

## **EPA'S CORE WORK CLEAN WATER**

### **PROTECTING IMPROVEMENTS IN WATER QUALITY**

Congress gave EPA responsibility for keeping America's rivers, lakes, streams and coastal waters clean and guaranteeing safe drinking water under various federal laws. EPA's management of these laws has resulted in substantial improvements that protect people's health when they turn on their drinking water taps or fish, boat and swim. Among these laws are:

- The Clean Water Act, as amended in 1972, requires factories and municipal wastewater treatment plants to obtain permits when they discharge pollutants into bodies of water. Under the act, EPA has implemented pollution control programs and set water quality standards for contaminants in surface waters.
- The 1974 Safe Drinking Water Act protects the quality of drinking water that comes from rivers, lakes and underground aquifers. The act authorized EPA to set health-based standards to protect tap water and requires the local entities that supply drinking water to the public to comply with them.
- The Marine Protection, Research and Sanctuaries Act of 1972, which was amended in 1988 and is known as the Ocean Dumping Ban Act, prohibits the transportation and dumping of material that will unreasonably degrade or endanger people's health or the marine environment.
- The Beaches Environmental Assessment and Coastal Health Act (BEACH Act), which amended the Clean Water Act in 2000, was designed to reduce the risk of disease from pollution in coastal recreational waters.

**Protecting the Nation's Waterways** – Between the Atlantic and Pacific Oceans, there are over 3.5 million miles of rivers and streams that travel through every state in the nation. EPA is responsible for protecting freshwater rivers, lakes and streams; 28 estuaries where freshwater from rivers and streams mixes with salt water from the sea; and coastal and ocean ecosystems and their watersheds and wetlands. EPA regulates and monitors ocean dumping and discharges from vessels, works to reduce trash in the oceans and marine debris, sets controls on polluted runoff and restores polluted waters considered "impaired" because they don't meet water quality standards.

- **Restoring Water Quality** – Many rivers, lakes and streams meet the definition of "impaired" and need significant efforts to stem further deterioration. They are a sad legacy from the days before Congress directed EPA to protect water quality. EPA issues rules to control pollution from factories, wastewater treatment plants and other large sources of pollution, while states establish and EPA approves standards for water quality. EPA and states then issue permits to enforce those standards. Where those measures are insufficient, EPA sets "total maximum daily loads," the amount of a pollutant allowed in a water body, and uses them to set goals and develop plans to return the waters to their original healthy states.
- **Valuing our Estuaries** – Over one half of the U.S. population lives in coastal areas, home to numerous creeks, inlets and bays. As of 2012, these areas provided over 80 percent of all U.S. jobs and contributed \$13 trillion to the U.S. economy through tourism, fisheries and recreation. The EPA National Estuary Program works with businesses, states, localities and other partners to be sure that pollution does not prevent healthy swimming, fishing and other recreational activities; restores millions of acres needed for fish and wildlife habitats, recreation and commercial fishing;

and works to eradicate non-native plants, shellfish and other species that threaten to overcome native species. Examples of prominent estuaries with significant population centers include Buzzards Bay, Long Island Sound, Puget Sound and San Francisco Bay.

- **Safeguarding Drinking Water** – Water is essential to life, but we rarely think about where it comes from and why (unlike many parts of this world) our tap water is usually safe to drink. One of EPA’s many responsibilities is making sure that water from underground aquifers and rivers, lakes and streams are free of chemical contamination and bacteria, viruses and cysts that can cause diarrhea and other waterborne illnesses.
  - EPA uses science to identify which drinking water contaminants to regulate and sets limits on the amounts of contaminants allowed in public drinking water supplies. EPA directs public water utilities to publish annual drinking water quality reports; this makes it easier for individuals and families to know whether the water in their communities is safe.
  - Millions of people get their drinking water from rivers, lakes and streams that are impacted by the runoff of nitrogen and phosphorus from agriculture, wastewater discharges, fertilizers and even pet waste when it rains. Runoff can cause algae blooms containing toxin-creating bacteria that can contaminate drinking water. In October 2017, 700 square miles of the western basin of Lake Erie was covered in an algae bloom, threatening the water supply for almost three million people who get their drinking water from the lake’s central basin.
- **Protecting and Restoring Wetlands** – Wetlands, which are areas covered all or part of the time by water, protect and improve water quality, provide critical habitat for fish and wildlife, store floodwaters and keep surface water flowing during dry periods. EPA helps states and tribes monitor and assess the quality of their wetlands and develop plans to protect or restore them. EPA also plays an important role, along with the U.S. Army Corps of Engineers and other federal agencies, in regulating how wetlands can be used and what materials can be discharged into them.

**Controlling Ocean Dumping** – Historically, the ocean was used to dispose of chemical, industrial and radioactive waste, trash, munitions, sewage sludge and contaminated materials dredged from coastal shorelines on the theory that “dilution is the solution to pollution.” Uncontrolled dumping contaminated some areas of the ocean with high concentrations of heavy metals, nutrients and petrochemicals, causing the depletion of oxygen needed to sustain life for fish and other marine organisms. One such place is the economically critical New York-New Jersey Harbor. Since 1972, when Congress passed the Marine Protection, Research and Sanctuaries Act, EPA has had responsibility for controlling ocean dumping. Today, as a result of agency actions, U.S. coastal waters are healthier, fish and other organisms have returned to their habitats and the disposal of dredged material is managed safely.

**Supporting Rural Communities** – Some rural communities in Alaska and along both sides of the U.S.-Mexico border still do not have basic drinking water and sanitation infrastructure such as flush toilets and running water. In the past, EPA has provided funds for drinking water and wastewater treatment projects in these communities. The infrastructure built with these funds is critical to reducing people’s contact with raw sewage and drinking water contaminants that expose them to waterborne disease and other health conditions.