

# **BEACHES/NO DISCHARGE AREA STRATEGIES**

## **ENVIRONMENTAL CONDITION AND PROGRESS**

EPA and the New England states have invested heavily in beach monitoring, including \$7.2 million in federal grant funds since 2001. Over the past six years, the number of beaches monitored during the swimming season has doubled from 400 to nearly 800.

This expanded monitoring reveals that a significant number of our beaches still experience chronic contamination problems. From 2004 to 2006, nearly one hundred of New England's beaches were closed or had advisories for ten or more days. The monitoring program has drawn public attention to this problem, and highlighted the need to identify and resolve the causes of contamination. Coastal beaches are among the most treasured natural resources in New England, and beach closures restrict New Englanders' access to the shore, often on the hot summer days when they most want to use it.

## **STRATEGIES AND CHALLENGES**

### **Strategies**

**Strategy for Beaches with Chronic Closures** - In 2007 and 2008, EPA New England is working closely with state and local officials toward the elimination of chronic beach closures across New England. We developed a strategy that (1) clearly identifies target beaches and communities; (2) leverages and aligns existing state and federal water quality programs (e.g., infrastructure, CSO/SSO, septic systems, permits, storm water, TMDL); (3) designates a lead agency for each target beach and the most appropriate roles for federal, state and local authorities; (4) develops and executes aggressive plans to remove sources of contamination; and (5) builds public support to fund necessary improvements. The current beach monitoring program positions us well to measure the impact of our strategy. To date, we have met with Massachusetts, Rhode Island, and Connecticut state agencies as well as the city of Warwick to begin developing action plans in priority communities with chronic beach closures. This fall we will continue meetings with states and local community officials. EPA is also developing a list of EPA assistance and potential funding sources to share with local officials.

**Beach Grants** - Under the Beach Act, the Region awarded approximately \$1.15 million in beach grants to the five coastal states, which brings the total to about \$7.2 million in Beach Act funding since FY01.

**Impairment Detection and Remediation** – In 2007, EPA conducted a preliminary sanitary survey at Grace Oliver beach in Marblehead, MA, and continued the survey begun in 2006 at Cohasset Harbor. EPA's Laboratory conducted the enterococci laboratory analyses, and some co-located optical brightener analyses from both sites. EPA also continued to provide technical assistance to state and local beach managers

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doing similar work at other priority beaches. EPA also will continue to take enforcement actions in communities with discharges causing major problems at beaches.

**Technical Assistance** - At the 2007 NEIWPC Nonpoint Source Workgroup meeting on May 21-23 in Newport, RI, a significant portion of the meeting focused on eliminating nonpoint sources of bacteria that contribute to beach closures and including a case study that focused on pollution problems at Newport beaches. EPA encouraged state and local beach managers to attend, and to utilize Beach Act grant funds for travel to facilitate attendance. In addition, EPA continues to attend state beach managers meetings and conferences, including the Maine Beach Conference June 22 and the Connecticut beach managers meetings in May and October.

**Advanced Research** - EPA's Chelmsford Lab developed a rapid indicator method to detect bacteria; staff completed a pilot study at Boston Harbor beaches that showed this new method has promise. An additional study is in progress to demonstrate the utility of this method for daily beach monitoring. In addition, EPA's Lab is developing a real-time PCR quantitation and differentiation procedure to determine the relative contribution of human versus non-human fecal contamination. We will share the results of these studies with the states. In 2007, EPA will be working with ORD to develop a regional method for optical brighteners to aid state and local authorities in identifying the presence of human sources of pollution.

**No Discharge Areas** - The Region will continue to implement its No Discharge Area Strategy, the goal of which is to designate most of New England's coastal waters as no discharge by 2010 to reduce vessel sewage discharges that may contribute to beach (and shellfish bed) closures. In June 2007, EPA approved the Branford to Greenwich, CT no discharge area. Connecticut became the third state in the country, along with Rhode Island and New Hampshire, to designate all its waters as a no discharge area. Other existing NDAs include Buzzards Bay, Nantucket, Plymouth/Duxbury/Kingston harbors, and several of the harbors on Cape Cod in Massachusetts, and Casco Bay in Maine. To date we have designated 1,729 miles of the New England coastline (or 37%) as NDA. EPA is working with state and local partners to increase the availability of pump-outs and accelerate NDA designations for the remaining coastal waters in Massachusetts and Maine. EPA hired an intern this summer to assist the states and communities with collecting data for their no discharge applications. NDA applications currently are being prepared for Cape Cod Bay, Salem Sound, Boston Harbor, and Cohasset/Scituate/Marshfield, with planning efforts underway for other areas. This City of Boston is leading an effort with other Boston Harbor municipalities to submit a comprehensive NDA application for the Harbor.

### **Challenges**

Key challenges include the following:

- Identifying the sources of pollution leading to the beach closure, particularly when non-point sources are involved.

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- Crafting and executing solutions to non-point source dominated beaches.
- Securing adequate funding to implement remediation at beaches with chronic closures. (Note: BEACH funds currently cannot be used to assist communities with removing contamination sources.)
- Identifying funding for extensive infrastructure improvements.
- Developing and expanding improved test methods for measuring the water quality at beaches and for identifying the sources of bacteria.



EPA New England joins the New England states and their local communities in a Clean Beach initiative.

### **What is EPA's Beach Initiative?**

The goal of the Beach Initiative is to protect public health by reducing pollution levels that cause beach closures in New England. This year we revised this goal to include eliminating chronic beach closures. To help meet this goal, we will work closely with existing federal and state water quality programs to focus their efforts in communities experiencing chronic beach closures. We will work with state and local beach managers to develop and execute aggressive plans to remove sources of contamination, and build public support to fund necessary improvements.

