



New Jersey's Tidal Marshes

A critical part of fighting global warming

Fighting global warming requires reducing future carbon emissions (green house gases) as well as removing carbon already present in the atmosphere and storing it, a process called "sequestration". Bill A.4556 (Chivikula, McKeon) and its Senate counterpart S. 2976 (Sweeney, Smith) include measures designed to do both.

In addition to measures that reduce the amount of carbon going into the atmosphere, remedies that actually take carbon out of the atmosphere use the earth's natural processes and include planting more trees (reforestation) or preventing removal of forests (land conservation).

A lesser known but highly effective remedy is to restore tidal marshes. This makes use of these wetlands' ability to sequester large amounts of CO₂ deep in the ground beneath the marsh. Salt marshes are especially effective because they not only take CO₂ out of the air, but also release negligible amounts of methane and nitrous oxide, the greenhouse gasses released in abundance by freshwater marshes.

The Intergovernmental Panel on Climate Change cites wetlands restoration as a strategy to sequester CO₂ from the atmosphere in its Fact Sheet 4.18: Restoration of Former Wetlands (*IPCC Special Report on Land Use, Land-use Change and Forestry.*)

This strategy is also recommended by the U.S. Climate Change Technology Program: "Because [tidal marshes] are inherently highly productive and accumulate large below-ground stocks of organic carbon, restoring lost wetlands and protecting those that remain clearly represents an immediate and large opportunity for enhancing terrestrial carbon sequestration." (*U.S. Climate Change Technology Program—Technology Options for the Near and Long Term, November 2003; P. 137.*)

New Jersey is rich in coastal wetlands, many of which have been degraded over the years, and could be restored to help in the fight against global warming.

The "Global Warming Solutions Fund" created by the bills would dedicate a small percentage of funds from the sale of "carbon allowances" to programs that enhance the stewardship and restoration of the State's forests and tidal marshes for the important opportunities they provide to reduce greenhouse gases.

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Passage of A. 4556 and S. 2976 could take advantage of the natural resources we already have and diversify our portfolio of strategies to meet the challenge of global warming. Restoring tidal marshes would also help protect recreational and commercial fisheries and coastal properties, adding to the strength of our Shore economies.

