

Comprehensive Conservation and Management Plan Actions Floatables

F-1. Continue and enhance implementation of the successful short-term floatables action plan

Key Elements: There are many programs throughout the Harbor that have been contributing to a successful floatables action plan. One of the key aspects of this program is the EPA helicopter and NJDEP fixed wing surveillance overflights, the growing number of skimmer vessels operated by the City of New York and the Passaic Valley Sewerage Commissioners, and the USACE drift removal program. NJ Department of Environmental Protection also conducts a very successful Operation Clean Shores program. Control of floatables at their source is an ongoing issue, which is partly addressed by controlling the amount of debris that enters storm sewers and exits CSOs and stormwater outfalls.

Description of Activities to Date

The NYCDEP conducted an intensive floatables study between 1989 and 1991. Extensive field studies were conducted to identify: the major sources of floatable materials, the most severely impacted shoreline areas, and the transport of floatables from sources to shorelines. These studies characterized and quantified the debris that typically washes ashore and the floatables entering New York Harbor from the municipal sewer system, the solid waste handling system and other anthropogenic sources. (NYCDEP 2003)

In 2006, NYC DEP commenced The Pilot Floatables Monitoring Program. In 2008, this program transitioned into a full-scale Floatables Monitoring Program to track the condition of floatables in the Harbor. (NYCDEP—Kevin Au 2009, IEC—Boris Rukovets 2009)

EPA has coordinated the multi-agency (EPA, USACE, USCG, NOAA, IEC, NJDEP, NYSDOH, NYSDEC, NYCDEP) short-term Floatables Action Plan since 1989. The Plan is designed to identify and collect floatables slicks in the NY-NJ Harbor before they exit the Harbor and threaten beaches in Brooklyn, Staten Island, and Nassau County on the NY south shore of Long Island and the NJ bay and ocean beaches. EPA utilizes a helicopter throughout the summer months to identify slicks. This identification is relayed to the EPA Floatables Coordinator who then notifies the USACE. The USACE utilizes skimmer boats to collect the slicks.

EPA prepares an annual assessment of the Floatables Action Plan. In March 2008, EPA coordinated a meeting between Federal, State and local partners to discuss the roles and responsibilities for addressing the floatables debris in the New York Bight (includes NY-NJ Harbor and the shorelines of Long Island and New Jersey). The group also discussed latest capabilities of all available skimmer vessels and ways to improve communication and coordination between skimmer vessels. As a result of the meeting, in May 2008 EPA revised the Floatables Action Plan that now includes the participation of EPA, USACE, NOAA, USCG, NJ DEP, NYSDOH, IEC, NYCDEP, PVSC, NYCDOH and Nassau and Suffolk Health Departments.

Planned Activities: EPA will continue its coordination and helicopter surveillance roles, and will prepare an annual assessment.

(USEPA—Helen Grebe 2008, IEC—Boris Rukovets 2009)

The NJDEP is currently implementing a more aggressive long-term floatable control action plan in which NJ plans to have 100% floatable controls on all CSO discharge points. NJ has 250 CSOs in the Harbor Estuary Area and as of February 2009 approximately 83% of these CSOs have floatable controls on them.

Planned Activities: Floatable controls in the remaining CSOs are under construction.

(NJDEP—Dan Zeppenfeld 2009)

The "Clean Shores Program", covers the Hudson, Raritan and Delaware estuaries and barrier island bays year round since 1993, and is considered to be highly effective. Prior to 1993, the program was active only during the bathing season. In 1999, the program covered 182.4 shoreline miles compared to 138 miles in 1998 and only 24 miles in 1989 when the program was first initiated. This program is funded through the sale of Shore Protection license plates (NJDEP 2000). The work crew consists of work crew consists of inmates, supervised by state correctional officers and a site manager and woodcutter provided by the NJDEP. In 2008 the program removed 1,230 tons of floatables from 40 miles of shoreline that required 1,890 man-hours of work. (NJDEP—Thomas Harrington 2008).

Planned Activities: Continuation of the program (NJDEP 2008)

There has not been a companion program to NJDEP's "Clean Shores" Program initiated at NYSDEC. (NYSDEC 2004)

NYCDEP has constructed containment booms and end-of-pipe netting systems at 25 major CSO outfalls that drain approximately 58,600 acres of NYC to prevent floatables from entering New York Harbor and numerous tributaries. The booms were extensively refurbished and upgraded during 2001 and 2002.

Planned Activities: Ongoing.

(NYCDEP 2003, NYCDEP—Kevin Au 2009)

NYCDEP has four tributary skimmer vessels that are operated year-round by NYCDEP to collect materials contained by these systems. The NYCDEP has begun a process to replace these vessels with newer, state-of-the-art vessels.

Planned Activities: Skimmer vessel replacement has been initiated, with the first new vessel purchased in 2005. Another new vessel is expected in 2009.

(NYCDEP 2003, NYCDEP—Kevin Au 2009)

NYCDEP operates one open-water skimmer vessel in the Upper and Lower Bays similar to the U.S. Army Corps of Engineers' vessels. In 2001, the HSV Cormorant collected 222.15 tons of materials from harbor waters. In 2005, approximately 95 tons were collected. Results from 2008 operations will be available shortly.