### **Why do we need to reduce pollution at New England's Beaches?**

Polluted runoff and untreated sewage can contain bacteria, viruses and protozoa that cause illnesses such as gastroenteritis or hepatitis. Beaches are closed, or advisories posted, when bacteria levels -- which indicate the potential presence of fecal contamination -- exceed acceptable levels. One in four New England freshwater and coastal beaches are closed or posted at least once in a typical year. In the summer of 2006, coastal beaches were cumulatively posted for over 2,000 days at the 800 regularly monitored beaches. Nearly 100 of New England's beaches were closed or had advisories for a total of ten or more days over the last three years.

### **How are EPA and the New England states accomplishing this goal?**

- EPA has awarded coastal New England states over \$7 million to develop and implement beach monitoring, assessment and public notification programs.
- EPA and state officials are providing technical assistance to communities to identify and control sources of fecal contamination from storm water and other pollutant sources.
- We established "Flagship Beaches," which are high-use beaches selected by each state as models for targeted pollution assessments, enhanced monitoring and improving water quality.
- We promote the use of high quality monitoring and assessment methods and support the investigation of new molecular technologies.
- We encourage and involve the public and communities in education, monitoring and advocacy.

### **What has the Beach Initiative accomplished since 2001:**

- The number of coastal beaches with water quality monitoring has almost doubled to over 800 beaches.
- All priority coastal beaches in New England have been assessed and potential pollutant sources mapped.
- State and municipal environmental and health agencies are working with communities with chronic water quality problems to develop an action plan to identify and eliminate sources of pollutants.
- Water quality has improved at several beaches throughout New England due to remediation of pollution sources. Thousands of beach-goers are notified of water quality conditions through various media.

## **What's Happening at the Flagship and other beaches?**

	<b>Flagship Beaches 2007</b>	<b>Recent Accomplishments of the Beach Program</b>
CT	- Rocky Neck State Park, East Lyme - Ocean Beach Park, New London	Walnut Beach in Milford, a 2005 NRDC "Beach Bum" became a 2006 NRDC "Beach Buddy" based on the town's efforts to improve storm water systems and improve water quality.
ME	-Ferry Beach State Park, Saco -Wells Beach, Wells	With the town of Biddeford, the Maine Healthy Beaches Program identified and mapped potential sources of pollution including overboard discharges and combined sewer overflows. Old clay and tile pipes have been replaced with modern materials.
MA	-Willows Pier, Salem -Wollaston Beach, Quincy -Ryder Street Beach, Provincetown	The MA DPH completed sanitary surveys at all three flagship beaches. The City of Quincy and MA DCR are funding improvements to sewer lines and catch basins at Wollaston Beach.
NH	- Hampton Beach State Park	NH Beach Inspection Program and the <i>Blue Ocean Society</i> "Adopt-a-Beach" volunteers recorded monthly the types of debris and pollution at Hampton Beach.
RI	- Goddard Memorial State Park, Warwick - Warren Town Beach - Scarborough State Beach, Narragansett	A pilot study using volunteers from <i>Clean Ocean Access</i> collected samples in the fall of 2006 and winter of 2007 from Newport and Middletown beaches to determine whether surfers were exposed to elevated bacteria levels.

## **You can get involved in local beach improvement programs.**

- Properly maintain your septic system, pick-up after your dog, do not feed waterfowl.
- Encourage the development and implementation of your community's storm water management program (see [www.epa.gov/ne/npdes/stormwater/index.html](http://www.epa.gov/ne/npdes/stormwater/index.html)).
- Learn about water quality at your favorite beach and contact the local health department to ensure water quality is being monitored and problems are investigated.
- Report illicit discharges or connections to local and state officials.
- If you are a boater, use a pump-out facility for your boat sewage.
- Volunteer to monitor the water at your beach (see [www.epa.gov/owow/monitoring/volunteer](http://www.epa.gov/owow/monitoring/volunteer)).

## **For Beach Water Quality Information:**

**EPA New England:** [www.epa.gov/ne/eco/beaches](http://www.epa.gov/ne/eco/beaches)

**EPA National:** [www.epa.gov/beaches](http://www.epa.gov/beaches)

**CT:** [www.dph.state.ct.us/brs/ehs/recreation/beaches.htm](http://www.dph.state.ct.us/brs/ehs/recreation/beaches.htm)

**ME:** [www.mainehealthybeaches.org](http://www.mainehealthybeaches.org)

**MA:** [www.mass.gov/dph/topics/beaches.htm](http://www.mass.gov/dph/topics/beaches.htm)

**NH:** [www.des.state.nh.us/beaches](http://www.des.state.nh.us/beaches)

**RI:** [www.ribeaches.org](http://www.ribeaches.org)

**VT:** <http://healthyvermont.gov/enviro/water/recwater.aspx>



## Health Protection

Sewage wastes discharged from boats may degrade water quality by introducing microorganisms, nutrients, and chemical products into the marine environment.

- Microorganisms, which include pathogens like viruses, bacteria and protozoans may introduce diseases like hepatitis, and gastroenteritis to people in contact with the water, and can contaminate shellfish beds and cause beach closures.
- Nutrients are necessary for the growth of both microscopic and larger plants (seaweeds and eelgrass). However, when nutrients become too abundant they stimulate algae blooms which may lead to loss of eelgrass and depletion of oxygen in the water. Depletion of oxygen in water (called hypoxia) can stress and even kill fish and other aquatic animals.
- Chemical products can be toxic to marine and estuarine life and could pose a problem in areas where boats congregate and where there is little tidal flushing.

