



2005 Market Street, Suite 2800 215.575.9050 Phone
Philadelphia, PA 19103-7077

901 E Street NW 202.552.2000 Phone
Washington, DC 20004

www.pewtrusts.org

May 29, 2020

Ms. Jill Aspinwall
New Jersey Department of Environmental Protection
Office of Policy Implementation
401 East State Street, 7th Floor
Trenton, NJ 08625-0420

Submitted via email

Dear Ms. Aspinwall:

RE: The Pew Charitable Trusts' Comments on the New Jersey Coastal Management Program's draft 2021-2025 Section 309 Assessment and Strategy

Thank you for the opportunity to provide comments on the New Jersey Coastal Management Program's draft 2021-2025 Section 309 Assessment and Strategy (henceforth referred to as the 309 Strategy), conducted as part of the Coastal Zone Enhancement Program under section 309 of the Coastal Zone Management Act. Every five years, this voluntary program helps states and territories assess their coastal zone management programs across nine enhancement areas (wetlands, coastal hazards, public access, marine debris, cumulative and secondary impacts, special area management plans, ocean and Great Lakes resources, energy and government facility siting, and aquaculture), rank specific areas in order of priority, and develop new five-year strategies in these areas to improve protection and management of coastal resources through the development of enforceable policies. Providing support for states to evaluate and update their coastal management programs can help address pressing challenges including sea level rise, the increase in the occurrence and severity of storms, continued loss of critical coastal habitats, and growing industrial uses of the ocean.

The Pew Charitable Trusts' (Pew's) main interests relative to the Coastal Zone Management Act and the 309 Strategy are to promote and maintain healthy coastal ecosystems and to reduce the impacts of floods and hurricanes on communities. Healthy coastal and marine ecosystems provide many benefits and services that support strong coastal communities and help mitigate climate-related impacts such as sea level rise, intensifying coastal storms, and (as carbon sinks) greenhouse gas emissions.

New Jersey's draft 309 Strategy for the period 2021 through 2025 identified **wetlands, coastal hazards, public access** and **ocean resources** as high priority enhancement areas that could result in new enforceable policies for the New Jersey Coastal Management Program (CMP).

Pew commends New Jersey for its public-driven process used to rank these priority areas and develop specific 5-year strategies. We agree that these areas capture many of the current and new challenges facing the coastal zone and support the specific, forward-looking initiatives proposed in the 309 Strategy.

We would also like to highlight additional opportunities for the New Jersey CMP, described in more detail below, including:

- Incorporation of restoration strategies for shellfish and submerged aquatic vegetation (SAV) into ecologically based hazard mitigation strategies.
- Providing information and education to local communities on stormwater utilities that can help address flooding, marine debris and pollution as part of the proposed Regional Resilience Coordinator program.
- Consideration of educational opportunities in public access strategies related to shellfish restoration and protection of marsh migration pathways.
- Assessing potential CMP strategies related to research on Atlantic fish habitat and shifting fish populations.

Wetlands

New Jersey's coastal wetlands provide critical habitat for the state's wildlife resources that support livelihoods and recreational activities, while also delivering important ecosystem services like buffering against damaging waves, preventing shoreline erosion, absorbing flood waters, filtering water, and sequestering carbon. Despite their importance, coastal wetlands continue to decline nationally and in New Jersey due to a variety of factors. These include permitted development, pollution, restricted water flows, and more recently "coastal squeeze," wherein wetlands are unable to move inland away from rising seas due to barriers like roads or bulkheads. Loss of healthy wetlands also results in the release of stored carbon into the atmosphere.

We commend New Jersey on its proposed strategies to protect and restore existing coastal wetlands and to proactively identify and conserve suitable areas that can serve as the marsh habitat of the future. By effectively implementing these strategies through research and the adoption of new enforceable policies, New Jersey would be a national leader and model for forward-thinking, science-based wetlands protection.

Ecologically based Hazard Mitigation

The CMP's proposed strategy to advance ecologically based hazard mitigation addresses a critical need to help existing salt marsh maintain elevation in the face of rising seas. In addition to research and policy development focusing on sediment availability, Pew proposes consideration of ecosystem-based approaches that include shellfish and SAV restoration.

