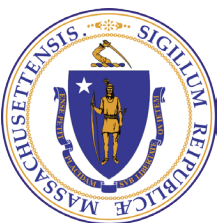


Annual Report FY2013

Natural Resource Damages Program



Acushnet Sawmill Restoration Site. Photo Courtesy Buzzards Bay Coalition



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs
Department of Environmental Protection

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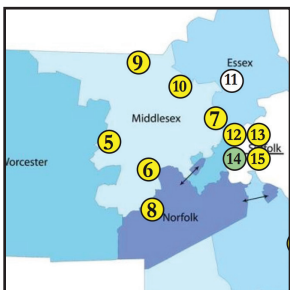
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New Settlements Will Lead to Future Projects

Key to Acronyms: MassDEP: Massachusetts Department of Environmental Protection; GE: General Electric; USFWS: United States Fish and Wildlife Service; NOAA: National Oceanic and Atmospheric Administration; MMR: Massachusetts Military Reservation, now known as Joint Base Cape Cod; VA: United States Department of Veterans' Affairs.

Contact Information:

Karen I. Pelto, NRD Program Coordinator
MassDEP (617) 292-5785 Karen.Pelto@state.ma.us

Report Information:

Text by Karen I. Pelto
Online at: <http://www.mass.gov/eea/agencies/massdep/cleanup/nrd/>

Program Overview

Restoring the Commonwealth's Natural Resources Injured by Oil Spills or Releases of Hazardous Substances and Materials

The Commonwealth of Massachusetts manages natural resources such as fish, shellfish, wildlife, rare species and groundwater, rivers, lakes, ponds, and wetlands, and holds them in trust for the public.

When an oil spill or release of hazardous materials or substances occurs, federal, state and tribal governments act on behalf of the public as trustees of these natural resources under several authorities, including, but not limited to, the following:

- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, commonly known as Superfund (42 United States Code (U.S.C.) § 9601 et seq.)
- The Clean Water Act (CWA) (33 U.S.C. §1251 et seq.)
- The Oil Pollution Act of 1990 (33 U.S. Code 2701-2761 et seq.)
- The Massachusetts Oil and Hazardous Material Release Prevention and Response Act (Massachusetts General Laws (M.G.L.) Chapter 21E)

The Secretary of Energy and Environmental Affairs serves as the Commonwealth's Natural Resource Trustee. Trustees assess injuries to natural resources resulting from spills and releases, bring claims against

responsible parties for monetary damages to compensate the public for these injuries, and plan and implement projects to restore, replace, or acquire the equivalent natural resources and the services that they provide to the environment and to the public. This process is known as Natural Resource Damages (NRD) Assessment and Restoration. Within the Executive Office of Energy and Environmental Affairs (EEA), the Massachusetts Department of Environmental Protection (MassDEP) administers the NRD Program.

Restoration benefits the Commonwealth's wildlife and habitat as well as the public's use of those resources. Through successful implementation of this program, the Commonwealth is able to enhance its protection and management of a vast array of natural resources.

From 1992 through 2013, the Commonwealth, working in cooperation with federal trustees, has successfully negotiated 20 NRD settlements with parties responsible for the injuries to natural resources from releases of oil and hazardous substances and materials. The settlements have totaled more than \$56 million which have funded, or will fund, restoration projects in the areas where the injuries occurred. Highlights of restoration projects completed or underway are featured in this report.

Trustee Councils

The Secretary of Energy and Environmental Affairs (EEA) is designated as the Commonwealth's Natural Resource Trustee, authorized to act on behalf of the public to assess and recover natural resource damages and to plan and implement actions to restore, rehabilitate, replace, or acquire the equivalent of the affected natural resources injured as a result of a release of oil or hazardous substances and materials.

Either during the assessment phase prior to settling a natural resource damages case or during the restoration phase following settlement of a case, a Trustee Council is established. The participating Trustees sign a Memorandum of Agreement (MOA) that facilitates their coordination and cooperation in conducting assessment and/or restoration activities. They also designate representatives to conduct the Trustee Council's day-to-day work.

