

# *The Buzzards Bay NEP and the Buzzards Bay Stormwater Collaborative*

Fact Sheet – August 1, 2023

## **About the Buzzards Bay NEP**

The Buzzards Bay National Estuary Program (NEP) is an advisory and planning unit of the Massachusetts Office of Coastal Zone Management, within the Executive Office of Energy and Environmental Affairs. The NEP was established in 1985, and the bay was among the first estuaries designated to be of national significance. The program's original goal was to characterize and assess water quality problems in Buzzards Bay and its watershed, which primarily consists of all or portions of seventeen Massachusetts and Rhode Island municipalities. This assessment resulted in the Buzzards Bay Comprehensive Conservation and Management Plan (CCMP); first issued in 1991 and last revised in 2013. The NEP's current mission is to protect and restore water quality and living resources in Buzzards Bay and its surrounding watershed through the implementation of the CCMP. The NEP is principally funded by grants from the U.S. Environmental Protection Agency.



## **What problems affect Buzzards Bay?**

Around the City of New Bedford, wastewater discharges and a legacy of industrial pollution, including the harbor's PCB Superfund site and clean-up, and the resulting impacts to disadvantaged populations, remain priority concerns. However, in much of the rest of the bay, degradation of water quality and habitat primarily results from cumulative impacts from development and infrastructure and the discharge of pollutants. Among the highest priorities are excessive discharge of nutrients (primarily from onsite wastewater disposal, sewer outfalls, and fertilizer use), bacterial pollution (often conveyed to the bay in stormwater discharges), and habitat loss and degradation. These challenges have been exacerbated by climate change.

## **NEP Financial and Technical Assistance Programs**

Because so much of the burden of dealing with non-point source pollution, and the cumulative impacts of development rest with municipal government, the Buzzards Bay NEP fulfills its mission through our technical assistance and grant programs. NEP technical assistance includes stormwater management guidance, GIS support, watershed loading models, and local planning support. NEP support for the Buzzards Bay Stormwater Collaborative has been a top priority in recent years. With funding from the Infrastructure Investment and Jobs Act through the EPA Southeast New Program for Watershed Restoration (SNEP), the NEP awarded one million dollars in grants to Buzzards Bay municipalities during the past year. The NEP also supports targeted investigations, including monitoring water quality in Buzzards Bay, a University of Massachusetts Dartmouth study of salt marsh loss using uncrewed aerial vehicles, and scholarships for disadvantaged children to participate in the New Bedford summer school program, Sea Lab.

## Grants awarded by the NEP during 2022-2023

- **Town of Bourne:** \$183,500 to hire an engineering firm to address nutrient and bacteria loading to Queen Sewell Pond. The grant will fund stormwater treatment designs for a discharge near a freshwater bathing beach and develop an action plan for nine other stormwater discharges in the watershed.
- **Town of Dartmouth:** \$250,000 to upgrade its wastewater treatment facility to better meet permitted discharge limits for certain pollutants and significantly reduce nitrogen discharges to Buzzards Bay. This upgrade will cut nitrogen discharges in half, potentially removing more than 90,000 pounds of nitrogen pollution from the facility's discharge to Buzzards Bay each year.
- **City of New Bedford:** \$375,000 to treat stormwater at the Buttonwood Park Senior Center. The stormwater treatment system will consist of a biofilter raingarden, and the city will use habitat alteration to exclude waterfowl.
- **Rochester:** \$70,000 to work with the Towns of Mattapoisett, Fairhaven, Marion, and Acushnet, along with the Buzzards Bay Coalition, to purchase and permanently protect 240 acres of land important to protect the Mattapoisett River Valley aquifer.
- **Mattapoisett:** \$35,000 to establish a strategic master plan for stormwater management in the Shipyard Lane area. Stormwater runoff from this area discharges into Mattapoisett Harbor and contributes to shellfish bed closures.
- **Mattapoisett:** \$35,000 to work with the Mattapoisett Land Trust to purchase and permanently protect two parcels of undeveloped land totaling 14 acres in the Brandt Island Cove area of Mattapoisett. The properties consist of forested wetlands and upland coastal forest and habitat for rare species.
- **Westport:** \$30,000 to work with the Buzzards Bay Coalition to purchase and permanently protect 25 acres of land associated with the headwaters of Snell Creek. This stream is one of a handful of cold-water streams in Westport that support a native population of sea run brook trout.
- **Fairhaven:** \$25,000 to work with the Buzzards Bay Coalition to permanently protect 9 acres of land that provide a key upland buffer to wetlands and that protect important wildlife habitats. The land will be open to the public for passive recreational purposes and will provide coastal public access.
- **Carver:** \$12,500 for support for tasks to achieve town compliance with their federal stormwater permit (MS4).



## Buzzards Bay Stormwater Collaborative

The NEP launched the Buzzards Bay Stormwater Collaborative in 2016, as a partnership between the NEP, the Buzzards Bay Action Committee, and five municipal public works departments (Dartmouth, Acushnet, Fairhaven, Mattapoisett, and Wareham). This start-up was funded by a U.S. EPA Region I Healthy Communities grant to help map stormwater infrastructure and monitor stormwater discharges, and to use this information to help prioritize municipal efforts to manage stormwater. In 2018, with SNEP funding from the NEP, the Stormwater Collaborative expanded through a new partnership with the Massachusetts Maritime Academy (MMA). This new initiative added three additional municipalities (Westport, Marion, and Bourne), and expanded the program to include illicit discharge detection investigations. These activities are required under municipal stormwater permits with the EPA (MS4 permits) and are also among the costliest tasks for towns to undertake. Massachusetts DEP also provided funding to the Stormwater Collaborative IDDE field investigations trailer, which is shared among the municipalities.



*Co-op students deploying the camera inspection system (left), and finishing an assignment (right).*

Under the Stormwater Collaborative partnership, the NEP guides participants, provides data management support, manages the online interactive map, and funds laboratory testing and MMA administrative costs. The MMA provides staff support and co-op and work-study students, who work directly with the municipalities and conduct field investigations and collect water samples. Municipalities fund the students participating in the program. Municipalities also provide in-kind services of the public works staff who participate in the investigations and provide access to infrastructure and traffic control where needed. Students participating in the Stormwater Collaborative meet the college's environmental degree requirements for co-op experience and develop practical skills they can apply in their careers.



Visit the Buzzards Bay Stormwater Collaborative: Interactive Map at [stormwater.buzzardsbay.org/newmap.html](http://stormwater.buzzardsbay.org/newmap.html).

## IDDE Investigations Trailer

Municipalities must implement Illicit Discharge Detection and Elimination (IDDE) programs under their MS4 permit to eliminate the discharge of non-stormwater sources like illegal sewage connections and unpermitted tie-ins. The Stormwater Collaborative discharge investigations trailer, funded by MassDEP, helps municipalities meet their stormwater management obligations. IDDE consist of stormwater sampling, infrastructure mapping, and catchment inspections and is one of six components of the MS4 permit. The discharge investigation trailer provides the tools to perform comprehensive stormwater network evaluations with the purpose of detecting illicit connections and inspecting structures. The trailer includes a variety of equipment such as a smoke generator, water quality testing equipment, and a camera for pipe inspections. Often, IDDE is an expensive and daunting task for municipalities. The Stormwater Collaborative provides a cost-effective solution for municipalities participating in the Collaborative, while creating educational and real-life experience to college students.