Planned Activities: Ongoing.

(NYCDEP 2003, NYCDEP—Kevin Au 2009)

In calendar year 2007, the USACE New York District vessels collected 6,455 tons of floatables from the NY-NJ Harbor.

Planned Activities: In 2009, two to three debris boats from Physical Support Branch have been and will continue to collect floatables during full and new tides 12 months per year. In addition to the 12 month moon tide collection effort, during the summer (May 15 to September 15) the USACE will collect floatables during storm events and when cited by USEPA, USCG, NY, and NJDEP helicopters.

(USACE 2004, USACE—Robert Pivrotto 2009)

The NJDEP is currently implementing a long-term floatable plan along with the use of Passaic Valley Sewerage Authority's skimmer boat. (NJDEP 2004)

PVSC, through their River Restoration Program, operates two skimmer boats to patrol the Passaic River and Newark Bay and remove floatable debris. PVSC provides staff, equipment, maintenance, trash disposal and dumpster rentals for skimmer boat operations and shoreline cleanups. (PVSC—Ashley Pengitore 2009)

F-2. Expand the USACE Harbor Drift Removal Program without compromising important habitat.

Key Elements: USACE, to date, has awarded 18 construction contracts with a total value of \$40 million. This effort has removed over 320,000 tons of debris from the waters and shorelines of the Harbor core area.

Description of Activities to Date

In FY 2003, there was 530,400 cubic feet of drift collected in New York Harbor and its tributary waterway.

Planned Activities: During the first quarter of FY 2009 93,650 cubic feet have been collected. Collection efforts are not currently expected to change.

(USACE 2004, USACE—Robert Pivrotto 2009)

F-3. Implement beach cleanups

Key Elements: Beach cleanups are conducted throughout the Harbor. The American Littoral Society conducts beach cleanups throughout the NY side of the Harbor every Fall in collaboration with International Beach Cleanup Day. Clean Ocean Action conducts beach cleanups on the NJ side of the Harbor.

Description of Activities to Date

NJDEP's "Clean Shore" program performs year round cleanup throughout the NJ shoreline in the Harbor Estuary Area. See description of the program in F-1. (NJDEP 2004)

NYCDEP has been donating to the American Littoral Society (ALS) for International Beach Cleanup Day since 1996, and has supported the annual event by providing dumpsters and refuse hauling. In addition, the DEP sponsors the cleanup of an official ALS site adjacent to the Tallman Island WPCP (East River) every year.

Planned Activities: Ongoing.

(NYCDEP 2004, ALS—Don Riepe 2008, NYCDEP—Kevin Au 2009)

NYCDEP provides gloves and disposal containers for several voluntary clean-up events each year. Locations include Gerritsen Beach, Coney Island Beach, along the Belt Parkway and in the vicinity of the Verrazano Bridge.

Planned Activities: Ongoing.

(NYCDEP 2004, NYCDEP—Kevin Au 2009)

HEP sponsored the American Littoral Society (ALS) for the 2003 International Beach Cleanup Day. (HEP Office 2003)

The NJDEP has been carrying out the "Adopt-a-Beach" program since 1993, fostering volunteer stewardship of coastal beaches in NJ. There are two yearly statewide cleanup events that NJDEP sponsors, one in the spring and one in the fall. On average 60 to 70 public and private groups participate yearly with a total two-event removal of 815,000 pieces of litter. The groups also continue to cleanup their local beaches year round. (NJDEP 2004, HEP Office 2009)

PVSC will continue volunteer beach cleanups throughout the shoreline of NJ in the Harbor Estuary Area including a cooperative effort with NJDEP's "Clean Shores" program. (PVSC—Ashley Pengitore 2009)

F-4. Assess and control landfills and solid waste practices.

Key Elements: The proper handling of solid wastes and the control of landfills are necessary for the control of floatables. NJ and NYC will continue their solid waste programs. Recycling programs at marinas should be expanded region-wide. Waste handling at beaches and shorelines should be continued and expanded and individuals living in those areas should be educated about litter and its effects on marine life.

Description of Activities to Date

The NJDEP's Division of Solid and Hazardous Waste has been handling and will continue to handle in 2004 NJ's solid waste program in the Harbor Estuary Area. The Division of Enforcement also makes visits to marinas to inspect pump out stations. (NJDEP 2004)

NJDEP's Clean Marina Program encourages marina owners, yacht clubs, boatyards and boaters to prevent and reduce nonpoint sources of pollution, including debris. Tens of marinas are either certified NJ Clean Marinas or have pledged to prevent pollution. In addition, the NJDEP CMP has partnered with BoatU.S. Foundation and the BoatU.S. Angler Program to collect and recycle monofilament fishing. Recycling locations, a list of Clean Marinas, and other information are available at <http://www.nj.gov/dep/njcleanmarina> (HEP Office 2009).

