

Accomplishment Highlights | 2014



Massachusetts Department of
Environmental Protection

Introduction

The Massachusetts Department of Environmental Protection (MassDEP) is an environmental regulatory agency within the Executive Office of Energy and Environmental Affairs (EEA). MassDEP is responsible for protecting human health, safety and the environment for the Commonwealth's citizens by ensuring that they have clean air and water, the safe management and disposal of solid and hazardous wastes, the cleanup of hazardous waste sites and spills, and the preservation of wetlands and coastal resources.

During 2014, MassDEP continued to make progress in protecting the Commonwealth's environment and the health of those who live and work in Massachusetts. In 2014, the agency advanced its priority initiatives while maintaining strong performance on the core activities of reviewing applications for environmental permits, conducting compliance and enforcement actions, providing grants and assistance, and undertaking monitoring of air and water quality. Some highlights of MassDEP's 2014 accomplishments are provided below. More detailed information on agency activities can be found by visiting MassDEP's homepage at: <http://www.mass.gov/eea/agencies/massdep/>.

Continued Excellent Track Record for Timely Review of Environmental Permit Applications

MassDEP's permitting and annual compliance fee program was established in 1990 with the passage of the Department's Timely Action Schedule and Fee Provisions (M.G.L. c.21A Section 18 and 310 CMR 4.00). In return for the payment of fees to support

3,000
environmental permit applications

99%
on-time permit review

97%
decisions within 180 days

its environmental programs, MassDEP sets specific timelines for permit review backed up by a money-back guarantee if MassDEP fails to perform. The purpose of this statute and these regulations is to provide for the orderly and efficient administration of the regulatory programs administered by the Department. Each year, the Department reviews more than 3,000 environmental permit applications and other authorization requests, and strives to meet its guaranteed timelines for review 100% percent of the time. In state fiscal year 2014, the agency continued to improve on last year's efforts by delivering 99% on-time permit review. The Department also aims to issue all permitting decisions within 180 days, and in FY14 the agency did so for more than 97% of the applications it received.

MassDEP's Regulatory Reform Initiative: Launched in 2011 and Fully Promulgated in 2014

In 2011, MassDEP launched a major initiative to look for possible improvements to all of the agency's regulatory areas. The intention was to make changes that simplify, streamline and improve many of the agency's programs while maintaining the same or better environmental protection. After working closely with external stakeholders and going through the public comment process, all of these across-the-board reforms have been finalized and published as final regulations.

MassDEP kicked off its Regulatory Reform Initiative with the goal of maintaining the agency's current high standards of environmental protection with a drastically reduced present level of staff (which dropped more than 30 percent since 2002). MassDEP's Regulatory Reform Initiative was also a mechanism for reviewing existing regulations to identify efficiency improvements as required of all state agencies under the Economic Development Reorganization Act of 2010.

The resulting programmatic changes, which are now codified into final regulations, will achieve efficiencies without sacrificing environmental standards

by disinvesting from low-value activities, relying on other regulatory entities where redundant oversight currently exists, and utilizing authorized third parties rather than agency resources. Some of the reforms also remove regulatory barriers to clean energy projects.

The regulatory changes include improvements to the following MassDEP programs.

- Waste site cleanups/Massachusetts Contingency Plan (MCP)
- Public waterfront protection/Chapter 91
- Wetlands/water quality certification
- Wastewater permitting and sludge management
- Septic systems/Title 5
- Solid waste transfer stations and landfills
- Asbestos abatement



Commercial Organic Waste Ban and Clean Energy from Food Waste

October 1, 2014, marked the official start of the Commonwealth's first-in-the-nation ban on the disposal of commercial organic wastes by businesses that dispose of one ton or more of organics per week. The disposal ban affects approximately 1,700 businesses and institutions, including supermarkets, colleges and universities, hotels, convention centers, hospitals and nursing homes, large restaurants, and food service and processing companies. It does not affect residences. This ban will divert 450,000 tons of food waste a year from landfills and incinerators and direct it to composting facilities or anaerobic digesters which produce renewable fuel from the material. This initiative will reduce waste; cut disposal costs for businesses and institutions; reduce emissions from fossil fuel use; re-purpose food for food banks and fertilizer; and stimulate the green economy.



Culling food at a supermarket.

This ban will divert 450,000 tons of food waste a year from landfills and incinerators...