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**Complying with vessel sewage discharge laws and regulations and using pumpout facilities, are necessary steps in protecting public health, water quality and the marine environment.**

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## Marine Sanitation Devices (Boat Toilets)

Recreational boats are not required to be equipped with a toilet, but if they are, the Marine Sanitation Device (MSD) must be Coast Guard approved. The approved design holds sewage for shore-based disposal or treats the sewage prior to discharge. The three types of MSDs are:

**Type I** MSDs discharge treated effluent having a fecal coliform bacterial count not greater than 1000 per 100 milliliters of water and no visible floating solids.

**Type II** MSDs discharge treated effluent having a fecal coliform bacterial count of less than 200 per 100 milliliters and suspended solids not greater than 150 milligrams per liter.

**Type III** MSDs are devices designed to store sewage (usually with disinfectants and deodorants added) until it can be pumped out at a pumpout facility or discharged outside the territorial seas boundary of three miles from shore. These are commonly known as holding tanks.

- Vessels **65 feet and under** may install a Type I, Type II, or Type III MSD. Vessels **over 65 feet** in length must install a Type II or Type III.
- **Portable toilets or “porta-potties”** are not considered installed toilets and are not subject to the MSD regulations. They are however, subject to the **disposal regulations**, which prohibit the disposal of raw sewage within the 3 mile limit or territorial waters of the United States, the Great Lakes or navigable rivers.

- Shellfish beds are closed when fecal counts exceed 14 per 100 milliliters (this is the number of colony-forming units of fecal coliform per 100 milliliters—or about one teacup of water). Historically, swimming was not advised when fecal coliform counts exceeded 200 per 100 milliliters. Coastal recreational water standards are now based on enterococci bacteria, instead of fecal coliform. Swimming is not advised when enterococci densities exceed an average of 35 organisms per 100 ml (based on at least five samples over a 30 day period), or 104 organisms per 100 ml for a single sample.
- **Type III MSD’s and “porta-potties”** are the only sanitary equipment that can be used in a No Discharge Area.

## Managing Boat Waste in a No Discharge Area

When operating in a No Discharge Area Type I, Type II and Type III Marine Sanitation Devices can not be discharged. In No Discharge Areas, the US Coast Guard regulations state that MSDs Type I and Type II must be secured to prevent discharge.

Sufficient examples from the US Coast Guard to secure Type I and Type II MSDs include closing the seacock and padlocking it, using a non-releasable wire tie, using a door handle lock, or removing the seacock handle (with the seacock closed).