During the restoration phase, Trustee Councils consult with the public and prepare Restoration Plans detailing the spill or release, impacts to natural resources and their uses, restoration project selection criteria, and descriptions of the proposed restoration projects. These Restoration Plans are made available to the public for review and comment. Public meetings are held during the public comment period to further encourage public participation. After consideration of all public comment, a final Restoration Plan is prepared and preferred restoration projects are approved by the Trustees. The preferred restoration projects are implemented by various entities (municipalities, non-profit organizations, government agencies, and private contractors) under contracts, cooperative agreements, interagency service agreements, and other administrative mechanisms managed by one or more of the Trustee Council members. These members also monitor and oversee project implementation to ensure that restoration goals and benefits are achieved.

MassDEP staff served as members of several active Trustee Councils in FY13. These Councils are listed at right.

List of Trustee Councils

MA SubCouncil of the GE/Housatonic Trustee Council

MassDEP Trustee Representatives:

Karen Pelto

Thomas Potter, *Alternate*
Jane Rothchild, *Legal Advisor*

Federal Trustee Representative:

Kenneth Munney, *USFWS*

Holyoke Coal Tar Trustee Council

MassDEP Trustee Representatives:

Brian Harrington

Thomas Potter, *Alternate*
Jane Rothchild, *Legal Advisor*

Federal Trustee Representatives:

David Sternberg, *USFWS*

James Turek, *NOAA*

Nyanza Trustee Council

MassDEP Trustee Representatives:

Rosemary Knox

Lisa Alexander, *Alternate*
Gail McCarthy, *Legal Advisor*

Federal Trustee Representatives:

Molly Sperduto, *USFWS*

Eric Hutchins, *NOAA*

New Bedford Harbor Trustee Council

MassDEP Trustee Representatives:

Lisa Alexander

Rosemary Knox, *Alternate*
Andy Cohen, *Legal Advisor*

Federal Trustee Representatives:

David Sternberg, *USFWS*

John Catena, *NOAA*

Bouchard B-120 Trustee Council

MassDEP Trustee Representatives

Millie Garcia-Serrano

Karen Pelto, *Alternate*
Chris Ayers, *Legal Advisor*

Federal Trustee Representatives

Molly Sperduto, *USFWS*

James Turek, *NOAA*

MMR Natural Resources Trustee Council

MassDEP Trustee Representatives

Karen Pelto

Dawn Stolfi-Stalenhof, *Legal Advisor*
Millie Garcia-Serrano, *Technical Advisor*

Len Pinaud, *Technical Advisor*

Federal Trustee Representatives:

Andrew Major, *USFWS*

Jonathan Davis, *U.S. Air Force*

Mary Ellen Maly, *U.S. Army*

Donald Campbell, *VA*

Program Highlights

Restoration Achievements: Project Selection and Public Involvement

Prior to spending settlement funds on restoration, Trustees consult with the public to identify potential restoration projects. Certain settlements require that the Trustees develop and adopt Restoration Plans that are subject to public review and comment. During state fiscal year 2013, three Final Restoration Plans were approved:

- Nyanza Chemical Waste Dump Site – \$3.6 million for 12 preferred projects to restore aquatic biological resources, riparian and floodplain resources, recreation and public access in the Sudbury/Assabet/Concord (SuAsCo) watershed.

- GE/Housatonic River Round 3 - \$2 million for land acquisition to conserve habitats in the Housatonic watershed.
- Bouchard B-120 Oil Spill - \$715,000 to implement projects to restore populations of threatened piping plovers at breeding sites in Massachusetts and Rhode Island.

During project implementation, public workshops and meetings are often held to seek further input on design elements and volunteers are involved in conducting habitat and species surveys and plantings.

Reclaiming Riverfronts in Environmental Justice Neighborhoods

Rubchinuk landfill settlement: More than 30 neighborhood residents participated in each of two meetings organized by Groundwork Lawrence as part of the Spicket River & Facella Lot Restoration Project to provide input on the design of a restored riverbank and riverside pocket park in Lawrence. The Spicket River is also a Priority Project of the Massachusetts Department of Fish and Game's Division of Ecological Restoration.



Groundwork Lawrence hosted two neighborhood meetings to seek residents' input on designing a riverside park. Photo courtesy Groundwork Lawrence.



Volunteers document disruption of stream continuity at a road crossing on a tributary of the Housatonic River. Photo courtesy Housatonic Valley Association.

