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# California State Assembly

## NATURAL RESOURCES



**ISAAC G BRYAN**  
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**Senior Consultant**  
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**Committee Secretary**  
Martha Gutierrez

## AGENDA

Monday, June 23, 2025  
2:30 p.m. -- State Capitol, Room 437

### **BILLS HEARD IN SIGN-IN ORDER**

**\*\* = Bills Proposed for Consent**

- |    |                 |           |  |
|----|-----------------|-----------|--|
| 1. | SB 88           | Caballero | Air resources: carbon emissions: biomass.  |
| 2. | <b>**SB 234</b> | Niello    | Wildfires: workgroup: toxic heavy metals.  |
| 3. | <b>**SB 484</b> | Laird     | Coastal resources: coastal development permits: infill area categorical exclusion. |
| 4. | SB 567          | Limón     | Gravity-Based Energy Storage Well Pilot Program.                                   |
| 5. | SB 653          | Cortese   | Wildfire prevention: environmentally sensitive vegetation management.              |
| 6. | SB 831          | Limón     | Geologic hazards: California Geological Survey.                                    |
| 7. | <b>**SB 839</b> | Laird     | Oil spills: fishing: water closure: grants: liability.                             |
| 8. | <b>**SCR 50</b> | Stern     | Maladaptation.   |



Date of Hearing: June 23, 2025

**ASSEMBLY COMMITTEE ON NATURAL RESOURCES**

Isaac G. Bryan, Chair

SB 88 (Caballero) – As Amended May 23, 2025

**SENATE VOTE:** 37-0

**SUBJECT:** Air resources: carbon emissions: biomass

**SUMMARY:** Requires the California Air Resources Board (ARB) to develop specified methods and protocols to quantify the avoided emissions and beneficial uses of forest and agricultural biomass; directs the Department of Forestry and Fire Protection (CAL FIRE) to require forest health projects to include a resource disposal component; and, directs the State Energy Resources Conservation and Development Commission (CEC) to include biomass-derived low- and negative-carbon fuels, as specified, in certain reports.

**EXISTING LAW:**

- 1) Requires the greenhouse gas (GHG) emissions reduction limit, pursuant to AB 1279 (Muratsuchi), Chapter 337, Statutes of 2022, to be at least 85% below the 1990 level by 2045, and establishes a goal of zero net carbon emissions by 2045, commonly known as carbon neutrality. (Health and Safety Code (HSC) 38500 *et seq.*)
- 2) Requires ARB to prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs. (HSC 38561)
- 3) Authorizes ARB to include in their California Global Warming Solutions Act of 2006 (AB 32 (Núñez and Pavley) Chapter 488, Statutes of 2006) regulations the use of market-based compliance mechanisms to comply with the regulations. (HSC 38570)
- 4) Establishes the Greenhouse Gas Reduction Fund (GGRF). (Government Code (GC) 16428.8)
- 5) Requires ARB to develop guidance on reporting and quantification methods for all state agencies that receive appropriations from GGRF to ensure the statutory requirements are met. (GC 16428.9 (b))
- 6) Requires, pursuant to SB 901 (Dodd) Chapter 626, Statutes of 2018, ARB, in consultation with CAL FIRE, to issue a report every five years that assesses GHG emissions associated with wildfire and forest management activities. (HSC 38535)
- 7) Defines “biochar” as materials derived from thermochemical conversion of biomass in an oxygen-limited environment containing at least 60% carbon. (Agricultural Code 14513.5)
- 8) Authorizes the director of CAL FIRE to provide grants to specified entities for the implementation and administration of projects and programs to improve forest health and reduce GHG emissions. Requires moneys appropriated to CAL FIRE for landscape-scale projects to be allocated in order to help develop markets for beneficial uses of the material, including, but not limited to, biochar. (Public Resources Code (PRC) 4799.05)

- 9) Requires the CEC, as part of the 2023 and 2025 editions of the integrated energy policy report (IEPR), to study and model potential growth for hydrogen and its role in decarbonizing the electrical and transportation sectors of the economy, and helping to achieve the goals set forth in The 100 Percent Clean Energy Act of 2018, the California Global Warming Solutions Act of 2006, and the Clean Energy and Pollution Reduction Act of 2015. (PRC 25307)

**THIS BILL:**

- 1) Finds and declares that the state should take action to incentivize alternative uses of biomass resources to reduce the negative impacts from catastrophic wildfires and pile burning and to allow necessary prescribed fires to take place at a level that does not compromise public health, progress on climate action, or ecological sustainability.
- 2) Defines the following terms:
  - a) “Agricultural biomass resources” as crop, orchard, vineyard, or other agricultural residues, and excludes crops grown for the purpose of producing energy and edible produce.
  - b) “Forest biomass resources” as material removed for wildfire mitigation, forest restoration projects, or the protection of public safety and infrastructure, excluding trees that are harvested for the primary purpose of producing energy.
- 3) Requires ARB to:
  - a) On or before January 1, 2027, finalize the development of the standardized system for quantifying direct carbon emissions and decay from fuel reduction activities for purposes of meeting the accounting requirements for the GGRF.
  - b) On or before January 1, 2028, adopt a method of quantification of the life-cycle emissions from alternative uses of forest and agricultural biomass residues.
  - c) On or before January 1, 2028, include in the next Scoping Plan update a comprehensive strategy to support beneficial carbon removal products, including, but not limited to, biochar that are generated from agricultural or forest biomass resources. Requires the strategy included in the Scoping Plan shall, as appropriate, include the use of biochar for carbon sequestration, agricultural and forestry uses, construction and engineered materials, environmental remediation and water treatment, and other uses.
- 4) Requires CAL FIRE to require, to the extent feasible, all state-funded forest health projects to include an appropriate forest biomass resource disposal component that includes a scientifically based, verifiable method to determine the amount of biomass to be physically removed and the amount to be burned by prescribed fire.
- 5) Requires the CEC to include the value proposition of using agricultural biomass resources and forest biomass resources for low- and negative-carbon liquid and gaseous fuels, including hydrogen, from noncombustion conversion technology methods and other

emerging and innovative approaches in relevant reports and other agency-sponsored documentation.

**FISCAL EFFECT:** According to the Senate Appropriations Committee:

- ARB estimates one-time costs of about \$866,000 and ongoing costs of \$2.3 million (Cost of Implementation Account and Greenhouse Gas Reduction Fund) for contract funds and approximately 10 positions to finalize the development of the standardized system for quantifying direct carbon emissions and decay from fuel reduction activities as specified, quantify the life-cycle emissions from alternative uses of forest and agricultural biomass residues, and develop protocols, among other things.
- The CEC estimates ongoing costs of up to \$201,000 annually (Energy Resources Program Account) and one position for biomass analysis and modeling efforts.
- CAL FIRE does not anticipate a fiscal impact as a result of this bill.
- To the extent this bill encourages forest treatment activities that reduce the occurrence of catastrophic wildfires from what otherwise would have occurred, it could result in potentially significant savings due to avoided fire suppression costs (General Fund).

**COMMENTS:**

1) **Author's statement:**

SB 88 takes critical steps to identify and reduce the harmful air pollution caused by wildfires and open air burning of forest and agricultural waste in California. By requiring ARB, CAL FIRE, and the CEC track and quantify harmful pollution emissions, and promote the beneficial use of clean biomass conversion, the bill will mitigate wildfire risks, reduce air pollution and greenhouse gas emissions, and encourage sustainable alternatives to open air burning. This measure will help California meet its climate goals, clean the air pollution, reduce healthcare costs related to dirty air, and accelerate the transition to carbon-negative solutions, ensuring a healthier and more sustainable future.

- 2) **Greenhouse Gas Reduction Fund.** Under the California Global Warming Solutions Act, ARB adopted the Cap-and-Trade program as a market-based compliance mechanism to establish a declining limit on major sources of GHG emissions throughout California, and ARB creates allowances equal to the total amount of permissible GHG emissions. The Cap-and-Trade program generated billions of dollars, which are deposited into the GGRF. The Legislature appropriates funding from the GGRF to agencies to administer California Climate Investments (CCI) to facilitate GHG emission reductions, improve public health and the environment, and, provide benefits to residents of disadvantaged communities, low-income communities, and low-income households.

ARB is responsible for providing guidance on estimating the net GHG benefits and co-benefits from projects receiving monies from GGRF. This guidance includes quantification methodologies, co-benefits assessment methodologies, and benefits calculator tools. There are currently 56 quantification methodologies and calculator tools for various climate investment programs. One methodology ARB developed is the Forest Restoration and Management Quantification Methodology to provide guidance for estimating the net GHG

benefit of forest restoration and management activities including reforestation, forest pest management, fuels reduction, forest conservation, and biomass utilization. Calculations account for on-site forest carbon stocks, carbon stored in wood products, the displacement of fossil fuels that results from biomass energy generation, and GHG emissions associated with the implementation of forest restoration and management projects.

SB 88 requires ARB, by January 1, 2027, to finalize the development of the standardized system for quantifying direct carbon emissions and decay from fuel reduction activities for purposes of meeting the accounting requirements for the GGRF. The language in SB 88 is redundant with SB 901, and could confuse implementation and cause delay.

- 3) **Biomass.** California covers about 100 million acres and approximately 40% of the state is forest. National Forest System lands cover in excess of 18 million acres (approximately 58% of California forestland); the state is responsible for 13.3 million acres (approximately 33%); and, the rest is privately owned or managed. Forest operations such as logging, thinning, fuels reduction programs, vegetation management, and ecosystem restoration create a huge amount of woody biomass. Some of this is brought out of the forest for use, but as much as half of the biomass is left in the forest. When residues from mastication and slash from timber harvests are left scattered throughout the forest, they act as additional dry surface fuel and serve to increase intensity and severity if a wildfire burns through the area. Often woody biomass materials are piled and burned creating air pollution, such as black carbon, or left to decay, creating methane. According to the CEC, there are currently approximately 47 million bone dry tons (BDT) of biomass resource potential in California. According to the Board of Forestry, state requirements to remove forest fuels on a combined one million acres per year will lead to 10 to 15 million BDT of forest waste biomass annually.

SB 88 requires, or before January 1, 2028, ARB to adopt a method of quantification of the life-cycle emissions from alternative uses of forest and agricultural biomass residues. Methods of quantification are specifically designed for specific *projects*, so creating a quantification method for a suite of unidentified projects could be challenging to quantify.

- 4) **Biochar.** Biochar is primarily obtained from the thermochemical conversion of biomass in an oxygen-limited environment, and technically defined as a carbon-rich solid material having organic carbon greater than 10%. More simply put, biochar is produced using controlled fire, converting forest slash, timber harvest residues, damaged trees, and excess brush, into stable carbon rich charcoal that can be retained in forest soils.

It may be a promising product in the food, soil, and agricultural sectors because of its composition and properties of retaining moisture and nutrients, and improving soil quality. It is being considered as one potential solution to reduce climate change impacts in the state, such as droughts, wildfires, and highly variable weather. For example, the drought years from 2012 to 2016 were followed by an above-average wet year in 2017, which rapidly grew grasses and underbrush that eventually became fuel for record-setting fires, consuming more than 730,000 acres. Biochar produced from residual biomass and sequestered in soil also results in carbon dioxide removal. The Center for Biological Diversity (CBD), along with other environmental organizations, express concerns over the presumed benefit of biochar, noting, the processes – gasification or pyrolysis of woody biomass to make hydrogen, methane, biochar, or electricity – can produce significant climate and air pollutants.

