California State Assembly

NATURAL RESOURCES

LUZ RIVAS
CHAIR

AGENDA

Monday, June 20, 2022
2:30 p.m. -- State Capitol, Room 447

BILLS HEARD IN FILE ORDER

** = Bills Proposed for Consent

1.	SB 1078	Allen	Sea Level Rise Revolving Loan Pilot Program.
2.	SB 1203	Becker	Net-zero emissions of greenhouse gases: state agency operations.
3.	SB 1101	Caballero	Carbon sequestration: pore space ownership and Carbon Capture, Utilization, and Storage Program.
4.	SB 1123	Caballero	Resilience Navigators Program: climate change resilience financial assistance programs.
5.	SB 1410	Caballero	California Environmental Quality Act: transportation impacts.
6.	SB 1297	Cortese	Low-embodied carbon building materials: carbon sequestration.
7.	SB 926	Dodd	Prescribed Fire Liability Pilot Program: Prescribed Fire Claims Fund.(Urgency)
8.	SB 1046	Eggman	Solid waste: precheckout bags.
9.	SB 1065	Eggman	California Abandoned and Derelict Commercial Vessel Program.
10.	SB 1187	Kamlager	Fabric recycling: pilot project.
11.	SB 1391	Kamlager	greenhouse gases: market-based compliance mechanism.
12.	**SB 1145	Laird	California Global Warming Solutions Act of 2006: greenhouse gas emissions: dashboard.
13.	SB 1295	Limón	Oil and gas: hazardous or deserted wells and facilities: labor standards.
14.	SB 1314	Limón	Oil and gas: Class II injection wells: enhanced oil recovery.
15.	**SB 978	McGuire	Department of Resources Recycling and Recovery: wildfire debris cleanup and removal: contracts.
16.	SB 1136	Portantino	California Environmental Quality Act: expedited environmental review: climate change regulations.
17.	SB 905	Skinner	Decarbonized Cement and Geologic Carbon Sequestration Demonstration Act.
18.	SB 1399	Wieckowski	Carbon Capture Technology Demonstration Project Grant Program.

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1078(Allen) – As Amended May 19, 2022

SENATE VOTE: 28-5

SUBJECT: Sea Level Rise Revolving Loan Pilot Program

SUMMARY: Requires the Ocean Protection Council (OPC), in consultation with the State Coastal Conservancy (Conservancy), to develop the Sea Level Rise Revolving Loan Pilot Program for the purpose of providing low-interest loans to local jurisdictions to purchase identified vulnerable coastal properties located in certain communities and populations disproportionately affected by climate change, such as low-income communities and communities of color, as provided.

EXISTING LAW:

1) Establishes OPC to, among other things, establish policies to coordinate the collection, evaluation, and sharing of scientific data related to coastal and ocean resources among agencies.

2) Establishes the Conservancy with prescribed powers and responsibilities for implementing and administering various programs intended to preserve, protect, and restore the state's coastal areas.

3) Establishes the Climate Ready Program in the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy's jurisdiction.

4) Establishes the California Infrastructure and Economic Development Bank (Bank) within the Governor's Office of Business and Economic Development to issue tax-exempt and taxable revenue bonds, provide financing to public and private agencies, provide credit enhancements, acquire or lease facilities, and leverage state and federal funds.

THIS BILL:

1) Defines "vulnerable coastal property" as any coastal improved land containing a building or structure, or agricultural land, identified as vulnerable to sea level rise by a local jurisdiction with a certified local coastal program that includes policies or programs, or both, to avoid, minimize, and mitigate the impacts of sea level rise, which have been developed pursuant to a comprehensive vulnerability assessment and certified by the California Coastal Commission (Commission).

2) Requires the OPC, in consultation with the Conservancy, to develop the Sea Level Rise Revolving Loan Pilot Program (Program). Requires the Program to provide low-interest loans to local jurisdictions for the purchase of coastal properties in their jurisdictions identified as vulnerable coastal property located in low-income communities, communities of color, tribal communities, and other disproportionately affected communities and populations who bear, and have borne, the brunt of impacts from climate change.

3) Requires OPC, before January 1, 2024, in consultation with other state planning and coastal management agencies, including, but not limited to, the Office of Planning and Research (OPR), the Strategic Growth Council (SGC), the Commission, the State Lands Commission (SLC), the Conservancy, and the San Francisco Bay Conservation and Development Commission (BCDC), to adopt guidelines and eligibility criteria for vulnerable coastal properties to qualify for funding under the Program. Criteria shall include, at a minimum, all of the following:

   a) Evidence that the property will be able to generate enough revenue to repay the loan.

   b) Evaluation of the cost-effectiveness of providing the property a loan.

   c) Evidence that the property is part of the implementation of a local or regional plan to address the impacts of sea level rise.

   d) Evaluation of the public benefits of acquisition, including, but not limited to, future use of the property for sea level rise mitigation as natural infrastructure or if the property could later increase coastal public access, especially if adjacent properties within the same neighborhood are included in a comprehensive strategy.

   e) A methodology for determining when a vulnerable coastal property purchased through the program is no longer habitable.

   f) Criteria to equitably identify properties for inclusion in the Program, with a precise plan to identify low-income communities, communities of color, tribal communities, and other disproportionately affected communities and populations who bear, and have borne, the brunt of impacts from climate change.

4) Requires the guidelines to require local jurisdictions to develop strategies to support community relocation efforts when coastal property is no longer habitable, and requires those criteria and guidelines to be posted on OPC's website.

5) Authorizes a local jurisdiction to apply for a low-interest loan through the Conservancy, in consultation with OPC, only if the local jurisdiction completes both of the following:

   a) Develops and submits to the Conservancy a vulnerable coastal property plan for its jurisdiction. The vulnerable coastal property plan shall include all of the following:
      i) An explanation of how the vulnerable coastal property or properties included in the plan meet the criteria developed by OPC.
      ii) The process and timeframe for the local jurisdiction to acquire the vulnerable coastal property included in the plan.
      iii) The lease agreement for, or plan for leasing, any vulnerable coastal property included in the plan that demonstrates the rental income is sufficient to repay the loan.
      iv) The management plan for any vulnerable coastal property included in the plan that covers the time period necessary to repay the loan.
      v) An explanation of how any structure included in the plan will be removed from the property when it can no longer be safely occupied without need for a shoreline protective device, including a comprehensive implementation plan and funding mechanisms.
   b) All other requirements imposed by OPC under this division.

6) Requires the Conservancy, in consultation with OPC, to review a vulnerable coastal property plan submitted by a local jurisdiction pursuant to this section, and, if it determines the plan meets the criteria and guidelines, to approve the plan in writing. If the Conservancy finds the plan does not meet the criteria and guidelines, the Conservancy shall return the plan to the local jurisdiction with a clear explanation of why the plan fails to meet the criteria, and, if practicable, suggestions for improving the plan. The Conservancy may consider available resources when deciding to approve or return a plan.

7) Requires the local jurisdiction, if awarded a loan under this Program, to use the moneys to purchase the vulnerable coastal property or properties included in the vulnerable coastal property plan through a fair and transparent purchase process.

8) Prohibits the local jurisdiction from using eminent domain to acquire vulnerable coastal properties included in this Program.

9) Creates in the State Treasury the Sea Level Rise Revolving Loan Fund (Fund) to be administered by the conservancy, in consultation with OPC, for the purpose of providing low-interest loans to eligible local jurisdictions in accordance with the Program.

10) Requires, upon request of the Conservancy, the Bank to make recommendations regarding the specific financing mechanisms and risk mitigation measures necessary and appropriate for the successful administration of the Fund. Recommendations may include identifying available funds to make direct loans, or to capitalize trust funds for the purpose of guaranteeing loans made by a participating lender. Recommendations may also include a proposal for the issuance of revenue bonds by the Bank, if feasible.

11) Authorizes the Conservancy, in consultation with OPC, upon appropriation by the Legislature for these purposes, to provide low-interest loans from the Fund to any local jurisdiction that meets the specified requirements in connection with the financing or refinancing of a vulnerable coastal property in accordance with an agreement, or agreements, between the Conservancy and the local jurisdiction, either as a sole lender or in participation or syndication with other lenders. The financing shall not exceed the total value of the vulnerable coastal property being financed. The Conservancy, in consultation with OPC, may cease providing loans and accepting vulnerable coastal property plans when there are insufficient moneys in the Fund to do so.

12) Requires all moneys received for repayment of a loan, and any penalties, interest, and fees in connection with a loan, provided for purposes of the Program to be deposited in the fund, for appropriation by the Legislature. Penalty moneys in the Fund shall be available, upon appropriation by the Legislature, for additional loans authorized under this division.

13) Authorizes the Conservancy and the OPC to use moneys in the Fund, upon appropriation by the Legislature for this purpose, for administrative costs incurred in implementing the Program.

14) Provides that implementation of this bill is contingent upon an appropriation by the Legislature in the annual Budget Act or another statute for its purposes.

FISCAL EFFECT: According to the Senate Appropriations Committee, enactment of this bill would result in unknown but likely significant cost pressure (General Fund or special fund) to provide funding for the revolving loans, and to expand the pilot should it be found to be effective; ongoing costs for the State Coastal Conservancy of $917,000 annually (General Fund) to for additional staffing to support the pilot, as well as unknown costs to retain outside specialist expertise; and, minor and absorbable costs for the OPC and State Lands Conservancy.

COMMENTS:

1) **Author's statement**.

> As home to more coastal residents than any other state, California is uniquely vulnerable to the hazards posed by sea-level rise. SB 1078 offers an innovative tool for local governments struggling to balance limited resources with the risk facing coastal properties. The bill establishes a revolving fund within the State Coastal Conservancy to provide state-backed low-interest mortgages to local governments, who would use the money to buy properties at risk of sea-level rise in the next one or two decades. While allowing the owner to sell while a property still has value, the local entity can then rent out the property, repay the loan, and potentially earn additional revenue. Once the property is at risk of flooding from the rising sea, the property can be demolished.
>
> The measure prioritizes funding first to low income communities and those hardest hit by climate change. The bill also calls for participating local governments to craft property vulnerability assessments and to integrate these assessments with their current Local Coastal Plans.
>
> We know the impacts of climate change, ranging from fire to flood to extreme heat, are already straining local budgets. The longer we fail to act, the greater the chance that coastal communities will be left without insurance options, banks will refuse to provide mortgages, and taxpayers will be further burdened. California must develop proactive strategies to support at-risk homeowners and give local governments the tools they need to address impending crises.

2) **Sea-level rise**. Sea levels along the California coast are projected to rise by about six inches by 2030 and as much as seven to ten feet by 2100 compared to 2000 levels, depending upon the degree of warming the planet experiences. These impacts will be compounded by periodic increases in sea levels caused by storm surges, exceptionally high "king tides," and El Niño events.

   A 2017 study from the US Geological Survey published in the Journal of Geophysical Research–Earth Surface predicts that with limited human intervention, 31% to 67% of Southern California erosion caused by sea-level rise will shrink nearly all the beaches, which are a crucial feature of the economy and the first line of defense against coastal-storm impacts for coastal residents and businesses. Further projections suggest that up to two-thirds of Southern California beaches may become completely eroded by 2100.

   The Legislative Analyst's Office (LAO) April 5, 2022, report, *Climate Change Impacts Across California - Crosscutting Issues*, the impacts of sea-level rise along California's coast will be widespread, affecting public infrastructure, private property, vulnerable communities,

natural resources, and drinking and agricultural water supplies. For example, a 2015 economic assessment by the Risky Business Project estimated that if current global greenhouse gas emission trends continue, between $8 billion and $10 billion of existing property in California is likely to be underwater by 2050, with an additional $6 billion to $10 billion at risk during high tide.

The LAO noted that some existing structures and infrastructure will require modification or relocation to remain usable. For instance, some impacted roads, railways, bridges, and ports will need to be modified or relocated to remain accessible.

In some areas along California's coast, impacts of climate change and sea level rise have necessitated, to some consternation, managed retreat – a coastal management strategy that requires purposeful, coordinated movement of people and buildings away from risks. In this context, that means moving properties away from the coastline.

Policymakers, insurance companies, business owners, and residents are increasingly paying attention to managed retreat from low-lying coastal areas because of the threat of sea-level rise, as well as coastal erosion and other impacts of climate change.

Managed retreat can be very controversial. A lawsuit in Del Mar, California brought by residents was initiated to stop a managed retreat program based on worries that the policy would lower home values, increase insurance costs, and restrict home expansion opportunities. Some areas included in managed retreat are above sea level and are recommended based primarily on estimated engineering costs and by studies financed by the Commission. Despite the controversy, as the costs of climate change adaptation increase, more communities are beginning to consider managed retreat. One such community is Marina, California, adjacent to Monterey Bay.

3) **California's climate investments**. Many of the costs of preparing for climate change impacts will fall on the state. The 2021-22 Budget included $612 million one-time General Funds over three years to build resilience for California's coastal and ocean ecosystems, communities, cultural resources, and critical infrastructure from sea level rise, flooding, and other climate-driven impacts. Of this amount, the proposed 2022-23 Budget includes $400 million associated with the second year of investments including: $350 million for coastal wetland protection and restoration, and projects that build coastal resilience; and, $50 million for projects that protect and restore healthy ocean and coastal ecosystems, including estuarine and kelp forest habitat, the state's system of marine protected areas, and to build climate-ready fisheries.

4) **Ocean Protection Council**. In February 2022, the OPC released the State Agency Sea-Level Rise Action Plan for California (Action Plan). This collaborative plan both implements the state's 2020 sea level rise principles and helps to "guide unified, effective action toward sea level rise resilience for California's coastal communities, ecosystems, and economies."

   The Action Plan includes more than 80 actions of both regional and statewide scope. Key Action Plan themes include: the entire coast of the state should be prepared and planning for sea level rise; sea level rise adaptation plans should lead to project implementation; sea level rise adaption planning should include pathways to resiliency to 3.5 feet of rise by 2050 and 6 feet by 2100; all sea level rise adaptation planning and projects should integrate and prioritize equity and social justice; nature-based solutions should be pursued when possible; coastal

habitats, including wetlands, beaches, and dunes should be protected and conserved; and, forward thinking efforts should be incorporated. Actions taken are designed to be tracked and are assigned to specific state entities for implementation.

Included is the critical action to launch the California Sea-level Rise State and Regional Support Collaborative (Collaborative), as required by SB 1 (Atkins, Chapter 236, Statutes of 2021), to support the identification, assessment, and planning necessary to avoid the environmental, social, and economic effects of sea level rise.

The Action Plan acknowledges that planning for sea level rise resiliency will need to be downscaled to the local level, based on local and regional conditions, needs, and past and current planning efforts. The Action Plan itemizes an action for OPC to utilize the California Sea-Level Rise State and Regional Support Collaborative to offer additional capacity in the form of technical assistance and support to tribal and local governments for sea level rise funding programs and grant applications, adaptation planning, emergency planning, and project development and implementation.

5) **State Coastal Conservancy**. The Conservancy is helping communities assess the vulnerability of their communities and natural resources to sea-level rise and create adaptation plans to counter threats of sea-level rise. Through the Climate Ready Program, the Conservancy funds technical tools and studies that help understanding and planning for sea-level rise impacts. The most recent Climate Ready grants (funded through the Greenhouse Gas Reduction Fund (GGRF)) focused on managed retreat and natural shoreline infrastructure strategies to increase California's resiliency to sea-level rise. The Climate Ready program has used 61% of GGRF funds to support low-income or disadvantaged communities**.**

   The Conservancy also provides the Sea Level Rise Vulnerability Assessment Checklist to provide guidance for communities for sea-level rise planning. The Checklist includes considerations of building community engagement and support, planning for early implementation, assessing assets, creating adaptation strategies, and much more.

6) **Sea Level Rise Revolving Loan Pilot Program**. The LAO notes that residents and businesses will incur costs related to climate adaptation, and costs associated with modifying and maintaining existing homes will fall largely on homeowners. Many of those costs will be prohibitive to homeowners living in vulnerable coastal properties.

   This bill will require the OPC, in consultation with the Conservancy, to develop the Program for the purpose of providing low-interest loans to local jurisdictions to purchase identified vulnerable coastal properties located in certain communities and populations disproportionately affected by climate change, such as low-income communities and communities of color.

   The State Controller Betty Yee, the sponsor of the bill, writes in support, "as California's chief fiscal officer, I realize that the riskiest response to sea-level rise is inaction. SB 1078 will reduce future fiscal liability for California taxpayers, offer protections for both homeowners and renters in historically marginalized communities, and safeguard our coastline for generations to come."

SB 83 (Allen, 2021) would have required the OPC, in consultation with the Conservancy, to develop the Sea Level Rise Revolving Loan Program for the purposes of providing low-interest loans to local jurisdictions to purchase coastal properties identified as vulnerable coastal property. The Governor vetoed that bill, stating:

> Climate-driven sea level rise presents major land-use planning challenges. The scope and scale of the problem, and the work necessary to make sure that California can adapt to rising seas, requires innovative planning approaches and implementation action at the state and local level. Financial tools, such as the one proposed in SB 83, have the potential to play an important role in a portfolio of strategies that will help build coastal resilience in California. However, such an effort should be considered within a comprehensive lens that evaluates properties to be included in a statewide plan.
>
> I encourage the author to continue to engage with my Administration as we work together to ensure California's coastal communities and natural resources are resilient to sea level rise.

In response to the veto message, SB 1078 pivots from SB 83 by making the Program specific to marginalized communities, and the author has explicitly made the proposed revolving fund a pilot program, tied it into the existing coastal land use planning required of LCPs, and aligned the pilot with the equity goals of the Statewide Sea Level Rise Leadership team.

7) **California Infrastructure and Economic Development Bank**. The Bank, also colloquially known as the IBank, was created in 1994 to finance public infrastructure and private development that promote a healthy climate for jobs, contribute to a strong economy and improve the quality of life in California communities. The Bank has broad authority to issue tax-exempt and taxable revenue bonds, provide financing to public agencies, provide credit enhancements, acquire or lease facilities, and leverage State and Federal funds. The Bank's current programs include the Infrastructure State Revolving Fund (ISRF) Loan Program, California Lending for Energy and Environmental Needs (CLEEN) Center, the Climate Catalyst Revolving Loan fund, Small Business Finance Center and the Bond Financing Program.

   SB 1078 would utilize the Bank to make recommendations regarding the specific financing mechanisms and risk mitigation measures necessary and appropriate for the successful administration of the Fund.

8) **Related legislation**.

   SB 867 (Laird) requires a local government within the coastal zone to address sea level rise planning and adaptation through either a local coastal program or a San Francisco Bay shoreline coastal resiliency plan by January 1, 2026, and to update that planning and adaptation every 5 years. This bill is pending in the Assembly Appropriations Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Humboldt: Grass Roots Climate Action
California State Controller (sponsor)
Humboldt Baykeeper

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1203 (Becker) – As Amended March 24, 2022

SENATE VOTE: 39-9

SUBJECT: Zero net emissions of greenhouse gases: state agency operations.

SUMMARY: Establishes the intent of the Legislature that all state agencies achieve zero net greenhouse gas (GHG) emissions by January 1, 2035 and requires them to develop and publish plans to achieve this goal. Requires the Climate Action Team (CAT) to develop a framework for analyzing state emissions, evaluate the decarbonization plans of the state agencies, and report progress to the Legislature.

EXISTING LAW:

1) Requires, pursuant to the California Global Warming Solutions Act [AB 32, (, the Air Resources Board (ARB) to adopt a statewide greenhouse gas (GHG) emissions limit equivalent to 1990 levels by 2020 and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions.

2) Requires ARB to approve a statewide GHG limit equivalent to the statewide GHG emissions level in 1990 to be achieved by 2020 and to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by 2030.

3) Requires each state agency, on or before October 1 of each year, to prepare and submit to the Secretary for Environmental Protection all of the following:

    a) A list of those measures that have been adopted and implemented by the state agency to meet GHG emission reduction targets and a status report on actual GHG emissions reduced as a result of these measures;

    b) A list and timetable for adoption of any additional measures needed to meet GHG emission reduction targets; and,

    c) An estimate of the department's own GHG emissions, as well as an explanation of any increase or decrease compared to the previous year's emissions.

4) Requires state agencies, not less than every three years, to conduct an independent audit and verification of the actual and proposed GHG emissions reductions achieved by that state agency in order to ensure that the state agency is achieving GHG emission reduction targets.

5) Executive Order S-3-05 commits state agencies to climate emission reduction targets as part of overall state emission reduction targets, and established the CAT, as specified.

6) States that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of all retail sales of electricity to California end-use customers and electricity procured to serve all state agencies by December 31, 2045.

THIS BILL:

1) Defines the following terms for purposes of this bill:

   a) "Climate Action Team" means the multiagency Climate Action Team established pursuant to Executive Order No. S-3-05 that is overseen by the California Environmental Protection Agency.

   b) "Office of Sustainability" means the Office of Sustainability within the Department of General Services.

   c) "Scope 1 emissions" means all direct emissions from sources that are owned or controlled by the state agency, including, but not limited to, emissions from onsite fossil fuel combustion and fleet fuel consumption.

   d) "Scope 2 emissions" means all indirect emissions from sources that are owned or controlled by the state agency, including, but not limited to, emissions that result from the generation of electricity, heat, or steam purchased by the state agency from a utility provider.

   e) "State agency" means any state agency, board, department, or commission.

2) States the intent of the Legislature that all state agencies aim to achieve zero net emissions of GHGs resulting from their operations, including scope 1 and scope 2 emissions, no later than January 1, 2035 (goal).

3) Requires state agencies to do all of the following:

   a) On or before July 1, 2024 and annually thereafter until the goal has been achieved, publish an inventory of its GHG emissions for the prior calendar year and follow the rules established by the CAT.

   b) On or before January 1, 2025, develop and publish a plan (plan) that describes its planned actions for achieving the goal and an estimate of the costs associated with the planned actions; and,

   c) Beginning June 30, 2027, and every two years thereafter until the goal has been achieved, develop and publish an updated plan that includes an updated GHG emissions inventory covering the prior calendar year and a description of its progress, and any changes to its planned actions, toward achieving the goal.

   d) Incorporate the planned actions or changes to the planned actions identified into its planning and budgeting processes, subject to appropriation by the Legislature.

   e) Include the interim GHG emissions reduction targets when developing the plan or updates to the plan.

   f) Provide a draft plan to the CAT for review and feedback.

4) Authorizes a state agency to meet the requirements above if an inventory of its GHG emissions and its planned actions for achieving the goal are included within the initial plan or updated plan developed and published by another state agency, as applicable.

5) Requires the CAT, in consultation with relevant state agencies, to do all of the following:

    a) Establish and maintain rules for determining and reporting the GHG inventories of state agencies. Authorizes the CAT to use existing resources, including guidelines designed to support compliance with state agency emissions reduction targets;

    b) Assist state agencies in establishing interim GHG emissions reduction targets to ensure that state agencies are making adequate progress toward meeting the goal;

    c) Review and provide feedback on the initial plans and updated plans developed by state agencies to help ensure that the initial plans and updated plans include planned actions that could reasonably be expected to achieve the goal; and,

    d) Monitor each state agency's progress in achieving the goals.

6) Requires the Office of Sustainability (Office) to provide information, training, coordination, best practices, and other technical assistance to state agencies and local governments on how to reduce their emissions of GHGs in a cost-effective manner and, with regard to state agencies, how to meet the requirements of this bill.

7) Requires, beginning September 30, 2025, and every two years thereafter until the goal is achieved, the CAT and the Office to report to the relevant fiscal and policy committees of the Legislature on the progress toward achieving that goal, including on both of the following:

    a) The overall GHG emissions from all state agencies and a summary of actions taken by state agencies since the submission of the last report; and,

    b) Barriers identified by state agencies that are hindering progress and suggested actions that the Legislature could take to reduce those barriers.

FISCAL EFFECT: According to the Senate Appropriations Committee, unknown, likely significant total fiscal impact across all state agencies to meet the goal of achieving zero net emissions of GHGs, as prescribed by this bill. Costs would include staff time to develop and publish plans to work toward this goal, and coordinate activities with the CAT and the Office of Sustainability. An example of state agency costs include: ARB anticipates total costs of approximately $2.1 million in Fiscal Year (FY) 2023-24 and $2.0 million in FY 2023-25 and ongoing for additional staff to develop a plan to achieve net zero emissions from its operations by the timeframe outlined in this bill and assist with CAT tasks (Cost of Implementation Account, Air Pollution Control Fund).

While the total cost across all state agencies is unknown, if even a small portion of impacted entities experience similar costs as noted above, the total fiscal impact of this bill to complete the plans will likely total into the tens of millions of dollars.

DGS anticipates:

- Annual costs of approximately $724,000 for at least three additional Personnel Years (PYs) for its Office of Sustainability to provide technical support to other state agencies, develop DGS's plans and recommendations to achieve net zero emissions, and collaborate with the CAT in the development of the required legislative reports.

- Unknown, but likely very significant total costs for the Real Estate Services Division (RESD) to assist state agencies with overall coordination and management in performing building inspections to take an inventory of emissions, assess potential solutions, and develop renovation projects. The RESD notes that costs to assist agencies may be minor for small buildings, however each report is estimated to cost $200,000 on average. As there are approximately 24,000 state owned buildings and structures, total costs to complete the reports will be very significant.

- Unknown, but likely minor fiscal impact to the Office of Fleet and Asset Management (OFAM), as the OFAM already has several policies in place to achieve reductions in Scope 1 emissions resulting from fleet fuel consumption.

- Unknown, likely significant costs to the state to transition buildings toward net zero emissions, which would include a combination of energy reduction, electrification to replace fossil fuels, and an expansion of renewable energy generation. DGS notes that these costs will likely vary across different state buildings, but will be more expensive for facilities such as prisons and hospitals.

Additional unknown, potentially significant costs for the CAT to provide assistance and other support to state agencies in developing their plans, collecting all state agency plans, and compiling this information into a report to submit to the Legislature.

COMMENTS:

1) **Author's statement**:

> California has been leading the world in reducing our greenhouse gas emissions and has set a goal for the whole state to be net-zero by 2045. We are asking our companies and our citizens to figure out how to reduce their emissions dramatically in order to hit that target. I believe we in the state government need to lead by example. We need to show how to get to net-zero before we ask everyone else to do it.
>
> SB 1203 requires all of our state agencies to aim to achieve net-zero from their own operations by 2035, 10 years ahead of the state as a whole. That means reducing emissions from state agencies' buildings and vehicles and from the electricity that they consume. It requires agencies to put together plans to identify what would be required to get to net-zero by 2035 and how much it will cost, and it directs them to include those actions in their planning processes and budget requests. To allow agencies to achieve net-zero as cost-effectively as possible, the bill provides maximum flexibility in the approaches available and directs DGS' Office of Sustainability to act as a center of expertise to assist other agencies for planning and execution.

Once agencies have developed their plans and we have a better understanding of the feasibility and cost of achieving the net-zero goal, the legislature will have the opportunity to decide how far and how fast to go through future budget appropriations. Passing this bill is not making a legally binding commitment to net-zero by 2035 or committing to unknown future budget expenditures. However, it will be an important first step toward understanding what it is going to take to get to net-zero and having the whole state government start heading in that direction.

