by the stewardship organization; and,
  - h) A description of goals and metrics used to determine the success of the statewide education and outreach program.
- 18) Requires, at least 90 days before submitting a plan to CalRecycle, a producer or stewardship organization to submit its entire proposed plan to DTSC for its review.
- 19) Requires DTSC to review the plan for compliance with state and federal laws and regulations related to its authority, make a determination of compliance or noncompliance, and provide that determination to the producer or stewardship organization within 90 days of receipt of the plan.
- 20) Requires CalRecycle to review the stewardship plan for compliance with the Act and to approve, disapprove, or conditionally approve the plan within 90 days of receipt of the plan.
- 21) Requires, on or before December 31, 2025, a producer or a stewardship organization to have a complete plan approved by CalRecycle in order to be in compliance with the Act.
- 22) Requires, within 270 days of receiving approval of a plan from CalRecycle, a producer or stewardship organization to fully implement its stewardship program.
- 23) Requires a producer or stewardship organization to prepare and submit to CalRecycle, with the submission of a proposed plan, a proposed stewardship program budget for the next five calendar years.
- 24) Requires CalRecycle, within 90 days of receipt of a stewardship program budget, to approve, disapprove, or conditionally approve a stewardship program budget.

- 25) Requires a producer or stewardship organization to annually submit to CalRecycle, and make publicly available on its internet website, an annual report containing specified information on the stewardship program.
- 26) Requires CalRecycle, on or before July 1, 2027, and on or before July 1 each year thereafter, to post on its internet website a list of producers that are in compliance with the Act.
- 27) Authorizes CalRecycle to impose an administrative civil penalty on a producer, stewardship organization, manufacturer, distributor, retailer, importer, recycler, or collection site that is in violation of the Act.
- 28) Repeals, as of January 1, 2027, the Rechargeable Battery Recycling Act of 2006 and the Cell Phone Recycling Act of 2004.

**EXISTING LAW:**

- 1) Enacts the Rechargeable Battery Recycling Act of 2006, which requires every retailer to have a system in place, on or before July 1, 2006, for the acceptance and collection of used rechargeable batteries for reuse, recycling, or proper disposal. (Public Resources Code (PRC) § 42451-42456)
- 2) Enacts the Electronic Waste Recycling Act of 2003 (EWRA), which established a program for consumers to return, recycle, and ensure the safe and environmentally sound disposal of video display devices, such as televisions and computer monitors that are hazardous wastes when discarded. (PRC § 42460 et seq.)
- 3) Enacts the Cell Phone Recycling Act 2004, which requires all retailers of cellular telephones (cell phones) to have in place a system for the collection, reuse, and recycling of cell phones and requires DTSC to provide information on cell phone recycling. (PRC § 42490-42499)
- 4) Creates the Hazardous Waste Control Law (HWCL) and provides DTSC with responsibility for overseeing the management of hazardous waste in California. (Health and Safety Code § 25100 et seq).

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "Many Californians don't realize that all batteries are hazardous waste; and that throwing batteries, and products embedded with batteries, in curbside waste bins poses a threat to recycling facilities and human life. With more of our everyday items running off of batteries, it is imperative that we take swift action to stamp out the risk of devastating fires at our waste facilities and safely allow recovery of the valuable minerals inside batteries. AB 2440 will establish a comprehensive program to address this crisis and protect our communities from battery fires."

*Universal waste:* Universal wastes are hazardous wastes that are widely produced by households and many different types of businesses. Universal wastes include televisions, computers, other electronic devices, batteries, fluorescent lamps, mercury thermostats, and other mercury containing equipment, among others.

The hazardous waste regulations (California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11 Section 66261.9) identify seven categories of hazardous wastes that can be managed as universal wastes. Any unwanted item that falls within one of these waste streams can be handled, transported, and recycled following the simple requirements set forth in the universal waste regulations (CCR, Title 22, Division 4.5, Chapter 23) versus the more stringent requirements for hazardous waste.

California's Universal Waste Rule allows individuals and businesses to transport, handle, and recycle certain common hazardous wastes, termed universal wastes, in a manner that differs from the requirements for most hazardous wastes. The more relaxed requirements for managing universal wastes were adopted to ensure that they are managed safely and are not disposed of in the trash. The universal waste requirements are also less complex and easier to comply with, thereby increasing compliance.

*Regulation of batteries:* State law, the HWCL, prohibits the disposal of batteries in the trash or household recycling collection bins intended to receive other non-hazardous waste and/or recyclable materials. Many types of batteries, regardless of size, exhibit hazardous characteristics and are considered hazardous waste when they are discarded. These include single use alkaline and lithium batteries and rechargeable lithium metal, nickel cadmium, and nickel metal hydride batteries of various sizes (AAA, AA, C, D, button cell, 9-Volt, and small sealed lead-acid batteries).

These batteries, sold individually, would be "covered batteries" under AB 2440. However, many batteries are sold within products, such as lithium-ion batteries, which are widely used in portable electronics like laptops, smart phones, digital cameras, game consoles, and cordless power tools. Some of these products would be considered "covered battery-embedded products" under the bill if the battery is not designed to be removed from the product by the consumer.

If batteries end up in the trash or a recycling bin, owners/operators of solid waste transfer stations, municipal landfills, and recycling centers who discover batteries in the waste or recyclable materials are required to remove and manage the batteries separately. The facility that removes the batteries from the municipal solid waste stream or recyclable materials becomes the generator of the hazardous waste batteries and must comply with hazardous waste management regulations. Facilities that do not properly manage hazardous waste may be subject to regulatory enforcement and may be liable for monetary penalties.

Depending on the type of battery and applicable management requirements, batteries must be sent to a facility permitted to accept hazardous waste batteries, universal wastes, or spent lead acid batteries. Only facilities that have a DTSC permit or other type of authorization to treat, store, or dispose of hazardous wastes may accept hazardous waste batteries. Persons that do not have a DTSC permit may accept and store universal waste batteries and spent lead acid batteries if they operate according to the regulations specifically tailored for those types of batteries.

*California Rechargeable Battery Recycling Act:* Most portable electronic devices use rechargeable batteries, and millions of rechargeable batteries are sold in California each year. In 2005, to help promote proper disposal of rechargeable batteries by the public, the Governor signed the California Rechargeable Recycling Act AB 1125 (Pavley, Chapter 572, Statutes of

2005), which requires retailers to have a mechanism to accept all rechargeable batteries from consumers for recycling.

Large chain supermarkets and persons (including corporations or franchisees) who have less than one million dollars annually in gross sales are not subject to the law's requirements. Also, sales of rechargeable batteries that are contained in, or packaged with, a battery-operated device are not subject to this law. However, a retailer selling replacement batteries for such devices must comply.

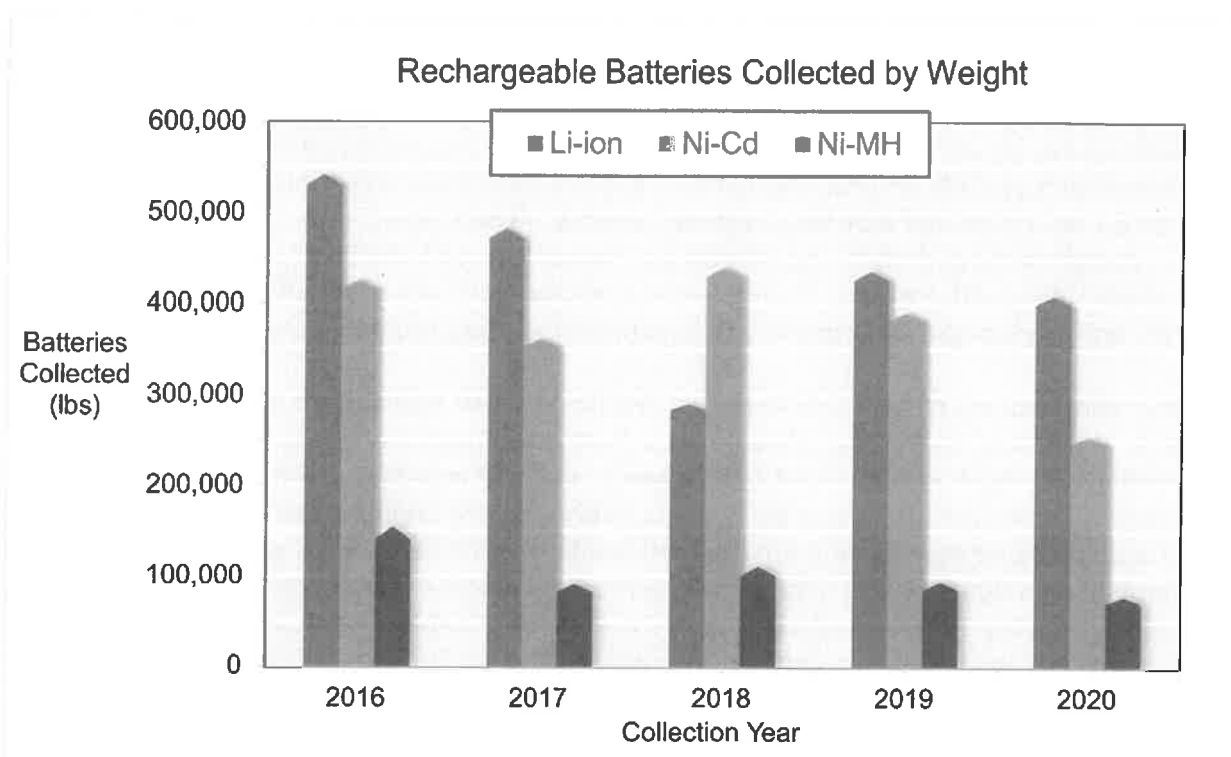
To track how effective this program is, the law requires DTSC to survey battery handling and/or recycling facilities and post on its website, by July 1 of each year, the estimated amount, by weight, of each type of rechargeable batteries returned for recycling in California during the previous calendar year. DTSC receives data voluntarily submitted by the major California battery recyclers to estimate how many rechargeable batteries, by type (e.g., nickel-cadmium, nickel metal hydride, etc.), are collected in each calendar year.

According to DTSC's website, the following are approximate quantities of rechargeable batteries collected for recycling in California in 2020:

- 408,823 pounds of lithium ion batteries
- 252,969 pounds of nickel cadmium batteries
- 77,766 pounds of nickel metal hydride batteries
- 4,810,578 pounds of small sealed lead acid batteries

It is difficult to accurately estimate the rechargeable batteries collected for recycling in California due to the following reasons: some battery handlers and recyclers do not track the state from which batteries are collected; batteries contained within electronic devices that are recycled (e.g., cell phones and laptop computers) are not counted separately but may represent a significant portion of the total quantity; there may be duplicate data as some battery handlers collect batteries from other collection points; and, California law does not require battery handlers or recyclers to report the number or weight of batteries collected for recycling.

According to DTSC's website, below are the amount of batteries collected from 2016-2020. On average the amount of each battery type collected is trending downward.



*Product stewardship (stewardship):* Product stewardship, also known as Extended Producer Responsibility (EPR), is a strategy to place a shared responsibility for end-of-life product management on the producers, and all entities involved in the product chain, instead of the general public. Product stewardship encourages product design changes that minimize a negative impact on human health and the environment at every stage of the product's lifecycle. This allows the costs of treatment and disposal to be incorporated into the total cost of a product. It places primary responsibility on the producer, or brand owner, who makes design and marketing decisions. It also creates a setting for markets to emerge that truly reflect the environmental impacts of a product, and to which producers and consumers respond. CalRecycle has developed a product stewardship framework and checklists to guide statutory proposals that would allow CalRecycle and other stakeholders to implement product stewardship programs.

*Current state stewardship programs:* There are several statewide Stewardship programs in California, all of which are overseen by CalRecycle. They include: carpet materials management, paint product management, mattress product management, and home-generated pharmaceutical waste and sharps waste.

*Successful collection of batteries remains out of reach:* Even though there are laws on the books to require the collection of some rechargeable batteries, recent information suggests that collection efforts are not succeeding. As a result, these hazardous waste batteries are ending up in the solid waste stream where they can be damaged or crushed which can result in fires in solid waste trucks and solid waste facilities. The fact that current collection efforts are falling short does not seem to be disputed.

*How to improve collection of batteries?:* Some state programs for collecting waste, such as those programs for collecting electronic waste, enact a fee on the product and have the state setup a program for the collection of that waste. Other programs, such as EPR programs, place the requirements on those that produce the waste that is resulting in environmental harm. AB 2440 establishes an EPR program for batteries and battery embedded products in order to improve the collection and recycling of these batteries. While the bill does create a new program there is already some collection and recycling infrastructure for batteries (you may have seen those plastic tubes with batteries at a retailer or other location) and it is likely that the EPR program will work to greatly improve and expand that existing infrastructure.

*Complex program, many details to work out:* While AB 2440 provides for a very detailed EPR program, at this stage in the legislative process there is still more work to be done. The author and stakeholders have been involved in discussions that will continue, assuming the bill continues to move through the process, and are likely centered around a few key points. Likely the most challenging aspect going forward will reside with the definitions, specifically, the definition of a producer (this is ultimately who is responsible for the program). This bill includes producers of the batteries, as well as those that make products that contain batteries, so this will be the subject of ongoing discussions. Additionally, once the "who" is solved, there will likely be further discussions around the elements of the plan. The elements of the plan are important because it sets the foundation for the EPR program and ideally sets up the program for success.

*Arguments in Support:* According to RethinkWaste, California Product Stewardship Council, and Californians Against Waste,

"Due to the hazardous metals and corrosive materials that batteries contain, California classifies batteries as hazardous waste and bans them from solid waste landfills. When consumers are done with their loose batteries and portable electronics, they must collect, sort, and ultimately find an appropriate disposal option. Unfortunately, California currently lacks a streamlined and convenient collection and recycling system for batteries and batteries embedded in products.