Before the ban became effective MassDEP spent months conducting outreach to the affected facilities to prepare for compliance with the ban. The Commonwealth offered one million dollars in grants to public entities and three million dollars in low interest loans to private companies seeking to build anaerobic digestion (AD) facilities. In 2014, MassDEP and DOER awarded the first grant to the MWRA for its wastewater treatment facility at Deer Island. The MWRA currently digests sludge in 12 chambers to help run the plant. The pilot will introduce food waste into the chambers to determine the effects of co-digestion on operations and biogas production. Feasibility studies have also been conducted at two Massachusetts correctional facilities in Shirley and Norfolk.

Thus far, the businesses and institutions affected have received the waste ban well. The hope is to have many more anaerobic digesters built by private companies as well as on state owned land in the future.

More information about the food waste ban and the anaerobic digestion updates can be found here: <http://www.mass.gov/eea/agencies/massdep/climate-energy/energy/anaerobic-digestion/>

More information on the commercial food waste ban can be found here: <http://www.mass.gov/eea/agencies/massdep/recycle/reduce/food-waste-ban.html>

More Growth of Solar on Closed Landfills and Formerly Contaminated Sites

MassDEP has continued its partnership with the Massachusetts Department of Energy Resources (DOER) to encourage installation of solar photovoltaic arrays on closed municipal landfills and on cleaned-up waste sites. The agency continued efforts to assist towns and other project proponents to get these solar installations permitted. As a result, in 2014 another 19 of these projects began operating, bringing the total number to thirty two. These renewable energy installations now generate more than 69 megawatts of clean power each year.

An example of this initiative is the solar energy installation at the former Shaffer Landfill in Billerica. This former Superfund site was converted into a 6-megawatt solar electricity producer which will generate enough electricity to power approximately 1,200 homes for a year. The site operated as a land-

fill for more than three decades and was closed in the 1980s.

In June, MassDEP and DOER promoted solar on landfills with the “2014 Summer Solstice Solar Tour.” On June 20th, the tour began at 5:07 am in the southeast part of Massachusetts on top of the Chatham Landfill solar farm on Cape Cod and ended at 8:24 pm in the Berkshires, and it consisted of visits to solar energy installations across the state in Chatham, Barnstable, Brockton/Pembroke, Worcester and Easthampton.

More information about solar on landfills and closed sites can be found at the following link: <http://www.mass.gov/eea/agencies/massdep/climate-energy/energy/landfills/>



Shaffer Landfill Photovoltaic System in Pittsfield MA

Advancing Zero Emission Vehicles

MassDEP encourages increased deployment of zero-emission and plug-in hybrid vehicles in order to provide significant air pollution emission reductions while boosting our clean energy economy. In 2014, MassDEP continued to support growth in the use of zero-emission vehicles through the 2nd and 3rd offering of its workplace charging program grants. The Workplace Charging Program provides 50 percent of the funding (up to \$25,000) for hardware costs for employers to acquire electric vehicle charging stations.

This grant program supports the greenhouse gas reduction and clean energy goals in the Massachusetts Clean Energy and Climate Plan for 2020. The program also helps the Commonwealth address key commitments agreed to by the governors of California, Connecticut, Maryland, Massachusetts, New York, Oregon, Rhode Island and Vermont in 2013 to take actions encouraging deployment of 3.3 million zero emission vehicles by 2025. The eight states agreed to work together to establish electric vehicle fueling infrastructure and promote workplace charging to support electric vehicle readiness.

In Massachusetts, our goal is to have 300,000 electric vehicles on our roads by 2025. Over the last year, we have seen a 132 percent increase in EV registration and a huge hike in EV charging-station infrastructure installations. The city of Somerville was one of many municipalities that took advantage of this program. Somerville has been awarded grant funds to help acquire 16 EVs for city use and install eight EV chargers around the city.

To learn more: <http://www.mass.gov/eea/agencies/massdep/air/grants/workplace-charging.html>



Celebrating 25 years of Success with the State Revolving Fund, and Another \$542 Million in Loans Awarded in 2014

In August 2014, the Commonwealth celebrated the 25th year of the State Revolving Fund (SRF) at the Deer Island Treatment Plant. The SRF, which is administered by MassDEP, provides low and no-interest loans to municipalities for improvements to water infrastructure. Massachusetts communities have used the SRF programs over the last generation to finance

more than \$6 billion in grants and loans to build wastewater and drinking water treatment plants, rehabilitate pumping stations, upgrade water mains and install green infrastructure at these facilities. In 2014, the SRF issued \$542 million in loans to 54 cities, towns and regional water supply and wastewater treatment districts for 80 different projects.