2) **Scope 1, 2, and 3 Emissions.** The "scope" framework was developed in 2001 by the World Resources Institute (WRI) and World Business Council for Sustainable Development as part of their Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. The goal was to create a universal method for companies to measure and report the emissions associated with their business. The three scopes allow companies to differentiate between the emissions they emit directly into the air, which they have the most control over, and the emissions they contribute to indirectly.

   Scope 1 covers direct emissions from owned or controlled sources, such as fuel combustion, company vehicles, or fugitive emissions. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain, such as purchased goods and services, business travel, employee commuting, waste disposal, use of sold products, transportation and distribution, investments, and leased assets and franchises.

3) **Net zero**. Achieving net zero GHG emissions – a state where GHG emissions either reach zero or are entirely offset by equivalent GHGs removed from the environment – is essential in all scenarios that would keep Earth's average temperature within 1.5 °C of its historical average. Net zero GHG emissions is also often used interchangeably with "carbon neutrality;" however, net-zero GHG emissions implies the inclusion of GHGs other than those that contain carbon. The sooner net zero GHG emissions is achieved globally, the less warming will be experienced.

   The Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5◦C from 2018 established that global net zero GHG emissions needs to be achieved by 2050 to avoid the worst impacts of climate change. According to the UNEP 2020 Emissions Gap Report, which provides an annual update on global progress towards emissions reduction, the consensus is that, globally, we are not on track to meet that goal. However, the report does state that, "the growing number of countries committing to net zero emissions goals by mid-century is the most significant climate policy development of 2020. To remain feasible and credible, these commitments must be urgently translated into strong near-term policies and action."

4) **The Climate Action Team**. The CAT, established by Executive Order S-3-05, is a multi-agency team that coordinates California's statewide climate efforts. Comprised of 22 state agency members, including CalEPA, the Natural Resources Agency, and DGS, the CAT is tasked with developing, evaluating, and implementing climate change emission reduction strategies in accordance with the California Global Warming Solutions Act of 2006. The

progress made in implementing CAT's strategies is tracked through the State Agency Greenhouse Gas Reduction Report Card.

Existing law requires CalEPA to annually prepare a report describing state agency actions to reduce GHG emissions. CalEPA compiles and organizes this information in the form of a "Report Card," which is posted on the CalEPA website. This Report Card includes a list of measures adopted and implemented by the state agency with the actual GHG emissions reduced because of measures taken, a list and timetable for adoption of any additional measures needed to meet GHG emission reduction targets, a comparison of the reductions from actions taken or proposed to be taken by a state agency to that agency's GHG emission reduction targets, and an estimate of the GHG emissions from each agency's own operations and activities. Since 2010, CalEPA has compiled GHG inventories prepared by CAT member agencies. These inventories were each prepared independently using The Climate Registry's General Reporting Protocol.

According to the 2020 Report Card, in 2019 California state agencies were responsible for approximately 1,300,000 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) emissions. According to ARB, in 2019 California's total emissions were approximately 418,200,000 $MMTCO_2e$.

5) **Office of Sustainability**. Governor Brown's Executive Order B-18-12 requires state agencies reduce GHG emissions and dependence on grid-based energy purchases. Existing law requires new and existing state buildings or parking garage projects to include solar energy equipment when feasible. In response to these requirements, DGS's Executive Office of Sustainability supports state agencies in sustainability initiatives including policies, strategies, programs, and projects for state buildings. Key program areas to meet customer needs include: renewable clean energy generation (solar and wind), energy retrofits in existing facilities, zero net energy building policy development, elective vehicle supply equipment infrastructure, benchmarking, and recycling.

6) **The Climate Registry**. The nonprofit California Climate Action Registry was formed in 2001 when a group of CEOs, who were investing in energy efficiency projects that reduced their organizations' GHG emissions, asked the state to create a place to accurately report their GHG emissions history in preparation for future GHG emissions regulations. The registry was codified in SB 1771 (Sher), Chapter 1018, Statutes of 2000. The California Registry started with 23 charter members and had over 300 of the world's largest and leading corporations, universities, cities & counties, government agencies and environment organizations voluntarily measuring, monitoring, and publicly reporting their GHG emissions using the California Registry's protocols. The California Climate Action Registry operated until 2010, when it transitioned over to the current Climate Registry. The Climate Registry, a nonprofit 501(c)(3) organization, was formed to continue the work of the California Climate Registry and expand it to cover all of North America. More than 40 California state departments currently use the Climate Registry to report their annual GHG emissions, including the California Coastal Commission, the California Department of Transportation, CEC, the California Public Utilities Commission, the Department of Fire and Forestry Protection, and DGS. Given the state's long history with the Climate Registry, *the committee may wish to amend the bill* to clarify that the CAT may use the Climate Registry when implementing the bill.

7) **Double referral**. This bill has also been referred to the Assembly Accountability and Administrative Review Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

Climate Reality Project, San Fernando Valley

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1101 (Caballero) – As Amended May 2, 2022

SENATE VOTE: 38-1

SUBJECT: Carbon sequestration: pore space ownership and Carbon Capture, Utilization, and Storage Program

SUMMARY: Requires the Air Resources Board (ARB) to establish a Carbon Capture, Utilization and Storage (CCUS) program for developing the commercial application of CCUS technologies and equipment. Requires ARB, by an unspecified date, to submit a report to the Legislature regarding CCUS projects approved under the program on or before an unspecified date. Revises the definition of free space in existing property rights to include pore space that can be possessed and used for the storage of gaseous or liquid substances.

EXISTING LAW:

1) Requires, pursuant to the California Global Warming Solutions Act [AB 32 (Núñez), Chapter 488, Statutes of 2006], ARB to adopt a statewide GHG emissions limit equivalent to 1990 levels by 2020 and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions.

2) Requires ARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by 2030 [SB 32 (Pavley), Chapter 249, Statutes of 2016].

3) Establishes, by Executive Order (EO), a GHG emissions reduction target of 80% below 1990 levels by 2050 [EO S-3-05, Governor Schwarzenegger, June 1, 2005].

4) Establishes, by EO, a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative GHG emissions thereafter [EO B-55-18, Governor Brown, September 10, 2018].

5) Requires ARB to prepare and approve a scoping plan, on or before January 1, 2009, and at least once every five years thereafter, for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs.

6) Requires any direct regulation or market-based compliance mechanism to achieve GHG reductions that are real, permanent, quantifiable, verifiable, and enforceable by ARB.

7) Authorizes ARB to adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions to comply with GHG reduction regulations. Under this authority, ARB adopted a cap and trade regulation which applies to large industrial facilities and electricity generators emitting more than 25,000 metric tons of carbon dioxide equivalent per year, as well as distributors of fuels, including gasoline, diesel, and natural gas.

8) Defines, for the purposes of ownership, land as the materials of the earth including free or occupied space for an indefinite distance upwards as well as downwards, subject to limitations upon the use of airspace imposed by law. (Civil Code §659)

THIS BILL:

1) Revises the definition of free space in Section 659 of the Civil Code to include pore space that can be possessed and used for the storage of gaseous or liquid substances, including GHGs.

2) Requires ARB to establish a CCUS Program for developing the commercial application of CCUS to reduce CO_2 emissions from new and existing facilities.

3) Sets the objective of the CCUS program to be deploying CCUS projects that accelerate the development, deployment, and commercialization of advanced new CCUS technologies and directs ARB to prioritize:

    a) Reducing GHG emissions;

    b) Minimizing land use and potential environmental, noise, air quality, traffic, and other construction-related impacts to each community in which the project is located;

    c) Maximizing project benefits to disadvantaged communities;

    d) Maximizing project benefits for workforce development and creation of employment opportunities in each community in which the project is located;

    e) Leveraging private funding sources and public-private partnership structures alongside state funding sources for projects; and

    f) Reducing fossil fuel production in the state.

3) Requires all CCUS projects eligible for the program to:

    a) Be a public works project that pays prevailing wages;

    b) Provide in the project application an enforceable commitment to ARB that all contractors and subcontractors will use a skilled and trained workforce for all works on the project that fall within an apprenticeable occupation in the building and construction trade or is covered by a project labor agreement that requires the use of a skilled and trained workforce;

    c) Be sited where the mineral rights and the rights to use the pore space are held by the same entity;

    d) Give title, rights, and responsibilities, for the CO_2 injected into, and stored in, a geologic storage reservoir associated with the project to the operator of the projects including the liability for any and all damages caused by the project in perpetuity; and

e) Sequester the CO_2 permanently. To ensure permanent sequestration, the CCUS project shall include a plan of 100 years of maintenance, testing, and monitoring, well plugging and abandonment, project repairs, and site closure, as necessary.

4) Requires ARB, by an unspecified date, to submit a report to the Legislature and to the budget and relevant policy committees of the Legislature regarding CCUS projects approved under the program on or before an unspecified date. The report shall include:

   a) A description of every approved project;

   b) The status of the approved projects;

   c) Whether any sequestered CO_2 or CO_2 intended for sequestration had been released outside the sequestration zone;

   d) Any noncompliance or events requiring emergency action or repair; and

   e) Findings and recommendations to improve project or program performance.

5) Establishes within the California Geologic Survey the Geologic Carbon Sequestration Group to provide independent expertise to ARB including:

   a) Identification of suitable locations of Class VI injection wells;

   b) Identification of appropriate subsurface monitoring to ensure geologic sequestration of the injected CO_2; and

   c) Identification of hazards that may require the suspension of CO_2 injections.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- ARB estimates ongoing costs of about $1.1 million (Greenhouse Gas Reduction Fund) to establish the Carbon Capture, Utilization, and Storage Program.

- The Department of Conservation (DOC) estimates costs of $5.676 million in the first year (including 14 staff positions in the California Geologic Survey and California Geologic Energy Management Division and consulting and software expenses); $6.384 million in the second year to include an additional five additional positions; and $6.319 million annually thereafter (General Fund or special fund).

- Unknown cost pressure, likely in the hundreds of millions of dollars (General Fund, special fund, or bond funds) to provide state funding for demonstration projects.

COMMENTS:

1) **Background**:

Carbon Capture and Storage. Carbon Capture and Storage (CCS, also sometimes referred to as carbon capture and sequestration) is the process of capturing CO_2 that is formed during combustion or industrial processes and putting it into long-term storage so that it is not emitted into the atmosphere. Once the CO_2 is captured, it may be compressed and chilled (depending on the storage situation), and transported to an appropriate storage site, usually by pipelines and/or ships and occasionally by trains or other vehicles. To store the CO_2, it is injected into deep, underground geological formations, such as former oil and gas reservoirs, deep saline formations, and coal beds.

Carbon Capture and Utilization. Captured CO_2 can be used to produce manufactured goods and in industrial and other processes, rather than being stored underground. Such utilization leads to the acronym CCUS (carbon capture, utilization, and storage). Different CO_2 uses lead to different levels of emissions reductions, depending on the specific use, and what fuels or other materials, if any, the CO_2 is displacing. Most captured carbon is used for enhanced oil recovery, discussed further below.

Carbon Dioxide Removal. Carbon Dioxide Removal (CDR) is an umbrella term used to describe a range of strategies used to remove CO_2 from the atmosphere (without relationship to where or when the CO_2 was emitted). CCS is distinct from CDR in that CCS is an abatement strategy and functions by preventing CO_2 from entering the atmosphere by capturing the CO_2 from the emitting source, or point source, such as the flue of a gas-fired power plant or a cement plant. In contrast, CDR is a negative emissions strategy and involves capturing legacy CO_2 directly from the atmosphere. CDR strategies include technological processes such as Direct Air Capture (DAC) or enhancing the natural carbon sequestration of Natural and Working Lands (NWL). DAC typically involves using large fans to pull untreated air through a separation system, in which the CO_2 is selectively removed. Restoration and management of NWL, including forests, wetlands, and agricultural lands, removes CO_2 from the atmosphere by sequestering it in its vegetation and soils.

Existing CCS projects. According to the Global CCS Institute, there are currently twenty-seven operating commercial CCS facilities worldwide, and twelve of those are in the United States. Of the facilities in the United States, four are deployed in natural gas processing, three in ethanol production, three in fertilizer production, one in syngas production, and one in hydrogen production. Altogether, CCS facilities in the United States currently capture around 20 Mt of CO_2 per year. As a point of reference, a study by Princeton University estimates that up to 1.8 Gt of CO_2 per year is needed by 2045 for some net-zero scenarios.

Cost of Implementation. A facility with CCS requires additional equipment, increased upfront construction costs, and has additional operations and maintenance expenses. Since a considerable amount of energy is required to extract, pump, and compress CO_2, a facility with CCS require 15 – 30 percent more energy to operate depending on the particular type of carbon capture technology used. The percentage of CO_2 captured also affects the cost. The higher percentage captured, the higher the costs. There are also additional costs associated with building pipelines to transport the CO_2, injecting it underground, monitoring the injection site, and liability.

Enhanced Oil Recovery. One of the primary uses of captured CO_2 is for enhanced oil recovery (EOR). EOR is a method of oil extraction that uses CO_2 and water to drive oil up the well, improving oil recovery and theoretically sequestering part of the CO_2 underground in the process. All but one of the existing CCS facilities in the US use the captured CO_2 for EOR. EOR can provide a revenue source for CCUS sufficient to make a project economical in the absence of enough revenue from a carbon price or CCUS tax credit. Though, low oil prices can undermine the commercial viability of projects that couple CCUS with EOR. This was the case with the Petra Nova coal power plant equipped with CCUS in Texas, which used captured CO_2 for EOR but nevertheless closed in 2020. The Legislature is currently debating whether to prohibit the use of CCS for purposes of EOR. The primary rationale behind this effort is that CCS used for EOR emits four times more carbon than it captures and subsidizes the extraction of oil and gas.

Permitting requirements for CCS. There isn't an official permitting scheme for CCS in California. However, due to the myriad of existing requirements a CCS project would trigger, there would be a number of permits a prospective CCS operator would need to get prior to launching a CCS project.

Transportation and safety. After the CO_2 is captured, it needs to be pressurized before it can be transported to where it will be permanently stored or used. Significant energy is required to compress and chill CO_2 and maintain high pressure and low temperatures throughout transportation. Transportation options include pipeline and rail. Although the most common and usually the most economical method to transport large amounts of CO_2 is through pipelines, existing oil and gas pipeline are not suitable for transporting CO_2. Dangerous leaks and eruptions can occur if there are impurities in the pipeline. For example, if water is present in the CO_2 stream, carbonic acid can form. Carbonic acid is corrosive to carbon steel pipes, which are the most economically viable material for pipeline construction and what is most typically used. In order to avoid carbonic acid from forming, CO_2 can be dried to very low levels before transportation, which adds cost to the overall CCS project. There are also other preventative measures such as corrosion monitoring, but those also add cost. In 2020, a pipeline transporting CO_2 in Mississippi leaked. The engines of the cars of emergency responders stalled as CO_2 concentrations increased. Forty-nine people were ultimately hospitalized.

Storage considerations. The California Department of Conservation, California Geological Survey (CGS) conducted a preliminary screening and inventorying of potential sites for geologic CO_2 sequestration in California. CGS found that California has numerous sedimentary basins containing saline aquifers and/or oil or gas fields. An initial evaluation identified 104 sedimentary basins making up approximately 33 percent of the state's area. These basins contain 465 oil and gas fields, for which varying amounts of subsurface geological and petro physical information are available to aid in the evaluation of sequestration potential. Of the104 sedimentary basins, 27 were screened out for further study as potentially appropriate for sequestration. While the limitation on the availability of geologic storage is generally not considered a barrier to widespread CCS deployment, some researchers have expressed concerns about the long-term ability of storage sites to sequester carbon without significant leakage. Injections of CO_2 underground can also trigger seismic activity. There are also concerns with soil and aquifer acidification. Researchers continue to

look at ways to minimize these risk, including considering the potential for above-ground CO_2 mineralization as an alternative to underground storage.

Low Carbon Fuel Standard CCS Protocol. The Low Carbon Fuel Standard Program (LCFS) is a market-based regulation adopted by ARB and designed to reduce carbon intensity of transportation fuels. The program functions by setting declining benchmarks over time on transportation fuels sold, supplied, or offered for sale in California. Fuels with a carbon intensity that is lower than the relevant annual benchmark generate credits and fuels with a carbon intensity that is higher than the relevant benchmark generate deficits. Regulated parties under LCFS must ensure they have sufficient credits in a year. The LCFS regulation was approved in 2009 and implementation began in 2011. In 2018, the LCFS Program was amended to enable CCS projects that reduce emissions associated with the production of transportation fuels sold in California, and projects that directly capture CO_2 from the air, to generate LCFS credits. These changes came into effect in January 2019. To qualify, projects need to meet the requirements of the CCS Protocol. To-date, no projects have qualified under the LCFS CCS protocol.

CCS Liability. ARB's LCFS protocol contains safeguards for the deployment of CCS in California. They include ongoing monitoring requirements, indemnity bonding to ensure costs associated with various elements of the project are available, and extensive site characterization and planning requirements, among other things. As the Legislature debates the broader use of CCS, it is also debating whether to adopt safeguards to limit the liability associated with CCS.

Pore space ownership. Split estates are common in California. A split estate exists when the surface and the mineral rights are owned by different entities. To avoid conflict associated with geologic storage, the ownership of pore space must be clarified. Under the LCFS protocol, CCS operators are required to show the exclusive right to use the pore space and proof of a binding agreement that drilling and extraction that penetrate the "storage complex" are prohibited to ensure public safety and the permanence of stored carbon dioxide.

2) **Author's statement**:

Climate change in California has increased in severity and poses a significant threat to public health, safety, and the economy. California has led the world in addressing and reducing GHG emissions through its numerous programs that support the goal of cutting GHG emissions to below 1990 levels by 2030, as well as the goal to achieve net carbon neutrality by 2045 in order to achieve global climate stabilization.

The state must deploy a range of cost effective and technologically feasible programs and tools to meet the goals in a way that minimizes the economic impact on Californians.

Numerous experts agree that Carbon Capture Utilization and Sequestration (CCUS) is vital to California's plans of carbon neutrality by 2045 due to the CO2 emissions captured and stored from commercial facilities, upwards of 90% of total carbon emissions, when these types of projects are employed. There are several other benefits to expanding upon carbon capture projects as well, including providing jobs for Californians

with skillsets that may begin to lack demand in the transition to clean energy technologies.

SB 1101 is a small but significant part of the equation for goals related to expanding carbon capture opportunities in our state. SB 1101 will enable the development and use of CCUS by creating an administrative framework at ARB that provides support for carbon capture projects seeking approval across the state. Additionally, this bill will establish a clear legal framework for pore space ownership, which is critical to support successful deployment of carbon capture, utilization and sequestration in California.

3) **Is ARB wearing too many hats**? The duties this bill gives to ARB are broad and potentially conflicting. On top of ARB's existing duty to regulate GHG emissions, this bill adds "developing" CCUS technologies. The precise duties of ARB under the CCUS Program are unclear, but the bill suggests ARB would approve projects, enforce labor standards, and monitor/regulate project performance.

REGISTERED SUPPORT / OPPOSITION:

Support

California State Pipe Trades Council
Calpine Corporation
Independent Energy Producers Association
Western States Petroleum Association

Opposition

350 Conejo / San Fernando Valley
350 South Bay Los Angeles
350 Southland Legislative Alliance
350 Ventura County Climate Hub
Climate First: Replacing Oil & Gas (CFROG)
Indivisible California Green Team
Long Beach Alliance for Clean Energy

Oppose Unless Amended

350 Bay Area Action
350 Silicon Valley
Asian Pacific Environmental Network (APEN)
California Climate Voters
California Environmental Justice Alliance
California Environmental Voters
Center on Race, Poverty & the Environment
Central California Environmental Justice Network
Central Valley Air Quality Coalition
Let's Green CA!
Little Manila Rising

Physicians for Social Responsibility - San Francisco Bay Area Chapter
Sierra Club California

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1123(Caballero) – As Amended May 19, 2022

SENATE VOTE: 39-0

SUBJECT: Resilience Navigators Program: climate change resilience financial assistance programs

SUMMARY: Directs the Governor's Office of Planning and Research (OPR) to develop the Resilience Navigators Program (Program) to provide support and guidance to potential applicants for state programs that offer financial assistance related to enhancing resilience to climate change, including disasters associated with or amplified by climate change. Further, this bill directs the California Natural Resources Agency (NRA) to develop an interactive internet website that displays the state's climate adaptation strategy and coordinated, science-based approaches for measuring the performance and outcomes of state investments that support implementation of the state's climate adaptation strategy.

EXISTING LAW:

1) Establishes OPR as the comprehensive state planning agency and requires OPR to assist state, regional, and local agencies in a variety of research and planning efforts.

2) Requires, pursuant to the California Global Warming Solutions Act (AB 32), the Air Resources Board (ARB) to adopt a statewide greenhouse gas (GHG) emissions limit equivalent to 1990 levels by 2020 and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions. Pursuant to SB 32 (Pavley, Chapter 249, Statutes of 2016), codifies the GHG emissions reductions target of at least 40% below 1990 levels by 2030 contained in Governor Brown's Executive Order B-30-15.

3) Establishes the Integrated Climate Adaptation and Resiliency Program (ICARP) through OPR to coordinate regional and local adaptation efforts with state climate adaptation strategies. Requires ICARP to include (but is not limited to):

    a) Working with and coordinating local and regional adaptation efforts, including developing tools and guidance, promoting and coordinating state agency support, and informing state-led programs, planning processes, grant programs, and guidelines development through regular coordination among state agencies, the Climate Action Team, and the Strategic Growth Council (SGC).

    b) Establishes an advisory council, with a range of experience, to support OPR by providing scientific and technical support and to facilitate coordination among state, regional, and local agency efforts to adapt to the impacts of climate change.

    c) Requires OPR to coordinate with appropriate state, regional, and local agencies to establish a clearinghouse of climate adaptation information, as specified, to guide decision makers when planning and implementing climate adaptation projects.

THIS BILL:

1) Requires, on or before July 1, 2023, OPR to establish the Program within ICARP to provide information and guidance to potential applicants for state programs that offer financial assistance, including grants or loans, to develop or implement plans, programs, or projects that seek to create, improve, or enhance resilience to climate change, including disasters associated with or amplified by climate change, including, but not limited to, wildfires, extreme heat, flood, drought, and sea level rise.

2) Requires OPR, as part of the Program, to do all of the following:

   a) Develop, maintain, and updated annually on its internet website or a related, state-administered internet website, such as the California Grants Portal, an interactive resource of all state programs, including information regarding the state agency administering each state program and the application process. Authorizes OPR to incorporate information on relevant federal financial assistance programs identified by the federal grant administrator, as appropriate, into this resource.

   b) Provide information and guidance to entities seeking to apply for financial assistance from the specified state programs, including, but not limited to, matching potential applicants with appropriate financial assistance programs, helping to connect potential applicants with available technical assistance providers, and facilitating communication and coordination between potential applicants and state agencies administering the financial assistance programs.

   c) Conduct outreach to vulnerable communities to inform these communities regarding the availability of financial assistance from the state programs.

3) Requires, on or before January 1, 2024, NRA, in coordination with the ICARP and state entities represented in the California Climate Adaptation Strategy, to develop both of the following:

   a) An interactive internet website that displays the state's climate adaptation strategy, including the strategy's priorities, goals, actions, metrics, timeframes, and lead agencies. Requires NRA to regularly update the internet website, no less than annually, with information on programs, projects, and plans that the state has funded that support implementation of the strategy, including the amount of funding provided by the state for each program, project, and plan.

   b) Coordinated, science-based approaches for measuring the performance and outcomes of state investments that support implementation of the state's climate adaptation strategy. NRA shall use these approaches to measure and post the performance and outcomes of these investments on the internet website.

FISCAL EFFECT: According to the Senate Appropriations Committee, enactment of this bill would result in estimated costs for OPR of approximately $1.2 million in the first year and then $1 million annually thereafter (General Fund) for five staff positions and contract support for outreach and engagement as well as technology services, among other things; estimated ongoing costs for NRA of about $1.1 million annually (General Fund) for three staff positions and

contracts to develop (1) an interactive internet website that displays the state's climate adaptation strategy, including the strategy's priorities, goals, actions, metrics, timeframes, and lead agencies; and (2) coordinated, science-based approaches for measuring the performance and outcomes of state investments that support implementation of the state's climate adaptation strategy; and, unknown, likely minor costs (various funds) for state entities represented in the California Climate Adaptation Strategy to coordinate with NRA on the above activities.

COMMENTS:

1) **Author's statement**.

> Climate change continues to threaten California's communities with devastating wildfires, extreme heat, floods, droughts, and sea level rise. Communities need additional resources and capacity to plan for and address these risks holistically, and last year's budget provided for existing and new programs across a number of departments and agencies, including the Office of Planning and Research, the Strategic Growth Council, the Department of Food and Agriculture, the Natural Resources Agency, the California Environmental Protection Agency, among others. Each of these programs addresses specific community or regional resilience needs.
>
> To ensure the continued success of the State's efforts towards climate resilience, it is critical that the programs remain accessible, coordinated, transparent and accountable to measures of success. To improve access to a variety of climate resilience programs, SB 1123 directs the Office of Planning and Research, through the Integrated Climate Adaptation and Resilience Program, to develop a web-based resource to identify all state-funded resilience funding programs, and to provide direct support to communities and other entities seeking state funding, which will include targeted outreach to underresourced communities. The bill also requires the implementing agencies to develop a coordinated approach for communicating where and how these collective finds are being spent, as well as coordinated approaches for measuring success in climate resilience against measures adapted from existing state strategies.

2) **Climate change**. More frequent extreme weather and climate-related emergencies will be increasingly disruptive for California's residents and economy. These disruptions will often be unpredictable and will include short-term incidents, such as when wildfire smoke or extreme heat events make it unsafe to work or recreate outside; longer-term impacts, such as when floods or fires damage homes, businesses, and infrastructure; and, permanent changes, such as higher sea levels or more prolonged droughts causing current activities to become impractical in certain regions. These impacts will not affect all Californians equally—certain residents will be more vulnerable to experiencing negative impacts based on their underlying health conditions, where they live, their jobs, and the level of economic resources upon which they can draw. Taking steps to prepare for, respond to, and recover from climate change impacts will be costly. Although the federal government may provide some funding for these activities, many of the costs will be borne by the state, local governments, and private businesses and residents.

In November 2021, NRA released a draft strategic plan establishing priorities and goals for building statewide resilience to the impacts of climate change. The administration intends that it serve as a framework to guide climate adaptation activities across sectors and regions in California.

3) **State funding**. The Governor's proposed 2022-23 budget includes $22.5 billion one-time funds over 5 years to support transformative climate investments in transportation, energy, housing, education, wildfire resilience, drought, and health and to provide equitable climate solutions to prepare and protect communities. The proposed investments will cross every sector and be appropriated to state agencies overseeing natural resources, transportation, education, agriculture, and many in between.

4) **Integrated Climate Adaptation and Resiliency Program**. ICARP is designed to develop a cohesive and coordinated response to the impacts of climate change across the state. ICARP has two components: the State Adaptation Clearinghouse (Clearinghouse) and the Technical Advisory Council (TAC). The Clearinghouse is a centralize source of information and resources to assist decision makers at the state, regional, and local levels when planning for and implementing climate adaptation projects to promote resiliency across California. The TAC brings together local government practitioners, scientists, and community leaders to help coordinate activities that prepare for the impacts of a changing climate.