# **EPA New England No Discharge Area Implementation Plan 2005 - 2010**

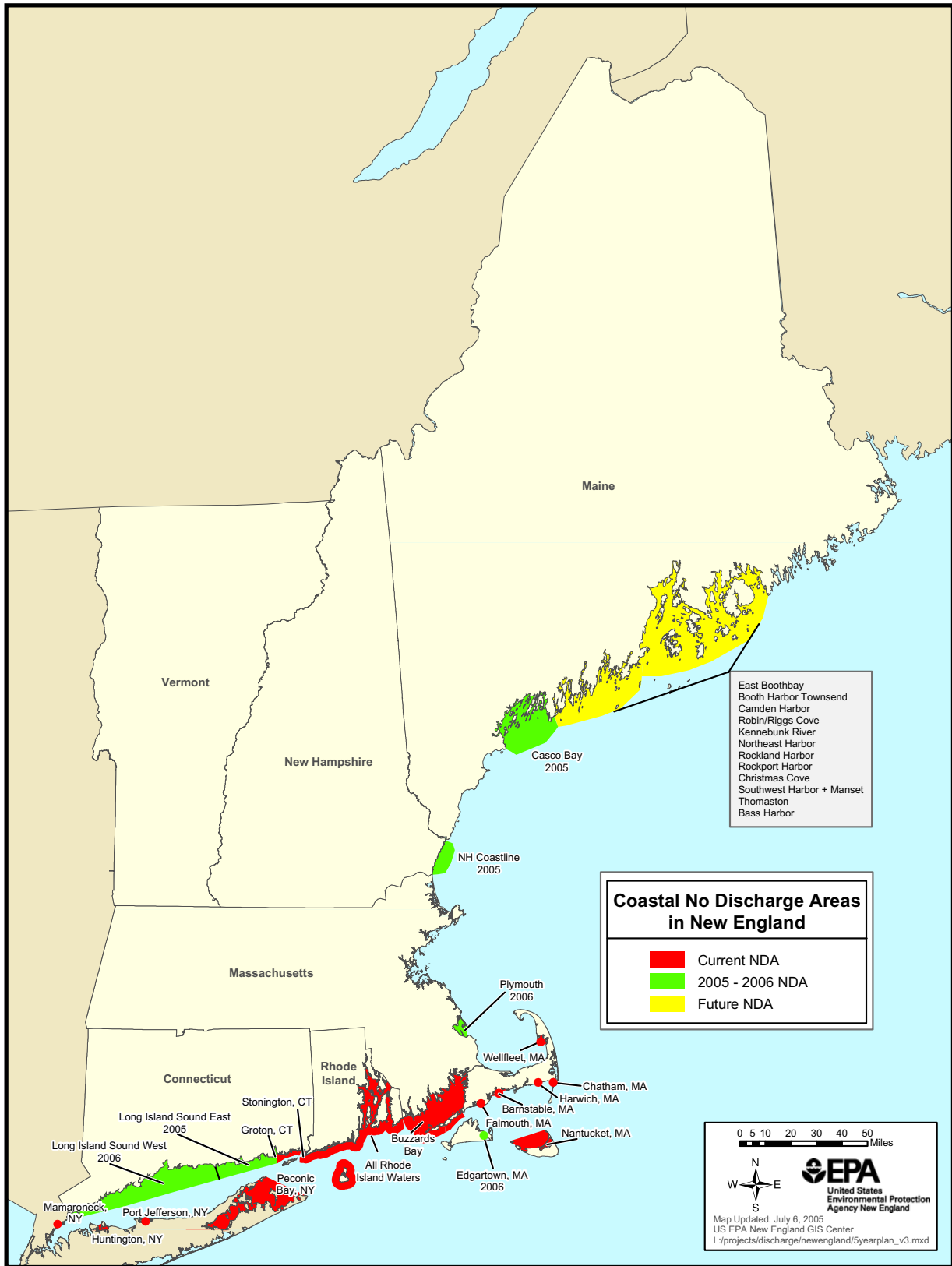


Photo Courtesy of ME DEP

**Ocean and Coastal Protection Unit  
August 2005**

[www.epa.gov/ne/eco/nodiscrg](http://www.epa.gov/ne/eco/nodiscrg)





## Goal

*Protect and improve public health and the marine environment by working with state and local governments to eliminate the discharge of sewage from vessels in all New England state coastal waters.*

## Objectives

*Eliminate the need for discharge of sewage to coastal waters by ensuring that all boaters have easy access to pump-out facilities.*

*Complete the designation of coastal waters not currently designated as “no discharge areas” by 2010.*

*22% at the end of 2004 (baseline)  
30% by the end of 2005  
35% by the end of 2006  
45% by the end of 2007  
55% by the end of 2008  
75% by the end of 2009  
100% by the end of 2010*

*Promote compliance with no discharge requirements through public education and enforcement.*

## Strategies

*Encourage state environmental commissioners to make designation of no discharge areas a priority for their agencies and staff.*

*Build public support for no discharge areas with outreach campaign involving various media.*

*Provide states and municipalities with the tools and information (including funding) necessary to develop and submit comprehensive no discharge area applications and pump-out grant proposals.*

*Assist states and municipalities in developing the institutional frameworks necessary to support effective public outreach and education programs and enforcement strategies.*

### **Recipe for a Successful No Discharge Area**

For a NDA to succeed in reducing vessel sewage discharges, the necessary infrastructure (pump-out facilities) and institutional frameworks (education and enforcement) must be in place. EPA cannot approve the application unless the state demonstrates that there are:

- A reasonably available number of pump-out facilities in the proposed NDA to meet the demands of recreational and commercial vessels using the area.
- A comprehensive boater and marina outreach and education program to encourage use of the pump-outs.
- An enforcement strategy that clearly describes local, state, and federal roles and responsibilities.

## Regional Status and Actions

### Current Status

New England is far ahead of any other region in the country in terms of both the number of individual no discharge areas (NDAs) and total area afforded this extra level of environmental protection, and is considered a national leader in this program. Section 312 of the Clean Water Act authorizes states to establish NDAs, but EPA must approve them based on its determination that there are sufficient sewage pump-out facilities to serve the area's boating population.

New Hampshire was one of the first states in the country to establish an NDA when it designated all its inland waters as no discharge in 1975, and Vermont followed shortly thereafter by designating Lake Champlain and Lake Memphramagog. These remain the only freshwater NDAs in New England, although there aren't many other inland waters in the region that are utilized by boats large enough to have marine sanitation devices, which is why the states have focused their efforts on coastal waters.

Wareham, on Buzzards Bay, and Nantucket became the first New England coastal NDAs in 1991 and 1992, respectively (see table below). Current NDAs in New England include all the coastal waters of Rhode Island; Buzzards Bay, Nantucket, and several of the harbors on Cape Cod in Massachusetts; and the Connecticut portion of Long Island

<b>Current New England Coastal No Discharge Areas</b>
<ul style="list-style-type: none"><li>• Nantucket, MA (1992)</li><li>• Waquoit Bay, MA (1994)</li><li>• Wellfleet, MA (1995)</li><li>• Chatham, MA (1997)</li><li>• Harwich, MA (1998)</li><li>• Rhode Island marine waters (1998) – incorporates Block Island (1993)</li><li>• Buzzards Bay, MA (2000) – incorporates Wareham (1991) and Westport (1994)</li><li>• Barnstable, MA (2001)</li><li>• Stonington, CT (2003)</li><li>• Groton/Mystic, CT (2004)</li></ul>

Sound from the Pawcatuck River to the Thames River. Approximately twenty-two percent of New England's coastline (1,095 miles of the 4,965 mile coastline) currently is no discharge, broken down as follows: Connecticut (50 miles of the 271 mile coastline), Rhode Island (all 605 miles of its coastline), Massachusetts (440 miles of the 1,784 mile coastline), New Hampshire (0 miles of the 71 mile coastline), and Maine (0 miles of the 2,234 mile coastline).

EPA anticipates designating New Hampshire coastal waters and a significant portion of Connecticut's coastline by the end of 2005, and Maine's Casco Bay, the remainder of Connecticut's coastal waters, Edgartown Harbor, and Plymouth/Duxbury Harbor in 2006. By the end of 2006, 100 percent of the coastal waters of Connecticut, Rhode Island, and New Hampshire, and numerous bays and

harbors in Maine and Massachusetts will be NDAs. However, because the combined coastline of Maine and Massachusetts is just over 4,000 miles, or about 80 percent of the New England coastline, this only will increase the percentage of coastline protected by NDAs from 22 percent to 35 percent.

Maine has a plan in place to complete designation of most of its coastal waters over the next several years. The plan has specific priority harbors/areas as well as a proposed schedule. EPA, however, will need to work closely with Maine and Massachusetts to overcome some infrastructure and legal barriers to accelerate their pace. Inside the front cover is a map that delineates the current NDAs, the areas EPA expects to designate within the next two years, and the remaining areas proposed for future designation.