Because of a combination of increased consumption and a lack of convenient disposal options, higher levels of toxic batteries and products are entering the waste stream. When improperly discarded, lithium-ion (Li-ion) batteries in particular pose serious fire, health, and safety hazards. The influx of improperly disposed of Li-ion batteries into the waste stream has resulted in an alarming number of materials recovery facilities (MRFs), waste collection trucks, and landfills experiencing fires.

Oftentimes, Li-ion batteries are embedded in and irremovable from products, including portable electronics, such as phones, laptops, and power tools. When loose Li-ion batteries or Li-ion batteries embedded in products experience intense physical pressure – which is common in California's waste processing system – the batteries can spark a fire or even explode.

For the average consumer, it can often be difficult to distinguish between chemistries of batteries, such as alkaline, nickel cadmium, and Li-ion. Therefore, to ensure the proper disposal of all battery chemistries and reduce the fire and safety risk, AB 2440 would require free collection for most loose and product-embedded batteries at convenient locations across the state. AB 2440 would also encourage manufacturers to be more responsible for the life

cycle of their products by creating a producer-run program. Lastly, AB 2440 would support a circular economy by battery recycling to the extent that is economically and technically feasible.

Manufacturers must be more responsible for the products they create – both loose batteries and ones embedded in other products – if we are going to protect our workers, communities, and waste management infrastructure from battery-related fires."

*Arguments in Opposition:* According to the Toy Association,

"While we understand the important of battery recycling, we believe the recycling structure created by this bill is overly burdensome, if not unworkable.

While the goal of extended producer responsibility is to place mandates on the producer AB 2440 defines non-battery producers, as producers. Manufacturers of consumer products would be mandated to fund a new state stewardship program for batteries - products our companies do not manufacture. And no exclusions are provided for consumer product manufacturers who purchase covered batteries from a battery manufacturer who is already paying into a stewardship program. In sum, we believe that the definition of producer needs to capture the actual manufacturer of the battery as the primary responsible entity.

This legislation proposes a massive new program that includes collection and recycling of single-use batteries, rechargeable batteries and consumer products that contain batteries which will require different procedures for collection and different processes, equipment, etc. for recycling. Consumer products may vary significantly in their materials and components which would need to be recycled along with the batteries. There should be some research into the benefits and costs of this type of extended producer responsibility program structure.

We believe the structure of this extended producer responsibility program needs further vetting and we urge you to oppose moving the bill forward."

*Double-referral:* Should this bill pass this Committee, it will be re-referred to the Assembly Natural Resources Committee.

*Related legislation:*

- 1) SB 1215 (Newman). Creates the Responsible Battery Recycling Act (Act) of 2022, which requires producers of covered batteries and covered battery-embedded products, as defined, to establish a stewardship program for the collection and recycling of covered batteries and covered battery-embedded products. This bill is pending action in the Senate Environmental Quality Committee.
- 2) SB 289 (Newman, 2021). Would have enacted the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act of 2021, which would have required the producers of batteries and battery-embedded products to establish a stewardship program for those products, with full implementation on or before June 30, 2025. This bill held on the suspense file in the Senate Appropriations Committee.

- 3) AB 1509 (Mullin, 2019). Would have established the Lithium-Ion Battery Recycling Program within CalRecycle which would have required manufacturers of lithium-ion batteries to provide convenient collection, transportation, and disposal of lithium-ion batteries. This bill was not heard in the Senate Environmental Quality Committee and subsequently died on file.
- 4) AB 2832 (Dahle, Chapter 822, Statutes of 2018). Requires the Secretary for the California Environmental Protection Agency to convene a research group to review and advise the Legislature on policies pertaining to the recovery and recycling of lithium-ion vehicle batteries sold with motor vehicles in the state.
- 5) SB 212 (Jackson, Chapter 1004, Statutes of 2018). Requires entities that sell drugs or sharps in the state to individually, or with other entities, develop and implement a statewide home-generated drug stewardship plan, or a home-generated sharps waste stewardship plan, or both, for the collection and proper disposal of home-generated drug and sharps waste. Requires CalRecycle to oversee and enforce each stewardship plan.
- 6) AB 1125 (Pavley, Chapter 572, Statutes of 2005). Enacts the Rechargeable Battery Recycling Act of 2006, and requires retailers of rechargeable batteries, by July 1, 2006, to establish a system for accepting rechargeable batteries for reuse, recycling, or proper disposal.
- 7) AB 2901 (Pavley, Chapter 891, Statutes of 2004). Enacts the Cell Phone Recycling Act of 2004 and requires all retailers of cellular telephone to have in place a system for the collection, reuse and recycling of cell phones. Requires DTSC to provide information on cell phone recycling.
- 8) SB 20 (Sher, Chapter 526, Statutes of 2003). Enacts the Electronic Waste Recycling Act of 2003 to provide for the convenient recycling of covered electronic devices in California.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

California Product Stewardship Council (Co-Sponsor)  
Californians Against Waste (Co-Sponsor)  
South Bayside Waste Management Authority (SBWMA ) DBA RethinkWaste (Co-Sponsor)  
California Resource Recovery Association  
California Waste Haulers Council  
Central Contra Costa Sanitary District  
City of Thousand Oaks  
Delta Diablo  
Los Angeles County Sanitation District  
Monterey Regional Waste Management District  
Napa Recycling & Waste Services  
Recyclesmart  
Republic Services - Western Region  
Republic Services INC.  
Rural County Representatives of California (RCRC)

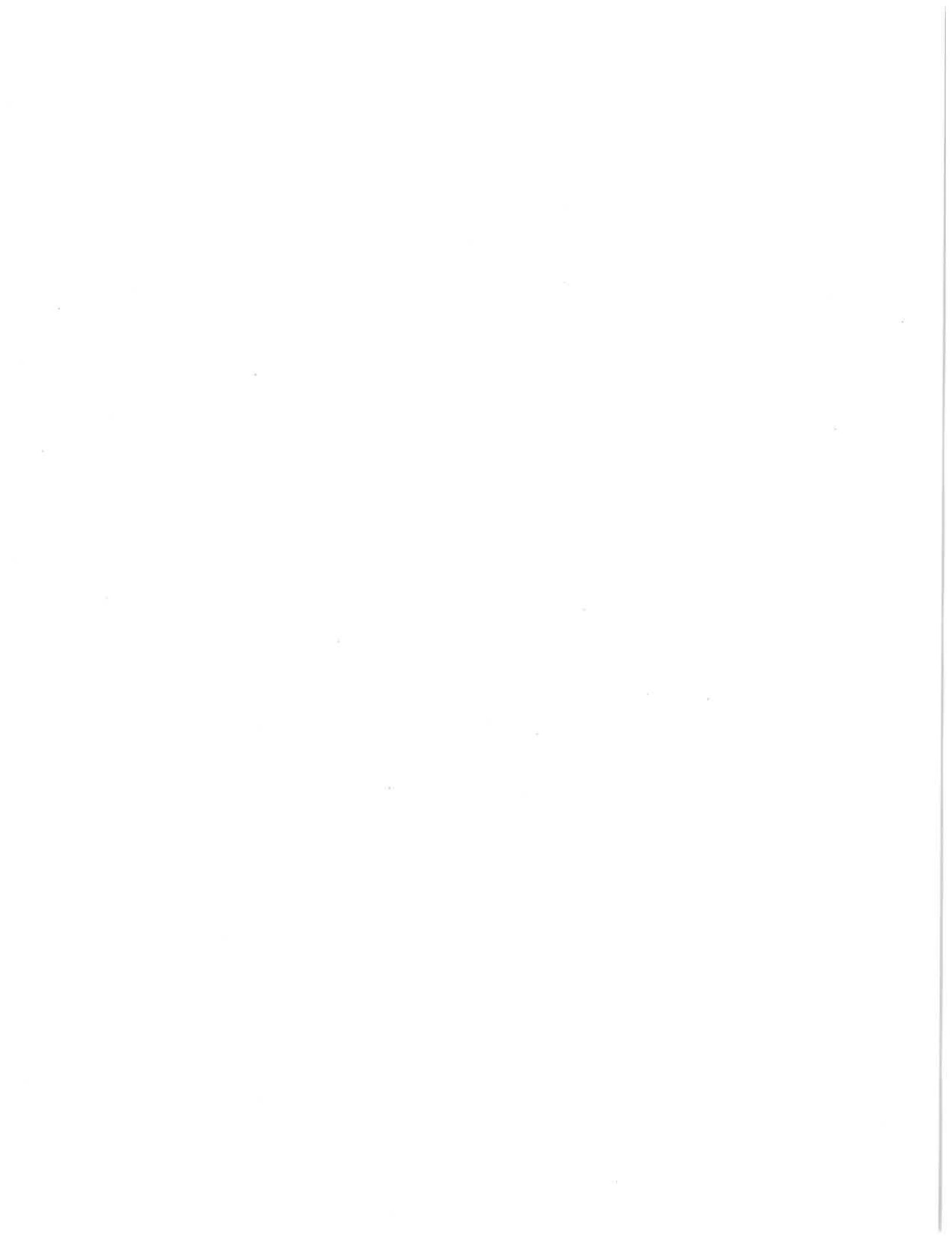


Sea Hugger  
Stopwaste  
Western Placer Waste Management Authority (WPWMA)  
Zero Waste Company

**Opposition**

Association of Home Appliance Manufacturers  
Toy Industry Association

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



Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Bill Quirk, Chair

AB 2601 (Eduardo Garcia) – As Amended March 24, 2022

**SUBJECT:** Waste discharge permits: landfills: Mexico border

**SUMMARY:** Prohibits a Regional Water Quality Control Board (Regional Water Board) from issuing a waste discharge permit for a new landfill, or a lateral expansion of an existing landfill, that is used for the disposal of nonhazardous solid waste if the land is located within three miles of the United States border with Mexico. Additionally, prohibits a Regional Water Board from granting a variance for a new landfill or lateral expansion of an existing landfill located within three miles of the United States border with Mexico.

**EXISTING LAW:**

- 1) Establishes the federal Clean Water Act (CWA) to regulate discharges of pollutants into the waters of the United States and to regulate quality standards for surface waters. (33 United States Code (USC) §1251 et seq.)
- 2) Establishes the National Pollutant Discharge Elimination System (NPDES) permit program requiring the State Water Resources Control Board (State Water Board) and the nine Regional Water Boards to prescribe waste discharge requirements which, among other things, regulate the discharge of pollutants in stormwater, including municipal stormwater systems. (33 USC § 1342)
- 3) Prohibits a Regional Water Board from issuing a waste discharge permit for a new landfill, or a lateral expansion of an existing landfill, that is used for the disposal of nonhazardous solid waste if the land has been primarily used at any time for the mining or excavation of gravel or sand. (Public Resources Code § 40060 (a))
- 4) Prohibits, pursuant to the Porter-Cologne Water Quality Control Act, the discharge of pollutants to surface waters unless the discharger obtains a permit from the State Water Board. (Water Code (WC) § 13000, et seq.)
- 5) Delegates to California's Regional Water Boards the ability to adopt water quality standards within their region of jurisdiction. (WC § 13240)
- 6) Requires a Regional Water Board to prescribe requirements for any proposed discharge, existing discharge, or material change in an existing discharge, except discharges into a community sewer system, with relation to the conditions existing in the disposal area upon or receiving waters into which the discharge is made or proposed. Specifies that requirements that implement any relevant water quality control plans have been adopted, and take into consideration, the beneficial uses to be protected, water quality objectives, other waste discharges and the need to prevent nuisance. (WC § 13269 et seq.)

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "AB 2601 is a necessary environmental justice bill to protect public health and border communities who already suffer from increased emissions from Mexico and other air quality impacts as well as contaminated waterways. The bill will ensure that there will be no new landfill or lateral expansion of an existing landfill and this will ensure we are not exasperating impacts to our constituents health within already vulnerable communities."

*Federal Clean Water Act (CWA):* The Federal Water Pollution Control Act of 1948 was the first major U.S. law to address water pollution. The law was amended in 1972 and became commonly known as the Clean Water Act (CWA). The federal CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, the United States Environmental Protection Agency (US EPA) has implemented pollution control programs, including setting wastewater standards for industrial facilities, as well as setting water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters without a permit. Industrial, municipal, and other facilities must obtain a permit under the National Pollutant Discharge Elimination System in order to discharge into surface water.

*National Pollution Discharge Elimination System (NPDES):* As authorized by the CWA, the NPDES Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Examples of pollutants include, but are not limited to, rock, sand, dirt, and agricultural, industrial, and municipal waste discharged into waters of the United States. The NPDES Program is a federal program which has been delegated to the State of California for implementation through the State Water Board and the Regional Water Boards.

*State Water Board:* Created by the State Legislature in 1967, the five-member Board allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine Regional Water Boards located in the major watersheds of the state

*Regional Water Boards:* There are nine regional water quality control boards statewide. Regional boundaries are based on watersheds and water quality requirements are based on the unique differences in climate, topography, geology, and hydrology for each watershed. Each Regional Water Board makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions.

*The East Otay Mesa Recycling Collection Center and Landfill:* In 2011, there was a proposal submitted for a class III solid waste landfill occupying approximately 340 acres. The proposed project would be located in the unincorporated area of south San Diego County, approximately two miles east of the Siempre Viva Road exit from Interstate 905, one-quarter mile from Loop Road/Paseo De La Fuente and east of planned State Route 11. The proposed project site would be located approximately one and one-half miles from the City of San Diego, two and one-half miles from the City of Chula Vista, and one-quarter mile from the United States/Mexico border. On June 8, 2010, a county-wide initiative, Proposition A, amended the county's general plan to

allow for the construction and operation of this landfill on this site. According to the website of the County of San Diego Department of Health and Quality, there were two environmental documents submitted (an Initial Study and a Notice of Preparation) on September 12, 2011. Additionally, there are no additional environmental documents posted since 2011. If this bill passes, then this proposed landfill in Otay Mesa would not be able to receive a waste discharge permit from the Regional Water Board.