Emerging science, such as [research](#) conducted by Dr. Brian Silliman of Duke University,¹ suggests that restoration projects that harness the positive interactions among these species may lead to more successful outcomes.

Pew also supports the CMP identifying opportunities to work with the military and other federal stakeholders to test and apply effective restoration approaches. The Seven Mile Island Innovation Laboratory mentioned in the draft 309 Strategy, and launched in 2019 by the New Jersey Department of Environmental Protection (NJDEP), the U.S. Army Corps of Engineers (USACE) and the Wetlands Institute, is one such example of a unique partnership to study coastal wetlands systems and resiliency. Another example is the partnership between the U.S. Navy and NY/NJ Baykeeper at Naval Weapons Station (NWS) Earle in northern New Jersey to restore oysters in the waters of the facility and study how this natural barrier can protect the coastal installation, which [Pew profiled last year](#). Pew recommends that the CMP engage with NWS Earle, McGuire Air Force Base and the Warren Grove Range to determine if there are opportunities for increased partnership via the [Readiness and Environmental Protection Integration Program](#) and [Sentinel Landscapes Partnership](#). If appropriate, Pew can help facilitate these connections to identify and advance science-based conservation measures related to protecting valuable coastal waters and habitats in the context of installation and coastal resiliency.

Marsh Migration

The CMP's proposed strategy to identify and protect marsh migration pathways addresses another critical need to ensure the survival of these habitats in the face of sea level rise. There is growing recognition that the establishment of salt marsh migration corridors may be one of the most effective management techniques for offsetting wetland losses in face of accelerating sea level rise.² Enabling upland marsh migration is one of several climate change adaptive management strategies that can enhance salt marsh survival and sustainability. In developed areas, this can be achieved by removing or fixing barriers to marsh migration such as berms, dikes, bulkheads, culverts, and causeways. In undeveloped areas, protecting specific, adjacent upland through conservation easements or acquisition may be the best approach to establishing salt marsh migration corridors.

As this work unfolds, we would encourage the CMP to consider recommendations for developing a special protective designation for suitable areas that can be conserved as future marsh habitat. In addition to undeveloped areas, flood prone properties where buy-outs are feasible could be restored and protected with an eye towards future marsh migration opportunities. Mitigation banking or an In-Lieu Fee Program could help fund protection and restoration efforts, while also achieving compensatory mitigation requirements, if such efforts include long-term monitoring and adaptive management of potential sites to ensure functional equivalency.

¹ Renzi JJ, He Q and Silliman BR (2019) Harnessing Positive Species Interactions to Enhance Coastal Wetland Restoration. *Front. Ecol. Evol.* 7:131. doi: 10.3389/fevo.2019.00131

² Wigand et al., 2017; Schile et al., 2014; Stralberg et al., 2011; Kirwan et al., 2016; Kirwan and Gedan, 2019

Finally we encourage New Jersey to continue to link efforts to protect wetlands with the state's climate commitments and plans, including leveraging resources from the Global Warming Solutions Fund to support new strategies, linking the development of enforceable policies with reforms that may take place through PACT (Protecting Against Climate Threats), and incorporating findings from [U.S. Climate Alliance-funded research](#) to prioritize coastal habitats in the mid-Atlantic states based on their contributions to coastal protection and blue carbon storage.

Coastal Hazards

Given the increase in the occurrence and severity of storms and flooding, and with communities still grappling with impacts of Hurricanes Sandy and Irene, we agree that the coastal hazards enhancement area is a high priority for New Jersey. We support the CMP's focus on establishing a Regional Resilience Coordinator program that will build capacity of coastal communities to increase their resilience to coastal hazards through provision of direct assistance, guidance, and technical support. Field office or community partner placement for the regional resilience coordinators will provide communities with local expertise and can serve to establish trust with governments, businesses, and other stakeholders.

The strategy notes the need for regional resilience coordinators to help municipalities incorporate resilience planning into local ordinances, master plans, and other planning documents. There is opportunity for the regional resilience coordinators to also support inclusion of a climate change-related hazard vulnerability assessment in municipal master plans. This assessment could, among other things, analyze current and future potential of community risks and vulnerability associated with natural hazards; identify critical facilities, utilities and roadways that must be protected and maintained for evacuation purposes and sustaining quality of life during a disaster; and describe strategies and design standards that may be implemented to reduce and/or avoid risks associated with natural hazards. Additionally, municipal master plans could utilize the most recent natural hazards projections based on the best available science as identified by NJDEP.