One of the primary reasons New England is a leader in the NDA program is that the New England states have been very successful competing for Clean Vessel Act grant funds to support the installation of pump-out facilities, having received over \$17 million of the \$98 million awarded nationally (18%) since 1993 (see Attachment A for details on



Photo Courtesy of CT DEP

Mobile Pump-out



Photo Courtesy of ME DEP

Fixed Dock Pump-out

### Federal Clean Vessel Act (CVA)

The US Fish and Wildlife Service is authorized to award CVA grants to states to support the purchase, installation, maintenance, and operation of pump-out facilities. The states base the application for CVA grant funds on the demand generated by an annual competition for public and private marinas, boat yards and yacht clubs. Nationally, between 1993 and 2004 the CVA grant program provided \$98.5 million to states to support the installation of pump-out facilities and dump stations, as well as surveys, plans and education programs. Between 1993 and 2004, the availability of pump-out facilities in New England coastal waters has almost tripled. The accompanying table presents a comparison of the number of pump-outs available in 1993 and 2004.

State Coasts	1993	2004
Connecticut	30	91
Maine	16	72
Massachusetts	55	128
New Hampshire	3	6
Rhode Island	19	55
<b>Total</b>	<b>123</b>	<b>351</b>

funding and <http://www.epa.gov/ne/eco/nodiscrg> for a list of pump-out facilities in each state). This is important because EPA New England bases its approval of a NDA on its determination that there are sufficient pump-out facilities to serve boaters using the proposed area, using a rough formula of one pump-out facility per 300-600 boats of a size likely to have a sewage holding tank (generally 25-foot or more).

Boaters have responded very positively to the proliferation of pump-out facilities, as evidenced by the increase in both the number of times the facilities are used and the amount of sewage pumped out that otherwise probably would have been discharged into the water. A lot of data is available on pump-out use because the CVA grants require recipients to track this information as a condition of the grant. The table below shows how much sewage has been prevented from being discharged at two of the more popular boating destinations in New England.

<b>Gallons of Sewage Pumped Out</b>		
<b>Year</b>	<b>Block Island Harbors Dept.</b>	<b>Nantucket Boat Basin</b>
2000	88,900	57,190
2001	93,135	76,144
2002	106,615	81,835
2003	111,570	110,000
2004	108,664	118,000

While EPA New England is well positioned to complete the designation of most remaining coastal waters by the end of 2010, there are several constraints that go beyond staffing and financial limitations that may inhibit EPA and the states' ability to further accelerate the NDA process.

- The area proposed for designation must have an adequate number of pump-outs to meet the demand from the vessels using the area. While funding available through the Clean Vessel Act has led to a significant increase in the number of facilities in New England over the past decade, there are still areas, particularly in Maine, that don't have enough pump-outs now and probably won't for a few more years based on current Clean Vessel Act funding levels and the states' capacity to administer these funds.
- Commercial shipping interests have mounted serious opposition to NDA designations in some states, particularly Connecticut and

Massachusetts, because most commercial vessels have a Type II MSD (treat and release) that would have to be secured and locked while in NDA waters or replaced with a Type III (holding tank) to comply with NDA requirements, and there are an insufficient number of pump-out facilities for commercial vessels (see Attachment B).

- The ability to enforce compliance with NDA requirements is hindered by a combination of increased security responsibilities on the part of the Coast Guard and insufficient state and local authority and resources to enforce.
- Peak boating activity is limited to the period between Memorial Day and Labor Day, so most of the states' data collection efforts and EPA's verification of the adequacy of pump-out facilities are limited to this three-month period when the pump-outs are operational.
- Poor weather in late spring and early summer sometimes delays the beginning of the boating season (as it did in 2003), which further reduces the window within which EPA can verify the maximum boating population.

<b>Components of a No Discharge Area Application</b>
A description of the waterbody and surrounding resources.
A map showing the location of commercial and recreational pump-out facilities.
A description of the location of pump-out facilities.
The general schedule of operating hours of the pump-out facilities.
The depth of water at the pump-out facilities.
Documentation that treatment of wastes from pump-out facilities conforms with Federal law.
Information on vessel population and vessel usage of the subject waters.
A description of the education and outreach program.
A description of the enforcement strategy.

The following section describes actions that EPA will take at the Regional level to facilitate and accelerate the designation of coastal waters not currently designated as NDAs.

**Actions**

- EPA New England will share this implementation plan with the coastal states for review and comment. **(Ongoing)**
- By September 1, 2005, the Regional Administrator will send letters to the environmental commissioners of the five coastal states citing the importance of no discharge areas and encouraging the states to accelerate the NDA application process for coastal waters not currently designated.



- EPA will write and disseminate to coastal state newspapers op-ed articles promoting the designation and enforcement of no discharge areas, and will issue press release to announce Federal Register notices for NDA applications and final determinations. **(Ongoing)**
- By June 30, 2005, EPA will produce a NDA brochure for distribution to participants in the states' Clean Marina Programs, Marine Trades Associations, U.S. Coast Guard Auxiliary, environmental groups, and others. **(Completed)**
- Ocean and Coastal Protection Unit staff will continue to provide technical assistance to coastal state and local governments in the development of NDA applications. The Ocean and Coastal Protection Unit will reassign and shift staff resources as necessary to expedite the review and approval of applications. **(Ongoing)**
- OEP may request assistance from the Office of Regional Counsel on legal issues related to establishment and enforcement of NDAs.
- EPA will work closely with the U.S. Fish and Wildlife Service (USFWS) to target Clean Vessel Act (CVA) funding for pump-out facilities to areas, particularly in Maine and Massachusetts, that are not currently designated as NDAs and that are proposed for NDA designation within the next several years.