*CalEnviroScreen:* In order to address the cumulative effects of both pollution burden and these additional factors, and to identify which communities might be in need of particular policy, investment, or programmatic interventions, the Office of Environmental Health Hazard Assessment (OEHHA) developed and now maintains and updates the CalEnviroScreen tool on behalf of CalEPA. The tool applies a framework, developed by OEHHA in 2010, for assessing cumulative impacts. According to OEHHA cumulative impacts refer to exposures and public health or environmental effects from all sources of pollution in a geographic area. Cumulative impacts also take into account groups of people that are especially sensitive to the effects of pollution and socioeconomic factors. The CalEnviroScreen tool's framework is based in large part on input from a statewide working group on environmental justice that pointed out the unmet need to assess cumulative burdens and vulnerabilities affecting California communities. The tool uses thirteen pollution burden indicator and eight population characteristics in order to calculate a score. According to CalEnviroScreen 4.0, Otay Mesa, the site of the proposed landfill, has a score in the 90-100% (which is the most polluted percentile). Therefore, citing a solid waste landfill in this area could increase the pollution burden this community already is faced with.

*This bill:* Seeks to protect the residents in south San Diego County (especially those living near the U.S. - Mexico border) by not adding to the overwhelming pollution burden they face. It does this by prohibiting the Regional Water Board from issuing a waste discharge permit for the proposed landfill in Otay Mesa.

*Double-referral:* Should this bill pass this Committee it will be re-referred to the Assembly Natural Resources Committee.

#### **REGISTERED SUPPORT / OPPOSITION:**

##### **Support**

None on file.

##### **Opposition**

None on file.

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



Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Bill Quirk, Chair

AB 2771 (Friedman) – As Amended March 30, 2022

**SUBJECT:** Cosmetic products: safety

**SUMMARY:** Prohibits any person or entity from manufacturing, selling, delivering, holding, or offering for sale in commerce any cosmetic product that contains any per- or polyfluoroalkyl substance (PFAS). Specifically, **this bill:**

- 1) Makes legislative findings and declarations, including that the class of PFAS chemicals are highly toxic and persistent in the environment; have been linked to severe health impacts in humans; have been found in water, air, soil, and wildlife; and, impart high costs on society when used for non-essential purposes.
- 2) Defines "cosmetic product" as an article for retail sale or professional use intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body for cleansing, beautifying, promoting attractiveness, or altering the appearance.
- 3) Defines "perfluoroalkyl and polyfluoroalkyl substances" or "PFAS" as a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.
- 4) Prohibits, upon enactment, any person or entity from manufacturing, selling, delivering, holding, or offering for sale in commerce any cosmetic product that contains perfluoroalkyl or polyfluoroalkyl substances (PFAS).

**EXISTING LAW:**

- 1) Defines, under the Federal Food, Drug, & Cosmetic Act (FD&C Act), "cosmetic" as articles intended to be rubbed, poured, sprinkled, or sprayed on, or introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, and articles intended for use as a component of any such articles; specifically excluding soap. (21 United States Code (U.S.C.) § 321(i))
- 2) Requires, pursuant to the FD&C Act, cosmetics produced or distributed for retail sale to consumers for their personal care to bear an ingredient declaration in descending order of predominance. (21 Code of Federal Regulations § 701.3(a))
- 3) Prohibits the marketing of "adulterated" or "misbranded" cosmetics in interstate commerce. (21 U.S.C. § 331(a))
- 4) Defines an "adulterated" cosmetic as bearing or containing any poisonous or deleterious substance that may render it harmful to the user under conditions of use as prescribed in the label; containing or consisting of any filthy, putrid, or decomposed substance; having been handled under unsanitary conditions; and, other provisions. (21 U.S.C. § 361)
- 5) Defines a "misbranded" cosmetic as having false or misleading labeling; having a label not complete with all required information or with required information not adequately

prominent; having a container made, formed, or filled to be misleading; and, other provisions. (21 U.S.C. § 362)

- 6) Defines, pursuant to the Sherman Food, Drug, and Cosmetic Law (Sherman Act), "cosmetic" as any article, or its components, intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to, the human body, or any part of the human body, for cleansing, beautifying, promoting attractiveness, or altering the appearance. Provides that the term "cosmetic" does not include soap. Makes it unlawful for any person to manufacture, sell, deliver, hold, or offer for sale any cosmetic that is adulterated. Makes it unlawful for any person to adulterate any cosmetic. Makes it unlawful for any person to receive in commerce any cosmetic that is adulterated or to deliver or proffer for delivery any such cosmetic. (Health and Safety Code (HSC) § 109900)
- 7) Requires, pursuant to the Sherman Act, a manufacturer of any cosmetic product subject to regulation by the federal Food and Drug Administration (FDA) that is sold in the state to provide a complete and accurate list of its cosmetic products and that contain any ingredient that is a chemical identified as causing cancer or reproductive toxicity. (HSC § 111792)
- 8) Prohibits, pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), a person, in the course of doing business, from knowingly and intentionally exposing any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual. (HSC § 25249.6)
- 9) Prohibits, commencing January 1, 2025, any person or entity from manufacturing, selling, delivering, holding, or offering for sale in commerce any cosmetic product that contains a number of intentionally added ingredient, including the following long-chain PFAS and their salts: perfluorooctane sulfonate (PFOS); perfluorooctanoic acid (PFOA); perfluorononanoic acid (PFNA); and, perfluorodecanoic acid (PFDA). (HSC § 108980)
- 10) Requires the Department of Toxic Substances Control (DTSC), under the state's Green Chemistry laws, to establish a process to identify and prioritize chemicals or chemical ingredients in consumer products that may be considered a chemical of concern. (HSC § 25252)
- 11) 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)
- 12) Requires DTSC to develop and maintain a list of Candidate Chemicals that exhibit a hazard trait and/or environmental or toxicological endpoint that is either (1) found on one or more of the statutorily specified authoritative lists or (2) is listed by DTSC using specified criteria. (California Code of Regulations (CCR) § 69502.2(b))

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

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



"PFAS, or perfluorinated and polyfluorinated substances, are a class of approximately 12,000 toxic man-made chemicals that can be found in many products, such as nonstick cookware, water repellent clothing, furniture and carpet, and household products, as well as a myriad of industrial materials. Exposure to PFAS has been associated with a wide range of health concerns, including cancer, reproductive harm, high cholesterol, and reduced immune response and vaccine effectiveness.

When released into the environment, PFAS do not breakdown, but rather, they persist and are often referred to as "forever chemicals." Because of their ubiquitous use, PFAS are now found in water, soil, foods, and animals. Virtually all people in the United States have PFAS in their bodies, and babies are born with them.

Disturbingly, these toxins have, to date, also been identified in drinking water sources serving over 16 million Californians. This puts a tremendous onus on water agencies to address PFAS in waste and drinking water, at great cost and technical complexity. Pollution prevention, such as regulating discharges or limiting sources of PFAS from entering the watershed is the most cost effective and feasible management approach.

We all use personal care products. But if these products contain PFAS, that PFAS will wash off of us when we bathe, or will enter our bodies and then the sewershed. Prohibiting PFAS from being added to cosmetics sold in our state will help to reduce the amount of PFAS that water and sanitation agencies have to manage and remove. Such a prohibition would also protect public health."

*Perfluoroalkyl and polyfluoroalkyl substances (PFAS):* PFAS are a class of synthetic compounds that have been in use in industrial and consumer products for their heat, water, and lipid resistance properties since the 1940s. This class of fluorinated organic compounds is defined by containing at least one fully fluorinated carbon atom, meaning a carbon atom on which all hydrogen substituents have been replaced by fluorine atoms. These carbon-fluorine bonds are extremely stable. In addition, the more fluorine atoms are bonded to the same carbon – as is the case with fully fluorinated carbon atoms – the stronger each individual carbon-fluorine bond becomes. These factors render the resultant molecules highly chemically unreactive, and thus resistant to metabolism or degradation and environmentally persistent. They have also been shown to bioaccumulate in the organs and tissues of humans and wildlife. According to a 2013 study by Perez and colleagues, lung tissue has the highest accumulation of PFAS when compared to levels in brain, bone, kidney, and liver. Most PFAS are mobile and some are volatile, leading to contamination of soil, air, and water far from the source of the PFAS emission. Indeed, PFAS have been detected in all corners of the globe.

As of September 2020, more than 9,000 PFAS chemicals were included in the United States Environmental Protection Agency's (U.S. EPA's) Master List of PFAS Substances. Of all PFAS compounds, perfluoroalkyl acids (PFAAs), which include perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), are the most extensively studied. PFOA is the chemical used to produce Teflon, and PFOS was previously used in Scotchgard, re-formulated by its manufacturer 3M in 2003 to use another PFAS or, more recently, fluorinated urethane.

PFAS have been used extensively in surface coating and protectant formulations due to their unique ability to reduce the surface tension of liquids, including in consumer products such as carpets, clothing, fabrics for furniture, apparel, paper packaging for food, non-stick cookware, and other products designed to be waterproof or water resistant; grease, heat and stain resistant; or, non-stick. Applications span many sectors of the economy, including aerospace, apparel, automotive, building and construction, chemicals and pharmaceuticals, electronics and semiconductors, energy, oil and gas exploration, first responder safety, and health care. Importantly, PFAS can migrate into the soil, water, and air at all points of their life cycle: production, use, and disposal.

*Human health impacts of PFAS:* Peer-reviewed research has demonstrated that exposure to certain levels of PFAS may lead to a number of significant negative health impacts, including reproductive effects such as decreased fertility; developmental defects and developmental delay in children; increased risk of renal, prostate, and testicular cancer; suppression of the immune system and an attenuated response to vaccination; increased levels of cholesterol; and, hormonal interference (also known as endocrine disruption). With the decline of "long-chain" PFAS, defined as those containing chains of six or more carbon atoms (such as PFOA and PFOS), "short-chain" PFAS have been employed as replacements. However, these compounds have been found to also be highly persistent in the environment and behave similarly in the human body. PFOA and PFOS have been found in the blood of almost all tested individuals. While the National Health and Nutrition Examination Survey found that blood levels of these two compounds decreased between 1999 and 2014 – concomitant with their decline in production in the U.S. – these findings do not preclude the occurrence of other, untested PFAS in blood of people residing in the U.S and human exposure to the whole class of PFAS remains difficult to assess.

*PFAS in cosmetics:* PFAS are employed in cosmetics for a variety of purposes, including their film-forming ability, increased product durability and spreadability, and weather resistance. The water-repellant properties of PFAS (also known as hydrophobicity) add to their utility in emulsions, lubricants, and waterproof foundations and mascaras.

As cosmetic products are applied directly to the human body, the health risks posed by PFAS in these products are significant. PFAS-containing lipsticks can be ingested with relative ease; PFAS in mascaras can be absorbed via tear ducts; PFAS in creams, lotions, and emulsions may be absorbed by the skin; and, spray-on cosmetics and powders containing PFAS may be inhaled. With personal care products the exposure risks are compounded by their frequent, often daily, application, contributing to greater bioaccumulation. Given differences in the types of personal care products used and their application frequency between men and women, women are more likely to be exposed to PFAS more regularly and throughout much of their lives starting in adolescence. As PFAS have the ability to interfere with natural hormones and hormone responses, this additional exposure could lead to significant impacts to women and, potentially, their children. Indeed, PFAS have been detected in human breast milk. The FDA states that some common PFAS used as ingredients in cosmetics include polytetrafluoroethylene (PTFE), perfluorooctyl triethoxysilane, perfluorononyl dimethicone, perfluorodecalin, and perfluorohexane.

In the 2021 study "Fluorinated Compounds in North American Cosmetics", Whitehead and colleagues analyzed 231 cosmetic products from the United States and Canada for total fluorine content, a correlate for the whole class of PFAS (though it captures both organic and inorganic

fluorine). Products were selected from eight product categories: lip products, eye products, foundations, face products, mascaras, concealers, eyebrow products, and miscellaneous products. The categories with the most high-fluorine products were foundations, eye products, mascaras, and lip products – typically those marketed as "wear-resistant" or "long-lasting". To further assess whether these high-fluorine products contained PFAS, as opposed to other sources of fluorine, the authors selected 29 products and performed additional analytical studies with targeted methods (chromatography with mass spectrometry) to identify specific PFAS. All 29 products were found to have detectable levels of at least four different PFAS compounds, with a maximum of 13 PFAS detected in a single product. The most commonly used PFAS found in these products were fluorotelomer alcohols (FTOHs), a group of volatile PFAS that are precursors to perfluorinated carboxylic acids which, in turn, are environmentally mobile and may be highly toxic to humans and the environment.

*Action on PFAS in cosmetics at the federal level:* The FDA maintains a reporting system for use by manufacturers, packers, and distributors of cosmetic products that are in commercial distribution in the U.S., the Voluntary Cosmetic Registration Program (VCRP). Data from VCRP indicate that PFAS are used as ingredients in certain cosmetics, including lotions, cleansers, nail polish, shaving cream, lipstick, eyeliner, eyeshadow, and mascara. It is important to note that neither federal law nor FDA regulations require specific tests to demonstrate the safety of individual ingredients or products; cosmetic companies are also not required to share safety information with FDA.