5) **Resilience Navigators Program**. The Legislative Analyst's Office (LAO) April 5, 2022 report, *Climate Change Impacts Across California -Crosscutting Issues,* notes that "given the magnitude of climate change impacts California already is beginning to experience, the Legislature will confront persistent questions about how the state should respond … Given that certain groups—such as low-income households, medically sensitive populations, and workers in outdoor industries— generally are more vulnerable to the effects of climate change, the Legislature may want to consider how it can target state programs in ways that support these populations."

   The author's intent is to make resiliency funding more accessible and meet the needs of our most vulnerable communities by providing consultative services for communities that want to access the funds but could use some additional guidance. This bill requires OPR to create the Program within ICARP to post on its website a list of all state-funded climate-related disaster resilience grant and loan programs; provide application assistance; and, conduct program outreach to under-resourced communities that are at disproportionate risk of harm from climate disasters. The bill also will require other state agencies to develop a coordinated approach to transparency for climate resilience funding.

   The California Association of Nonprofits, a statewide policy alliance of more than 10,000 nonprofits, organizations, states that SB 1123 will provide California nonprofits, including in under-resourced and at-risk communities, with information to help them apply for and receive state grants to implement climate disaster resilience programs.

6) **Measuring success**. The intent of SB 1123 is to ensure these funds meet the needs of our most vulnerable communities and ensure these funds are accountable to measures of success.

To do that, the bill requires NRA to develop a mechanism to assess where and how these funds are being spent to ensure equitable distribution, and that the success of these programs is tied to a set of measureable goals.

Specifically, the bill requires NRA, in coordination with the ICARP and state entities represented in the California Climate Adaptation Strategy, to develop an interactive website that displays the state's climate adaptation strategy, including the strategy's priorities, goals, actions, metrics, timeframes, and lead agencies. This will help match up state spending with what the state has identified that needs to be done.

NRA will also be required to use coordinated, science-based approaches for measuring the performance and outcomes of state investments that support implementation of the state's climate adaptation strategy. NRA will use these approaches to measure and post the performance and outcomes of these investments on the internet website.

7) **Haven't I see this before?** Some aspects of SB 1123 overlap with ongoing climate resiliency planning efforts. SB 1072 (Leyva, Chapter 377, Statutes of 2018) established the Regional Climate Collaborative Program (RCC), administered by SGC, to support and assist underresourced communities to access climate change funding, including state resilience investments. This program received $10 million as a part of the state's climate budget (SB 170, Skinner, Chapter 240, Statutes of 2021). All RCC program activities are required to build the capacity of underresourced communities within a region to secure funding for climate change mitigation, adaptation, and resilience projects.

   Also, NRA is developing a centralized project management and reporting system called the Resources Agency Project Tracking and Reporting (RAPTR) System to aggregate project data and track the long term success of NRA-managed funding sources and projects. This will allow NRA to better assess how well the cumulative investments made through various programs are meeting the broader goals identified by NRA initiatives and state plans and strategies. The RAPTR system is anticipated to roll out sometime this summer.

   The intent of SB 1123 is not to change the course of any climate adaptation planning or grant program; rather, it's to ensure the available funds are accessible, transparent, and the success of their investments is measured and tracked. But any overlap needs to be addressed.

   To avoid redundancy and ensure the most efficient use of state resources, the author may wish to work with OPR and NRA to weave current statutory requirements into this bill so that the accessibility, transparency, and measurement goals of the bill can be overlaid on those existing efforts.

8) **Related legislation**.

   SB 989 (Hertzberg) creates the Climate Change Preparedness, Resiliency, and Jobs for Communities Program to award community resiliency, landscape resiliency, and climate and career pathways grants, as specified, to underresourced communities. This bill was just amended with unrelated content and re-referred to the Assembly Revenue & Taxation Committee.

AB 1640 (Ward) requires the Office of Planning and Research to facilitate the creation of regional climate networks and create standards for the development of a regional climate adaptation action plan to support the implementation of regional climate adaptation efforts. This bill is pending in the Senate Environmental Quality Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

California Association of Nonprofits
California State Controller (sponsor)

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1410 (Caballero) – As Amended May 2, 2022

SENATE VOTE: 39-0

SUBJECT: California Environmental Quality Act: transportation impacts

SUMMARY: Requires the Office of Planning and Research (OPR) to establish a grant program for local jurisdictions to implement guidelines related to the criteria and alternative metrics used for analyzing transportation impacts pursuant to the California Environmental Quality Act (CEQA). Requires OPR to conduct a study on those guidelines.

EXISTING LAW:

1) Requires lead agencies with the principal responsibility for carrying out or approving a proposed discretionary project to prepare a negative declaration (ND), mitigated negative declaration (MND), or environmental impact report (EIR) for this action, unless the project is exempt from CEQA.

2) Requires OPR to prepare and develop proposed guidelines for the implementation of CEQA by public agencies. Requires the guidelines to include objectives and criteria for the orderly evaluation of projects and the preparation of EIRs and NDs. Also requires the guidelines to include criteria for public agencies to follow in determining whether a proposed project may have a significant effect on the environment.

3) Requires OPR to prepare proposed revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts within transit priority areas (TPAs). Requires the criteria to promote the reduction of greenhouse gas (GHG) emissions, the development of multimodal transportation networks, and a diversity of land uses.

4) Authorizes OPR to adopt CEQA Guidelines establishing alternative metrics to traffic "levels of service" (LOS) for transportation impacts outside of TPAs. Authorizes the alternative metrics to include the retention of LOS, where appropriate and as determined by OPR.

5) Defines "transit priority area" as an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program or applicable regional transportation plan.

THIS BILL:

1) Requires OPR, on or before January 1, 2025, to conduct and submit to the Legislature, a study on the impacts and implementation of the transportation impact guidelines, in collaboration with other interested entities, including academic and research institutions with demonstrated expertise in transportation impacts and analyzing vehicle miles traveled.

2) Requires OPR, upon the appropriation funds by the Legislature, to establish a grant program to provide financial assistance to local jurisdictions for implementing the transportation impact guidelines, including establishing regional thresholds of significance of transportation impacts.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- OPR estimates ongoing costs of costs of approximately $600,000 annually (General Fund or special fund) for three staff positions to develop guidelines and administer the grant program, as well as one-time costs of $500,000 (General Fund or special fund) for the contracting necessary to conduct and submit the study. OPR notes that these costs are anticipated to be the minimum cost necessary to support the bill's provisions, and that administrative costs could be higher depending on the level of funding provided for the grant program as envisioned by the bill.

- Unknown but likely significant cost pressure (various funds) to provide funding for the grant program that would be established by this bill.

COMMENTS:

1) **Background**. LOS is a measure used by traffic engineers to determine the effectiveness of elements of transportation infrastructure. It measures the presence of traffic and how quickly cars can move through a street.

   Some contend that LOS is outdated and neglects transit, pedestrian crossings, and bicycles, and believe that an over-reliance on LOS considerations by planners had led to widening intersections and roadways to move automobile traffic faster at the expense of other modes of transportation.

   In response, SB 743 (Steinberg), Chapter 386, Statutes of 2013, required OPR to update the criteria for analyzing transportation impacts of projects to replace LOS in TPAs (areas within a one-half mile of a major transit stop, existing or planned). According to SB 743, "(n)ew methodologies under (CEQA) are needed for evaluating transportation impacts that are better able to promote the state's goals of reducing (GHG) emissions and traffic-related air pollution, promoting the development of multimodal transportation system, and providing clean, efficient access to destinations." Under SB 743, the criteria was required to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. For areas outside of a TPA, OPR was authorized to adopt guidelines that would establish alternative metrics to LOS. Additionally, OPR could retain LOS as a part of those alternative metrics outside of a TPA, if and where OPR deemed appropriate.

   Pursuant to SB 743, OPR proposed changes to the CEQA Guidelines that identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts and to apply VMT statewide (both within and outside of TPAs). VMT measures the amount and distance of automobile travel attributable to a project. Those Guidelines took effect July 2020 and agencies are now required to analyze the transportation impacts of a project using a VMT metric instead of LOS.

According to OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, published in December 2018:

> The transportation sector has three major means of reducing GHG emissions: increasing vehicle efficiency, reducing fuel carbon content, and reducing the amount of vehicle travel. The California Air Resources Board (CARB) has provided a path forward for achieving these emission reductions from the transportation sector in its 2016 Mobile Source Strategy. CARB determined that it will not be possible to achieve the State's 2030 and post-2030 emission goals without reducing VMT growth. Further, in its 2018 Progress Report on California's Sustainable Communities and Climate Protection Act, CARB found that despite the State meetings its 2020 climate goals, 'emissions from statewide passenger vehicle travel per capita (have been) increasing and going in the wrong direction,' and 'California cannot meet its (long-term) climate goals without curbing growth in single-occupancy vehicle activity.' CARB also found that '(w)ith emissions from the transportation sector continuing to rise despite increases in fuel efficiency and decreases in the carbon content of fuel, California will not achieve the necessary (GHG) emissions reductions to meet mandates for 2030 and beyond without significant changes to how communities and transportation systems are planned, funded, and built.'
>
> Thus, to achieve the State's long-term climate goals, California needs to reduce per capita VMT. This can occur under CEQA through VMT mitigation. Half of California's GHG emissions come from the transportation sector, therefore, reducing VMT is an effective climate strategy, which can also result in co-benefits. Furthermore, without early VMT mitigation, the state may follow a path that meets GHG targets in the early years, but finds itself poorly positioned to meet more stringent targets later.

2) **Author's statement**:

> SB 1410 is a critical measure that will shed light on the statewide implementation of applying VMT as the new standard of measuring transportation impacts through CEQA, as required by SB 743…We are only just beginning to see the consequences of this change. In areas without access to reliable, high quality public transportation and other multimodal options, developers must now consider how to mitigate VMT in their projects, through fees or implementation of other measures, which ultimately drive up costs. For housing development, especially in rural parts of the state, where public transportation is sparse or non-existent, increased project costs are passed on to the homebuyer or renter. SB 1410 tasks OPR with conducting a study of the implementation and impact of VMT for new construction to ensure the adoption of this new standard is fair, equitable, and achieving its proposed goals. In addition, SB 1410 creates a grant program administered by OPR to facilitate the implementation of VMT for jurisdictions that are under resourced and have been unable to prepare regional VMT reduction goals that reflect unique local characteristics.

REGISTERED SUPPORT / OPPOSITION:

Support

American Council of Engineering Companies of California
Associated General Contractors of California
California Apartment Association
California Association for Local Economic Development
California Building Industry Association
California Business Properties Association
California Business Roundtable
California Chamber of Commerce
City of Clovis
City of Corona
El Dorado County Chamber of Commerce
El Dorado Hills Chamber of Commerce
Elk Grove Chamber of Commerce
Folsom Chamber of Commerce
Orange County Business Council
Riverside County Transportation Commission
Southern California Association of Governments
Southern California Leadership Council
United Chamber Advocacy Network
Yuba Sutter Chamber of Commerce

Opposition

None on file.

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1297 (Cortese) – As Amended May 10, 2022

SENATE VOTE: 27-9

SUBJECT: Low-embodied carbon building materials: carbon sequestration

SUMMARY: Requires the California Energy Commission (CEC), Natural Resources Agency (NRA), and the Air Resources Board (ARB) to take certain actions to encourage the use of low-embodied carbon building materials and requires public agencies to have a preference for those materials in state building projects, where feasible, as defined, and cost effective.

EXISTING LAW:

1) Establishes the CEC within the NRA, as the state's primary energy policy and planning agency.

2) Requires CEC to prepare a biennial integrated energy policy report (IEPR), which contains an integrated assessment of major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors, as well as policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies, enhance the state's economy, and protect public health and safety.

3) Establishes the ARB, within the California Environmental Protection Agency, as the state's air pollution control agency, and requires ARB, among other things, to control emissions from a wide array of mobile sources and coordinate, encourage, and review the efforts of all levels of government as they affect greenhouse gas (GHG) emissions.

4) Requires, under the Buy Clean California Act (BCCA), the Department of General Services (DGS), in consultation with ARB, to establish and publish the maximum acceptable Global Warming Potential (GWP) limit for structural steel, concrete reinforcing steel, flat glass, and mineral wool board insulation. When used in public works projects, requires that these eligible materials must not exceed the GWP limit set by DGS.

5) Requires, under the California Environmental Quality Act (CEQA) public lead agencies to impose feasible mitigation measures as part of the approval of a "project" in order to substantially lessen or avoid the significant adverse effects of the project on the physical environment. (PRC § 21000 et seq.)

6) Defines, under California Code of Regulations, Title 14 ("CEQA Guidelines") §15370, "mitigation" as:

    a) Avoiding the impact altogether;
    b) Minimizing the impact by limiting its degree or magnitude:
    c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environmental resource:

   d) Reducing or eliminating the impact over time, through actions that preserve or maintain the resource; and,
   e) Compensating for the impact by replacing or providing substitute resources or environmental conditions, including through permanent protection of such resources in the form of conservation easements.

7) Requires ARB, by July 1, 2023, to develop a comprehensive strategy for the state's cement sector to achieve net-zero GHG emissions no later than December 31, 2045.

8) Requires NRA to, among other duties, create the California Carbon Sequestration and Climate Resilience Project Registry to maintain a list of eligible but unfunded projects, which may be funded by public or private entities in order to mitigate California's GHG emissions and improve climate resilience.

THIS BILL:

1) Requires the CEC, as part of the IEPR, to develop a plan to advance low-carbon materials and methods in building and construction projects that details a strategy and recommendations to minimize embodied carbon and maximize carbon sequestration in building materials when possible, including:

   a) An evaluation of the embodied carbon in building materials currently used in buildings and in infrastructure in the state;

   b) An evaluation of the estimated potential for reducing embodied carbon and maximizing sequestration in building materials, including the potential for utilizing net-negative emission materials that can sequester more GHG than is generated during their production, transportation, and use;

   c) Barriers to minimizing embodied carbon and maximizing carbon sequestration in building materials, and opportunities and recommendations to overcome the barriers;

   d) Consideration of the potential to reduce embodied carbon compared to baseline emission levels in each material and maximize carbon sequestration in a wide array of commonly used building materials, including, cement, concrete, aggregate, lumber, cross-laminated timber, steel, and other materials identified by the "agency;" and,

   e) Consideration of how policies to advance low-carbon materials and methods in buildings and construction projects can create and maintain jobs for California workers that will provide middle-class wages and benefits and union representation and recommendations to achieve those goals.

2) Requires CEC, in developing the plan, to consult with the California Environmental Protection Agency; ARB; the Department of Transportation; the Office of Planning and Research; the NRA; the California Building Standards Commission; the Office of the State Fire Marshall; the Division of the State Architect; any other relevant state agency; and, representatives of a labor organization representing affected workers, representatives of the building industry, and representatives of environmental justice organizations.

3) Requires ARB to develop an accounting protocol to quantify embodied carbon and carbon sequestration in building materials, as specified.

4) Following ARB's adoption of an accounting protocol, requires NRA to incorporate, as appropriate, projects using low-embodied carbon building materials or carbon sequestration in building materials into the California Carbon Sequestration and Climate Resiliency Project Registry.

5) When feasible and cost effective, requires a public agency to prefer the use of building materials that low-embodied carbon, including recycled building materials with net-negative carbon intensity that sequester more GHG than is generated during their production, transportation, and use, in the bid specification for its public projects.

6) When feasible and cost effective, requires a public agency to prefer the use of building materials with low-embodied carbon that are produced in California in the bid specifications for its public projects.

7) Defines "feasible" to mean:

   a) The material is capable of being installed in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors;

   b) The materials does not harm the health or safety of those who install the materials or occupy the building;

   c) The material provides the same function and at least the same function and at least the same durability, useful life, and performance as the baseline material;

   d) The material does not pose an increased risk of a construction or design defect or constitute a threat to the integrity of the building;

   e) The material is commercially available in the region of the project; and,

   f) The material would not significantly increase the project cost.

8) Requires OPR to evaluate the circumstances in which the use of low-embodied carbon building materials or carbon sequestration in building materials is an acceptable mitigation measure pursuant to CEQA.

9) States related legislative findings and declarations.

10) Specifies that if the Commission on State Mandates determines that the bill contains costs mandated by the state, that reimbursement for those costs be made.

FISCAL EFFECT: According to the Senate Appropriations Committee:

1) Unknown costs, likely in the high hundreds of thousands or low millions of dollars (General Fund or special fund), for the CEC to develop a plan to advance low-carbon materials and methods in building and construction projects.

2) Unknown costs, likely in the high hundreds of thousands or low millions of dollars (General Fund or special fund), for NRA to incorporate, as appropriate, projects using low-embodied carbon building materials or carbon sequestration in building materials into the California Carbon Sequestration and Climate Resiliency Project Registry.

3) ARB estimates ongoing costs of about $640,000 annually (Cost of Implementation Account) to coordinate with CEC and other state agencies, develop and maintain an accounting protocol to quantify embodied carbon in building materials, and to quantify the embodied carbon, as specified.

4) BSC and the Division of the State Architect estimate ongoing costs of up to $300,000 annually (General Fund) to implement the provisions of this bill.

5) To the extent the Commission on State Mandates determines the provisions of this bill create a new program or impose a higher level of service, unknown costs (General Fund) to reimburse local government claims made pursuant to existing statutory provisions.

COMMENTS:

1) **Author's statement**:

> SB 1297 will advance California's climate neutrality and carbon restoration objectives, both of which require achieving and maintaining net-negative emissions as soon as possible, by leveraging a tremendous, but largely unexplored, opportunity to sequester carbon in our built environment. This bill will support a complete evaluation of this opportunity across a diversity of building materials and take steps to support the use of building materials with low embodied carbon and high carbon sequestration. Doing so will support high-quality jobs in California across an array of industries and advance a number of additional economic, climate, and related priorities.

2) **Embodied carbon**. The term "embodied carbon" refers to the GHG emissions arising from the manufacturing, transportation, installation, maintenance, and disposal of building materials. The majority of a building's total embodied carbon is released upfront at the beginning of a building's life. Unlike with operational carbon, there is no chance to decrease embodied carbon with updates in efficiency after the building is constructed.

   In California, according to the latest GHG Emission Inventory from ARB, residential and commercial buildings account for 10.5% of the state's total GHG emissions. However, residential and commercial buildings are responsible for roughly 25% of California's GHG emissions when accounting for fossil fuels consumed onsite and electricity demand. It is unclear what the exact breakdown is between embodied and operating emissions, but due to California's mild climate, increasing renewable electricity supply, and relatively efficient building stock, our state's operational emissions may be a smaller percentage of total building energy use, compared to the embodied carbon in new construction.

3) **Reducing building emissions**. Achieving net zero GHG emissions – when GHG emissions are either zero or are offset by equivalent atmospheric GHG removal – is critical to reducing GHG emissions and minimizing the effects of climate change. Net zero GHG emissions is also often used interchangeably with carbon neutrality; however, net zero GHG emissions

includes GHGs other than those that contain carbon. Constructing buildings to be net zero will substantially reduce the state's GHG emissions.

Building materials, depending on how they are manufactured, can be considered to sequester carbon. For example, the carbon that comprises wood (roughly 50% by weight) is from the carbon dioxide (CO2) the tree absorbed from the air. California policies typically consider a 100-year time horizon for the sequestration to be considered permanent. Thus, if atmospheric CO2 could be stored in building as wood for at least a century, that CO2 could potentially be counted as sequestered. Given California's stated goal of net zero GHG emissions by 2045, there is a need for GHG emissions to be balanced by atmospheric GHG removal.

As stated above, (1) permanence of GHG removal in California typically requires 100 years of reliable storage in a solid state, and (2) the EPDs used to determine BCCA compliance typically utilize a cradle-to-gate LCA. In order to appropriately account for the full life cycle emissions of building materials, it will be essential to consider a full cradle-to-grave LCA, and to evaluate what—if any—certainty can be had about the fate of those materials over a 100-year time horizon.

The primary weapon in the fight against climate change is reducing the emissions of GHGs. Sequestering carbon, in building materials or otherwise, can also help us achieve our climate goals. Considering an action that is not new, like constructing buildings, as a new form of sequestration has the potential to negatively impact direct GHG emissions reductions. Simply put, people have used wood to make buildings for a long time. If the state begins counting carbon stored in the wood of buildings as sequestration for purposes of achieving the goals of AB 32, does that have the potential to offset the need for reductions in actual GHG emissions, and if so, is that really consistent with those goals? As the state moves to quantify the carbon storage of buildings, it is critical to ensure that any credit given for that storage additional to the status quo.

4) **Mass timber and sequestered aggregate**. Mass timber is a generic term that encompasses wood products of various sizes and functions, such as glue-laminated beams, laminated veneer lumber, nail-laminated timber, and dowel-laminated timber. The most common and familiar form of mass timber is cross-laminated timber (CLT). CLT is a type of large-scale and lightweight engineered wood product consisting of several layers of lumber boards that are stacked and glued together in alternating orientations to form a solid panel. CLT can match or exceed the performance of concrete and steel, and can be used to make floors, walls, ceilings, and entire buildings. Mass timber offers a promising market for large volumes of small-diameter trees, bark beetle-killed trees, and other forest biomass that contributes to the state's wildfire risk.

   Mineralization technologies can be used to permanently sequester CO2 using a process that combines CO2 with calcium, sourced from recycled concrete and other waste materials, into limestone aggregate. This aggregate can replace traditional aggregate in concrete. Concrete is the most widely used building material in the world and is estimated to generate 8% of the world's CO2 emissions. The use of carbon negative concrete could have significant climate benefits.

5) **Buy Clean California Act**. The Buy Clean California Act is an innovative program that establishes limits on embodied carbon emissions and construction materials procured by the

state for public construction projects. By January 1, 2022, the law requires DGS to publish acceptable maximum GWP limits for structural steel, concrete reinforcing steel (rebar), flat glass, and mineral wool board insulation. In order to determine and compare the GWPs of different products and materials, DGS relies on environmental product declarations.

6) **Integrated Energy Policy Report**. State law requires the CEC to prepare a biennial integrated energy report. IEPR contains an integrated assessment of major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors. The report provides policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies, enhance the state's economy, and protect public health and safety.

   The 2021 IEPR reported that in new building projects, on average, up to 50% of total GHG emissions, considered over a 30-year building life, are from the embodied carbon associated with the initial construction, and nearly 70% of the total are from just six materials — concrete, steel, flat glass, insulation, masonry, and wood products. There are, however, significant variations in estimations of the contribution of embodied carbon to the lifetime emissions from a building that warrant further analysis for California. The IEPR states:

   > There is enormous potential for innovation and use of low-carbon products in the built environment. Further research and development are needed, as well as collaboration with other jurisdictions, to develop best practices for reducing embodied carbon in buildings. Also, city planners, designers, and architects could benefit from greater clarity around low-carbon label claims and material-neutral embodied carbon standards.

7) **Related legislation**. AB 2446 (Holden) requires the California Energy Commission (CEC) to develop a framework for measuring and reducing the carbon intensity of the construction of new buildings by 80% by 2045. This bill is scheduled to be heard in the Senate Energy, Utilities, and Communications Committee on June 15th.

8) **Suggested amendments**. The *committee may wish to consider the following amendments* to this bill:

   a) Specify that CEC's evaluation of low-carbon materials include consideration of the lifecycle of the material, including end-of-life management.

   b) Clarify that the determination of feasibility and cost-effectiveness is made by the public agency for public projects.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Humboldt: Grass Roots Climate Action
350 Sacramento
Blue Planet Systems
California Forward Action Fund
Climate Reality Project, San Fernando Valley
County of Santa Clara

State Building & Construction Trades Council of California

Opposition

Rural County Representatives of California

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 926(Dodd) – As Amended May 19, 2022

SENATE VOTE: 38-0

SUBJECT: Prescribed Fire Liability Pilot Program: Prescribed Fire Claims Fund

SUMMARY: Establishes the Prescribed Fire Liability Pilot Program to support coverage for losses from permitted prescribed fires by individuals and nonpublic entities, establishes the Prescribed Fire Claims Fund, requires the $20 million appropriated to the Department of Forestry and Fire Protection (CAL FIRE) for the pilot program to be deposited in the fund, and designates the Director of General Services to administer the fund, as provided.

EXISTING LAW:

1) Requires the CAL FIRE and the State Air Resources Board (ARB) to develop and fund a program to enhance air quality and smoke monitoring, and to provide a public awareness campaign regarding prescribed burns.

2) Authorizes CAL FIRE to purchase 3rd-party liability policy of insurance and requires, if CAL FIRE elects not to purchase insurance, CAL FIRE to agree to indemnify and hold harmless the person or public agency contracting with CAL FIRE with respect to liability arising out of performance of the contract. Authorizes CAL FIRE to provide a maximum of liability or provide for the proportionate share of liability between CAL FIRE and the person contracting with CAL FIRE.

3) Authorizes a person, firm, or corporation, or a group or combination of persons, firms, corporations, or groups, that owns or controls brush-covered land, forest lands, woodland, grassland, shrubland, or any combination thereof within a state responsibility area to apply to CAL FIRE for permission to utilize prescribed burning for specified public purposes.

4) Establishes the intent of the Legislature, pursuant to AB 642 (Friedman, Chapter 375, Statutes of 2021), that the Department of Insurance and CAL FIRE develop or facilitate innovative solutions within the next year to ensure certified burn bosses, Native American tribes, tribal organizations, and cultural fire practitioners and the organizations they work for have access to appropriate insurance to enable them to contribute to the fire resilience of the state.

5) Requires, on or before January 1, 2020, the Forest Management Task Force, or its successor entity, in coordination with the Department of Insurance, to develop recommendations for the implementation of an insurance pool or other mechanism for prescribed burn managers that reduces the cost of conducting prescribed fire while maintaining adequate liability protection when conducting prescribed burns.

6) Establishes the Department of General Services (DGS) in the Government Operations Agency that is led by the Director of DGS. DGS is "created to provide centralized services" including, among other things, government claims. Requires the DGS to develop and enforce

policy and procedures to assure effective operation of all functions performed by it and to conserve the rights and interests of the state

THIS BILL:

1) Repeals a requirement that the Forest Management Task Force develop recommendations for the implementation of an insurance pool or other mechanism for prescribed burn managers that reduces the cost of conducting prescribed fire while maintaining adequate liability protection for lives and property when conducting prescribed burns by January 1, 2020.

2) Requires, on or before January 1, 2023, CAL FIRE, in consultation with the Department of Insurance, the director of DGS, and the Natural Resources Agency (NRA), to establish, consistent with Item 3540-102-0001 of the Budget Act of 2021, the Prescribed Fire Liability Pilot Program to support coverage for losses from permitted prescribed fires by individuals and nonpublic entities, such as Native American tribes, including cultural fire practitioners, private landowners, and other nongovernmental entities through the Prescribed Fire Claims Fund (Claims Fund).