This bill requires ARB to include in the next Scoping Plan update a comprehensive strategy to support beneficial carbon removal products, including, but not limited to, biochar that are generated from agricultural or forest biomass resources. The bill requires the strategy included in the Scoping Plan to, as appropriate, include the use of biochar for carbon sequestration, agricultural and forestry uses, construction and engineered materials, environmental remediation and water treatment, and other uses. If ARB determines it is not appropriate, the Scoping Plan should appropriately reflect that.

- 5) **CAL FIRE.** The bill requires CAL FIRE to require, to the extent feasible, all state-funded forest health projects to include an appropriate forest biomass resource disposal component that includes a scientifically based, verifiable method to determine the amount of biomass to be physically removed and the amount to be burned by prescribed fire.

CAL FIRE requires grantees performing forest health and vegetation management projects to confirm that they plan to treat the forest products created by their project, which may include pile burning, chipping, leaving in place, or hauling to a biomass facility. CAL FIRE places no requirement on what method is used by the grantee. The bill would require a “scientifically based, verifiable method” to determine the amount of biomass that should be physically removed and the amount to be burned by prescribed fire, but there is currently no industry standard for such a method. Current statewide efforts to track forest product piles have been difficult because piles can result from both permitted and unpermitted activities, and there is no existing process in place to account for their location, size, or material amounts.

- 6) **Energy Commission.** SB 88 requires the CEC to include the value proposition of using agricultural biomass resources and forest biomass resources for low- and negative-carbon liquid and gaseous fuels, including hydrogen, from noncombustion conversion technology methods and other emerging and innovative approaches in relevant reports and other agency-sponsored documentation.

The CEC is already doing similar work in compliance with SB 1075 (Skinner), Chapter 363, Statutes of 2022, which requires the CEC to study, as a part of the 2023 and 2025 IEPRs, the potential growth of hydrogen and its role in decarbonizing the electrical and transportation sectors. Taken together, the CEC's SB 1075 assessments include hydrogen production from biomass gasification or reformation of biogas; compare production technologies; and evaluate feedstocks/availability, system costs, and performance.

The CEC completed the first phase of analysis on clean and renewable hydrogen potential in the power generation and transportation sectors and published the findings in the 2023 IEPR, which is a biennial report that provides a cohesive approach to identifying and solving the state's energy needs and issues. The report develops and implements energy plans and policies. Phase one of SB 1075 is complete; phase two of the analysis is in progress and will include evaluation of production pathways beyond electrolysis, including biomass gasification or reformation of biogas. This analysis will be included in the forthcoming 2025 IEPR.

SB 1075 implementation does lay some groundwork, particularly on hydrogen produced from biomass, which could help inform aspects of SB 88. That said, SB 1075 is focused specifically on hydrogen—not biomass generally—so SB 88 would broaden the scope and require the CEC to consider costs and benefits of additional fuels and technologies.

Because SB 88 doesn't clearly define which reports must include these assessments or how detailed they need to be, it could create some ambiguity or require additional resources, depending on interpretation. The author may wish to consider working with the CEC to ascertain if the requirement in this bill can be done in coordination with any ongoing work being done to implement the requirements of SB 1075, or whether there is an existing report where this information can be included.

- 7) **Committee amendments.** The committee may wish to consider making the following amendments in PRC 39741.6:
- a) Strike (b)(1) to avoid unnecessary delays;
  - b) Amend (b)(2) to require ARB to publish on its website an assessment of the life-cycle emissions from alternative uses of forest and agricultural biomass residues instead of developing a method of quantification; and,
  - c) Amend (b)(3) to change the date from 2028 to 2029 to give ARB additional time to strategize supporting beneficial carbon removal products.

## **REGISTERED SUPPORT / OPPOSITION:**

### **Support**

Agricultural Council of California  
Agricultural Energy Consumers Association  
Almond Alliance  
American Pistachio Growers  
Association of California Water Agencies  
Bioenergy Association of California  
California Air Pollution Control Officers Association  
California Association of Winegrape Growers  
California Biomass Energy Alliance  
California Chamber of Commerce  
California Citrus Mutual  
California Farm Bureau  
California Fresh Fruit Association  
City of Sacramento  
County of Fresno  
Darling H2o Consulting  
Green Hydrogen Coalition  
Hcycle  
Mote, INC.  
Nisei Farmers League  
Office of Mayor Pro Tem Eric Guerra  
Placer County Air Pollution Control District  
Raven SR  
Sacramento Metropolitan Air Quality Management District  
Sacramento Valley Basinwide Air Pollution Control Council  
Sierra Energy



Western Growers Association  
Yosemite Clean Energy

**Opposition**

350 Humboldt  
Biofuelwatch  
Center for Biological Diversity  
Center for Race, Poverty, and the Environment  
Climate Action California  
Earthjustice  
Environmental Protection Information Center  
Forest Unlimited  
Forests Forever  
Mount Shasta Bioregional Ecology Center  
Natural Resources Defense Council  
Partnership for Policy Integrity  
Sierra Club California  
Sonoma County Climate Activist Network (SOCOCAN!)

**Analysis Prepared by:** Paige Brokaw / NAT. RES. /



Date of Hearing: June 23, 2025

**ASSEMBLY COMMITTEE ON NATURAL RESOURCES**

Isaac G. Bryan, Chair

SB 234 (Niello) – As Amended May 23, 2025

**SENATE VOTE:** 37-0

**SUBJECT:** Wildfires: workgroup: toxic heavy metals

**SUMMARY:** Requires, upon appropriation by the Legislature, the Department of Forestry and Fire Protection (CAL FIRE), the Office of Emergency Services (CalOES), and the Department of Toxic Substances Control (DTSC), in consultation with specified entities, to form a workgroup related to exposure to toxic heavy metals after a wildfire.

**EXISTING LAW:**

- 1) Establishes CAL FIRE within the California Natural Resources Agency, and establishes various programs for the prevention and suppression of wildfires at CAL FIRE, as provided. (Public Resources Code 701)
- 2) Vests DTSC, as part of the hazardous waste control laws, to regulate the management and handling of hazardous waste and hazardous materials. (Health & Safety Code 25100 *et seq.*)
- 3) Establishes Cal OES within the Office of the Governor, under the California Emergency Services Act, for the purpose of mitigating the effects of natural, manmade, or war-caused emergencies. (Government Code 8550)

**THIS BILL:**

- 1) Requires, upon appropriation by the Legislature, CAL FIRE, CalOES, and DTSC, in consultation with academic and research institutions with demonstrated relevant expertise, and any other governmental agency or educational institution that may have experience in public health and wildfires, to form a workgroup related to exposure of toxic heavy metals after a wildfire.
- 2) Requires the workgroup to do all of the following:
  - a) Establish best practices and recommendations for wildfire-impacted communities and first responders to avoid exposure to heavy metals after a wildfire;
  - b) Study and consider ways that communities can mitigate and prevent exposure to heavy metals from a wildfire;
  - c) Study and consider ways that communities can mitigate or remediate the accumulation of heavy metals in the environment after a wildfire, including through bioremediation through vegetation, fungal, or bacterial treatments; and,

- d) Study and consider ways that fire departments, agencies, and other organizations can develop and implement best practices and policies for avoiding, minimizing, and mitigating exposure risk.
- 3) Authorizes DTSC to contract with public universities, research institutions, and other technical experts to support the work of the workgroup.
- 4) Requires, on or before January 1, 2027, CAL FIRE, CalOES, and DTSC to report their findings to the Legislature.
- 5) Sunsets the reporting requirement on January 1, 2031.

**FISCAL EFFECT:** According to the Senate Appropriations Committee:

- DTSC estimates costs of \$738,000 annually until January 1, 2027 (General Fund) for three positions for post-wildfire management planning work such as evaluating exposures, reviewing risk assessments, establishing screening levels, helping with risk communication.
- Unknown but potentially significant costs (General Fund) for CAL FIRE and CalOES to participate in the workgroup.
- Unknown but likely significant cost pressure (various funds) to provide funding for implementing the findings, recommendations, and best practices as determined by the workgroup.

**COMMENTS:**

**1) Author's statement:**

Between 2018 and 2025, California's fire seasons were among the most destructive on record, with millions of acres burned, thousands of homes destroyed, and dozens of lives lost. The magnitude and scale of these wildfires have created unprecedented challenges for affected Californians, including years-long site cleanup and hazardous material removal, prolonged displacement, and serious health complications.

A recent Stanford University study showed that unmanaged wildfires can release toxic metal particles. Specifically, the study showed extreme high heat wildfires can transform a natural element in soils into a potentially cancer-causing and airborne metal known as hexavalent chromium, or chromium 6. Chromium 6 can possibly increase cancer risk when inhaled or ingested. Other serious health consequences include asthma, heart attacks, and early death, due to its toxicity.

These health risks to firefighters, disaster response workers, and California residents living and working near or downwind from conflagrations from airborne chromium 6 need to be further vetted and mitigated. More research and study is needed to better understand how to limit high-heat fires, which increase exposure to chromium 6, by implementing strategies, including controlled burns and other forest clean-up measures. Further research and mitigation strategies will better protect humans and ecosystems, including waterways and groundwater.

- 2) **Wildfires.** Wildfires have been growing in size, duration, and destructivity over the past 20 years. Since 2005, wildfires have destroyed more than 97,000 structures. In fact, California is home to eight of the top 10 most destructive wildfires and has more than half of all United States structure losses. The Camp Fire of 2018 alone destroyed more than 18,800 structures in Butte County, making it the most destructive wildfire in California history.

The major components of wildfire emissions are particulate matter and gases, including carbon dioxide, carbon monoxide, nitrogen oxides, and volatile organic compounds (VOCs), such as formaldehyde and benzene. If fires reach the wildland-urban interface, other toxic chemicals are likely to be released from the burning of household or industrial materials, such as plastics, pesticides, and other hazardous waste. The Air Resources Board (ARB) compared air quality data from the 2018 Camp Fire with three other large wildfires that burned mostly vegetation. ARB's analysis showed that elevated levels of lead, zinc, iron, and manganese were located as far as 150 miles away.

DTSC's Emergency Response Program oversees the cleanup of hazardous waste that is released after wildfires burn residential and commercial properties. DTSC is mission tasked by CalOES to begin assessing fire-impacted properties and remove harmful household hazardous wastes and bulk asbestos that threaten public health and the environment.

- 3) **Toxic wake of wildfires.** In nature, chromium mostly occurs in a form known as trivalent chromium or chromium 3, an essential nutrient that bodies use to break down glucose. Chromium 6 most often results from industrial processes. High levels of chromium 6 historically have entered the environment from industrial runoff and wastewater.

Scientists believe the heat of severe wildfires can transform the benign version of hexavalent chromium (chromium 3) which is found commonly in California soil, into chromium 6, which increases cancer risk when inhaled or ingested via contaminated drinking water, according to research published last December in the journal Nature Communications.