Senate Bill 2047, introduced in the U.S. Congress by Senator Susan Collins of Maine in the 2021-2022 session, and titled the "No PFAS in Cosmetics Act", would direct the Secretary of Health and Human Services to issue a proposed rule to ban the use of intentionally added PFAS in cosmetics no later than 270 days after enactment. The bill has been referred to the Committee on Health, Education, Labor, and Pensions.

*PFAS in California water:* Because personal care products are often washed off, PFAS easily end up in wastewater. A major concern is the inefficient removal of these chemicals during conventional wastewater treatment, leading to carry-over into effluent water and biosolids. Effluent water can then move PFAS into receiving water bodies, such as rivers which may, in turn, serve as drinking water sources for downstream communities. Biosolids contaminated with PFAS may be land applied, moving these persistent chemicals into soil.

Groundwater contamination with PFAS is another significant concern. According to the Public Policy Institute of California, about 85% of all Californians depend on groundwater for some portion of their water supply. Because PFAS enter the environment at all stages of their lifecycle – manufacture, use, and disposal – and given their mobility, groundwater contamination in the state is thought to be extensive. According to the U.S. EPA, PFAS can be transported through storm water runoff to enter surface waters and seep through soil to reach groundwater aquifers. An analysis by CalMatters from late 2020 found that at least 146 public water systems, serving almost 16 million Californians, had detected PFOA and PFOS in their well water.

Recognizing the need to address the contamination of drinking water with PFAS in California, AB 756 (C. Garcia, Chapter 162, Statutes of 2019) authorized the State Water Resources Control Board (State Water Board) to order one or more public water systems to monitor for PFAS. It also established a public notification process based on the hazard associated with specified levels

of PFAS in drinking water and directs the State Water Board to prescribe the requirements of the notice to affected consumers.

Contamination of drinking water with PFAS is also an environmental justice issue. As the Natural Resources Defense Council's 2021 report "Dirty Water: Toxic 'forever' PFAS chemicals are prevalent in the drinking water of environmental justice communities" lays out, PFAS pollution is more significant in communities already overburdened by multiple other sources of pollution as well as factors that make them more sensitive to pollution.

The California Office of Environmental Health Hazard Assessment (OEHHA) published a draft document in July 2021 with proposed public health goals (PHGs) for PFOA and PFOS. 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 performed an extensive review of the available literature to set PHGs based on the most sensitive health effects. OEHHA's proposed PHGs for PFOA and PFOS in drinking water are 0.007 and 1 parts per trillion (ppt), respectively.

The final PHG values will then serve as guideposts to the State Water Board in setting the maximum contaminant level (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 MCLs place primary emphasis on public health, they must also account for factors such as detectability, treatability, and cost of treatment.

Additionally, the State Water Board's Division of Drinking Water (DDW) can also set response levels (RLs) for contaminants. These RLs are recommended contaminant concentrations at or above which a drinking water source should be taken off service. Over the last few years, DDW has repeatedly lowered RLs for PFOA and PFOS which are currently set at 10ppt and 40ppt, respectively. In March 2021, DDW also set an RL for perfluorobutane sulfonic acid (PFBS) at 5ppt. According to the FDA, studies that have investigated the presence of PFAS in cosmetics have found concentration ranges (as impurities or as intentionally added ingredients) from the parts per billion to hundreds of parts per million.

*Discussion of various definitions of PFAS:* Recent laws passed in the state have all defined PFAS as "a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom". This definition was set by the California Environmental Contaminant Biomonitoring Program (Biomonitoring California) which is a collaborative effort between the state Department of Public Health, OEHHA, and DTSC.

Other entities have used different definitions. For example, the U.S. EPA uses a structural definition of PFAS when identifying PFAS for purposes of the Toxic Substances Control Act (TSCA) Inventory. By this definition, "PFAS includes per- and polyfluorinated substances that structurally contain the unit  $R-(CF_2)-C(F)(R')R''$ ". Both the  $CF_2$  and  $CF$  moieties are saturated carbons and none of the R groups (R, R' or R'') can be hydrogen."

The Organisation for Economic Development and Cooperation (OECD), an intergovernmental economic organization comprising 38 member nations with the goal of stimulating economic progress and world trade, defines PFAS as "fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom (without any H/Cl/Br/I atom attached to it), i.e. with a few noted exceptions, any chemical with at least a perfluorinated methyl group ( $-CF_3$ ) or a perfluorinated methylene group ( $-CF_2-$ ) is a PFAS."

This Committee is aware of requests by stakeholders to adopt the OECD definition in AB 2771 for the purposes of regulatory harmonization across global markets. It is not immediately apparent to the Committee whether the current California definition would be, in effect, different from the OECD's. The involved parties may wish to continue engagement on this issue, though the Committee notes that changing the definition for one product category would lead to inconsistencies in state law that would have to be addressed.

*Discussions to exempt hydrofluoroolefins (HFOs):* Concerns have been raised by stakeholders that AB 2771 in its current form would also prohibit a class of compounds called hydrofluoroolefins (HFOs) that can be employed as aerosol propellants in cosmetic products. Banning HFOs in cosmetic products such as hair sprays and dry shampoos is of concern to cosmetics companies as they are in the process of phasing out currently used aerosol propellants due to regulatory action by the California Air Resources Board (CARB).

Currently, cosmetic products rely on hydrofluorocarbons (HFCs) – which are not PFAS – as aerosol propellants, in particular HFC-152a (1,1-Difluoroethane). HFC-152a has a high Global Warming Potential (GWP), a measurement of how much energy the emissions of a specified amount of gas will absorb over a given period of time. The GWP of CO<sub>2</sub> is defined as 1. HFC-152a has a GWP of 124, meaning its warming potential is 124 times that of an equivalent amount of CO<sub>2</sub>. CARB submitted the final rulemaking package on February 16, 2022, which phases out HFC-152a from product manufacturing by 2029, with sell-through provisions. HFCs were seen as an alternative to chlorofluorocarbons (CFCs) which have very high GWPs and contribute to ozone depletion in the upper atmosphere. With the phase-out of HFCs, various industries, such as refrigeration and automotive industries, are now looking to HFOs as an alternative. However, HFOs fall under the definition of PFAS (both, California and OECD definitions).

One HFO of particular interest to stakeholders is HFO-1234ze (1,3,3,3-Tetrafluoropropene), marketed as Solstice Propellant by Honeywell. The double bond in HFO-1234ze significantly reduces its half-life, which, according to the manufacturer, is 18 days in the atmosphere. There, HFO-1234ze breaks down into trifluoroacetaldehyde at 100% efficiency. Trifluoroacetaldehyde, in turn, breaks down further by sunlight (photolysis) into a number of components: trifluoroacetic acid (TFA), hydrogen fluoride (a strong acid in solution), and CO<sub>2</sub>. It has also been suggested that HFO-1234ze can break down into HFC-23, a potent greenhouse gas (Campbell *et al.*, 2021, *Journal of Chemical Physics*). A related HFO, HFO-1234yf, produces TFA at 100% efficiency.

For the purposes of human health and environmental protection, TFA is thus of primary concern when discussing the use of HFOs. Chemically, TFA is a PFAS as it has a fully fluorinated carbon atom. Notably, the physical and chemical properties of TFA distinguish it from PFAS such as PFOA and PFOS in several ways, as outlined below.

A 2016 report by the United Nations Environment Programme (UNEP), titled "Sources, fates, toxicity, and risks of trifluoroacetic acid and its salts: relevance to substances regulated under the Montreal and Kyoto protocols", investigated potential health and environmental harms by TFA. TFA is soluble in water, making it a potential drinking water contaminant. Upon contact with soil or surface water, TFA forms salts with ions such as sodium, potassium, magnesium, and calcium. TFA-salts released into surface waters remain dissolved and eventually move to terminal water bodies such as lakes and oceans. TFA-salts are extremely stable in the environment and are estimated to persist for centuries.

With regard to health effects on humans, TFA-salts are rapidly eliminated via the kidneys in urine due to their water solubility. The half-life in plasma of humans is 25 to 32 hours, with similar values reported for other mammals. There is some evidence that TFA is incorporated into proteins and can bind to proteins in the blood of mammals. However, concentrations of TFA and its salts are not expected to increase moving up the food chain. In terms of toxicity, the UNEP report states that mammals are insensitive to TFA and its salts and that there is no known specific receptor that TFA-salts bind to elicit a biological response.

Given the ubiquity of TFA and its salts in the environment, exposures are likely in terrestrial and aquatic organisms. However, the doses at which toxicity in aquatic organisms have been observed are quite large, ranging from 0.12 ppm in the most sensitive algae tested (*Pseudokirchneriella* spp.) to the 1,000s ppm in other algae, invertebrates, and vertebrate fishes. The report concludes that, "Although the risks to humans and the environment from the current (and near future) amounts of TFA in the environment are judged to be *de minimis*, TFA is very persistent and concentrations will continue to increase in the terminal sinks."

Therefore, at this time, this Committee can neither determine that HFOs are harmful nor that they are not harmful to human health and the environment. It is unclear what the long-term effects of HFOs and their degradation products may be or whether their presence in air, water, and soil signifies toxicity.

*Removing PFAS from cosmetics for consumer safety and environmental health:* AB 2771 tackles the harm to human health and the environment posed by PFAS in cosmetics by prohibiting the entire class in any cosmetic product.

*Policy considerations:* In its current form, AB 2771 bans PFAS in all quantities, whether intentionally added or present only in trace amounts due to contamination. Though it is not known what a 'safe' amount of PFAS in cosmetic products would be – or, indeed, whether such a level exists – PFAS may enter product ingredients as contaminants in the manufacturing process. The author may therefore wish to consider either specifying that the prohibition only applies to products with intentionally added PFAS or set a threshold trace quantity below which contamination that is unintentional and has no functional use would not be deemed a violation of this statute. This would address concerns raised by stakeholders regarding the potential unintentional contamination of products. Of note, AB 2762 (Muratsuchi, Chapter 314, Statutes of 2020), which banned 4 long-chain PFAS in cosmetic products, excludes products with "a technically unavoidable trace quantity" of the banned compounds from the prohibition, though no quantity threshold is set.

The Committee is apprised of continuing conversations by the author, sponsors, and stakeholders to address outstanding issues as the bill moves forward. It is encouraging that industry stakeholders are not opposed to the concept of removing intentionally added PFAS from their personal care products, recognizing the health and environmental impacts these forever chemicals have. The Committee also notes that some agreements between the author and stakeholders have been reached, as reflected in the amendments from March 30, 2022.

*Arguments in Support:*

The co-sponsors of AB 2771, the Environmental Working Group, Breast Cancer Prevention Partners, and California Public Interest Research Group, write in support, "Our organizations share an increasing concern about the vast use of PFAS chemicals, which build up in our bodies,

are extremely resistant to breaking down, and are now a ubiquitous presence in our environment. PFAS are among the most persistent toxic compounds in existence. They are found in the blood of virtually everyone on earth, including newborn babies. Very low doses of PFAS chemicals in drinking water have been linked to increased risk of cancer, reproductive and immune system harm and liver and thyroid disease. PFAS exposure is also linked to interference with vaccines and is associated with an elevated risk of breast cancer, increased cholesterol and other serious health concerns. Despite their well-documented risks, PFAS chemicals are added to many consumer products, including personal care products. In 2021, Clearya reviewed its database of 50,000 beauty and personal care products and found 1,000 cosmetic products, made by 120 brands, that contained PFAS. [...] Given the serious health and environmental concerns regarding PFAS, these extremely toxic and highly persistent chemicals should not be in consumer products, and particularly not in the personal care and beauty products we use every day. Eliminating PFAS from cosmetic products will also reduce the amount of PFAS that flushes down the drain after we bathe or is tossed into landfills."

The San Francisco Public Utilities Commission writes in support, "The SFPUC provides water, wastewater, and power services within the City and County of San Francisco and wholesale water to three Bay Area counties [...]. PFAS are highly persistent compounds. Due to the use of PFAS in products such as cosmetics, wastewater treatment facilities receive trace amounts of these compounds in influent, and the federal government has recommended that new National Pollutant Discharge Elimination System (NPDES) permits include PFAS monitoring. Existing treatment technologies for wastewater, however, do not destroy PFAS. As such, controlling and regulating PFAS at their source is critical to limit these compounds from entering the broader environment. The only realistic way to prevent the transfer of PFAS from cosmetics into our wastewater systems, Californians, and the wider environment, is to prohibit the use of PFAS in cosmetics."

*Arguments in Opposition:*

The Personal Care Products Council takes an 'oppose unless amended' position and writes, "We support the concept of AB 2771; however, we must seek clarifying amendments to ensure global harmonization and to create a clear pathway for regulatory compliance. It is critical that a common, understandable definition of PFAS is consistent and we propose the Organization for Economic Co-operation and Development (OECD) definition be adopted in order to achieve global alignment with international definitions. Furthermore, any legislative restrictions or prohibitions should be on the use of a PFAS as an intentionally added ingredient, not on the mere presence of trace levels of fluorine in the product. The undersigned organizations have a long history of working with California legislators and stakeholders to craft and support science based legislative initiatives, including as recently as 2020 on AB 2762, a bill that banned intentionally added substances in cosmetics including certain PFAS. We hope to continue that tradition by working with you to further amend AB 2771."