Restoring Riparian Habitat and Public Access

New Bedford Harbor NRD settlement: The public was invited to view and provide feedback on conceptual design plans for restoring the 19-acre Acushnet Sawmill Site by the Buzzards Bay Coalition. This project, approved by the New Bedford Harbor Trustee Council as part of its fourth and final round of funding, will remove acres of pavement and buildings and restore riparian, wetland, and forest habitat as well as create walking trails for public access on a site located at the mouth of the Acushnet River and head of the Inner Harbor.

Surveying Barriers to Fish and Wildlife Movement on Housatonic River Tributaries

GE/Housatonic NRD settlement, Round 2: Volunteers involved in the Habitat Continuity Project have completed surveys of 475 stream crossings by roads in 11 towns. The Housatonic Valley Association (HVA), Berkshire Environmental Action Team (BEAT) and the Extension Service of UMass-Amherst's River and Stream Continuity Project have mapped and prioritized these crossings based on their potential to improve aquatic habitat. In the project's next phase, HVA and BEAT will work with the City of Pittsfield to replace two culverts to improve a cold water fishery with guidance from MassWildlife and the Division of Ecological Restoration.

Restoration Achievements: Project Implementation

Restoring Amethyst Brook

Holyoke Coal Tar NRD settlement: The Holyoke Coal Tar Trustee Council provided keystone funding to restore Amethyst Brook by removing the Bartlett Rod Shop Company Dam as part of a broad coalition of partners including the Towns of Pelham and Amherst, the Massachusetts Environmental Trust, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, Clean Water Action, American Rivers, and the Fish America Foundation. Removal of the 20-foot-high dam was completed in the fall of 2012 by the Massachusetts Department of Fish and Game's Division of Ecological Restoration. Six months following removal, monitoring confirmed that the downstream channel habitat improved through the movement of previously impounded sand and gravel and that sea lamprey and other species had returned to that stretch of Amethyst Brook for the first time in decades. Project partners are continuing to collaborate to remove an old wooden crib dam that was exposed upstream following removal of the Bartlett Dam. Approximately 8 miles of high quality stream habitat is upstream of these two dams.

Restoring Endangered Species

Bouchard B-120 NRD Settlement: The piping plover (*Charadrius melodus*, seen below) was one of the

species negatively impacted by the 2003 Bouchard Barge 120 oil spill in Buzzards Bay. The December 2012 Final Restoration Plan identified a preferred alternative to implement an enhanced management program for piping plovers at breeding sites in Massachusetts and Rhode Island, consisting of predator management, enforcement, and outreach and education. In 2013, eight projects were awarded \$148,804 to implement management efforts at beaches with more than 300 nesting pairs, including at certain Massachusetts Department of Conservation and Recreation beaches. Preliminary results indicate that productivity increased at a number of the managed sites. A second grant round of \$220,000 will be awarded for efforts in 2014 and 2015.

Floodplain Restoration and Protection

GE/Housatonic settlement: The MA SubCouncil of the Housatonic River Trustee Council provided funding to restore and acquire the 25-acre "Housatonic Flats" in Great Barrington. Tons of waste along the former oxbow and wetlands, discovered during required due diligence activities, were removed and the areas replanted with native species. In total, 29 tons of steel, 29 tons of solid waste, 88 cubic yards of concrete, and 5 tons of tires were removed. The MassDEP Bureau of Waste Site Cleanup's Technical and Financial Services Division procured and managed the contractors to make this project happen effectively and efficiently, enabling the Berkshire Natural Resources Council (BNRC) to acquire the property in a timely manner. The Town of Great Barrington, MassDEP Bureau of Resource Protection and Massachusetts Natural Heritage and Endangered Species Program provided guidance and timely regulatory approval. BNRC will work with the MA SubCouncil to design and construct a public access trail consistent with conservation of sensitive habitats and species.



Piping Plover. Photo courtesy of the U.S. Fish and Wildlife Service.

Before, During and After: The Many Faces of Amethyst Brook



All three photos courtesy Massachusetts Division of Ecological Restoration

HABITAT



Photo Courtesy Massachusetts Audubon Society.

STEWARDSHIP & PROTECTION

QE/Housatonic settlement:
Conservation Commissions
protected more than 90 river
miles, 10,000 wetland acres,
and 9,500 upland buffer
acres.

New Bedford Harbor
settlement:
MassWildlife monitors,
manages and enhances
nesting areas for rare tern
species.



QE/Housatonic settlement:
MassAudubon's
Housatonic Environmental
Literacy Program (HELP) for
the River Project introduced
over 5,000 students to the
river and its habitats (above).