Chromium 6 is a metallic element which generally occurs in small quantities associated with other metals, particularly iron. Chromium is used to harden steel, in the manufacture of stainless steel, and in the production of a number of industrially alloys which are used in making of pigments, in leather tanning for welding and plating produces. The metal is present in the atmosphere in particulate form and is naturally found in crustal rock (basalts and serpentine) and soil.

Chromium 6 is identified as a known carcinogen on the Proposition 65 list pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986, and there is substantial evidence that chromium 6 can damage DNA. The ARB this year adopted a rule to phase out chromium 6 at industrial facilities, noting that there was "no known safe level of exposure."

Researchers visited the sites of wildfires in California's North Coast Range, including the 2019 Kincade Fire and the Hennessey Fire in 2020, to look for hexavalent chromium. Soil sampling resulted in finding "dangerous" levels of hexavalent chromium levels at sites where wildfires burned intensely in chaparral shrubs growing in areas that had serpentine soils relatively rich with metal. In addition to the soil findings, the researchers believe hexavalent chromium can travel in wildfire smoke, blown as dust after a fire is out and persist for months afterward. More research is needed to better understand the risk.

- 4) **This bill.** SB 234 would require, upon appropriation, CAL FIRE, CalOES, and DTSC, in consultation with academic and research institutions with demonstrated relevant expertise, and any other governmental agency or educational institution that may have experience in public health and wildfires, to form a workgroup related to exposure of toxic heavy metals after a wildfire.

Further research into wildfire-related toxic chromium exposure could help inform public health guidance, such as recommendations to wear an N95 mask when visiting a burn site; lead to additional protections for fire fighters; inform how to protect surface and groundwater from polluted runoff; and, other protections for which we may be unaware.

- 5) **Double referral.** This bill is also referred to the Assembly Environmental Safety & Toxic Materials Committee.
- 6) **Related legislation.** SB 1176 (Niello, 2023) would have required, upon appropriation by the Legislature, CAL FIRE, CalOES, and DTSC, in consultation with specified entities, to form a workgroup related to exposure of toxic heavy metals after a wildfire and report to the Legislature on or before January 1, 2026. This bill was held on the Assembly Suspense File.

## REGISTERED SUPPORT / OPPOSITION:

### Support

American Federation of State, County and Municipal Employees  
 California Fire Chiefs Association  
 California Forestry Association  
 California Professional Firefighters  
 Cleaneearth4kids.org  
 Fire Districts Association of California  
 Humboldt Redwood Company LLC  
 Union of Concerned Scientists

### Opposition

None on file

**Analysis Prepared by:** Paige Brokaw / NAT. RES. /

Date of Hearing: June 23, 2025

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

SB 484 (Laird) – As Amended May 23, 2025

**SENATE VOTE:** 37-0

**SUBJECT:** Coastal resources: coastal development permits: infill area categorical exclusion

**SUMMARY:** Requires the California Coastal Commission (Commission), in consultation with the Department of Housing and Community Development (HCD), by July 1, 2027, to identify infill areas within at least three local jurisdictions that do not have a certified local coastal program (LCP) for a categorical exclusion from the coastal development permitting (CDP) requirement.

**EXISTING LAW:**

- 1) States the intent of the Legislature in enacting housing element law to assure that counties and cities recognize their responsibilities in contributing to the attainment of the state housing goal, and to assure that counties and cities will prepare and implement housing elements which, along with federal and state programs, will move toward attainment of the state housing goal. (Government Code (GC) 65581)
- 2) Requires the housing element to consist of an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, financial resources, and scheduled programs for the preservation, improvement, and development of housing. Requires the housing element to identify adequate sites for housing, including rental housing, factory-built housing, mobilehomes, and emergency shelters, and shall make adequate provision for the existing and projected needs of all economic segments of the community. (GC 65583)
- 3) Defines “affirmatively furthering fair housing” as taking meaningful actions, in addition to combating discrimination, that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics. Specifically, affirmatively furthering fair housing means taking meaningful actions that, taken together, address significant disparities in housing needs and in access to opportunity, replacing segregated living patterns with truly integrated and balanced living patterns, transforming racially and ethnically concentrated areas of poverty into areas of opportunity, and fostering and maintaining compliance with civil rights and fair housing laws. The duty to affirmatively further fair housing extends to all of a public agency’s activities and programs relating to housing and community development. (GC 8899.50 (a)(1))
- 4) Pursuant to the California Coastal Act of 1976 (Coastal Act):
  - a) Regulates development in the coastal zone and requires a new development to comply with specified requirements. (Public Resources Code (PRC) 30000)

- b) Defines “development” to mean, among other things, the placement or erection of any solid material or structure on land or in water. “Structure” includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line. (PRC 30106)
- c) Requires each local government lying, in whole or in part, within the Coastal zone to prepare a LCP for that portion of the coastal zone within its jurisdiction. Authorizes any local government to request, in writing, the Commission to prepare an LCP or a portion thereof, for the local government. (PRC 30500)
- d) Requires, in addition to obtaining any other permit required by law from any local government or from any state, regional, or local agency, any person wishing to perform or undertake any development in the coastal zone, other than specified facilities, to obtain a CDP. (PRC 30600)
- e) Requires, if prior to certification of its LCP, a CDP to be obtained from the Commission or from a local government, as provided. Requires, after certification of its LCP, a CDP to be obtained from the local government.
- f) Clarifies that LCP updates, for local governments in the coastal zone, shall be completed in the same period required for the completion of rezones as part of the rezone program in the housing element. (PRC 30603)
- g) Establishes exemptions from CDP requirements, including any category of development, or any category of development within a specifically defined geographic area, that the Commission, after public hearing, and by two-thirds vote of its appointed members, has described or identified and with respect to which the Commission has found that there is no potential for any significant adverse effect, either individually or cumulatively, on coastal resources or on public access to, or along, the coast and, where the exclusion precedes certification of the applicable LCP that the exclusion will not impair the ability of local government to prepare a LCP. (PRC 30610)

**THIS BILL:**

- 1) Requires, by July 1, 2027, the Commission to, in consultation with HCD, identify infill areas within at least three local jurisdictions that currently do not have a certified LCP, wherein development of a residential housing project comprised entirely of units, excluding managers’ units, that are deed-restricted for persons of very low-, low-, or moderate-income shall be categorically excluded from the requirement to obtain a CDP.
- 2) Sunsets the categorical exclusion on June 30, 2037.
- 3) Requires each of the areas identified by the Commission to be effective upon the Commission certifying the exclusion pursuant to the two-thirds vote of its appointed members.
- 4) Requires, in identifying categorical exclusion areas, the Commission, in consultation with HCD, to consider all of the following:
  - a) The geographic distribution of the jurisdictions selected;



- b) The diversity of population size of the jurisdictions selected;
  - c) Each selected jurisdiction's inventory of sites in its housing element; and,
  - d) Future projected impacts from sea level rise and associated coastal hazards.
- 5) Requires the Commission, in identifying categorical exclusion areas, in consultation with HCD, to do both of the following:
- a) Identify the largest feasible categorical exclusion areas consistent with the criteria; and,
  - b) Ensure the areas affirmatively further fair housing.
- 6) Provides that nothing in this bill exempts a qualifying residential housing project proposed in a categorical exclusion area from obtaining a land use entitlement approval otherwise required by the local jurisdiction.
- 7) Requires, before commencing construction of a proposed residential housing project that is categorically excluded from the permit requirements pursuant to this bill, the development proponent to request, and the Commission to issue, a notice of exclusion documenting that the proposed project is categorically excluded from the requirement to obtain a CDP.
- 8) Requires, on or before January 1, 2035, the Commission to submit a report to the Legislature identifying the number of projects that were constructed or that are currently under construction that were categorically excluded from the CDP requirement. Sunsets the reporting requirement on January 1, 2039.

**FISCAL EFFECT:** According to the Senate Appropriations Committee, this bill will result in

- One-time costs of \$440,000 to the Commission spread over two years (General Fund) and one position to perform the spatial analysis and coordinate with HCD to delineate the required categorical exclusion areas, prepare the necessary staff reports and maps for the Commission to approve the categorical exclusions, and oversee initial implementation.
- Unknown, but likely minor costs for HCD to coordinate with the Commission.
- Unknown, but potentially significant cost pressures (General Fund) to extend, expand, or otherwise scale up the pilot project that would be provided for by this bill should it prove to be successful.

**COMMENTS:**

**1) Author's statement:**

California is facing a critical housing shortage, and affordability is a greater challenge on the coast where two-thirds of California's population resides. Thoughtful and sustainable development can take place on our coast without compromising the integrity of the Coastal Act or the preservation of our coastline and coastal resources.

Senate Bill 484 introduces a pilot program in three coastal jurisdictions that lack a certified local coastal program (LCP), directing the Coastal Commission to identify infill areas where 100% affordable housing can be developed without the need for a coastal development permit. This bill is limited to areas where the Coastal Commission is the permitting authority for development because there is not an approved LCP, thereby retaining local control for the jurisdictions that have certified LCPs.

Senate Bill 484 harmonizes the urgent need for affordable housing with the principles established by voters when they created the Coastal Commission. By leveraging the Commission's existing authority to establish categorical exemptions for certain types of development, SB 484 requires the Coastal Commission to streamline 100% affordable housing development within infill areas in limited parts of our coast, ensuring that both affordable housing and environmental protections are prioritized.

- 2) **Development in the Coastal zone.** The Commission administers the Coastal Act and regulates proposed development along the coast and in nearby areas in the coastal zone. Generally, any development activity in the coastal zone requires a CDP from the Commission or local government with a certified LCP. In the jurisdictions with certified LCPs, local governments issue CDPs with detailed planning and design standards. About 88% of the coastal zone is governed by a certified LCP. There are 14 jurisdictions (out of 15 counties and 61 cities) without LCPs – also known as “uncertified” jurisdictions – where the Commission is still the permitting authority for CDPs. Additionally, permitting decisions made by a local government with an approved LCP can be appealed directly to the Commission under specified circumstances. In reviewing the permit, the Commission generally must defer to those standards outlined in the LCP.
- 3) **California’s housing crisis.** Housing production has not kept pace with the state’s population growth. After decades of underproduction, housing supply is far behind need and housing and rental costs are soaring. Only 27% of households can afford to purchase the median priced single-family home – 50% less than the national average. More than half of renters, and 80% of low-income renters, are rent-burdened, meaning they pay more than 30% of their income towards rent.

HCD has determined that California must plan for more than 2.5 million new homes, and no fewer than one million of those homes must be affordable to lower-income households, in the 6<sup>th</sup> Regional Housing Needs Allocation (RHNA). This represents more than double the housing needed in the 5<sup>th</sup> RHNA cycle and would require production of more than 300,000 units a year. By contrast, housing production in the past decade has been less than 100,000 units per year – including less than 10,000 units of affordable housing per year.

