Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 249 (Holden) – As Amended March 7, 2023

SUBJECT: Water: schoolsites: lead testing: conservation

SUMMARY: Requires, on or before January 1, 2027, a community water system that serves a schoolsite to test for lead in each of the schoolsite's potable water system outlets and to report the results to the State Water Resources Control Board (State Water Board) and applicable school or Local Educational Agency (LEA); requires LEAs or schools, if lead levels exceed 5 parts per billion (ppb), to notify parents and guardians of elevated lead levels, remove from use fountains and faucets where excess lead levels may exist, and provide a potable source of drinking water for pupils; and requires the State Water Board to allocate funds for the purposes of this bill. Specifically, **this bill**:

1) Codifies findings and declarations stating the impacts of lead on children, that these impacts are believed to be permanent, that there is no safe level of lead in children, and that the United States Environmental Protection Agency's (US EPA) maximum contaminant level goal for lead is zero.

2) Codifies findings and declarations that it is the goal of the state to ensure all of the following:

   a) That water served to or consumed by children while they attend school or childcare contains no more than zero parts per billion (ppb) lead;

   b) That state requirements for lead in drinking water in schools be at least as health protective as national standards and complement requirements established by the US EPA for the control of lead and copper; and,

   c) That any future state requirements for lead testing in drinking water in schools will use the most protective standard possible, or no more than 5 ppb lead.

3) Requires, on or before January 1, 2027, a community water system that serves a schoolsite to test for lead in each of the schoolsite's potable water system outlets.

4) Specifies that the requirement for a community water system to test lead in the potable water outlets of schools does not apply to buildings that were constructed or modernized—such that all faucets and other end point devices used for potable water were replaced—after January 1, 2010.

5) Requires an LEA or school to allow the community water system to access each schoolsite to conduct testing, where testing is required pursuant to Health and Safety Code (HSC) § 116277(a).

6) Requires each community water system, in cooperation with the appropriate corresponding LEA or school, to prepare a sampling plan for each schoolsite where lead sampling is required pursuant to HSC § 116277(a).

7) Authorizes the community water system, LEA, or school to request assistance on developing the sampling plan from the State Water Board or any local health agency responsible for regulating community water systems.

8) Requires a community water system that serves a schoolsite where lead sampling is required pursuant to HSC § 116277(a) to report its water lead level findings to the following:

   a) The applicable school or LEA, within 10 business days after the community water system receives the results from the testing laboratory, or within two business days if it is found that the water lead level from any potable water system outlet on the schoolsite exceeds 5 ppb; and,

   b) The State Water Board.

9) Requires the LEA or school to do all of the following if the lead level exceeds 5 ppb:

   a) Notify parents and guardians of pupils who attend the schoolsite or preschool where elevated lead levels were found;

   b) Take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist; and,

   c) Work with the schoolsites under its jurisdiction to ensure that a potable source of drinking water is provided for pupils at each potable water system outlet that has been shut down due to elevated lead levels.

10) Specifies that a potable source of drinking water may include, but is not limited to, replacing any fixtures that are contributing to elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.

11) Requires the State Water Board to make the results of school lead sampling, conducted pursuant to HSC § 116277(a), publicly available through posting on its internet website.

12) Defines "local educational agency" to mean a school district, county office of education, or charter school located in a public facility.

13) Defines "potable water system outlet" to mean a water fountain or faucet used for drinking or preparing food.

14) Defines "schoolsite" to mean a public or private school that provides preschool education, transitional kindergarten, elementary education, or secondary education to a minimum of six children.

15) Requires the State Water Board to allocate $10 million each fiscal year from 2024 to 2027, inclusive, from the federal Infrastructure Investment and Jobs Act, to the extent allowed under federal law, to pay for drinking water testing, drinking water filters, and related training for school personnel, at schoolsites where lead sampling is required pursuant to HSC § 116277(a).

16) Requires the State Water Board to allocate $5 million each fiscal year from 2024 to 2027, inclusive, from the federal Drinking Water State Revolving Fund, to the extent allowed under

federal law, to pay for water efficient faucet and fixture replacements at schoolsites where lead sampling is required pursuant to HSC § 116277(a).

EXISTING LAW:

1) Requires, pursuant to the federal Safe Drinking Water Act (SDWA) and California SDWA, drinking water to meet specified standards for contamination as set by the US EPA or the State Water Board. (42 United States Code § 300(f), et seq.; HSC § 116270, et seq.)

2) Establishes as 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)

3) 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))

4) Requires a licensed child day care center that is located in a building constructed before January 1, 2010 to have its drinking water tested for lead contamination levels on or after January 1, 2020, but no later than January 1, 2023, and every five years after the date of the initial test. (HSC § 1597.16(a)(1))

5) Requires a licensed child day care center subject to HSC § 1597.16(a)(1) to collect and submit drinking water samples to an accredited laboratory; requires the laboratory to, in a timely manner, electronically submit its test results to the State Water Board; and if the test results show elevated levels, requires the State Water Board to report, in a timely manner, the test results to the California Department of Social Services (CDSS). (HSC § 1597.16(a)(2)(A))

6) Requires the State Water Board to post all test results received for lead in licensed child day care centers on its internet website in a timely manner and to make test results readily accessible to the public. (HSC § 1597.16(a)(2)(B)(ii))

7) Requires, upon notification of elevated lead levels, a licensed child day care center to immediately make inoperable and cease using the fountains and faucets where elevated lead levels may exist, and to obtain a potable source of water for children and staff. (HSC § 1597.16(a)(3))

8) Requires a licensed child day care center to notify parents or guardians of children enrolled in the center of the requirement to test a facility's drinking water and of the test results. (HSC § 1597.16(a)(4))

9) Establishes the Lead-Safe Schools Protection Act and requires the State Department of Health Services (now the California Department of Public Health, CDPH) to conduct a sample survey of schools in this state for the purpose of developing risk factors to predict lead contamination in public schools. (Education Code (EC) § 32240-32245)

10) Requires, pursuant to the Lead-Safe Schools Protection Act, that the CDPH work with the California Department of Education to develop voluntary guidelines for distribution to

schools to ensure that lead hazards are minimized in the course of school repair and maintenance programs and abatement procedures. (EC § 32242(g))

11) Prohibits, beginning January 1, 1994, the use of lead-based paint, lead plumbing and solders, or other potential sources of lead contamination in the construction of any new school facility or the modernization or renovation of any existing school facility. (EC § 32244)

12) Requires a school district to provide access to free, fresh drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the National School Lunch Program or the federal School Breakfast Program are served or consumed. Authorizes a school district to comply with this requirement by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water. (EC § 38086)

13) Requires a school district to notify parents, pupils, teachers, and other school personnel of drinking water results immediately if the school district is required to provide alternative drinking water sources, and authorizes a school district to comply with that requirement by providing notification of the test results during the next regularly scheduled public school meeting. (HSC § 116450)

14) 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. (HSC § 116875(a))

15) Defines "lead free" as not containing more than 0.2 percent lead when used with respect to solder and flux and not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes and pipe fittings, plumbing fittings, and fixtures. (HSC § 116875(e))

16) Requires, by July 1, 2018, a public water system to compile an inventory of known lead user service lines in use in its distribution system and identify areas that may have lead user service lines in use in its distribution system. (HSC § 116885 (a))

17) Authorizes the US EPA to grant primary enforcement responsibility to states for the federal Safe Drinking Water Act if, among other things, the state has adopted drinking water regulations that are no less stringent than national primary drinking water regulations. (40 Code of Federal Regulations (CFR) § 142.10(a))

18) Defines, for the purposes of the federal Lead and Copper Rule (LCR), a "school" to mean any building associated with public, private, or charter institutes that primarily provide teaching and learning for elementary or secondary students. (40 CFR § 141.2)

19) Defines, for the purposes of the federal LCR, "child care facility" to mean a location that houses a licensed provider of child care, day care, or early learning services to children, as determined by the state, local, or tribal licensing agency. (40 CFR § 141.2)

20) Requires all community water systems to conduct lead monitoring at the schools and child care facilities they serve if those schools or child care facilities were constructed prior to

January 1, 2014, or the date the state adopted standards that meet the definition of "lead free" under the federal SDWA, whichever is earlier. (40 CFR § 141.92)

21) Requires each community water system to compile a list of schools and child care facilities served by the system by October 16, 2024. (40 CFR § 141.92(a)(1))

22) Requires each community water system to contact elementary schools and child care facilities on the list, developed pursuant to 40 CFR § 141.92(a)(1), to provide (40 CFR § 141.92(a)(2)):

   a) Information about health risks from lead in drinking water on an at least annual basis; and,

   b) Notification that the water system is required to sample for lead at elementary schools and child care facilities, including a proposed sampling schedule, information about lead sampling, and instructions for identifying outlets for sampling and preparing for a sampling event 30 days prior to the event.

23) Requires community water systems to include documentation if an elementary school or child care facility is non-responsive or otherwise declines to participate in the monitoring or education requirements under 40 CFR § 141.92. (40 CFR § 141.92(a)(3))

24) Defines a school or child care facility as "non-responsive" if a community water system makes at least two separate good faith attempts to contact the facility to schedule sampling with no response. (40 CFR § 141.92(a)(3))

25) Requires a community water system to collect five samples per school and two samples per child care facility at outlets typically used for consumption; prohibits, except under specified conditions, outlets from having point-of-use devices (40 CFR § 141.92(b)(1))

26) Requires a community water system to collect samples from specified fixture types, as follows:

   a) For schools: two drinking water fountains, one kitchen faucet used for food or drink preparation, one classroom faucet or other outlet used for drinking, and one nurse's office faucet, as available. (40 CFR § 141.92(b)(1)(i))

   b) For child care facilities: one drinking water fountain, and either a kitchen faucet used for food or drink preparation, or one classroom faucet or other outlet used for drinking. (40 CFR § 141.92(b)(1)(ii))

27) Requires a community water system to sample all outlets used for consumption, if a facility has fewer than the required number of outlets. ((40 CFR § 141.92(b)(1)(iii))

28) Requires community water systems to collect samples from at least 20 percent of elementary schools and 20 percent of child care facilities served by the system per year, or according to a schedule approved by the state, until all schools and child care facilities identified on the list, developed pursuant to 40 CFR § 141.92(a)(1), have been sampled or declined to participate. (40 CFR § 141.92(c)(1))

29) Requires community water systems to sample all elementary schools and child care facilities at least once in the five years following October 16, 2024. (40 CFR § 141.92(c)(2))

30) Requires community water systems, after they have completed one cycle of sampling in all elementary schools and child care facilities, to sample at the request of an elementary school or child care facility. (40 CFR § 141.92(c)(3))

31) Requires community water systems to sample at the request of a secondary school. (40 CFR § 141.92(c)(4))

32) Authorizes a state to exempt, through a written waiver, a community water system from school lead testing requirements under the federal LCR, if a state or local law or program requires the system to conduct sampling for lead in drinking water in schools and child care facilities served by that system, and sampling is consistent with federal requirements. (40 CFR § 141.92(d))

33) Requires a community water system to provide analytical results as soon as practicable but no later than 30 days after receipt of the results to the school or child care facility, along with information about remediation options. (40 CFR § 141.92(f)(1))

34) Requires a community water system to provide analytical results annually to the local and state health department, and the State Water Board. (40 CFR § 141.92(f)(2))

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author, "Lead consumption among youth and disenfranchised communities occurs at a higher rate. Assisting schools with the resources and appropriate standards to ensure the water fountains our children drink from are safe will help us protect our schools, students, and communities. Children do not become more resistant to lead's toxic effects once they transition from daycare to kindergarten, so California should take the responsible step of aligning childcare and school lead testing standards."

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

Short- and long-term consequences of childhood lead exposure: According to the Centers for Disease Control and Prevention (CDC), research shows that there is no safe level of lead in drinking water and even very low levels can have negative and irreversible health effects, especially for children and pregnant persons. Because of lead's health impacts, the US EPA maintains a maximum contaminant level goal of zero, and some organizations, such as the American Association of Pediatrics, have called for national and state efforts to bring lead levels

in drinking water closer to zero ppb. The CDC states that childhood lead exposure can seriously harm a child's health and cause well-documented adverse effects, including brain and nervous system damage, slowed growth and development, learning and behavior problems, and hearing and speech problems. These health impacts can in turn lead to decreased attention and underperformance in school among lead-exposed children. One study by Evens et al. (2015), published in *Environmental Health*, examined data for nearly 58,000 children attending Chicago public schools and found that increasing blood lead levels were associated with increasing failure rates on standardized reading and math tests. The authors found that this effect persisted, even when they controlled for other predictors of school performance, including poverty, race, ethnicity, gender, maternal education, birth weight, and prematurity. Among children with the lowest blood lead levels, even small increases in blood lead levels were associated with what the authors described as "steeper failure rates."

While children, pregnant persons, and developing fetuses are particularly susceptible to the harmful effects of lead, lead in blood can also result in an increased risk of cardiovascular disease, high blood pressure, and kidney and nervous system problems for adults. Because the human body can store lead in bone, even temporary environmental exposures in childhood can result in many years to decades of recurring or ongoing elevations in blood level levels. One study by Nie et al. (2009), published in the *Journal of Occupational and Environmental Medicine,* reported that lead stored in bone can release back into the blood, resulting in elevated blood lead levels during periods of illness (e.g., with skeletal or dental disease) and during multiple life stages, including childhood, pregnancy, lactation, and menopause.

Inequities in childhood lead exposure: According to the CDC, people with low incomes and people of color are more likely to live in neighborhoods with outdated infrastructure, and are thus more likely to be exposed to lead-based paint and pipes, faucets, and plumbing fixtures containing lead. Evens et al. (2015), in a study published in *Environmental Health,* found that among nearly 58,000 children attending Chicago public schools, blood lead levels were highest in black children (relative to Hispanic and white children) and higher in low-income children. Children from low-income families and communities of color can also be further disadvantaged through the cumulative impacts of lead and other challenges they may face, including higher rates of poverty, malnutrition, exposure to multiple pollutants, and enrollment in under-resourced schools. A 2020 study published in *Nature Medicine* (Marshall et al.) reported that the combination of lead exposure and being from a low-income family can result in worse impacts, compared to when children have only one of these risk factors. Specifically, children from low-income families and with the highest risk levels for lead exposure showed reduced cognitive performance and brain changes (including reduced volume of the cortex, a part of the brain that plays a role in higher level processes, including problem solving, planning, critical thinking, and memory).

Sources of childhood exposure to lead: The US EPA states that children can be exposed to lead in paint, dust, soil, air, and food, as well as drinking water, and that drinking water can make up 20 percent or more of a person's total lead exposure. The most prevalent sources of lead in drinking water are from pipes, fixtures, and associated hardware from which lead can leach. According to *Lead in Drinking Water and Human Blood Levels in the United States*, published by the National Center for Environmental Health in 2012, nearly all lead in users' tap water originates from the corrosion of lead-containing materials that can occur through contact with water, rather than from the primary water source or treatment plant. Lead can enter a building's drinking water by leaching from lead service lines, lead solder used in copper piping, and from

brass fixtures. The amount of lead in tap water can depend on several factors, including the age and material of the pipes and fixtures, concentration of lead in water delivered by the public utility, and corrosiveness of the water. More corrosive water can cause greater leaching from pipes.

Compared to other states, California has a relatively small share of the nation's lead service lines (defined under the LCR, described further below, as a "portion of pipe that is made of lead, which connects the water main to the building inlet" (40 CFR § 141.2)). In 2016, the American Water Works Association released a national survey of lead service line occurrence, finding that California had, at that time, about 1 percent of the nation's lead service lines (or 65,000 out of 6.1 million lead service lines nationally). Under state law—added by Senate Bill (SB) 1398 (Leyva, Chapter 731, Statutes of 2016) and amended by SB 427 (Leyva, Chapter 238, Statutes of 2017)—all community water systems were required to compile an inventory of known lead user service lines in its distribution system by July 1, 2018. Community water systems were further required to propose a schedule by July 1, 2020 to replace all known lead user service lines and user service lines constructed of unknown material.

State and federal laws also regulate the lead content of fixtures. 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. This definition applies to kitchen faucets, bathroom faucets, and any other endpoint device intended to convey or dispense water for human consumption through drinking or cooking. A similar federal law went into effect in 2014. Notably, AB 249 requires testing of potable water outlets in buildings constructed before January 1, 2010, when AB 1953 went into effect. The federal Lead and Copper Rule Revision (LCRR; described further below) will require testing in school and child care facilities constructed before 2014, the year the federal ban went into effect. School testing requirements in the LCRR allow states to use an earlier date for building age, if the state had a definition for "lead free" before the federal ban went into effect, as long as the state and federal definitions of "lead free" are aligned.

The federal Lead and Copper Rule and subsequent revision: In 1991, the US EPA promulgated, under authority granted by the federal SDWA, the LCR, a body of regulations established to minimize lead and copper in drinking water. The 1991 federal LCR did not require water systems to eliminate lead in drinking water, but rather established treatment techniques to reduce lead concentrations below a set level.

The federal LCR requires a public water system to test water at the customer's tap and specifies rules for sample size, which varies based on population served. If more than 10 percent of the samples collected are at or above the action level for lead, it can trigger "actions" that include public education, water quality monitoring, corrosion control treatment, source water monitoring and treatment, and lead service line replacement.

Although the US EPA maintains a maximum contaminant level goal—the maximum amount of a contaminant a person can safely ingest—of zero for lead, the 1991 LCR establishes a "90th percentile" action level of 15 ppb (based on the 90th percentile sample level). If samples contain

lead concentrations less than 15 ppb, no remediation is required, despite US EPA's assessment that any level of lead in drinking water is harmful to human health.

On January 15, 2021, the US EPA issued substantial changes, called the LCRR, to the federal LCR. According to the US EPA:

"These revised requirements provide greater and more effective protection of public health by reducing exposure to lead and copper in drinking water. The rule will better identify high levels of lead, improve the reliability of lead tap sampling results, strengthen corrosion control treatment requirements, expand consumer awareness and improve risk communication. This final rule requires, for the first time, community water systems to conduct lead-in-drinking water testing and public education in schools and child care facilities. In addition, the rule will accelerate lead service line replacements by closing existing regulatory loopholes, propelling early action, and strengthening replacement requirements."

LCRR requirements for lead testing in schools: In the 2021 report, *How States Are Handling Lead in School Drinking Water*, the National Association of State Boards of Education states: "Due in part to their frequent closures and uneven water use patterns during weekends, holidays, summer break, or extenuating circumstances like the pandemic, the topic of lead in drinking water is of special relevance to schools. Water is more likely to stagnate in school pipes and fixtures during closures, potentially making the water more corrosive and increasing the chances that lead leaches into the water." The impacts of lead in drinking water on children's health gained national attention after news broke of the water crisis in Flint, Michigan. In 2014, a switch in Flint's water sources caused lead to leach from service lines into drinking water at dangerously high levels. In the wake of the Flint drinking water crisis, part of the national conversation has focused on strategies for improving the safety of drinking water in schools and child care facilities and the importance of lead testing.

As stated above, the LCRR contain regulations that would, for the first time, institute federal requirements for community water systems to test for lead in drinking water in schools and child care facilities. Beginning October 16, 2024, systems must conduct drinking water sampling at each elementary school and each child care facility they serve over no more than five years, testing 20 percent of the facilities they serve each year. The system will be required to provide sampling results to the school or child care facility and information on actions that can be taken by the school or child care facility to reduce lead in the drinking water. The system will also be required to provide information to the school or child care facility on methods to communicate results to users of the facility and parents. Community water systems will be required to provide testing to secondary schools upon request during the 5 years of mandatory elementary and child care facility testing, and also to elementary schools and child care facilities on request after the first round of mandatory testing.