Habitat Conservation...



HABITAT

New Bedford Harbor
settlement: Over 700 acres
of land has been preserved
through purchase and/or
conservation restrictions
to permanently protect a
variety of habitat,
including wetlands,
coastal ponds, beaches,
and forested uplands.

Past Projects

RESTORATION

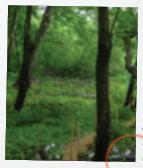


GE/Housatonic settlement:
Along the Housatonic River,
Project Native restored
floodplain forest using
wetland and floodplain
perennials, shrubs and trees
derived from local genomes
(below).



Photo Courtesy Project Native.

CONSERVATION



Charles George settlement:
MassWildlife manages more
than 200 acres of
permanently protected
wetland, stream, forest and
field habitat (at left).



Public Access...

Photo Courtesy Great Barrington Land Conservancy.

PUBLIC ACCESS

GE/Housatonic settlement:
2 miles of riverfront trails
4 canoe access sites
48 public canoe trips
10-day "Source to Sound"
paddle trip



GE/Housatonic settlement:
The Great Barrington Land
Conservancy created a
half-mile of new Riverwalk
and reclaimed 2.63 acres of
riparian buffer using native
plantings (above).

AQUIFER PROTECTION



Textron/MMR settlement:
13.7 acres that protect
Mashpee's water supply wells
were dedicated in 2010 in
memory of Carl Monge, a past
president of Orenda Wildlife
Land Trust.

Photo Courtesy Orenda Wildlife Land Trust.



Before restoration, this oxbow of the Housatonic River was filled with metal, wood, and concrete waste.

The Housatonic Flats: Two Views Before and After Restoration



Through removal of waste and replanting of native species, this sensitive habitat has been restored. All four photos courtesy of the Berkshire Natural Resources Council.



Restoration Achievements: Project Design and Permitting

Reclaiming Riverfront Parks and Community Gardens for Environmental Justice Neighborhoods Along the Spicket River

Rubchinuk landfill settlement: Design plans have been completed by Groundwork Lawrence for their Spicket River Restoration and Facella Lot public park/ access project and by the City of Gloucester for their Burnham's Field park restoration and community gardens. These projects will proceed to construction in state fiscal year 2014. Restoring the Spicket River is a Priority Project of the Massachusetts Department of Fish and Game's Division of Ecological Restoration.



Neighborhood residents tour the Facella Lot in Lawrence along the Spicket River.

Restoring Riparian Habitat and Public Access Along the Acushnet River

New Bedford Harbor NRD settlement: In 2007 as part of its Round 3 Restoration Plan, the New Bedford Harbor Trustee Council approved funding for the Buzzards Bay Coalition to acquire the 19-acre Acushnet Sawmill property to preserve field, forest, riverfront, pond, and marsh at the mouth of the Acushnet River. However, the site also included two mill buildings, various accessory structures, and four acres of impervious surface that impair the river's connectivity to aquatic habitats and natural uplands. In its Round 4 Restoration Plan, the Trustee Council provided the Coalition with funds to design, permit, and implement restoration on the site, including removing all impervious surfaces, naturalizing river banks, restoring wetlands, and creating passive recreational trails and access throughout the site. The design was driven by a goal to restore the site's ecological values while creating inviting features such as nature trails, scenic overlooks, an education center, and a kayak/canoe launch at the mill pond. The project has received all but one of the required permits and has been put out to bid. It is anticipated that the project will be completed and the site will be open to the public by the summer of 2014.



Facella Lot Design Concepts. Both images courtesy of Groundwork Lawrence.

Restoration Achievements: Project Monitoring and Oversight

Acushnet River Sees 1,140% Increase in Migrating River Herring

New Bedford Harbor NRD settlement: As part of its Round 1 Restoration Plan, the New Bedford Harbor Trustee Council funded restoration of the Acushnet River diadromous fish run, where three dams impeded passage.

In 2002, project partners, including the Massachusetts Division of Marine Fisheries (MA DMF), the NOAA Restoration Center, the City of New Bedford, the Town of Acushnet, and the Buzzards Bay Coalition, installed a 265-foot-long Denil fishway at the uppermost dam, allowing herring to access the 200-acre New Bedford Reservoir to spawn. In 2007, the Sawmill Dam was partially breached and a stone, nature-like step-pool fish passage system was constructed. In 2007 and 2008, a stone, nature-like step weir fish passage system was constructed at

the Hamlin Street crossing. Together, these projects allow river herring and American eel to better access the entire 3.8-mile length of the Acushnet River, the Reservoir, and other upstream habitats.