3) Establishes the Claims Fund in the State Treasury. Requires the following moneys to be deposited in the Claims Fund:

    a) $20,000,000 appropriated to CAL FIRE by the Legislature pursuant to Item 3540-102-0001 of the Budget Act of 2021. Notwithstanding any other law, the amount appropriated by the Legislature pursuant to Item 3540-102-0001 of the Budget Act of 2021 shall be available for encumbrance or expenditure until June 30, 2023, and for liquidation until June 30, 2025.

    b) Any other funds appropriated by the Legislature for purposes of this bill.

    c) Any other funds from any source that are provided for purposes of this bill.

4) Requires any moneys in the Claims Fund that have not been appropriated by the Legislature to be available upon appropriation by the Legislature.

5) Requires moneys in the claims fund to be encumbered once an eligible claimant files a claim against the claims fund in accordance with the policies and procedures developed by the Director of DGS.

6) Requires moneys in the Claim Fund to be used for both of the following:

    a) To support coverage for losses from prescribed fire and cultural burn projects consistent with Item 3540-102-0001 of the Budget Act of 2021 and this bill.
    b) The actual and reasonable costs incurred for administration of the fund, not to exceed 5% of the total amount appropriated by the Legislature.

7) Requires the director of DGS to administer and oversee the Claims Fund to assist in increasing the pace and scale of prescribed fire and cultural burn projects to provide public benefits to the state consistent with Item 3540-102-0001 of the Budget Act of 2021 and this article.

8) Requires the Claims Fund to cover eligible claims for damages and losses associated with prescribed fire and cultural burn projects undertaken in natural vegetation for cultural or ecological benefit or for hazardous fuels reduction purposes.

9) Requires, on or before April 1, 2023, the Director of DGS, with the concurrence of the Insurance Commissioner and the Director of CAL FIRE, to develop policies and procedures for the operation and administration of the Claims Fund, including, but not limited to, eligible claims and events, coverage limits, minimum amounts eligible for claims, and categories of losses that are eligible for coverage or that are excluded from coverage. The policies and procedures shall, at a minimum, do all of the following:

    a) Exclude from coverage damages that are the result of intentional violations of laws or established policies and procedures applicable to prescribed fire and cultural burn projects.
    b) Require the Director of General Services to verify a claim, prior to payment from the Claims Fund.
    c) Authorize the Director of General Services to negotiate with an eligible claimant to settle a claim, and require the Director of General Services to pay from the Claims Fund the costs of any claims settlement process.
    d) Establish an upper limit, not to exceed two million dollars ($2,000,000), and a lower limit for payments of claims or coverage per event.
    e) Establish an application process for eligible claimants to file a claim against the Claims Fund that shall require, at a minimum, all of the following:
        i) That an eligible claimant demonstrate past experience successfully completing a prescribed fire or cultural burn project. Nothing in this clause shall be used to prohibit a prescribed fire or cultural burn project from including a training component.
        ii) That the prescribed fire or cultural burn project for which a claim is being made complies with, as necessary, both of the following:
            (1) All applicable state laws and regulations.
            (2) All permits required by state law or regulation for the prescribed fire or cultural burn project.
            (3) That a prescribed fire or cultural burn project for which a claim is being made received permission from the landowner of the property where the prescribed fire or cultural burn project occurred or will occur.
            (4) A specified period during which an eligible claimant is required to make a claim before needing to reapply.
    f) Establish a process for notifying eligible claimants when the Claims Fund is no longer able to support new claims based on a threshold established by the Director of DGS.
    g) Establish the maximum number of prescribed fire or cultural burn projects for which the Claims Fund can cover claims at one time.
    h) Establish a process for reserving capacity within the Claims Fund for a specified period to maximize participation of eligible claimants and the public benefits of the Claims Fund. The process shall facilitate the expeditious shifting of claims-paying capacity once a prescribed fire or cultural burn project has been completed and evaluated for damages.

10) Authorizes the Director of DGS to modify the policies and procedures to improve the operation of the Claims Fund.

11) Exempts the policies and procedures from the rulemaking provisions of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2).

12) Requires the Director of DGS to notify the Governor and relevant policy and fiscal committees of the Legislature if, at any time, in the opinion of the Director of General Services, the size of the Claims Fund limits the amount of claims coverage that can be provided to otherwise eligible claimants.

13) Requires a person engaging with a Native American tribe, tribal organization, or cultural fire practitioner to respect tribal sovereignty, customs, and culture.

14) Authorizes the Director of DGS to exercise all of the following powers to administer the Claims Fund:

    a) Access and review relevant records at the department, the State Air Resources Board, and local air pollution control and air quality management districts to confirm an eligible claimant's compliance with applicable permits to determine eligibility of the claimant for the Claims Fund.
    b) Enter into contracts with third parties necessary to carry out the director's duties pursuant to this bill.
    c) Determine the eligibility of claimants in accordance with the policies and procedures.
    d) Make withdrawals from and deposits to the Claims Fund necessary to administer the Claims Fund.
    e) Any other actions necessary to carry out the purposes of this bill.

15) Requires, on or before January 1, 2024, and annually thereafter, the Director of DGS to prepare and submit a report to the relevant policy and fiscal committees of the Legislature that includes all of the following:
    a) A detailed description of all activities related to the Claims Fund.
    b) A summary and description of acres burned by eligible claimants.
    c) Recommendations for and modifications to Claims Fund policies and procedures.

16) Requires, on or before July 1, 2024, the Department of Finance to audit the claims fund and provide a report to the relevant policy and fiscal committees of the Legislature.

17) Requires, on or before July 1, 2026, the Director of DGS, in consultation with the Insurance Commissioner and the Director of CAL FIRE, to report to the relevant policy and fiscal committees of the Legislature on all of the following:

    a) Whether the Claims Fund should continue.
    b) Recommendations for changes to Claims Fund policies and procedures.
    c) Whether the Director of General Services should continue to administer the Claims Fund.

18) Sunsets the reporting requirement on January 1, 2028.

19) Provides that nothing in this bill shall be construed as requiring participation in the Claims Fund as an additional requirement for conducting a prescribed fire or cultural burn project.

Notwithstanding any other law, the decision not to participate in the Claims Fund shall not be used to restrict a prescribed fire or cultural burn project.

20) Establishes this as an urgency statute in order to protect life and property, and increase the number of controlled burns in high wildfire threat areas, by immediately operationalizing the Claims Fund to support coverage for losses from prescribed fires and cultural burns by nonpublic entities, such as Native American tribes, private landowners, and other nongovernmental entities.

FISCAL EFFECT: According to the Senate Appropriations Committee, enactment of this bill would result in the following costs:

- DGS estimates costs of about $2 million annually for the first three years and $1.8 million annually thereafter (General Fund) for the creation of a new program within the Office of Risk and Insurance Management to manage a prescribed fire claims fund as well as to process, review, and determine the merits of claims filed pursuant to this bill. (Some of these costs could still be incurred absent this bill, either by DGS or by another state department, as part of an Administration plan for implementation of the pilot program or the claims fund. Please see staff comments for details.)

- To the extent that this bill encourages forest treatment activities that reduce the occurrence or severity of catastrophic wildfires from what otherwise would occur, this bill would result in potentially significant savings due to avoided fire suppression and other costs (General Fund).

COMMENTS:

1) **Author's statement**.

> California is facing a growing forest and wildfire crisis. Decades of effective fire exclusions, coupled with the increasing impacts of climate change, have dramatically increased wildfires' size and intensity throughout the state. Last year has brought new records including the first wildfire to burn across the Sierra Nevada; the destruction of towns like Greenville and Grizzly Flats; and the destruction of many of California's irreplaceable giant sequoias.
>
> Despite widespread acknowledgement in the scientific community of the utility of the practice, a 2019 study found that implementation of prescribed burning as a forest management practice has not increased over recent decades.
>
> On January 8, 2021, the Governor's Wildfire and Forest Resilience Task Force (WFRTF) released a comprehensive action plan. The action plan stated, "Insurance is no longer available for most private landowners and organizations seeking to conduct prescribed fire projects. In 2021, the state will explore the development of alternative strategies to increase insurance availability for these projects."
>
> The Budget Act of 2021 appropriated to the department $20,000,000 to establish a Prescribed Fire Liability Pilot Program that creates a prescribed fire claims fund to support coverage for losses from permitted prescribed fires by nonpublic

entities, such as Native American tribes, private landowners, and other nongovernmental entities. SB 926 sets forth the guidelines to operationalize the Claims Fund.

2) **Wildfires.** Wildfires in California are continuing to increase in frequency and intensity, resulting in loss of life and damage to public health, property, infrastructure, and ecosystems. In 2020, wildfires burned more than 4.1 million acres. The August Complex Fire in northern California, the largest fire in California's modern history, burned over one million acres. In total, wildfires caused 33 deaths and destroyed over 10,000 structures in 2020. The land area burned in 2020 more than doubled the previous record, roughly 1.8 million acres, which was set in 2018. Furthermore, seven of the state's deadliest fires have occurred since 2017, with over 100 fatalities in 2017 and 2018.

   Fire has always been present in California landscapes either occurring by lightning strikes or used by Native American tribes to preserve certain useful plants and prevent larger fires. Low-intensity fires have clear ecological benefits, such as creating habitat and assisting in the regeneration of certain species of plants and trees. Low-intensity fire also reduces surface fuel, which decreases future wildfire intensity.

   A century of suppressing low-intensity fires, logging of older growth and more fire-resistant trees, and a significant five-year drought has increased the size and severity of California's fires. Climate change has also contributed to wildfire risk by reducing humidity and precipitation and increasing temperatures.

3) **Prescribed burning**. California's landscapes are among the most naturally fire-dependent on Earth. One study suggests that prior to 1800, approximately 4.5 million acres of the state burned annually. Native Americans were likely responsible for a significant portion of this acreage. With colonization, many of these practices were significantly reduced or eliminated, fundamentally altering fire scope and intensity across the state.

   Science strongly points to the need to re-establish more frequent fire across a significant part of the state. In significant parts of California, reintroduction of fire in controlled circumstances can limit the scope of catastrophic wildfire and improve ecosystem resilience. In many ecosystems, beneficial fire may be the only restoration tool available.

   Prescribed burning is the controlled application of fire to the land to reduce wildfire hazards, clear downed trees, control plant diseases, improve rangeland and wildlife habitats, and restore natural ecosystems. Prescribed fires are typically conducted in compliance with a written prescribed fire plan that outlines the conditions necessary for the burn to be "within prescription."

   Approximately 125,000 acres of wildlands are treated each year in California using prescribed burning, and the rate of treatment is expected to rise as this tool is used more frequently to reduce the risk of catastrophic wildfires. Current estimates indicate that between 10 and 30 million acres in California would benefit from some form of fuel reduction treatment.

   In August 2020, California and the US Forest Service agreed to scale up vegetation treatment and maintenance to one million acres of federal, state, and private forest and wildlands annually by 2025. Pursuant to the Wildfire and Forest Resilience Action Plan, CAL FIRE

will expand its fuels reduction and prescribed fire programs to treat up to 100,000 acres on its 13.3 million acre jurisdiction by 2025, and the California Department of Parks and Recreation (State Parks) and other state agencies will also increase the use of prescribed fire on high-risk state lands.

Various studies and assessments have identified barriers to expanding beneficial fire activities, including insufficient human and other resources, regulatory hurdles, lack of public buy-in, fear of liability and lack of insurance, and for tribes, a lack of access to ancestral territories.

A recent wildfire in New Mexico's Santa Fe National Forest sparked by a US Forest Service prescribed burn turned into the state's largest wildfire. Although forecasted weather conditions were within parameters for the prescribed fire, unexpected erratic winds in the later afternoon caused multiple spot fires to spread outside the project boundary. Examples like this further fear and doubt about beneficial fire, however, more than 99% of prescribed burns have no escape.

4) **Providing liability coverage**. Under current law, CAL FIRE has discretion to purchase a third-party liability policy of insurance that provides coverage against loss resulting from a wildland fire sustained by any person or public agency, including the federal government.

   SB 332 (Dodd, Chapter 600, Statutes of 2021) modified the liability standards so that no person would be liable for any fire suppression or other costs otherwise recoverable for a prescribed burn if specified conditions are met, including, among others, that the burn be for the purpose of wildland fire hazard reduction, ecological maintenance and restoration, cultural burning, silviculture, or agriculture, and that, when required, a certified burn boss review and approve a written prescription for the burn. The law is intended to assist private prescribed fire practitioners overcome a barrier to conducting prescribed fire, which is the associated liability. Federal and state prescribed fires do not have the same concerns because they are able to self-insure.

   Data on the amount of prescribed fire that occurs in California has gaps, because CAL FIRE only requires a burn permit during fire season and not all local air districts track the prescribed fire they permit or report it to the Prescribed Fire Incident Reporting System. Even without knowing the exact amount of prescribed fire by the federal, state, local government, and private entities it is clear that private entities contribute to a large portion of the number of acres treated in California by prescribed fire. However, many private entities, such as cultural fire practitioners and nonprofits, have stated that it is impossible to get insurance to cover any damages that could arise if the prescribed fire went out of prescription. Many private entities are unwilling to conduct public purpose burning without insurance or some liability protection.

5) **Funding insurance coverage**. To support the use of prescribed burns to meet the acreage goals, SB 170, Budget Act of 2021, included $20 million (Item 3540-102-0001) to CAL FIRE to establish a Prescribed Fire Liability Pilot Program (program), in consultation with the Department of Insurance and NRA that creates a prescribed fire claims fund to support coverage for losses from permitted prescribed fires by non-public entities, such as Native American tribes, private landowners, and nongovernmental entities.

The Budget Act required CAL FIRE to propose any changes needed by the Legislature; trailer bill language is anticipated to request the additional authorities needed to execute the program.

SB 926 would set parameters to operationalize the $20 million budget appropriation. The bill establishes the Claims Fund to support coverage for losses from permitted prescribed fires by individuals and nonpublic entities, such as Native American tribes, including cultural fire practitioners, private landowners, and other nongovernmental entities. The Claims Fund would be administered by the Director of DGS, who would develop policies and procedures for the operation and administration of Claims Fund.

Furthermore, the bill requires detailed reporting to the Legislature on much of the data that is currently unknown as it relates to prescribed burning practices.

6) **Double referral**. This bill is double referred to the Assembly Judiciary Committee.

7) **Related legislation**. AB 2479 (Wood) would require CAL FIRE to inform the Legislature how it will increasingly use, develop, implement, facilitate, and support prescribed burn, cultural fire, and managed wildfire projects to burn specified number of acres by January 1, 2030. This bill was held in the Assembly Appropriations Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

Association of California Water Agencies
California Forestry Association
Watershed Research and Training Center

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1046 (Eggman) – As Amended May 17, 2022

SENATE VOTE: 29-7

SUBJECT: Solid waste: precheckout bags

SUMMARY: Prohibits stores from distributing precheckout bags that do not meet compostability and recyclability requirements.

EXISTING LAW:

1) Pursuant to SB 1383 (Lara), Chapter 395, Statutes of 2016, beginning January 1, 2022, requires:

    a) Generators of organic waste (primarily food and yard waste) to arrange for recycling services for that material and requires local governments to implement organic waste recycling programs designed to divert organic waste from those businesses.

    b) Generators, local governments, and other entities to comply with regulations adopted by CalRecycle, in consultation with the Air Resources Board (ARB) to reduce the landfill disposal of organic waste by 50% by 2020 and 75% by 2025 to reduce methane emissions from landfills.

    c) Cities and counties to annually procure sufficient organic waste products to meet their annual procurement targets, as determined by the Department of Resources Recycling and recovery (CalRecycle) based on population.

2) Prohibits the sale of products labeled "compostable" or "home compostable" unless the product meets the applicable American Society for Testing and Materials (ASTM) standard specification.

3) Prohibits the sale of products labeled "biodegradable," "degradable," "decomposable," or any form of those terms, or in any way implies that the product will break down, fragment, biodegrade, or decompose in a landfill or other environment.

4) Prohibits stores from distributing of single-use carryout bags to customers at the point of sale.

5) Defines "store" as a retail establishment that meets any of the following:

    a) A full-line, self-service retail store with gross annual sales of $2 million or more that sells a line of dry groceries, canned goods, or nonfood items, and some perishable items;

    b) Has at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and has a licensed pharmacy;

c) Is a convenience food store, foodmart, or other entity that is engaged in the retail sale of a limited line of goods, generally including milk, bread, soda, and snack foods, and that holds a specified license from the Department of Alcoholic Beverage Control; or,

d) Is a convenience food store, foodmart, or other entity that is engaged in the retail sale of goods intended to be consumed off the premises and that holds a specified license from the Department of Alcoholic Beverage Control.

THIS BILL:

6) Beginning January 1, 2025, prohibits stores from providing a precheckout bag to a consumer unless the bag is a paper bag or a compostable bag that meets all of the following requirements:

   a) Complies with the compostablility and labeling standards established by Public Resources Code (PRC) section 42357.5;

   b) Is eligible to be labeled "compostable" pursuant to PRC section 42357; and,

   c) Has a minimum 15-inch mouth width.

7) Defines "precheckout bag" as a bag provided to a customer before the customer reaches the point of sale, that is designed to protect a purchased item from damaging or contaminating other purchased items in a checkout bag, or to contain an unwrapped food item, such as, but not limited to, loose produce, meat or fish, nuts, grains, candy, and bakery goods. Specifies that "precheckout bag" does not include a bag used to prepackage items prior to their arrival at a store.

8) Specifies that implying that a plastic product will break down, fragment, biodegrade, or decompose in a landfill or other environment includes using green, brown, or beige tinting or color schemes on a plastic precheckout or carryout bag that is not eligible to be labeled "compostable" or "home compostable."

FISCAL EFFECT: Nonfiscal

COMMENTS:

1) **Author's statement**:

   California has made great strides in reducing the GHG emissions produced by our waste streams. SB 1383's [Lara, Chapter 395, Statutes of 2016] composting goals sought to directly target emissions caused by a failure to divert organic waste from landfills. The ultimate objective of these organic waste diversion goals is to put that material to a better and higher use, while also removing the emissions created by the organic waste rotting away in landfills.

   A key strategy for reducing contamination from our compost waste streams, already under way thanks to 2014's SB 270 [Padilla, Chapter 850], is prohibiting stores from providing single-use plastic carryout bags at their point of sale. Three years after this bill passed, data showed that grocery bag litter had dropped by

72% and accounted for less than 1.5% of all litter. SB 1046 takes the next logical step by requiring the pre-checkout produce bags be reusable, recyclable, or compostable.

These small pre-checkout bags many of us use while grocery shopping are not necessarily the bags that come to mind when you hear about plastics in our oceans and compost streams. But in the State of California, these innocuous produce bags tend to be thrown into the same bins as the fruit, vegetables, and meat we bring home in them from the store. This type of contamination not only leads to increased levels of microplastics in our compost waste stream, but it also leads to higher rates for consumers because the handling costs increase when compost waste streams are contaminated.

Now that the time has come for SB 1383's regulations to be implemented, it is vital that we provide local communities with the cleanest waste streams possible to ensure that we are diverting organic waste away from landfills in a manner that does not put the burden solely on the wallets of consumers. SB 1046 will decrease contamination in compost waste streams and provide consumers with convenient access to compostable pre-checkout bags by prohibiting the distribution of plastic pre-checkout produce bags unless they are reusable, recyclable, or compostable.

2) **California's recycling goals**. An estimated 35 million tons of waste are disposed of in California's landfills annually. CalRecycle is tasked with diverting at least 75% of solid waste from landfills statewide by 2020. Local governments have been required to divert 50% of the waste generated within the jurisdiction from landfill disposal since 2000. AB 341 (Chesbro), Chapter 476, Statutes of 2011, requires commercial waste generators, including multi-family dwellings, to arrange for recycling services for the material they generate and requires local governments to implement commercial solid waste recycling programs designed to divert solid waste generated by businesses out of the landfill. A follow up bill, AB 1826 (Chesbro), Chapter 727, Statutes of 2014, requires generators of organic waste (i.e., food waste and yard waste) to arrange for recycling services for that material to keep the material out of the landfill. California's recent recycling rate, which reached 50% in 2014, dropped to 42% in 2020.

3) **Plastic bags**. According to United Nations Environmental Programme, up to five trillion (5,000,000,000,000) plastic bags are used worldwide every year. While cigarette butts are the most common type of plastic waste, food wrappers, plastic bottles, plastic bottle caps, plastic grocery bags, plastic straws, and stirrers are the next most common items. According to the report *Advancing Sustainable Materials Management: Facts and Figures 2018*, the United States Environmental Protection Agency found that the United States generated 4.2 million tons of plastic bags, sacks, and wraps in 2018. Of that amount, 3.04 million tons were landfilled; only 10% was recycled. This is in a large part due to how difficult film plastic, the type of plastic used to make plastic bags, is to recycle. In curbside recycling systems, film plastic contaminates the plastic recycling stream and clogs up the machinery used to sort recyclables. In compost systems, plastic bags act as a contaminant that must be screened out, or is ground into the finished compost, contributing to microplastic pollution. The state's dedicated film plastic collection program, which required stores to collect film plastic bags for recycling, expired in 2020. Efforts to extend the at-store recycling program have failed in the Legislature.

4) **The Bag Ban**. In 2016, California voters approved Proposition 67, the statewide referendum to approve Single-Use Carryout Bag Ban (SB 270, Padilla, Chapter 850, Statutes of 2014). As a result, most grocery stores, retail stores with a pharmacy, convenience stores, food marts, and liquor stores no longer provide single-use, light-weight carry-out bags to their customers at the point of sale. The ban does not apply to the bags consumers use prior to the point of sale, such as produce bags and bags used for bulk items. Since the bag ban went into effect, the number of plastic bags collected from state beaches during the annual Coastal Cleanup Days has dropped significantly from about 65,000 bags in 2010 to about 26,000 bags in 2017. In 2020, the number of plastic bags collected increased, possibly related to the temporary allowance of plastic bags in stores due to early concerns that people bringing their own grocery bags into stores might increase the spread of COVID 19.

5) **Compostable products**. Compostable products break down into their organic constituents under strict environmental controls, including temperature, aeration, and nutrient concentration. Unlike biodegradable products, which simply means decomposable by action of living organisms, compostable means it breaks down in an industrial or home compost system. California law prohibits labeling plastic products biodegradable, as certification standards for this claim do not exist. Many manufactured compostable products, especially thicker items like utensils, do not break down as easily as organic waste and either require additional processing or are screened out of the finished compost and disposed.

6) **This bill**. This bill addresses the bags that the bag ban left out by requiring that precheckout bags provided to consumers are compostable or made from recycled paper(which is recyclable and compostable). This switch responds to the state's lack of film plastic recycling opportunities by ensuring that bags are made from compostable or recyclable materials, requiring that the bags be clearly identifiable as compostable to avoid contamination issues, and provides consumers with bags that will facilitate residential food waste collection to help the state achieve its SB 1383 goals.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Ventura County Climate Hub
5 Gyres Institute
BringIt for A Better Planet
California Environmental Voters
Californians Against Waste
CALPIRG
City of Pleasanton
City of San Jose
Long Beach Alliance for Clean Energy
NRDC
RethinkWaste
Save the Albatross Coalition
Sierra Club California

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1065 (Eggman) – As Amended June 13, 2022

SENATE VOTE: 39-0

SUBJECT: California Abandoned and Derelict Commercial Vessel Program

SUMMARY: Establishes the California Abandoned and Derelict Commercial Vessel Program (Program) to identify, prioritize, and fund, as specified, the removal of abandoned and derelict commercial vessels from waters of the state. This bill establishes the California Abandoned and Derelict Commercial Vessel Program Coordinating Council (Council) to oversee and provide policy direction for the Program. This bill generally prohibits a commercial vessel that is at-risk of becoming derelict from occupying, anchoring, mooring, or otherwise being secured in or on waters of the state.

EXISTING LAW:

1) Vests with the State Lands Commission (SLC) control over specified public lands in the state, including tidelands and submerged lands.

2) Authorizes SLC to take immediate action, without notice, to remove from areas under its jurisdiction a vessel that is left unattended and is moored, docked, beached, or made fast to land in a position as to obstruct the normal movement of traffic or in a condition as to create a hazard to navigation, other vessels using a waterway, or the property of another.

3) Authorizes SLC to take immediate action to remove a vessel that poses a significant threat to public health, safety, or welfare; or, to sensitive habitat, wildlife, or water quality, or that constitutes a public nuisance or that is placed on areas under its jurisdiction without its permission.

4) Authorizes SLC to remove and dispose of an abandoned or derelict vessel on a navigable waterway in the state that is not under the jurisdiction of SLC, as specified, if requested to do so by another public entity that has regulatory authority over the area where the vessel is located

5) Authorizes SLC to recover all costs incurred in removal actions undertaken pursuant to these provisions, including administrative costs and the costs of compliance with the California Environmental Quality Act.

6) Defines a "vessel" as a vessel, boat, raft, other watercraft, buoy, anchor, mooring, other ground tackle used to secure a vessel, boat, raft or similar watercraft, hulk derelict, wreck, or parts of a ship, vessel, or other water craft.

7) Establishes the Abandoned Watercraft Abatement Fund to be used by the Division of Boating and Waterways, in the California Department of Parks and Recreation (State Parks), for grants to be awarded to local agencies for the abatement, removal, storage, and disposal

of abandoned vessels. Prohibits these grants from being used for abatement, removal, storage, or disposal of commercial vessels.

8) Requires the Department of Resources Recycling and Recovery (CalRecycle) to initiate a program for the cleanup of solid waste disposal sites and the cleanup of solid waste at codisposal sites and, when prioritizing sites for cleanup, to consider the degree of risk to public health and safety and the environment posed by conditions at a site, the ability of the site owner to clean up the site without monetary assistance, the ability of CalRecycle to clean up the site adequately with available funds, maximizing the use of available funds.

9) Authorizes any state, county, city, or other public agency having jurisdiction and authority to remove and destroy, or otherwise dispose of marine debris or solid waste that is floating, sunk, partially sunk, or beached in or on a public waterway, public beach, or on state tidelands or submerged lands.

THIS BILL:

1) Provides that a commercial vessel that is at risk of becoming derelict shall not occupy, or anchor, moor, or otherwise be secured in or on, the waters of the state. A commercial vessel is "at risk of becoming derelict" when specified conditions exist.

2) Authorizes a peace officer to find that a commercial vessel is "at risk of becoming derelict" if the peace officer determines that any of the conditions described above exist. Authorizes a peace officer to seize or order the removal of a commercial vessel that is at risk of becoming derelict in compliance with current law and only after providing notice.

3) Requires all provisions in the bill relating to the storage, custody, possession, sale, claims, and disbursement of wrecked property after seizure or removal to also apply to a commercial vessel that is at risk of becoming derelict that is seized or removed by a peace officer.

4) Subjects a person who anchors, moors, or otherwise secures a commercial vessel that is at risk of becoming derelict in or on the waters of the state, or allows a commercial vessel that is at risk of becoming derelict to occupy the waters of the state, to liability for a civil penalty of not less $1,000 and not more $5,000 per violation.

5) Requires each civil penalty imposed for a separate violation to be separate and in addition to any other civil penalty imposed pursuant to this bill or to any other civil or criminal penalty imposed pursuant to any other law.

