



Partnership for the Delaware Estuary Launches Ten-year Comprehensive Conservation & Management Plan

Implementation to Include Mussel Hatchery at Bartram's Garden

Tuesday, February 19, 2019 - PHILADELPHIA, PA - The Partnership for the Delaware Estuary (PDE) today kicked-off the implementation of a revised [Comprehensive Conservation and Management Plan](#). The plan focuses on several pillars: Clean Waters; Strong Communities; Healthy Habitats; and a Financial Strategy and Monitoring Approach to help achieve the goals set forth in the plan.

The Delaware Estuary – the tidal Delaware River and Bay – is the heart of the Delaware River Watershed. It spans a diverse set of geographies and ecological conditions. Each region is supported by unique rivers and tributaries, such as the wild and scenic Delaware River above Trenton that provides the mainstem flows necessary to sustain life in the Estuary; the mighty Schuylkill, Cooper, and Christina Rivers that fuel the growth of cities and industry in the region; and the coastal plain rivers including the Broadkill and Maurice that support farms and fisheries. These natural resources support vibrant communities of fish, wildlife, and millions of people in the watersheds that surround them.

As part of the process of designating the Delaware Estuary a National Estuary Program, hundreds of stakeholders worked together to develop a Comprehensive Conservation and





Management Plan (CCMP) that was approved in September, 1996. The original CCMP was intended to guide the collective efforts of environmental agencies and organizations in the region to protect and enhance the Delaware River and Bay, including the surrounding watersheds.

Much has changed since 1996, and PDE worked with members of the Steering Committee, the Estuary Implementation Committee, the Science and Technical Advisory Committee, hundreds of local partners, experts and stakeholders, to establish a revised set of goals and strategies for achieving and tracking improvements to the health of the Estuary. This revised plan seeks to continue and accelerate improvement of habitats, waters, and quality of life in the watershed over the next ten years to benefit the people who live, work, and play in the Delaware, New Jersey, and Pennsylvania tri-state region. *"Delaware stands strong with PDE partners, including our good neighbors in Pennsylvania and New Jersey, on our shared goals of ensuring clean water, strong communities, and healthy habitats throughout the estuary,"* said **Delaware Department of Natural Resources Secretary Shawn M. Garvin**. *"By collaborating with state and federal agencies, municipalities, businesses, community groups, non-profits, and tri-state residents through this new comprehensive management plan, we are unified in working toward a vibrant and fiercely-protected future for our beautiful, fragile, and vitally important Delaware Estuary and its precious resources."*

As part of the implementation of the CCMP, PDE will work with their partners to conserve, restore and enhance depleted shellfish beds, which provide many ecological and economic benefits and are a hallmark feature of a healthy aquatic ecosystem. The targeted shellfish range from oysters in Delaware Bay to freshwater mussels in streams and rivers. As an example, PDE and partners in the new Aquatic Research and Restoration Center are launching a [Mussels for Clean Water Initiative](#) (MuCWI) to promote cleaner water and healthier aquatic ecosystems via the propagation, rearing and outplanting of freshwater mussels from a hatchery planned for





Bartram's Garden in southwest Philadelphia. *"The Delaware Estuary Program places critical emphasis on clean waters, strong communities and healthy habitats.,"* said **EPA Region 2 Administrator Pete Lopez**. *"EPA recognizes and supports the goal of carefully managing our resources to meet multiple objectives. The Comprehensive Conservation and Management Plan helps chart a balanced, thoughtful course for further enhancement of ecological health and recreational offerings, as well as strengthened economic opportunities within the Estuary".*

Up to a half million baby mussels will eventually be produced annually using native species that are genetically appropriate for specific areas of the watershed. These offspring will be reared to hardier sizes at satellite partner facilities and ponds throughout the region. When ready, these mussels will then be relocated to streams and rivers where they once prospered, especially locations where they can help improve water quality the most. *"Our management plan is a blueprint for success in the estuary,"* said **EPA Region 3 Regional Administrator Cosmo Servidio**. *"It offers a sensible guide for achievable next steps in providing cleaner water, healthier habitats and stronger communities. EPA was pleased to work with PENNVEST to provide funding for the mussel hatchery that will serve as a signature accomplishment in our efforts."*

Like oysters in saltwater, freshwater mussels are filter-feeders that remove substantial amounts of microscopic particles, including many forms of pollutants. Each adult mussel can filter up to 10 gallons of water per day, directly improving water clarity and providing more light for bottom plants. Some harmful pollutants are removed or transformed into less harmful forms. A robust mussel bed can also help stabilize erosion and improve habitat conditions for many other plants and animals. As noted by **Danielle Kreeger, senior science director at PDE**, *"Freshwater mussels are some of the most undervalued aquatic animals in the world. When healthy and abundant,*





they can form beds that filter millions of gallons of water per acre every day, and the decline of natural mussel beds in the Delaware River Basin makes it that much harder to keep the water clean."

Construction and operation of the mussel hatchery are expected to cost between \$10-11 million over the eight-year start up, and PENNVEST has authorized \$7.9 million for construction phases. The capital return on investment from mussel sales and associated income is expected to be positive, not including the value of the ecological benefits that the mussel beds will provide to our region's waterways. *"Managing water resources in the Delaware River Estuary is endlessly complex. Water quality in the Estuary has improved significantly over the past half century, no question. But as our understanding increases, new challenges continually emerge. To address these challenges, it is important that we set new and higher goals and find new strategies for achieving them. The revised CCMP provides a vision, measurable goals and a dynamic plan towards a cleaner, more resilient and healthier Estuary," said Steve Tambini, Delaware River Basin Commission Executive Director. "The DRBC's scientists, engineers and planners have been proud to contribute to the revised plan and are deeply committed to working with PDE, federal, state and local partners to develop and implement the new strategies required to meet emerging challenges."*

In addition to PDE, EPA, and DRBC, core partners in the Delaware Estuary Program include the Philadelphia Water Department, the Delaware Department of Natural Resources and Environmental Control, the Pennsylvania Department of Environmental Protection, and the New Jersey Department of Environmental Protection. Executive Director of PDE Jennifer Adkins thanked all of these partners and the hundreds of individuals who contributed time and expertise to revising the CCMP over the last three years.

###