The Household Commercial Products Association takes an 'oppose unless amended' position and states, "The safety of consumers is the highest priority for HCPA members and we applaud your work on behalf of California consumers of cosmetic products. However, the broad application of the bill captures important tools for cosmetic products that do not represent the attributes of Per- and Polyfluoroalkyl Substances (PFAS) as generally understood. Hydrofluoroolefins (HFOs) have emerged as a next-generation aerosol propellant that is safe for humans and the environment. HFOs bring a very low Global Warming Potential (GWP) and

reduce ground level ozone formation, giving them an important role in California's climate and environmental goals. As it relates to PFAS, HFOs are not persistent, bioaccumulative, or toxic. Indeed, after rigorous review, the US Environmental Protection Agency has deemed HFOs acceptable as it relates to human health and the environment. Furthermore, the California Air Resources Board (CARB) has been regulating the volatile organic compound (VOC) content of consumer products for over 30 years. The HFO-1234ze aerosol propellant is vital for aerosol manufacturers and marketers to have available for compliance with upcoming new limits. Unfortunately, AB 2771 would remove these compounds from the cosmetics market. HCPA respectfully requests an amendment to allow the use of HFOs given their role in overall climate ambitions and providing safe products to consumers."

*Double-referral:* Should this bill pass this Committee, it will be re-referred to the Assembly Health Committee.

*Related legislation:*

- 1) AB 1817 (Ting). Would prohibit, commencing January 1, 2024, the sale, distribution, or offer for sale in the state a textile article, as defined, that contains regulated PFAS and requires the manufacturer to use the least toxic alternative when removing regulated PFAS in textile articles to comply. This bill is pending action on the Assembly Floor.
- 2) AB 1200 (Ting, Chapter 503, Statutes of 2021). Prohibits, commencing January 1, 2023, the sale of food packaging that contains PFAS; requires, commencing January 1, 2024, cookware manufacturers to label their product if it contains an intentionally added chemical on specified lists; and prohibits, commencing January 1, 2023, for internet sales and January 1, 2024, for the cookware package, a cookware manufacturer from making a claim that cookware is free of a chemical, unless no chemical from that chemical class is intentionally added to the cookware.
- 3) AB 652 (Freidman, Chapter 500, Statutes of 2021). Prohibits, on or after July 1, 2023, a person from selling or distributing in commerce any new juvenile products that contain PFAS.
- 4) AB 2762 (Muratsuchi, Chapter 314, Statutes of 2020). Prohibits, commencing January 1, 2025, the manufacture, sale, delivery, holding or offering for sale in commerce of any cosmetic product containing specific intentionally added ingredients, including four long-chain PFAS compounds.
- 5) SB 1044 (Allen, Chapter 308, Statutes of 2020). Prohibits the manufacture, sale, distribution, and use of firefighting foam containing PFAS chemicals by January 1, 2022, with some exceptions, and requires notification of the presence of PFAS in the protective equipment of firefighters.
- 6) SB 1056 (Portantino, 2020). Would have required the State Water Board to establish an analytical laboratory method that can be used as a tool to assess the extent of PFAS contamination in drinking water, surface water, groundwater, and wastewater. This bill was held in the Senate Environmental Quality Committee.



- 7) AB 756 (C. Garcia, Chapter 162, Statutes of 2019). Authorizes the State Water Board to order one or more public water systems to monitor for PFAS and requires municipalities to notify consumers for PFAS detected above notification levels.
- 8) SB 1313 (Corbett, 2008). Would have prohibited the manufacture, sale, or distribution of any food contact substance, as defined, which contains perfluorinated compounds, as defined, in any concentration exceeding 10 parts per billion. This bill was vetoed by Governor Arnold Schwarzenegger whose veto message said, "I have signed AB 1879 (Feuer) and SB 509 (Simitian) which mark the beginning of California's historic Green Chemistry Initiative. It is within this process that chemicals like PFCs should be addressed."

## REGISTERED SUPPORT / OPPOSITION:

### Support

Breast Cancer Prevention Partners (Co-Sponsor)  
 CALPIRG, California Public Interest Research Group (Co-Sponsor)  
 Environmental Working Group (Co-Sponsor)  
 100% Pure  
 Alaska Community Action on Toxics  
 Alaska Glacial Essentials  
 American College of Obstetricians and Gynecologists District IX  
 Black Women for Wellness  
 Brand Geek  
 Breast Cancer Action  
 Breast Cancer Over Time  
 California Association of Sanitation Agencies  
 California Environmental Voters (formerly CLCV)  
 California Product Stewardship Council  
 CALPIRG Students  
 Center for Environmental Health  
 Clean Label Project  
 Clean Production Action  
 Clean Water Action  
 Consumer Federation of California  
 Dr. Bronner's  
 East Bay Municipal Utility District  
 Eco Plum Sustainable Swag  
 Educate. Advocate.  
 Elizabeth A. Schaefer MD, MPH  
 Environment California  
 Families Advocating for Chemical and Toxics Safety  
 Friends Committee on Legislation of California  
 Green Science Policy Institute  
 Grove Collaborative  
 Janet Perlman, MD, MPH  
 Just the Goods  
 Keep A Breast  
 Kimberly C. Brouwer, PhD

Los Angeles County Sanitation Districts  
Mariposa McCall, MD  
National Association of Environmental Medicine (NAEM)  
National Stewardship Action Council  
Natural Resources Defense Council (NRDC)  
OSEA  
Physicians for Social Responsibility - San Francisco Bay Area Chapter  
Planning and Conservation League  
San Francisco Baykeeper  
San Francisco Firefighters Cancer Prevention Foundation  
San Francisco Public Utilities Commission  
Save Our Shores  
Seventh Generation  
Sierra Club California  
Skin Owl  
Sprout San Francisco  
US PIRG

**Opposition**

American Chemistry Council  
Cal Chamber  
Fragrance Creators Association  
Household and Commercial Products Association  
Personal Care Products Council

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

Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Bill Quirk, Chair

AB 2146 (Bauer-Kahan) – As Amended March 29, 2022

**SUBJECT:** Neonicotinoid pesticides: prohibited nonagricultural use

**SUMMARY:** Prohibits, beginning January 1, 2024, a person from selling, possessing, or using a neonicotinoid pesticide, except for use on an agricultural commodity or as otherwise specified. Specifically, **this bill:**

- 1) Defines "agricultural commodity" as having the same meaning as in Section 6000 of Title 3 of the California Code of Regulations.
- 2) Defines "environmental emergency" as an occurrence of a pest that presents a significant risk of harm or injury to the environment or human health, or significant harm, injury, or loss to agricultural crops, including, but not limited to, an exotic or foreign pest that may need preventative quarantine measures to avert or prevent that risk, as determined by the Department of Pesticide Regulation (DPR), in consultation with the Department of Food and Agriculture (CDFA) and the University of California Center for Pest Research.
- 3) Defines "neonicotinoid pesticide" as acetamiprid, clothianidin, dinotefuran, imidacloprid, and thiamethoxam, or any other chemical designated by DPR as belonging to the neonicotinoid class of chemicals.
- 4) Prohibits, beginning January 1, 2024, a person from selling, possessing, or using a neonicotinoid pesticide, except for use on an agricultural commodity.
- 5) Authorizes the director of DPR (director), in consultation with CDFA, to authorize, by written order, the sale, possession, or use of a neonicotinoid pesticide that is prohibited by the provisions of this bill if the director finds all of the following:
  - a) A valid environmental emergency exists;
  - b) The pesticide would be effective in addressing the environmental emergency; and,
  - c) There are no other, less harmful pesticides or pest management practices that would be effective in addressing the environmental emergency.
- 6) Requires an environmental emergency order issued by the director to include the basis for the director's determination; to specify the approved time period, geographic scope, and purpose of the permitted sale, possession, or use of the pesticide; to be valid for a period not to exceed one year; and to only authorize use by or under the supervision of a certified commercial or private applicator under a permit issued by the county agricultural commissioner.
- 7) Excludes from the sale, possession, and use prohibitions of the bill:
  - a) A pet care, veterinary, personal care, or indoor pest control pesticide product;

- b) An application for the commercial production of a preserved wood product;
  - c) The application of a neonicotinoid pesticide within one foot of a building foundation perimeter to manage structural pests, provided that the pesticide is not applied on a plant;
  - d) The application of a neonicotinoid pesticide an additional four feet beyond the one foot mentioned above if the additional area is necessary to treat the source of the infestation and the application is limited to a spot targeted treatment of the source of the infestation;
  - e) A direct action taken by DPR or CDFA against an invasive plant or pest; and,
  - f) An application to protect agricultural seeds.
- 8) States that the provisions of this bill shall not be construed to impose liability on news media that accept or publish advertising for a product or activity that would otherwise be subject to this article.

**EXISTING LAW:**

- 1) Provides, under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), for federal regulation of pesticide distribution, sale, and use. Requires that all pesticides distributed or sold in the United States be registered (licensed) by the United States Environmental Protection Agency (US EPA). Requires, before US EPA registers a pesticide under FIFRA, the applicant to show, among other things, that using the pesticide according to specifications will not generally cause unreasonable adverse effects on the environment. (7 United States Code (U.S.C.) §136 et seq)
- 2) Defines, under FIFRA, "unreasonable adverse effects on the environment" to mean: (1) any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide, or (2) a human dietary risk from residues that result from a use of a pesticide in or on any food, as defined. (7 U.S.C. §136 (bb))
- 3) Authorizes the state's pesticide regulatory program and mandates DPR to, among other things, provide for the proper, safe, and efficient use of pesticides essential for the production of food and fiber, for the protection of public health and safety, for the protection of the environment from environmentally harmful pesticides, and to assure agricultural and pest control workers safe working conditions where pesticides are present by prohibiting, regulating, or otherwise ensuring proper stewardship of those pesticides. (Food and Agriculture Code (FAC) § 11401 et seq.)
- 4) Regulates the use of pesticides and authorizes the director to adopt regulations to govern the registration, sale, transportation, or use of pesticides, as prescribed. (FAC §11501, et. seq)
- 5) Requires the director to endeavor to eliminate from use in the state any pesticide that endangers the agricultural or nonagricultural environment, is not beneficial for the purposes for which it is sold, or is misrepresented. (FAC § 12824)

- 6) Authorizes, the director, after a hearing, to cancel the registration of, or refuse to register, any pesticide that fulfills these, among other, criteria:
  - a) That has demonstrated serious uncontrollable adverse effects either within or outside the agricultural environment;
  - b) The use of which is of less public value or greater detriment to the environment than the benefit received by its use;
  - c) For which there is a reasonable, effective, and practicable alternate material or procedure that is demonstrably less destructive to the environment; or,
  - d) That, when properly used, is detrimental to vegetation, except weeds, to domestic animals, or to the public health and safety. (FAC § 12825)
- 7) Requires, if during or after the registration of a pesticide the registrant has factual or scientific evidence of any adverse effect or risk of the pesticide to human health, livestock, crops, or the environment that has not been previously submitted to DPR, the registrant to submit the evidence to DPR. Authorizes the director of DPR to adopt regulations to carry out the reevaluation process. (FAC § 12825.5)
- 8) Requires DPR to issue a determination with respect to its reevaluation of neonicotinoids by July 1, 2018, and to adopt control measures necessary to protect pollinator health within two years after making the determination. (FAC § 12838)
- 9) Defines "agricultural commodity," as an unprocessed product of farms, ranches, nurseries and forests (except livestock, poultry, and fish). Defines agricultural commodities as including fruits and vegetables; grains, such as wheat, barley, oats, rye, triticale, rice, corn, and sorghum; legumes, such as field beans and peas; animal feed and forage crops; rangeland and pasture; seed crops; fiber crops such as cotton; oil crops, such as safflower, sunflower, corn, and cottonseed; trees grown for lumber and wood products; nursery stock grown commercially; Christmas trees; ornamentals and cut flowers; and turf grown commercially for sod. (Title 3, California Code of Regulations (CCR) § 6000)

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "California's pollinators are threatened. California beekeepers lost 41.9% of their colonies last year, one of the worst years on record. These pollinators are critical for California's agriculture, worth \$50 billion annually. A huge body of research now links adverse health impacts and the severe decline in pollinator populations to the use of pesticides, particularly neonicotinoids. Though we have seen steps to regulate these pesticides in our commercial fields, there has been little movement in non-agricultural uses. The European Union, Maine, New Jersey, and many other states have already banned many of these pesticides for many uses. It's time to catch up to the rest of the world in protecting bees and human health. AB 2146 will curb harmful neonicotinoid contamination without limiting farmers, and will secure our food system for generations to come"

*Neonicotinoid pesticides:* According to the article, "Environmental Risks and Challenges Associated with Neonicotinoid Insecticides" in *Environmental Science and Technology*, neonicotinoid insecticides have been in use for over two decades. The first neonicotinoid, imidacloprid, was registered for use in 1991. In the mid-2000s, neonicotinoid use increased

rapidly due to the increased use of coated seeds, increased insect resistance, and in response to concern over the high mammalian toxicity of other insecticides previously used, such as organophosphates (e.g., chlorpyrifos), carbamates (e.g., carbaryl), and pyrethroids (e.g., bifenthrin). Since then, neonicotinoid use has continued to increase in the United States and worldwide. Currently, neonicotinoids are the most widely used class of insecticides in the world, representing 25% of the global insecticide market.

Neonicotinoids are synthetic compounds similar in structure to nicotine. They have a common mode of action that affects the central nervous system of insects (binding to nicotinic acetylcholine receptors), making them active against a broad spectrum of insects.

Neonicotinoids are also systemic insecticides, which means they can be taken up through the roots of plants and translocate to their leaves, flowers, and pollen. Due to their systemic activity, neonicotinoids are ideal candidates for seed coatings. Seed coatings are used for a variety of crops including maize (corn), soybeans, sunflowers, oilseed rape (canola), and cotton.

In addition to their use as seed coatings, neonicotinoids are applied in agricultural areas as foliar sprays, in-furrow treatments (e.g., soil drenches), and granules. In urban or forested areas, neonicotinoids are applied as tree soil drenches or injections (e.g., for the control of emerald ash borer). Plants grown in garden centers and nurseries are often treated with neonicotinoid foliar sprays, drenches, and/or granular applications. Neonicotinoids have a variety of other home uses including lawn and garden applications, topical flea medicines for pets such as dogs and cats, and in bait formulations for use against cockroaches and ants.