In addition to enhancing local capacity, regional resilience coordinators should promote regional or watershed approaches to coastal resilience. Building regional networks will help individual communities better leverage limited financial resources, share best practices, and identify regional projects with the potential to offer greater impact.

Finally, as part of their role in providing technical assistance, guidance and education, Pew recommends that the regional resilience coordinators inform and educate municipalities about opportunities to implement nature-based flood mitigation solutions and develop local flood risk reduction policies, such as stormwater utility programs. Both strategies offer a number of co-benefits, and stormwater utilities in particular can also address marine debris and cumulative and secondary impact issues, ranked as medium priorities in the 309 Strategy.

Public Access

Pew commends New Jersey's CMP for its efforts to facilitate the creation of meaningful and equitable public access throughout New Jersey. These strategies are particularly timely given COVID-19 and the public's interest in utilizing open space for safe recreational opportunities.

The CMP identifies the creation of meaningful public access sites and education and outreach as management priorities. We would add that these priorities are not mutually exclusive and suggest the prioritization of areas for public access alongside current or planned living shorelines and other coastal restoration projects as a method to educate and foster community support and adoption of projects. For example, [Virginia's oyster trail](#) funded in part by the state's CMP has proven to be a popular tool to increase awareness of the benefits shellfish have on local economies and an opportunity to inspire environmental stewardship. A New Jersey Oyster Trail could be incorporated into the existing public access map and tie into existing heritage or water trails. This work could engage coastal communities to spotlight locally owned businesses and New Jersey-grown seafood at a time when coastal communities are facing increased economic challenges and will have to endure prolonged recovery due to the COVID-19 pandemic.

Lastly, we thought it would be helpful to flag the study: [Socio-Economic Impacts of Conserved Land on Virginia's Eastern Shore](#). Completed in 2014, the study involved an economic analysis of conserved lands to guide future decision-making related to land acquisition and conservation. This type of analysis can help inform decision-making by government officials and other stakeholders on issues related to public access and protection of valuable coastal habitats.

Ocean Resources

New Jersey along with other mid-Atlantic states is facing increased challenges to the health of its ocean waters, including changing ocean temperatures, shifting fish populations, as well as competing and expanding uses—factors that will test marine resource management at the local, state and federal levels. Accordingly, Pew agrees that the ocean resources enhancement area should be ranked high given its importance to the state's coastal businesses and way of life. We support New Jersey's continued engagement in the Mid-Atlantic Committee on the Ocean (MACO) as a body to continue the important work conducted under the Mid-Atlantic Regional Council on the Ocean (MARCO). Specifically, we would like to call attention to the collection and stewardship of scientific information through the Ocean Data Portal and the critical role these data will play for New Jersey to protect its fishery and habitat resources.

At the state level and as part of multi-state/federal governing bodies, New Jersey's fishery managers will need to make pivotal decisions about how to respond to changing ocean conditions and uses, including shifting fish populations and the growing industrialization of the offshore space. A [study authored by Malin Pinsky](#) of Rutgers, the state university of New Jersey, and Jim Morley of North Carolina State University and funded in part by Pew found that fish populations, like summer flounder—a valuable resource to commercial and recreational fisheries based in New Jersey—are moving northwards and into deeper waters in response to warming waters. A follow-on study initiated in March 2019 is focused on [developing short-term species](#)

[distribution forecasts](#) for managers, including shortfin squid, another valuable fishery resource in New Jersey impacted by changing ocean conditions.

Under its 2020 implementation plan, the Mid-Atlantic Fishery Management Council will initiate a climate change and distribution shift scenario planning exercise. The Council received a [briefing and introduction to scenario planning](#) at its April 2020 meeting. We recommend that New Jersey, through the Council, participate in this process to keep abreast of climate-related shifting fish populations, as well as potential changes in coastal habitats that provide the foundation for healthy and sustainable fisheries.