6) Authorizes a civil action brought under this bill to be brought by the Attorney General upon complaint by the Council, or by a district attorney or city attorney in the name of the people of the State of California, and any actions relating to the same violation may be joined or consolidated.

7) Requires a court, when determining the amount of a civil penalty, to take into consideration all relevant circumstances, including, but not limited to, the nature, circumstance, extent, and gravity of the violation. In making this determination, a court shall consider the extent of harm caused by the violation, whether the effects of the violation may be reversed or mitigated, and, with respect to a defendant, the ability to pay, the effect of a civil penalty on

the ability to continue in business, all voluntary cleanup efforts undertaken, the prior history of violations, the gravity of the behavior, the economic benefit, if any, resulting from the violation, and all other matters the court determines justice may require.

8) States that, in a civil action in which a temporary restraining order, preliminary injunction, or permanent injunction is sought, it is not necessary to allege or prove at any stage of the proceeding that irreparable damage will occur if the temporary restraining order, preliminary injunction, or permanent injunction is not issued, or that the remedy at law is inadequate.

9) Requires a court, after a party seeking the injunction has met its burden of proof, to determine whether to issue a temporary restraining order, preliminary injunction, or permanent injunction without requiring a defendant to prove that the defendant will suffer grave or irreparable harm. A court shall make the determination whether to issue a temporary restraining order, preliminary injunction, or permanent injunction by taking into consideration, among other things, the nature, circumstance, extent, and gravity of the violation, the extent of environmental harm caused by the violation, and measures taken by the defendant to remedy the violation.

10) Requires a court, to the maximum extent possible, to tailor a temporary restraining order, preliminary injunction, or permanent injunction narrowly to address the violation in a manner that will otherwise allow a defendant to continue business operations in a lawful manner.

11) Requires all civil penalties collected to be apportioned in the following manner:

    a) 75% shall be deposited into the Abandoned and Derelict Commercial Vessel Program Trust Fund (Trust Fund).
    b) 25%, upon appropriation by the Legislature, shall be distributed to the Attorney General, district attorney, or city attorney prosecuting the action.

12) Requires the costs of removing or destroying a commercial vessel that is at risk of becoming derelict to be borne by the owner or operator of the vessel or the occupant or person in possession of the vessel at the time of the violation. These costs shall be ordered by a court upon a finding of civil liability. Requires the costs of removal or destruction to be deposited into the Trust Fund.

13) Provides that the civil penalties do not apply to a commercial vessel that is moored to a private dock with the consent of an owner of a licensed commercial vessel repair facility or yard for the purpose of being repaired.

14) Establishes the Program within the Natural Resources Agency (NRA). Requires the Program to be administered by SLC to bring federal, state, and local agencies together to identify, prioritize, and, upon appropriation by the Legislature or after a determination by each of the state agencies, boards, or departments of the availability of existing funds eligible for use for purposes of this section, fund the removal of abandoned and derelict commercial vessels and other debris from the waters of the state and, at a minimum, do both of the following:

    a) On or before July 1, 2024, create, and regularly update and maintain thereafter, an inventory of all abandoned and derelict commercial vessels on or in the waters of the state. The inventory may be conducted by means of an aerial survey, from currently

available data from federal, state, and local agencies, or from other data available to the commission.

b) On or before December 31, 2024, develop, in coordination with the Council, an Abandoned and Derelict Commercial Vessel Plan (Plan) to provide a strategic framework to facilitate and track actions in support of strategies that prevent or reduce abandoned and derelict commercial vessels on or in the waters of the state, including the Sacramento-San Joaquin Delta. SLC shall update the Plan every 2 years to include, among other things, SLC's progress on implementing the Plan. SLC shall provide a copy of the plan, and each Plan update, to the relevant policy and fiscal committees of the Legislature.

15) Establishes the Council as an advisory body within NRA to do all of the following:

a) Provide policy guidance for the Program.
b) Advise on the prevention, removal, destruction, and disposal of abandoned and derelict commercial vessels and other debris, including the recovery of state-incurred costs for the prevention, removal, destruction, and disposal of these vessels and debris.
c) On or before December 31, 2024, with the support of SLC, research and evaluate the efficacy of abandoned and derelict commercial vessel prevention measures, including, but not limited to, dual registration and insurance requirements and guidelines for government public auctions and make recommendations to the Legislature to implement viable measures.

16) Requires the Council to consist of 7 voting members as follows:

a) The executive officer of SLC, or their designee, who shall also serve as the chairperson of the Council.
b) The Director of Fish and Wildlife (DFW), or their designee.
c) The Director of CalRecycle, or their designee.
d) The Director of Toxic Substances Control (DTSC), or their designee.
e) The Director for State Parks, or their designee.
f) The Executive Officer of the State Water Resources Control Board, or their designee.
g) One local member appointed by the Delta Protection Commission, who shall be a representative from a county that encompasses a portion of the Sacramento-San Joaquin Delta.

17) Requires the Council to consist of up to 4 nonvoting members appointed as follows, if the specified federal agencies agree to do so:

a) A representative appointed by the United States Coast Guard.
b) A representative appointed by the United States Environmental Protection Agency.
c) A representative appointed by the United States Army Corp of Engineers.
d) A representative appointed by the National Oceanic and Atmospheric Administration.

18) Requires the Council to develop a system for prioritizing the removal of the abandoned and derelict commercial vessels identified by SLC.

19) Requires the Council to consider the severity of the potential threats posed by an abandoned and derelict commercial vessel to human health and safety and the environment, and evaluate the severity of the threats based on specified factors.

20) Requires SLC to consider votes by the council at SLC's next regularly scheduled meeting or at a special meeting, if necessary, as determined by the executive officer of the commission.

21) Requires SLC, on or before July 1, 2023, to enter into a memorandum of agreement (MOA) with DFW, CalRecycle, DTSC, and, as determined by the executive officer of SLC in consultation with the Council, any other relevant federal, state, or local agency, to clean up and remove abandoned and derelict commercial vessels and other debris from the waters of the state. Requires the MOA to address, but be not limited to, the rights, duties, decisions, and commitments among the parties as specified.

22) Requires, upon execution of the MOA, and pursuant to available funds in the Trust Fund, or a determination by the parties to the agreement of the availability of existing funds eligible for use for purposes of this section, SLC to immediately authorize and execute the removal of abandoned and derelict commercial vessels and other debris as follows:

    a) Before SLC completes the inventory of all abandoned and derelict commercial vessels on or in the waters of the state and the Council develops a system for prioritizing the removal of these vessels, SLC shall authorize and execute the removal of abandoned and derelict commercial vessels and other debris using the Risk-Based Priority Matrix included in SLC's Plan.
    b) After SLC completes the inventory of all abandoned and derelict commercial vessels on or in the waters of the state and the Council develops a system for prioritizing the removal of these vessels, SLC shall authorize and execute the removal of abandoned and derelict commercial vessels and other debris using the inventory and prioritization system.

23) Provides that the Program shall not be funded by the Abandoned Watercraft Abatement Fund.

24) Establishes the Trust Fund in the State Treasury and specifies any moneys appropriated by the Legislature for purposes of the Program and any civil penalties or costs collected pursuant to the Program be deposited into the Trust Fund.

25) Requires, upon appropriation by the Legislature, moneys in the Trust Fund to be used by SLC to fund the removal of abandoned and derelict commercial vessels and other debris pursuant to the Program.

26) Requires, in prioritizing the sites for cleanup, CalRecycle give equal consideration to sites in water environments and terrestrial sites. Abandoned and derelict vessels in water environments shall be considered solid waste disposal or codisposal sites pursuant to this article.

FISCAL EFFECT: According to the Senate Appropriations Committee, enactment of this bill will result in the following costs:

- NRA estimates ongoing costs of about $1.5 million annually (General Fund) for five staff positions to establish the Council, develop a Plan, maintain the Trust Fund, and oversee the removal of abandoned and derelict commercial vessels identified by the SLC.

- SLC estimates costs of roughly $10 million (General Fund) for the first year, including roughly $4.5 million for staff costs, $4 million to remove vessels, $1 million to administer the program and chair the coordinating Council, and unknown but significant costs for a statewide abandoned commercial vessel inventory. After the first year, SLC estimates ongoing costs of between $5.5 and $6.5 million (General Fund), including $4-5 million annually for vessel removal, and an additional three staff positions to administer the Program. SLC notes that some of these costs could be offset by any revenue deposited into the Trust Fund.

- Unknown costs, likely in the low hundreds of thousands of dollars annually (General Fund) for State Parks, DFW, and other departments to coordinate with NRA and the council and to help identify derelict commercial vessels, among other things.

- Unknown, likely minor costs for the Attorney General to enforce the provisions of this bill (General Fund, Derelict Commercial Vessel Program Fund).

- Unknown, likely minor revenue from civil penalties collected pursuant to this bill (Derelict Commercial Vessel Program Fund).

COMMENTS:

1) **Author's statement**.

   SB 1065 is needed to coordinate the safe and efficient removal of commercial abandoned and derelict vessels in order to keep our waterways clear and clean. Through the statewide coordinating Council that this bill creates it will help streamline the removal by working with local, state, and federal agencies.

2) **Derelict vessels**. Abandoned and derelict vessels are vessels that are no longer taken care of and pose a threat to people and the environment. Though the legal definition of abandoned and derelict vessels varies, "derelict" often refers to vessels that are neglected with an identifiable owner, while "abandoned" vessels are those where the owner is unknown or has surrendered rights of ownership.

   Abandoned and derelict commercial vessels usually consist of, but are not limited to, ferries, tugs, barges, cranes, dredges, work boats and work platforms that were designed and utilized for commercial work, and military craft, but at end of life are often sold at auction to any willing buyer. These vessels evolve into a dilapidated condition and eventually end up in an unusable state, leading the vessel to either be sunk, partially sunk, or a sinking hazard.

   Vessels become abandoned and derelict for many reasons. Owners may neglect or abandon their boats when they can no longer afford to maintain them. Some boats may break loose from anchors or moorings and drift away, and some may be stolen. Severe weather events, like hurricanes or flooding, can also result in large numbers of vessels becoming abandoned

and derelict. In these conditions boats can sink at moorings, become submerged in tidal areas, or strand on shorelines, reefs, or in marshes.

Abandoned and derelict vessels can cause problems for our ocean, lakes, and waterways by blocking navigational channels, damaging ecosystems, and diminishing the recreational value of the surrounding area. Some vessels may contain fuel and hazardous materials, including solvents, asbestos-containing materials, polychlorinated biphenyls or PCBs, lead paint, batteries, and petroleum products, such as fuel, oil, oily waste, hydraulic fluid, and grease, which could leak into the surrounding water.

Removing abandoned and derelict vessels is often complicated and expensive. Costs range from tens of thousands to several million dollars per vessel depending in part on its size, location, and condition. Some vessels are located in hard-to-reach areas, requiring large, specialized equipment for recovery and transportation. The wreckage may last for many years, breaking apart and creating widespread debris that threatens marine and coastal resources. Assessing, removing, and disposing of these vessels also requires significant financial and technical resources.

3) **Abandoned Vessel programs**. The California Legislature has created a number of programs that authorize the removal and disposal of abandoned and derelict vessels and marine debris.

Local public agencies that have jurisdiction over their area of responsibility (AOR) have authority to remove, store and dispose of wrecked property within their AOR. SLC was granted statewide authority to remove abandoned and derelict vessels through the Abandoned Vessel Program (SB 595, Wolk, Chapter 595, Statutes of 2011), which established an administrative removal and disposal process for abandoned and trespassing vessels on waterways under SLC's jurisdiction. SLC has authority to immediately remove a vessel from areas under its jurisdiction without prior notice if the vessel seriously hinders navigation, is a threat to vessel operators, a hazard to the natural environment, or creates a public nuisance.

In 2015, the Legislature enacted AB 1323 (Frazier, Chapter 645, Statues of 2015) to assist local governments with derelict vessel removal by authorizing a public agency to remove and dispose of marine debris after 10 days if the debris is floating, sunk, partially sunk, or beached in or on a public waterway, public beach, or on state tidelands or submerged.

The abandoned recreational vessel removal program administered by State Parks' Division of Boating and Waterways facilitates recreational vessel removal through the Surrendered and Abandoned Vessel Exchange program (SAVE), which includes the Abandoned Watercraft Abatement Fund and the Vessel Turn-In Program. The SAVE program is used for removing and disposing of abandoned recreational vessels but SAVE funds may not be used to abate commercial vessels.

The Delta Protection Commission and the Office of Spill Prevention and Response (OSPR) in the Department of Fish and Wildlife sponsored a 2017 study that found the Sacramento San Joaquin Delta region contained roughly 240 abandoned and derelict vessels of which approximately 50 were commercial vessels, such as barges or larger ships. The study estimated that the removal cost was on the order of $33 million, and most of the cost was associated with the removal of commercial vessels (at $500,000 each). According to OSPR, roughly two additional commercial vessels are abandoned in the Sacramento-San Joaquin Delta annually.

A 2019 SLC report to the Legislature, *Abandoned Commercial Vessel Removal Plan*, recommends expanding to a statewide program to help prevent additional commercial vessels from becoming abandoned.

SB 1065 would establish this proposed Program to compel coordination amongst federal, state, and local agencies, which have varying roles and authorities, to identify, prioritize, and fund the removal of abandoned and derelict commercial vessels and other debris from the waters of the state.

4) **Inventorying abandoned and derelict vessels.** California has the fourth largest boating population in the nation, with more than 772,000 registered recreational vessels. Because many vessels are registered for years, sometimes decades, before they are abandoned, it's hard to predict, based on trend, the percentage of registered vessels that will be left to rot.

According to SLC's 2019 report to the Legislature, efforts to document abandoned vessels in the Delta area had been conducted by DFW's Office of Spill Prevention and Response (OSPR) using aerial surveys and the U.S. Coast Guard Auxiliary, and visual data from SLC staff from site visits. OSPR's website has an Abandoned Derelict Vessel Reporting tool to track abandoned derelict vessels in California, but it has never been formally used and data is not, in fact, collected or reviewed by OSPR.

Under California law, recreational vessels are required to be registered, but commercial vessels are not, challenging the effort to identify the number of vessels in California's waterways and the total potential for abandoned and derelict vessel management.

This bill would create the Program to require SLC to create and update an inventory of all abandoned and derelict commercial vessels. The inventory would include currently available data from federal, state, and local agencies – such as OSPR's tool -- or may be conducted by means of an aerial survey. While it's not explicit, the inventory could include data from local agencies, peace officers, boaters and waterway users, and others "on the ground" who can report an abandoned vessel to SLC.

The inventory would inform the Abandoned and Derelict Commercial Vessel Plan (Plan), which SLC would create under the Program to provide a strategic framework to facilitate and track actions in support of strategies that prevent or reduce abandoned and derelict commercial vessels on or in the waters of the state, including the Sacramento-San Joaquin Delta.

In 2018, the Pacific States/British Columbia Oil Spill Task Force (Task Force) formed an abandoned and derelict vessels Workgroup comprised of experts and program leads from each of the five Task Force jurisdictions: Alaska, California, Hawaii, Oregon, and

Washington. The January 2020 Task Force report, *Abandoned and Derelict Vessel Blue-Ribbon Program for Western U.S. States*, recommended states to establish a comprehensive database to track and (potentially) prioritize abandoned and derelict vessels:

> Identifying vessels of concern and developing and maintaining a comprehensive database of these identified vessels is one of the most important aspects of prevention. States should develop robust tracking systems for vessels of concern that include location, condition assessment, and (to help with disposal decisions) prioritization. Ranking/ prioritizing the vessels for state-funded removal is important in order to stretch limited resources.

The Task Force further recommends prioritization based on risk, impact, and ease of removal. Consistent with that, the bill would establish the Council to come up with a system for prioritizing the removal of the abandoned and derelict commercial vessels identified on SLC's inventory. Prioritization would be based on the severity of the potential threats to human health and the environment, the toxicity of the vessel, weather conditions, proximity to sensitive habitats, and others.

5) **No time like the present**. Abandoned commercial vessels are a huge pollution problem now, and the bill will not require SLC to wait until the final plans are complete to jump into action.

   SB 1065 would require SLC to enter into an MOA with the DFW, CalRecycle, DTSC, and any other relevant federal, state, or local agency, to clean up and remove abandoned and derelict commercial vessels and other debris. The MOA will compel the agencies with cross-jurisdictional oversight to bring the Plan to fruition and cleanup the hazardous waste and pollution stemming from abandoned and derelict commercial vessels, and remove, destroy, and dispose of the abandoned and derelict commercial vessels. Until that Plan is adopted in December 2024, and until the Council has completed its prioritization of identified vessels, the MOA will require SLC to authorize and execute the removal of abandoned and derelict commercial vessels and other debris using the existing data and resources, specifically including SLC's 2019 Risk-Based Priority Matrix.

6) **State funding**. Current funding for abandoned recreation vessels cannot be used to support this proposed Program for commercial vehicles. The bill specifically states the "California Abandoned and Derelict Commercial Vessel Program shall not be funded by the Abandoned Watercraft Abatement Fund established pursuant to Section 525 of the Harbors and Navigation Code."

   The 2022-23 budget approved by the legislature on June 13 does not include any funding for SLC or State Park's abandoned and derelict vessel efforts. The 2021-22 budget did include $12 million for SLC to remove abandoned and derelict vessels from the Sacramento-San Joaquin Delta region.

   In recognition of the exorbitant costs of vessel removal and the need for funding, SB 1065 declares that effective response to identify, remove, and dispose of abandoned and derelict commercial vessels requires that the state have sufficient funds available in the Trust Fund, and that maintenance of the Trust Fund is of utmost importance to the state.

7) **Double referral**. This bill is double referred to the Assembly Judiciary Committee.

8) **Committee amendments**. *The Committee may wish to amend the bill as follows*:

- To provide sufficient time to SLC to comply with the new requirements, adjust the dates in the bill as follows:
    - Sec. 6112 (b)(2) On or before July 1, 2025 ~~December 31, 2024~~, develop, in coordination with the Council, an Abandoned and Derelict Commercial Vessel Plan …
    - Sec. 6112 (c)(1)(C) On or before July 1, 2025 ~~December 31, 2024~~, with the support of the Commission, research and evaluate the efficacy of abandoned and derelict commercial vessel prevention measures …
- To clarify that when SLC authorizes and executes the removal of abandoned and derelict commercial vessels, it is done in accordance with the Plan.
    - Sec. 6112 (f)(1)(B) After the commission completes the inventory of all abandoned and derelict commercial vessels on or in the waters of the state pursuant to paragraph (1) of subdivision (b) and the council develops a system for prioritizing the removal of these vessels pursuant to subdivision (d), the commission shall authorize and execute the removal of abandoned and derelict commercial vessels and other debris using the inventory and prioritization system pursuant to the plan adopted in (b)(2).

REGISTERED SUPPORT / OPPOSITION:

Support

California Central Valley Flood Control Association
California District Attorneys Association
California State Sheriffs' Association
City of Sacramento
County of San Joaquin
Metropolitan Water District of Southern California
Solano County Water Agency
Urban Counties of California

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1187 (Kamlager) – As Amended May 19, 2022

SENATE VOTE: 38-0

SUBJECT: Fabric recycling: pilot project

SUMMARY: Requires the Department of Recycling and Recovery (CalRecycle) to establish a pilot project in Los Angeles and Ventura Counties, in partnership with garment manufacturers, to study the feasibility of developing a circular economy for fabric.

EXISTING LAW, under the Integrated Waste Management Act (IWMA):

1) Requires that local governments divert at least 50% of solid waste from landfill disposal by 2000 and establishes a statewide goal that 75% of solid waste be diverted from landfill disposal by 2020.

2) Requires commercial waste generators, including multi-family dwellings, to arrange for recycling services and requires local governments to implement commercial solid waste recycling programs designed to divert solid waste from businesses.

3) Requires generators of specified amounts of organic waste to arrange for recycling services for that material.

THIS BILL:

1) Requires CalRecycle to establish a pilot project in Los Angeles and Ventura Counties, in partnership with garment manufacturers, in order to study and report on the feasibility of recycling fabric.

2) Specifies the term of the pilot project is not to exceed three years, until no later than January 1, 2027.

3) Specifies that the pilot project be submitted by an applicant jurisdiction shall be designed to create a circular economy for the highest and best use of reused textiles in California.

4) Specifies that the pilot project include, but not be limited to, the following project elements:

    a) Creating accessible textile collection sites;

    b) Developing a hub for consolidating preconsumer textile scraps to facilitate the use of those materials by other businesses;

    c) Remanufacturing of fibers;

    d) Increasing capacity to sort textiles to create cleaner and more uniform material streams, either manually or through investment in machinery and permanent infrastructure development; and,

e) Community engagement and education on impacts of, and alternatives to, "fast fashion," which may include, but is not limited to, conducting mending workshops in the community.

5) Requires the pilot project to annually report to CalRecycle demonstrating the pilot project's progress toward ensuring textiles are being recovered for their highest and best use, creating cleaner and more uniform material streams, creating safe and living-wage jobs for locals, educating the public, and reducing textile waste in landfills, as applicable. Requires the report to specify the amount of textiles collected and diverted from disposal in the prior years of the pilot project.

6) Requires CalRecycle to post the report on its website within six months of the conclusion of the pilot project, and no later than July 1, 2027.

7) Sunsets the bill's provisions on January 1, 2028.

8) States that the Legislature finds and declares that a special statute is necessary because of the unique need for fabric recycling in Los Angeles and Ventura Counties due to the presence of a significant number of clothing manufacturers.

FISCAL EFFECT: According to the Senate Appropriations Committee:

1) Unknown one-time costs, likely in the hundreds of thousands or low millions of dollars, for CalRecycle to develop and implement the pilot project.

2) Unknown, likely significant cost pressure to scale or expand pilot project should it be found to be successful.

COMMENTS:

1) **Author statement**:

> The fashion industry is one of the most influential industries in the world and they generate more textile waste than ever before. To tackle the problems and address the challenges, this pilot program will set up a collaboration between stakeholders in the fashion industry and have them act together on reducing the fashion industry's negative impact on the environment. We are all in this together and hope we will be able to make better fashion decisions in the future.

2) **Solid waste in California**. CalRecycle is charged with reducing disposal of municipal solid waste and promoting recycling in California. Under IWMA, the state has established a statewide 75% reduction, recycling, and composting goal by 2020. Additionally, the state has established a target of a 75% reduction in the level of disposal of organic waste from the 2014 level by 2025.

   According to CalRecycle's State of Disposal and Recycling Report for Calendar Year 2020, published in December 2021, approximately 77.4 million tons of material was generated in 2020, with about 52% sent to landfills; 17% exported as recyclables; 12% composted, anaerobically digested or mulched; and 13% either recycled or source reduced. According to the report, "We are falling far short of our 75% recycling goal and face clear evidence

that an economy driven by resource extraction and single-use disposable products continues to endanger our people and imperil our planet."

3) **Textiles**. "Fast fashion" refers to the design, creation, and marketing of clothing fashions that emphasizes making fashion trends quickly and cheaply. By quickly cycling through styles, retailers are able to incentivize shopping, which has led to a doubling of clothing production from 2000 to 2014. Fast fashion emphasizes affordability, and in the process sacrifices quality and longevity leading to more waste. The increase of production carries a host of concerns ranging from the greenhouse gas emissions of clothing production to the often poor wages and working conditions of textile manufacturers. This bill focuses on the significant amounts of waste generated by the fashion industry.

   According to CalRecycle's 2020 Facility-Based Characterization of Solid Waste in California report, textiles were the sixth most prevalent material type disposed by single-family residences in 2018. California disposed of nearly 1.2 million metric tons of textiles in 2018, making up about 3% of California's total waste stream. CalRecycle indicates that up to 95% of California's textile waste is reusable or recyclable. In order to recycle or reuse the fabric, the item must have the material tag attached to identify the type of material. Without tags, it becomes impractical to determine the blends used in each product making them essentially unrecyclable.

   The recycling and reuse process begins with collection, which needs to be done at both the pre-consumer phase for fabric scraps (i.e., generated while making other products) and the post-consumer phase (i.e., as people discard their garments). After collection, the textiles have to be sorted to separate reusable clothing from clothing to be recycled. Reusable clothing must then be further sorted into many subgroups, which can be very labor intensive, and then resold, often in developing countries.

   Recycling is dependent on the content of the fabric. Cotton and other natural fibers can be mechanically processed by shredding, separation into fibers, and then respinning with virgin fibers into yarn. Synthetic fibers, such as polyethylene terephthalate can be mechanically processed by shredding, cleaning, molding into pellets, and then extrusion into new fibers. They can also be chemically processed; broken down into their component molecules to remove contaminants and then reformed into fibers.

4) **Los Angeles and Ventura Counties**. According to a 2014 Los Angeles Area Fashion Industry Profile by the California Fashion Association, over 77,000 people were employed in the fashion industry in Los Angeles County. Los Angeles County is home to such companies as California Textile Group and American Apparel and Ventura County is home to Patagonia and Fashion Forms. Furthermore, the Los Angeles Department of Sanitation has called for policies to prohibit textile companies from discarding scraps and has contracted with the California Product Stewardship Council to conduct surveys of stakeholders for a program to work with industry partners to upcycle materials. The presence of textile designers, manufacturers, and engaged local government agencies in these two counties creates a nexus that has significant potential for promoting a circular economy for textiles.

5) **Suggested amendments**. The *committee may wish to make minor technical and clarifying amendments* to clarify the goals of the pilot project and the reporting requirements.

REGISTERED SUPPORT / OPPOSITION:

Support

California Environmental Voters
California Product Stewardship Council
California Retailers Association
Californians Against Waste
CBU Productions
Climate Reality Project, San Fernando Valley
Coyuchi
Fashion Revolution USA
Fibershed
Gap, INC.
Goodwill Industries of San Francisco, San Mateo, and Marin Counties
Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
Reformation
Regent Apparel

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1391 (Kamlager) – As Amended June 14, 2022

SENATE VOTE: 28-8 (prior version)

SUBJECT: greenhouse gases: market-based compliance mechanism

SUMMARY: Requires the Air Resources Board (ARB) to review the cap and trade program every three years, as specified.

EXISTING LAW:

1) Requires ARB to adopt a statewide GHG emissions limit equivalent to 1990 levels by 2020, to ensure that statewide GHG emissions are reduced to at least 40% below the 2020 statewide limit no later than December 31, 2030, and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions.

2) Requires any direct regulation or market-based compliance mechanism to achieve GHG reductions that are real, permanent, quantifiable, verifiable, and enforceable by ARB.

3) Requires ARB to prepare and approve a scoping plan every five years for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs.

4) AB 32 authorized ARB, in furtherance of achieving the 2020 statewide limit, to adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions, applicable from January 1, 2012, to December 31, 2020, to comply with GHG reduction regulations, once specified conditions are met. Under this authority, ARB adopted a cap and trade regulation which applies to large industrial facilities and electricity generators emitting more than 25,000 metric tons of carbon dioxide equivalent per year, as well as distributors of fuels, including gasoline, diesel, and natural gas.