New Regulations for Sustainable Water Management

MassDEP and its partner agencies have been working toward a new approach to the permitting of large water withdrawals that will help balance the sometimes competing water needs in the Commonwealth. In late 2014, MassDEP promulgated a final regulation package under the state's Water Management Act. These new regulations establish a more transparent, predictable and science-based system that provides water for both long-term economic development and environmental sustainability, while also providing flexibility to public water systems and local governments to meet their future water needs. The revised program also encourages communities to make investments in water conservation and optimize their water infrastructure, in ways that may ultimately

save them money while also enhancing local water resources.

The promulgation of these final regulations follows nearly five years of comprehensive stakeholder review and input from public water suppliers, business interests and environmental organizations. The outreach effort featured more than 75 public meetings and workshops, a 90-day public comment period and the submission and review of more than 160 public comments.

For more information on the Water Management Act program including the new regulations, go to: <http://www.mass.gov/eea/agencies/massdep/water/watersheds/water-management-act-program.html>



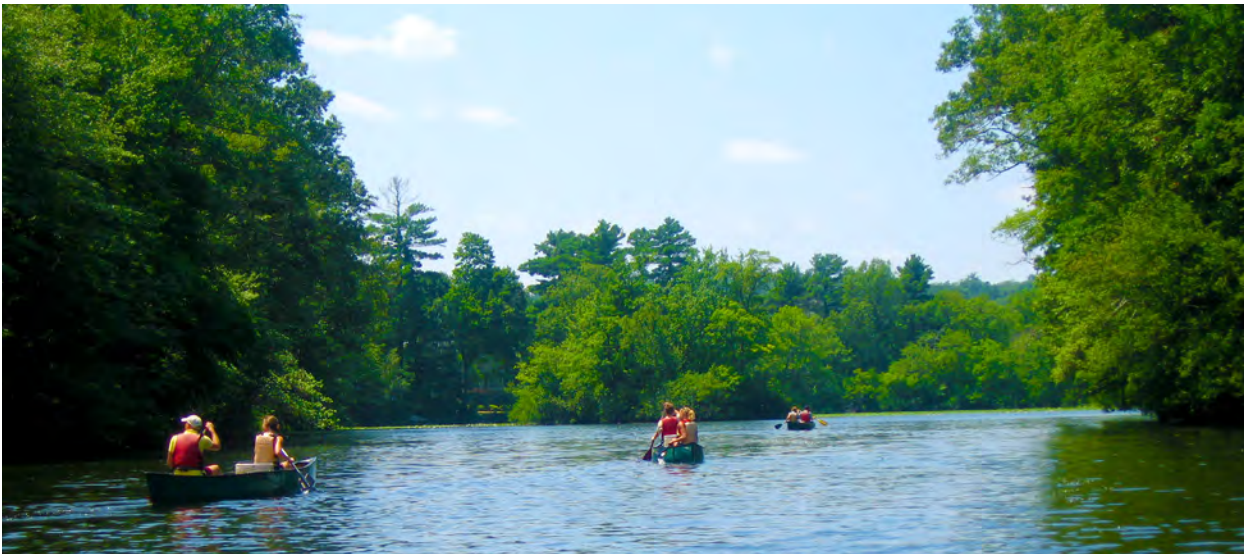
New Water Management Act regulations utilize a transparent, predictable and science-based approach that provides water for both economic development and environmental sustainability.

Charles River Water Quality Hits “A-” Level

After many years of work on the local, state and federal level, the water quality of the Charles River reached the “A-” level from the U.S. EPA Region 1 for the first time. In September 2014, EPA announced that the Charles was given an “A-” for water quality during 2013, which reflects the cleanest water in decades and the highest rating from EPA since the 1995 inception of the Clean Charles River Initiative. MassDEP has been among the partners who worked to assess the pollutants flowing into the river, construct the systems to divert the pollutants from entering the river and improve the water quality to allow many more days when the river is safe for boating and swimming. Other key partners include

EPA, the Massachusetts Water Resources Authority, the Charles River Watershed Association, the Boston Museum of Science, key legislators and the many communities along the river, including Boston and Cambridge. The progress with the Charles River is an example of how improvements to urban river quality can be made with effective partnerships.