- 4) **Housing demand in the coastal zone.** In the first five years of the Coastal Act (enacted in 1976), the Commission successfully required the construction of more than 5,000 affordable, deed-restricted, owner-occupancy and rental units in the coastal zone. Over time, however, many local governments objected to the loss of local control and stated that the Coastal Act’s housing policies were preventing them from preparing LCPs. In 1981, the Legislature adopted the Mello Act (SB 626) Mello, Chapter 1007, Statutes of 1981, to remove the housing policies out of the Coastal Act and by providing that “*No local coastal program shall be required to*

*include housing policies and programs.*” (PRC 30500.1) That legislation allowed any developer who had not yet completed a coastal housing project to require the Commission to remove the affordable requirements from the permit and prohibited the Commission from requiring local governments to include affordable housing in their LCPs. As a result, affordable housing development waned in the coastal zone.

According to the Legislative Analyst’s Office, California is a desirable place to live, yet not enough housing exists in the state’s major coastal communities to accommodate all of the residents that want to live there. A shortage of housing along California’s coast means households wishing to live there compete for limited housing, and this competition bids up home prices and rents. High home prices also push homeownership out of reach for many. Faced with expensive housing options, workers in California’s coastal communities commute 10% further each day than commuters elsewhere, largely because limited housing options exist near major job centers.

According to HCD, statewide affordable housing shortfall is more acute in the coastal zone. HCD notes that coastal areas cost 30% more, and housing in the coastal zone has higher cost burden as a result of a lack of affordable housing.

- 5) **Infill.** The term “infill development” refers to building within unused and underutilized lands within existing communities, typically but not exclusively in urban areas. Infill development helps build homes in closer proximity to jobs centers, transit, schools, and other local resources while reducing infrastructure costs (extended utility and water services), replacing vacant or underutilized parcels and parking lots with housing, and preventing sprawl. While infill development presents a multitude of opportunities for improved community development, it can also present environmental justice concerns – building affordable housing next to power plants, freeway interchanges, or other historically avoided areas due to pollution burdens.
- 6) **Categorical exemption.** Under current law, there are specified exemptions from CDP requirements, including any category of development that the Commission (after public hearing, and by two-thirds vote of its appointed members) has identified as having no potential for any significant adverse effect on coastal resources or on public access to, or along, the coast and, where the exclusion precedes certification of the applicable LCP, and that the exclusion will not impair the ability of local government to prepare a LCP.

This bill requires the Commission to create a new, limited-term categorical exemption, until June 30, 2037, for infill areas within at least three local jurisdictions that do not have a certified LCP. The exemption would be limited to development of a residential housing project comprised entirely of units, excluding managers’ units, that are deed-restricted for persons of very low-, low-, or moderate-income.

In identifying categorical exclusion areas, the bill requires the Commission, in consultation with HCD, to consider geographic distribution; diversity of population size; a jurisdiction’s inventory of sites in its housing element; and, future projected impacts from sea level rise and associated coastal hazards.

Regarding geographic distribution, the intent is to ensure some level of geographic parity, and the bill requires *at least* three areas so there is no limitation on how many jurisdictions can be included. But, this requirement can be further clarified.

Regarding diversity of population size, this reflects a desire to include the consideration of rural communities as well, since the assumption is that most of the categorical exemption areas would probably be in fairly dense urban areas. It also speaks to the Commission's ability to designate both large and small physical areas based on location of coastal resources that are being avoided.

- 7) **Potential pilot project locations.** Many coastal jurisdictions have certified LCPs, although some jurisdictions break their coastal zone areas into multiple segments that may not all be included in the certified LCP. In some instances, the certified LCP includes all of the developed/developable areas within the jurisdiction while leaving natural or environmentally-sensitive areas outside the LCP. However, there are local jurisdictions where developable infill areas remain outside a certified LCP. These include, for example, areas within the cities of Monterey, Goleta, Los Angeles, Santa Monica, Hermosa Beach, Torrance, Seal Beach, Costa Mesa, Aliso Viejo, San Clemente, and Solana Beach. This list of cities indicates that there are many more than three jurisdictions that may be eligible to participate in the pilot program proposed to be established by this bill.

As the bill is currently written, the only reporting requirement is for the Commission to submit a report to the Legislature in 2037 on what projects have been proposed or built. Requiring the Commission to post maps of the infill areas approved for the categorical exemption on its website once they are selected would make it super easy for affordable housing developers, local governments, and the public to identify areas where CDPs are not required.

- 8) **Double referral.** This bill is also referred to the Assembly Housing and Community Development Committee.
- 9) **Committee amendments.** The Committee may wish to consider the following amendments:
- a) Reorganize the bill to clarify the intent that the criteria in (c) apply to the selection of jurisdictions, and clarify the intent that the criteria in (d) apply to the selection on infill areas.
  - b) Require the Commission to post on its internet website maps of the infill areas approved for the categorical exemption.

## REGISTERED SUPPORT / OPPOSITION:

### Support

Audubon California  
Azul  
Black.Surfers  
California Apartment Association  
California Coastal Commission  
California Coastal Protection Network

California Housing Partnership  
California Institute for Biodiversity  
California Marine Sanctuary Foundation  
CAUSE  
Center for Biological Diversity  
Coastal Environmental Rights Foundation  
Defenders of Wildlife  
Endangered Habitats League  
Environmental Action Committee of West Marin  
Environmental Protection Information Center  
Green Foothills  
Housing California  
Los Angeles Waterkeeper  
Los Cerritos Wetlands Land Trust  
Midpen Housing Corporation  
National Parks Conservation Association  
Natural Heritage Institute  
Nature Conservancy; the  
NRDC  
Orange County Coastkeeper  
Planning and Conservation League  
Protect San Antonio Valley  
Salted Roots  
Surfrider Foundation  
Turtle Island Restoration Network

**Opposition**

None on file

**Analysis Prepared by:** Paige Brokaw / NAT. RES. /



Date of Hearing: June 23, 2025

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

SB 567 (Limón) – As Amended May 23, 2025

**SENATE VOTE:** 33-1

**SUBJECT:** Gravity-Based Energy Storage Well Pilot Program

**SUMMARY:** Establishes, until January 1, 2035, the Gravity-Based Energy Storage Well Pilot Program (Pilot Program) and authorizes the conversion of not more than 250 wells for use as gravity-based energy storage wells, as defined, to evaluate their use, including the establishment of appropriate operating conditions and physical parameters to safely generate energy.

**EXISTING LAW:**

- 1) Establishes the Division of Geologic Energy Management (CalGEM) in the Department of Conservation (DOC), under the direction of the State Oil and Gas Supervisor (supervisor). (Public Resources Code (PRC) 3000 *et seq.*)
- 2) Requires the supervisor to supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production, including pipelines that are within an oil and gas field, so as to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy; and, damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances. (PRC 3106)
- 3) Authorizes CalGEM to require an operator filing an individual indemnity bond or a blanket indemnity bond, as applicable, to provide an additional amount of security acceptable to the division based on CalGEM's evaluation of the risk that the operator will desert its well or wells and the potential threats the operator's well or wells pose to life, health, property, and natural resources. (PRC 3205.3)
- 4) Requires the supervisor to prepare and transmit to the Legislature a comprehensive report on the status of idle and long-term idle wells for the preceding calendar year, including a list of orphan wells remaining, the estimated costs of abandoning those orphan wells, and a timeline for future orphan well abandonment with a specific schedule of goals. For the purposes of this report, an orphan well is a well that has no responsible party, leaving the state to plug and abandon. (PRC 3206.3 (a)(1)(C))
- 5) Defines "idle-deserted well" as an oil and gas well determined by the supervisor to be deserted and for which there is no operator responsible for its plugging and abandonment under Section 3237. (PRC 3251 (e))
- 6) Defines a "health protection zone" as the area within 3,200 feet of a sensitive receptor. Defines "sensitive receptor" as a residence, an education resource, a community resource center, including a youth center, a health care facility, including a hospital, retirement home,

and nursing home, live-in housing, and any building housing a business that is open to the public. (PRC 3280)

**THIS BILL:**

- 1) Prohibits the supervisor from authorizing or allowing the use of a well or hydrocarbon reservoir for any purpose other than provided for in the statutory division on oil and gas.
- 2) Establishes the Gravity-Based Energy Storage Well Pilot Program.
- 3) Defines “Gravity-based energy storage well” as:
  - a) A well that meets all of the following:
    - i) The well is plugged with all perforations sealed, including by the use of permanent bridge plug;
    - ii) The well is isolated from a hydrocarbon reservoir;
    - iii) The well has mechanical integrity;
    - iv) The well is not a conduit for fluid migration into a beneficial use aquifer; and,
    - v) The well is exclusively used to store or generate energy by raising or lowering a weight within the well casing.
  - b) A well that has been fully plugged and abandoned is not eligible to be a gravity-based energy storage well.
  - c) A well listed as an orphan well or an idle-deserted well is eligible to be converted for use as a gravity-based energy storage well if all applicable and necessary rights to do so have been obtained.
- 4) Authorizes the supervisor to authorize the conversion of not more than 250 wells for use as gravity-based energy storage wells pursuant to this article to evaluate their use, including the establishment of appropriate operating conditions and physical parameters to safely store and generate energy.
- 5) Authorizes the supervisor, before authorizing the use of a well as a gravity-based energy storage well, to require the operator to provide additional information demonstrating the suitability of the well for use as a gravity-based energy storage well.
- 6) Provides that the conversion of a well for use as a gravity-based energy storage well does not relieve the operator of its obligation to plug and abandon the well, decommission attendant facilities, and remediate the site.
- 7) Requires, before authorizing the conversion of a well for use as a gravity-based energy storage well, the supervisor to obtain an enforceable commitment from the operator that all contractors and subcontractors, at every tier, performing the conversion will pay at least prevailing wages and will use a skilled and trained workforce to perform all work that falls within an apprenticeable occupation in the building and construction trades. Provides that



this requirement does not apply if all work to perform the conversion is subject to a project labor agreement that requires the payment of prevailing wages and the use of a skilled and trained workforce.

- 8) Defines “prevailing wages” as at the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations, except that apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate.
- 9) Defines “project labor agreement” as a prehire collective bargaining agreement that establishes terms and conditions of employment for a specific construction project or projects and is an agreement described in Section 158(f) of Title 29 of the United States Code.
- 10) Provides that “skilled and trained workforce” has the same meaning as set forth in Section 2601 of the Public Contract Code.
- 11) Authorizes the supervisor to assess a fee not to exceed the reasonable costs.
- 12) Prohibits a well that has been permitted or operated as a Class II well from being authorized for use as a gravity-based energy storage well without the written acknowledgment and authorization from the United States Environmental Protection Agency. The written acknowledgment and authorization shall be part of the well record.
- 13) Requires an idle well that is authorized for use as a gravity-based energy storage well to be eliminated from any plan or update to a plan except that the well shall be identified as a gravity-based energy storage well within the plan. Identification of the idle well as a gravity-based energy storage well within the plan or update to the plan shall constitute compliance with plan requirements.
- 14) Requires a gravity-based energy storage well that ceases to be operated as a gravity-based energy storage well to be incorporated as an idle well in any plan or update to a plan and removed from identification as a gravity-based energy storage well in the plan or update to the plan.
- 15) Provides that an idle well that is authorized for use as a gravity-based energy storage well remains subject to bonding requirements.
- 16) Requires the mechanical integrity of a gravity-based energy storage well to be assessed by CalGEM not less than annually and to include, at a minimum, pressure testing. Requires the assessment to be part of the well record. Requires a gravity-based energy storage well that has lost mechanical integrity to cease operation as a gravity-based energy storage well until mechanical integrity is restored. In the event of a loss of mechanical integrity or leak to the environment, the operator of a gravity-based energy storage well shall notify the division, the State Air Resources Board (ARB), the appropriate regional water quality control board, and any schools or community members living within 3,200 feet of the well of the loss of mechanical integrity or leak.
- 17) Requires a well after being converted for use as a gravity-based energy storage well to be continuously monitored for fluid leaks, including, but not limited to, methane leaks.