The federal Lead and Copper Rule Improvements (LCRI): On January 20, 2021, federal Executive Order 13990 directed all federal agencies to undertake review and action, as appropriate, to address the promulgation of federal regulations and other actions during the prior four years. Of those actions, the LCRR was specifically identified as requiring review. As a result, the US EPA delayed the effective and compliance dates established in the LCRR to December 16, 2021 and October 16, 2024, respectively. The US EPA engaged with local communities, states, local governments, utilities, and stakeholders for input regarding needed

changes to the LCRR and published Docket No. EPA-HQ-OW-2021-0255 on December 16, 2021 in the federal register.

The LCRR compliance and effective dates listed above, as well as the text from the January 15, 2021 regulation, were not changed and became effective. Within the Docket, US EPA committed to propose and revise the LCRR by October 2024 with the Lead and Copper Rule Improvements (LCRI). The LCRI is expected to delay the implementation of portions of the LCRR beyond the October 16, 2024 compliance date. In fall 2022, the US EPA announced via a unified agenda entry (Regulation Identifier Number 2040-AG16) that release of the Notice of Proposed Rulemaking—an official document explaining the agency's plan—is expected in August 2023.

Although it remains unknown how the LCRI will modify the LCR, the US EPA has identified the following priority areas for improvement: proactive and equitable lead service line replacement; strengthening compliance tap sampling to better identify communities most at risk of lead in drinking water and to compel lead reduction actions; and, reducing regulatory complexity by evaluating whether trigger level requirements remain necessary with proactive lead service line replacement and a more protective action level.

State action on lead in drinking water: Lead has been listed under Proposition 65 since 1987 as a substance that can cause reproductive damage and birth defects, and has been on the list of chemicals known to cause cancer since 1992. In 2009, OEHHA established a public health goal of 0.2 ppb for lead in drinking water. In addition, the State Water Board enforces the California Lead and Copper Rule (CA LCR), which is aligned with the federal LCR to protect the public's drinking water from metals that can adversely affect public health. The CA LCR requires water systems to monitor lead and copper levels at consumers' taps. If the action level for lead—which is aligned with the federal LCR at 15 ppb—is exceeded, state regulations require installation or modifications to corrosion control treatment and public notification.

Under the state's Lead-Safe Schools Protection Act, originally passed in the mid-1990s, the CDPH conducted a sample survey of schools to determine the likely extent and distribution of childhood lead exposure from paint, soil in play areas, drinking water, and other potential sources. The resulting report, based on data collected from 200 randomly selected schools between 1995 and 1997, was submitted to the Legislature in 1998. The report demonstrates that lead in drinking water in schools constitutes a long standing concern in California, finding that an estimated 18.1% of California schools were, at that time, likely to have lead in drinking water at or above the federal action level (15 ppb). The report concluded that "in some situations drinking water from school water outlets could contribute to children's lead exposure, and demonstrate a need for monitoring lead from drinking water outlets in schools."

In 2017, the State Water Board required approximately 1,200 community water systems to test the drinking water for lead at any school that requested it. The same year, AB 746 (Gonzalez Fletcher, Chapter 746, Statutes of 2017) was enacted to require community water systems that serve a schoolsite built before January 1, 2010, to test for lead in the potable faucets of the schoolsite on or before July 1, 2019. Although AB 249 is substantially similar to AB 746, there are notable differences. For example, AB 249 requires an action level of 5 ppb, while AB 746 required an action level of 15 ppb. Also, AB 249 requires testing at each potable water outlet at a schoolsite, while AB 746 did not specify the number of outlets where testing was required. Finally, AB 249 requires testing at public or private schools that provide preschool education,

transitional kindergarten, elementary education, or secondary education to a minimum of six children; AB 746 did not require testing at private schools and required testing at schoolsites of school districts, county offices of education, and charter schools located in a public facility.

In 2018, EdSource concluded after analyzing data on lead testing from nearly 3,700 California schools that "gaps in [AB 746]…could leave children vulnerable to the toxic metal." The analysis found that 4 percent of schools tested—about 150 schools—recorded a lead level over the 15 ppb action level specified in AB 746. The analysis also showed that at 897 schools, at least one water outlet tested between 5 and 15 ppb, which required no remediation under AB 746. A 2020 study of AB 746 implementation in *Preventing Chronic Disease* (Umunna et al.) found that among 240 randomly selected California public schools, roughly 3% of schools that tested had at least one sample that exceeded 15 ppb. Among the schools they examined, the authors estimated that an action level of 5 ppb would have resulted in a 9-fold increase in the proportion of schools required to take steps to remediate their drinking water. The authors also found a wide range in implementation among schools, stating that "although some schools tested only one tap, others tested as many as 76. Schools that test fewer taps may be less likely to adequately capture the risk of elevated lead in drinking water than schools that test a greater number of taps." A 2021 report by the National Association of State Boards of Education, *How States Are Handling Lead in School Drinking Water,* states that because it is not possible to see, smell, or taste lead in drinking water, testing is the only way to identify its presence. The report recommends that schools test all cooking and drinking water sources, since lead levels can vary across taps, seasons, and with changes in water usage, temperature, the amount of time water sits in pipes, and the flow rate at the time of collection.

In 2018, the Legislature enacted AB 2370 (Holden, Chapter 676, Statutes of 2018), which requires licensed child day care centers operating in buildings constructed before January 1, 2010 to have their drinking water tested for lead by January 1, 2023, and every five years after the initial test. AB 2370 also mandated collaboration between the CDSS, which oversees child care programs, and the State Water Board in the implementation of the bill's requirements.

Similar to AB 249, AB 2370 requires the State Water Board to post test results for lead in licensed child day care centers on its website, and requires centers to:

- Cease using fountains and faucets where elevated lead levels may exist;
- Obtain a potable source of water for children and staff; and,
- Notify parents or guardians of the test results

Subsequent written directives from the CDSS specified an action level of 5 ppb, with a minimum reporting threshold of 1 ppb, for lead in water in child care centers. Through SB 862 (Budget Committee, Chapter 449, Statutes of 2018), the California State Legislature appropriated $5 million, which the State Water Board is using to assist child care centers with the costs of testing and fixture replacement.

Implications of establishing stricter standards for lead in drinking water in California schools: AB 249 would establish stricter standards for lead in drinking water in schools, when compared to current state and federal standards and those used for prior school lead testing under AB 746 (Gonzalez Fletcher, Chapter 746, Statutes of 2017). Prior testing under AB 746 used a 15 ppb action level, the same level currently specified in the federal LCR and CA LCR, while AB 249 has an action level of 5 ppb. AB 249 also goes beyond AB 746 by requiring testing at each

potable water outlet in both private and public schools; AB 746 only required testing in public schools. In addition, AB 249 goes beyond the LCRR by requiring testing in schools serving preschool through secondary students. The LCRR only requires testing in elementary schools and child care centers; community water systems must only test secondary schools upon request. Compared to AB 746 and the LCRR, AB 249 would likely result in required mitigation in a greater number of schools, at a greater number of faucets and fountains. However, since there is no safe level of lead and lead levels can vary from outlet to outlet, this outcome would also capture a greater swath of lead issues in California's schools and result in greater health protection for children and school staff.

According to the National Association of State Boards of Education report, *How States Are Handling Lead in School Drinking Water*, several states already use action levels of 5 ppb or less for lead in drinking water in schools, including Illinois, Maine, Maryland, Michigan, Montana, Vermont, Washington, and the District of Columbia. Therefore, if AB 249 were to become law, California would be one of several states with an action level for lead in drinking water in schools that is stricter than the current federal standard. Using a 5 ppb threshold would also align California's action level for schools with the level used for licensed child day care centers.

Possible interactions of AB 249 with the federal LCRR and forthcoming LCRI: Among stakeholders, there appears to be consensus that minimizing childhood exposure to lead in drinking water is a critical issue. However, some stakeholders have raised concerns that implementing AB 249 ahead of October 16, 2024—the current compliance date for the LCRR, and the date by which the LCRI is expected to be issued—may result in duplicative or conflicting requirements for lead testing and mitigation in schools. Under the current timeline established by the LCRR, community water systems will not be required to begin testing in schools until October 16, 2024, assuming this compliance date is not delayed by the forthcoming LCRI. From that date, water systems will have five years—until 2029—to complete testing in all of the schools within their distribution areas. In comparison, the operative date of AB 249 would be January 1, 2024 and the completion date is proposed to be 2027.

The current LCRR authorizes states to issue waivers that exempt water systems from federal school testing requirements, if the state requires that water systems test for lead in drinking water in schools, and if the state's requirements are at least as stringent as federal requirements. Compared to the LCRR, AB 249 would require a more stringent action level, testing at a greater number of potable water outlets, and a shorter timeline for completing testing at eligible schoolsites.

According to the National Association of State Boards of Education, several other states mandate testing and mitigation for lead in drinking water in schools, including Maryland, Montana, New Hampshire, New Jersey, North Carolina, Oregon, Tennessee, Vermont, Washington, and the District of Columbia. If AB 249 were to become law, California would become one of several states with mandated lead testing in schools in place ahead of the compliance date for the LCRR and release of the LCRI. Because of this, it seems reasonable to expect that the LCRI would retain provisions allowing states to grant waivers to community water systems, where systems are already conducting lead testing in schools under state law and testing requirements are at least as stringent as federal requirements.

This bill: AB 249 requires community water systems to test for lead at each potable water outlet in the public and private schools they serve. The bill aims to ensure transparency by requiring

the reporting of elevated levels to parents and guardians and posting of lead level findings by the State Water Board. By establishing a 5 ppb action level and requiring testing at every potable water outlet at eligible schoolsites, the bill contains stricter standards for lead in drinking water than those currently required by state or federal law. AB 249 requires lead testing in schools ahead of the LCRR and forthcoming LCRI.

Arguments in support: A coalition of supporting organizations writes:

"In 2019, very limited California school drinking water testing, which only sampled several faucets on each campus six years ago, found that samples from 18 percent of K-12 school campuses contained lead levels above 5 ppb. At that time, schools were only required to remediate lead levels above 15 ppb, a level that experts say is not protective of children's health, and most school drinking and cooking faucets were not tested. Children should not have to drink water that contains high levels of lead when they are at school. AB 249 will build upon the earlier round of testing and ensure that no school potable faucets go untested and California's children are further protected from lead exposure caused by school drinking water.

Opponents maintain that the Legislature should not support AB 249 and should, instead, wait for the US EPA to update the federal Lead and Copper Rule before reducing lead in school drinking water. Unfortunately, this update, and the state regulations needed to enforce the federal rule, will not be in place for many years. Once the federal rule is updated, the Water Board will have to develop and approve regulations to apply the new rule in California—a process that could take four to five years. California's children can't wait another 5 years or more to be able to drink safe water at school. AB 249 will allow the state to move forward and remediate lead-tainted school drinking water in the near term, a protective action that should not be held up due to state and federal agency processes."

Arguments in opposition: According to the California Municipal Utilities Association and California Special Districts Association:

"The United States Environmental Protection Agency (EPA) in January 2021 finalized the first major update to the Lead and Copper Rule (LCRR) in nearly 30 years…Further, in December 2021 EPA announced a plan for additional review and stronger regulation through proposed Lead and Copper Rule Improvements (LCRI) to strengthen the regulatory framework on lead in drinking water because they concluded that there are significant opportunities to improve the rule and support the overarching goal of proactively removing lead service lines and more equitably protecting public health…

The school testing provisions in the LCRR/LCRI will achieve the same outcomes as what is proposed in AB 249. However, the current version of the federal rule includes different requirements than the proposed provisions of AB 249 and we expect that those differences could be further exacerbated in the LCRI. The operative date of AB 249 would be January 1, 2024 and the completion date is proposed to be 2027. This would directly overlap with the LCRR/LCRI schedule and water systems likely would have to comply with two comprehensive testing regimes without any additional public health benefit. And if the state law and federal law conflict, it is unclear how water systems would be expected to fulfill both sets of requirements.

Given the existing extensive work to protect public health and pending federal requirements, AB 249 is simply unnecessary at this time."

Double referral: Should AB 249 be approved by the Assembly Environmental Safety & Toxic Materials Committee, it will be re-referred to the Assembly Education Committee.

Related legislation:

1) AB 1931 (Rivas, 2022). Would have required a community water system to create an inventory of lead service lines in its distribution system and a timeline for the replacement or removal of lead service lines. This bill was held on the suspense file in the Assembly Appropriations Committee.

2) SB 1144 (Wiener, 2022). Would have required, by January 1, 2027, the operator of a building owned or operated by a state agency or public school to complete a water efficiency and quality assessment report for each covered building. This bill was vetoed.

3) AB 100 (Holden, Chapter 692, Statutes of 2021). Requires, commencing January 1, 2023, manufacturer compliance with a specified lower lead leaching standard for faucets and other end point devices used for providing drinking water; prohibits sales of products that do not meet the new standard beginning July 1, 2023; and, requires labeling of products that comply with the definition of "lead free" to indicate compliance in an easily identifiable manner.

4) AB 2060 (Holden, 2020). Would have established a "lead free" performance standard for end use plumbing fixtures, required labeling of such products, and set an implementation schedule for compliance with the new standard. This bill was held on the suspense file in the Assembly Appropriations Committee.

5) AB 2370 (Holden, Chapter 676, Statutes of 2018). Requires licensed child day care facilities to, upon enrolling any child, provide parents or guardians with certain written information related to the risks and effects of lead exposure and blood lead testing recommendations and requirements, and subjects certain child day care centers to requirements related to testing drinking water for lead contamination levels.

6) SB 862 (Budget Committee, Chapter 449, Statutes of 2018). Appropriated $5 million to the State Water Board to provide grants or contracts for drinking water testing for lead at licensed child care centers, remediation of lead in plumbing and drinking water fixtures, and technical assistance for licensed child day care providers to apply for testing and remediation.

7) AB 746 (Gonzalez Fletcher, Chapter 746, Statutes of 2017). Requires a community water system that serves a schoolsite built before January 1, 2010 to test for lead in the potable water system of the schoolsite on or before July 1, 2019.

8) SB 427 (Leyva, Chapter 238, Statutes of 2017). Requires, by July 1, 2020, a community water system that has identified lead user service lines in use in its distribution system to provide a timeline for replacement of those service lines to the State Water Board.

9) SB 1398 (Leyva, Chapter 731, Statutes of 2016). Requires a public water system to identify and replace known leaded plumbing.

10) AB 2124 (E. Garcia, Lackey, 2016). Would have required a public water system to include in its water analysis samples from schools, day care facilities, and health care facilities, to the

extent those locations are within the public water system. This bill was held in the Senate Environmental Quality Committee.

11) SB 334 (Leyva, 2015). Would have required the CDPH to test drinking water for lead at a sample of schoolsites, and establish the intent of the Legislature to prioritize testing of schoolsites that have high risk factors. This bill was vetoed.

12) 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."

REGISTERED SUPPORT / OPPOSITION:

Support

Children Now (Co-Sponsor)
Environmental Working Group (Co-Sponsor)
A Voice for Choice Advocacy
Alliance of Nurses for Healthy Environments
As You Sow
Brighter Beginnings
California Black Health Network
California Coalition of California Welfare Rights Advocates
California Environmental Voters (formerly CLCV)
California Health Coalition Advocacy
California Interfaith Power and Light
Californians Against Waste
CALPIRG
Clean Water Action
Cleanearth4kids.org
Consumer Attorneys of California
Educate. Advocate.
Environmental Health Coalition
Families Advocating for Chemical and Toxics Safety
Friends Committee on Legislation of California
Green Science Policy Institute
Jonas Philanthropies
Madera Coalition for Community Justice
Maternal and Child Health Access
Non-toxic Neighborhoods
Protect Wild Petaluma
San Diego Pediatricians for Clean Air
Sierra Club California
Sonoma Safe Agriculture Safe Schools (Sonoma SASS)
The Los Angeles Trust for Children's Health
Western Center on Law and Poverty
Women's Voices for The Earth
Youth vs. Apocalypse

Opposition

Association of California Water Agencies
California Municipal Utilities Association
California Special Districts Association

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 279 (Blanca Rubio) – As Amended February 8, 2023

SUBJECT: San Gabriel Basin Water Quality Authority: annual pumping right assessment

SUMMARY: Raises the maximum amount the San Gabriel Basin Water Quality Authority (Authority) can impose for an annual pumping assessment from ten dollars to twenty dollars.

EXISTING LAW:

1) Pursuant to the San Gabriel Basin Water Quality Authority Act (Act) (Chapter 776, Statutes of 1992 (Water Code (WC) Appendix, §134-101, et seq.)):

   a) Requires the Authority to develop and adopt a basin-wide groundwater quality management and remediation plan that includes certain components, such as characterization of Basin contamination, development and implementation of a comprehensive Basin cleanup plan, a financing plan, and a public information and participation plan.

   b) Establishes election procedures for electing members to the Authority.

   c) Requires the Authority to provide a status report to the State Water Resources Control Board (State Water Board) and the Los Angeles Regional Water Quality Control Board every six months on activities undertaken pursuant to the Basin groundwater quality management and remediation plan. Requires the status report to include certain information, such as an overview of contamination, coordination with other agencies, funding from potentially responsible parties and other sources, status of certain plans, and project activities information.

   d) Sunsets the Act on July 1, 2050.

2) Authorizes the Authority to impose an annual pumping right assessment, not to exceed ten dollars per acre-foot, to construct facilities and acquire property, pay debt, pay administrative costs, and to pay for operations and maintenance of projects constructed by and for the Authority. (WC § Appendix 134-605)

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author, "I am authoring the bill as a result of a groundswell of local support to maintain the highest level of cleanup activity in the basin. My constituents deserve nothing less than a clean source of local drinking water and the state would benefit from the further cleanup of the basin in that it would reduce the pressure on further importation. Water resilience in the San Gabriel Valley is a goal widely held. It has been too long since an adjustment of the cap has been made and with greatly escalating costs in part due to the delays from the supply chain crisis now is the time to make the minor adjustment."

The San Gabriel Valley: The San Gabriel Valley is a suburban, largely-developed portion of Los Angeles County containing more than one million residents and covering more than 170 square miles.

The San Gabriel Valley is also a distinct watershed shaped by local mountains, rivers, streams and other geological formations. A major, natural source of water for the Valley are the San Gabriel River and streams, ponds, lakes, dams, and reservoirs connected to it that are located either in the San Gabriel Mountains or the Valley itself. Beneath the Valley is the San Gabriel Basin, the primary source of water for the San Gabriel Valley's water supply system.

The San Gabriel Valley Basin Superfund site: As the Authority affectionately refers to it in the January 22, 2019, *Section 406 San Gabriel Basin Groundwater Quality Management and Remediation Plan*, the San Gabriel Valley's groundwater basin "has the dubious distinction of being one of the most contaminated in the nation." The Basin's groundwater is contaminated from ground disposal—dating back to World War II— of volatile organic compounds (VOCs) used primarily as solvents in industrial and commercial activities.