*Environmental fate of neonicotinoids:* As described in the *Environmental Science and Technology* article, neonicotinoids are not volatile, somewhat persistent in water and soils, and highly soluble in water, making them available for transport away from the area of initial application to different environmental compartments. Neonicotinoids have been frequently detected in waterways around the world, including surface water runoff (rivers, streams), groundwater, and wetlands. Imidacloprid is detected in 89–100% of water samples collected during monitoring studies of global surface waters. DPR's report, "Urban monitoring in Southern California watersheds fiscal year 2017-2018," shows neonicotinoid contamination in over 90% urban surface water samples taken in Los Angeles, Orange, and San Diego counties, which may indicate extensive outdoor, non-agricultural use. The source of neonicotinoids in water can vary from overspray to particulates (such as dust from treated seeds) to runoff from seed coatings or soil applications. In general, agricultural areas have frequent detections of the three neonicotinoids used primarily as seed coatings (i.e., clothianidin, imidacloprid, and thiamethoxam), whereas urban areas have frequent detections of imidacloprid. Neonicotinoids have been detected in wildflowers adjacent to agricultural areas, indicating their potential to move away from the point of application and be taken up by other nontarget plants.

*Impacts of neonicotinoids:* The *Environmental Science and Technology* article provides the following background on the effects of neonicotinoids on non-target organisms. Since neonicotinoids affect the central nervous system of insects, they do not discriminate between target (e.g., corn rootworm, flea beetle) and nontarget insects (e.g., bees). An important mechanism of neurotoxicity for neonicotinoids is the almost irreversible binding to nicotinic acetylcholine receptors in insects, making low-level continual exposures to neonicotinoids likely to lead to cumulative effects. Nontarget organisms expected to be exposed to neonicotinoids at levels of concern include pollinators, aquatic insects, and birds.

The impact of neonicotinoid use on bees, and other pollinators, has been of particular concern. The three most commonly detected neonicotinoids (clothianidin, imidacloprid, and thiamethoxam) are classified as being highly toxic to bees. As neonicotinoids are systemic within the crop, pollinators can be exposed when they consume the nectar or pollen of a treated crop that flowers and through the dust from seed coatings. Additionally, neonicotinoids frequently contaminate the pollen and nectar of wildflowers growing in the vicinity of treated crops, increasing the likely duration and extent of pollinator exposure to neonicotinoids. In laboratory and semifield studies, exposure to field realistic doses has been shown to impair learning and the accuracy of navigation, decrease foraging success, suppress immune response, reduce the viability of sperm stores in queens, reduce queen longevity, reduce growth of bumblebee colonies, and reduce the number of new queens they produce. It should be noted that some field trials have found no negative impacts, and it seems that honeybee colonies may be less susceptible to neonicotinoids than are wild bees, perhaps because the relatively large size of their colonies buffers them against impacts. However, the article summarizes that, "Overall, there is now a substantial body of evidence suggesting that neonicotinoids are contributing to health issues being experienced by domestic honeybees, and to declines of wild bees and butterflies."

Beyond pollinators, neonicotinoids are known to negatively impact aquatic ecosystems, especially nontarget aquatic invertebrate communities that can support aquatic and terrestrial food webs.

Birds are also impacted by neonicotinoids. Granivorous birds can consume neonicotinoid-coated seeds during planting causing lethal or sublethal direct effects. Sublethal effects include a loss of body mass or impaired flying orientation, which is critical for maintaining the correct migratory direction. Even the ingestion of an individual coated seed can be toxic or have an effect on a bird's reproductive ability. Birds are also likely to experience indirect effects from neonicotinoids, especially insectivorous birds whose food source can be depleted by neonicotinoid use.

Exposure to neonicotinoids may also impact humans. An article published in *Environmental Health Perspectives* in 2017, "Effects of Neonicotinoid Pesticide Exposure on Human Health: A Systematic Review," cites four general population studies that reported associations between chronic neonicotinoid exposure and adverse developmental or neurological outcomes, including neural tube defects and autism spectrum disorder. The findings of animal studies support the biological plausibility for such associations. The European Food Safety Authority concluded that acetamiprid and imidacloprid adversely affect the development of neurons and brain structures associated with functions such as learning and memory. The *Environmental Health Perspectives* article concludes, "Given the widespread use of neonicotinoid pesticides in agricultural and household products, and its increasing detection in United States food and water, more studies on the human health effects of neonicotinoid exposure are needed."

*Regulation of pesticides in California:* DPR's mission is to protect human health and the environment through the regulation of pesticide sales and use, and by fostering reduced-risk pest management. DPR notes that its oversight of pesticide use begins with product evaluation and registration; and continues through continuous evaluation, reevaluation and enforcement; statewide licensing of commercial and private applicators and pest control businesses; environmental monitoring; and, residue testing of fresh produce. This statutory scheme is set forth primarily in FAC Divisions 6 and 7.

Pesticides are registered and licensed for sale and use with the US EPA prior to California registration. DPR's registration evaluation is conducted in addition to US EPA's evaluation. Before a pesticide is registered, both agencies require data on a product's toxicology and environmental fate to evaluate how it behaves in the environment; its effectiveness against target pests; the hazards it poses to non-target organisms; its effect on fish and wildlife; and, its degree of risk to human health. DPR continues to evaluate pesticides after they are registered, including evaluating potential adverse effects resulting from the use of registered pesticide products and if necessary, placing products into formal reevaluation.

*Reevaluation of pesticide registration in California:* California regulations require DPR to investigate reports of possible adverse effects to people or the environment resulting from the use of pesticides. If a significant adverse impact occurred or is likely to occur, regulations require DPR to reevaluate the registration of the pesticide. When a pesticide enters the reevaluation process, DPR reviews existing data and may require registrants to provide additional data to determine the nature or the extent of the potential hazard or identify appropriate mitigation measures, if needed. DPR concludes reevaluations in a number of different ways. If the data demonstrates that use of the pesticide presents no significant adverse effects, DPR concludes the reevaluation without additional mitigation measures. If additional mitigation measures are necessary, DPR places appropriate restrictions on the use of the pesticide to mitigate the potential adverse effect. If the adverse impact cannot be mitigated, DPR cancels or suspends the registration of the pesticide product(s).

*DPR's reevaluation of neonicotinoids:* In 2008, DPR received an adverse effects disclosure that showed potentially harmful effects of the neonicotinoid, imidacloprid, to pollinators. According to DPR, studies of imidacloprid revealed high levels of the insecticide in leaves and blossoms of treated ornamental plants, as well as increasing residue levels over time. The residues were present at levels acutely toxic to honey bees, potentially threatening pollinator health. After investigating the disclosures, DPR placed certain pesticide products containing imidacloprid, and the related neonicotinoid active ingredients, thiamethoxam, clothianidin, and dinotefuran, into reevaluation on February 27, 2009, so that it could assess the magnitude of their residues in the pollen and nectar of agricultural commodities and the corresponding levels of risk to honey bee colonies. Products containing clothianidin, dinotefuran, and/or thiamethoxam- part of a group of active ingredients is known as the nitroguanidine-substituted neonicotinoids- were included in the reevaluation because they are in the same chemical family as imidacloprid and have similar properties and characteristics (e.g., soil mobility, half-lives, and toxicity to honey bees).

In 2014, the California Legislature adopted Assembly Bill (AB) 1789 (Williams, Chapter 578, Statutes of 2014), which required DPR to issue a determination with respect to its reevaluation of neonicotinoids by July 1, 2018, and to adopt control measures necessary to protect pollinator health within two years after making the determination (FAC § 12838).

DPR states that its reevaluation of neonicotinoids included pesticide products labeled for outdoor uses that would result in substantial exposure to honey bees. Within the outdoor uses, DPR focused on gathering data on neonicotinoid pesticides used in the production of agricultural food and feed commodities, including fruits, vegetables, grains, legumes, and fiber and oilseed crops such as cotton, because the pesticides are commonly used at relatively high application rate, and are detrimental to pollinators. Production agricultural products are those used for the production for sale of an agricultural commodity, which is defined in 3 CCR section 6000.



Trees grown for lumber and wood products, Christmas trees, ornamentals and cut flowers, and turf grown commercially for sod are also considered agricultural commodities under 3 CCR section 6000. However, DPR states that it did not evaluate risks due to neonicotinoid use on these particular commodities, "due to sufficient label mitigation or the lack of pollinator exposure (i.e., not attractive to bees, grown indoors, lower use rates) and widespread use."

*DPR's rulemaking on neonicotinoids:* In July, 2018, DPR submitted its Risk Determination on the impacts of neonicotinoid pesticides on pollinator health. In the Risk Determination, and subsequent Addendum, DPR found that certain agricultural applications of neonicotinoids presented a hazard to honey bees. On February 25, 2022, following the Risk Determination and an extensive evaluation of existing and relevant new data, DPR published a Notice of Proposed Regulatory Action. As required under FAC § 12838, DPR's proposed regulations are control measures, consistent with the Risk Determination, that are necessary to protect pollinator health. The proposed regulations would add restrictions to existing uses of neonicotinoids in the production of an agricultural food or feed commodity, including restrictions on application methods and rates, application timing, and seasonal application rate caps, all of which are specified by crop group.

A virtual public hearing on the proposed regulatory action on neonicotinoids is scheduled for Monday, April 25, 2022, during which DPR will receive oral or written comments regarding the proposed changes. Any interested person may submit comments in writing about the proposed action to DPR by April 26, 2022.

*This bill* prohibits, beginning January 1, 2024, a person from selling, possessing, or using a neonicotinoid pesticide, except for use on an agricultural commodity.

The intent of this bill is to fill the regulatory gap left by DPR's action only on the agricultural uses of neonicotinoid pesticides by focusing the provisions of the bill on non-agricultural uses of neonicotinoid pesticides. According to the author, "One key reason why this bill targets non-agricultural uses is that DPR has not included non-agricultural uses of neonicotinoids in newly proposed regulatory restrictions, despite its own findings regarding their risks and harms. Indeed, the impetus for DPR initiating reevaluation of [neonicotinoid pesticides] in 2009 was data showing that imidacloprid applications to ornamental plants left imidacloprid residues in their leaves and blossoms at levels "well above" those lethal to bees." DPR estimates that in California, neonicotinoid use and sales are broken down into about 80-85% agricultural use and 15-20% non-agricultural use, leaving a substantial percentage of neonicotinoid use unregulated under DPR's recent regulatory scheme.

*Details to work out:* While the author of AB 2146 has clear intent for the bill, assuming the bill continues to move through the legislative process, she may wish to continue to work with stakeholders to ensure that the provisions in the bill effectively prohibit the non-agricultural uses of neonicotinoid pesticides that she envisions. Among other topics, discussions should continue about the structure of the bill and/ or the definition of agricultural commodities, particularly on at which point those products, once purchased, no longer are deemed "agricultural commodities" and thus will fall under the neonicotinoid prohibitions delineated in the bill. Discussions should also continue about how the prohibition on non-agricultural use of these neonicotinoid pesticide products would be carried out at the retail level and enforced.

*Arguments in support:* A coalition of supporters argues, "Overwhelming scientific evidence confirms that widespread neonic use is a leading cause of bee and broader pollinator declines. Neonics are lethal to bees in extraordinarily low amounts, and, at even lower amounts, cause a variety of harms that make it harder for bees to survive and reproduce. The disappearance of pollinators threatens more than \$15 billion in state agricultural production that depends on bees and other pollinators and threatens the natural relationships that make California one of the world's 36 biodiversity hotspots.

Neonics broadly contaminate California's environment, threatening the collapse of entire ecosystems. State water testing has detected neonics in the vast majority of samples statewide, including 92% of samples in 2 urban areas of Southern California. And they are found at levels that likely harm aquatic life, killing insects and other invertebrates and starving the birds, fish, and other species that rely on them for food. Neonics also make their way into the soil, sometimes persisting for years and contaminating other plants.

Neonics may also be harming Californians directly. On any given day, neonics are found in the bodies of half the U.S. population and research links neonics to increased risk of developmental or neurological harm in people—including malformations of the developing heart and brain. Animal studies also connect neonics to birth defects and higher rates of death in white-tailed deer fawns and neurological and reproductive harms in other mammals. While [DPR] is currently considering restrictions on neonic uses in agriculture to protect pollinators and human health, the agency has stated that it has no current plans to address the considerable neonic use in non-agricultural settings. AB 2146 addresses these harmful and needless neonic uses while providing DPR broad authority to permit neonic use against invasive species, such as citrus psyllid."

*Arguments in opposition:* A coalition of opponents argue, "In California, neonicotinoids are a critical tool used to protect specialty crops from invasive pests and plant diseases. For example, neonicotinoids are necessary to control for the spread of the Asian Citrus Psyllid (ACP), the vector for Huanglongbing (HLB), a disease that kills citrus trees and has no known cure... When an ACP is found, a control program begins that notifies homeowners within a specific radius and provides them information about the most effective means to prohibit the spread of ACP, which includes the use of neonicotinoids. These residential treatment actions protect neighborhood citrus trees thereby, protecting commercial citrus groves throughout the state... If these products are no longer available at the consumer level, this program will be negatively impacted and in turn threaten the existence of California's \$2 billion citrus industry..."

[US] EPA is currently undertaking registration review of the class of neonicotinoids and expect to finalize the evaluations in 2022. The [US] EPA recently released the draft biological evaluations which determine whether they may affect one or more species listed under the Endangered Species Act (ESA) or their designated critical habitats...

Furthermore, [DPR] has undergone proactive efforts to reevaluate "certain pesticide products containing the nitroguanidine-substituted neonicotinoid active ingredients, imidacloprid, thiamethoxam, clothianidin, and dinotefuran." After finalizing that evaluation and receiving public comments, DPR is proposing regulations to protect pollinators where appropriate...