This year, the MA DMF and NOAA published a paper in the *Journal of Environmental Science and Engineering* that reported on the successful return of river herring to the Acushnet River. There has been an astounding 1,140-percent increase in migrating herring able to pass over the dams and access prime spawning grounds. This increase surpasses the short-term objective to improve upstream passage of adult river herring at the New Bedford Reservoir by 1,000 percent by 2011 over baseline conditions (2005 through 2007). Prior to construction of fish passage improvements, fewer than 400 river herring passed these dams per year. Nearly 4,000 passed several years after construction. This year's count increased to 6,033 herring.



The Mass. Division of Marine Fisheries monitors populations of river herring.



Upper Acushnet - New Bedford Reservoir Fishway



Middle Acushnet - Hamlin Street Fishway



Lower Acushnet - Sawmill Dam Fishway

All four photos courtesy of the Massachusetts Division of Marine Fisheries.

The Future

New Settlements will Lead to Future Projects

Following several recent settlements, federal and State Trustees will form Trustee Councils and meet with the public to provide an overview of the natural resource damages assessment and restoration process and solicit ideas for potential restoration projects.

\$4.25 million for injuries to Aberjona River, floodplains and wetlands

IndustriPlex NRD settlement: On January 17, 2013, a Consent Decree was lodged in federal court for a \$4.25 million natural resource damages settlement to compensate for injuries to the Aberjona River wetlands and the downstream Mystic Lakes from contaminants including arsenic and chromium. From the late 1850s to the 1960s, companies manufactured various products at this site, including sulfuric acid, arsenic insecticides, organic chemicals, munitions, and glue. Examples of projects eligible to be funded by this settlement include the creation, restoration, enhancement, or permanent protection of river and wetland habitat. The Trustee Council will include staff from the USFWS, NOAA, and MassDEP.

Assistant Attorney General Matthew Brock of the Massachusetts Attorney General's Office (AGO), Deputy General Counsel Margaret Callanan of EEA, Attorney Jennifer Davis of MassDEP, and MassDEP's NRD Coordinator Karen Pelto worked on this settlement.

\$1.65 million for injuries to groundwater, streams and wetlands

Sutton Brook Disposal Area NRD settlement: Groundwater and ecological resources such as surface water, sediment, and wetlands were injured by contaminants from this former landfill that accepted sanitary, commercial, and industrial wastes from 1957 through 1988. Sutton Brook and its associated freshwater wetlands bisect the Northern and Southern Landfill Lobes. Examples of projects eligible to be funded by this settlement to restore ecological resources include the creation, restoration, enhancement, or permanent protection of river and wetland habitat. Eligible projects to restore groundwater can encompass a wide range of strategies to protect and conserve current and potential drinking water supplies, although land conservation for aquifer protection is commonly implemented. The Trustee Council will include staff from USFWS and MassDEP.

Assistant Attorney General Matthew Brock of the AGO, General Counsel Anna Blumkin of EEA, and MassDEP's NRD Coordinator Karen Pelto worked on this settlement.