The seriousness of the groundwater contamination problem became evident when high concentrations of VOCs were discovered in Azusa in 1979 near a major industrial complex. That led the United States Environmental Protection Agency (US EPA) to place four portions of the basin on the National Priorities List in 1984 under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), also known as the federal Superfund program. These areas are referred to as operable units under CERCLA. Currently, there are six active operable (treatment) units within the San Gabriel Valley Basin: Baldwin Park, El Monte, South El Monte, Puente Valley, Area 3, and Whittier Narrows.

Finding that there was no existing local entity with all of the necessary authority and jurisdiction to coordinate an effective cleanup program, the Legislature created the San Gabriel Basin Water Quality Authority Act in 1992 (Russell, Chapter 776, Statutes of 1992) to develop, finance, and implement groundwater treatment programs in the San Gabriel Basin. Pursuant to the Act, the Authority is under the direction and leadership of a seven-member board. The board is comprised of one member from each of the overlying municipal water districts, one from a city with prescriptive water pumping rights, one from a city without prescriptive water pumping rights, and two members representing water producers in the San Gabriel Basin.

The mission of the Authority is to coordinate, plan, and implement groundwater quality management programs to efficiently remediate groundwater contamination, address the problem of the migration of contaminated groundwater within the San Gabriel Basin, protect and promote the beneficial use of groundwater supplies, and assist in preventing future contamination.

When the Act was created in 1992, the Authority was authorized to impose an annual pumping right assessment, not to exceed thirty-five dollars per acre-foot, to construct facilities and acquire property, pay debt, pay administrative costs, and to pay for operations and maintenance of projects constructed by and for the Authority. However, the Act, specifically the cap for the pumping assessment, has been amended over the years. The last time it was amended was by SB 334 (Romero, Chapter 192, Statutes of 2003) which set the cap for a pumping assessment at ten dollars per acre-foot.

Cleanup status: Groundwater continues to be an important source of drinking water to residents and businesses in the San Gabriel Valley. Local water utilities continue to pump water from clean areas, and, in locations affected by pollution, utilities have installed water treatment equipment to remove pollutants.

The Authority implements the cleanup under a Cooperative Agreement with the US EPA. The agreement funds groundwater extraction and treatment systems operated by the City of Monterey Park, San Gabriel Valley Water Company, and Golden State Water Company.

After the pollution was discovered in 1979, the US EPA's Superfund program estimated that it would cost $800 million over 30 years to remove all of the contaminants from the Basin. Since the inception of the Authority in 1993, its sponsored projects have led to the removal of nearly 102 tons of contaminants from the San Gabriel Valley Basin and have treated 1,904,699 acre-feet of groundwater.

Funding mix: The Authority receives funding from various sources: state, federal, the pumping assessment, and from the parties responsible for contaminating the San Gabriel Basin. Over the years, the Authority has received approximately $60-$70 million from the state (including bond funding), $100 million from the federal government, and approximately $700 million from parties responsible for the contamination. Additionally, the current pumping assessment generates about $2.3 million annually.

Recent legislation: AB 2163 (Blanca Rubio, Chapter 234, Statutes of 2022) recognized the reality that the remaining contamination of the groundwater in the San Gabriel Basin will take decades to cleanup and therefore extended the existence of the Authority from 2030 to 2050.

This bill: With the recent extension of the existence of the Authority until 2050, AB 279 provides the Authority with flexibility for long-term planning by allowing the cap on the pumping assessment to increase from $10 per acre foot to $20 per acre foot. It is important to note that the Authority is continuing its effort to recoup costs from parties responsible for the contamination and continuing to work with both the state and federal government on additional funding.

Arguments in Support:

According to the sponsor, the San Gabriel Basin Water Quality Authority, "[…]AB 279 would increase the annually maximum allowed pumping assessment from $10 to $20. The Authority's mission is to plan, coordinate, and provide funding for the cleanup of the San Gabriel Groundwater Basin. The Basin is known as one of the largest superfund sites in the country. Since its inception, the Authority has been instrumental in facilitating funding agreements with responsible parties to pay for the cleanup, accelerating the implementation of basin cleanup projects, and acquiring state and federal funding to further reduce the cleanup cost burden to local residents. Overall, the Basin is a local drinking water source to over 1.4 million residents in the San Gabriel Valley, including over 400,000 residents living within disadvantaged communities. Therefore, the Authority is requesting an increase in the maximum assessment allowable up to $20 [per acre foot] for the potential to address future needs of the Basin cleanup in coordination with our regional, state, and federal partners."

Arguments in Opposition:

None on file.

Related Legislation:

1) AB 2163 (Rubio, Chapter 234, Statutes of 2022). Extended the sunset from July 1, 2030 to July 1, 2050 for the Authority.

2) SB 413 (Rubio, Chapter 370, Statutes of 2019). Requires the Authority to annually update and incorporate a status report on activities related to its basin-wide groundwater quality management and remediation plan to the State Water Board and the Los Angeles Regional Water Quality Control Board.

3) SB 429 (Hernández, Chapter 214, Statutes of 2013). Extended the sunset date on the Act from July 1, 2017, to July 1, 2030.

4) AB 1010 (Hernández, Chapter 404, Statutes of 2007). Extended the sunset date on the Act from July 1, 2010, to July 1, 2017. Required the Authority, commencing April 1, 2008, and on at least a quarterly basis thereafter, to update its Internet Web site with information regarding its activities undertaken pursuant to the basin-wide groundwater quality management and remediation plan. Required the Authority to submit by March 31, 2008, and every 6 months thereafter, a status report on its activities undertaken pursuant to the plan to the State Water Board and the Los Angeles Regional Water Quality Control Board.

5) SB 334 (Romero, Chapter 192, Statutes of 2003). Extended the sunset date on the Act from July 1, 2005, to July 1, 2010. Deleted a consultation requirement relating to the status report. Authorizes the Authority to impose an annual pumping right assessment in an amount that does not exceed $10 per acre-foot.

6) AB 2544 (Calderon, Chapter 905, Statutes of 2000). Extended the sunset date on the Act from July 1, 2002, to July 1, 2005. Required the appointment to the board of the Authority of two additional producer members and their alternates, pursuant to specified procedures, and prescribes their terms of office.

7) AB 2173 (Margett, Chapter 281, Statutes of 1996). Extended the sunset date on the Act from January 1, 1998, to July 1, 2002. Decreased the authorized pumping right assessment from $35 per acre-foot to $20 per acre-foot, and authorized the Authority to adopt, by resolution, rules and regulations for the collection of pumping right assessments.

8) SB 1679 (Russell, Chapter 776, Statutes of 1992). Enacted the Act.

REGISTERED SUPPORT / OPPOSITION:

Support

San Gabriel Basin Water Quality Authority (Sponsor)
Association of California Water Agencies (ACWA)
California Domestic Water Company
City of Azusa

City of La Puente
San Gabriel Valley Municipal Water District
San Gabriel Valley Water Association
San Gabriel Valley Water Company
Upper San Gabriel Valley Municipal Water District

Opposition

None on file.

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 307 (Chen) – As Introduced January 26, 2023

SUBJECT: Structural fumigation enforcement program

SUMMARY: Extends the sunset on the Structural Fumigation Enforcement Program (SFEP) fumigation in Los Angeles, Orange, and Santa Clara Counties from January 1, 2024, to January 1, 2029.

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 et seq.)

2) Creates the SFEP by authorizing the Los Angeles County Agricultural Commissioner, the Orange County Agricultural Commissioner, and the Santa Clara 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, or Santa Clara 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, 2024. (BPC § 8698.6)

FISCAL EFFECT: Unknown

COMMENTS:

Need for the bill: According to the author, "These inspection services, which are performed by County Agricultural Commissioners, are essential to monitor and regulate the toxic chemicals used by companies to conduct these structural fumigations. Products used in the fumigation are colorless, odorless and leave no residue. If improperly used, it can result in poisoning and cause illness or death in humans. Proper oversight and inspections of these fumigations are an incredibly important way to both protect the consumer and uphold the integrity of the fumigation process."

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 oversight 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 under Business and Professions Code Sections 8616 and 8698 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 sulfuryl 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 SFEP and a sunset date of January 1, 2011, was established. In 2013, the fee for the SFEP was raised from $5 to $8. The sunset has been extended numerous times, and last year, San Diego County again opted out of participation in the SFEP. A comprehensive legislative history of the program is provided at the end of this analysis.

The sponsors of the bill 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, and Santa Clara Counties). DPR and the Structural Pest Control Board regularly attend the meetings, update the committee on pertinent information, and review 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 three 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 (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, 2024, to January 1, 2029.

Legislative history of the SFEP:

1) AB 2452 (Chen, Chapter 235, Statutes of 2022). Extended the sunset on the SFEP from January 1, 2023, to January 1, 2024, and deleted San Diego County from the SFEP.

2) AB 593 (Gloria, Chapter 225, Statutes of 2017). Extended the sunset on the SFEP from January 1, 2018, to January 1, 2023.

3) 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.

4) 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.

5) AB 2223 (Horton, Chapter 450, Statutes of 2008). Added San Diego back into the SFEP and extended the sunset to January 1, 2011.

6) AB 126 (Jim Beall, Chapter 379, Statutes of 2007). Added Santa Clara County to the SFEP and reinstituted the sunset clause to sunset the SFEP on January 1, 2010.

7) SB 230 (Figueroa, Chapter 42, Statutes of 2006). Repealed the sunset clause, creating a permanent funding source for the SFEP.

8) 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.

9) 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.

10) 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.

11) SB 378 (Calderon, Chapter 691, Statutes of 1995). Extended the sunset date on the SFEP from January 1, 1996, to January 1, 1997.

12) 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

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

Opposition

None on file.

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 496 (Friedman) – As Amended March 8, 2023

SUBJECT: Cosmetic safety

SUMMARY: Prohibits, commencing January 1, 2027, a person or entity from manufacturing, selling, delivering, holding or offering for sale in commerce any cosmetic product that contains any of the specified ingredients. Specifically, **this bill**:

Prohibits, beginning January 1, 2027 a person or entity from manufacturing, selling, delivering, holding, or offering for sale, in commerce any cosmetic product that contains any of the following intentionally added ingredients:

(1) Lily aldehyde (CAS no. 80-54-6).
(2) Acetaldehyde (CAS no. 75-07-0).
(3) Cyclohexylamine (CAS no. 108-91-8).
(4) Cyclotetrasiloxane (CAS no. 556-67-2).
(5) Phytonadione (CAS no. 84-80-0).
(6) Sodium perborate (CAS no. 15120-21-5).
(7) Styrene (CAS no. 100-42-5).
(8) Trichloroacetic acid (CAS no. 76-03-9).
(9) Tricresyl phosphate (CAS no. 1330-78-5).
(10) Vinyl acetate (CAS no. 108-05-4).
(11) 2-Chloracetamide (CAS no. 79-07-2).
(12) Allyl isothiocyanate (CAS no. 57-06-7).
(13) Anthraquinone (CAS no. 84-65-1).
(14) Malachite green (CAS no. 569-64-2).
(15) Oil from the seeds of *Laurus nobilis L.* (CAS no. 84603-73-6).
(16) Pyrogallol (CAS no. 87-66-1).
(17) C.I. disperse blue 1 (CAS no. 2475-45-8).
(18) Trisodium nitrilotriacetate (CAS no. 5064-31-3).
(19) The following boron substances:
(A) Perboric acids:
  (i) Sodium salt (CAS no. 11138-47-9).
  (ii) Sodium salt, monohydrate (CAS no. 12040-72-1).
  (iii) Sodium perborate monohydrate (CAS no. 10332-33-9).
(B) Boric acid (CAS nos. 10043-35-3 and 11113-50-1).
(C) Borates, tetraborates, octaborates, and boric acid salts and esters, including all of the following:
  (i) Disodium octaborate anhydrous (CAS no. 12008-41-2).
  (ii) Disodium octaborate tetrahydrate (CAS no. 12280-03-4).
  (iii) 2-Aminoethanol, monoester with boric acid (CAS no. 10377-81-8).
  (iv) 2-Hydroxypropyl ammonium dihydrogen orthoborate (CAS no. 68003-13-4).
  (v) Potassium borate, boric acid potassium salt (CAS no. 12712-38-8).
  (vi) Trioctyldodecyl borate.
  (vii) Zinc borate (CAS no. 1332-07-6).
  (viii) Sodium borate, disodium tetraborate anhydrous; boric acid, sodium salt (CAS no. 1330-43-4).

(ix) Tetraboron disodium heptaoxide, hydrate (CAS no. 12267-73-1).
(x) Orthoboric acid, sodium salt (CAS no. 13840-56-7).
(xi) Disodium tetraborate decahydrate; borax decahydrate (CAS no. 1303-96-4).
(xii) Disodium tetraborate pentahydrate; borax pentahydrate (CAS no. 12179-04-3).
(20) C.I. disperse blue 3 (CAS no. 2475-46-9).
(21) Basic green 1 (CAS no. 633-03-4).
(22) Basic blue 7 (CAS no. 2390-60-5).
(23) 3(or 5)-((4-(benzylmethylamino)phenyl)azo)-1,2 -(or 1,4)-dimethyl-1H-1,2,4-triazolium and its salts (CAS nos. 89959-98-8 and 12221-69-1).
(24) Basic violet 4 (CAS no. 2390-59-2).
(25) Basic blue 3 (CAS no. 33203-82-6).
(26) Basic blue 9 (CAS no. 61-73-4).

EXISTING LAW:

1) Requires, pursuant to the federal Food, Drug & Cosmetic Act (FD&C Act), cosmetics produced or distributed for retail sale to consumers for their personal care to bear an ingredient declaration. (21 Code of Federal Regulations 701.3)

2) Defines, pursuant to the 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 & Safety Code (HSC) § 109900)

3) Requires, pursuant to the Safe Consumer Cosmetic Act (Cosmetics Act), a manufacturer of a cosmetic that is subject to regulation by the federal Food and Drug Administration (FDA) to submit to the California Department of Public Health (CDPH) a list of its cosmetic products sold in California that contain any ingredient that is a chemical identified as causing cancer or reproductive toxicity. (HSC § 111792)

4) 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)

5) Requires the Department of Toxic Substances Control (DTSC), under the state's Green Chemistry regulations, 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)

6) Requires DTSC to develop and maintain a list of Candidate Chemicals that exhibit a hazard trait and/or an environmental or toxicological endpoint and 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 § 69502.2 (b))

7) Prohibits, commencing January 1, 2025, a person or entity from manufacturing, selling, delivering, holding, or offering for sale in commerce any cosmetic product that contains any of the following ingredients.

(1) Dibutyl phthalate (CAS no. 84-74-2).
(2) Diethylhexyl phthalate (CAS no. 117-81-7).
(3) Formaldehyde (CAS no. 50-00-0).
(4) Paraformaldehyde (CAS no. 30525-89-4).
(5) Methylene glycol (CAS no. 463-57-0).
(6) Quaternium-15 (CAS no. 51229-78-8).
(7) Mercury (CAS no. 7439-97-6).
(8) Isobutylparaben (CAS no. 4247-02-3).
(9) Isopropylparaben (CAS no. 4191-73-5).
(10) m-Phenylenediamine and its salts (CAS no. 108-45-2).
(11) o-Phenylenediamine and its salts (CAS no. 95-54-5).
(12) The following per- and polyfluoroalkyl substances (PFAS) and their salts:
(A) Perfluorooctane sulfonate (PFOS); heptadecafluorooctane-1-sulfonic acid (CAS no. 1763-23-1).
(B) Potassium perfluorooctanesulfonate; potassium heptadecafluorooctane-1-sulfonate (CAS no. 2795-39-3).
(C) Diethanolamine perfluorooctane sulfonate (CAS 70225-14-8).
(D) Ammonium perfluorooctane sulfonate; ammonium heptadecafluorooctanesulfonate (CAS 29081-56-9).
(E) Lithium perfluorooctane sulfonate; lithium heptadecafluorooctanesulfonate (CAS 29457-72-5).
(F) Perfluorooctanoic acid (PFOA)(CAS no. 335-67-1).
(G) Ammonium pentadecafluorooctanoate (CAS no. 3825-26-1).
(H) Nonadecafluorodecanoic acid (CAS no. 355-76-2).
(I) Ammonium nonadecafluorodecanoate (CAS no. 3108-42-7).
(J) Sodium nonadecafluorodecanoate (CAS no. 3830-45-3).
(K) Perfluorononanoic acid (PFNA) (CAS no. 375-95-1).
(L) Sodium heptadecafluorononanoate (CAS no. 21049-39-8).
(M) Ammonium perfluorononanoate (CAS no. 4149-60-4). (HSC § 108980 (a))

8) Provides that a cosmetic product shall not be in violation of the law, if the cosmetic product made through manufacturing processes intended to comply with the law contains a technically unavoidable trace quantity of an ingredient listed in HSC 108980 § (a) and that trace quantity stems from impurities of natural or synthetic ingredients, the manufacturing process, storage, or migration from packaging. (HSC § 108980 (b))

UNCODIFIED INTENT LANGUAGE:

1) Provides that it is the intent of the Legislature to enact a prohibition on the presence of intentionally added ingredients in cosmetics that is consistent with the prohibition on the presence of intentionally added ingredients in cosmetics that was enacted by the European Union (EU). (Added by AB 2762, Chapter 314, Statutes of 2020).

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author, "Personal care products and cosmetics should be non-toxic for everyone. If you consider that the European Union prohibits over 1,600 chemicals in such products, a ban in California on these noxious carcinogens and endocrine disrupters is long overdue. AB 496 continues our progress toward cleaner, healthier, and environmentally-safer products."

Public health concerns with cosmetics: Cosmetic products are sold to consumers across California, including to children who are still in the formative years of development. These products are used as part of daily beauty and cleansing routines, often times on the skin's most sensitive areas, like the face, eyelids, and lips. Cosmetic products are most heavily used by women, including those of childbearing age, increasing the likelihood of exposing mothers, fetuses, and nursing children to substances that can cause cancer and reproductive toxicity. That is why it is so important that cosmetic products are safe, properly labeled, and free of contamination.

State cosmetic regulatory requirements: California has two laws governing the safety of cosmetics. The first is the Sherman Act, which is administered by CDPH to regulate cosmetics. It broadly defines a 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.

Pursuant to the Sherman Act, any cosmetic is considered to be adulterated "if it bears or contains any poisonous or deleterious substance that may render it injurious to users." However, adulteration, in many instances, refers to tampering with a product after the manufacturer has completed its manufacturing. Selling adulterated cosmetics can lead to civil and administrative penalties, embargoes, and even bans on products.

The other law is the California's Cosmetics Act, established by SB 484 (Migden, Chapter 729, Statutes of 2005). It requires that for all cosmetic products sold in California, the manufacturer, packer, and/or distributor named on the product label shall provide CDPH a list of all cosmetic products that contain any ingredients known or suspected to cause cancer, birth defects, or other reproductive harm. CDPH maintains an active, searchable database with all of the data collected from manufacturers under the Cosmetics Act. It is required to make that data user-friendly and available to the public. To date, 867 companies have reported 119,089 products to CDPH. CDPH does not have any enforcement authority or penalty authority over the manufacturers that are covered, so not all manufacturers are currently complying and submitting their products' information. State law does not currently contain a mechanism that would allow the state to compel these manufacturers to comply.

Federal cosmetics regulatory requirements: Neither the FDA nor CDPH require premarket safety testing, review, or approval of cosmetic products.