**KEEP OUR  
WATER CLEAN—  
USE PUMPOUTS**

The following sections describe the status of NDAs and actions necessary to complete the designation of coastal waters for each New England state, from north to south (see map).

## **Maine Status and Actions**

### **Current Status**

There currently are no NDAs in Maine's coastal waters, but the Maine Department of Environmental Protection (ME DEP) recently submitted an NDA application for Casco Bay and hopes to have the designation in place before the 2006 boating season. Maine initiated its public outreach education campaign by holding two public meetings in the early winter of 2004 and the Governor held a press conference in August 2005 to announce the NDA application for Casco Bay.



ME DEP developed a *State Of Maine Coastal Pump-out Plan, 2001-2005*, which evaluated approximately 350 harbors and prioritized 100 of them for future NDA designation. The plan describes the ranking formula and criteria for prioritizing harbors, the top 100 harbors prioritized for NDA designation, and the infrastructure necessary to support NDA designations. The ME DEP also prepared a report, *Pump-out Plan Report and Proposed No Discharge Areas*, for the legislature that recommended not seeking a statewide NDA designation, but rather designating certain priority harbors over a five-year period beginning in 2004. ME DEP is using Casco Bay as its pilot NDA, and plans to follow up with applications for other coastal areas based on its experience with this effort.

Maine also has been focusing on large commercial vessels and has recently enacted legislation applicable to commercial passenger vessels such as cruise ships. It provides for future rulemaking and issuance of a general permit for the discharge of gray water, and mixtures of gray water and sewage, from large commercial passenger vessels.

### **Actions**

- In 2005, Ocean and Coastal Protection Unit staff will continue to provide technical assistance to ME DEP with the development of its NDA application.
- By April 1, 2006, EPA will designate Casco Bay as a NDA.
- EPA will work with ME DEP to review the state's *Pump-out Plan Report and Proposed No Discharge Areas* to identify potential areas where NDA designation can be accelerated.
- EPA will work with the USFWS and the state to target CVA grant funds to coastal areas proposed for NDA designation over the next several years.
- EPA will continue to work with ME DEP and other agencies and organizations to address concerns raised by commercial vessel operators about the insufficiency of pump-out facilities for commercial vessels.

## **New Hampshire Status and Actions**

### **Current Status**

There currently are no coastal NDAs in New Hampshire, but the New Hampshire Department of Environmental Services (NH DES) has

submitted a NDA application for all its coastal waters EPA plans to publish a public notice in the Federal Register on July 8, 2005, requesting comments on the state's petition. NH DES initiated its public education program by holding its first public meeting in August, 2004, and has included an enforcement strategy as part of its application.

### **Actions**

- In 2005, Ocean and Coastal Protection Unit staff will continue to provide technical assistance to NH DES with the development of its NDA application.
- By September 30, 2005, EPA will designate all New Hampshire coastal waters as a NDA.

## **Massachusetts Status and Actions**

### **Current Status**

Massachusetts was an early leader in the designation of NDAs, and continues to make this a priority for protecting coastal water quality. The first New England coastal NDA, for the coastal waters of Wareham, in Buzzards Bay, was designated in 1991 and the coastal waters of Nantucket from Muskeget Island to Great Point (including Nantucket Harbor) were designated in 1992. Since then, all of Buzzards Bay, Waquoit Bay in Falmouth, the coastal waters of Harwich, Three Bays/ Centerville Harbor in Barnstable, Stage Harbor in Chatham, and Wellfleet Harbor have received NDA status.

In Massachusetts, NDA applications are developed and submitted by municipal officials (harbor masters, town selectmen, and mayors), with the Office of Coastal Zone Management (MA CZM) providing technical assistance. Currently Massachusetts is working to clarify and strengthen NDA enforcement regulations to support harbormasters that patrol NDAs. Massachusetts State Representative Bill Strauss has introduced legislation that would clearly define the role of harbormasters and other coastal police officers in enforcing NDAs in the state. MA CZM is coordinating an effort by the towns of Plymouth, Kingston, and Duxbury to develop a NDA application for their coastal waters that they plan to submit in 2006. The town of Edgartown on Martha's Vineyard also is pursuing a NDA designation for its coastal waters, and is working with EPA staff to prepare a NDA application and submit it in 2006.

## **Actions**

- In 2005, Ocean and Coastal Protection Unit staff will continue to provide technical assistance to MA CZM and coastal municipalities with the development of NDA applications.
- By December 31, 2006, EPA will designate Plymouth/Duxbury harbor as a NDA.
- By December 31, 2006, EPA will designate Edgartown Harbor as a NDA.
- In his letter to the state environmental commissioner, the Regional Administrator will emphasize the need to pass NDA enforcement legislation and offer legal assistance, if necessary.
- EPA will work with the USFWS and the state to target CVA grant funds to coastal areas proposed for NDA designation over the next several years.

## **Rhode Island Status and Actions**

### **Current Status**

Rhode Island is the only state in the country with all of its marine waters designated as a NDA. Great Salt Pond on Block Island was designated as a NDA in 1993 and all other coastal waters in Rhode Island were designated in 1998. The state recently passed legislation requiring mandatory inspections of all vessels with marine sanitation devices (MSDs) beginning in 2006. The Rhode

Island Department of Environmental Management (RI DEM) is the lead agency for administering the NDA program, and the Coastal Resources Management Council and Marine Trades Association also play active roles.



Photo Courtesy of CT DEP

## **Actions**

- Ocean and Coastal Protection Unit staff will provide technical assistance to the RI DEM and other state agencies and organizations with the development and implementation of its new inspection program, and monitor its effectiveness as a potential model for other states.