5) In 2017 [AB 398 (E. Garcia), Chapter 135, Statutes of 2017], extended ARB's cap and trade authority to 2030, required ARB to establish a price ceiling on GHG emission allowances in consideration of specified factors, added several new conditions governing the management and allocation of allowances, and reduced limits on compliance offsets. Specifically, AB 398 requires ARB to:

    a) Evaluate and address concerns related to over-allocation of the number of available allowances.

    b) Establish allowance banking rules that discourage speculation, avoid financial windfalls, and consider the impact on complying entities and volatility in the market.

    c) Limit the use of offsets to 4% of a covered entity's compliance obligation from 2021 to 2025 and 6% from 2026 to 2030, of which no more than one-half may be sourced from projects that do not provide direct environmental benefits in state.

d) Report to the Legislature, in consultation with the Independent Emissions Market Advisory Committee (IEMAC), if two consecutive auctions exceed specified allowance price limits.

e) Report to the relevant fiscal and policy committees of the Legislature, including the Joint Committee on Climate Change Policies (JLCCCP), with updates on scoping plan adoption and implementation, as well as implementation of the cap and trade regulation.

6) SB 398 also established the IEMAC within the California Environmental Protection Agency, and requires the IEMAC to hold a public meeting at least annually and report to both ARB and the JLCCCP on the environmental and economic performance of the cap and trade regulation and other relevant climate policies. Requires the IEMAC to be composed of at least five experts on emissions trading market design appointed according to the following:

a) Three members appointed by the Governor.

b) One member appointed by the Senate Committee on Rules.

c) One member appointed by the Speaker of the Assembly.

d) Requires IEMAC to include a representative from the Legislative Analyst's Office (LAO), and requires members to meet all of the following requirements:

i) Have academic, nonprofit, and other relevant backgrounds.

ii) Lack financial conflicts of interest with entities subject to the cap and trade regulation.

7) Requires the LAO to annually report to the Legislature on the economic impacts and benefits of the 2030 GHG emissions targets.

THIS BILL:

1) Requires ARB, at least once every three years, to review cap and trade program. Requires ARB to do all of the following:

a) Evaluate and address concerns, if any, related to allowance over-allocation.

b) Evaluate and address concerns, if any, related to whether offset credits eligible for compliance purposes satisfy specified requirements.

c) Determine whether the future supply of allowances needs to be automatically reduced by the number of offset credits issued, including historical and ongoing offset credit issuance, and if not, whether the future supply of allowances needs to be automatically reduced by the number of offset credits retired, including historical and ongoing offset credit retirements.

d) Determine whether the establishment of facility-specific direct emission reductions would help reduce pollution disparities in disadvantaged communities, and also whether the establishment of sector-specific emission limits would help reduce pollution disparities in disadvantaged communities.

2) Requires the review to be conducted in accordance with the requirements for public notice, hearing, and comment for a rulemaking under the Administrative Procedure Act.

3) Requires ARB to consult with the IEMAC and the environmental justice advisory committee.

4) Requires ARB to commence the first review on or before January 30, 2023, or within 30 days of the completion of the update to the scoping plan that is pending as of January 30, 2023, whichever date is later.

5) Requires ARB, in consultation with the IEMAC, to develop and publish allowance banking metrics concurrently with the first review.

6) Requires the review to be based on the observed and expected outcomes derived from the application of the allowance banking metrics.

7) Defines "allowance banking metrics" as a methodology used to determine summary statistics concerning the total number of allowances in circulation, including, but not limited to, the number of allowances held by market participants.

FISCAL EFFECT: Unknown

COMMENTS:

1) **Background**. Beginning on January 1, 2013, the cap-and-trade regulation set a firm, declining cap on total GHG emissions from sources that make up approximately 80% of all statewide GHG emissions. Sources included under the cap are termed "covered entities." The cap is enforced by requiring each covered entity to surrender one "compliance instrument" for every emissions unit (i.e., metric ton of carbon dioxide equivalent or $MTCO_2e$) that it emits at the end of a compliance period.

   Two main forms of compliance instruments are used: allowances and offsets. Allowances are generated by the state in an amount equal to the cap and may be "banked" (i.e., allowing current allowances to be used for future compliance). An offset is a credit intended to represent a real, verified, permanent, and enforceable emission reduction project from a source outside a capped sector (e.g., a certified carbon-storing forestry project). Allowances and offsets both have some controversy surrounding their design and implementation in California's cap-and-trade program.

   The banking of past years' allowances to fulfill future compliance obligations can become problematic. According to the most recent estimate from the IEMAC, there are roughly 321 million allowances currently banked. This means that in the future, when the cap is lower and therefore fewer new allowances are offered, 321 million tons of CO2 equivalents could be emitted legally, permitted by those banked credits.

   The oversupply and banking of allowances has been an ongoing debate for years. To quote the latest IEMAC report, "The IEMAC has previously addressed questions about allowance banking and "overallocation" pursuant to AB 398 (IEMAC 2018, Chapter 6; IEMAC 2019, Chapter 4). Legislators have also asked ARB and the IEMAC to develop "banking metrics" to track the evolution of the program's supply-demand balance (IEMAC 2019, Appendices A and B). ARB Board Resolution 18-51 provided direction to staff to prepare a report

describing allowance banking outcomes at the end of the cap-and-trade program's third compliance period (2018–2020) (CARB 2018a, p. 11). To our knowledge CARB has not yet indicated its plans with respect to adopting any potential banking metrics."

Offsets are widely used by individuals, corporations, and governments to mitigate their GHG emissions on the assumption that offsets reflect equivalent climate benefits achieved elsewhere. These climate-equivalence claims depend on offsets providing real and additional climate benefits beyond what would have happened, counterfactually, without the offsets project. In California, according to the latest IEMAC report, offsets constitute a significant source (6.3%) of the supply of compliance instruments in the market, with forest offsets producing about 80% of offset supply to date.

As noted above, AB 398 includes several provisions, including LAO reporting and the IEMAC, to address issues similar to the issues addressed by this bill. While the provisions of AB 398, the IEMAC, and academic critiques may not be adequate to address the issue of over-allocation of allowances, the integrity of offsets, and the risk that cap and trade may not deliver GHG emissions reductions as promised, that is largely due to resistance within ARB.

2) **Author's statement**:

> There are critical reports showing that the cap-and-trade program is failing to improve the lives of low-income communities of color. It is important for California to check if our house is in order, evaluate and possibly recalibrate its regulatory standards for the cap-and-trade program, and improve the accounting of carbon offsets. This bill ensures California is achieving the statewide greenhouse emissions limit by addressing concerns over offset credits. The ultimate goal is to ensure we are not shortchanging the climate or our impacted communities.

3) **Related legislation**. AB 2793 (Muratsuchi) requires ARB to evaluate the cap and trade program every three years, as specified, to determine the program's effectiveness in meeting the GHG emission reduction goals of AB 32. AB 2793 passed this Committee on April 25 by a vote of 7-3, but failed passage on the Assembly Floor on May 26 by a vote of 33-27.

REGISTERED SUPPORT / OPPOSITION:

Support

None on file.

Opposition

Agricultural Council of California
Agricultural Energy Consumers Association
Association of California Egg Farmers
California Business Roundtable
California Cement Manufacturers Environmental Coalition
California Chamber of Commerce
California Cotton Ginners and Growers Association
California Fuels and Convenience Alliance
California Grain and Feed Association

California Independent Petroleum Association
California League of Food Producers
California Manufacturers and Technology Association
California Warehouse Association
California Women for Agriculture
Californians for Affordable and Reliable Energy
Coastal Energy Alliance
Greater Coachella Valley Chamber of Commerce
Los Angeles Business Federation
Pacific Coast Renderers Association
Pacific Egg & Poultry Association
Santa Barbara Taxpayers Association
Tri-County Chamber Alliance
Western Agricultural Processors Association
Western States Petroleum Association

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1145 (Laird) – As Amended May 19, 2022

SENATE VOTE: 38-0

SUBJECT: California Global Warming Solutions Act of 2006: greenhouse gas emissions: dashboard

SUMMARY: Requires the Air Resources Board (ARB) to create, and maintain on its internet website, a greenhouse gas (GHG) emissions dashboard that provides updated publicly available information regarding how the state is progressing toward meeting its statewide climate change goals.

EXISTING LAW:

1) Requires, pursuant to the California Global Warming Solutions Act [AB 32 (Núñez), Chapter 488, Statutes of 2006], ARB to adopt a statewide GHG emissions limit equivalent to 1990 levels by 2020 and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions.

2) Requires ARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by 2030.

3) Requires ARB to prepare and approve a scoping plan, on or before January 1, 2009, and at least once every five years thereafter, for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs.

4) Requires all state agencies to consider and implement strategies to reduce their GHG emissions.

FISCAL EFFECT: According to the Senate Appropriations Committee, ARB estimates ongoing costs of about $210,000 annually (Cost of Implementation Account) to develop and maintain a dashboard on progress toward state GHG goals.

COMMENTS:

1) **Background**. Since 2007 (and prior to that, under the California Energy Commission), ARB has been statutorily required to maintain an inventory of GHG emissions in the state. California's annual statewide GHG emission inventory is an important tool for establishing historical emission trends and tracking California's progress in reducing GHGs.

   The inventory provides estimates of anthropogenic GHG emissions within California, specifically emissions from fossil fuel combustion (including combustion for imported power), GHGs generated as by-product of chemical reactions in industrial processes, use of GHG-containing consumer products and human-made chemicals, and emissions from

agricultural and waste sector operations. Natural sources are not included in the inventory; wildfire and other natural and working lands emissions are tracked separately.
In order to give time to collect and process the data, the GHG inventory data available is generally from two to three years prior. For example, the most current data currently accessible is for 2019, which was released in July 2021. Much of the data is collected pursuant to the Regulation for the Mandatory Reporting of GHG Emissions (MRR). MRR requires facilities and entities with more than 10,000 metric tons CO2e per year of combustion and process emissions, all facilities belonging to certain industries, and all electricity importers to submit an annual GHG emissions data report directly to ARB. Reports from facilities and entities that emit more than 25,000 metric tons of CO2e per year are verified by an ARB-accredited third-party verification body. It is estimated that MRR covers roughly 80% of the state's total emissions.

2) **Author's statement**:

> Senate Bill 1145 directs ARB to create and maintain a greenhouse gas emissions dashboard that shows how the state is progressing toward meeting its statewide climate change goals. As California continues to fight climate change to create more resilient communities and build an inclusive, greener economy, we must do so equitably. Climate change impacts all of our communities, and measuring our state's progress will better guide how we continue to make these investments and expand opportunities to strengthen California.

3) **Related legislation**. AB 2532 (Bennett), which passed this Committee on April 18 and is now pending in the Senate Appropriations Committee, requires each state agency to report annually regarding its compliance with and efforts to implement any goals and recommendations identified by ARB in the AB 32 Scoping Plan.

REGISTERED SUPPORT / OPPOSITION:

Support

California Municipal Utilities Association
City of Morro Bay

Opposition

None on file.

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1295 (Limón) – As Amended May 19, 2022

SENATE VOTE: 24-9

SUBJECT: Oil and gas: hazardous or deserted wells and facilities: labor standards

SUMMARY: Provides that all work undertaken or financed by the Oil, Gas, and Geothermal Administrative Fund (Administrative Fund) using outside contractors is a public work and requires prevailing wages to be paid; establishes certain additional labor requirements for projects paid for by Administrative Fund; requires the Geologic Energy Management Division (CalGEM) in the Department of Conservation (DOC), when contracting for certain work pursuant to the orphan well program, to use a skilled and trained workforce; and, authorizes an increase in the annual expenditure limit from Admin Fund for the plugging and abandonment of hazardous or idle-deserted oil or gas wells to include the amount appropriated from the General Fund for the same purpose in the preceding fiscal year (FY), among other things.

EXISTING LAW:

1) Establishes CalGEM, under the direction of the State Oil and Gas Supervisor (Supervisor), to regulate the drilling, operation, maintenance, and abandonment of oil or gas wells in the state.

2) Establishes the Administrative Fund in the State Treasury for expenditure by certain public entities in connection with various activities relating to oil and gas operations, as specified.

3) Authorizes the supervisor to order certain operations to be carried out on any property in the vicinity of which, or on which, is located any well or facility that the supervisor determines to be a hazardous well, an idle-deserted well, a hazardous facility, or a deserted facility, as specified. Establishes and requires CalGEM to administer and manage the Oil and Gas Environmental Remediation Account (Account) in the Administrative Fund.

4) Requires moneys in the Account to be used, upon appropriation by the Legislature, to plug and abandon oil and gas wells, decommission attendant facilities, or otherwise remediate sites that the supervisor determines could pose a danger to life, health, water quality, wildlife, or natural resources, as specified.

5) Prohibits CalGEM from expending more than $3 million in any one FY, for FY 2018–19 to FY 2021–22, inclusive, and, commencing with FY 2022–23, no more than $5 million in any one FY from the Administrative Fund for those purposes related to hazardous wells, idle-deserted wells, hazardous facilities, and deserted facilities.

6) Defines “public works,” for purposes of regulating public works contracts, as, among other things, construction, alteration, demolition, installation, or repair work done under contract and paid for, in whole or in part, out of public funds.

7) Provides a general prevailing rate of per diem wages for the craft, classification, or type of work within the locality and in the nearest labor market area, as determined by the Director of Industrial Relations.

8) Requires the Supervisor to make public, on or before the first day of October of each year, a report in writing showing, among other things, the total amounts of oil and gas produced in each county in the state during the previous calendar year and the total cost of the division for the previous fiscal year.

THIS BILL:

1) Requires the on or before the first day of October of each year, the Supervisor to report an accounting of any General Fund moneys appropriated and used for plugging and abandonment of wells, decommissioning of facilities, and site remediation, or appropriated and used to facilitate those activities.

2) Defines the following terms:

   a) "Apprenticeable occupation" means an occupation for which the chief has approved an apprenticeship program pursuant to Section 3075 of the Labor Code.

   b) "Graduate of an apprenticeship program" means either an individual that has been issued a certificate of completion under the authority of the California Apprenticeship Council or the chief for completing an apprenticeship program approved by the chef; or, individual that has completed an apprenticeship program located outside California and approved for federal purposes pursuant to the apprenticeship regulations adopted by the United States Secretary of Labor.

   c) "Prevailing wage rates" means the general prevailing rate of per diem wages for the craft, classification, or type of work within the locality and in the nearest labor market area, as determined by the Director of Industrial Relations pursuant to Sections 1773 and 1773.9 of the Labor Code, and the applicable prevailing apprentice wage rate.

   d) "Registered apprentice" means an apprentice registered in an apprenticeship program approved by the chief pursuant to Section 3075 of the Labor Code who is performing work covered by the standards of that apprenticeship program and receiving the supervision required by the standards of that apprenticeship program.

   e) "Skilled journeyperson" means a worker who either graduated from an apprenticeship program for the applicable occupation that was approved by the chief, or has at least as many hours of on-the-job experience in the applicable occupation that would be required to graduate from an apprenticeship program for the applicable occupation that is approved by the chief; and, is being paid at least a rate equivalent to the prevailing hourly wage rate for a journeyperson in the applicable occupation and geographic area.

   f) "Skilled and trained workforce" means a workforce that meets specified criteria.

3) Provides that all work undertaken, assisted, funded, or financed by the Admin Fund and performed by outside contractors is public work for which prevailing wages shall be paid.

4) Requires the California Workforce Development Board to develop guidelines for public agencies receiving funds from the Administrative Fund to participate in, invest in, or partner with, new or existing preapprenticeship training programs.

5) Requires CalGEM and other public agencies that receive funds from the Administrative Fund pursuant to this chapter shall, not later than January 1, 2024, follow the guidelines set forth by the California Workforce Development Board.

6) Authorizes other public agencies that receive funds Administrative Fund as eligible to compete for grants from the California Workforce Development Board and may apply in partnership with other agencies and entities, including those with existing preapprenticeship programs.

7) Requires successful grant applicants, to the extent feasible, to:

    a) Follow the multicraft core curriculum implemented by the State Department of Education for its pilot project with the California Partnership Academies and by the California Workforce Development Board and local boards.

    b) Include a plan for outreach to and retention of women participants in the preapprenticeship program to help increase the representation of women in the building and construction trades.

    c) Include a plan for outreach to and retention of minority participants and underrepresented subgroups in the preapprenticeship program to help increase their representation in the building and construction trades.

    d) Include a plan for outreach to and retention of disadvantaged youth participants in the preapprenticeship program to help increase their employment opportunities in the building and construction trades.

    e) Include a plan for outreach to individuals in the local labor market area and to formerly incarcerated individuals to provide pathways to employment and training.

    f) Coordinate with local state-approved apprenticeship programs, local building trade councils, and to the extent possible the California Conservation Corps and certified community conservation corps, so individuals who have completed these programs have a pathway to continued employment.

8) Requires CalGEM, with assistance from the Labor and Workforce Development Agency, to develop a procurement process to group multiple oil well projects to use project labor agreements under which to deliver projects. Requires CalGEM to ensure that the entity selected for these projects enters into a project labor agreement that will bind all of the contractors performing work on the project.

9) Requires CalGEM, when contracting for the performance of construction, alteration, demolition, installation, repair, or maintenance work, including the plugging, capping, and abandonment of wells, surface plugging of wells, decommissioning of attendant production facilities, or performing site remediation pursuant to the orphan well program in an oil or gas field to be performed at the well or production facility, to require that its licensed contractors

and any subcontractors use a skilled and trained workforce to perform all onsite work within an apprenticeable occupation in the building and construction trades.

10) Provides that the requirements of this section are satisfied if all licensed contractors and subcontractors are required to become bound to a multicraft project labor agreement that expressly requires each contractor and subcontractor performing the work to use a skilled and trained workforce. This section applies to contracts awarded, extended, or renewed on or after January 1, 2028.

11) Requires, commencing with FY 2022–23, and each FY thereafter, $5 million and, in addition, an amount equal to the total amount appropriated from the General Fund for the preceding FY for the purposes of plugging and abandoning wells, decommissioning facilities, and site remediation pursuant to this article.

12) Requires, commencing with FY 2023–24, in any FY that CalGEM makes expenditures that are less than the amount appropriated, the Controller to transfer from the Administrative Fund to the Oil and Gas Environmental Remediation Account an amount equal to the difference between what was appropriated and what was expended pursuant to this article by CalGEM for that FY, unless there is more than $200 million in the account.

13) Provides that no reimbursement is required by this bill pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction.

FISCAL EFFECT: Unknown.

COMMENTS:

1) **Author's statement**.

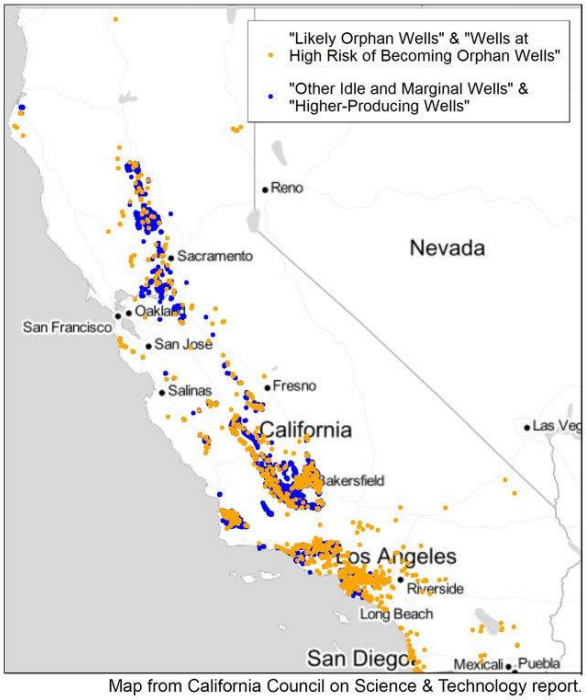
> The California Council on Science and Technology estimated that California has 5,540 wells without a viable operator. These wells would result in 500 million dollars of potential liability. CCST has estimates there may be an additional 69,425 wells that are economically marginal that could become deserted in the near future.
>
> This year there will be an unprecedented level of public investment into plugging and abandoning deserted wells. The budget has included 30 million dollars of general fund money to be dedicated to plugging and abandoning deserted wells, the state is expecting 61 million in Federal funding. In 2016, two orphaned wells in Echo Park cost over 1 million dollars to plug and abandon. California will need a more comprehensive plan to respond to the possible 5,540 deserted wells across the State. Allowing CalGEM to collect these funds from the oil industry in California allows the state to leverage the public funds with private investments to ensure costs are not passed along to the taxpayer.
>
> With this bill we also ensure that there is a skilled and trained workforce working on plugging and abandoning operations. It is crucial that this work be done

correctly for the health and safety of the workers, surrounding community, and natural environment.

2) ***Orphan oil and gas wells.*** Oil and gas production in California has decreased over the past several decades. As of 2017, there were about 107,000 active and idle oil and gas wells in California. At some point all of these wells will end their productive life and the operator/owner of the well will be required to carefully plug the well with cement and decommission the production facilities, restoring the well site to its prior condition. There is a large population of nonproductive wells in the state, known as idle wells, which have not produced oil and gas for at least two years and have not been plugged and decommissioned. 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. According to the California Council on Science and Technology (CCST), there currently are more than 5,500 idle, deserted wells with no responsible solvent operator to appropriately remediate the well and the associated production facilities.

Orphan wells without proper remediation can result in negative environmental, health, and safety impacts. For example, deserted wells can leak oil and other injected fluids used for oil and gas extraction, which can contaminate nearby sources of water. In addition, deserted wells can release benzene and methane, among other air pollutants, degrading local air quality. These environmental impacts can pose health hazards, such as harm to respiratory health, to residents in nearby communities. Deserted wells can also present physical safety concerns, potentially endangering unsuspecting people and wildlife. U.S. News reported last month that explosive levels of methane are leaking 370 feet from an elementary school and homes in Bakersfield.

California's Orphan Oil and Gas Well Problem



Map from California Council on Science & Technology report.

CalGEM is responsible for the oversight of the oil, natural gas, and geothermal industries. In the last five years, CalGEM has expended, on average, $2 million annually from the Administrative Fund and the Hazardous and Idle-Deserted Well Abatement Fund to remediate roughly 11 deserted wells per year. CalGEM identifies deserted wells to remediate by prioritizing wells that pose the highest relative risk to public health, safety, and the environment. The cost to plug a deserted well varies widely, but CalGEM's most recent analysis found the average cost to be about $111,000 per well.

3) **Current state liability protections**. There are policies in place to protect the state from the potential liabilities of orphan and idle wells. Requirements from AB 2729 (Williams et al., Chapter 272, Statutes of 2016) increased annual idle well fees, based on the amount of time each well has been idle. The law also requires the operator of any idle well, even if that idle well is already bonded, to either pay the annual fee or file an Idle Well Management Plan to manage or eliminate their long-term idle wells.

   Last year, the Legislature gave CalGEM authority to impose a claim and lien upon the real property can and using lien on property owned by any operator or responsible party of an oil or gas well (AB 896, Bennett, Chapter 707, Statutes of 2021) to recoup costs.

   Operators are also required to file indemnity bonds when drilling, reworking, or acquiring a well, to support the cost of plugging a well should it be deserted. However, the available bond funds are often not enough to fully cover the costs of plugging and decommissioning a well. A 2018 CCST report, *Orphan Wells in California: An Initial Assessment of the State's Potential Liabilities to Plug and Decommission Orphan Oil and Gas Wells*, found that the total net difference between plugging costs and available bonds across all oil and gas wells in the state is about $9.1 billion.

4) **Current Administrative Fund cap**. Since 1976, CalGEM has had the authority to expend up to a certain cap moneys from the Administration Fund on the plugging and abandonment of orphan wells and related facilities. The Administration Fund is funded by fees paid by oil and gas well operators based upon the amount of oil and/or natural gas they produce annually. Prior to FY 2008-2009, the cap was set at $500,000 annually. The Legislature raised the cap to $2 million annually through FY 2014-2015 then it reset to $1 million annually. The cap was subsequently raised to $3 million annually and SB 47 (Limón, Chapter 238, Statutes of 2021) set it to $5 million annually starting with FY 2022-2023.

   Currently, CalGEM is authorized to spend up to $5 million dollars a year from those industry fees to plug abandoned wells. But this money cannot be retained year over year, and anything that is unspent is credited back to industry. SB 1295 would eliminate the $5 million cap on expenditures so as to enable CalGEM to expend the state funds as needed. CalGEM would then be allowed to roll those expenditures into the calculation of industry's annual fee. Additionally, it would allow CalGEM to reserve any unspent funds in a newly-created sinking fund, rather than crediting those funds back to industry. That would be effectuated by requiring the Controller in any fiscal year that CalGEM makes expenditures that are less than the amount appropriated, to transfer from the Administrative Fund to the Account an amount equal to that difference, unless there is more than $200 million in the account.

   The Natural Resources Defense Council argues that "it is essential that the oil and gas industry ultimately be held accountable for the cost of cleaning up orphan wells. The industry has profited for many years from oil production in the state, and it is industry's responsibility – under the law and by fairness – to pay to clean up the mess left behind."

It is worth noting that some California oil refiners reported profits from the first quarter (Q1) of 2022 that are more than twice as high as those reported by the same refiners in other regions and as much as 5x greater than in the Q1 of 2021. PBF Energy reports its crack spreads – the difference between the price of the crude oil it processes and petroleum products it sells – from both of its refineries in California on a quarterly basis. For Q1 of 2022, PBF Energy's profits from its Los Angeles refinery grew to $32.84 per barrel from $15.75 per barrel in Q1 of 2021. With 42 gallons in a barrel of gasoline, this means that PBF made about 78-cents per gallon on the gasoline it sold in Los Angeles from January 1 thru March 31st. That compares to 37-cents per gallon profits in Los Angeles in Q1 2021.

5) **Budget funding**. The Governor proposed $200 million General Fund over the next two fiscal years for plugging 1,000 orphaned/abandonment wells and related activities by CalGEM. The Legislature rejected that proposal and instead included $30 million to serve as a state match for federal funds in SB 154 (Skinner), the budget bill enrolled to the Governor. Those funds are contingent upon receipt of federal funds. The federal Infrastructure Investment and Jobs Act (IIJA) includes $4.7 billion nationwide over a five-year period for well plugging, remediation, and restoration. The state is expecting to get $165 million federal grant it applied for through the IIJA. The $30 million in SB 154 will provide the match needed for that federal grant.

6) **Skilled workforce.** Under current law, all workers employed on public works projects must be paid the prevailing wage determined by the Director of the Department of Industrial Relations according to the type of work and location of the project. SB 1295 would deem all work done and funded by the Administrative Fund and performed by outside contractors to be public work for which prevailing wages are required to be paid.

   Prevailing wage laws stand to preserve the work unions have done negotiating higher wages for workers. Since collective bargaining agreements are often taken into account when determining the prevailing wage, it's usually comparable to what union workers earn. Providing prevailing wages ensures a livable wage for workers. It's worth noting that requiring prevailing wages could increase the cost of the work being done on orphan and idle wells, but it's unknown to committee staff how current prevailing wages compare to current contractor costs.

   Under SB 1295, CalGEM, effective January 1, 2028, would require use of a skilled and trained workforce when contracting all work related to plugging orphan wells. The bill would also require CalGEM to develop a procurement process to group multiple oil well projects to use project labor agreements under which to deliver projects.