More information on the Charles River report card can be seen here: <http://yosemite.epa.gov/opa/admpress.nsf/6d651d23f5a91b-768525735900400c28/473e88ce3d5353a-485257d48005a4ea0!opendocument>



New Waste Site Cleanup Regulation Amendments Published

At the end of April 2014, MassDEP published a comprehensive update to the regulations governing cleanup of oil and hazardous material from spills and historic contamination. The amendments provide more protective cleanups, with updated standards and approaches to assessment and cleanup, new site closure opportunities for challenging sites like those with vapor intrusion, more efficient process and more transparent, plain-English closure terms. The new regulations reflect the best assessment and remediation approaches while making it easier for property

owners, neighbors and communities to understand. For 20 years, MassDEP’s semi-privatized site cleanup program has been a national leader in cleaning up spills and waste sites protectively and efficiently, with more than 30,000 sites cleaned up – more than 90 percent of them clean enough for unrestricted use.

You can learn more about the revised waste site cleanup regulations here: <http://www.mass.gov/eea/agencies/massdep/cleanup/regulations/site-cleanup-regulations-and-standards.html#6>

National Achievement Award for Chicopee Falls Brownfield Success Story

During the Summer of 2014, MassDEP along with a team of other state and federal partners received a “2014 National Notable Achievement Award for Brownfields” from the United States Environmental Protection Agency (EPA) for the excellent work committed to the Rivermills at Chicopee Falls cleanup and redevelopment, a site formerly known as the Face-mate site. In announcing the award, EPA Assistant Administrator Mathy Stanislaus said that the River-

mills at Chicopee Falls is one of the largest and most complex Brownfield cleanup and redevelopment projects in New England. He further stated that the team that worked on this project has raised the bar for cooperation at all levels of government to achieve success. The award received by the team recognized their accomplishment as one of the most noteworthy among peers nationwide.



Photo of Chicopee Falls, taken by Richard B. Johnson

Summary of Compliance and Enforcement Activities

MassDEP strives to set priorities for compliance and enforcement activities based on relative risk, requiring increased reliance on assessment of environmental monitoring and performance data for particular sectors. MassDEP's goal is to deter those individuals who violate our laws and regulations and take enforcement actions against them to deter future bad acts. The agency wants to make others aware that MassDEP takes swift and timely actions against those who violate the laws. The goal is to deter non-compliance and to make those who violate return to compliance, restore any damage caused, and pay a penalty that exceeds the economic benefit of the non-compliance.

MassDEP takes consistent, appropriate and timely enforcement actions to deter non-compliance and ensure a level playing field by making non-compliance substantially more costly than compliance; to require violators to cease actions impacting the environment or public health and to restore impacted environmental resources; and to capitalize on opportunities to encourage the regulated community to permanently reduce pollution and adopt environmental management systems and establish best management practices. Compliance outreach and technical assistance also assists the regulated communities with compliance with our regulations.

Compliance Inspection Summary: It is critical to MassDEP's compliance and enforcement success that the agency maintains a vigorous and visible "cop on the beat" presence, which can be measured in large part by the number of facilities and project sites visited by MassDEP inspectors. The traditional compliance inspection – in which a trained inspector visits a facility or other location to review compliance status – remains the mainstay of the MassDEP's compliance assessment program. MassDEP uses inspections as a way to find violations as well as ensuring facilities are in compliance, and as a way of locating facilities that would benefit from technical assistance. In FY14, MassDEP conducted 6,659 inspections, which is somewhat consistent with the past four years.

In FY14, MassDEP issued more than 3,760 enforcement actions...

Enforcement Action Summary: MassDEP is committed to taking timely and appropriate enforcement actions when facilities are found to be out of compliance. In FY14, MassDEP issued more than 3,760 enforcement actions, including:

- **Low-Level Enforcement:** These are notices of non-compliance (NONs) which are generally used to require correction of minor compliance problems, provide notice that existing practices are unacceptable, or warn of administrative orders and/or penalties if problems are not corrected. In FY14, MassDEP undertook 2,965 lower level enforcement actions.
- **High-Level Enforcement:** High-level enforcement actions encompass a range of actions generally pursued for more serious violations. These include administrative consent orders (with or without penalties); penalty assessment notices; permit and license suspensions or revocation; and referrals to the Massachusetts Attorney General or the U.S. Environmental Protection Agency. In FY14, MassDEP undertook 706 high-level enforcement actions.
- **Penalties:** An important element of credible enforcement program is setting appropriate penalties and fines which send a strong message to regulated facilities that breaking environmental rules will cost more than remaining in compliance. In FY14, MassDEP independently assessed approximately \$2.11 million in administrative penalties.