Under the FD&C Act, cosmetics and their ingredients are not required to be approved before they are sold to the public, and the FDA does not have the authority to require manufacturers to file health and safety data on cosmetic ingredients or to order a recall of a dangerous cosmetic product.

What we know about the chemicals listed in the bill vis-à-vis the EU: The EU, which includes 27 member countries mostly across Europe, develops policies to ensure the free movement of people, goods, services, and capital within the internal market, and enacts legislation to maintain common policies to have cohesion amongst the 27 members on things from trade to agriculture.

The EU Cosmetics Directive (Directive) was adopted in 1976 and formed on the basis of commonly agreed to safety standards relative to cosmetics. On September 15, 2022, the European Commission published Regulation (EU) 2022/1531 to amend Cosmetics Regulation (EC) No. 1223/2009 for the use of certain ingredients classified as carcinogenic, mutagenic, or toxic for reproduction (CMR substances) in cosmetic products.

The EU Directive requires member states to take all necessary measures to ensure that only cosmetic products which conform to the provisions of the Directive and its Annexes can be put on the market. Additionally, the Directive requires member states to prohibit the marketing of cosmetic products containing ingredients listed in the Directive and its Annexes. The regulation defines "cosmetic product" as "any substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odors." The scope of products covered under the EU's definition of cosmetics is broader than the scope of products covered under California's definition of cosmetics.

The Directive and its Annexes cover the following cosmetic products:

- Creams, emulsions, lotions, gels and oils for the skin (hands, face, feet, etc.).
- Face masks (with the exception of peeling products).
- Tinted bases (liquids, pastes, powders).
- Make-up powders, after-bath powders, hygienic powders, etc.
- Toilet soaps, deodorant soaps, etc.
- Perfumes, toilet waters and eau de Cologne.
- Bath and shower preparations (salts, foams, oils, gels, etc.).
- Depilatories.
- Deodorants and anti-perspirants.
- Hair care products: hair tints and bleaches, products for waving, straightening and fixing, setting products, cleansing products (lotions, powders, shampoos), conditioning products (lotions, creams, oils), hairdressing products (lotions, lacquers, brilliantines).
- Shaving products (creams, foams, lotions, etc.).
- Products for making up and removing make-up from the face and the eyes.
- Products intended for application to the lips.
- Products for care of the teeth and the mouth.
- Products for nail care and make-up.
- Products for external intimate hygiene.
- Sunbathing products.
- Products for tanning without sun.

- Skin-whitening products.
- Anti-wrinkle products.

The intent of this bill is to be consistent with the approach of the EU's cosmetic regulation. All of the chemicals listed in AB 496 have been fully banned in the EU Directive and its Annexes and consequently have already been removed from cosmetic products sold in the EU.

Prior legislation: AB 2762 (Muratsuchi, Chapter, 314, Statutes of 2020) bans a list of specified ingredients from cosmetics products consistent with the EU's Annex II of regulation No 1223/2009, which lists the substances prohibited in cosmetic products sold in the EU. All of the ingredients listed in this bill have been fully banned in the EU under Annex II.

While AB 2762 was moving through the legislative process, industry stakeholders weighed in and formally opposed the bill while it was being heard in the Assembly Environmental Safety and Toxic Materials Committee. Specifically in opposition to AB 2762, the Personal Care Products Council, Fragrance Creators Association, California Chamber of Commerce, and other industry groups were oppose unless the bill was further amended. They collectively stated,

"The undersigned organizations support better alignment with the health and safety standards set forth by the European Union that prohibit the intentional use of specified ingredients which are listed in the EU Cosmetics Regulation 1223/2009, ANNEX II, List of Substances Prohibited in Cosmetic Products. In order to achieve this goal, AB 2762 needs further amendments. The authors have already publicly committed to aligning California law with the EU regulation – not anything more or less. We remain committed to achieving this goal. As such, we have submitted draft language that we believe would fully align AB 2762 with the EU regulations."

AB 496 is consistent with AB 2762 and aligns with the EU regulations along the same lines as requested during the debate of AB 2762.

Consistency with the European Union: AB 2762 included the following intent language: "It is the intent of the Legislature to enact a prohibition on the presence of intentionally added ingredients in cosmetics that is consistent with the prohibition on the presence of intentionally added ingredients in cosmetics that was enacted by the European Union." The approach in AB 496 is modeled after AB 2762 and reflects a strategy specifically requested by industry stakeholders when they were negotiating amendments to AB 2762 – aligning California's bans on cosmetic ingredients with ingredients that are also banned in the EU. California does not have a rigorous scientific process to evaluate chemical ingredients in cosmetics. Until such time that California has a process, it seems reasonable to protect California consumers in the same manner that consumers in the EU have been protected. It is important to note that the cosmetic products for sale in the EU have been reformulated to remove the ingredients banned in the Directive and therefore could also be sold in California if this bill were to pass and become law.

Should California be different than the EU? Industry representatives who negotiated AB 2762 had argued that it would be helpful to industry if California conformed its list of banned ingredients to the EU's list. In a shift from industry's previous position on AB 2762, opposition to AB 496, is now asking for one of the chemicals in the bill to be removed even though it is already banned in the EU, so that it could continue to be sold in California. If the Legislature were to agree to remove a chemical banned in the EU from the state's ban list, this would

effectively create a list in California that no longer aligns with the EU. This would arguably open the door to future conversations about additional chemicals that California would like to ban, even when these chemicals are not currently banned in the EU.

Arguments in Support: According to a coalition of supporters, including the sponsor of the bill, the Environmental Working Group:

"This important bill will add to the list of chemicals that California does not allow in cosmetics sold in the state. In particular, AB 496 prohibits the sale in California of beauty and personal care products containing any one of 26 highly toxic chemicals that pose public health harms, such as increased risk of cancer, harm to the reproductive system, and harm to aquatic life with long-lasting effects. The environmental risks of these 26 chemicals are particularly concerning because cosmetics are regularly washed off after use. Because of their toxicity, all of the AB 496-listed chemicals are prohibited from being used in cosmetics sold in the European Union.

Out of the more than 10,000 chemicals used to formulate beauty and personal care products, the United States Food and Drug Administration has only ever banned or restricted 11. In contrast, the European Union prohibits or restricts the use of nearly 1,600 chemicals including the AB 496 chemicals in cosmetics, and many other countries tightly regulate cosmetics sold to their citizens. According to CDPH's Safe Cosmetics Program, at least 88 different carcinogens and reproductive toxicants are intentionally added to thousands of cosmetic products sold in California today. Also, even after a manufacturer has reformulated a product to comply with European standards, the manufacturer often continues to sell the originally-formulated product to Californians."

Arguments in Opposition: According to the Fragrance Creators Association:

"Fragrance Creators Association (Fragrance Creators) is writing to express our opposed unless amended position on AB 496. We appreciate your goal of limiting the use of ingredients in cosmetics that pose a risk to California consumers. We would like to raise a concern regarding the proposal to prohibit the fragrance ingredient p-BMHCA (2-(tert-butylbenzyl propionaldehyde) (CAS Number: 80-54-6) commonly known as Lilial® and also known as Lily aldehyde. We must respectfully request that this ingredient be removed from the legislation, as the body of science does not show there is a risk to consumers when the ingredient is used in alignment with industry safety standards and applicable regulatory requirements.

AB 496 seeks to align cosmetic ingredient restrictions with those adopted by the European Union (EU). Unfortunately, the EU did not base their restriction on risk, but made a hazard-based decision. For over 50 years, the Research Institute for Fragrance Materials (RIFM)s purpose has been to gather and analyze scientific data, engage in testing and evaluation, distribute information, cooperate with official agencies and to encourage uniform safety standards related to the use of fragrance ingredients. According to RIFM's assessment, Lilial may be safely used in cosmetic products below certain specific concentration limits set in an IFRA Standard."

Related legislation:

1) AB 2771 (Friedman, Chapter 804, Statutes of 2022). 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).

2) AB 2762 (Muratsuchi, Chapter 314, Statutes of 2020). Prohibits, beginning January 1, 2025, the manufacture, sale, delivery, holding, or offering for sale in commerce of any cosmetic product containing specified intentionally added ingredients.

REGISTERED SUPPORT / OPPOSITION:

Support

Environmental Working Group (Sponsor)
A Voice for Choice Advocacy
Active San Gabriel Valley
Alliance of Nurses for Healthy Environments
American Bird Conservancy
As You Sow
Ban SUP (Single Use Plastic)
Booni Doon
California Nurses for Environmental Health and Justice
California Product Stewardship Council
California Health Coalition Advocacy
CALPIRG
Codex Labs Corp
Consumer Federation of California
Dietrick Institute for Applied Insect Ecology
Educate. Advocate.
Families Advocating for Chemical and Toxics Safety
Feminists in Action Los Angeles
Friends Committee on Legislation of California
Friends of The Earth
Green Science Policy Institute
Grove Collaborative
Healthy Highways
Indivisible Alta Pasadena
Indivisible California Green Team
Indivisible Ventura
Intelligent Nutrients
Jonas Philanthropies
Just the Goods
Long Beach Environmental Alliance
Moms Across America
National Association of Environmental Medicine (NAEM)
National Stewardship Action Council
Non-toxic Neighborhoods
Olita
Osea Skincare
Poison Free Malibu
Prima
Queers 4 Climate
Rooted in Resistance
San Francisco Baykeeper

Save Our Shores
Seventh Generation
So Cal 350 Climate Action
Sonoma Safe Agriculture Safe Schools
The Keep a Breast Foundation
Women for A Healthy Environment
Women's Voices for The Earth
Worksafe

Opposition

Fragrance Creators Association
Fragrance Science & Advocacy Council

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 363 (Bauer-Kahan) – As Amended March 6, 2023

SUBJECT: Pesticides: neonicotinoids for nonagricultural use: reevaluation: control measures

SUMMARY: Requires the Department of Pesticide Regulation (DPR) to issue a determination with respect to a reevaluation of neonicotinoid pesticides when used on outdoor ornamental plants, trees, and turf, and to adopt control measures for those uses that are necessary to protect pollinating insects, aquatic ecosystems, and human health. Specifically, **this bill**:

1) Defines for the purposes of the provisions of this bill, "neonicotinoid pesticide" as a pesticide containing acetamiprid, clothianidin, dinotefuran, imidacloprid, thiamethoxam, or any other chemical designated by DPR as belonging to the neonicotinoid class of chemicals.

2) Defines "cumulative impacts of exposure" as the impact of exposure to two or more neonicotinoid chemicals in the outdoor lawn or garden environment, aggregated with the impacts of exposure to any relevant neonicotinoid chemicals from sources other than lawn or garden products.

3) Requires, on or before July 1, 2024, DPR to issue a determination, taking into account the latest science, with respect to a reevaluation of neonicotinoids when used on outdoor ornamental plants, trees, and turf.

4) Requires all of the following to apply to the reevaluation:

    a) The reevaluation shall consider the impacts of neonicotinoid pesticides on pollinating insects, aquatic ecosystems, and human health; and,

    b) In performing the reevaluation, DPR shall consider the cumulative impacts of exposure, as defined, to multiple neonicotinoid pesticides unless DPR can demonstrate with substantial evidence that one or more neonicotinoid pesticides do not share a common mechanism of toxicity and do not present risk of cumulative harm.

5) Clarifies that DPR is not required to conduct a reevaluation of any use of neonicotinoid pesticides for the protection of agricultural commodities, as defined in the California Code of Regulations.

6) Requires, on or before July 1, 2026, DPR to adopt control measures for the use of neonicotinoid pesticides on outdoor ornamental plants, trees, and turf that are necessary to protect all of the following:

    a) Pollinating insects, including honeybees and native bees, taking into account all relevant routes of exposure, including exposure to contaminated pollen, nectar, soil, and water;

    b) Aquatic ecosystems, taking into account contamination of surface or ground water; and,

c) Human health, taking into account the cumulative exposure of people to neonicotinoid pesticides from all sources.

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)

10) Authorizes the director of DPR to, at any time, evaluate a registered pesticide. Authorizes the director to investigate all reported episodes and information received by the director that indicate a pesticide may have caused, or is likely to cause, a significant adverse impact, or that indicate there is an alternative that may significantly reduce an adverse environmental impact. Requires, if the director finds from the investigation that a significant adverse impact has occurred or is likely to occur or that such an alternative is available, the pesticide involved to be reevaluated. (Title 3, CCR § 6220)

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author, "Our pollinators are threatened. California beekeepers lost 41.9% of their colonies in 2021, one of the worst years on record. These pollinators are critical to California's agriculture, worth $50 billion annually. A huge body of research links adverse health impacts and the 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 on non-agricultural uses. The European Union, Maine, New Jersey, and several other states have already banned or restricted these pesticides for non-agricultural uses. It's time to catch up to the rest of the world in protecting bee and human health. AB 363 will ensure DPR moves forward with these long-overdue regulations for neonicotinoids to protect pollinator and human health."

Neonicotinoid pesticides: According to the 2018 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 increased use on 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, 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 organisims. 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 2020 article, "A critical review on the potential impacts of neonicotinoid insecticide use: current knowledge of environmental fate, toxicity, and implications for human health" in *Environmental Science: Processes and Impacts* summarizes, "Available toxicological data from animal studies indicate possible genotoxicity, cytotoxicity, impaired immune function, and reduced growth and reproductive success at low concentrations, while limited data from ecological or cross-sectional epidemiological studies have identified acute and chronic health effects ranging from acute respiratory, cardiovascular, and neurological symptoms to oxidative genetic damage and birth defects." 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 Science: Processes and Impacts* article concludes, "Due to the heavy use of neonicotinoids and potential for cumulative chronic exposure, these insecticides represent novel risks and necessitate further study to fully understand their risks to humans."

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 agricultural uses of 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.

After DPR published its Notice of Proposed Regulatory Action, a sixty-day public comment period began, and a public hearing was held on April 25, 2022. The comment period ended on April 26, 2022. DPR states that after careful evaluation of all comments received, it is proposing modifications to the rulemaking where appropriate. On October 5, 2022, DPR published a Notice of Modifications to Text of Proposed Regulations and a Notice of Addition of Documents to Rulemaking File, at which time a 15-day comment period began. The comment period ended on October 21, 2022. DPR notes that it is currently finalizing its regulation mitigating agricultural uses of neonicotinoids, which will have an anticipated effective date of January 1, 2024.

DPR's evaluation of non-agricultural uses of neonicotinoids: According to DPR, it has begun its evaluation of which non-agricultural neonicotinoid uses may have significant adverse impacts to pollinators and aquatic environments. DPR expects to determine the potential degree of risk from those uses by the end of 2023. In addition, DPR is finalizing a human health Risk Characterization Document for all registered uses of imidacloprid, which will be released for public comment later this year. DPR states that this work will inform the next steps for mitigation.

DPR estimates that in California, about 80-85% of neonicotinoid use and sales is for agricultural purposes and 15-20% is for non-agricultural purposes; however, the rates of application for neonicitinoids is likely to change as DPR's rulemaking comes into effect.

Veto message for AB 2146 (Bauer-Kahan, 2022): In September 2022, Governor Gavin Newsom vetoed AB 2146 (Bauer-Kahan, 2022), which would have prohibited the sale, possession, or use of a neonicotinoid pesticide for application to outdoor ornamental plants, trees, or turf. His veto message stated, in part, "DPR has already taken significant steps to restrict neonicotinoid uses, based on scientific review and documented uses that pose the greatest risks to pollinators and

human health. The department is finalizing regulations on the agricultural use of neonicotinoids and will begin the process of evaluating non-agricultural uses next year."

This bill: This bill would require DPR, by July 1, 2024, to issue a determination, taking into account the latest science, with respect to a reevaluation of neonicotinoids when used on outdoor ornamental plants, trees, and turf, and, by July 1, 2026, to adopt control measures for that use that are necessary to protect pollinating insects, aquatic ecosystems, and human health. The author's office states that, "this bill defers to [DPR's] regulatory process but ensures prompt and thorough evaluation of neonics in non ag settings. [DPR] has long been aware of the risks, and not taken action. This bill is a necessary step to ensure effective evaluation, as dictated by the governor." As DPR received an adverse effects disclosure that showed potentially harmful effects of a neonicotinoid to pollinators in 2008, thus initiating a reevaluation of neonicotinoid pesticides 15 years ago, this bill would set statutory deadlines to finally require a conclusion to this lengthy and overdue process.

Arguments in support: The sponsors of the bill argue,

> "While DPR acknowledges neonics' risks to pollinators and is moving to reduce their use in agriculture, it has, to date, ignored polluting lawn and garden neonic uses as well as the broader threats neonics pose to ecosystems and human health. This bill would end years of delay and require a prompt, comprehensive review of these harmful and unnecessary pesticide uses…
>
> … Overwhelming scientific evidence confirms that neonics are a leading cause of pollinator declines, but the connection is also intuitive. Neonics are extraordinarily insect-toxic and designed to permeate plants—turning their fruit, nectar, pollen, leaves, and other parts poisonous to insects. Neonics also persist in soil for years and spread easily in rain or irrigation water to pollute new soil, plants, and water supplies. Due to their widespread popularity, neonics now contaminate soil, water, and plant life over large areas of the country… This pollution is particularly evident in California. State water testing has detected neonics in the vast majority of samples statewide: 92% of samples in urban areas of Southern California; 58% in urban areas in Northern California; and 94% in agricultural areas of Southern California.
>
> Neonics may also be directly harming Californians. On any given day, roughly half of Americans have neonics in their bodies, with the highest levels found in children. And a recent study found neonics in the bodies of over 95% of 171 pregnant women tested in California and four other states. This is particularly concerning because research links neonic exposures to developmental or neurological harm in people—including malformations of the developing heart and brain and autism-like symptoms.
>
> …Documented widespread water contamination in California's urban areas shows that non-agricultural uses of neonics are a major source of neonic contamination. These "lawn and garden" uses also present a high risk of exposure for children and pets who play in these areas and contaminate water supplies in high population areas.
>
> …After over a decade of delay, the Department of Pesticide Regulation (DPR) last year proposed restrictions on neonic uses in agricultural settings to protect pollinators. But the agency did not address considerable neonic use in non-agricultural settings, nor did it

consider broader ecosystem harm or risks to human health. Last year, Governor Newsom announced that DPR would begin an evaluation of non-agricultural neonic uses in 2023.

But Californians—and disappearing bees and other wildlife—do not have another decade to wait for DPR's review. It is critical that DPR completes this evaluation quickly and considers the full scope of harms that are associated with widespread neonic use..."

Arguments in opposition: A coalition of opponents argues,

"While we appreciate the author is limiting this re-evaluation and regulatory mandate to exclude agricultural use, neonicotinoids are used for several common non-agricultural insect pest management applications in and around dwellings, including addressing bed bugs, flies, fleas, stink bugs, cockroaches, grubs, certain invasive species, and used for controlling pet (dog and cat) insect pests.

All of these applications have been evaluated by the U.S. Environmental Protection Agency (EPA) and DPR. EPA's risk assessments focus on both ecological and human health effects employing a process guided by scientific advisory panels. Under the conditions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), EPA reviews all current registrations to ensure they continue to meet the protective risk standard in light of new information and evolving science.

To further strengthen environmental, human health, and endangered species protection, federal action is accelerated by state procedures. 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 reevaluation and addressing public comments, DPR is in the process of promulgating regulations to protect pollinators where appropriate. Within that re-evaluation, "DPR did not evaluate risks to indoor uses, structural uses, and non-agricultural outdoor uses such as lawns, gardens and golf courses due to lack of pollinator exposure (i.e., not attractive to bees, no food sources for bees to feed on, lower use rates) or lack of widespread use."