   Last year, the Legislature considered SB 419 (Stern), which would require an owner or operator of a well or production facility, when contracting for the performance of certain work by a licensed contractor or subcontractor, on or after January 1, 2022, to use a skilled and trained workforce to perform all onsite work within an apprenticeable occupation in the building and construction trades.

   The relevant policy question pertaining to skilled and trained workforce requirements is how such requirements affect the labor market supply of workers. The Senate Labor, Public Employment, and Retirement Committee made comments on that bill relevant to the provisions proposed in SB 1295:

> Impacts of workforce requirements on the supply of "skilled and trained" labor likely depend on the region where an affected construction project is located, the business cycle, the type of project, and how long requirements have been in place. Demand for all construction labor, not just "skilled and trained" labor fluctuates cyclically and by economic region. In pro-cyclical periods the demand for construction labor may often outpace supply while in trough periods supply may exceed demand.
>
> The supply of "skilled and trained" labor typically grows as demand for it grows, but there may initially be a supply lag … Ramp-up efforts and the time to achieve compliance may be associated with the time it takes to scale existing apprenticeship training efforts, the current (and future) pace and volume of apprenticeship graduation, as well as any related efforts to credential skilled journey-level workers who may have not graduated from apprenticeship programs but who do have the experience and skills to complete an apprenticeship program on an accelerated schedule.

If this bill is enacted with the current workforce requirements, a lack of qualified skilled and trained workers could stymie planned and future projects to plug or cap abandoned wells, and do all onsite related work under CalGEM. It is unknown to committee staff, however, how many trained and skilled workers there currently are that could perform the work under CalGEM related to abandoned and idle wells.

7) **Equity and representation in the workforce**. The bill requires successful grant applicants, to, among other things, include a plan for outreach to and retention of women, disadvantaged youth, and formerly incarcerated individuals, among others, in the preapprenticeship program to help increase the representation of those groups in the building and construction trades. It would also require coordination with local state-approved apprenticeship programs, local building trade councils, and to the extent possible the California Conservation Corps and certified community conservation corps, so individuals who have completed these programs have a pathway to continued employment.

8) **Related legislation**.

SB 419 (Stern, 2021) would have required an owner or operator of a well or production facility, when contracting for the performance of certain work by a licensed contractor or subcontractor, on or after January 1, 2022, to use a skilled and trained workforce to perform all onsite work within an apprenticeable occupation in the building and construction trades. The bill was held in the Assembly Natural Resources Committee at the request of the author.

SB 1125 (Grove, 2022) would alter existing bonding requirements for oil and gas wells. This bill failed passage in the Senate Natural Resources & Water Committee.

SB 47 (Limón, Chapter 238, Statutes of 2021) increased the amount of oil production fees used to address orphan wells to $5 million annually.

SB 84 (Hurtado, Chapter 758, Statutes of 2021) instituted additional reporting requirements at CalGEM related to certain idle well reports, among other things.

AB 896 (Bennett, Chapter 707, Statutes of 2021) requires establishment of a collections unit at CalGEM, among other things.

AB 1057 (Limón, Chapter 771, Statutes of 2019) authorized CalGEM to seek additional financial surety from at risk operators, among other things.

REGISTERED SUPPORT / OPPOSITION:

Support

California Environmental Voters
Dolores Huerta Foundation
Ventura; County of

Opposition

Western States Petroleum Association

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1314 (Limón) – As Amended March 16, 2022

SENATE VOTE: 24-9

SUBJECT: Oil and gas: Class II injection wells: enhanced oil recovery

SUMMARY: Prohibits the injection of a concentrated carbon dioxide (CO_2) fluid from a CO_2 capture or CO_2 capture and sequestration project from use as an injection fluid for enhanced oil recovery (EOR).

EXISTING LAW:

1) Existing federal regulation establishes the Underground Injection Control (UIC) program at the U.S. Environmental Protection Agency (U.S. EPA). The federal UIC program includes Class II oil and gas related injection wells and Class VI geologic sequestration wells. In California, the Geologic Energy Management Division (CalGEM) implements the Class II UIC program through a primacy agreement with the U.S. EPA.

2) Requires, pursuant to the California Global Warming Solutions Act of 2006, the Air Resources Board (ARB) to establish regulations to achieve specified greenhouse gas (GHG) emissions reduction goals. In particular, state GHG emissions are to be reduced to 1990 levels by 2020, and to at least 40% below the 1990 level by 2030.

3) Establishes CalGEM, the state's oil and gas production regulator, in the Department of Conservation. The State Oil and Gas Supervisor (supervisor) leads CalGEM.

4) Provides that the purposes of the state's oil and gas conservation laws include protecting public health and safety and environmental quality, including the reduction and mitigation of GHG emissions associated with the development of hydrocarbon and geothermal resources in a manner that meets the energy needs of the state, among other things.

5) Directs 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, as specified, so as to prevent, as far as possible, damage to life, health, property, and natural resources.

THIS BILL:

1) Prohibits an operator from injecting a concentrated CO_2 fluid produced by a CO_2 capture project or CO_2 capture and sequestration project into a Class II well for purposes of EOR, including the facilitation of EOR from another well.

2) Establishes the following definitions:

   a) "Carbon dioxide capture project" means a project that uses a process to separate CO_2 from industrial or energy-related sources, other than oil or gas production from a well,

and produces a concentrated fluid of CO_2 with the intent of preventing emission of the CO_2 into the atmosphere.

b) "Carbon dioxide capture and sequestration project" means a CO_2 capture project that seeks to provide for the long-term isolation of the concentrated CO_2 fluid from the atmosphere through storage in a geologic formation.

c) "Concentrated carbon dioxide fluid" means a fluid that contains concentrated CO_2 that is proportionately greater than the ambient atmospheric concentration of CO_2.

3) Finds and declares that the purpose of carbon capture technologies, and carbon capture and sequestration, is to facilitate the transition to a carbon-neutral society and not to facilitate continued dependence upon fossil fuel production

FISCAL EFFECT: According to the Senate Appropriations Committee, pursuant to Senate Rule 28.8, negligible state costs.

COMMENTS:

1) **Background**. Many of California's oil and gas fields have been in production for several decades, if not longer, and the oil requires more effort to produce. State oil production depends upon the use of EOR – secondary and/or tertiary oil production where heat and/or fluid or other applied pressure is used to facilitate hydrocarbon production from the subsurface. In contrast, primary oil production is when the existing properties of the hydrocarbon-bearing formation and the hydrocarbon itself are generally sufficient for the hydrocarbon to flow into the production well and either flow or be easily brought to the surface.

   Injection wells are used for EOR. In California, typically water or steam are pumped into the hydrocarbon-bearing reservoir through an injection well and then the hydrocarbon/fluid mixture is produced from separate wells. These injection wells include water or steam flood injection wells. For some wells, the steam is injected into the well, the well is sealed, and then the oil/water mixture is produced from the same well. This is a cyclic steam injection well. Oil field waste disposal wells are also a type of injection well that can sometimes be used to maintain pressure in a subsurface oil producing reservoir. All of these injection wells are considered Class II UIC program wells.

   Injection wells used for EOR are not limited to water or steam. Other fluids, including gases, may also be injected where the chemical properties of the injected fluid will help to promote oil production.

   CO_2 – particularly supercritical CO_2 (which is a fluid but has intermediate properties between a gas and a liquid) – can be effective as an injected fluid for EOR as it is an excellent solvent for oil and helps the oil flow toward the producing well where the oil/ CO_2 mixture is recovered. Carbon dioxide from existing subsurface deposits has most typically been used for EOR purposes, and the practice is widespread in parts of the country in reasonable proximity to the natural sources, although it does not appear to be in wide use in California.

There is increasing interest in using carbon capture and storage, particularly the long-term geologic sequestration of CO_2 to meet the state's GHG emission reduction goals. There is also increasing interest in using concentrated CO_2streams from carbon capture projects for EOR. The use for EOR purposes may help to spur the build out of the necessary infrastructure to support carbon capture and sequestration projects including a large network of CO_2 pipelines across the country.

The 2021 Infrastructure Investment and Jobs Act of 2021 expanded certain federal tax credits – "Section 45Q credits" – including for the use of CO_2 streams from carbon capture projects for EOR purposes. The tax credit is not as large as that for permanent geologic sequestration of the carbon dioxide streams in Class VI UIC geologic sequestration wells, but increases from $12.83 to $35 per ton from 2017 to 2026.

However, CO_2 in the presence of water can be extremely corrosive so the use of concentrated CO_2 streams can require corresponding changes in materials or processes, and existing pipelines may need to be substantially upgraded. In addition, the use of concentrated CO_2 for oil production is not necessarily the permanent sequestration of the CO_2, as CO_2 returns to the surface with the produced oil.

As noted above, most, if not almost all oil in the state, requires EOR of some form to be produced. It is not known if CO_2 provides a process advantage over water or steam flood which are commonly used in the state. The federal tax credits may still make CO_2 economically attractive. Worldwide, over 80% of the implemented carbon capture and sequestration projects are for CO_2 EOR, not permanent geologic sequestration.

As described above, the use of CO_2 for EOR is a well-established industry practice. It is important to note that it is relatively expensive in terms of energy to purify and concentrate, as applicable, an industrial source of CO_2. Upgraded equipment, particularly due to the corrosiveness of CO_2, is likely to be required.

The energy penalty associated with carbon capture from industrial sources – in other words, the energy needed to process and concentrate the CO_2 – has been a significant impediment to the widespread use of carbon capture previously.

2) **Author's statement**:

> SB 1314 ensures that carbon capture projects will not result in increased oil production and emissions through EOR. As conversations continue around carbon capture in the state, this bill sets an appropriate guardrail that will ensure we are truly prioritizing our climate goals.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Humboldt: Grass Roots Climate Action
350 Sacramento
Asian Pacific Environmental Network

Black Women for Wellness
California Environmental Justice Alliance
Center on Race, Poverty & the Environment
Central California Asthma Collaborative
Central California Environmental Justice Network
Central Valley Air Quality Coalition
Climate Reality Project, San Fernando Valley
Committee for a Better Arvin
Communities for a Better Environment
Courage California
Delano Guardians
Earthjustice
Elders Climate Action, NorCal and SoCal Chapters
Environmental Health Coalition
Holman United Methodist Church
Leadership Council for Justice and Accountability
Little Manila Rising
People Organizing to Demand Environmental & Economic Rights
Physicians for Social Responsibility - San Francisco Bay Area Chapter
Planning and Conservation League
Redeemer Community Partnership
Richmond Our Power Coalition
San Diego 350
Strategic Concepts in Organizing and Policy Education
The San Joaquin Valley Latino Equity Advocacy & Policy Institute
Valley Improvement Projects

Opposition

California Business Roundtable
California Carbon Capture Coalition
California Chamber of Commerce
California Independent Petroleum Association
California Manufacturers & Technology Association
Californians for Affordable and Reliable Energy
Central Valley Business Federation
Greater Bakersfield Chamber of Commerce
Kern County Taxpayers Association
Kern Economic Development Corporation
Santa Barbara County Taxpayers Association
Santa Maria Valley Chamber of Commerce
State Building & Construction Trades Council of California
Sustainable Agriculture & Energy of Monterey County
Ventura County Taxpayers Association
West Ventura County Business Alliance
Western States Petroleum Association

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 978 (McGuire) – As Amended March 16, 2022

SENATE VOTE: 39-0

SUBJECT: Department of Resources Recycling and Recovery: wildfire debris cleanup and removal: contracts.

SUMMARY: Requires the Department of Resources Recycling and Recovery (CalRecycle) to prequalify contractors for contracts to perform debris cleanup and hazardous tree removal work in communities impacted by wildfires.

EXISTING LAW:

1) Establishes the California Disaster Assistance Act, which is administered by the Director of Emergency Services.

2) Requires a state agency, upon request of the Director of Emergency Services and to the extent that funds are allocated therefor, to render services and perform duties within its area of responsibility when considered necessary to carry out the purposes of the act.

3) Requires the Director of Emergency Services to adopt regulations, as necessary, to govern the administration of a disaster assistance program that includes specific project eligibility requirements, a procedure for local governments to request the implementation of programs, and a method for evaluating these requests by the Office of Emergency Services (CalOES).

4) Qualifies, pursuant to regulations of CalOES, debris removal from publicly and privately owned lands and waters, undertaken in response to a state of emergency proclamation by the Governor, as eligible for state financial assistance.

5) At the direction of CalOES, requires CalRecycle to manage wildfire debris removal operations throughout the state.

THIS BILL:

1) Defines "contract" as a contract between CalRecycle and a contractor to perform wildfire debris cleanup and removal.

2) Requires CalRecycle to prequalify contractors to enter into contracts in communities impacted by wildfires. Authorizes these contracts to be entered into before the onset of major damage in order to retain the contractor in readiness to respond to incidents as needed. Work performed under a contract entered into pursuant to the bill is required to be limited to preparation, removal, transport, and recycling or disposal of metals, ash, debris, concrete foundations and flatwork, potentially dangerous trees, and contaminated soil on residential and public properties included in the structural debris removal function. Requires the work, for funding purposes, to be deemed to be a public works construction project.

3) Requires CalRecycle to require any contractor seeking to enter into a contract before the onset of major damage to obtain and submit a standard form of questionnaire and financial statement, including a complete statement of the bidder's financial ability and experience in performing the preparation, removal, transport, and recycling or disposal of metals, ash, debris, concrete foundations and flatwork, potentially dangerous trees, and contaminated soil on residential and public properties. Requires the bidder to verify the questionnaire and financial statement under oath in the manner in which pleadings in civil actions are verified.

4) Prohibits CalRecycle from prequalifying, short-listing, or awarding a contract to any bidder for the performance of any portion of a wildfire debris cleanup and removal project unless the bidder meets the following requirements:

    a) The prime contractor has a valid general engineering contractor license pursuant to the Contractors State License Law with a state hazardous substance removal certification.

    b) The prime contractor is registered with the Department of Industrial Relations and qualified to bid.

    c) The prime contractor provides an enforceable commitment to CalRecycle, for itself and its subcontractors at every tier, to use a skilled and trained workforce to perform all work on the project or contract that falls within an apprenticeable occupation in the building and construction trades.

    d) The prime contractor demonstrates the existence of, for itself and its subcontractors at every tier, an agreement with a registered apprenticeship program, approved by the California Apprenticeship Council that has graduated apprentices in each of the preceding five years.

    e) The prime contractor will self-perform at least 30% of the value of the original bid using its own organization and employees.

    f) The prime contractor's experience modification rate, within the state, for the most recent three-year period is an average of 1.00 or less, and its average total recordable injury or illness rate and average lost work rate for the most recent three-year period does not exceed the applicable statistical standards for its business category, or if the contractor is a party to an alternative dispute resolution system.

5) 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, enactment of this bill would result in minor and absorbable costs to CalRecycle associated with prequalifying contractors, and potential ongoing costs of about $2 million annually (General Fund) to support additional CalRecycle contract managers and field operations staff.

COMMENTS:

1) **Author's statement**:

> Wildfire clean up and recovery is crucial to getting the victims of wildfires back into their communities. SB 978 would streamline and enhance the processes for awarding wildfire cleanup and recovery contracts. This bill requires CalRecycle to prequalify contractors entering into contracts to perform prescribed wildfire debris cleanup and removal work in communities impacted by wildfires. Clean up of debris includes the removal, transport, and recycling/disposal of metals, ash, debris, concrete foundation, potentially dangerous trees and contaminated soil on residential, commercial and public properties. The cleanup of this debris is vital to ensuring that the victims of California's fires can return to safe and ready to rebuild communities.

2) **Wildfires in California.** Wildfires in California are continuing to increase in frequency and intensity, resulting in loss of life and damage to public health, property, infrastructure, and ecosystems. In 2020, wildfires burned more than 4.1 million acres. The August Complex Fire in northern California, the largest fire in California's modern history, burned more than one million acres. In total, wildfires caused 33 deaths and destroyed more than 10,000 structures in 2020. The land area burned in 2020 more than doubled the previous record, roughly 1.8 million acres, which was set in 2018. Furthermore, seven of the state's deadliest fires have occurred since 2017, with over 100 fatalities in 2017 and 2018.

   Fire has always been present in California landscapes either occurring by lightning strikes or used by Native American tribes to preserve certain useful plants and prevent larger fires. Low-intensity fires have clear ecological benefits, such as creating habitat and assisting in the regeneration of certain species of plants and trees. Low-intensity fire also reduces surface fuel, which decreases future wildfire intensity.

   A century of suppressing low-intensity fires, logging of older growth and more fire-resistant trees, and a significant five-year drought has increased the size and severity of California's fires. Climate change has also contributed to wildfire risk by reducing humidity and precipitation and increasing temperatures.

3) **The State-Managed Debris Removal Program**. California's frequent wildfires create huge amounts of debris, which can include ash, metal, concrete, building materials, contaminated soil, and hazardous materials. Disaster debris must be properly removed and managed to reduce threats to public health and safety, protect the environment, and help communities recover and rebuild. CalOES coordinates with fire-impacted communities to determine the best local recovery solutions, which can include locally managed debris removal programs with state technical guidance and assistance or state managed removal. CalOES coordinates with CalRecycle to operate the statewide Consolidated Debris Removal Program to manage wildfire debris removal operations throughout the state. This program gives California's wildfire survivors a streamlined option to clear their properties with no out-of-pocket costs.

   The state-managed debris removal program operates in two phases. Phase one involves crews managed by the Department of Toxic Substances Control and the US Environmental Protection Agency removing household hazardous waste such as paints, cleaners, solvents,

oils, batteries, pesticides, compressed cylinders and tanks, and easily identifiable asbestos. After the removal of hazardous wastes, private contractor crews managed by CalRecycle conduct soil sampling to establish cleanup goals for the project and remove the remaining asbestos, contaminated soil, ash, metal, concrete, hazard trees, and other debris. Debris removal operations recycle, reuse, and divert debris from landfill disposal to the greatest extent possible. Since 2018, CalRecycle has provided technical expertise, engineering support, contract management, legal, administrative, fiscal and budgetary services to conduct debris removal on approximately 22,000 parcels across California. CalRecycle is currently managing two structural debris and hazard tree removal operations following the devastating 2021 fire season.

4) **CalRecycle contracts**. CalRecycle does not have in-house crews or machinery to deploy for debris removal purposes, so debris removal is contracted out to private contractors. CalRecycle:

   - Develops, solicits, awards, and executes the needed service and consultant contracts to assess parcels and remove structural debris and hazard trees from those counties designated under the federal disaster declaration/state proclamation of emergency.

   - Staffs key positions within the Incident Management Team under the federally required Incident Command System (typically two safety officers, one finance admin lead/contract manager, two debris group supervisor/operations section chiefs, and two state planning section leads).

   The debris group supervisors and planners support contract management in the oversight of field crews and necessary documentation of work orders, change orders, contract amendments, notices of disputes and contractor notice of performance which serve to maximize federal reimbursement eligibility.

   CalRecycle maintains an Emergency Debris Recovery Contracts Listserv to provide interested parties with updates when emergencies require post-incident contractor assistance for debris removal and disposal services and/or debris assessments, monitoring, and environmental consulting services.

   CalRecycle recently posted a solicitation for prequalification for contractors for the removal of disaster debris and hazardous trees. Applications were due by June 10th, with the pre-qualification list planned for publication on July 1st. CalRecycle anticipates procuring contracts exclusively from the prequalified list for future disaster recovery efforts. The author is engaged in discussions with CalRecycle to ensure that this bill is consistent with CalRecycle's ongoing efforts.

5) **FEMA reimbursement**. The Federal Emergency Management Agency's (FEMA) Public Assistance Program provides supplemental grants to state, tribal, territorial, and local governments and certain non-profits so that communities can quickly respond to and recover from major disasters or emergencies. The assistance FEMA provides is subject to a cost share that is intended to ensure local interest and involvement through financial participation. The federal share is no less than 75% of the eligible costs. The remaining 25% is shared by the state and local government. The federal cost share may be increased in limited circumstances and for limited periods of time. Costs considered for reimbursement include

salaries/benefits, goods and services (contracts), travel expenditures, and administration. Reimbursement by the federal government is made once projects are completed, which includes all debris removal, hazard tree felling, claims adjudication, compilation of final reports by consultants, and all other requirements necessary by FEMA and CalOES.

The Code of Federal Regulations specifies the requirements for allowable costs, including cost reasonableness, and the procedural timeframe for the state to submit a project worksheet to FEMA, including a 60-day requirement from the first substantive meeting with FEMA to identify damage and report damage to FEMA.

6) **No time to waste**. According to CalRecycle, there is a strong legal basis to proceed with work as quickly as possible, which include the following:

- FEMA eligibility rules require that the work is the result of a declared incident, or an immediate threat resulting from the declared incident (i.e., emergency work) to address damage caused by the incident.

- Ash, contaminated debris, soil contamination, and hazard trees pose a significant human health and environmental risk. As such, the federal public assistance delivery schedule requires emergency projects be completed within six months of an incident period, with the opportunity to extend project operations only with adequate justification to preserve maximum federal reimbursement eligibility.

- Each of the Governor's Proclamations of a State of Emergency and subsequent Executive Orders contains provisions directing state agencies to provide relief and initiate disaster recovery. CalRecycle accelerates its procurement process so that it can deploy contractors more quickly. These orders are issued under the Governor's authority under the Emergency Services Act.

This bill is intended to ensure that CalRecycle can respond to wildfire debris removal needs as quickly as possible by allowing it to prequalify contractors for cleanup projects.

REGISTERED SUPPORT / OPPOSITION:

Support

None on file.

Opposition

None on file.

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

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1136 (Portantino) – As Amended March 16, 2022

SENATE VOTE: 36-0

SUBJECT: California Environmental Quality Act: expedited environmental review: climate change regulations

SUMMARY: Expands expedited California Environmental Quality Act (CEQA) review provisions, which currently apply to installation of pollution control equipment, to apply to an undefined range of projects related to compliance and energy efficiency standards, and requires all eligible projects to comply with specified construction labor requirements.

EXISTING LAW:

1) Requires lead agencies with the principal responsibility for carrying out or approving a proposed project to prepare a negative declaration, mitigated negative declaration, or EIR for this action, unless the project is exempt from CEQA.

2) Authorizes use of a "focused" EIR (an EIR that evaluates potential impacts on a limited number of environmental issue areas because a prior EIR has evaluated the full range of impacts) for projects that consist solely of the installation of pollution control equipment required by specified agencies [i.e., Air Resources Board (ARB), local air districts, state and regional water boards, Department of Toxic Substances Control, the Department of Resources Recycling and Recovery, the California Energy Commission (CEC), and the Public Utilities Commission (PUC)].

3) Requires the specified public agencies to perform an environmental analysis of the reasonably foreseeable methods of compliance when adopting a rule or regulation requiring installation of pollution control equipment, or a performance standard or treatment requirement. The environmental analysis must include an analysis of: (a) reasonably foreseeable environmental impacts of the methods of compliance, (b) reasonably foreseeable feasible mitigation measures, (c) reasonably foreseeable alternative means of compliance with the rule or regulation, and (d) reasonably foreseeable greenhouse gas emission impacts of compliance with a rule or regulation that requires the installation of pollution control equipment adopted pursuant to the California Global Warming Solutions Act of 2006 (AB 32).

4) Authorizes a focused EIR to be used for a project consisting solely of installing pollution control equipment required by a rule of regulation of the specified public entities or pollution control equipment that reduces greenhouse gases required by a rule or regulation of the specified public entities pursuant to AB 32 (environmentally mandated projects) if certain conditions are met.

5) Requires the lead agency of an environmentally mandated project, to the greatest extent feasible, use the environmental analysis in the preparation of an ND, MND, or EIR on the project or in otherwise complying with CEQA.

6) Requires, if an EIR is required for an environmentally mandated project, the lead agency to prepare an EIR which addresses only the project-specific issues related to the project or other issues not discussed in sufficient detail in the environmental analysis.

7) Applies, when preparing an EIR or focused EIR under these provisions, certain expedited deadlines.

THIS BILL:

1) Expands the application of these expedited environmental review procedures for environmentally mandated projects to also apply to CEC and PUC rules and regulations requiring installation of new or modified equipment, the implementation of other facility process changes, or both the installation and implementation, including energy efficiency projects, adopted pursuant to AB 32.

2) Requires the specified public agencies, when adopting a rule or regulation requiring compliance with an energy efficiency standard, to perform an environmental analysis of the reasonably foreseeable methods of compliance.

3) Requires, additionally, for rules and regulations adopted pursuant to AB 32 that require improvements in energy efficiency or compliance with a performance standard or treatment requirement, the environmental analysis include reasonably foreseeable greenhouse gas emission impacts of compliance with the rule or regulation.

4) Authorizes, additionally, a focused EIR to be used for projects that consist solely of installing pollution control equipment or new or modified equipment, or implementing other facility process changes, or both that installation or implementation, necessary or used to achieve compliance with a performance standard, treatment requirement, energy efficiency standard, or compliance mechanism included in a rule or regulation adopted pursuant to AB 32 if the project meets the other prescribed requirements.

5) Requires environmentally mandated projects meet certain labor requirements to utilize the expedited review processes established for environmentally mandated projects, including payment of prevailing wage and use of a "skilled and trained" workforce, as defined.

FISCAL EFFECT: According to the Senate Appropriations Committee,

- PUC estimates ongoing costs of about $23.4 million annually (ratepayer funds) for environmental review of PUC-regulated, voluntary energy efficiency programs. Of this amount, PUC estimates annual costs of $22 million for contracts for CEQA consultant work for energy projects, which would be reimbursable through investor owned utilities (IOUs).

- Unknown, potentially significant costs (various funds), to the state as an electric utility ratepayer. The PUC expects that this bill would result in costs of about $22 million annually that would be reimbursed by the electric IOUs, which would ultimately be recovered from ratepayers. The State of California is an electrical customer, purchasing roughly one percent of the state's electricity. As such, the state incurs costs when rates increase.

- Unknown costs for the CEC and other departments to implement the provisions of this bill.

COMMENTS:

1) **Background**. CEQA provides a process for evaluating the environmental effects of applicable projects undertaken or approved by public agencies. If a project is not exempt from CEQA, an initial study is prepared to determine whether the project may have a significant effect on the environment. If the initial study shows that there would not be a significant effect on the environment, the lead agency must prepare a negative declaration. If the initial study shows that the project may have a significant effect on the environment, the lead agency must prepare an EIR.

   Generally, an EIR must accurately describe the proposed project, identify and analyze each significant environmental impact expected to result from the proposed project, identify mitigation measures to reduce those impacts to the extent feasible, and evaluate a range of reasonable alternatives to the proposed project. Prior to approving any project that has received environmental review, an agency must make certain findings. If mitigation measures are required or incorporated into a project, the agency must adopt a reporting or monitoring program to ensure compliance with those measures.

   In 1993, as part of a package of CEQA reforms in AB 1888 (Sher), the Legislature authorized the use of a "focused" EIR for specified projects, including installation of pollution control equipment pursuant to air, water, toxics, and waste regulations. A focused EIR expedites the review process by limiting the analysis to project-specific significant effects that were not discussed in the analysis of the underlying regulation. In 2010, AB 1846 (V. Manuel Pérez) expanded the focused EIR to include a pollution control project that reduces GHG emissions to comply with AB 32.

