

H.B819 / S.B537: An Act to Promote Natural Carbon Sequestration



Greenhouse Gas Emissions and Climate Change

Greenhouse gas emissions from human activities, particularly the burning of fossil fuels, are the [most consequential](#) driver of climate change. As gasses like carbon dioxide and methane accumulate in the atmosphere and warm the earth, the shift in climate can have detrimental effects on public health, the global economy, and ecosystems and biodiversity.

New England [is warming significantly faster](#) than the global average, and the Commonwealth is already [experiencing](#) these impacts. [Without action](#), heat-related deaths in Boston could triple by 2050, and sea levels could rise as much as 15.6 feet by 2100. In addition, blue economy sectors like cranberry harvesting and lobster and cod fishing are threatened due to rising temperatures. Massachusetts is actively prioritizing climate action and outlined a path to achieve net-zero greenhouse goals through the state's [Clean Energy and Climate Plan](#) (CECP) for 2025 and 2030. But the threats posed by climate change require Massachusetts to set more robust goals that harness the role natural and working lands, as well as the ocean, can play in safeguarding communities, stabilizing the climate, and promoting biodiversity while fostering the blue economy.

Support Blue Carbon Solutions

Natural and working lands, such as forests, farmlands, and wetlands, naturally capture and release carbon dioxide found in the atmosphere. The ocean also plays a particularly important role in carbon sequestration and absorbs approximately [31 percent](#) of carbon dioxide in the atmosphere. The process of storing carbon in coastal and marine ecosystems, most significantly in wetlands, salt marshes, and seagrasses, is also known as blue carbon. When these blue carbon

[Carbon Sequestration](#): The process of capturing carbon dioxide from the atmosphere, measured as a rate of carbon uptake per year.

[Carbon Storage](#): The long-term confinement of carbon in plant materials or sediment, measured as a total weight of carbon stored.

[Blue Carbon](#): Carbon captured by living coastal and marine organisms and stored in coastal ecosystems such as seagrasses, salt marshes, and mangroves.

[Net-Zero Emissions](#): The process by which greenhouse gas emissions are in balance with emissions reductions.

[Net-Positive Emissions](#): Also known as climate positive, the process goes beyond net-zero emissions to remove additional carbon dioxide from the atmosphere.

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New England
Aquarium

Protecting the blue planet

zones remain protected and undisturbed, they can store [four to ten times](#) more carbon than land-based resources. Additionally, these ecosystems protect the coastline from natural disasters and significant economic loss, provide aesthetic value, and offer a home to numerous important species.

The CECP for 2025 and 2030 recognizes the potential of carbon sequestration and emphasizes the importance of not further degrading the Commonwealth's wetlands. ***An Act to Promote Natural Carbon Sequestration (H.B819 / S.B537)*** introduced by Senator Susan Moran and Representative Jessica Giannino, enhances the role that waterways, seagrass, and salt marshes can play in climate mitigation by requiring a net-positive carbon sequestration goal for Massachusetts. By setting a net-positive goal, the Commonwealth will take an important step forward in enhancing the protection and restoration of critical natural systems like wetlands and forests while absorbing carbon dioxide from the atmosphere. The bill also requires the state to study the sequestration capacity of its salt marshes, seagrasses, and waterways to reach its greenhouse gas emission goals. By establishing net-positive carbon sequestration targets for natural and working lands and studying the untapped capabilities of blue carbon, the Commonwealth can be one step closer to reaching its ambitious and necessary emissions reduction goals and move towards a climate-resilient future.