## **Connecticut Status and Actions**

### **Current Status**

Connecticut's coastal waters from the Rhode Island border (Pawcatuck River) to the Wamphassuc Point in Stonington were designated as a NDA in June 2003, and its coastal waters from the Wamphassuc Point in Stonington to the Eastern Point of the Thames River in Groton were designated in October 2004. Both designations received strong support from area boaters, marinas, and local officials.

The Connecticut Department of Environmental Protection (CT DEP), Office of Long Island Programs (OLISP) is the lead agency for establishing no discharge areas and administering the CVA grant program. CT DEP has submitted to EPA for its review a preliminary draft application for the coastal waters from the Thames River to Guilford, and plans to submit a final application by late summer. CT DEP plans to prepare and submit an application for the remaining coastal waters from Guilford to the New York border in 2006.

### **Actions**

- In 2005, Ocean and Coastal Protection Unit staff will continue to provide technical assistance to CT DEP with the development of NDA applications.

Photo Courtesy of ME DEP



- EPA will continue to work with CT DEP and other agencies and organizations to address concerns raised by commercial vessel operators about the insufficiency of pump-out facilities for commercial vessels.
- EPA will continue to work with CT DEP and NOAA National Marine Fisheries Service to address concerns raised by NOAA about the inability of its survey vessel, the Rudi, to comply with NDA requirements.
- By December 31, 2005, EPA will designate Connecticut coastal waters from the Thames River to Guilford as a NDA.
- By December 31, 2006, EPA will designate Connecticut coastal waters from the Guilford to the New York border as a NDA.
- EPA will work with the USFWS and the state to target CVA grant funds to coastal areas proposed for NDA designation over the next several years.

## **Summary**

EPA is well positioned to achieve its goal of “protecting and improving public health and the marine environment by eliminating the discharge of sewage from vessels in all New England state coastal waters” within the next few years, with all of three states’ coastal waters attaining NDA status by the end of 2006 and remaining waters designated by 2010. While it is the responsibility of the states and local governments to initiate the NDA process, collect the data, and prepare the application, EPA staff have worked closely with the state program coordinators over the past 14 years and will continue to do so. EPA has provided technical and financial assistance and encouragement to the states and has been proactive in the pursuit of its goal.

# Attachment A

## Clean Vessel Act Funding FY93-04

State	Total	FY04	FY03	FY02	FY01	FY99	FY98	FY97	FY96	FY95	FY93-94
CT Coast	\$5,324,896	\$764,652	\$874,000	\$207,000	\$692,000	\$463,000			\$594,000	\$397,200	\$120,000
CT Inland	\$108,682	\$108,682					N	\$586,000			
ME Coast	\$1,611,137	\$261,997	\$239,557	\$233,451	\$217,000	\$183,000	O				
ME Inland	\$19,301				\$19,301						
MA Coast	\$8,037,559	\$743,350	\$371,898	\$526,000	\$875,000	\$784,000	F	\$655,000	\$940,000	\$578,108	\$1,359,975
MA Inland	\$60,000								\$50,000		
NH Coast	\$354,606	\$58,830	\$52,678	\$50,300	\$42,000	\$40,000	N	\$10,000			
NH Inland	\$249,148	\$20,170	\$22,678	\$20,300	\$58,000	\$42,000	D	\$56,000			
RI Coast	\$921,990			\$168,000	\$146,000	\$80,000	I	\$360,000			\$362,890
RI Inland	\$0								\$27,848		
VT	\$617,240		\$44,840		\$50,000			\$19,000	\$158,100	\$158,100	\$419,400
Total Coast	\$16,250,188	\$1,828,829	\$1,538,133	\$1,184,751	\$1,972,000	\$1,557,000		\$1,297,000	\$1,700,000	\$1,161,248	\$2,133,115
Total Inland	\$1,054,371	\$128,852	\$67,518	\$20,300	\$58,000	\$186,000		\$65,000	\$50,000	\$0	\$0
Total NE	\$17,304,559	\$1,957,681	\$1,605,651	\$1,205,051	\$2,030,000	\$1,683,000	G	\$1,362,000	\$1,750,000	\$1,161,248	\$2,552,515
Total Nat'l	\$98,506,409	\$10,865,483	\$10,000,000	\$10,103,243	\$9,933,934	\$9,400,000		\$9,400,000	\$9,400,000	\$7,076,905	\$11,726,844
NE % of Nat'l	18%	18%	16%	12%	20%	18%		14%	19%	16%	16%

22%

# Attachment B

## Commercial Vessel Issues

Commercial vessel operators, and specifically the tug and barge industry as represented by the American Waterways Operators Association (AWO) has expressed strong concerns with NDA designations. EPA New England staff became aware of their issues in 1997, and since then have met several times with the executive director and some Northeast members. AWO also has been in contact with EPA Region II and EPA headquarters, and has presented several options to challenge EPA on the designation of waterbodies with significant commercial vessel traffic, including:

1. Litigation against EPA on the geographic scope and availability of pump-outs that can accommodate tugs and barges.
2. Seeking federal legislation that permits the use of Type II MSD in NDAs.
3. Promoting regulatory requirements prohibiting EPA from designating NDAs unless it conducts a cost/benefit analysis comparing the cost of compliance by commercial vessels with the benefit to public health and the environment.
4. Seeking an administrative remedy against an EPA Region II designation AWO felt was "arbitrary and capricious" and requiring EPA to complete an analysis of NDA programs nationwide.