- 18) Requires the supervisor, in consultation with ARB and the State Water Resources Control Board (State Water Board), to establish criteria for fluid leak monitoring and reporting.
- 19) Requires a gravity-based energy storage well that has lost its mechanical integrity to be plugged and abandoned within one year or scheduled for plugging and abandonment in an approved idle well management plan or related plan approved by the supervisor unless the mechanical integrity of the well is restored.
- 20) Requires, beginning after the first month in which the gravity-based energy storage well becomes operational, the operator of a gravity-based energy storage well to, on a monthly basis, report to the supervisor the total energy discharged by the well during the prior month.
- 21) Requires a gravity-based energy storage well to meet all requirements applicable to a well.
- 22) Requires CalGEM to identify all wells converted to or being operated as gravity-based energy storage wells on its internet website.
- 23) Requires, on or by January 1, 2033, the Secretary for Environmental Protection (CalEPA), in consultation with entities operating gravity-based energy storage wells, CalGEM, the State Water Board and regional water quality boards, ARB, the State Energy Resources Conservation and Development Commission (CEC), relevant local jurisdictions, environmental and environmental justice organizations, tribes, and other stakeholders, to evaluate the Pilot Program and make recommendations to the Legislature for a framework to implement an ongoing Gravity-Based Energy Storage Well Program to provide for regulation of the operation of gravity-based energy storage wells as a result of the benefits determined for renewable energy sources and the storage of the energy in gravity-based energy storage wells. The recommendations shall be informed by the Pilot Program and shall include, but are not limited to, all of the following:
  - a) Implications of conversion of a well to a gravity-based energy storage well for local land use authorization and applicability of the California Environmental Quality Act (CEQA), including designation of the appropriate lead agency;
  - b) Appropriate regulatory parameters, including physical design, operating conditions, mechanical integrity, and inspection protocols, for a gravity-based energy storage well to ensure safe operation and no fluid, including, but not limited to, methane, leakage to the environment, including into aquifers of beneficial use;
  - c) Implications of conversion of a well to a gravity-based energy storage well for existing well classifications and associated requirements;
  - d) Tracking and monitoring by the regulator of gravity-based energy storage wells to ensure that those wells are ultimately plugged and abandoned, attendant equipment and infrastructure is decommissioned, and the site remediated;
  - e) Fee structure for gravity-based energy storage well operations to ensure that gravity-based energy storage well operations fully compensate regulatory oversight by the state;

- f) Structure and payment schedule from gravity-based energy storage well operations to fund the applicable plugging and abandonment of a gravity-based energy storage well, decommissioning of associated infrastructure, and site remediation; and,
  - g) The amount of renewable energy generated and the ease of connecting a gravity-based energy storage well to existing electrical infrastructure.
- 24) Requires the recommendations to include a review of gravity-based energy storage well operations including any leaks to the environment and loss of mechanical integrity.
- 25) Requires there to be at least one public meeting to solicit public input.
- 26) Sunsets this bill on January 1, 2035.
- 27) Provides that in the absence of another program authorizing the use of gravity-based energy storage wells, idle wells that are authorized to be used as gravity-based energy storage wells under this bill shall be reclassified as idle wells and other applicable law.
- 28) Provides that no reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution.

**FISCAL EFFECT:** According to the Senate Appropriations Committee:

- DOC estimates first year costs of about \$2 million and annual costs of \$1.9 million until the sunset date in 2035 (Oil and Geothermal Gas Account(OGGA)) for 9 positions to develop and administer the pilot program. This estimate is based on authorization and use of 250 wells for gravity-based energy storage, Actual costs may be lower depending on the actual number of wells in the program.
- ARB estimates ongoing costs of about \$1.7 million annually (OGGA) for methane monitoring and reporting, and to evaluate the pilot program and produce the report on behalf of CalEPA.
- Potentially significant ongoing cost pressure, likely in the millions of dollars annually (OGGA or other special fund), to provide funding to continue the program after it sunsets in 2025, or to expand or scale up the pilot program should it prove successful.
- Unknown, likely minor costs for the State Water Board to consult with ARB and other agencies.

**COMMENTS:**

**1) Author's statement:**

SB 567 will allow idle wells to be used for energy storage once they have been isolated from the oil or gas reservoir and satisfy other monitoring requirements. California has over 38,000 idle wells and a projected need of 52,000 MW of energy storage by 2045. To address both of these issues it is important the State consider new technologies. This bill will create a pathway for transitioning some idle wells into energy storage, while providing for the plugging and abandoning of the well when it is no longer being used for energy storage.

- 2) **California energy portfolio.** The 100 Percent Clean Energy Act of 2018 increased California's renewable portfolio standard (RPS) goal to 60% by 2030 and requires RPS-eligible resources and zero-carbon resources to supply 100% of California's electricity retail sales and electricity procured to serve state agencies by 2045.

Based on a joint analysis by the CEC and the ARB, an estimated six gigawatts (GW) of renewable energy and storage resources need to come online annually to meet the state's 2045 carbon neutrality goal. To meet these bold renewable energy targets, the state is looking to new renewable sources and yet-to-be deployed technologies, including offshore wind, ocean currents, and emerging battery storage. With necessity being the mother of invention, it is likely more technologies will continue to be presented as solutions to reach the state's RPS and climate goals.

- 3) **Orphan oil and gas wells.** In California, an idle well is a well that has not been used for two years or more and has not yet been properly plugged and abandoned (sealed and closed). According to CalGEM, there are more than 37,000 known idle wells in California, all of which will eventually come to their end of life, and their owner/operators will be required to plug the wells with cement and decommission the production facilities, restoring the well site to its prior condition. Idle wells can become orphan wells if they are deserted by insolvent operators. When this happens, there is the risk of shifting responsibilities and costs for decommissioning the wells to the state. Not reflecting well-specific cost drivers, the average cost to the state to plug and abandon wells since 2011 has been about \$95,000 per well. As of December 31, 2021, CalGEM had identified more than 5,300 wells as orphan or potentially orphan.
- 4) **Gravity energy storage wells.** A gravity well is an idle oil or gas well that is retrofitted with a gravity-based mechatronic energy conversion system to generate renewable energy for the grid. The technology charges and discharges by lifting and lowering a long, cylindrical weight, which consists of used oilfield tubing or casing and high-density filling. It is suspended by wire rope in an idle well that is sealed with a cement plug prior to installation. It is estimated that each conversion can generate and store upwards of 2,000 megawatt hours (Mwh) of clean energy. Converting orphan wells into energy storage systems can both potentially permanently seal the well, stemming the noxious pollution from the well from seeping into the nearby communities, and can create potentially significant renewable energy storage.

Renewell, a California-based gravity well company, is in the process of installing a gravity well on an idle well in California Resource Corporation's (CRC) Elk Hills Field. The well is 7,000 feet deep and has a seven-inch diameter casing cemented all the way to the surface. CalGEM approved the permit as a Rework in September 2023. In September and October 2023, the production tubing was removed, the well was scraped and flushed, and a 100 foot cement plug was set (and witnessed by CalGEM), and was also pressure tested.

After the well was prepped, Renewell installed a 30,000lb weight made of steel casing joints filled with heavily weighted mud. The weight is suspended in the water that fills the well and is currently secured to the wellhead. Renewell expects the system to be operational in 2024. Under the arrangement, CRC will remain the owner/operator of the well.

While this bill is not company specific – many technology companies may have or develop gravity-based energy storage wells – Renewell’s pilot can inform CalGEM as to how they can and should be regulated.

- 5) **This bill.** California does not currently have a way to permit gravity-well technologies as it is outside CalGEM’s statutory jurisdiction. SB 567 provides explicit authority, until January 1, 2035, for the Pilot Program for CalGEM to permit the conversion of up to 250 wells for use as gravity-based energy storage wells to evaluate their use, including the establishment of appropriate operating conditions and physical parameters to safely store and generate energy. The bill excludes Class II injection wells, which are used to safely dispose of the salt and fresh water produced with oil and gas, from potential conversion.

By January 1, 2033, CalEPA, in consultation with state entities, gravity-well operators, and specified stakeholder groups would be required to evaluate the Pilot Program and make recommendations to the Legislature for a framework to implement an ongoing Gravity-Based Energy Storage Well Program. The evaluation would consider CEQA, mechanical integrity, well classification for future conversion, tracking and monitoring, among other things.

- 6) **Environmental concerns.** The Water Replenishment District, whose service area covers 420 square-mile region of southern Los Angeles County, opposes SB 567 due to the threat the use of idle oil and gas wells for gravity-based energy storage in the Central and West Coast basins would pose to groundwater quality and access to drinking water for four million residents. The structural integrity of an idle well might not be known and repurposing a well for gravity-based energy storage even following mechanical integrity testing present concerns.

While it’s unlikely that a gravity-based energy storage well would present greater groundwater threats than an idle well, the bill includes checks and balances to ensure that’s the case. SB 567 requires the mechanical integrity of a gravity-based energy storage well to be assessed and pressure testing by CalGEM at least once annually.

After being converted for use as a gravity-based energy storage well, a well would be required to be continuously monitored for fluid leaks, including, but not limited to, methane leaks, and the state oil and gas supervisor would establish criteria for fluid leak monitoring and reporting in consultation with the State Water Board.

- 7) **Related legislation.** AB 1433 (Limón, 2024) would have established, until January 1, 2034, the Gravity-Based Energy Storage Well Pilot Program for the conversion of up to 1,000 wells for use as gravity-based energy storage wells, as defined, to evaluate their use, including the establishment of appropriate operating conditions and physical parameters to safely generate energy. This bill was held in the Assembly Appropriations Committee.

## REGISTERED SUPPORT / OPPOSITION:

### Support

County of Kern  
Environmental Defense Fund  
Kern County Board of Supervisors

Renewell Energy  
State Building & Construction Trades Council of California

**Opposition**

Water Replenishment District

**Analysis Prepared by:** Paige Brokaw / NAT. RES. /

Date of Hearing: June 23, 2025

**ASSEMBLY COMMITTEE ON NATURAL RESOURCES**

Isaac G. Bryan, Chair

SB 653 (Cortese) – As Amended May 23, 2025

**SENATE VOTE:** 36-0

**SUBJECT:** Wildfire prevention: environmentally sensitive vegetation management

**SUMMARY:** States the intent of the Legislature to encourage the use of environmentally sensitive vegetation management practices that maintain ecological health and strengthen biodiversity while mitigating wildfire risk, and requires environmentally sensitive vegetation management projects to prioritize specified practices.