We support initiatives to promote pollinator health and believe its complexity calls for thoughtful, stakeholder engaged solutions. We support continued research on the risks to bee health and readily acknowledge the critical importance of pollinators to our ecosystem and

economy. However, in recognition of the work by both the California DPR, the US EPA and lack of adequate science to justify restrictions within the measure, we oppose AB 2146."

*Related legislation:*

- 1) AB 567 (2021 Bauer-Kahan). Would have prohibited, on and after January 1, 2024, the use of a neonicotinoid on a seed. The bill was not heard in the Assembly Committee on Environmental Safety and Toxic Materials and the bill subsequently died on file.
- 2) AB 1788 (Bloom, Chapter 250, Statutes of 2020). Prohibits the use of second generation anticoagulant rodenticides (SGARs) until the director certifies, as described, a completed reevaluation of SGARs.
- 3) SB 1282 (Leno 2016). Would have prohibited the noncommercial use of neonicotinoids and would have required labeling, as specified, of all commercially available seeds and plants treated with neonicotinoid pesticide. This bill failed passage on the Senate floor, was granted reconsideration, but subsequently died on file.
- 4) AB 1789 (Chapter 578, Statutes of 2014). Required DPR to issue a determination with respect to its reevaluation of neonicotinoids by July 1, 2018, and to adopt control measures necessary to protect pollinator health within two years after making the determination.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

California Native Plant Society (Co-Sponsor)  
 Environment California (Co-Sponsor)  
 Natural Resources Defense Council (NRDC) (Co-Sponsor)  
 350 Contra Costa Action  
 A Voice for Choice Advocacy  
 Active San Gabriel Valley  
 American Beekeeping Federation  
 American Bird Conservancy  
 American College of Obstetricians and Gynecologists District IX  
 Breast Cancer Prevention Partners  
 California Environmental Voters (formerly CLCV)  
 California Health Coalition Advocacy  
 California Institute for Biodiversity  
 California State Parks Foundation  
 Californians for Pesticide Reform  
 CALPIRG, California Public Interest Research Group  
 Center for Biological Diversity  
 Center for Environmental Health  
 Center for Food Safety; The  
 Center on Race, Poverty & the Environment  
 Defenders of Wildlife  
 Earth Justice  
 Environment CA

Environmental Working Group  
Facts: Families Advocating for Chemical & Toxins Safety  
Friends Committee on Legislation of California  
Friends of Harbors, Beaches and Parks  
Friends of The Earth  
Heal the Bay  
Leadership Counsel for Justice & Accountability  
Pesticide Action Network North America  
Pollinator Stewardship Council, INC.  
Sierra Club California  
The Xerces Society for Invertebrate Conservation

### **Opposition**

African American Farmers of California  
Agricultural Council of California  
American Chemistry Council  
Cal Chamber  
California Agricultural Commissioners & Sealers Association  
California Apple Commission  
California Association of Wheat Growers  
California Association of Winegrape Growers  
California Blueberry Association  
California Blueberry Commission  
California Cherry Growers and Industry Association  
California Citrus Mutual  
California Cotton Ginners and Growers Association  
California Farm Bureau Federation  
California Fresh Fruit Association  
California Golf Course Superintendents Association  
California Manufacturers and Technology Association  
California Olive Oil Council  
California Pear Growers  
California Seed Association  
California Strawberry Commission  
Household and Commercial Products Association  
Nisei Farmers League  
Olive Growers Council of California  
Plant California Alliance  
Western Agricultural Processors Association  
Western Growers Association  
Western Plant Health Association

**Analysis Prepared by:** Shannon McKinney / E.S. & T.M. /

Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Bill Quirk, Chair

AB 2248 (Eduardo Garcia) – As Amended March 24, 2022

**SUBJECT:** Water quality: California-Mexico cross-border rivers

**SUMMARY:** Provides one hundred million dollars to the California Environmental Protection Agency (CalEPA) from the state's General Fund, upon appropriation by the Legislature, to address water quality problems arising in the rivers that come across the border from Mexico. Specifically, **this bill:**

- 1) Provides one hundred million dollars to CalEPA from the state's General Fund, upon appropriation by the Legislature, to address water quality problems arising in the rivers that come across the border from Mexico.
- 2) Requires that half of the one hundred million dollars provided to CalEPA shall be available for purposes consistent with the New River Water Quality, Public Health, and River Parkway Development Program.
- 3) Provides that expenditures of the funding to CalEPA shall be consistent with the work of the CalEPA Border Affairs Program to build collaboration with the federal government, the Republic of Mexico, the State of Baja California, and the Cities of Tijuana and Mexicali. Prioritizes funding to projects that have funding committed by one of these governments.
- 4) Requires the California State Water Resources Control Board (State Water Board) and CalEPA to consult and collaborate with the Legislature, including the protocol office of each house's leadership office, on cross-border collaboration and the expenditure of the funding available.
- 5) Authorizes funds to be expended for action in the State of Baja California if the action provides water quality benefits to the portions of the rivers located in California.

**EXISTING LAW:**

- 1) Establishes the Porter-Cologne Water Quality Control Act, which prohibits the discharge of pollutants to surface waters unless the discharger obtains a permit from the State Water Board. (Water Code § 1300 et seq.)
- 2) Requires the California-Mexico Border Relations Council (Council) to establish the New River Water Quality, Public Health, and River Parkway Development Program to coordinate funding for, and the implementation of the strategic plan developed by the Council. (Public Resources Code § 71103.6)

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "In order to advance on the commitments the state has made and build off of the funding we have already committed to the Tijuana and New Rivers, we need to provide a substantive commitment to improving the water quality coming from our border region into our communities for years to come. While we will continue to work with our partners in Mexico, we need to ensure that we are not jeopardizing public health and are able to fully tackle the problem through infrastructure investments in our own backyard."

*Tijuana River Watershed:* The Tijuana River Watershed is an approximately 1,700-square mile area that straddles the U.S./Mexico border. While nearly three-quarters of the watershed are located in Mexico, it drains to the Pacific Ocean through the 8-square mile Tijuana River Valley (Valley) north of the border. The Valley is home to tidally flushed wetland, riparian, and upland habitats supporting a broad range of organisms, including threatened and endangered species, and includes a number of federally-listed historical and archaeological sites.

Land uses in the watershed are diverse, from largely undeveloped open space in the upper watershed to highly-urbanized, residential, commercial, military, and industrial areas in the lower watershed. Rapid urbanization has occurred over the past several decades, most dramatically in the city of Tijuana where more than 2.7 million people currently reside. Several large dams (Barrett and Morena in the U.S., and Rodríguez and El Carrizo in Mexico) control a large majority of the surface water flow in the watershed. While these dams provide reservoirs of potable water to support residents and associated infrastructure on both sides of the border, they also serve as traps for the downstream movement of sediment and trash to the lower watershed. Therefore, the sediment and trash produced in the 462-square mile area downstream of the dams are responsible for impacts to the Valley.

While significant improvements in wastewater treatment have, in recent years, improved water quality on both sides of the border, stormwater flows continue to bring substantial amounts of sediment, trash, and other contaminants into the Valley. The sediment and trash pollutants cause water quality impairments, threaten life and property from flooding, degrade valuable habitats, and impact recreational opportunities for residents and visitors.

*International Boundary & Water Commission (IBWC):* Bi-national concerns about Tijuana River water quality date back to 1934, when the United States and Mexican governments instructed the International Boundary Commission (predecessor to IBWC) to prepare a report on the Tijuana sewage problem. When the United States and Mexico signed the Water Treaty of 1944, Article III made the use of cross-border waters subject to "sanitary measures or works." The two governments also agreed to give preferential attention to the solution of all border sanitation problems.

In 1979, the two governments approved "Recommendations for the Solution of the Border Sanitation Problems," in Minute No. 261, which provided that for each border sanitation problem, the IBWC would prepare a Minute that would identify the problem and the course of action for resolution. The IBWC subsequently adopted Minutes Nos. 283, 296, and 311 to address border sanitation problems on the Tijuana River, and adopted Minute No. 274 to address the water quality of the New River at Calexico.

In light of continued cross-border sanitation issues, the U.S. and Mexico created a binational interagency "Clean Water Partnership." In 1990, IBWC approved Minute No. 283, to authorize construction of a treatment plant on the Tijuana River, north of the border, called the South Bay

International Water Treatment Plant. This treatment plant has current capability of treating 25 million gallons per day (MGD), but has an expansion capability of up to 100 MGD. Once treated, water from the plant flows through a 4.5-mile, 11-foot pipe leading to the South Bay Ocean Outfall.

*Tijuana River Recovery Team:* The Tijuana River Recovery Team (Recovery Team) is a collaboration of more than 30 federal, state, and local agencies and other interested parties from both sides of the U.S./Mexico border focused on addressing sediment, trash, and associated environmental issues. The mission of the Recovery Team is to bring together the governmental, administrative, regulatory, and funding agencies in tandem with advice from the scientific community, the environmental community, and affected stakeholders to protect the Valley from future accumulations of trash and sediment, identify, remove, recycle or dispose of existing trash and sediment, and restore the Tijuana River floodplain to a balanced wetland ecosystem.

The Recovery Team consists of the following members and organizations: Audubon Society; California Coastal Commission; California Coastal Conservancy; California Department of Conservation, Office of Mining and Reclamation; California Department of Fish and Wildlife; California Department of Resources Recovery and Recycling; California Environmental Protection Agency; California State Parks; California State Water Resources Control Board; City of Imperial Beach; City of San Diego; County of San Diego; International Boundary and Water Commission; National Marine Fisheries Service; National Oceanic and Atmospheric Administration; OpenOceans Global; San Diego Coastkeeper; San Diego County Water Authority; San Diego Regional Water Quality Control Board; San Diego State University; Scripps Institution of Oceanography; Southern California Coastal Water Research Project; Southwest Wetlands Interpretive Association; Surfrider; Tijuana River National Estuarine Research Reserve; Tijuana River Valley Equestrian Association; U.S. Army Corps of Engineers; U.S. Bureau of Reclamation; U.S. Customs and Border Patrol; U.S. Department of Agriculture; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; and, U.S. Navy.

*Recent Developments on the Tijuana River:* Water quality in the Tijuana River has deteriorated significantly in recent years. As the *San Diego Union-Tribune* reported last year, Tijuana River water pollution required closing of beaches north of the border on 295 days in 2020. Deteriorating water quality has led to both conflict and increased effort to address water quality in the Tijuana River.

*New River:* The New River runs through Mexicali, Baja California, and Calexico, California into the Salton Sea. For decades, this Imperial County river has been characterized as one of the most polluted rivers in the United States and remains one of the largest public health issues in the county. The Imperial County Public Health Department, Division of Environmental Health has developed its New River sampling program and has made water quality data for Imperial County Residents accessible. In 1980, the IBWC established Minute 264 which outlines water quality standards for the New River.

*California Legislature's Work on Border River Water Quality:* The California Legislature has been considering and addressing water quality in its border rivers (Tijuana River and New River) for the last 20 years, as water quality issues have evolved. It has passed bills to require state agency projects to improve water quality and has held informational hearings on the work of all those who strive to improve border river water quality.

After the Recovery Team issued its 2014 *Recovery Strategy: Living with the Water* report, the Assembly Committee on Environmental Safety and Toxic Materials convened two informational hearings on border rivers – one on the Tijuana River and one on the New River. Those 2015 hearings allowed legislators to hear from agencies/stakeholders on both rivers. They considered:

- 1) Cross-border projects to build collaboration with governments/communities in Mexico;
- 2) *MOU to Enhance Cooperation on Climate Change and the Environment* implementation;
- 3) Progress and challenges to implement respective strategic plans for the two rivers; and,
- 4) Potential improvements to advance river restoration and long-term management.

The hearing materials reviewed legislation, budget actions and potential funding related to the two rivers, including the California Border Environmental and Public Health Protection Fund.

Since the Recovery Team's 2014 report and the 2015 informational hearings, the Legislature's budget committees have reviewed programs and projects on border river water quality. State Budgets since 2017 have included appropriations for border river water quality:

- 1) 2017: Reappropriated \$2.1 million from a 2014 California Wildlife, Coastal and Park Land Conservation Fund of 1988 for acquisition of lands in the Tijuana River Valley.
- 2) 2019: Appropriated \$15 million for Tijuana River pollution control.
- 3) 2020: Appropriated \$18 million from the General Fund and \$10 million from Proposition 68 water bond funds for the New River Project.
- 4) 2021: Appropriated \$20 million to improve water quality in border rivers.

*U.S.-Mexico-Canada Agreement:* When Congress approved the US-Mexico-Canada Agreement in 2019, California Congressional representatives succeeded in adding \$300 million to identify infrastructure solutions to address significant negative impacts to water quality, public health, and the environment of water pollution in cross-border rivers. In 2020, the US government committed the funding to the U.S. EPA to be used to address Tijuana River water quality problems. In November 2021, US Ambassador Ken Salazar and U.S. EPA Administrator Michael S. Regan met with Mexican officials and stakeholders at the Tijuana border to discuss the results of the U.S. EPA's alternatives analysis for solutions to Tijuana River water quality issues. The results outlined a plan to address water quality on both sides of the border, throughout the watershed. The plan identifies an estimated capital cost of approximately \$627 million and approximately \$25 million for operations and maintenance.

*Opportunity for improvements to the New River and Tijuana River:* For the past several years the Legislature has appropriated small chunks of funding for specific purposes, some for the New River and some for the Tijuana River. This bill proposes to appropriate a larger fund with the goal of taking a more holistic approach to addressing the watersheds near the U.S. – Mexico border rather than pursuing incremental progress.