...Provisions in the bill strongly suggest that negative pollinator health is unilaterally due to neonicotinoid use. However, a comprehensive report by U.S. Department of Agriculture (USDA) and the USDA National Agricultural Statistics Service (NASS) describes a broad range of issues or "stressors" negatively affecting bees, including habitat loss, parasites and diseases, lack of genetic diversity, climate change, pesticides, reduced forage options and pathogens. Data collected specific to California shows the leading stressor to honeybee colonies is overwhelmingly varroa mites. Therefore, any subsequent legislation on pollinator health should incorporate the most influential stressors.

...This coalition supports initiatives to promote pollinator health and believe its complexity calls for thoughtful, stakeholder engagement and continued research. The federal government and state of California have developed one of the most robust and protective systems for pesticide regulation and protection in the world. In short, we encourage the Legislature to allow that system to do this important work."

Previous related legislation:

1) AB 2146 (Bauer-Kahan, 2022). Would have prohibited, beginning January 1, 2024, a person from selling, possessing, or using a neonicotinoid pesticide, as defined, for application to outdoor ornamental plants, trees, or turf, except for use on, or for the protection of, an agricultural commodity. This bill was vetoed by Governor Gavin Newsom.

2) AB 567 (Bauer-Kahan, 2021). 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.

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 a neonicotinoid pesticide. This bill failed passage on the Senate floor, was granted reconsideration, but subsequently died on file.

4) AB 1789 (Williams, 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

Environment California (Co-Sponsor)
Natural Resources Defense Council (NRDC) (Co-Sponsor)
350 Bay Area
A Voice for Choice Advocacy
Active San Gabriel Valley
American Beekeeping Federation
American Bird Conservancy
California Environmental Voters
California Native Plant Society
Californians for Alternatives to Toxics
CALPIRG, California Public Interest Research Group
Center for Biological Diversity
Center for Food Safety; the
Clean Earth 4 Kids
Clean Water Action
Cleanearth4kids.org
Environmental Health Trust
Environmental Working Group (EWG)
Families Advocating for Chemical and Toxics Safety
Friends of The Earth
GMO Science
Indivisible California Green Team
Jonas Philanthropies
Non-toxic Neighborhoods

Parents for A Safer Environment
Pollinator Stewardship Council, Inc.
Rooted in Resistance
Sierra Club California

Opposition

American Pistachio Growers
California Association of Pest Control Advisers
California Chamber of Commerce
California Citrus Mutual
California Cotton Ginners and Growers Association
California Fresh Fruit Association
California Seed Association
California Strawberry Commission
California Tomato Growers Association
California Walnut Commission
Household and Commercial Products Association
Pacific Seed Association
Plant California Alliance
Western Agricultural Processors Association
Western Plant Health Association

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 652 (Lee) – As Amended March 6, 2023

SUBJECT: Department of Pesticide Regulation Environmental Justice Advisory Committee

SUMMARY: Establishes a Department of Pesticide Regulation Environmental Justice Advisory Committee (EJ Advisory Committee) to integrate environmental justice considerations into the Department of Pesticide Regulation's (DPR's) programs, policies, decision making, and activities. Specifically, **this bill**:

1) Requires DPR to convene an EJ Advisory Committee by January 1, 2025.

2) Requires the EJ Advisory Committee to be composed of up to 15 members, including the following:
   a) At least three environmental justice leaders who represent rural and urban communities with the most significant exposure to pesticides;
   b) At least three representatives of Native American, tribal, or indigenous groups;
   c) At least two farmworker advocates;
   d) Up to two people with expertise in issues affecting socially disadvantaged farmers or ranchers; and,
   e) Up to two agroecologists or biologists with an environmental justice background.

3) Requires that the EJ Advisory Committee members represent communities in the central coast, central valley, and southern and northern California.

4) Requires DPR to appoint the EJ Advisory Committee members from nominations received from environmental justice organizations and community groups through an open, public process. Specifies that after the initial establishment of the EJ Advisory Committee, future committee members shall be selected through a majority vote of existing committee members at a noticed public meeting of the EJ Advisory Committee.

5) Requires the EJ Advisory Committee to formally review the activities and programs under the jurisdiction of DPR, and to provide recommendations to DPR on ways to integrate environmental justice considerations into DPR's programs, policies, decision making, and activities, and on how DPR can improve its communication with communities with the most significant exposure to pesticides.

6) Authorizes a reasonable per diem allowance for the EJ Advisory Committee members for each day's attendance at a noticed meeting of the EJ Advisory Committee.

7) Authorizes reimbursement to the members of the EJ Advisory Committee for actual and necessary travel expenses incurred in connection with their official duties.

8) Requires that EJ Advisory Committee members and DPR's Assistant Director for Environmental Justice and Equity cofacilitate EJ Advisory Committee meetings.

9) Requires that the EJ Advisory Committee hold, at a minimum, quarterly public meetings, of which three per year are held in communities with high pesticide use. Requires that members of the EJ Advisory Committee are provided with a remote call-in option, and that language access is available to EJ Advisory Committee members and the public.

10) Requires the EJ Advisory Committee to periodically post, on DPR's internet website, its recommendations for DPR.

11) Requires DPR to periodically post, on its internet website, an update on its efforts to incorporate the recommendations of the EJ Advisory Committee.

EXISTING LAW:

1) Authorizes the state's pesticide regulatory program and mandates DPR to, among other things, provide for the proper, safe, and efficient use of pesticides 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 pesticides. (Food and Agriculture Code (FAC) § 11401, et seq.)

2) Defines "environmental justice" as the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. (Government Code (GC) § 65040.12 (e)(1) and Pubic Resources Code (PRC) § 30107.3 (a))

3) Specifies that "environmental justice" includes, but is not limited to, all of the following:
   a) The availability of a healthy environment for all people;
   b) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities;
   c) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decisionmaking process; and,
   d) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions. (GC § 65040.12 (e)(2) and PRC § 30107.3 (b)).

4) Defines "socially disadvantaged farmer or rancher" as a farmer or rancher who is a member of a socially disadvantaged group, which is further defined as a group whose members have been subjected to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities. Specifies that these groups include all of the following: African Americans; Native Indians; Alaskan Natives; Hispanics; Asian Americans; Native Hawaiians; and, Pacific Islanders. (FAC § 512)

5) Requires the California Environmental Protection Agency (CalEPA), in designing its mission for programs, policies, and standards, to do all of the following:
   a) Conduct its programs, policies, and activities that substantially affect human health or the environment in a manner that ensures the fair treatment of people of all races, cultures,

and income levels, including minority populations and low-income populations of the state;

b) Promote enforcement of all health and environmental statutes within its jurisdiction in a manner that ensures the fair treatment of people of all races, cultures, and income levels, including minority populations and low-income populations in the state;
c) Ensure greater public participation in the agency's development, adoption, and implementation of environmental regulations and policies; and,
d) Improve research and data collection for programs within the agency relating to the health of, and environment of, people of all races, cultures, and income levels, including minority populations and low-income populations of the state. (PRC § 71110)

6) Requires, on or before January 1, 2002, the Secretary for Environmental Protection to convene a Working Group on Environmental Justice to assist CalEPA in developing, on or before July 1, 2002, an agencywide strategy for identifying and addressing any gaps in existing programs, policies, or activities that may impede the achievement of environmental justice. (PRC § 71113)

7) Requires the Secretary for Environmental Protection to, on or before January 1, 2002, convene an advisory group to assist the Working Group on Environmental Justice by providing recommendations and information to, and serving as a resource for, the working group. (PRC § 71114)

8) Requires the Secretary for Environmental Protection to, not later than January 1, 2004, and every three years thereafter, prepare and submit to the Governor and the Legislature a report on the implementation of the CalEPA environmental justice strategy. (PRC § 71115)

9) Requires the California Air Resources Board (CARB), by July 1, 2007, to convene an environmental justice advisory committee, of at least three members, to advise it in developing the carbon neutrality scoping plan pursuant to AB 32, the California Global Warming Solutions Act of 2006 (Núñez, Chapter 488, Statues of 2006), and any other matters pertinent in implementing AB 32.
   a) Requires that the advisory committee be comprised of representatives from communities in the state with the most significant exposure to air pollution, including, but not limited to, communities with minority populations or low-income populations, or both;
   b) Requires CARB to appoint the advisory committee members from nominations received from environmental justice organizations and community groups; and,
   c) Requires CARB to provide reasonable per diem for attendance at advisory committee meetings by advisory committee members from nonprofit organizations. (Health and Safety Code § 38591)

10) Requires the DPR director to establish a pest management advisory committee to assist DPR in identifying, facilitating, and promoting environmentally sound pest management practices and pest management systems. (FAC § 12536)

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author, "Pesticide exposure has been linked to both acute and chronic human health impacts, including an increased risk of certain cancers, neurodevelopmental toxicity, birth defects, respiratory illness, endocrine disruption, and reproductive harm. Studies show that Black, Indigenous, and People of Color, as well as people living in low-income communities, are disproportionately exposed to pesticides. Yet these same people have historically not had, and still don't have, the opportunity to provide meaningful input into the laws and policies regulating pesticides that directly impact them. AB 652 takes an important step in rectifying this issue by establishing a DPR Environmental Justice Advisory Committee charged with integrating environmental justice considerations into DPR's programs, policies, decision-making, and activities. The DPR Environmental Justice Advisory Committee will provide an ongoing, formal, public forum for the meaningful involvement of environmental justice community members in pesticide issues impacting their communities. The ultimate goal of the DPR Environmental Justice Advisory Committee created by AB 652 is to improve the environment and public health in communities disproportionately burdened by the harms and risks of pesticide use."

Pesticides: Pesticides are substances that are used to prevent, destroy, or repel damage-causing pests. Pests are living organisms that can cause harm to humans in respect to food competition, destruction of property, and the spread of disease. Pests include insects, rodents, microbes, fungi, and weeds; therefore, pesticides include insecticides, rodenticides, bactericides, fungicides, and herbicides. While pesticides are designed to eliminate or mitigate damage from pests, pesticides can also pose risks to people.

Exposure to pesticides: According to *Emerging Contaminants* (Nuro, 2020), people are exposed to pesticides either actively through occupational exposure or passively through non-occupational exposure. Pesticide occupational exposure may occur during the manufacturing, transportation, and sale of pesticides, and when pesticides are applied for agricultural, public health, and structural pest control purposes. Parents working in agricultural settings, especially, may take pesticide-contaminated clothing and equipment home, which has been associated with the development of cancers in their children.

Non-occupational exposure includes pesticide residue ingestion through contaminated food or water, or inhalation of pesticide droplets from the air from pesticide drift from the point of release or fumigation. People are also exposed to pesticides through residual indoor sprays, indoor and outdoor fogging, and structural pest control. Additionally, treatment of ectoparasites in pets, e.g. fleas, is a source of exposure, especially for children. Children are generally more susceptible to the impacts of pesticides due to their physical makeup, behavior, and physiology, and exposure to very low levels of pesticides at certain developmental stages can cause adverse health effects.

Health risks due to pesticide exposure: As *Emerging Contaminants* summarizes, pesticide exposure has been linked to the elevated incidence of human diseases such as cancers, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, asthma, bronchitis, infertility, birth defects, attention deficit hyperactivity disorder (ADHD), autism, diabetes, obesity, respiratory diseases, organ diseases, and system failures. People who are exposed to pesticides are at a greater risk to develop various cancers including non-Hodgkin lymphoma, leukemia, brain tumors, and cancers of the breast, prostate, lung, stomach, colon, liver, and bladder. The sponsors note that children exposed to pesticides either in utero or during other

critical periods of development may have lower IQs, birth defects, and developmental delays, and face higher risk of autism spectrum disorder, ADHD, and cancer.

Emerging Contaminants describes that pesticides can also cause genetic and epigenetic changes by impacting various processes at cellular levels. Pesticides may be involved in endocrine disruption and induction of inflammatory signals that result in the production of reactive oxygen species (ROS) causing oxidative stress. ROS disrupt the cellular functions of mitochondria and endoplasmic reticulum.

Disproportionate burden of pesticide exposure: According to the 2022 *BMC Public Health* article, "Pesticides and environmental injustice in the USA: root causes, current regulatory reinforcement and a path forward," "Many environmental pollutants are known to have disproportionate effects on Black, Indigenous, and People of Color (BIPOC), as well as on communities of low-income and wealth. The reasons for these disproportionate effects are complex and involve hundreds of years of systematic oppression kept in place through structural racism and classism in the United States… Disparities in exposures and harms from pesticides are widespread, impacting BIPOC and low-income communities in both rural and urban settings and occurring throughout the entire lifecycle of the pesticide from production to end-use… This is not simply a pesticides issue, but a broader public health and civil rights issue."

The *BMC Public Health* article describes a 2015 study by CalEPA researchers that found that environmental health hazards disproportionately burden communities of color in California, and that pesticide use was the pollution burden that showed the greatest racial, ethnic, and income disparities in the state – disproportionately imposing more of a hazard than multiple air pollutants and other toxic releases. The authors of the study found that more than 95% of all pesticide use in the state occurs in the 60% of California zip codes that have the highest proportion of residents of color. It should be noted that the authors of the study found that no pollution indicators disproportionately burdened people in high percentage white or wealthy zip codes.

The *BMC Public Health* article cites other studies illustrating disproportionate pesticide exposure burden in California. For example, one study found that over half of the glyphosate used in California was applied in the state's eight most impoverished counties, where 53% of residents identified as Hispanic or Latinx compared to the state average of 38%. Another study found that in 2019, more than eight million pounds of pesticides linked to childhood cancers were used in the eleven California counties that had a majority Latinx population (>50%), resulting in 4.2 pounds of these pesticides used per person. This contrasts sharply with the 770,000 pounds of these same pesticides used in the 25 California counties with the fewest Latinx residents (<24%), resulting in 0.35 pounds of these pesticides used per person. Both groups of counties in that study have comparable land area and population sizes.

In addition to agricultural applications of pesticides, where residents can be exposed both at their workplaces and in their homes, BIPOC and people living in low-income communities are disproportionally impacted by pesticides in other ways. For one, it is well-established that the manufacturing, storage, and waste of chemicals such as pesticides affect BIPOC and impoverished communities more than the general population. The *BMC Public Health* article reports that California and many Southern states harbor the highest number of pesticide manufacturing facilities in predominantly BIPOC neighborhoods, averaging a 63% BIPOC population within one mile of a facility compared to a 40% and 38% national and relevant state

average, respectively. Additionally, low income communities tend to have housing structures that are deteriorating due to lack of resources and investment. This issue, coupled with often crowded living conditions in public or low-income housing, often leads to the heavy use of pesticides as a short-term fix for chronic pest problems in low income areas.

Children and disproportional exposure to pesticides: BIPOC children in California are especially at risk of being disproportionally impacted by pesticide exposure. The *BMC Public Health* article describes that in California, almost three out of every four children with the highest potential for exposure to pesticides at school were non-Anglo. An analysis of 15 agricultural counties in California found that children identifying as Hispanic were 46% more likely than white children to go to school within a quarter mile of locations where pesticides of human health concern were used. Hispanic children were also 91% more likely than white children to attend school where the highest amount of pesticides of human health concern were used nearby. Pesticide exposure in children is particularly concerning because children are more susceptible to the effects of pesticides because they are still developing. With children of color more likely to be exposed to pesticides, they are not only more susceptible, but more vulnerable to pesticidal harm. Children of color are therefore the most vulnerable of any vulnerable population subgroup and will often be the most at-risk population.

The *BMC Public Health* article concludes that altogether, the available literature and data suggest that BIPOC and people living in poverty are generally exposed to higher levels of pesticides than the total population at large. This presents a serious environmental justice issue that must be addressed.

Environmental justice: According to the US EPA, "Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys… the same degree of protection from environmental and health hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, and work."

Meaningful involvement, as related to environmental justice, means that, "People have an opportunity to participate in decisions about activities that may affect their environment and/or health; the public's contribution can influence the regulatory agency's decision; community concerns will be considered in the decision making process; and, decision makers will seek out and facilitate the involvement of those potentially affected."

Establishment of an environmental justice framework in California: According to the California Department of Resources Recycling and Recovery (CalRecycle), California became the first state in the nation to put environmental justice considerations into law when Governor Gray Davis signed SB 115 (Solis, Chapter 690, Statutes of 1999). The bill provided the procedural framework for environmental justice in California and directed CalEPA to conduct its programs, policies, and activities with consideration to environmental justice principles. It also defined environmental justice in the state to mean, "the fair treatment and meaningful involvement of people of all races, cultures, incomes and national origins with respect to the development, adoption, implementation and enforcement of environmental laws, regulations, and policies." SB 89 (Escutia, Chapter 728, Statutes of 2000) was enacted shortly after SB 115, and called for a strategic path to advance environmental justice. It required CalEPA to establish an interagency Working Group on Environmental Justice to assist in developing a strategy for identifying and

addressing gaps in existing programs, policies, or activities that may hinder the achievement of environmental justice in the state. While some of the statutory requirements of these early bills have expired, they, and others, establish long-term legislative intent for a robust environmental justice program throughout CalEPA's boards, departments, and office.

CalEPA's Environmental Justice Task Force: Established in 2013 by CalEPA Secretary Matthew Rodriquez, the Environmental Justice Task Force (Task Force) seeks to facilitate the use of environmental justice considerations in compliance and enforcement programs and enhance communications with community members to maximize benefits in disproportionately impacted areas. CalEPA received consistent feedback from environmental justice stakeholders across the state in 2021 and 2022 regarding the need for enforcement engagement that is more transparent, solution-oriented, responsive to community needs, and sustained. To begin meeting these needs, the Task Force is enhancing engagement with existing, community-led forums that focus on compliance and enforcement of environmental laws, including pesticide laws, in five pilot communities.

DPR's current environmental justice activities: In 2019, pursuant to the provisions required in PRC § 71115, CalEPA published its *2016 – 2018 Environmental Justice Program Update* to describe significant programmatic efforts undertaken by CalEPA and its boards, departments, and office, including DPR, to address environmental injustice. The report describes DPR's actions taken to implement environmental justice principles including developing notification requirements for pesticide applications around schools and licensed day care centers; beginning the process to transition away from some of the state's more harmful pesticide products; hiring a full-time bilingual and bicultural Environmental Justice Liaison; working with childcare providers to enhance awareness around integrated pest management practices; providing multilingual outreach and education on pesticide safety to farmworker communities and urban workers who may be exposed to pesticides, like gardeners and golf course workers; creating a sanitizer awareness outreach project aimed at restaurant workers; holding a DPR Environmental Justice Pesticide Enforcement Workshop; and, hiring bilingual staff. DPR's website lists the October 12 and 13, 2022, "Tulare County Pesticide Educational Pesticide Workshops," held jointly with the Tulare County Agricultural Commissioner's Office, as a description of its recent environmental justice activities.

