

## Senate Bill No. 27

### CHAPTER 237

An act to add Chapter 4.3 (commencing with Section 39740) to Part 2 of Division 26 of the Health and Safety Code, relating to air pollution.

[Approved by Governor September 23, 2021. Filed with  
Secretary of State September 23, 2021.]

#### LEGISLATIVE COUNSEL'S DIGEST

SB 27, Skinner. Carbon sequestration: state goals: natural and working lands: registry of projects.

Existing law establishes the State Air Resources Board as the state agency responsible for monitoring and regulating sources emitting greenhouse gases. Existing law, the California Global Warming Solutions Act of 2006, requires the state board to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030. The act requires the state board to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions.

Existing law establishes the Natural Resources Agency, composed of departments, boards, conservancies, and commissions responsible for the restoration, protection, and management of the state's natural and cultural resources. Existing law requires the agency to update the state's climate adaptation strategy, known as the Safeguarding California Plan, every 3 years.

This bill would require, no later than July 1, 2023, the Natural Resources Agency, in coordination with the California Environmental Protection Agency, the state board, the Department of Food and Agriculture, and other relevant state agencies, to establish the Natural and Working Lands Climate Smart Strategy and, in developing the strategy, to create a framework to advance the state's climate goals. The bill would require the state board, as part of its scoping plan, to establish specified carbon dioxide removal targets for 2030 and beyond.

This bill would require, no later than July 1, 2023, the Natural Resources Agency to establish and maintain a registry for the purposes of identifying and listing projects in the state that drive climate action on the state's natural and working lands and are seeking funding from state agencies or private entities. The bill would authorize the agency, in collaboration with relevant state agencies, to create an application process for applicants to have their projects located in the state listed on the registry, as specified. The bill would require the agency to establish a mechanism for retiring the listing of a project from the registry once it is funded and tracking the outcome of the project to ensure it is completed. The bill would require project proponents

to notify the agency when a project is completed and provide monitoring and reporting data for the duration of the contract terms of the project. The bill would require the agency to track carbon removal and greenhouse gas emission reduction benefits derived from projects funded through the registry. The bill would authorize the agency to contract with a third-party organization to develop and operate the registry.

*The people of the State of California do enact as follows:*

SECTION 1. Chapter 4.3 (commencing with Section 39740) is added to Part 2 of Division 26 of the Health and Safety Code, to read:

CHAPTER 4.3. CARBON SEQUESTRATION

39740. The Legislature finds and declares all of the following:

(a) Climate change is causing historic droughts, devastating wildfires, storms, extreme heat, the death of millions of trees, billions of dollars in property damage, and is threatening human health and food supplies.

(b) California has set ambitious targets to reduce the effects of climate change by reducing carbon emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

(c) In 2018, Governor Brown established Executive Order No. B-55-18, creating a state goal to reach carbon neutrality by no later than 2045 and to maintain net negative greenhouse gas emissions thereafter, and directing the state board to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward these goals.

(d) In 2019, Governor Newsom established Executive Order No. N-19-19, directing that every aspect of state government redouble its efforts to reduce greenhouse gas emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy.

(e) In 2020, Governor Newsom established Executive Order No. N-82-20, directing state agencies to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience through climate action on natural and working lands in the state and directing the Natural Resources Agency to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state's carbon neutrality goal and build climate resilience. In that executive order, Governor Newsom also directed the State Air Resources Board to consider this strategy and science-based data to update the target for the natural and working lands sector in achieving the state's carbon neutrality goal.

(f) The United Nations' Intergovernmental Panel on Climate Change (IPCC) has recognized that limiting global warming to 1.5 degrees Celsius (2.7 degrees Fahrenheit) over preindustrial times will require not only a swift cut in global carbon emissions from human sources, but also the employment of land use practices and technology that directly remove heat-trapping carbon dioxide from the atmosphere. The IPCC's special

report entitled “Global Warming of 1.5 degrees Celsius,” issued October 6, 2018, suggests global carbon removals of as much as six gigatons of carbon dioxide equivalent per year will be needed by 2030 to meet the goal.