**EXISTING LAW:**

- 1) Requires the Department of Forestry and Fire Protection (CAL FIRE) to assist local governments in preventing future high-intensity wildland fires and instituting appropriate fuels management by making its wildland fire prevention and vegetation management expertise available to local governments, as provided. (Public Resources Code (PRC) 4741)
- 2) Authorizes CAL FIRE to administer the forestry assistance program to provide loans to encourage forest resource improvements and otherwise facilitate good forest land management through a program of financial, technical, and educational assistance, as well as through applied research. (PRC 4792)
- 3) Requires CAL FIRE to establish a local assistance grant program for fire prevention and home hardening education activities in California. (PRC 4124.5)
- 4) States the intent of the Legislature that additional consideration under the California Vegetation Treatment Program (CalVTP) be provided for chaparral and coastal sage scrub plant communities that are being increasingly threatened by fire frequency in excess of their natural fire return patterns due to climate change and human-caused fires. Provides that prescribed burning, mastication, herbicide application, mechanical thinning, or other vegetative treatments of chaparral or sage scrub can occur only if CAL FIRE finds that the activity will not cause “type conversion” away from the chaparral and coastal sage scrub currently on site. Allows CAL FIRE to order remediation for any type conversion caused in violation of this section. (PRC 4483 (b)(1))
- 5) Provides that projects conducted under Good Neighbor Authority agreements be designed, to the extent feasible, to prevent “type conversion” and the spread of invasive plants and grasses. (PRC 4812)
- 6) Defines “integrated pest management” as an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines and treatments are made with the goal of removing only

the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment. (Food and Agricultural Code 11401.7)

- 7) Authorizes, pursuant to the Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Bond Act of 2024 (Proposition 4), \$1.5 billion for wildfire prevention, including vegetation management related activities. (PRC 91520)

**THIS BILL:**

- 1) States the intent of the Legislature to encourage the use of environmentally sensitive vegetation management practices that maintain ecological health and strengthen biodiversity while mitigating wildfire risk.
- 2) Defines “environmentally sensitive vegetation management” as vegetation management that reduces catastrophic wildfire risk over the long term while supporting native wildlife and biodiversity.
- 3) Defines “type conversion” as the process of dominant native plant species, including, but not limited to, native shrubs, being significantly reduced or extirpated and nonnative species colonizing an area due to disturbance events, including, but not limited to, wildfire incidents.
- 4) Requires environmentally sensitive vegetation management projects to prioritize the following practices:
  - a) Follow the principles of integrated pest management;
  - b) Implement measures to support native plant health and biodiversity;
  - c) Maximize long-term risk reduction of catastrophic wildfire;
  - d) Use monitoring plans and incorporate monitoring before, during, and after vegetation management treatments;
  - e) Use methods that mimic natural disturbance processes to maintain rare habitats;
  - f) Time vegetation management to minimize the potential impacts to wildlife and minimize the reproduction of invasive plants;
  - g) Minimize erosion impacts from vegetation management;
  - h) Include consultation with native plant botanists and land management experts;
  - i) Leave buffers around bodies of water to protect watershed health;
  - j) Use prescribed grazing where applicable;
  - k) Avoid habitat type conversion; and,
  - l) Implement measures to avoid impacts to rare or sensitive species and habitats, in consultation with relevant agencies.



**FISCAL EFFECT:** According to the Senate Appropriations Committee, the Department of Parks and Recreation (State Parks) estimates ongoing costs in the range of \$1 - \$4 million annually (General Fund, Proposition 4 bond funds, or other funds) to support one additional position for each State Park District implementing vegetation management activities under the requirements of the bill, which would also be dependent upon on the scope of implementation of these vegetation management practices.

To the extent that defining environmentally sensitive vegetation management for the purposes of certain projects eligible for funding from Proposition 4 changes or displaces projects that otherwise would have occurred or been funded absent this bill, it could result in cost pressures of an unknown amount.

**COMMENTS:**

1) **Author's statement:**

Wildfires have been devastating to California communities. As the climate changes, these fires become increasingly dangerous and destructive. Vegetation management is an integral part of reducing wildfire risk in our state, but we must ensure that we manage vegetation responsibly. SB 653 ensures that projects related to environmentally sensitive vegetation management will prevent habitat degradation, enhance biodiversity, improve wildfire resilience, and ensure science-based approaches to vegetation management. This bill is an opportunity to balance our state's need to reduce dangerous fuels with the importance of protecting biodiversity in our unique and vulnerable natural lands.

- 2) **Vegetation management.** California faces increasing threats from catastrophic wildfires which are exacerbated by climate change, drought, and the spread of nonnative vegetation. Management of vegetation mitigates wildfire risks by reducing vegetation density and hazardous fuels to prevent wildfires from spreading uncontrollably. Vegetation management can include pruning of trees, removal dead trees and plants, brush thinning, grass trimming, invasive species removal, prescribed burning, mechanical or manual removal, pest management, and herbicide treatment.

Traditional vegetation management approaches, such as indiscriminate clearing and heavy mechanical treatments, can lead to unintended ecological consequences including the loss of native plant species, habitat degradation, and soil erosion. Environmentally sensitive vegetation management practices offer an alternative approach that balances wildfire risk reduction with ecological resilience, ensuring long-term benefits for biodiversity and habitat integrity.

SB 653 defines environmentally sensitive vegetation management as vegetation management that reduces catastrophic wildfire risk over the long term while supporting native wildlife and biodiversity. Environmentally sensitive vegetation management projects would be required to prioritize such practices as integrated pest management, consultation with native plant botanists and land management experts, prescribed grazing, and manage watershed protections, among other things.

- 3) **Proposition 4.** The Climate Bond authorizes \$10 billion for various environmental projects and programs, and includes \$200 million for the Natural Resources Agency and the State

Parks for forest health and watershed improvement projects in forests and other habitats, including, but not limited to, redwoods, conifers, oak woodlands, mountain meadows, chaparral, and coastal forests. The bond requires projects to involve the restoration of natural ecosystem functions in very high, high, and moderate fire hazard areas and may include prescribed fire, cultural fire, environmentally sensitive vegetation management, land protection, science-based fuel reduction, watershed protection, carbon sequestration, protection of older fire-resistant trees, or improved forest health.

Varying amounts are authorized for specified state agencies to do various forest health projects, including chaparral watershed improvement, wildfire resilience, and chaparral and forest restoration. Additionally, the bond makes \$15 million available to the California Fire Foundation to support vegetation mitigation and fuels reduction projects, among other things, and \$50 million for grants to conduct fuel reduction, structure hardening, create defensible space, reforestation, or targeted acquisitions to improve forest health and fire resilience.

This bill does not direct state agencies or specify any entities to conduct environmentally sensitive vegetation management; rather, it states the intent of the Legislature to encourage the use of environmentally sensitive vegetation management practices that maintain ecological health and strengthen biodiversity while mitigating wildfire risk. While the bill is not tethered to the bond, the statutory changes made by the bill could inform the state entities funding vegetation management afforded by the bond.

4) **Committee amendments.** The Committee may wish to consider the following amendments:

- a) Clarify that when providing funds for a grant program that funds an environmentally sensitive vegetation management project, the state entity (department, agency, office, board, commission) should consider the bill's specified criteria for incorporation into its funding guidelines;
- b) Clarify that type conversion does not include the removal of native species to make room for other native, but underrepresented vegetation; and,
- c) Clarify that monitoring plans shall be those determined by the funding entity.

5) **Related legislation:**

- a) AB 846 (Connolly) requires the Department of Fish and Wildlife to develop maps identifying critical habitats within lands designated as moderate, high, or very high fire hazard severity. This bill is referred to the Senate Natural Resources and Water Committee.
- b) AB 1077 (Bates, 2021) revises the projects eligible to receive grants from the State Coastal Conservancy's Climate Ready Program to explicitly include projects that remove nonnative and invasive plants from coastal features, habitats and ecosystems and replace them with native plant species, and provides that these grants are contingent upon legislative appropriation, among other things. This bill was held in Assembly Appropriations Committee.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

Arroyos & Foothills Conservancy  
California Native Plant Society  
Climate Reality Project, Los Angeles Chapter  
Endangered Habitats League  
Friends of Ballona Wetlands  
Friends of Five Creeks  
Midpeninsula Regional Open Space District  
Oakland; City of  
San Jose Conservation Corps  
Santa Barbara Botanic Garden  
Sempervirens Fund

**Opposition**

None on file

**Analysis Prepared by:** Paige Brokaw / NAT. RES. /



Date of Hearing: June 23, 2025

**ASSEMBLY COMMITTEE ON NATURAL RESOURCES**

Isaac G. Bryan, Chair

SB 831 (Limón) – As Introduced February 21, 2025

**SENATE VOTE:** 29-0

**SUBJECT:** Geologic hazards: California Geological Survey

**SUMMARY:** Makes multiple largely clarifying and technical amendments to modernize and incorporate the California Geological Survey's (Survey) current programs and activities, as provided.

**EXISTING LAW:**

- 1) Establishes the Department of Conservation (DOC) within the California Natural Resources Agency (NRA). Vests the Director of Conservation (director) with all the duties, powers, purposes, responsibilities and jurisdiction of the State Geologist as chief of the Survey and is authorized to delegate those authorities to a deputy director or assistant, as provided. (Public Resources Code (PRC) 603.1)
- 2) Establishes the State Mining and Geology Board (Board) and the Survey within DOC. (Public Resources Code (PRC) 607, 660)
- 3) Requires the Board to nominate and the director to appoint the State Geologist with certain expertise and specified duties. (PRC 677)
- 4) Establishes the authorities of the State Geologist. (PRC 2205)
- 5) Defines "geologic hazard" as a geologic condition that is a potential danger to life and property. Geologic hazards include, but are not limited to, earthquake shaking, landslide, erosion, expansive soil, fault displacement, and volcanic eruption. (PRC 2009)
- 6) Establishes the requirements of the Survey to carry out programs, in cooperation with federal, state, and local government agencies that will reduce the loss of life and property and protect the environment by mitigating geologic hazards. (PRC 2201)
- 7) Authorizes a manufacturer or processor, to, upon request, report data to the State Geologist on consumption or utilization of mineral materials. Requires those reports to be confidential. Authorizes publications issued as commodity or marketing studies to contain figures from such reports, provided that these figures are presented so as not to disclose the consumption or utilization of minerals by any user. (PRC 2207.1)
- 8) Requires the Survey to maintain and service the strong-motion instruments installed, collect and interpret all records from the instruments, and make the records, record interpretations, and technical assistance available to the construction industry. (PRC 2703)

**THIS BILL:**

- 1) Makes technical cleanup changes to the Board's governing statute.
- 2) Revises the definition of "geologic hazard" to include, but not limited to, earthquake, landslide, mineral hazards, postfire debris flow, subsidence, coastal and inland erosion, expansive soil, fault displacement, and volcanic eruption.
- 3) Provides that DOC is the primary state agency responsible for review and investigation of geologic hazards including, but not limited to, the strong motion aspects of earthquakes and any geologic hazards that may occur in relation to natural disasters and climate change.
- 4) Requires the Survey to consider Survey activities related to geologic hazards and the effects of climate change on geologic hazards.
- 5) Makes technical and clarifying amendments to the State Geologist's statutory authorities.
- 6) Authorizes, rather than requires, that certain submitted mineral materials consumption data be held confidential, as provided.
- 7) Makes various technical and minor changes to statute, including updating the name of the Survey. Clarifies the role of the Survey within DOC.
- 8) Adds the Survey to the state agencies that the Department of Forestry and Fire Protection (CAL FIRE) is required to collaborate with in the design of fuel reduction projects to protect water resources and wildlife habitat, as specified.
- 9) Requires the Survey to include records that support earthquake early warning and structural health monitoring.
- 10) Deletes obsolete language.