With the drive towards offshore wind and other industrial uses and potential impacts on coastal habitat, we encourage the CMP to engage in efforts related to the Mid-Atlantic Fishery Management Council's [Northeast Regional Marine Fish Habitat Assessment](#), "a collaborative effort to describe and characterize estuarine, coastal, and offshore fish habitat distribution, abundance, and quality in the Northeast." When complete, this process will provide an opportunity for the coastal program to work with partner agencies and councils to adopt new enforceable policies for essential fish habitat (e.g., oyster reefs, SAV, salt marsh) in state coastal waters including New Jersey.

Finally, Pew would like to highlight the importance of conserving and restoring oyster reefs and SAV in the context of the ocean resources strategy, as well as the wetlands, coastal hazards and public access strategies. Oyster reefs and SAV play a critical role in New Jersey's estuaries, helping to improve water quality, providing critical habitat for wildlife including commercially and recreationally valuable fish species, stabilizing shorelines and reducing erosion. Healthy SAV also can help sequester and store carbon.

We note that the Rutgers University GIS-based Spatial Planning Tool, mentioned in the 309 Strategy in the aquaculture enhancement area, is being expanded with Pew support to include areas for potential shellfish and SAV conservation and restoration in New Jersey's nearshore waters. This information, coupled with lessons learned in New Jersey and other states on effective restoration approaches, can help guide investments and policies to support recovery of oysters in the state, resulting in cleaner water, more jobs, stronger shorelines, and more abundant local food sources.

In addition to supporting oyster recovery, Pew encourages the CMP to incorporate SAV restoration and protection into its 309 Strategy where appropriate. Specifically, we suggest expanding SAV mapping beyond Barnegat Bay and Little Egg Harbor and encourage the development of a statewide annual monitoring program that addresses both sentinel and historic sites. New survey and monitoring data can help determine whether permitting requirements need to be updated and how resource managers can better incorporate last resort mitigation options into the state's coastal rules. We also encourage the CMP, and other affiliated NJDEP agencies, to work with scientists, resource managers and other stakeholders to develop a state-specific restoration manual to support these efforts.

The 309 Strategy's proposed Science Policy Advisory Network (SPAN) could be an effective venue for the CMP to engage stakeholders in the suite of challenges and issues impacting ocean

resources described above. We welcome the opportunity to engage in the development and implementation of SPAN.

Aquaculture

Oysters and other types of shellfish provide key ecosystem services and complex habitat for coastal species. When oyster aquaculture operations implement science-based best management practices, they too have the potential to enhance estuarine areas by augmenting ecosystem services such as nutrient filtering that improves water quality and increasing fish habitat.

While aquaculture was ranked as a medium priority enhancement area, the draft 309 Strategy mentions amendments to the Shellfish Growing Water Classification Rules and that NJDEP's Bureau of Marine Water Monitoring is considering changes that may impact restoration activities. It is our understanding that the challenges faced by the restoration community in New Jersey are somewhat unique, as practices in neighboring states show that restoration is not mutually exclusive from aquaculture activities and can be done safely in impaired waters.

Pew supports updating the classification rules to increase the potential for research and restoration of shellfish, specifically oysters, in impaired waters. Given the connection between coastal resiliency and habitats like oysters—their reef structure absorbs energy from storms and provides protection from coastal erosion—we encourage the CMP to consider a 309 Project of Special Merit (PSM) to address restoration in impaired waters. Given that the focal area for PSMs this year is coastal hazards, NJ CMP could make the connection and in doing so advance both the state's climate resiliency efforts and restoration of key coastal habitats. We believe that through a precautionary approach, constructive dialogue with stakeholders, and science-based practices, New Jersey can find a solution to this challenge, and work to become a leader in oyster restoration and other activities related to coastal resilience.

Conclusion

Pew is committed to supporting the important work of the New Jersey Coastal Management Program to improve protection and management of the state's coastal resources. We thank you for the opportunity to comment on the draft 309 Strategy and look forward to the development and implementation of new program enhancement strategies that will continue this vital work.

Sincerely,

Zachary Greenberg

Zachary Greenberg
Officer, Conserving Marine Life in the U.S.
The Pew Charitable Trusts