(g) Natural and working lands can have significant positive benefits in helping California’s communities be resilient in the face of climate change. Forestry management, healthy soils, wetlands restoration, mountain meadows restoration, and other nature-based climate solutions can deliver greenhouse gas reductions, carbon sequestration benefits, and help limit local community risk to the impacts of climate change, such as wildfire, sea level rise, temperature increases, and changes in global weather patterns.

(h) Technological carbon removal strategies, such as direct air capture, direct water capture, and carbon capture utilization and sequestration technologies, are still relatively new, but according to the IPCC the successful deployment of these technologies, in addition to dramatic emissions reductions, will be crucial to successfully averting the worst impacts of climate change. These technologies offer the potential to create entirely new industries around recycling carbon dioxide emissions into useful products such as clean fuels or materials, and offer the potential to create entirely new clean industrial hubs in resource-rich parts of California, including the Central Valley, Imperial Valley, Inland Empire, Sierra Nevada, and coastal regions.

(i) Carbon capture and mineralization is a process that permanently stores carbon dioxide by direct conversion to carbonate rock, most commonly limestone. Limestone is widely used in concrete, the world’s most common building material, and therefore carbon capture and mineralization provides another promising medium for capturing and storing large quantities of carbon dioxide.

(j) A recent report released by the Lawrence Livermore National Laboratory showed that, even without buying offsets from out of state and by just using technology in existence today, California can sequester or remove on the order of 125,000,000 metric tons of carbon dioxide per year from the atmosphere by 2045 while creating local jobs and local industries at a cost of less than 0.4 percent of the state’s annual gross domestic product. The study further found that California has over 17 billion tons of safe storage in just two areas in the Central Valley, and over 200 billion tons of storage capacity may be available in geologic formations in California to permanently store carbon dioxide removed from the atmosphere.

39740.1. For purposes of this chapter, the following definitions apply:

(a) “Natural and working lands-based carbon sequestration” means sustainable resource management practices, changes in land use, preservation of natural resources, fuel reduction or prescribed fire activities, and other practices that result in the long-term removal, capture, or sequestration of carbon dioxide from the atmosphere to slow or reverse atmospheric carbon dioxide pollution and to mitigate or reverse global warming.

(b) “Natural lands” has the same meaning as in paragraph (2) of subdivision (d) of Section 9001.5 of the Public Resources Code.

(c) “Registry” means the California Carbon Sequestration and Climate Resiliency Project Registry established pursuant to Section 39740.3.

(d) “Working lands” has the same meaning as in paragraph (1) of subdivision (d) of Section 9001.5 of the Public Resources Code.

39740.2. (a) No later than July 1, 2023, the Natural Resources Agency, in coordination with the California Environmental Protection Agency, the state board, the Department of Food and Agriculture, and other relevant state agencies, shall establish the Natural and Working Lands Climate Smart Strategy. In developing this strategy, the agencies shall do all of the following:

(1) Create a framework to advance the state’s climate goals.

(2) Consider, based on the best available estimates, how increasing fire risk, warming temperatures, decreasing precipitation, and other climate change impacts will affect the ability of the state to sequester carbon on natural and working lands.

(3) Support the economic and resource value of the lands and consider multiple benefits.

(4) Support pathways for sectors, such as agriculture and forestry, to participate in the transition to a carbon neutrality economy.

(5) Collect public feedback and conduct outreach.

(6) Seek to align funding mechanisms to advance the strategy.

(b) The state board, as part of its scoping plan prepared pursuant to Section 38561, shall establish carbon dioxide removal targets for 2030 and beyond, and shall take into consideration the Natural and Working Lands Climate Smart Strategy, science-based data, cost-effectiveness, and technological feasibility in setting the targets pursuant to this subdivision. The state board shall consider a range of targets, including those in line with the special report prepared by the United Nations’ Intergovernmental Panel on Climate Change (IPCC) entitled “Global Warming of 1.5 degrees Celsius,” issued October 6, 2018, and leading carbon removal commitments globally, as well as recent and emerging research on carbon dioxide removal potential in California and market and technology conditions.