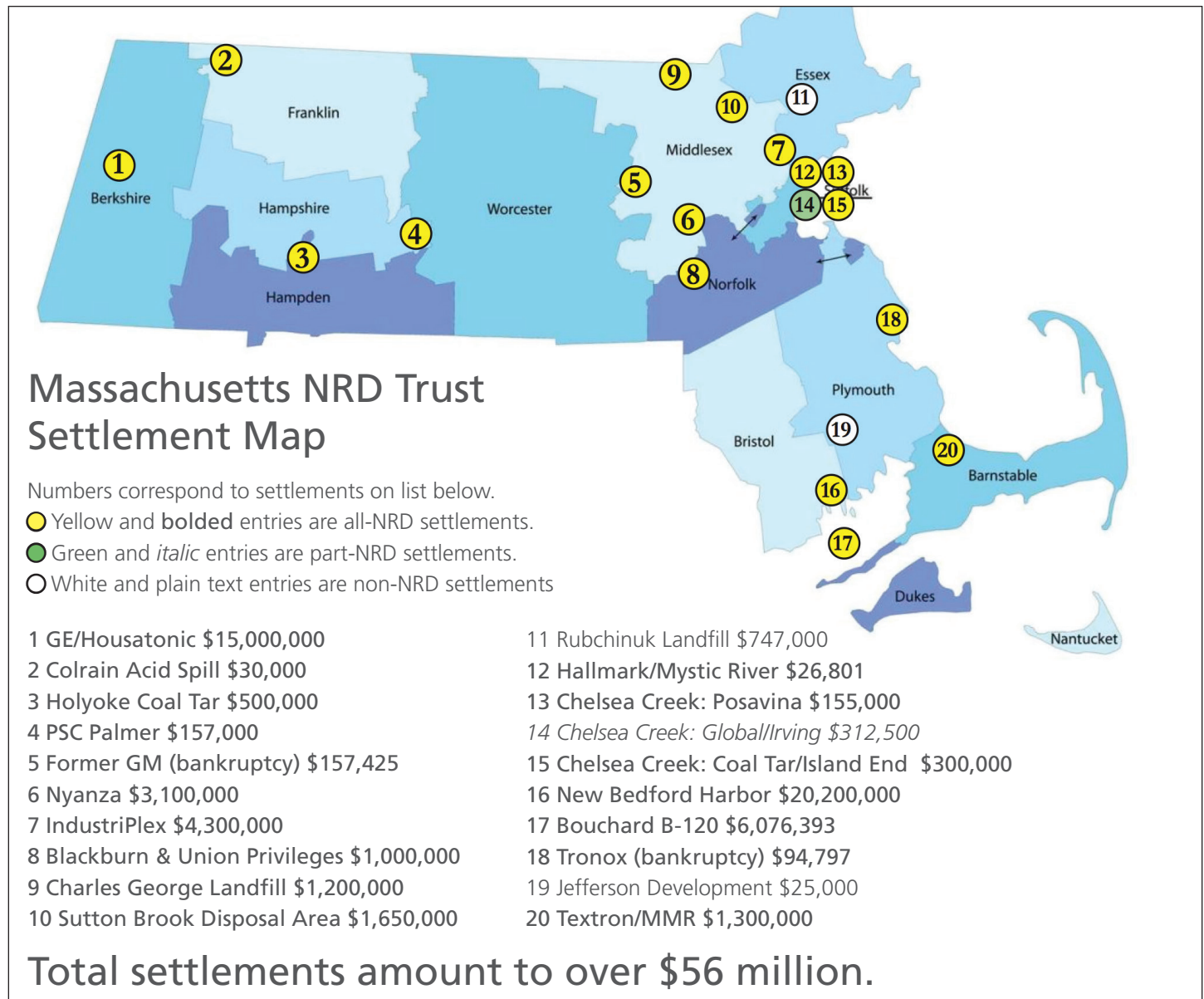
\$1 million for injuries to groundwater, streams and wetlands

Blackburn & Union Privileges NRD settlement:

Groundwater and ecological resources including the Neponset River and associated wetlands were injured by contaminants from the former industrial manufacturing facility. Between the late 19th and early 20th centuries, industrial activity included the manufacture of tires and other rubber goods. During the first half of the 20th century, asbestos clutch and brake linings were manufactured. Textile-related activities continued through the latter half of the 20th century. Contaminants of concern include heavy metals, volatile organic compounds, semi-volatile organic compounds, and asbestos. A 1992 removal action

channelized 400 feet of the Neponset River in an aluminum culvert. Examples of projects eligible to be funded by this settlement to restore ecological resources include the creation, restoration, enhancement, or permanent protection of river and wetland habitat. Eligible projects to restore groundwater resources can encompass a wide range of strategies to protect and conserve current and potential drinking water supplies, although land conservation for aquifer protection is commonly implemented. The Trustee Council will include staff from USFWS and MassDEP.

Assistant Attorney General Matthew Brock of the AGO, General Counsel Anna Blumkin of EEA, Attorney Jennifer Davis of MassDEP, and MassDEP's NRD Coordinator Karen Peltó worked on this settlement.



Map accessed from the Massachusetts Department of Elementary and Secondary Education.



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David W. Cash, Commissioner
Massachusetts Department of Environmental Protection
Natural Resource Damages Program
One Winter Street, Boston, MA 02108