With a long established legislative mandate to address environmental injustice our state, CalEPA, and DPR have taken steps to address environmental justice considerations in the enforcement of environmental laws; provided outreach and trainings to disadvantaged communities; and, hired an Environmental Justice Liaison at DPR. These are all positive steps in the right direction toward rectifying the historic issue of disproportionate pesticide exposure in BIPOC and low income communities. However, none of these actions establish a public, ongoing process to systematically review and address BIPOC's and low income communities' disproportionate exposure to pesticides or to establish a public, ongoing process for the meaningful consideration of input from people in these communities on pesticide-related activities. According to CalEPA, "Community leaders in the environmental justice movement work to meaningfully include communities disproportionately impacted by pollution in decision-making processes," but despite decades of these efforts, the concerns of environmental justice communities are inadequately considered during decision making processes, and these communities are inequitably protected.

This bill: AB 652 establishes, in statute, a DPR EJ Advisory Committee to require the public consideration of environmental justice community members' recommendations regarding DPR's actions and to integrate environmental justice considerations into DPR's programs, policies, decision making, and activities. The EJ Advisory Committee will be composed of members from across the state, and will include environmental justice leaders who represent rural and urban communities with the most significant exposure to pesticides; representatives of Native American, tribal, or indigenous groups; farmworker advocates; people with expertise in issues affecting socially disadvantaged farmers or ranchers; and, agroecologists or biologists with an environmental justice background. EJ Advisory Committee members will be appointed from nominations received from environmental justice organizations and community groups through an open, public process.

Under the bill, the EJ Advisory Committee will formally review the activities and programs under the jurisdiction of DPR, and will publically provide recommendations to DPR on ways to integrate environmental justice considerations into DPR's programs, policies, decision making, and activities, and recommendations on how DPR can improve its communication with communities with the most significant exposure to pesticides. The bill requires DPR to then post, on its internet website, an update on its efforts to incorporate the recommendations of the EJ Advisory Committee. In these ways, AB 652 will establish an ongoing, public forum for meaningful consideration of input from people disproportionately impacted by pesticides.

CARB EJ Advisory Committee: The DPR EJ Advisory Committee established by AB 652 is modeled after the CARB EJ Advisory Committee, established in 2006, by the California Global Warming Solutions Act of 2006 (AB 32, Núñez, Chapter 488, Statues of 2006). AB 32 requires the CARB EJ Advisory Committee to advise CARB in developing the carbon neutrality scoping plan and any other pertinent matters in implementing AB 32. Under AB 32, the EJ Advisory Committee must be comprised of representatives from communities in the state with the most significant exposure to air pollution, including, but not limited to, communities with minority populations or low-income populations, or both. Committee meetings are open to the public and include a public comment period. There are currently 13 members of the CARB EJ Advisory Committee.

This bill: Similar to the CARB EJ Advisory Committee established by AB 32, the goal of the DPR EJ Advisory Committee established by AB 652 is to institute a formal, public, ongoing, accessible, and institutionalized process by which people in BIPOC and low income communities can meaningfully participate in decision making processes addressing environmental pollution that disproportionately burdens them. Ultimately, the bill seeks to improve the environment and public health in communities disproportionately burdened by the harms and risks of pesticides.

CalEPA states that, "Institutionalizing [environmental justice] and equity is critical to serving the State of California's most vulnerable and pollution-burdened communities.... Legislation plays a vital role in institutionalizing [environmental justice] and equity." AB 652 will do just that in regards to pesticide exposure.

Arguments in support: A coalition of supporters argues, "Despite the known environmental injustices of pesticide exposure in California, DPR is not publicly accountable to the communities most affected by its decisions. The establishment of an Environmental Justice Advisory Committee would increase transparency and accountability to these communities...

The pesticide application rate on California cropland is about 4.5 times the national average. Exposure to pesticides is linked to acute poisoning and chronic diseases, such as cancer, respiratory disease and developmental disorders in children. There are significant racial disparities in exposure to pesticides and associated health impacts. Research by the California Environmental Protection Agency found that pesticides are one of the top two pollutants in California whose impacts are most correlated with race and ethnicity. Farmworkers and their families in particular experience high rates of exposure to pesticides because of working and living near pesticide applications, lack of protection at work, low quality housing, and lack of access to supplies needed to clean work clothes. In California, more than 90% of farmworkers are from Mexico and about 75 percent are undocumented…

There is currently no formalized, public, or consistent way for environmental justice communities to provide feedback or recommendations to DPR, despite the fact that they bear the brunt of pesticide-related health impacts. And DPR rarely addresses the concerns of environmental justice communities in their regulations and activities, often adopting industrial agriculture's recommendations instead. There is also a continuous, revolving door between DPR leadership and the chemical and agribusiness industry, with many past DPR directors and deputy-directors leaving their roles to accept jobs with industry. For instance, the last director is now employed by pesticide manufacturer Syngenta, and the director from 2004-2011 left for a role at Clorox…

An Environmental Justice Advisory Committee at DPR would create more transparency and accountability to environmental justice communities and require DPR to integrate environmental justice into its decision-making…. . This would be an important first step in centering environmental justice in the Department's activities and decisions."

Arguments in opposition: A coalition of opponents argues, "We fully respect and appreciate that marginalized groups and environmental justice (EJ) concerns have not, historically, been tended to by state agencies and departments with the care and attention deserved. To remedy these historical injustices the Administration and California Environmental Protection Agency (CalEPA), and DPR specifically, have meaningfully engaged with the communities and their representatives, incorporating them into decision making processes and outreach… DPR formally interacts with community-based organizations, California residents, and address EJ concerns with unprecedented access and opportunities for discussion. Given the broad array of activities implemented, we believe the necessity for an advisory committee, as proposed in AB 652, is without merit…

Beyond the provisions of AB 652 being redundant, this coalition is concerned that the establishment of a special interest advisory committee will set the precedent for future advisory committees representing various stakeholders that interact with DPR…This trend would only further financially constrain DPR and lead to administrative burdens that could complicate DPR's decision making.

…AB 652 requires DPR to provide reimbursement costs and per diem to advisory committee members for their participation… Because over 90% of DPR's budget is derived from special funds and without an identified alternative fund source in the bill, this is an inappropriate cost incurred by those stakeholders that predominantly financially support DPR. As DPR experiences a budgetary structural imbalance and the Administration is potentially considering

investment strategies, it's inappropriate to add an additional cost burden on DPR and by extension, its rate payers…

…Finally, the membership of the proposed advisory committee in AB 652 is cause for concern… This prescribed membership is nearly exclusive to agricultural pesticide use. This does not reflect the reality that agricultural uses only comprise approximately 50% of pesticide sales. In that sense, the committee membership, as contemplated in AB 652, disproportionately impacts (or focuses on) agricultural uses. Therefore, the membership identified in AB 652 is inadequate to address the broad array of EJ interactions with pesticides in California."

Previous related legislation:

1) AB 649 (Bennett, Chapter 492, Statutes of 2022). Establishes the Office of Environmental Justice and Tribal Relations within CalRecycle and prescribes the duties of the office, including, among others, ensuring that CalRecycle's programs effectively address the needs of disadvantaged communities, low-income communities, California Native American tribes, and farmworkers.

2) AB 32 (Núñez, Chapter 488, Statues of 2006). Establishes the California Global Warming Solutions Act of 2006 and requires CARB, by July 1, 2007, to convene an environmental justice advisory committee to advise it in developing the carbon neutrality scoping plan and any other matters pertinent in implementing the provisions of the bill.

3) SB 89 (Escutia, Chapter 728, Statutes of 2000). Requires CalEPA to establish a Working Group on Environmental Justice to assist in developing a strategy for identifying and addressing gaps in existing programs, policies, or activities that may hinder the achievement of environmental justice in the state. Requires the CalEPA secretary to convene an advisory committee to assist the working group by providing recommendations and information to, and serving as a resource for, the working group.

4) SB 115 (Solis, Chapter 690, Statutes of 1999). Defines environmental justice and requires CalEPA to conduct its programs, policies, and activities with consideration to environmental justice and to develop a model environmental justice mission statement for boards, departments, and offices within the agency, by January 1, 2001.

REGISTERED SUPPORT / OPPOSITION:

Support

Active San Gabriel Valley
Agricultural Institute of Marin
American Bird Conservancy
Ban Sup (Single Use Plastic)
Bay Area-System Change Not Climate Change
California Certified Organic Farmers (CCOF)
California Environmental Voters
California Food and Farming Network
California Institute for Biodiversity
California Interfaith Power & Light
California Nurses for Environmental Health and Justice

California Rural Legal Assistance Foundation (CRLA Foundation)
Californians for Pesticide Reform
Campesinas Unidas Del Valle De San Joaquin
Carbon Cycle Institute
Center for Biological Diversity
Center for Farmworker Families
Center for Food Safety; the
Center on Race, Poverty & the Environment
Central California Environmental Justice Network
Centro Binacional Para El Desarrollo Indígena Oaxaqueno
Ceres Community Project
Children Now
Clean Water Action
Cleanearth4kids.org
Coalition Advocating for Pesticide Safety
Community Water Center
Dietrick Institute for Applied Insect Ecology
DSA Santa Cruz Ecosocialists
Environmental Protection Information Center
Environmental Working Group (EWG)
Friends Committee on Legislation of California
Friends of The Earth
Health Care Without Harm
Jonas Philanthropies
Klamath Forest Alliance
Latino Coalition for A Healthy California
League of United Latin American Citizens (LULAC) of Salinas Council 2055
Monterey Bay Central Labor Council, (AFL-CIO)
Natural Resources Defense Council (NRDC)
North Bay Jobs With Justice
Northcoast Environmental Center
Pajaro Valley Federation of Teachers
Pesticide Action Network North America
Physicians for Social Responsibility - Los Angeles
Poison Free Malibu
Roots of Change
Safe Ag Safe Schools
San Francisco Bay Physicians for Social Responsibility
Sierra Club California
Sonoma County Climate Activist Network (SOCOCAN!)
Sonoma Safe Agriculture Safe Schools
The United Food and Commercial Workers Western States Council
United Food and Commercial Workers, Western States Council
West Berkeley Alliance for Clean Air and Safe Jobs

Opposition

African American Farmers of California
Agricultural Council of California

American Chemistry Council
American Pistachio Growers
California Agricultural Aircraft Association
California Apple Commission
California Association of Pest Control Advisers
California Association of Wheat Growers
California Bean Shippers Association
California Blueberry Association
California Blueberry Commission
California Chamber of Commerce
California Cotton Ginners and Growers Association
California Fresh Fruit Association
California Pear Grower Association
California Seed Association
California Strawberry Commission
California Walnut Commission
Far West Equipment Dealers Association
Grower-shipper Association of Central California
Nisei Farmers League
Olive Growers Council of California
The Consolidated Central Valley Table Grape Pest and Disease Control District
Western Agricultural Processors Association
Western Growers Association
Western Plant Health Association

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 664 (Lee) – As Introduced February 9, 2023

SUBJECT: California Safe Drinking Water Act: domestic wells

SUMMARY: Requires a domestic well owner within a consolidation or extended service area to ensure that tenants of rental properties served solely by their wells have access to safe drinking water, if the domestic well owner does not provide written consent to the consolidation or extension of service.

EXISTING LAW:

1) Declares that it is the established 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)

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

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

4) Defines "domestic well" as a groundwater well used to supply water for the domestic needs of an individual residence or a water system that is not a public water system and that has no more than four service connections. (HSC § 116681(g))

5) Authorizes the State Water Board to order consolidation with a receiving water system in the following circumstances: (HSC § 116682(a))

   a) A public water system or a state small water system serving a disadvantaged community consistently fails to provide an adequate supply of safe drinking water, or is an at-risk water system; or,

   b) A disadvantaged community, in whole or in part, is substantially reliant on domestic wells that consistently fail to provide an adequate supply of safe drinking water, or are at-risk domestic wells.

6) Authorizes the State Water Board to order an extension of service to an area within a disadvantaged community that does not have access to an adequate supply of safe drinking water, as long as the extension of service is an interim solution in preparation for consolidation. (HSC § 116682(a))

7) Defines "subsumed water system" to mean a public water system, state small water system, or affected residences served by domestic wells consolidated into or receiving service from the receiving water system. (HSC § 116681)

8) Requires the State Water Board, before ordering consolidation or extension of service, to perform a series of activities, including encouraging voluntary consolidation or extension of service; considering other enforcement remedies; considering the affordability of anticipated monthly rates for drinking water service to residential customers of the potentially subsumed water system; providing technical assistance and working with the potentially receiving and subsumed water systems to develop a financing package that benefits them both; and, providing the opportunity for public comment, with advance notice for public meetings provided to multiple stakeholders, including renters and property owners. (HSC § 116682(b))

9) Requires the State Water Board, before ordering consolidation or extension of service, to make seven findings, including that the potentially subsumed water system has consistently failed to provide an adequate supply of safe drinking water or is at risk of doing so; that reasonable efforts to negotiate consolidation or extension of service were made; and, that consolidation or extension of service is appropriate and technically and economically feasible. (HSC § 116682(d))

10) Requires the State Water Board, upon ordering consolidation or extension of service, to provide appropriate financial assistance for the water infrastructure needed for the consolidation or extension of service. (HSC § 116682(e)(1))

11) Requires the State Water Board, upon ordering consolidation or extension of service, to adequately compensate the owners of a privately owned subsumed water system for the fair market value of the system, as determined by the California Public Utilities Commission or the State Water Board. (HSC § 116682(e)(3))

12) Requires the State Water Board, upon ordering consolidation or extension of service to a community containing residences served by domestic wells, to promptly take all reasonable steps to obtain written consent to the consolidation or extension of service from an owner of each residence served by a domestic well. (HSC § 116682(e)(6))

13) Prohibits the State Water Board from requiring consolidation or extension of service to a residence served solely by a domestic well until an owner of the affected residence provides written consent; specifies that any domestic well owner within the consolidation or extension of service area that does not provide written consent will be ineligible, until consent is provided, for any future water-related grant funding from the state, other than funding to mitigate a well failure, disaster, or other emergency. (HSC § 116682(j))

14) Requires, by January 1, 2021, the State Water Board, in consultation with local health officers and other relevant stakeholders, to use available data to make a map of aquifers that are at high risk of containing contaminants that exceed safe drinking water standards, and that are used or likely to be used as a source of drinking water by a state small water system or a domestic well. (HSC § 116772(a)(1))

15) Requires that a finding that a disadvantaged community, in whole or in part, is substantially reliant on at-risk domestic wells be based on maps, created pursuant to HSC § 116772(a)(1), and inspection or testing of the wells showing an imminent risk of failing to provide an adequate supply of safe drinking water. (HSC § 116682(k))

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author:

"The Human Right to Water Law represents landmark legislation, but implementing its vision remains a work in progress. Disadvantaged communities are more likely to rely on smaller, older, and poorly maintained water systems or domestic wells, which may contain contaminants associated with a broad range of health issues, including gastrointestinal illness, cancer, developmental and reproductive effects, neurological symptoms, and organ damage.

Through consolidation, the state can offer resources—both funding and technical assistance—to domestic well owners in disadvantaged communities, to help them provide safe drinking water. However, state law does not require domestic well owners to participate in consolidation projects, nor does it require landlords to ensure their tenants have access to safe drinking water. As a result, renters living in disadvantaged communities reliant on domestic wells face the risk of continued exposure to contaminated drinking water, with little recourse, when well owners do not consent to testing or willfully decline consolidation without holding themselves accountable for ensuring their wells provide safe drinking water. In cases where well owners do not consent to consolidation, AB 664 will require that domestic well owners ensure that they are providing safe drinking water to any renters who rely solely on their wells."

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

Drinking water contamination: While most drinking water in California meets requirements for health and safety, surface waters and aquifers used for drinking water can be contaminated by various chemicals, microbes, and radionuclides. According to the US EPA, common sources of drinking water contaminants include:

- *Industry and agriculture*. Organic solvents, petroleum products, and heavy metals from disposal sites or storage facilities can migrate into aquifers. Pesticides and fertilizers can be carried into lakes and streams by rainfall runoff or snowmelt, or can percolate into aquifers.
- *Human and animal waste*. Human wastes from sewage and septic systems can carry harmful microbes into drinking water sources, as can wastes from animal feedlots and wildlife. Major contaminants resulting from human and animal waste include Giardia, Cryptosporidium, and *E. coli.*
- *Treatment and distribution*. While treatment can remove many contaminants, it can also leave behind byproducts (such as trihalomethanes) that may themselves be harmful. Water

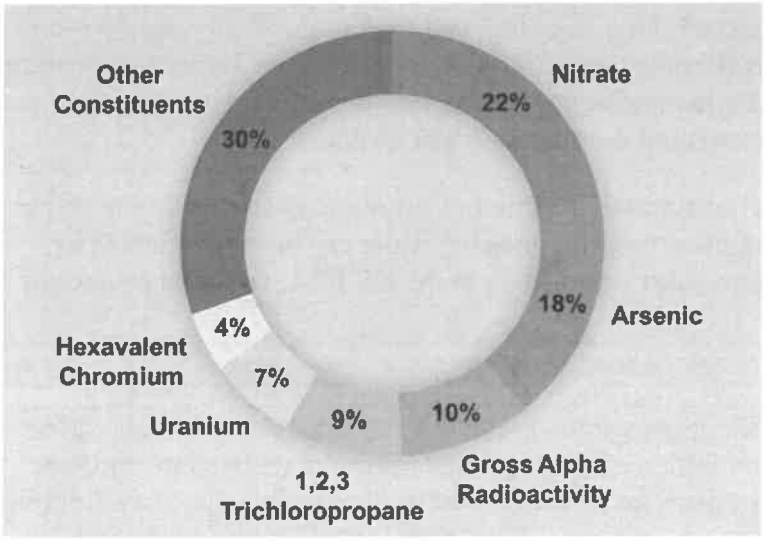
can also become contaminated after it enters the distribution system, from a breach in the piping system or from corrosion of plumbing materials made from lead or copper.

- *Natural sources*. Some ground water is unsuitable or challenging to use for drinking because the local underground conditions include high levels of certain contaminants. For example, as ground water travels through rock and soil, it can pick up naturally occurring arsenic, other heavy metals, or radionuclides.

Health effects of drinking water contaminants: The US EPA reports that there is a broad range of health effects associated with exposure to drinking water contaminants. Ingestion or exposure to pathogens at sufficient doses can result in gastrointestinal illness with symptoms such as diarrhea, nausea, stomach cramps, and vomiting. Exposure to higher doses of chemicals, metals, or radionuclides through drinking water can produce biological responses, toxicological effects, and more severe health impacts including cancer, developmental or reproductive effects, neurological changes, and organ damage.

Domestic wells and inequitable access to safe drinking water: State law defines a "domestic well" as a groundwater well used to supply water for the domestic needs of an individual residence, or a water system that is not a public water system and has no more than four service connections. According to the State Water Board, domestic wells are typically used by single family homeowners for private use and consumption.

According to the Office of the Environmental Health Hazard Assessment, disadvantaged communities and people in rural areas are exposed to contaminants in their drinking water more often than people in other parts of the state. The State Water Board notes that one million Californians lack access to water that is reliably safe for drinking, and that smaller, older, poorly maintained private wells serving disadvantaged communities around the state can contain contaminants. In its 2022 Drinking Water Needs Assessment, the State Water Board reports that across the state, an estimated 33 percent of domestic wells are located in disadvantaged or severely disadvantaged communities, and 43 percent of wells in these communities are identified as at-risk, or located in areas where groundwater is at high risk of containing contaminants that exceed safe drinking water standards. The adjacent figure shows the proportion of at-risk domestic wells that may exceed drinking water standards for specific contaminants. In addition, a study published in the *American Journal of Public Health* (Pace et al., 2022) noted critical environmental justice concerns relating to domestic well use. After examining statewide well and sociodemographic data, the authors concluded that "poor water quality disproportionately impacts communities of color in California, with the highest estimated arsenic, nitrate, and [hexavalent chromium] concentrations in areas of domestic well use."