*Arguments in Support:* According to the Surfrider Foundation, "Surfrider is in strong support of AB 2248 because it addresses water quality in California Mexico Rivers which affects public health, coastal recreation, and unique wetland habitat in California and Baja. Beaches in San Diego are closed more than two thirds of the year regularly (including in 2021) as they are considered unsafe for recreating by Environmental Protection Agency standards for 'safe' coastal



recreation. Extreme pollution in places like Goat Canyon mean that areas near border rivers are so toxic that our volunteers used to wear protective suits to conduct cleanups and now often don't even try to clean these areas because volunteers were frequently getting sick. Additionally, U.S. Border Patrol and Navy conduct patrols and training in contaminated environments that put agents and sailors at risk. We urge the Assembly to pass AB 2248 in advance of public health and coastal recreation needs near the border."

*Double-referral:* Should this bill pass this Committee it will be re-referred to the Assembly Water, Parks, and Wildlife Committee.

*Related legislation:*

- 1) SB 507 (Hueso, Chapter 542, Statutes of 2017). Authorizes funds granted to the County of San Diego in the 2014 Budget Act to be available for development, improvement, rehabilitation, protection, restoration, and studies of natural and park lands in the Tijuana River Valley.
- 2) SCR 90 (Hueso, Chapter 80, 2014) declared the Legislature's intent to work with the Tijuana River Valley Recovery Team to take various actions to protect and preserve the Tijuana River Valley, to encourage collaboration with the team to protect and enhance our natural resources through improved management of sediment and trash, flood control, ecosystem management, and recreation and education, and to promote bilateral ties with Mexico that will be beneficial to the enhancement of one of California's most resilient ecosystems.
- 3) SB 167 (Ducheny, Chapter 333, Statutes of 2009) requires the California Department of Resources Recycling and Recovery to include additional information relating to waste tires in the California-Mexico Border Region, and authorizes funds generated by the California tire fee to be used for related border activities.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

Surfrider Foundation

**Opposition**

None on file.

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



Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Bill Quirk, Chair

AB 2452 (Chen) – As Amended March 28, 2022

**SUBJECT:** Structural Fumigation Enforcement Program

**SUMMARY:** Extends the sunset on the Structural Fumigation Enforcement Program (SFEP) from January 1, 2023, to January 1, 2024, and deletes San Diego County from the SFEP.

**EXISTING LAW:**

- 1) Requires the Structural Pest Control Board to designate the Director of the Department of Pesticide Regulation (DPR) as its agent to oversee the county agricultural commissioner (CAC) structural pesticide use regulatory work. Requires the Structural Pest Control Board and DPR to jointly develop a training program specifically relating to the various aspects of structural pest control and train all county agricultural commissioners and other personnel involved in structural pest control investigations and enforcement. No disciplinary action pursuant to Section 8617 may be taken by a county agricultural commissioner until training has been completed. (Business and Professions Code (BPC) § 8616.)
- 2) Creates the SFEP by authorizing the Los Angeles County Agricultural Commissioner, the Orange County Agricultural Commissioner, the Santa Clara County Agricultural Commissioner, and the San Diego County Agricultural Commissioner to perform increased structural fumigation, inspection, and enforcement activities, to be funded by the \$8 fee collected pursuant to the SFEP. (BPC § 8698)
- 3) Requires the Director of DPR to provide oversight for the purposes of carrying out the SFEP. (BPC § 8698)
- 4) Requires any company that performs a structural fumigation in Los Angeles County, Orange County, Santa Clara County, or San Diego County to pay the CAC a fee of \$8 for each fumigation conducted. (BPC § 8698.1 (a))
- 5) Authorizes the Director of DPR to adopt regulations to carry out the SFEP. Requires the Director of DPR, when adopting regulations, to review, in consultation with the Structural Pest Control Board, recommendations from any individual, including any licensed pest control operator, regarding matters that pertain to the use of structural fumigation to control pests. (BPC § 8698.2)
- 6) Authorizes the Director of DPR to levy a civil penalty against a person or company violating the SFEP, including any regulation adopted pursuant to the SFEP. (BPC § 8698.3 (a))
- 7) Authorizes a CAC to require full payment of any delinquent fees due to that county pursuant to the SFEP as a condition to registering a structural pest control licensee to operate a structural pest control business in that county. (BPC § 8698.4)

- 8) Requires that funds collected pursuant to the SFEP be paid to the county and be used for the sole purpose of funding enforcement and training activities directly related to the SFEP. Provides that the fees collected under the SFEP shall be in addition to, and shall not be used to supplant, pesticide mill assessment funds provided to the CAC. (BPC § 8698.5.)
- 9) Sunsets the SFEP on January 1, 2023. (BPC § 8698.6)

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "AB 2452 will extend the sunset date of the Structural Fumigation Inspection Program from January 1, 2023, to January 1, 2024. These inspection services, which are performed by County Agricultural Commissioners, are essential to monitor and regulate the toxic chemicals used by companies to conduct structural fumigations. Products used in the fumigation are colorless, odorless and leave no residue. If improperly used, it can result in poisoning."

*Structural fumigation:* As described by the National Pesticide Information Center, structural fumigation is a pest control method that involves filling the airspace within a structure with a toxic gas. A tarp or tent is used over the structure to trap the gas inside. The gas penetrates cracks, crevices, and pores in the wood to eliminate pests. After the tarp or tent is removed, fans are used to help the gas escape the structure into the atmosphere. The primary active ingredient used in fumigants intended for residential dwellings is sulfuryl fluoride.

*Sulfuryl fluoride:* Sulfuryl fluoride, which acts as a central nervous system depressant, is an odorless, colorless gas used to fumigate closed structures and their contents to eliminate pests such as drywood and Formosan termites, wood infesting beetles, bedbugs, carpet beetles, clothes moths, cockroaches, and rodents. Sulfuryl fluoride is a restricted use pesticide and a designated toxic air contaminant in California.

According to the Centers for Disease Control and Prevention (CDC), symptoms of sulfuryl fluoride poisoning include nose, eye, throat, and respiratory irritation; shortness of breath; numbness; weakness; nausea; abdominal pain; slowed speech or movements; coughing; vomiting; restlessness; muscle twitching; seizures; and, pulmonary edema. Repeated exposures to high concentrations of sulfuryl fluoride may cause lung and kidney damage. Fatalities have occurred when people have entered structures during the fumigation process, or when sulfuryl fluoride had not dissipated to appropriate levels prior to re-entry as required by the product label.

Since the United States Environmental Protection Agency classified sulfuryl fluoride products as restricted use pesticides based on their inhalation toxicity, only licensed applicators can apply them. Licensed pesticide applicators are required to be trained in the proper handling of fumigants and fumigation-related equipment and procedures.

*Structural fumigation in California:* DPR, which is housed in the California Environmental Protection Agency, is vested with the primary authority to regulate and enforce pesticide laws in California. In this capacity, DPR provides guidance and oversight to counties in planning their local outreach and enforcement programs for pesticide users. DPR is also statutorily required to provide oversight for the purposes of carrying out the SFEP, and is designated by the Structural

Pest Control Board as the agent to oversee all of the CAC structural pesticide use regulatory work including inspections, investigations, and related enforcement activities.

The Structural Pest Control Board, which is housed in the Department of Consumer Affairs, administers the licensing of structural pest control applicators, field representatives, structural pest control operators and registered companies; enforces structural fumigation licensing provisions; and, ensures consumer protection regarding structural fumigation. Both the Structural Pest Control Board and DPR contract with CACs to monitor, at the local level, pesticide use and fumigation activities under each entity's jurisdiction. According to the University of California at Berkeley Urban Pest Management Center, about 100,000 structural fumigations with sulfurly fluoride are conducted each year in California.

*Structural Fumigation Enforcement Program (SFEP):* According to background information provided by the sponsors of the bill, industry-sponsored legislation created the SFEP in response to concerns about substandard structural fumigations being performed in Los Angeles County. Problems cited included operators who used the wrong fumigant, neglected to follow safety procedures, or improperly aerated a structure following fumigation.

The SFEP was originally established in 1993 as a two-year pilot project in Los Angeles County, and included a \$5 per fumigation fee to fund increased enforcement and monitoring activities related to structural fumigation. The sunset date for the pilot project was then extended, and in 1996, the pilot project status was removed and the SFEP was expanded to include Orange County and San Diego County. In 1999, San Diego County opted out of the SFEP. In 2006, the sunset was removed from the SFEP, thereby continuing it indefinitely. In 2007 Santa Clara and San Diego Counties were included in the Program and a sunset date of January 1, 2011 was reestablished. In 2013, the fee for the SFEP was raised from \$5 to \$8 and the sunset extended from January 1, 2014 to January 1, 2018. A comprehensive legislative history of the program is provided at the end of this analysis.

The sponsors note that the SFEP is an industry-supported program and the funds collected can only be used to increase structural fumigation inspection, undercover surveillance, and enforcement. The SFEP uses its fee-generated revenues to pay for increased enforcement and training activities, including hiring additional staff to perform fumigation inspections, conduct undercover surveillance, and research safer pest control methods.

*Oversight of the SFEP:* According to DPR, the Pest Control Operators of California Fumigation Enforcement Committee meets quarterly and receives reports on structural fumigation activities from the CACs that are part of the SFEP (Los Angeles, Orange, San Diego and Santa Clara Counties). DPR and the Structural Pest Control Board regularly attends the meetings, updates the committee on pertinent information, and reviews the CAC work reports submitted to the committee. As part of DPR's oversight of the CAC's pesticide use enforcement activities, DPR staff regularly review the structural enforcement work of the four participating CACs, including evaluating CAC staff conducting inspections to make sure the CACs consistently follow regulatory policies and requirements; training CAC staff on inspection and enforcement procedures; and, reviewing CAC enforcement responses to alleged violations to ensure that appropriate actions are taken.

Currently, DPR has statutory authority to oversee the SFEP; however, AB 20X4- 20 (Strickland, Chapter 18, Statutes of 2009 Fourth Extraordinary Session) moved the Structural Pest Control

Board from DPR to the Department of Consumer Affairs (DCA), where it had previously been housed.

*This bill* would extend the sunset on the SFEP from January 1, 2023, to January 1, 2024 and delete San Diego County from statutory provisions relating to its participation in the SFEP.

The California Agricultural Commissioners and Sealers Association (CACASA), the co-sponsor of the bill, write that they have, "agreed to continue ongoing discussions with the affected industry representatives in the participating counties to administer this consumer safety program for the public as well as consider expansion into other jurisdictions, if appropriate." This is the reason for the one year sunset extension. They, and the Pest Control Operators of California (PCOC), the other co-sponsor of the bill, note, "After discussions between the fumigation industry and the four counties in February of this year, there are still concerns with the County of San Diego and questions related to the quality of inspections and types of violations. These issues have gone on for quite a while now and couldn't be resolved to our satisfaction in the allotted timeframe, so we decided to remove San Diego but not penalize the other counties as we continue to work through these concerns."

*Legislative history of the SFEP:*

- 1) AB 593 (Gloria, Chapter 225, Statutes of 2017). Extended the sunset on the SFEP from January 1, 2018, to January 1, 2023.
- 2) AB 1177 (Bocanegra, Chapter 596, Statutes of 2013). Raised the fee for the SFEP from \$5 to \$8 and extended the sunset from January 1, 2014 to January 1, 2018. Authorized the CACs to require full payment of any delinquent fees due to that county, as a condition of registering a structural pest control licensee to operate a structural pest control business in that county.
- 3) AB 1736 (Ma, Chapter 238, Statutes of 2010). Removed DPR from contract responsibilities with the counties in relation to the SFEP but required DPR to oversee the SFEP. Extended the sunset to January 1, 2014.
- 4) AB 2223 (Horton, Chapter 450, Statutes of 2008). Added San Diego back into the SFEP and extended the sunset to January 1, 2011.
- 5) AB 126 (Jim Beall, Chapter 379, Statutes of 2007). Added Santa Clara County to the SFEP and reinstated the sunset clause to sunset the SFEP on January 1, 2010.
- 6) SB 230 (Figueroa, Chapter 42, Statutes of 2006). Repealed the sunset clause, creating a permanent funding source for the SFEP.
- 7) SB 2026 (Senate Business and Professions Committee, Chapter 1013, Statutes of 2002). Extended the sunset date on the SFEP from July 1, 2003, to July 1, 2006.
- 8) SB 2238 (Senate Business and Professions Committee, Chapter 879, Statutes of 1999). Removed San Diego County from the SFEP and authorized revenues from fees for training, in addition to the inspection and enforcement responsibilities of the SFEP. Extended the sunset date on the SFEP from January 1, 2000, to July 1, 2003.

- 9) SB 530 (Kelley, Chapter 71, Statutes of 1996). Removed the "pilot project" status and expanded the SFEP to include Orange and San Diego counties, in addition to Los Angeles County. Extended the sunset date on the SFEP from January 1, 1997 to January 1, 1999.
- 10) SB 378 (Calderon, Chapter 691, Statutes of 1995). Extended the sunset date on the SFEP from January 1, 1996, to January 1, 1997.
- 11) AB 1053 (Tucker, Chapter 393, Statutes of 1993). Established the SFEP, including establishing a two-year pilot project in Los Angeles County to perform structural fumigation inspections and enforcement activities; requiring DPR to contract with Los Angeles County for this purpose; establishing a \$5 fee on each fumigation in the county to fund enforcement activities; and, authorizing up to five percent of the revenue to be used for DPR or CAC administrative expenses.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

California Agricultural Commissioners & Sealers Association (Co-Sponsor)  
Pest Control Operators of California (Co-Sponsor)  
County of Santa Clara

**Opposition**

None on file.

**Analysis Prepared by:** Shannon McKinney / E.S. & T.M. /