AWO has aggressively argued against EPA designations, particularly for Buzzards Bay in 2002, and the Hudson River in 2003. The final determination for the Hudson River designation states, *"...with the exception of commercial vessels that are greater than 225 feet in overall length or are greater than 20 feet in draft....For vessels that are greater than 225 feet in overall length or are greater than 20 feet in draft, the prohibition will be applicable one year from the date of publication in the Federal Register"*

The publication date of the Hudson River designation was in 2003 and to our knowledge no actions have been taken in the Hudson River.



## **National Issues**

There are several issues concerning NDAs at the national level. These include, but are not limited to: national guidance on NDA designations;

surveys to ascertain the effectiveness of NDAs; a recent Government Accounting Office report; other federal agency jurisdictions, and the concerns of members of congress and commercial vessel operators.

### **Guidance**

EPA headquarters is in the process of revising the national guidance document published in 1994. The workgroup comprises Regional and Headquarters staff. Due to shifting priorities at HQ, monthly conference calls and work on the guidance revisions have subsided. EPA New England guidance and the national guidance has been distributed to all of our regional states.

The regulations for MSDs are thirty years old, and outdated with respect to advances in treatment technology and availability of pump-out facilities. At the time the MSD regulations were written, there weren't a lot of treatment technologies available for boats. To remedy this, the USCG enacted a waiver to the MSD regulations which gave the marine industry time to manufacture affordable, effective sewage treatment systems, and gave boaters time to retrofit and/or update their MSDs with the new technology. MSD regulations need to be updated to reflect current available technology, and clearly written for the general public.

### **National Survey**

EPA headquarters contracted with Battelle to conduct a national survey to assess the implementation and effectiveness of NDAs, and EPA Regional staff participated in its development. Here in Region I the NDAs that were a focal point for the survey were Nantucket, Buzzards Bay, and Rhode Island. In these areas and others across the country, EPA surveyed 958 boaters, and 69 marina operators in 15 coastal and Great Lakes NDAs. There were also survey questions for states, the U.S. Coast Guard, MSD manufacturers, and independent accepted labs. In summary, the survey found that, *"...93% of boaters reported that they had no occasions in 2003 when they looked for but could not find a working pump-out or toilet dump facility in the NDZ. Only 9% experience trouble at a pump-out facility, 94% of the boaters knew the area was a NDA, and 97% knew that the discharge of treated and untreated sewage is prohibited in a NDA. 63% of marinas reported that their facilities were functional 100% of the time, and 33% that their*

*facilities were functional 75 to 99% of the time.*" This survey showed that boaters knew about NDAs and used pump-outs, and that the marina owners had pump-outs available to the boating public.

### **Government Accounting Office (GAO) Report**

In 2003, Senator Jim Saxton from New Jersey requested that the GAO investigate:

- EPA's process for determining whether states have adequate facilities for the safe and sanitary removal and treatment of sewage from boats in proposed NDAs;
- the extent to which EPA and the states ensure that adequate pump-out facilities remain available after a NDA is designated;
- the extent to which the Coast Guard and the states enforce compliance; and
- the effects of NDA the EPA, states and localities have reported.

The recommendations of the GAO report were to:

- ensure that EPA consistently collects and verifies information to develop site-specific estimates of the pump-out facilities needed;
- develop mechanisms to ensure the ongoing adequacy of such facilities;
- review enforcement roles;
- determine whether current enforcement is adequate;
- clarify the respective enforcement roles in EPA and Coast Guard guidance; and
- revise federal regulations, if appropriate.

### **Federal Agencies**

After discussing whether and how to delineate NDAs on nautical charts for the past seven years, EPA and the National Oceanographic and Atmospheric Administration (NOAA) have agreed to a process whereby EPA will supply the NDA coordinates and NOAA will revise their marine navigational charts as they are reproduced. NOAA nautical charts are revised and reproduced on cycles ranging from five to 20 years, depending on the popularity of the area, the amount of natural and

nautical changes in the area, and other criteria used by NOAA. NDAs will now be marked on all future marine charts produced and published by NOAA. The charts also will have an explanatory note describing what NDAs are and how to be in compliance.

The U.S. Coast Guard (USCG) has jurisdiction for the enforcement of NDAs, however, the USCG is not in a position to enforce this law. The resources of this agency are very limited due to national security and cut backs in their budget. The states of Maine, Rhode Island, and Connecticut and the USCG have signed Memoranda Of Understanding (MOU) describing their respective enforcement responsibilities. The MOU basically gives the states primary law enforcement responsibility concerning recreational vessels in state waters, and the USCG has exclusive responsibility for the enforcement of vessel inspection and related federal statutes to non-recreational vessels. The states may also enable local enforcement jurisdiction in town and state waters. There is overlap enforcement of the NDA regulations, and the local, state, and USCG must understand their specific responsibilities. These resources on all levels are limited.

The U.S. Fish and Wildlife Service (USFWS) is the federal agency that administers the Clean Vessel Act grants to support the purchase, installation, maintenance, and operation of pump-out facilities on the state level. Historically, USFWS CVA funds could not be used for NDA activities, specifically education material. EPA staff met with the USFWS Regional and Headquarters staff in the fall of 2004 to discuss how the CVA program could support the NDA program, and came to a verbal agreement that CVA funds would support state laws. This means that state and local authorities with a NDA in their jurisdiction may include NDAs in their education material and leverage CVA funds in support of current state laws (NDAs), however, CVA funds can not be used to promote NDAs. This is an agreement which has yet to be tested, but there are indications that NH may test the agreement in the spring of 2005.

### **Other Issues**

Over the past eight years, Congressman Saxton from New Jersey has introduced what has been called the Recreational Waters Protection Act, or the Saxton Bill. This bill seeks to weaken the NDA provisions of the Clean Water Act. In spring 2002 the U.S. House of Representatives Committee on Transportation and Infrastructure held hearings concerning this possible legislation, but it hasn't gone any further.