In a 2015 guide for domestic well owners, the State Water Board advises owners, in the event test results show a chemical above the maximum contaminant level, to use an alternate drinking water source and consider remediation options. Examples of domestic well treatment systems include activated alumina filters, activated charcoal filters, air stripping, anion exchange, chlorination, reverse osmosis, ozonation, and ultraviolet radiation. The type of treatment system needed depends upon contaminant type, and not all treatment systems work for every type of contaminant. Treatment systems, including their installation and routine maintenance, can be expensive, depending upon the water quality issues that need to be addressed. In cases where water treatment systems cannot address specific water quality issues, well owners may need to obtain an alternative water supply or drill a new well that taps a less contaminated aquifer. The guide also states that consolidation with a water system, described further below, is an additional option for addressing water quality issues that may be available to some domestic well owners.

Domestic well regulation: Neither the US EPA nor the State Water Board regulate domestic wells, although both recommend annual testing of wells used for drinking water. According to the State Water Board's 2015 guide on domestic wells, well owners must obtain permits from local environmental health agencies or local water districts before well construction, modification, or destruction. The Department of Water Resources and the State Water Board have established well construction standards; however, the state does not maintain water quality standards, or testing or remediation requirements, for domestic wells.

Consolidation as a strategy for addressing water quality issues in domestic wells: State law allows the State Water Board to order water system consolidation or extension of service when water systems fail or are at risk of failing to provide an adequate supply of safe drinking water. Consolidation is the physical or managerial joining of two or more water systems, which often consists of a smaller water system that is failing or at risk of failing (referred to as the "subsumed water system") being absorbed into a larger, compliant water system (referred to as the "receiving water system"). Physical consolidation involves the merging or sharing of physical infrastructure, such as distribution pipelines or water treatment facilities. Managerial or operational consolidation involves sharing financial, managerial, or technical capacity. Under state law, a "subsumed water system" can include domestic wells.

According to the US EPA, water system partnerships, forged through strategies such as consolidation, can be an effective means of helping small water systems achieve and maintain technical, managerial, and financial capacity, and reducing the oversight and resources that states need to devote to these systems. The State Water Board maintains that consolidation and extension of service to disadvantaged communities that currently rely on under-performing or failing small water systems or domestic wells can reduce costs and improve reliability. Although the State Water Board can order consolidation where a disadvantaged community relies on domestic wells that consistently fail or are at risk of failure, domestic well owners must consent to the consolidation. Without consent, domestic well owners are ineligible for most forms of state water-related grants.

State law requires the State Water Board to perform a series of actions before ordering consolidation or extension of service. These include encouraging voluntary consolidation or extension of service; considering other enforcement remedies; considering the affordability of anticipated monthly rates for drinking water service to residential customers of the potentially subsumed water system; providing technical assistance and working with the potentially receiving and subsumed water systems to develop a financing package that benefits them both;

and, providing the opportunity for public comment, with advance notice for public meetings provided to multiple stakeholders, including renters and property owners. The State Water Board must also make several findings, including that the potentially subsumed water system has consistently failed to provide an adequate supply of safe drinking water or is at risk of doing so; that reasonable efforts to negotiate consolidation or extension of service were made; and, that consolidation or extension of service is appropriate and technically and economically feasible.

Upon ordering consolidation or extension of service, the State Water Board must also complete specified tasks, such as providing financial assistance to pay for the water infrastructure needed for consolidation or extension of service to take place, and compensating the owners of a privately owned subsumed water system for the fair market value of the system.

In its 2022 Drinking Water Needs Assessment, the State Water Board reported that in 2021, 27 water systems, serving 13,641 people, were consolidated, and that there were about 170 active consolidations that were either in the early stages of development or in process for funding.

This bill: AB 664 requires domestic well owners to ensure that tenants of rental properties served solely by their wells have access to safe drinking water, if well owners decline to participate in a consolidation or extension of service. By declining to participate, well owners essentially decline access to the technical assistance and funding that the State Water Board provides to support the consolidation process and improve water quality in disadvantaged communities. The bill preserves a well owner's ability to decline, since it does not change current state law that prohibits the State Water Board from requiring consolidation or extension of service to a residence served by a domestic well.

Arguments in support: A coalition of supporting organizations comprised of the Leadership Counsel for Justice and Accountability, Community Water Center, California Environmental Voters, Clean Water Action, the Los Angeles Alliance for a New Economy (LAANE), and the Environmental Working Group writes:

"Access to safe, affordable drinking water and sanitation is a human right. It is also essential to public health, with recent studies demonstrating a link between policies that maintain access to drinking water and reductions in COVID-19 infection and deaths. However, neither the state nor the federal government regulates the water quality of domestic wells, which are groundwater wells that supply water to up to four individual residences. Many Californians with domestic wells face contamination issues and ongoing threats to their water supply, often struggling to obtain enough safe drinking water to meet their daily needs.

Although the State Water Board can order the consolidation of two or more water systems when a disadvantaged community relies on domestic wells that consistently fail or are at risk of failure, existing law does not require domestic well owners to participate in consolidation projects, and stipulates that well owners provide consent in order to receive any technical or financial resources from the state. As a result, renters living in disadvantaged communities that rely on domestic wells risk exposure to contaminated drinking water, with little recourse, when their landlord declines or 'opts out' of state consolidation projects.

This bill would ensure that if a landlord declines to connect to public drinking water service when there is a state-funded opportunity to do so, the landlord will otherwise provide the

tenant(s) with safe drinking water. This is a narrowly tailored approach to better ensuring that tenants have access to safe drinking water.

To fully realize the promise of the Human Right to Water, California must ensure that its most vulnerable—including renters who live in disadvantaged communities and have limited control over their water quality—have access to safe drinking water. It is imperative that the Legislature take action to address these issues. For these reasons, we are proud to support AB 664."

Arguments in opposition: None on file.

Related legislation:

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

2) AB 508 (Chu, Chapter 352, Statutes of 2019). Makes changes to statute related to the State Water Board's authority to order the consolidation of drinking water systems, including setting a deadline of July 1, 2020 as the date by which the State Water Board must develop a policy that provides a process for members of a disadvantaged community to petition for consolidation, and deleting statute that required the State Water Board, before ordering consolidation or extension of service, to obtain written consent to the project from a domestic well owner.

3) SB 200 (Monning, Chapter 120, Statutes of 2019). Established the Safe and Affordable Drinking Water Fund (Fund) to help water systems provide an adequate and affordable supply of safe drinking water in both the near and the long terms. Transfers annually to the Fund—beginning in fiscal year 2020-21 and until June 30, 2030—five percent of the proceeds of the Greenhouse Gas Reduction Fund, up to $130 million. Requires the State Water Board to adopt a fund expenditure plan.

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

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

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

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

for human consumption, cooking, and sanitary purposes and requires that relevant state agencies, including the Department of Water Resources, the State Water Board, and the State Department of Public Health consider this policy when revising, adopting, or establishing policies, regulations, and grant criteria pertinent to the human uses of water.

REGISTERED SUPPORT / OPPOSITION:

Support

Community Water Center (Co-Sponsor)
Leadership Council for Justice and Accountability (Co-Sponsor)
California Apartment Association
California Environmental Voters (formerly CLCV)
California League of Conservation Voters
Clean Water Action
Environmental Working Group (EWG)
LAANE (Los Angeles Alliance for A New Economy)

Opposition

None on file.

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 343 (Muratsuchi) – As Introduced January 31, 2023

SUBJECT: Southern Los Angeles: ocean dumpsites: chemical waste

SUMMARY: Requires the California Environmental Protection Agency (CalEPA) to hold public meetings with relevant local, state, and federal agencies on efforts to study and mitigate DDT off the coast of California. Specifically, **this bill**:

1) Defines "DDT" as dichlorodiphenyltrichloroethane or any metabolite or byproduct thereof.

2) Defines "Dumpsite-1" as the waters of the San Pedro Basin off the coast of Los Angeles, approximately 10 nautical miles northwest of Catalina Island; where chemical waste, including, but not limited to, DDT, was known to be dumped and has been detected.

3) Defines "Dumpsite-2" as the water of the San Pedro Basin off the coast of Los Angeles where chemical waste, including, but not limited to, DDT, has been detected.

4) Defines "Southern California Bight" as the open embayment of the Pacific Ocean bounded on the east by the reach of the North American coastline extending from Point Conception, California, to Cabo Colnett, Baja California, Mexico, and on the west by the California Current, within which 14 known historic dumpsites for chemical waste exist.

5) Requires CalEPA to convene at least four public meetings annually, with the first meeting to be held on or before March 31, 2024, to provide members of the public with current information on CalEPA's efforts to study and mitigate DDT and other chemical waste at Dumpsite-1 and Dumpsite-2 and to receive input from the public through written and oral comments regarding dumped chemical waste and its effects on the Southern California Bight.

6) Requires CalEPA, when holding public meetings on efforts to study and mitigate DDT, to request representatives from the relevant local, state, and federal agencies to attend. Requires that these meetings are held in areas with coastlines reasonably close to Dumpsite-1 and Dumpsite-2.

7) Requires CalEPA, on or before June 30, 2026, to submit policy recommendations to the Legislature aimed at further mitigating the negative impacts of anthropogenic chemical waste deposits at or from Dumpsite-1 and Dumpsite-2, especially those impacts on the Southern California Bight. In developing the report, CalEPA shall consider:

   a) The impacts of policy recommendations on the environment, local communities, Indigenous cultures, and public health;

   b) The technical and financial feasibility of the policy recommendations; and,

   c) The impact on the environment, local communities, Indigenous cultures, and public health of taking no action to mitigate the effects of chemical waste at Dumpsite-1 and Dumpsite-2.

8) Sunsets the provisions of the bill on January 1, 2028.

EXISTING LAW:

1) Provides, pursuant to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), also known as the federal Superfund law, the United States Environmental Protection Agency (US EPA) with authority over the remediation of uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. (42 United States Code (USC) § 9601, et seq.)

2) Prohibits, pursuant to the Marine Protection, Research, and Sanctuaries Act (MPRSA, also known as the Ocean Dumping Act), the dumping of material into the ocean that would unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. (33 USC § 1401 et seq.)

3) Requires the State Water board to formulate and adopt a water quality control plan for ocean waters of the state, known as the California Ocean Plan (Plan). The Plan shall be reviewed at least every three years to guarantee that the current standards are adequate and are not allowing degradation to indigenous marine species or posing a threat to human health. Requires the State Water Board in formulating the Plan to develop bioassay protocols to evaluate the effect of municipal and industrial waste discharges on the marine environment. (Water Code § 13170.2)

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author,

> "California's coastal and marine waters are among the state's most precious resources. Los Angeles County's ocean economy alone has created an estimated 200,000 jobs and $20 billion in gross county output. Its conservation is essential to the preservation of both marine wildlife and California's thriving ocean economy. That is why the rediscovery of DDT off the coast of San Pedro and the Palos Verdes Peninsula is concerning and has lead California's Environmental Protection Agency to work with scientists and federal partners to develop cleanup and mitigation strategies. However, despite significant public interest and concern, little information has been made available to the public on the dangers the chemical waste presents, what questions remain unanswered, and what next steps policymakers, researchers, and the general public should be taking to mitigate the damage from this waste site.
>
> AB 343 requires the California Environmental Protection Agency to convene meetings of agency representatives, local leaders, and the public to hear their concerns and disclose the agency's progress. This will help educate local stakeholders on how best to protect themselves and ensure that the development of any mitigation efforts at the waste site is a transparent and collaborative process. The bill would also require the agency to report potential mitigation strategies to the Legislature."

What is DDT? Dichloro-diphenyl-trichloroethane, commonly known as DDT, is a colorless, tasteless, and almost odorless insecticide. Starting in the late 1940s, DDT was extensively used to combat insect-borne diseases, like malaria and typhus, around the world. It was credited with eradicating malaria in the United States and was also widely used in agricultural and commercial settings for pest control. Unlike most pesticides, whose effectiveness is limited to destroying one or two types of insects, DDT was capable of killing hundreds of different kinds of insects at once.

In 1962, Rachel Carson's book *Silent Spring* meticulously described how DDT entered the food chain and accumulated in the fatty tissues of animals, including human beings, and caused cancer and genetic damage. A single application on a crop, she wrote, killed insects for weeks and months—not only the targeted insects but countless more—and remained toxic in the environment even after it was diluted by rainwater.

DDT has been shown to cause liver cancer in laboratory animals. It is stored in fatty tissues which results in biomagnification. Biomagnification means that DDT levels in animals increase in concentration farther up the food chain. DDT is highly acutely toxic to fish and aquatic invertebrates. Even though DDT is only slightly acutely toxic to birds, it can cause significant reproductive problems. Notably, one of the breakdown products of DDT causes the eggshells of birds to become thinner. This makes the eggs of birds crack under the weight of adult birds, interfering with birds' ability to reproduce and damaging bird populations.

According to the Centers for Disease Control and Prevention (CDC), human health effects of DDT at low levels in the environment are unknown. However, DDT is listed as a possible human carcinogen and a growing number of studies have linked it to endocrine disrupting effects, like increased incidences of obesity and early onset of menstruation. It is possible that these effects could impact future generations (even if they are exposed to lower levels of DDT), as studies linked DDT levels in mothers during and just after pregnancy to impacts on those women and subsequent generations. These effects included breast cancer in the mothers themselves, obesity in their adult daughters, and obesity and early onset of menstruation in their granddaughters. Exposure to high doses of DDT can result in vomiting, tremors, and seizures.

DDT is highly persistent in the environment and has a half-life of 150 years in the aquatic environment, meaning that it will take hundreds of years to break down. Before it was banned for use in the United States by the US EPA, approximately 675,000 tons of DDT were applied domestically. Due to its widespread usage and persistence, DDT contamination is still a relevant environmental concern. Rising concerns about carcinogenicity, bioaccumulation, and health effects on wildlife led to a ban on DDT use in the United States in 1972.

History of ocean disposal of wastes: According to the US EPA, "From the 1930s until the early 1970s, multiple government agencies (the California Regional Water Quality Control Board and the U.S. Army Corps of Engineers) approved ocean disposal of domestic, industrial, and military waste at 14 deep-water locations off the coast of Southern California. Waste disposed included: refinery wastes, filter cakes and oil drilling wastes, chemical waste, refuse and garbage, military explosives and radioactive wastes. Very little is known about the history of this deep-ocean disposal, the nature of the wastes, or waste sources."

Legacy of DDT manufacturing in California: The Montrose Chemical Corporation of California was the largest producer of the insecticide DDT in the United States from 1947 until it stopped production in 1982. Even though DDT was banned for use in the United States after 1972, production continued in order to export DDT to other countries.

Between the late 1950s and early 1970s, the company was responsible for discharging an estimated 870-1450 tons of DDT into the ocean via the county's sewer system, which contaminated sediment on the ocean floor off the coast of Los Angeles on the Palos Verdes Shelf. In 1971, the last year Montrose used the county sewers, an estimated 50,500 pounds of DDT were discharged from the outfalls. PCBs, another persistent hazardous substance, also formed part of the industrial waste stream that was discharged to the sewer system until their ban in 1976. After these persistent pollutants ceased to dominate the waste steam, Los Angeles County Sanitation District continued discharging treated waste onto Palos Verdes Shelf. This created a layer of cleaner sediment on top of the DDT- and PCB-contaminated sediment.

The US EPA added the Montrose Chemical Corporation site to the Superfund National Priorities List in 1989. The site includes the former main plant near Torrance, California, stormwater pathways near the former plant, and a section of the Palos Verdes shelf. The cleanup of the Palos Verdes Shelf is still ongoing.

The San Pedro Bay Dominguez Channel was another recipient of runoff from Montrose. Consolidated Slip, the part of Inner Harbor immediately downstream of Dominguez Channel, continues to exhibit a very impacted benthic (bottom feeder) invertebrate community.

In the 1980s, it was discovered that Montrose Chemical Corporation contracted with California Salvage to dispose of acid waste from the DDT manufacturing process by dumping it off the coast of California. Records indicated that hundreds of thousands of barrels containing waste laced with DDT were dumped at a deep sea site located between the California coast and Santa Catalina Island between 1947 and 1961.

In April 2021, researchers at the Scripps Institution of Oceanography at the University of California San Diego and the National Oceanic and Atmospheric Administration (NOAA) conducted a survey to map the dump site. They found more than 27,000 barrels of what potentially could be DDT on the ocean floor between the Palos Verdes Peninsula and Catalina Island. The survey, conducted from March 10 to 24, 2021, mapped more than 36,000 acres of seafloor — at depths of up to 3,000 feet, and about 12 miles offshore from the Palos Verdes Peninsula and eight miles from Catalina — in an area where scientists had previously discovered an accumulation of DDT. But, the mapping sonars cannot determine the contents of the barrels, which remains unknown.

The two confirmed deep ocean DDT disposal sites, often referred to as Disposal Sites #1 and #2, are approximately 10 miles from the Palos Verdes Shelf. Disposal Site #1 encompasses multiple slopes in the Santa Monica Basin and thus contains a mix of depths. In contrast, Disposal Site #2 is located at the deepest extent of the San Pedro Basin (~900 meters) and is relatively flat. These topographic characteristics may drive differences in the transport and fate of DDT by biological and non-biological mechanisms, as well as pose unique challenges to investigations at each site. Federal investigations to date have focused on Disposal Site #2, the location where Scripps Institution of Oceanography conducted a preliminary survey in early 2021.

Impacts to wildlife in Southern California: The rediscovered DDT waste dumping site off the north coast of Santa Catalina Island represents a significant threat to the health of marine life in those waters and all animals in the food chain dependent on that marine life. DDT is highly persistent and moves from contaminated sediments into the water. Therefore, although the dumping of DDT stopped in 1982, the Palos Verdes Shelf remains contaminated to date and the recently rediscovered dumping site is still contaminated as well.

Since 1985, fish consumption advisories and health warnings have been posted in Southern California because of elevated DDT and other contaminant levels. Bottom-feeding fish are particularly at risk for high levels of contamination. Consumption of white croaker, which has the highest contamination levels, should be avoided and commercial fishing of white croaker has been banned in the area since 1990. Other bottom-feeding fish, including kelp bass, rockfish, queenfish, black croaker, sheepshead, surfperches, and sculpin, are also highly contaminated.

The high DDT levels in fish are reflected in predators that eat fish as well, including dolphins and birds of prey. A 2015 study by researchers from San Diego State University found high levels of DDT and other human-made chemicals in the blubber of bottlenose dolphins that died of natural causes. The Institute for Wildlife Studies, a conservation organization on Catalina Island, has worked to restore bald eagles to the island on Santa Catalina Island Conservancy land since the late 1970s. Bald eagles had been common on the island until the 1960s, when it is believed that the effects of dumping DDT off the coast of Southern California made it impossible for eagles to successfully hatch their young. Until as recently as 2007, bald eagles on the Island were unable to reproduce.