39740.3. (a) No later than July 1, 2023, the Natural Resources Agency shall establish and maintain a registry called the California Carbon Sequestration and Climate Resiliency Project Registry for the purposes of identifying and listing projects in the state that drive climate action on the state’s natural and working lands and are seeking funding from state agencies or private entities. Carbon sequestration projects listed on the registry may include natural and working lands-based carbon sequestration projects and direct air capture projects. The Natural Resources Agency shall consider the environmental and public health impacts of any direct air capture project before adding the project to the registry.

(b) The Natural Resources Agency may provide a mechanism for entities to search the registry based on the criteria specified in subparagraphs (A) to (F), inclusive, of paragraph (4) of subdivision (a) of Section 39740.5.

39740.4. Beginning on the date the registry is established pursuant to Section 39740.3, projects that have applied for funding from one of the state

programs funded from the Greenhouse Gas Reduction Fund, or any state program that funds natural and working lands-based carbon sequestration, and that meet minimum program requirements, established by the state board, to ensure they provide carbon removal benefits, but which did not receive funding from the state because of limited availability of funds, may be listed on the registry.

39740.5. (a) The Natural Resources Agency, in collaboration with relevant state agencies and in consultation with diverse stakeholders, may create an application process for applicants to have their projects located in the state listed on the registry. The Natural Resources Agency shall ensure that projects submitted pursuant to the application process meet the following minimum criteria before listing them on the registry:

- (1) Achieve greenhouse gas reduction or carbon removal.
- (2) Include monitoring and reporting of carbon removal benefits over time.
- (3) Improve the state's resilience to climate change.
- (4) Project documentation contains all of the following information:
  - (A) The amount of greenhouse gases reduced or carbon sequestered by the proposed project.
  - (B) The duration for which the project will sequester carbon.
  - (C) The location of the proposed project in California.
  - (D) The natural and working landscape type on which the project will occur.

(E) The project benefits, including, but not limited to, adaptation to sea level rise, fire, heat, and drought, biodiversity benefits, water security and watershed restoration benefits, and benefits to disadvantaged and low-income communities.

(F) Whether the proposed project provides greenhouse gas reduction or carbon removal benefits that are real, verifiable, quantifiable, additional, and permanent. This determination shall be verified by a third party accredited by the state board.

(b) A monitoring and reporting system for calculating carbon removal or sequestration or greenhouse gas emission reduction benefits that has already been established by the state board for purposes of receiving state funding from the Greenhouse Gas Reduction Fund shall be sufficient to satisfy the requirements of paragraph (2) of subdivision (a).

(c) The Natural Resources Agency shall prioritize the registration of projects that use the latest version of a quantification methodology developed by the state board, where applicable, or an equivalent methodology, approved by the state board.

39740.6. If a state or private entity contacts the Natural Resources Agency and chooses to fund a project on the registry, the Natural Resources Agency shall establish a mechanism for retiring the listing of a project from the registry once it is funded and tracking the outcome of the project to ensure it is completed. The project proponent shall notify the Natural Resources Agency when the project is completed, and shall provide to the

agency monitoring and reporting data for the duration of the contract terms of the project.

39740.7. (a) The Natural Resources Agency shall track carbon removal and greenhouse gas emission reduction benefits derived from projects funded through the registry.

(b) Projects listed on the registry shall not create credits for the purposes of market-based compliance mechanisms developed or administered by the state board pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500)) and shall not be used by a state or private entity to offset a statutory or regulatory obligation to reduce emissions under the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500)).

(c) If an entity funds less than the full project cost, or if several entities jointly fund a single project, the agency may assign project value proportionally across multiple project funders.

39740.8. The Natural Resources Agency may contract with a third-party organization to develop and operate the registry.