2) **Author's statement**:

   SB 1136 will streamline the CEQA process for projects that will help the state meet its ambitious and necessary climate goals similar to existing streamlined project types. These new projects would likely include scrubbers, air filters, cyclones, electrostatic precipitators, mist collectors, incinerators, catalytic reactors and biofilters. To ensure that the state can meet its GHG reduction goals and minimize unnecessary duplication of work and expenses, SB 1136 will eliminate unnecessary layers of environmental review for projects without compromising necessary environmental review. Meeting the states ambitious climate goals will take a massive, coordinated effort, as well as significant investment and development and SB 1136 will help meet these goals. Lastly, this bill will enable rapid development of these projects and a skilled and trained workforce.

3) **A big stretch**. The current expedited review provisions for environmentally-mandated projects apply to a clearly defined scope of pollution control projects required by regulation, where the regulation has considered environmental impacts of the methods of compliance in a CEQA review at the rulemaking stage.

   In sharp contrast, this bill expands the scope to include a broad, undefined range of projects, some of which should not be eligible for expedited review because their impacts were not considered in CEQA review at the rulemaking stage, and some of which, such as the

undefined category "energy efficiency projects," are not necessarily subject to CEQA under current law. The bill potentially allows industries to self-select projects they deem required for compliance with cap and trade for example, whether or not the project is specifically required by a regulation or has been subject to any level of prior environmental review. The result is expansive categories of projects that would be subject to construction labor requirements which are otherwise outside the scope of CEQA.

It's not clear that this much expansion is intended. If not, *the author and the committee may wish to consider* amending the bill as follows:

a) Clarify that a focused EIR may be used for an emission reduction project (other than installation of pollution control equipment) to comply with AB 32 if it is required by regulation and ARB completed an environmental analysis of the method of compliance at the rulemaking stage.

b) Clarify that the bill does not apply to actions that would not otherwise require preparation of an EIR under CEQA.

4) **Double referral**. This bill has been double referred to the Labor and Employment Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

Coalition for Sustainable Cement Manufacturing and Environment
Garden Grove Chamber of Commerce
Harbor Association of Industry & Commerce
Industrial Environmental Association
Inland Empire Economic Partnership
Kern Citizens for Energy
Los Angeles Chamber of Commerce
Redondo Beach Chamber of Commerce
San Pedro Chamber of Commerce
Santa Barbara County Taxpayers Association
Santa Maria Valley Chamber of Commerce
South Bay Association of Chambers of Commerce
State Building & Construction Trades Council of California
Sustainable Agriculture & Energy of Monterey County
U.A. Plumbers and Pipefitters Local Union 114
Western States Petroleum Association

Opposition

350 Silicon Valley
Asian Pacific Environment Network
California Efficiency + Demand Management Council
California Environmental Justice Alliance
California Environmental Voters
Center for Biological Diversity

Center for Race, Poverty, and The Environment
Center on Race, Poverty & the Environment
Communities for A Better Environment
Earthjustice
Environment California
Leadership Counsel for Justice & Accountability
Marin Clean Energy
Natural Resources Defense Council
Planning and Conservation League
RMI
Sierra Club California
Sonoma Clean Power
The Utility Reform Network (TURN)

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 905 (Skinner) – As Amended June 13, 2022

SENATE VOTE: 27-9

SUBJECT: Decarbonized Cement and Geologic Carbon Sequestration Demonstration Act

SUMMARY: Establishes the Decarbonized Cement and Geologic Carbon Sequestration Demonstration Act, requires the Air Resources Board (ARB) to award funding to up to three geologic carbon sequestration pilot projects that meet specified environmental and labor requirements, authorizes ARB to establish a related research hub, requires the Attorney General to prepare a written proposal to the Legislature regarding "unitization" of multiple land tracts overlaying a sequestration reservoir, revises legal standards governing sequestration reservoir property rights (which are not limited to the pilot projects), provides that ARB is the lead agency for California Environmental Quality Act (CEQA) review of any geologic carbon sequestration project, requires ARB to create a single unified permit application, requires the State Geologist to adopt regulations regarding monitoring and reporting of seismic activity, and requires a geologic carbon sequestration project operator to maintain specified financial assurances.

EXISTING LAW:

1) Requires, pursuant to the California Global Warming Solutions Act [AB 32 (Núñez), Chapter 488, Statutes of 2006], ARB to adopt a statewide GHG emissions limit equivalent to 1990 levels by 2020 and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions.

2) Requires ARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by 2030 [SB 32 (Pavley), Chapter 249, Statutes of 2016].

3) Establishes, by Executive Order (EO), a GHG emissions reduction target of 80% below 1990 levels by 2050 [EO S-3-05, Governor Schwarzenegger, June 1, 2005].

4) Establishes, by EO, a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative GHG emissions thereafter [EO B-55-18, Governor Brown, September 10, 2018].

5) Requires ARB to prepare and approve a scoping plan, on or before January 1, 2009, and at least once every five years thereafter, for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs.

6) Requires any direct regulation or market-based compliance mechanism to achieve GHG reductions that are real, permanent, quantifiable, verifiable, and enforceable by ARB.

7) Authorizes ARB to adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions to comply with GHG reduction regulations. Under this authority, ARB adopted a

cap and trade regulation which applies to large industrial facilities and electricity generators emitting more than 25,000 metric tons of carbon dioxide equivalent per year, as well as distributors of fuels, including gasoline, diesel, and natural gas.

8) Requires ARB, by July 1, 2023, to develop a comprehensive strategy for the state's cement sector to achieve net-zero GHG emissions no later than December 31, 2045 [SB 596 (Becker), Chapter 246, Statutes of 2021].

THIS BILL:

1) Requires ARB to develop and administer the Geologic Carbon Sequestration Demonstration Initiative.

2) Requires ARB, in consultation with the California Energy Commission (CEC) and the State Water Resources Control Board (SWRCB) to award funding under the initiative to one to three geologic carbon sequestration demonstration projects, with specified eligibility criteria, by January 1, 2026.

3) Directs ARB to prioritize demonstration projects that achieve specified environmental justice and GHG emissions reduction goals, among other considerations.

4) Applies labor standards to geologic carbon sequestration demonstrate projects, such as paying prevailing wages and using a skilled and trained workforce.

5) Prohibits ARB from approving projects associated with or incorporating enhanced oil recovery or fossil fuel production as qualifying geologic carbon sequestration projects.

6) Requires ARB to hold at least three public workshops located throughout the state, as specified, to develop guidelines and criteria, as specified, for pilot projects.

7) Authorizes ARB to establish the Hub for Innovation in Geologic Carbon Sequestration (Hub), as defined.

8) Requires the Attorney General to prepare a written proposal to the Legislature regarding "unitization" of multiple land tracts overlaying a sequestration reservoir.

9) Stipulates, in detail, title to surface and belowground rights, and liability for injected carbon dioxide (CO_2). These provisions are generally applicable to sequestration reservoirs, and not limited to the pilot projects.

10) States that, pursuant to CEQA, ARB is the lead agency for geologic carbon sequestration demonstration projects, and further specifies the responsible agencies for specific features of the demonstration projects.

11) Requires ARB to adopt regulations creating a coordinated state permitting process, as specified, for approval of geologic carbon sequestration projects.

12) Requires the State Geologist to adopt regulations regarding monitoring and reporting of seismic activity.

13) Requires a geologic carbon sequestration project operator to maintain specified financial assurances.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- Unknown ongoing costs, up to the low millions of dollars annually (Greenhouse Gas Reduction Fund) for ARB to develop and administer the Geologic Carbon Capture Demonstration Initiative, consolidate state permitting for projects, and track and administer grants, among other things.
- SWRCB estimates ongoing costs of approximately $225,000 annually for the first three years (General Fund or special fund) for staff to assist ARB with developing guidelines and criteria for a geologic carbon sequestration demonstration initiative, to provide environmental review for geologic carbon sequestration projects, and to coordinate with ARB to create a single unified permit process for carbon sequestration demonstration projects.
- Likely minor costs for the CEC, California Geological Survey, SWRCB, State Fire Marshal, Department of Fish and Wildlife, State Lands Commission, local air districts, regional water quality control boards, and other state entities to participate in coordination meetings with ARB and others that likely can be absorbed using existing staff.
- Unknown potential cost pressure for ARB, California State University, California Community Colleges or University of California to potentially house the research hub.
- Unknown potential cost pressure to scale up successful pilot projects, provide grant funding, and otherwise continue financial support of the initiatives that would be established by this bill.

COMMENTS:

1) **Background**:

Carbon Capture and Storage. Carbon Capture and Storage (CCS, also sometimes referred to as carbon capture and sequestration) is the process of capturing CO_2 that is formed during combustion or industrial processes and putting it into long-term storage so that it is not emitted into the atmosphere. Once the CO_2 is captured, it may be compressed and chilled (depending on the storage situation), and transported to an appropriate storage site, usually by pipelines and/or ships and occasionally by trains or other vehicles. To store the CO_2, it is injected into deep, underground geological formations, such as former oil and gas reservoirs, deep saline formations, and coal beds.

Carbon Capture and Utilization. Captured CO_2 can be used to produce manufactured goods and in industrial and other processes, rather than being stored underground. Such utilization leads to the acronym CCUS (carbon capture, utilization, and storage). Different CO_2 uses lead to different levels of emissions reductions, depending on the specific use, and what fuels or other materials, if any, the CO_2 is displacing. Most captured carbon is used for enhanced oil recovery, discussed further below.

Carbon Dioxide Removal. Carbon Dioxide Removal (CDR) is an umbrella term used to describe a range of strategies used to remove CO_2 from the atmosphere (without relationship to where or when the CO_2 was emitted). CCS is distinct from CDR in that CCS is an abatement strategy and functions by preventing CO_2 from entering the atmosphere by capturing the CO_2 from the emitting source, or point source, such as the flue of a gas-fired power plant or a cement plant. In contrast, CDR is a negative emissions strategy and involves capturing legacy CO_2 directly from the atmosphere. CDR strategies include technological processes such as Direct Air Capture (DAC) or enhancing the natural carbon sequestration of Natural and Working Lands (NWL). DAC typically involves using large fans to pull untreated air through a separation system, in which the CO_2 is selectively removed. Restoration and management of NWL, including forests, wetlands, and agricultural lands, removes CO_2 from the atmosphere by sequestering it in its vegetation and soils.

Existing CCS projects. According to the Global CCS Institute, there are currently twenty-seven operating commercial CCS facilities worldwide, and twelve of those are in the United States. Of the facilities in the United States, four are deployed in natural gas processing, three in ethanol production, three in fertilizer production, one in syngas production, and one in hydrogen production. Altogether, CCS facilities in the United States currently capture around 20 Mt of CO_2 per year. As a point of reference, a study by Princeton University estimates that up to 1.8 Gt of CO_2 per year is needed by 2045 for some net-zero scenarios.

Cost of Implementation. A facility with CCS requires additional equipment, increased upfront construction costs, and has additional operations and maintenance expenses. Since a considerable amount of energy is required to extract, pump, and compress CO_2, a facility with CCS require 15 – 30 percent more energy to operate depending on the particular type of carbon capture technology used. The percentage of CO_2 captured also affects the cost. The higher percentage captured, the higher the costs. There are also additional costs associated with building pipelines to transport the CO_2, injecting it underground, monitoring the injection site, and liability.

Enhanced Oil Recovery. One of the primary uses of captured CO_2 is for enhanced oil recovery (EOR). EOR is a method of oil extraction that uses CO_2 and water to drive oil up the well, improving oil recovery and theoretically sequestering part of the CO_2 underground in the process. All but one of the existing CCS facilities in the US use the captured CO_2 for EOR. EOR can provide a revenue source for CCUS sufficient to make a project economical in the absence of enough revenue from a carbon price or CCUS tax credit. Though, low oil prices can undermine the commercial viability of projects that couple CCUS with EOR. This was the case with the Petra Nova coal power plant equipped with CCUS in Texas, which used captured CO_2 for EOR but nevertheless closed in 2020. The Legislature is currently debating whether to prohibit the use of CCS for purposes of EOR. The primary rationale behind this effort is that CCS used for EOR emits four times more carbon than it captures and subsidizes the extraction of oil and gas.

Permitting requirements for CCS. There isn't an official permitting scheme for CCS in California. However, due to the myriad of existing requirements a CCS project would trigger, there would be a number of permits a prospective CCS operator would need to get prior to launching a CCS project.

Transportation and safety. After the CO_2 is captured, it needs to be pressurized before it can be transported to where it will be permanently stored or used. Significant energy is required to compress and chill CO_2 and maintain high pressure and low temperatures throughout transportation. Transportation options include pipeline and rail. Although the most common and usually the most economical method to transport large amounts of CO_2 is through pipelines, existing oil and gas pipeline are not suitable for transporting CO_2. Dangerous leaks and eruptions can occur if there are impurities in the pipeline. For example, if water is present in the CO_2 stream, carbonic acid can form. Carbonic acid is corrosive to carbon steel pipes, which are the most economically viable material for pipeline construction and what is most typically used. In order to avoid carbonic acid from forming, CO_2 can be dried to very low levels before transportation, which adds cost to the overall CCS project. There are also other preventative measures such as corrosion monitoring, but those also add cost. In 2020, a pipeline transporting CO_2 in Mississippi leaked. The engines of the cars of emergency responders stalled as CO_2 concentrations increased. Forty-nine people were ultimately hospitalized.

Storage considerations. The California Department of Conservation, California Geological Survey (CGS) conducted a preliminary screening and inventorying of potential sites for geologic CO_2 sequestration in California. CGS found that California has numerous sedimentary basins containing saline aquifers and/or oil or gas fields. An initial evaluation identified 104 sedimentary basins making up approximately 33 percent of the state's area. These basins contain 465 oil and gas fields, for which varying amounts of subsurface geological and petro physical information are available to aid in the evaluation of sequestration potential. Of the104 sedimentary basins, 27 were screened out for further study as potentially appropriate for sequestration. While the limitation on the availability of geologic storage is generally not considered a barrier to widespread CCS deployment, some researchers have expressed concerns about the long-term ability of storage sites to sequester carbon without significant leakage. Injections of CO_2 underground can also trigger seismic activity. There are also concerns with soil and aquifer acidification. Researchers continue to look at ways to minimize these risk, including considering the potential for above-ground CO_2 mineralization as an alternative to underground storage.

Low Carbon Fuel Standard CCS Protocol. The Low Carbon Fuel Standard Program (LCFS) is a market-based regulation adopted by ARB and designed to reduce carbon intensity of transportation fuels. The program functions by setting declining benchmarks over time on transportation fuels sold, supplied, or offered for sale in California. Fuels with a carbon intensity that is lower than the relevant annual benchmark generate credits and fuels with a carbon intensity that is higher than the relevant benchmark generate deficits. Regulated parties under LCFS must ensure they have sufficient credits in a year. The LCFS regulation was approved in 2009 and implementation began in 2011. In 2018, the LCFS Program was amended to enable CCS projects that reduce emissions associated with the production of transportation fuels sold in California, and projects that directly capture CO_2 from the air, to generate LCFS credits. These changes came into effect in January 2019. To qualify, projects need to meet the requirements of the CCS Protocol. To-date, no projects have qualified under the LCFS CCS protocol.

CCS Liability. ARB's LCFS protocol contains safeguards for the deployment of CCS in California. They include ongoing monitoring requirements, indemnity bonding to ensure costs associated with various elements of the project are available, and extensive site

characterization and planning requirements, among other things. As the Legislature debates the broader use of CCS, it is also debating whether to adopt safeguards to limit the liability associated with CCS.

Pore space ownership. Split estates are common in California. A split estate exists when the surface and the mineral rights are owned by different entities. To avoid conflict associated with geologic storage, the ownership of pore space must be clarified. Under the LCFS protocol, CCS operators are required to show the exclusive right to use the pore space and proof of a binding agreement that drilling and extraction that penetrate the "storage complex" are prohibited to ensure public safety and the permanence of stored carbon dioxide.

2) **Author's statement**:

> The global scientific community agrees to prevent the most devastating impacts of climate change we need to act quickly to both reduce and capture carbon emissions. California has made a commitment to achieve net-zero GHG emissions from its domestic cement production by 2045. As cement manufacture is one of the most carbon intensive industrial processes, in order to achieve this, the cement industry needs to be able to capture and permanently store carbon from its production process.
>
> SB 905 allows California to test the viability of underground storage of carbon by piloting a carbon capture and underground storage process at a small number of California cement manufacturing facilities. SB 905 will help facilitate the clarification of legal ambiguities around underground storage, and the development of a unified permitting and application process for underground carbon storage reservoirs.
>
> Pilot projects allowed under SB 905 will be required to provide prevailing wage jobs and to reduce air pollution and other co-pollutants from cement facilities that impact neighboring communities.

3) **Bill's reach goes far beyond the cement sector and the pilot projects**. While the bill is presented as an initiative to demonstrate carbon capture in the cement sector, several of its provisions have broader and lasting effect on the legal framework for a wide range of carbon capture projects that may be proposed in the future. These provisions include:

   a) Require the Attorney General to prepare a written proposal to the Legislature regarding "unitization" of multiple land tracts overlaying a sequestration reservoir.

   b) Stipulate title to surface and belowground rights, and liability for injected CO_2.

   c) Provide that ARB is the lead agency for CEQA review of any geologic carbon sequestration project.

   d) Require ARB to create a single unified permit application, again for any geologic carbon sequestration project.

   e) Require the State Geologist to adopt regulations regarding monitoring and reporting of seismic activity.

f) Require a geologic carbon sequestration project operator to maintain specified financial assurances

The author and the committee may wish to consider amendments to clarify the scope of these provisions, whether they relate to the pilot projects, or apply more broadly.

4) **ARB uber alles**? This bill places great faith in ARB, giving it several significant, and conflicting, assignments, on top of its existing duties to regulate sources of GHG. This bill requires ARB to:

a) Award funding (from an unspecified source) to one to three pilot projects.

b) Approve at least one project by January 1, 2026.

c) Establish a research hub.

d) Act as the lead agency for CEQA review.

e) Adopt a unified permit process.

It's not clear that ARB should be given all of these roles, acting as regulator, promoter, funder, researcher, and reviewer. To take CEQA review for example, ARB has no experience or capacity to review project development under CEQA. In addition, having selected and funded the same project it is then reviewing may compromise ARB's credibility in the CEQA role, evaluating project impacts and alternatives. Of the 18 potential project environmental impacts, ARB has experience in two or three at most. And the idea that ARB would sit in land use judgment on a large, and likely controversial, industrial project in Kern County for example, from its post in Sacramento, seems fanciful.

The author and the committee may wish to consider amending the bill to remove the provision dictating the lead and responsible agencies under CEQA, and let those determination be made as they normally are, once a project is defined and proposed.

5) **Unitization assignment is not well suited for the Attorney General**. Recent amendments require the Attorney General to prepare a written proposal to the Legislature regarding "unitization" of multiple land tracts overlaying a sequestration reservoir. While this is a legal assignment, it requires expertise in geology and mineral rights, and it's unusual for a bill to ask for a proposal or report directly from the Attorney General, rather than a client agency.

The author and the committee may wish to consider amending the bill to instead give this assignment to the Natural Resources Secretary, who could then enlist the relevant agencies, as well as the Attorney General.

REGISTERED SUPPORT / OPPOSITION:

Support

California State Pipe Trades Council
Clean Air Task Force
Climate Reality Project, San Fernando Valley

Natural Resources Defense Council
Project 2030
State Building & Construction Trades Council of California
The Climate Center

Opposition

350 Humboldt: Grass Roots Climate Action
350 Silicon Valley (unless amended)
California Carbon Capture Coalition (unless amended)
Center on Race, Poverty & the Environment (unless amended)
Central California Environmental Justice Network (unless amended)
County of Kern (unless amended)
Western States Petroleum Association (unless amended)

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: June 20, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Luz Rivas, Chair
SB 1399 (Wieckowski) – As Amended June 14, 2022

SENATE VOTE: 30-5

SUBJECT: Carbon Capture Technology Demonstration Project Grant Program

SUMMARY: Requires the California Energy Commission (CEC) to establish the Carbon Capture Technology Demonstration Project Grant Program (Program) and requires the CEC to provide grants by January 1, 2025 to three carbon capture or utilization projects at existing industrial or electric generation facilities.

EXISTING LAW:

1) Establishes the CEC to carry out specified activities relating to the state's energy policy and planning, including, but not limited to the following: adopting standards for building and appliance energy efficiency; tracking the demand and supply of energy resources; siting large thermal power plant facilities; tracking certain renewable energy purchases; administering energy research and development grants; and provide funding for zero-emission vehicle technology and infrastructure.

2) Establishes the Electric Program Investment Charge program at the CEC to fund research, demonstration and market deployment projects that help address the state's climate goals, including energy storage, renewable energy grid integration, energy efficiency, integration of electric vehicles into the electrical grid, and accurately forecasting the availability of renewable energy.

THIS BILL:

1) Requires the CEC to establish by September 30, 2024, a competitive grant program to fund projects that deploy and commercialize carbon capture technologies to significantly improve the efficiency, effectiveness, cost, emissions reductions, and environmental performance of existing industrial facilities, natural gas electric generation facilities, and biomass electric generation facilities.

2) Requires the CEC to provide by January 1, 2025, grants to eligible entities to create three projects to capture carbon dioxide from an existing industrial, natural gas, or biomass electric generation facility.

3) Defines an entity eligible for CEC grants under this bill as an owner of an existing industrial facility, a natural gas electric generation facility, or a biomass electric generation facility.

4) Defines eligible industrial facilities as in-state industrial facilities that generate greenhouse gas (GHG) emissions. These facilities may include, but are not limited to, ethanol production facilities, hydrogen production facilities, and cement production facilities.

5) Requires the CEC to adopt guidelines for the carbon capture grant program to ensure that grants are awarded to a geographically diverse group of applicants, projects meet certain emissions reduction goals, and applicants leverage multiple sources for funding. This bill requires the CEC to prioritize applicants that apply for funding from the federal Carbon Capture Technology Program and ensure that projects that include carbon utilization only fund carbon reuse for the manufacture or conversion of a product that results in the net reduction of GHG emissions and clarifies that funds cannot be used for other purposes, including enhanced oil and gas recovery.

6) Requires the CEC to develop goals for the carbon capture grant program and specifies certain objectives the CEC must consider when developing program goals, including, but not limited to, the following objectives:

   a) Using carbon capture technologies to decrease the environmental impact of carbon dioxide emissions form industrial facilities.

   b) Accelerating the deployment and commercialization of technologies to decrease emissions from industrial facilities.

   c) Identifying barriers to the commercial deployment of emerging technologies for the capture of carbon dioxide emissions from industrial facilities.

7) Specifies that receipt of grant funds under this bill does not prevent an entity from generating credits pursuant to any program administered by the Air Resources Board.

8) Classifies all projects receiving grants under this bill as public works for which a prevailing wage must be paid and requires grant recipients to use a skilled and trained workforce for work completed on the project, as specified.

9) Exempts the CEC's establishment of the Program from the Administrative Procedure Act.

10) Provides that establishment of the Program is contingent upon an appropriation of funds by the Legislature.

11) Requires the CEC to publish specified information regarding projects awarded grants.

12) Requires any state agency that establishes a grant program for carbon capture, utilization, or sequestration projects to maximize available federal funding.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- CEC estimates one-time costs of $2.1 million over 6 years (General Fund or special fund) for two staff positions to implement the provisions of this bill. Staff note that the passage of other measures related to this bill could potentially reduce its administrative costs.
- Unknown cost pressure, likely in the hundreds of millions of dollars (General Fund, special fund, or bond funds) to provide state funding for demonstration projects.

COMMENTS:

1) **Author's statement**:

> California's comprehensive mitigation strategy and emission reduction targets are framed around the Paris Agreement and its goal of limiting global warming to well below 2 °C and possibly 1.5 °C. These goals are critical if we hope to lessen the impact of climate change. Yet, because of our hesitancy to adopt carbon capture and storage (CCS), we are currently en route to miss these targets.
>
> The Fifth Assessment Report (AR5) by the Intergovernmental Panel on Climate Change found that many 2 °C scenarios require significant amounts of carbon removal. The report warns that limitations in the availability of negative emission technologies, many of which rely on CCS, could render the 2 °C goal infeasible and the 1.5 °C scenarios barely conceivable. Lawrence Livermore National Laboratory's Getting to Neural report extends that analysis to California's goal of reaching carbon neutrality by 2045. According to the report, at our current rate of emission reductions California will fail to meet its ambitious goal of carbon neutrality. This is in part driven by difficult to decarbonize sectors, such as cement production, natural gas, and combined heat and power plants; sectors that would benefit immensely from the adoption of CCS. CARB's draft of its 2022 Scoping Plan also acknowledges the necessity of carbon capture if we hope to hit our emission reduction goals.
>
> As of September 2020, there were only five announced CCS projects in varying stages of planning and development in California; none are operational. California has the funds, technical expertise, and extensive reservoir capacity needed to facilitate its adoption. Furthermore, CCS is a green, safe, and effective technology. Yet a lack of state support, permitting complexity, and high capital costs have all acted as barriers to California's adoption of CCS. SB 1399 would address all of these barriers through funding and continued technical assistance.
>
> Climate change has already had devastating effects on Californians, particularly the poor and vulnerable. The more we fall short of our targets, the more intense and devastating these effects will be. We cannot afford to leave options on the table that would otherwise help mitigate the impact of climate change. SB 1399 will help ensure that we don't.

2) **Cart before horse**? The essential purpose of this bill is to give state money to support potential carbon capture projects, but there is no funding attached to the bill. The bill requires the CEC to give the money away by January 1, 2025, but there are no proposed projects.

3) **Should CCS development be a state expense**? It's not clear that additional public funding is necessary or appropriate to support private carbon capture projects, or that carbon capture is a cost-effective investment relative to other measures to reduce or avoid GHG emissions, whether the investment comes from public or private funds. This bill has no means or cost-effectiveness test, just a mandate to give away state money. The potential recipients are most likely for-profit enterprises who may use the CEC grant funding to comply with regulatory obligations and generate emissions reductions, which the bill allows them to monetize in any ARB program, such as cap and trade or the low carbon fuel standard.

REGISTERED SUPPORT / OPPOSITION:

Support

California State Pipe Trades Council
Calpine Corporation
Clean Air Task Force
Sempra Energy Utilities
State Building & Construction Trades Council of California

Opposition

350 Humboldt: Grass Roots Climate Action
350 Sacramento
350 Silicon Valley
350 South Bay Los Angeles
350 Southland Legislative Alliance
Asian Pacific Environmental Network
California Carbon Capture Coalition (unless amended)
California Climate Voters
California Environmental Justice Alliance
California Environmental Voters
Center for Biological Diversity
Center on Race, Poverty & the Environment
Central California Environmental Justice Alliance
Climate Center; the
Communities for A Better Environment
Food & Water Watch
Let's Green CA!
Long Beach Alliance for Clean Energy
Physicians for Social Responsibility
San Francisco Bay Physicians for Social Responsibility
Santa Cruz Climate Action Network
Sierra Club California
Strategic Concepts in Organizing and Policy Education
Sunflower Alliance
Western States Petroleum Association (unless amended)

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