The IEC is a party to the Consent Order for the Fresh Kills Landfill regarding floatable capture and shoreline cleanup. Surveillance to check compliance is ongoing. (IEC 2004, IEC—Boris Rukovets 2009)

Going Coastal, a HEP CAC member, has helped install monofilament recycling bins throughout the Harbor and keeps a map of recycling locations <http://www.goingcoastal.org/fishingline.html> (HEP Office 2009).

F-5. Communicate impacts of marine debris and appropriate disposal practices.

Key Elements: Educating the public about floatables and their impacts on the marine environment is important. Some ways that this can be accomplished is by putting up signs on debris impacts and waste disposal at beaches, marinas, and other public access sites. Information on marine debris can be enclosed in all applications for fishing and boating licenses and registrations. Storm drain marking can also be another way to educate the public and make them aware of the effects of litter.

Description of Activities to Date

Floating debris collected by agency drift and skimmer vessels consists primarily of driftwood, derelict vessels, sections of pier, tires, Styrofoam, etc. This debris can cause serious damage to vessels, people and marine life and economic hardships to shoreside communities. USACE vessels collect this debris on a daily basis. More than 50% of the collected debris is disposed of by recycling. The remainder is disposed of in landfills.

Planned Activities: Continue patrolling NY Harbor and its tributaries to collect floating debris, remove hazards to navigation and collect floatables (non wood products) that may cause economic hardship to shoreside communities. Continue disposing of this debris by contract, requiring more than 50% of the debris to be recycled with the remainder going to landfills.

(USACE 2004, USACE—Robert Pivrotto 2009)

NJDEP's Clean Marina Program helps prevent harmful environmental practices through education and outreach to boaters and marina owners (HEP Office 2009).

The Division of Solid and Hazardous Waste has in the past and is scheduled this year to take out advertisements in Marine Digest about boat litter and proper disposal requirements. (NJDEP 2004)

In 2003, USEPA, NYCDEP, and NYCDOS produced subway signs that address non-point source pollution (litter on streets) and its effect on the NYC beaches. (HEP Office 2003)

HEP sponsored a storm drain stenciling activity along a sub-watershed in the NJ Bayshore region of the Harbor through the HEP mini-grants in 2003. (HEP Office 2003)

The NJDEP's Americorp program currently is active in storm drain stenciling with students and local groups. Additionally, the new Stormwater Regulations require that all stormwater drains in NJ that are on a street in or next to a sidewalk must have a storm drain stencil. (NJDEP 2004)

HEP's website and newsletters include educational topics on marine debris and proper disposal (HEP Office 2009).

F-6. Reduce loadings of floatables from CSOs, stormwater discharges, and non-point source discharges (see Rainfall - Induced Discharges section)

Key Elements: Three sources of pollution to the Harbor/Bight - CSOs, stormwater discharges, and non-point source runoff - are associated with runoff induced by rainfall. These three sources are significant contributors of floatables to the Harbor/Bight system. Effective abatement of these sources is therefore important in reducing use impairments and adverse ecosystem impacts associated with floatables.

Description of Activities to Date

NYCDEP's Floatables Control Program is projected to reduce the amount of floatables entering the Harbor by over 85%. This program includes catch basin hoodings (approximately 137,000 city-wide, implemented in three phases), the booming and skimming program, construction of CSO retention tanks and alternative treatment facilities, and public education.

Planned Activities: Ongoing.

(NYCDEP 2003, NYCDEP—Kevin Au 2009)

NYCDEP conducted a catch basin hood efficiency study at Tallman Island. This pilot study tested the efficiency of catch basin hoods in removal of floatables, and suggested alternate design improvements and cleaning frequencies to further reduce the amount of floatables that pass through catch basins and are eventually discharged to receiving waters. (NYCDEP 2003)

NYCDEP's CSO abatement program has evaluated conventional and innovative technologies to reduce floatables. Three alternatives of the Vortex centrifugal separation technology have been tested at a Corona Avenue demonstration facility to reduce discharges to Flushing Bay. The final report shows that Vortex is not compatible with NYC's system. (NYCDEP 2003, NYCDEP—Dorothy Chao 2009)

NYCDEP's Beach Floatables Survey, a volunteer based program, finished the ninth year of data collection in 2008. This is a continuing effort to build a database of information specifically for the Harbor Survey on floatable debris washing up along the shorelines of the city beaches. The voluntary program was designed to encourage community participation and stewardship at the local city recreational facilities.

Planned Activities: Ongoing.

(NYCDEP 2003, NYCDEP—Kevin Au 2009)

NYCDEP provides handouts and wastewater treatment facility tours to educate students and educators about their role in protecting the environment, including the importance of reducing street litter. In addition, DEP is involved in professional development programs for teachers, including those offered through Saturday Science, Operation Explore, the Science Coordinator's Network, and the Science Council of New York City (SCONYC), offering comprehensive information about our water resources, printed material, and hands-on techniques for bringing these concepts into the classroom.

Planned Activities: Ongoing.

(NYCDEP 2003)

All activities to reduce wet-weather discharges (see Section on Rainfall-Induced Discharges) contribute to reducing loadings of floatables materials from CSOs, stormwater and non-point sources. (HEP Office 2009)