Recent action: With the recent public interest in the DDT dumpsite off the coast of California, spurred by an October 25, 2020, *Los Angeles Times* article about recent exploration of historic deep-water ocean disposal of DDT waste, US EPA and several federal, state, and local agencies (the Collaborating Agencies) began working together to see if advances in technology enable a new look at this issue. In 2021, the Collaborating Agencies began developing plans to (1) further understand the site, including potential waste volumes and composition, (2) investigate potential risk to human health and the environment, and (3) identify strategies that may be available to reduce adverse impacts.

The Collaborating Agencies include: the US EPA, the National Oceanic and Atmospheric Administration, the United States Department of the Interior, the California Natural Resources Agency, the California Department of Fish and Wildlife, the California Ocean Protection Counsel, CalEPA, the Los Angeles Regional Water Quality Control Board, the State Water Resources Control Board, and the Department of Toxic Substances Control.

The Collaborating Agencies decided to focus on Disposal Site #2, the location where Scripps Institution of Oceanography conducted a preliminary survey in early 2021 that mapped the debris field, and which was also the subject of recent scientific research. The Collaborating Agencies jointly developed four tasks to better understand the extent and impacts of the ocean waste disposal. These tasks are:

1) Document the operational and regulatory history of Disposal Site #2;
2) Determine the nature of contamination of Disposal Site #2 and identify areas of significant drum disposal;
3) Evaluate Southern California Bight environmental conditions and trends; and,

4) If conditions at Disposal Site #2 are determined to threaten human health or the environment, conduct technology screening of potential options for addressing risk for Disposal Site #2.

The Collaborating Agencies have focused primarily on the first two tasks; the third and fourth will follow after the first two are complete.

New study calling for more research: According to a 2023 report released by the University of Southern California Sea Grant and California Sea Grant, "A Deep Ocean DDT+ Research Needs Assessment for the Southern California Bight", the four research needs that emerged as priorities include:

1) Investing funding early in the characterization of the extent of DDT in deep ocean sediments in order to provide direction and management context to all other compiled human and ecosystem health research needs;

2) More research is needed to learn about the toxicity of the 45 plus DDT-related compounds on local marine and coastal organisms;

3) Research is necessary to mitigate risk, particularly for vulnerable human populations, even while research examining routes of exposure and impacts is still underway; and,

4) Examination of best practices to communicate the actual risks of deep ocean DDT exposure and dispel inaccurate assumptions in order to communicate specific exposure risks to different user groups.

Additionally, according to the report, "Overall, this inclusive and community-driven Assessment aims to empower funding agencies, researchers, and communities with a holistic perspective of critical DDT research needs to address in the immediate future. Continued engagement of the scientific, management, tribal, industry, and diverse, local communities will be integral to an effective transition to implementing these priority research areas. Despite Southern California's complicated history with DDT, this moment presents an opportunity for a new chapter written by exceptionally collaborative, innovative, and efficient research driving meaningful management decisions."

This bill: AB 343 requires CalEPA to hold public meetings, with relevant local, state, and federal agencies to provide current information to the public on efforts to mitigate and study DDT at Dumpsite-1 and Dumpsite-2. Additionally, by holding these meetings, CalEPA may also hear from other scientists and academic researchers with information on DDT and Dumpsite-1 and Dumpsite-2. While there are several different local, state, and federal agencies working to study and mitigate DDT at Dumpsite-1 and Dumpsite-2, there does not seem to be one entity, at least in California, that is responsible for providing centralized and updated information to the public. Additionally, requiring CalEPA to hold public meetings presents an opportunity for involvement of communities impacted by this pollution.

Arguments in Support: According to Heal the Bay, "Heal the Bay is pleased to sponsor and offer its strong support for AB 343 (Muratsuchi) which will establish public meetings on the ocean dumping of toxic DDT off the coast of Southern California. Currently, there is not a clear or easy way for the public or for stakeholders to get updates on this critical issue, to voice concerns, or to understand progress and next steps to protect public and environmental health. AB 343 is a critical first step in increasing transparency, rebuilding public trust, and tackling this massive

problem that has repercussions for human and environmental health. Requiring the California Environmental Protection Agency to convene public meetings allows the public and stakeholders to be informed, have a voice, and help promote progress in addressing this overwhelming environmental and public health disaster. With an issue of such urgency, centralized public efforts are needed to ensure good communication and accountability on progress."

Related legislation:

1) AB 2758 (O'Donnell, 2022). Would have required CalEPA to hold public meetings with relevant local, state, and federal agencies on efforts to study and mitigate DDT off the coast of California. This bill was held on the suspense file in the Senate Appropriations Committee.

2) AB 1553 (O'Donnell, 2021). Would have established the Southern Los Angeles Ocean Chemical Waste Community Oversight Council (Council) under CalEPA to oversee the study and mitigation of the toxic waste at Dumpsite-2. This bill was not heard in the Assembly Appropriations Committee and subsequently died on file.

3) AJR 2 (O' Donnell, Chapter 142, Statutes of 2021). Requests that the United States Congress and US EPA take all measures necessary to ensure that the DDT waste dumped near Santa Catalina Island does not cause further harm to the citizens, wildlife, and natural resources of California.

REGISTERED SUPPORT / OPPOSITION:

Support

A Voice for Choice Advocacy
Clean Water Action
Heal the Bay
Los Angeles County Sanitation Districts

Opposition

None on file.

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 407 (Chen) – As Amended March 13, 2023

SUBJECT: Hazardous waste: used oil

SUMMARY: Allows used oil to be exempt from regulation under state law, if it meets specified criteria in existing law, is not subject to regulation as a hazardous waste under federal law, and meets the criteria for exemption as a highly controlled generator of used oil.

EXISTING LAW:

1) Authorizes through the Hazardous Waste Control Law (HWCL) the Department of Toxic Substances Control (DTSC) to regulate the management of hazardous wastes in California. (Health and Safety Code (HSC) § 25100 et. seq.)

2) Authorizes DTSC to conduct inspections, conduct sampling activities, inspect and copy documents, and take photographs at sites or establishments where hazardous wastes are stored, handled, processed, treated, or disposed. (HSC § 25185)

3) Establishes management standards for used oil, including transportation, testing, and storage requirements. (HSC § 25250 et seq.)

4) Defines used oil as "any oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of use or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities." (HSC § 25250.1)

5) Requires used oil to be managed as a hazardous waste unless it is excluded through regulation; is dielectric fluid removed from oil-filled electrical equipment that is filtered and replaced onsite; or, it has been shown through testing by the generator to meet the requirements for exclusion within the HWCL. (HSC §25250.4)

6) Authorizes generators of highly controlled used oil to test their used oil once per year for the purposes of determining if the used oil is a hazardous waste, and allows generators to not have to manage their used oil as hazardous waste under certain conditions. (HSC § 25250.19)

7) Creates the California Oil Recycling Enhancement (CORE) Act which is designed to reduce the illegal disposal of used oil and recycle and reclaim used oil to the greatest extent possible. (Public Resources Code § 48601)

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author, "This bill would delete the rule that the used oil not be accountable to regulation as used oil under federal law."

California Hazardous Waste Control Law (HWCL): The HWCL is the state's program that implements and enforces federal hazardous waste law in California and directs DTSC to oversee and implement the state's HWCL. Any person who stores, treats, or disposes of hazardous waste must obtain a permit from DTSC. The HWCL covers the entire management of hazardous waste, from the point the hazardous waste is generated, to management, transportation, and ultimately disposal into a state or federal authorized facility.

Used oil generated in California: Approximately 100 million gallons of used oil are recycled in California each year. An estimated additional 14 million gallons of California used oil gets recycled out-of-state each year. DTSC's used oil program regulates the proper management of used oil through inspections and enforcement of used oil recyclers, transfer facilities, and transporters. The CORE Act implemented by CalRecycle outlines the requirements for responsible management of used oil in California to reduce the amount of illegal disposal of used oil and encourage recycling and reuse, thereby minimizing impacts on the environment.

Regulation of used oil: State law defines used oil as "any oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of use or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities." Used oil includes, but is not limited to, the following: used motor oils, used industrial oils, vehicle crankcase oils, hydraulic oils, transformer oils, engine lubricating oils, compressor oils, refrigeration oils, transmission fluids, turbine oils, metalworking oils, gearbox and differential oils, bearing oils, railroad oils, gear oils, and vegetable oils used for lubrication. Waste synthetic oils that may be managed as used oil include oil derived from coal, oil shale, or polymers; water-soluble petroleum-based oils; vegetable or animal oil used as a lubricant; hydraulic fluid; and, heat transfer fluid.

Used oil does not include: antifreeze, brake fluid, other automotive wastes, fuels, and solvents. Substances which are not regulated as used oils include: oils with a flashpoint below 100°F; oils mixed with hazardous waste; wastewater containing small amounts of used oil; oily wastes that are not used oil; oily wastewaters that are not used oil; tank bottoms; used oil processing bottoms; used oil re-refining distillation bottoms; edible cooking oils; grease; oils containing 5 parts per million (ppm) polychlorinated biphenyls (PCBs) or greater; or, oils containing more than 1,000 ppm total halogens.

Management of used oil: State law requires that used oil be managed as a hazardous waste in California unless it has been recycled and is shown to meet the specifications for recycled oil in statute, or qualifies for a recycling exclusion under the law. Consumers who change their own oil must manage their used oil appropriately (e.g., by taking it to a used oil collection center and never disposing of it on land, or in water or storm drains). Consumers are allowed to transport their own used oil to a used oil collection center or to a used oil recycling facility without any permits or a hazardous waste manifest.

Under state law, businesses generating used oil and used oil collection centers are required to meet all hazardous waste generator requirements. There are specific requirements for the types of containers that used oil is stored in, and how long the used oil can be stored by the generator of the used oil. Additionally, some of the business generators of used oil are required to have secondary containment for their tanks, which is essentially a backup system designed to prevent the release and migration of wastes or accumulated liquids from the storage tank. Prior to transporting individual containers of used oil, regulations require that the generator label

shipping containers for used oil as follows: "HAZARDOUS WASTE - State and Federal Law Prohibit Improper Disposal. If found, contact the nearest police or public safety authority, or the U.S. Environmental Protection Agency."

Recent changes to used oil exemptions: AB 2928 (Chen, Chapter 440, Statutes of 2018) allowed a specified universe of used oil, generated by a "highly controlled generator" to not have to manage their used oil as a hazardous waste. Highly controlled generators are those that have their own fleet of vehicles, which they manage and maintain. However, generators of highly controlled used oil have encountered a hiccup when applying for this exemption. Since their oil would meet the definition of being regulated as used oil under federal law, they have been unable to use the exemption created in AB 2928.

This bill: AB 407 fixes the issue generators of highly controlled used oil have encountered to allow for the use of the exemption created in AB 2928. Specifically, AB 407 deletes a condition that the used oil seeking exemption under current statute cannot be regulated as a used oil under federal law. However, the used oil would not be exempt from state regulation if it is regulated as a hazardous waste under federal law. This change, consistent with the CORE Act and AB 2928, could allow for more recycling options for used oil such as re-refining the oil back into oil.

Related legislation:

1) AB 2928 (Chen, Chapter 440, Statutes of 2018). Authorizes generators of highly controlled used oil to test their used oil once per year for the purposes of determining if the used oil is a hazardous waste, and allows generators to not have to manage their used oil as hazardous waste under certain conditions.

2) SB 546 (Lowenthal, Chapter 353, Statutes of 2009). Raised the fee paid by lubricating oil manufacturers from 16 cents to 24 cents per gallon, increased the incentives paid for recycling used oil, increased the testing requirements for used oil transporters, and required that transporters be inspected annually.

2) AB 907 (Chesbro, 2009). Would have made a variety of changes to statutes regulating used lubricating oil, including reducing the number of used oil collectors that can apply for recycling incentives, creating a new incentive for re-refined oil, and allowing additional funding for local government oil recycling efforts. This bill was not heard on the Senate Floor.

REGISTERED SUPPORT / OPPOSITION:

Support

None on file.

Opposition

None on file.

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

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS
Alex Lee, Chair
AB 541 (Wood) – As Introduced February 8, 2023

SUBJECT: California Safe Drinking Water Act: wildfire aftermath: benzene testing

SUMMARY: Requires the State Water Resources Control Board (State Water Board), on or after January 1, 2024, to require a public water system, water corporation, or water district that has experienced a major wildfire event within their service territory to test their water source for the presence of benzene immediately following the major wildfire event.

EXISTING LAW:

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

2) Establishes 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 (WC) § 106.3)

3) Establishes the California Safe Drinking Water Act (SDWA) and requires the State Water Board to maintain a drinking water program to regulate drinking water and to enforce the federal SDWA and other regulations. (HSC § 116270, et seq.)

4) Pursuant to the California SWDA:

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

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

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

    d. 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)

5) Defines a "water corporation" to include every corporation or person owning, controlling, operating, or managing any water system for compensation within this state. (Public Utilities Code § 241)

6) Defines "water district" as any district or other political subdivision, other than a city or county, a primary function of which is the irrigation, reclamation, or drainage of land or the diversion, storage, management, or distribution of water primarily for domestic, municipal, agricultural, industrial, recreation, fish and wildlife enhancement, flood control, or power production purposes. "Water districts" include, but are not limited to, irrigation districts, county water districts, California water districts, water storage districts, reclamation districts, county waterworks districts, drainage districts, water replenishment districts, levee districts, municipal water districts, water conservation districts, community services districts, water management districts, flood control districts, flood control and floodwater conservation districts, flood control and water conservation districts, water management agencies, water agencies, and public utility districts. (WC § 20200)

FISCAL EFFECT: Unknown.

COMMENTS:

Need for the bill: According to the author, "Six years ago, the devastating Tubbs Fire burned through North Bay communities. As Santa Rosa began the process of rebuilding a few weeks after the fire, survivors reported to city officials that their tap water smelled like diesel. The culprit, tests proved, was benzene, a known carcinogenic. The next year, the same thing happened to the survivors of the Camp Fire in Paradise.

Devastating wildfires are increasingly ravaging California, but our state policies haven't always kept up with this unfortunate trend. The last thing impacted communities should have to worry about in the aftermath of a wildfire is whether their drinking water is poisonous. AB 541 requires the state to develop common sense procedures to ensure Californians have access to safe drinking water after wildfire disasters."

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. The US EPA enforces the federal SDWA at the national level. California has enacted its own safe drinking water act to implement the federal law and establish state standards under the state SDWA. Most states, including California, have been granted "primacy" by the US EPA, giving them the authority to implement and enforce the federal SDWA at the state level.

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

Board adopts regulations for drinking water standards, monitoring requirements, cross-connections, design and operational standards, and operator certification.

Drinking water risks to human health and the environment are managed by federal and state standards for permissible levels of certain contaminants, known as MCLs. A drinking water contaminant's MCL is required to be established at a level as close to its public health goal (PHG) as is technologically and economically feasible, placing primary emphasis on the protection of public health. A PHG, which is established by OEHHA, is the level of a contaminant in drinking water that does not pose a significant risk to health.

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 legal distinctions between the types of public water systems: 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. Transient water systems include entities like rural gas stations, restaurants, and State and National parks that provide their own potable water.

Benzene: Benzene is a regulated chemical with an established California State Maximum Contaminant Level (MCL) in drinking water of 1 µg/L. Benzene is a colorless highly flammable liquid that evaporates quickly into air and dissolves slightly in water. It is found in crude oil and gasoline, but also occurs naturally in volcanic gases and smoke resulting from forest fires. Benzene can volatilize into air from soil and water. Once in the atmosphere, benzene breaks down (biodegrades) within a few days. In soil and groundwater, the biodegradation process is slower. Benzene is slightly soluble in water and can migrate through the soil column into groundwater. Because benzene is a light "non-aqueous phase liquid" it can collect on top of the water table. Benzene biodegradation in groundwater can take days to years, depending on oxygen concentration, temperature, and the presence of favorable bacteria.

Benzene is a known carcinogen both in humans and in laboratory animals. Exposure to benzene can occur through the lungs (inhalation), gastrointestinal tract (ingestion), and through skin (dermal contact). Health effects depend on two main factors: length of exposure and concentration (amount of benzene a person is exposed to). Brief exposure to very high levels of benzene in air can result in death, while breathing lower levels can cause drowsiness, confusion, dizziness, headaches, tremors, and unconsciousness. The major effect of benzene exposure is to the blood. Long term exposure to benzene can affect the body's ability to produce red blood cells. When the bone marrow is affected, the result is usually a form of leukemia. It can also cause blood (hematologic) diseases, anemia, and cancers of blood-forming organs.

Issue with benzene in drinking water after a wildfire: According to the article, "Fire and Water: Assessing Drinking Water Contamination After a Major Wildfire," published in August, 2021;

"Drinking water systems in wildfire-damaged areas may be contaminated with benzene and other volatile organic compounds, requiring prevention and rapid response to protect the health of returning residents. Massive wildfires tore through towns in California in recent years. A new and unanticipated problem arose after recent California fires: the contamination of drinking water systems by volatile organic compounds (VOCs). Benzene and other VOC contamination in tap water was first reported after the Tubbs Fire in Santa Rosa, California in 2017. The contamination of drinking water systems during wildfire events is a new environmental health challenge. Addressing the root causes of wildland-urban interface extreme fire events (e.g., climate change, forest management) are important components but must be supplemented by resilience measures for water systems. The ability to quickly shut-off sections of water systems that depressurize, coupled with backflow prevention, may reduce contamination from smoke being pulled into service lines and other pipes. Rapid post-fire testing throughout the system, with a focus on initially clearing water mains, followed by service lines to standing homes, is a critical element. Finally, the strategies of flushing pipes that have low levels of contaminants and the replacement of highly contaminated pipes appear to have been effective in the area impacted by the Camp Fire. Further research to test water that has stagnated in galvanized pipe is needed, especially because the implications may extend beyond the relatively few fire-impacted water systems."

This bill: AB 541 requires the State Water Board to require water systems to test for benzene after a major wildfire event. There are several reasons for this requirement: 1) protect public health and safety from a cancer-causing chemical; 2) provide data to the State Water Board and the water systems as to the presence of benzene so that contamination can be further investigated; and, 3) provide data to the State Water Board and water systems to better inform them about the potential hazards posed by benzene so they can prevent exposure before a wildfire event.

A few details to work out: The author and stakeholders of the bill will likely be working to clarify a few points in the bill. Specifically, they will work to define, "major wildfire event". Additionally, there may be some clarification to ensure that the State Water Board's authority for any water systems in a smaller wildfire or similar event is not limited. Finally, clarification is needed to provide the State Water Board with flexibility in regards to the testing component of the bill.

Arguments in support: According to the sponsor of the bill, BuildStrong California (BSCA), "Wildfires in California have repeatedly compromised water infrastructure causing loss of integrity, contamination and/or failure. After the 2017 Tubbs Fire, Santa Rosa determined that wildfire conditions allowed for their water system to reach conditions of pyrolysis, leading to benzene contamination of drinking water. Paradise, California found similar widespread benzene contamination during the Camp Fire in 2018 after following Santa Rosa's example of testing their drinking water following a major wildfire. These two cities and others throughout the state are under no requirement to test for benzene immediately following major wildfires in their localities. Based on the State's monitoring requirements, a water system in California may not have to test for the presence of benzene for years, even though a wildfire may have unknowingly contaminated their drinking water system."

Arguments in Opposition:

None on file.

REGISTERED SUPPORT / OPPOSITION:

Support

BuildStrong California (BSCA) (Sponsor)
Consumer Attorneys of California

Opposition

None on file.

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