**FISCAL EFFECT:** According to the Senate Appropriations Committee, this bill has negligible state costs and was approved pursuant to Senate Rule 28.8.

**COMMENTS:****1) Author's statement:**

California has a notorious history of destructive natural disasters, including devastating earthquakes, landslides, and fault displacement. To mitigate the potential impacts from disasters, the Department of Conservation performs essential functions related to geologic hazard mapping, including carrying out activities related to geology, seismicity, forests, watersheds and mineral resources, providing vital information for hazard prone areas. Prioritizing the mapping of geologic hazards is an important step for state and local planning, further ensuring protecting the public health and safety is elevated.

SB 831 clarifies the scope of current law by including in the definition of 'geologic hazards' certain geologic conditions that may occur in relation to

natural disasters and climate change. As the effects of climate change become more apparent, hazards such as mineral hazards, postfire debris flow, subsidence, and inland and coastal erosion must be clarified as potential dangers to life and property under the definition. Updating statutes, along with removing obsolete and redundant references, to acknowledge the exacerbating influence of climate change stressors on geologic hazards ensures the state has more clarity on when and where to focus vital resources to better plan for hazards in the future.

- 2) **California Geological Survey.** The Survey is one of the oldest geological surveys in the nation. Following the Gold Rush, the state Legislature recognized that geologists could provide valuable information about California's mineral riches. In 1851, one year after California was admitted to the Union, the Legislature named its first (honorary) "State Geologist." In 1860, the Legislature passed an act establishing the state's first official Geological Survey of California and, "to create the Office of the State Geologist, and to define the duties thereof." The definition of duties included an accurate and complete geological Survey of the State.

The Survey has a mandate to address the challenges facing the state, including hazards from landslides, sea level rise and coastal erosion, post-wildfire debris flows and flash flooding, demands on groundwater resources, and demands on critical minerals – and to communicate actionable information to scientists, engineers, emergency workers, and planners to protect life-safety and property and to build resilient communities.

The Survey provides valuable scientific products and services related to California's geology, seismology, and mineral resources, which informs land-use planning, safe engineering practices, and hazard mitigation, ultimately impacting the health, safety, and economic interests of Californians. For example, the Survey develops maps and data to identify areas prone to earthquake hazards like liquefaction, landslides, and fault rupture, which aids local agencies in their emergency planning. It also provides technical assistance on mineral hazards like radon, heavy metals, and asbestos. Economically, the Survey provides data on the availability and consumption of non-fuel minerals, informing land-use planning and long-term economic decisions, and provides data on geological conditions, which is crucial for safe engineering and construction of essential infrastructure like roads, bridges, and public facilities.

The Survey does this critical work through the administration of the following major programs: Burned Watershed Geohazards Program, Forest and Watershed Geology Program, Regional Geologic and Landslide Mapping Program, Mineral Resources Program, Seismic Hazards Program, and the California Strong Motion Instrumentation Program.

- 3) **Climate change.** As the climate changes and weather patterns become more extreme, the state's hazards will evolve and need to be assessed and addressed accordingly. This bill addresses the fact climate change interacts with geologic hazards, including post fire mudslides, subsidence (from drought), and any geologic hazards that may occur in relation to natural disasters and climate change.

This bill clarifies the scope of current law by amending the definition of a "geologic hazard" to specify geologic conditions that may occur in relation to natural disasters and climate change, such as mineral hazards, postfire debris flow, subsidence, and inland and coastal

erosion, as potential dangers to life and property in addition to earthquake, landslide, expansive soil and fault displacement.

The current statutory definition of “geologic hazard” specifies that the definition is not limited to earthquake shaking, landslide, erosion, expansive soil, fault displacement, and volcanic eruption. However, the definition has not been updated since its enactment in 1988 and makes no mention of impacts from climate change on geologic conditions.

- 4) **Need for updates.** According to the Senate Natural Resources and Water Committee’s analysis, many of the Survey’s statutes have not been revised for multiples decades, and they do not currently reflect how the Survey’s programs and activities have evolved over time. Of particular note, the proposed changes acknowledge explicitly the important role the Survey has in addressing geologic hazards.

Numerous statutes within the PRC provide authority to the Survey were last updated more than 20 years ago, with some being more than 50 years old. The programs and activities they authorize would benefit from the revisions and recasting proposed in this bill to bring the Survey’s role into its current form. Some of these provisions contain obsolete constitutional references, incorrect references to state codes, and typographical errors in the name of the Survey.

The clarifying amendments would serve to more accurately describe existing roles and responsibilities to investigate, map, and mitigate geologic hazards, respond to emergencies and conduct assessments after geologic hazard events, and evaluate geological conditions affecting and affected by forest practices.

## **REGISTERED SUPPORT / OPPOSITION:**

### **Support**

California Construction & Industrial Materials Association

### **Opposition**

None on file

**Analysis Prepared by:** Paige Brokaw / NAT. RES. /



Date of Hearing: June 23, 2025

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

SB 839 (Laird) – As Amended June 16, 2025

**SENATE VOTE:** 32-0

**SUBJECT:** Oil spills: fishing: water closure: grants: liability

**SUMMARY:** Revises existing state authorities related to the closure of certain waters to the take of all fish or shellfish upon notification of an oil spill.

**EXISTING LAW:**

- 1) Requires, within 24 hours of notification of a spill or discharge, where any fishing, including all commercial, recreational, and nonlicensed subsistence fishing, may take place, or where aquaculture operations are taking place, the director of the Department of Fish and Wildlife (DFW) to close to the take of all fish and shellfish all waters in the vicinity of the spill or discharge or where the spilled or discharged material has spread, or is likely to spread. (Fish and Game Code 5654)
- 2) Requires, pursuant to the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act, the administrator for the Office of Spill Prevention and Response (OSPR), acting at the direction of the Governor, to implement activities relating to oil spill response, including emergency drills and preparedness, and oil spill containment and cleanup. (Government Code (GC) 8670.1)
- 3) Authorizes the administrator to offer grants to a local government, Native American tribe, or other public entity with jurisdiction over or directly adjacent to waters of the state to provide oil spill response equipment to be deployed by a certified local spill response manager. (GC 8670.8.3)
- 4) Requires a responsible party to be absolutely liable without regard to fault for any damages incurred by any injured person that arise out of, or are caused by, a spill. (GC 8670.56.5)
- 5) Establishes the Environmental Enhancement Fund in the State Treasury. Limits money in the fund to only be used for environmental enhancement projects. Prohibits moneys from being used for the cleanup of an oil spill or the restoration required after an oil spill. The money is available for appropriation by the Legislature to the OSPR administrator. (GC 8670.70)
- 6) Establishes the Environmental Enhancement Grant Program (EEGP). (GC 8670.73)

**THIS BILL:**

- 1) Strikes the mandate and instead authorizes the director of DFW, after a notification of a spill or discharge, where any fishing, including all commercial, recreational, and nonlicensed subsistence fishing, may take place, or where aquaculture operations are taking place, to close all waters in the vicinity of the spill or discharge or where the spilled or discharged

material has spread, or is likely to spread, to the take of all fish or shellfish, or may restrict the take or possession of all fish or shellfish, in those waters.

- 2) Requires closure if the Office of Environmental Health Hazard Assessment (OEHHA) finds that a public health threat exists or is likely to exist. In determining the need for a closure, requires the director of DFW consult with OEHHA within 24 hours after a notification of a spill or discharge regarding the likelihood of a public health threat, if any of the following conditions are met:
  - a) There is a reported volume of one or more barrels of oil spilled or discharged in inland or estuarine waters or enclosed bays;
  - b) There is a reported volume of one or more barrels of oil spilled or discharged and the oil is impacting coastal shorelines; or,
  - c) There is a reported volume of five or more barrels of oil spilled or discharged in open ocean waters.
- 3) Authorizes, if none of the aforementioned conditions are met, the director of DFW to consult with OEHHA regarding the likelihood of a public health threat.
- 4) Requires, within 48 hours after a closure, both of the following to occur:
  - a) OEHHA to assess the danger posed to the public from fishing in the area where the spill or discharge occurred or spread, and the danger of consuming fish or shellfish taken in the area where the spill or discharge occurred or spread; and,
  - b) The director, in consultation with OEHHA, to determine whether the areas closed to the take of fish or shellfish should be revised to prevent any potential take or consumption of any fish or shellfish that may have been contaminated by the spill or discharge.
- 5) Authorizes, if OEHHA finds in the assessment that there is no significant risk to the public or to the fisheries, the director to immediately reopen a closed area and waive the testing requirements.
- 6) Strikes the director's discretion and requires the director to maintain a closure in any remaining portion of the closed area where OEHHA finds contamination from the spill or discharge persists that may adversely affect human health.
- 7) Authorizes OEHHA to seek full reimbursement from the responsible party or parties for the spill or discharge for all reasonable incurred costs.
- 8) Provides that it is unlawful to take any fish or shellfish from any closed waters or to otherwise violate any restriction.
- 9) Clarifies that the OSPR administrator may offer grants to a federally recognized tribe to provide oil spill response equipment to be deployed by a certified local spill response manager.

- 10) Includes federally recognized tribes with jurisdiction over or directly adjacent to waters of the state to be eligible to receive a grant to complete, update, or revise an oil spill element of the area plan.
- 11) Deletes discharge or leaking of oil or natural gas from a private pleasure boat or vessel from the list of circumstances for which a responsible party is not liable to an injured person.
- 12) Provides that moneys in the Environmental Enhancement Fund are available to the administrator for environmental enhancement projects, upon appropriation by the Legislature.
- 13) Includes federally recognized tribes as eligible entities eligible for grants under the EEGP.
- 14) Provides that no reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution.

**FISCAL EFFECT:** According to the Senate Appropriations Committee, this bill will result in unknown, but potentially significant ongoing cost pressure (Environmental Enhancement Fund) due to expanded eligibility for the EEGP.

**COMMENTS:**

**1) Author's statement:**

Current law requires the Director of DFW to issue a fisheries closure within 24 hours of notification of an oil spill to water, regardless of size or location. SB 839 removes the automatic fishery closure requirement and makes a discretionary decision based on consultation with OEHHHA and field data and observations from the spill site. This will enable data-driven collaborative decision making to uphold the protection of the public, wildlife, and environment, while avoiding unnecessary impacts on commercial, recreational, and subsistence fishing.

SB 839 also removes a damages liability exemption for private pleasure boats or vessels causing oil spills and expands Environmental Enhancement Fund grant eligibility to include federally recognized tribes.

- 2) Oil spill response.** Current law requires the director of DFW, within 24 hours of notification of a spill or discharge, to close certain waters to the take of all fish and shellfish, and provides that closure is not required if OEHHHA finds, within 24 hours of the notification, that a public health threat does not or is not likely to exist.

This bill adds numerous processes to clarify existing law and adds more discretion to DFW and OEHHHA to evaluate and close an area to fishing following an oil spill. This bill would instead authorize, instead of require, after a notification of a spill or discharge, the director to close certain waters to the take of all fish or shellfish or to otherwise restrict the take and possession of all fish or shellfish in those waters. The bill also prohibits fishing from any closed waters. It authorizes the DFW director to open a closed area if OEHHHA, not the DFW director, finds there is no significant risk to the public or to the fisheries.

An example of an area being closed to fishing occurred following the Huntington Beach oil spill in October 2021, when coastal waters in the vicinity were closed to fishing for about two months due to public health risks. In addition, following the Refugio Beach oil spill in May 2015, as much as 138 square miles of state waters were closed to fishing for about six weeks until OEHHA determined through testing that the risks to health from consuming contaminated fish or shellfish were nominal. Historically, most spills are relatively small and do not warrant a mandatory fishery closure.



Photo from National Fish & Wildlife Foundation following the 2015 Refugio oil spill

- 3) **Oil spill liability.** Under current law, in the event of an oil spill or discharge, the responsible party is absolutely liable for any damages caused by the spill or discharge to an injured person with certain exemptions such as damages that result from acts of war, or are due solely to the negligence or intentional malfeasance of the injured person, among others.

This bill strikes the exclusion of pleasure boats from having absolute liability if they cause an oil spill. There is no existing restriction on the size of pleasure boats. Large yachts can be hundreds of feet in length and hold thousands to tens of thousands of gallons of fuel. It is possible that a large yacht could take advantage of the exemption from damages resulting from an oil spill intended for small craft.

- 4) **Native American inclusion.** The EEGP seeks projects to mitigate environmental impacts caused by new or modified public transportation facilities. Eligible applicants include local, state, and federal governmental agencies, and nonprofit organizations. This bill adds federally recognized Native American tribes to the list of eligible applicants.

The bill would also clarify that a federally recognized tribe with jurisdiction over or directly adjacent to waters of the state can receive a grant from the OSPR administrator to provide oil spill response equipment to be deployed by a certified local spill response manager.

- 5) **Double referral.** This bill is also referred to the Assembly Judiciary Committee.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

None on file

**Opposition**

None on file

**Analysis Prepared by:** Paige Brokaw / NAT. RES. /

Date of Hearing: June 23, 2025

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

SCR 50 (Stern) – As Introduced March 26, 2025

**SENATE VOTE:** 29-0

**SUBJECT:** Maladaptation

**SUMMARY:** Resolves that the Legislature recognizes the serious and urgent threat maladaptation poses to the success and cost effectiveness of the state's climate resilience actions. Further resolves that the Legislature calls on the Governor's Office of Land Use and Climate Innovation (GO-LCI) to work with other state departments, researchers, and communities to develop and adopt a statewide policy with an agreed upon definition of maladaptation and to evaluate the effectiveness of measures to improve climate resilience. Additionally, resolves that the Legislature calls upon GO-LCI to review its policies and plans in the state's Adaptation Clearinghouse database and to evaluate their progress to determine if any have or are likely to be maladapted.

**EXISTING LAW:**

- 1) Renames the prior Office of Planning and Research as the GO-LCI, among other statutory changes, to implement the Budget Act of 2024. (SB 164 [Committee on Budget and Fiscal Review], Chapter 41, Statutes of 2024)
- 2) Establishes GO-LCI as the comprehensive state planning agency, responsible for developing state land use policies, coordinating planning of all state agencies, and assisting and monitoring local and regional planning. (Government Code 65025 *et seq.*)
- 3) Establishes the Integrated Climate Adaptation and Resiliency Program (ICARP) within the GO-LCI, to coordinate regional and local efforts with state climate adaptation strategies to facilitate the development of holistic, complementary strategies for adaptation. (Public Resources Code (PRC) 71354)
- 4) Requires GO-LCI to coordinate with appropriate entities, including state, regional, or local agencies, to establish a clearinghouse for climate adaptation information for use by state, regional, and local entities. (PRC 71360)

**FISCAL EFFECT:** Nonfiscal

**COMMENTS:**

- 1) **Responding to climate change.** Every part of the state is already experiencing the impacts of climate change, from extreme heat, drought, and wildfires, to rising sea levels and storm surges. In order to maintain a safe, livable California for all in the face of global climate change, rapid and far-reaching actions must be taken to address mitigation, adaptation, and resilience. In addition to its efforts to mitigate the worst effects of climate change, the state must also prepare to live with the effects of global warming through adaptation. There is no one-size-fits-all best way to adapt to climate change, and different regions of the state will

need to enact different adaptation measures. Climate-proofing California will require careful coordination across all levels of government as we face unprecedented challenges to our infrastructure, health, and economy.

- 2) **Maladaptation.** The Intergovernmental Panel on Climate Change (IPCC) defines maladaptation as “actions that may lead to increased risk of adverse climate-related outcomes, increased vulnerability to climate change, or diminished welfare, now or in the future.” Maladaptation can result from well-intentioned efforts that are not well planned. Some examples of maladaptation include things like planting trees to sequester carbon in a manner that ultimately increases wildfire risk and building seawalls to address sea-level rise that exacerbate erosion on adjacent beaches.

According to this resolution, only two state planning documents contain processes to avoid maladaptation – GO-LCI’s Guidebook and Governor’s Office of Emergency Services’ (CalOES) *California Adaptation Planning Guide* (APG). The APG provides guidance to local governments on local adaptation and resiliency planning, and, in its discussion of maladaptation, references ICARP’s adaptation vision and principles. Although the state has undertaken various efforts to study and address the impacts of climate change, there does not appear to be a consistent practice to include maladaptation strategies in those efforts or to evaluate whether state agency efforts to improve climate resilience are maladaptive.

GO-LCI’s Guidebook uses the IPCC definition of maladaptation. CalOES defines “maladaptation” as adaptation efforts that worsen a situation, or transfer the challenge from one area, sector, or social group to another. Although similar, it does not appear that there is a consistent state definition for maladaptation.

- 3) **Current efforts.** The state has undertaken various efforts to address climate change and help its communities and residents prepare for its impacts.
  - **California Climate Assessments.** California has produced four comprehensive climate change assessments since 2006. While the assessments have evolved over time, they generally seek to assess climate change impacts and risks and to identify potential solutions to inform policy decisions. The assessments also examine how climate change will affect specific sectors, potential responses, and other policy-driven questions.

According to California’s Fourth Climate Change Assessment, the most recent assessment, California is one of the most “climate-challenged” regions of North America and must actively plan and implement strategies to prepare for and adapt to extreme events and shifts in previously “normal” averages. This assessment also began to assess the costs of climate change. The emerging findings show that costs associated with direct climate impacts in California by 2050 are dominated by human mortality, damages to coastal properties, and the potential for droughts and mega-floods. The costs are in the order of tens of billions of dollars.

- **Safeguarding California.** Safeguarding California is the state’s climate adaptation strategy that is updated every three years. In 2018, the California Natural Resources Agency (NRA), in collaboration with other state agencies, updated the Safeguarding California Plan. The plan shows how California’s state government is taking action to respond to climate change. It lays out next steps to achieve the state’s goals and how

those objectives will be achieved by articulating over 1,000 ongoing actions and next steps, organized by 76 policy recommendations across 11 policy sectors, which were developed through the scientific and policy expertise of staff from 38 state agencies. The plan first describes overarching strategies recommended by NRA. The document additionally outlines ongoing actions and cost-effective and achievable next steps to make California more resilient to climate change. This roadmap serves as a transparent and accountable tool for the public to evaluate the state's progress. In 2022, AB 1384 (Gabriel), Chapter 338, Statutes of 2022, updated requirements for the plan to prioritize equity and vulnerable communities and include metrics to measure and evaluate the state's progress in implementing the plan.

- **ICARP.** In 2017, the Legislature enacted SB 246 (Wieckowski) Chapter 606, Statutes of 2015, to establish ICARP to coordinate regional and local efforts with state climate adaptation strategies to adapt to the impacts of climate change. They coordinate tools, resources, and technical assistance to local and regional governments to aid in their adaptation and resilience planning. ICARP has multiple parts, including the Technical Advisory Council (TAC), which is comprised of representatives from state agencies, local, regional, and tribal governments, non-profits, academia, and the private sector to support GO-LCI in its goal to facilitate coordination among state, regional and local adaptation and resiliency efforts, with a focus on opportunities to support local actions. ICARP is also responsible for maintaining and updating the state's adaptation clearinghouse, an online database for adaptation tools and examples of adaptation projects. ICARP's vision of all Californian's thriving in the face of a changing climate is guided by seven principles, including avoiding maladaptation by making decisions that do not worsen the situation or transfer impacts from one area, sector, or social group to another.
- **Planning and Investing for a Resilient California: A Guidebook for State Agencies.** Executive Order B-30-15, issued April 2015, directs state agencies to integrate climate change into all planning and investment decisions, including accounting for current and future climate conditions when making infrastructure investments. In response to the executive order, OPR (now GO-LCI) convened a technical advisory group and produced the *Planning and Investment for a Resilient California: A Guidebook for State Agencies* (Guidebook). The Guidebook provide high level guidance on what future climate conditions to plan for and how state agencies should approach planning in light of a changing climate.
- **Health impacts of climate change.** Climate change can affect public health in many ways, including from the effects of extreme heat events, wildfires, and worsening air pollution. The Office of Environmental Health Hazard Assessment (OEHHA) has conducted numerous studies on health impacts of climate change. OEHHA has identified high-risk vulnerable population subgroups, including the elderly, children, people with existing health conditions, pregnant individuals, and disadvantaged communities. OEHHA also investigates the health impacts of wildfires and have identified increased adverse health outcomes, such as respiratory and cardiovascular disease, after wildfire smoke exposures.

#### 4) **Author's statement:**



California is experiencing the unprecedented effects of a changing climate, with impacts projected to worsen with only moderate increases in carbon dioxide emissions from today.

The recent wildfires in Los Angeles were a result of catastrophic conditions caused by hurricane-force winds leading to the deaths of 29 people, the destruction of more than 5,000 structures, the displacement of over 100,000 people, a 16-fold rise in hospital visits due to smoke exposure, and a projected economic loss of \$250 billion.

Unfortunately, these fires are not the first and will not be the last catastrophic consequence to climate change impacts left unaddressed. These changes threaten global health and economic stability, with the most severe impacts disproportionately affecting vulnerable populations such as people of color, immigrants, the elderly, women, California Native American tribes, and lower-income populations who experience increased exposure and reduced capacity to adapt to climate hazards.

Recognizing that maladaptation in California's climate resilience policies poses a serious risk to the success and cost effectiveness of the state's climate resilience actions, it is imperative that state departments, researchers, and communities work in tandem to identify maladaptation in climate resilience strategies and evaluate the effectiveness of current and future measures.

**REGISTERED SUPPORT / OPPOSITION:****Support**

None on file

**Opposition**

None on file

**Analysis Prepared by:** Elizabeth MacMillan / NAT. RES. /