Enforcement Case Highlights

The following are a few case highlights from MassDEP's enforcement activities in FY14.

Hidden-Camera Case in Bellingham

One of MassDEP's more innovative environmental enforcement initiatives is the so-called "Candid Camera" effort spearheaded by our Environmental Strike Force (ESF). Over the last decade or so, MassDEP has worked with local cities and towns to place hidden cameras at the sites of illegal dumping and catching scofflaws doing the dumping on public and private lands. Over the years, MassDEP has worked with local officials to catch these violators and make them clean up the mess they made and pay a penalty. One example of a 2014 hidden camera case took place in Bellingham. A Milford man was advertising his "clean-out services" in an ad on Craigslist. He got paid to take people's debris and instead of doing the right thing, he would just dump it in a field in Bellingham. The local police called the MassDEP and we set up cameras that eventually captured the violator. He was required to clean up and properly dispose of the 50 tons of debris dumped there, and a judge placed him on probation and had him forfeit the truck he used to do the dumping.

\$73 Million Environmental Bankruptcy Settlement for "National Fireworks" Waste Site in Hanover

One of the largest national environmental bankruptcy settlements in history, totaling \$5.15 billion, was announced in late March 2014 with Anadarko Petroleum Corp. and its affiliate Kerr-McGee. This case, led by the Massachusetts Attorney General's Office with primary support from MassDEP, resolves environmental cleanup claims stemming from the 2009 bankruptcy of a former affiliate, Tronox. As a result of the settlement, Massachusetts will get more than \$73 million for the severely contaminated "National Fireworks site" in Hanover, which is being cleaned up

under the state's Superfund Law. As the Commonwealth continues to negotiate settlements with the other parties involved there, this very significant first settlement will help to get this site cleaned up and put back into productive re-use. For more details on the settlement, follow this link: <http://www.mass.gov/ago/news-and-updates/press-releases/2014/2014-04-03-tronox-settlement.html>

Private Drinking Water Lab Director Punished for Falsifying Test Results

As a result of an environmental investigation begun by MassDEP, in April 2014 the director of a private water testing laboratory in Lee pleaded guilty and was sentenced in connection with backdating drinking water sample analyses and for hiding evidence of bacterial contamination. Lab director William Enser, Jr. pleaded guilty in Berkshire Superior Court on charges of knowingly falsifying reports and willfully making false reports to MassDEP. Mr. Enser, formerly a certified public water system operator, was the director of Berkshire Enviro-Labs, Inc. (Enviro-Labs) in Lee. Enviro-Labs is a private Massachusetts company that formerly acted as a certified drinking water lab to provide drinking water testing for private and public water suppliers in the western part of Massachusetts. After the plea was entered, Mr. Enser was sentenced to two years probation and was prohibited from seeking any water testing related licenses and from operating another public water testing or operating company. Mr. Enser was also barred from participating in the sampling, testing, and analysis of public drinking water samples for any other company. Enser was ordered to publish a public apology in The Berkshire Eagle and to contribute \$100,000 to the Massachusetts Natural Resources Damages Trust, which funds projects that protect drinking water in the Commonwealth. For more information on this case, go here: <http://www.mass.gov/ago/news-and-updates/press-releases/2014/2014-04-01-enser-plea.html>

Former Junkyard Operator Sentenced for Not Reporting Release of Hazardous Materials

In March 2014, the former owner of a large parcel of land in Leominster and Sterling was found guilty and sentenced for failing to report the presence of environmental contamination on his property. As a result of this case investigated by MassDEP and brought to Superior Court by the Mass Attorney General, land owner Paul Lukashuk was sentenced to 18 months in the House of Correction, suspended for a probationary period of five years, and he is prohibited from handling or managing solid waste or hazardous materials. Mr. Lukashuk's former 31-acre property was the site of a scrap yard and recycling facility for decades. In 2000, a potential purchaser of the property retained an environmental engineering firm to assess the environmental condition of the property. The engineering firm determined that approximately four acres of the parcel on the Leominster portion of the property was contaminated with PCBs, cadmium and lead. The potential purchaser withdrew from the purchase, citing concerns about the contamination and other permitting issues. At the time, Lukashuk was notified of the report and the contamination on his property, but failed to report it to MassDEP, as required by the Massachusetts Oil and Hazardous Material Release and Prevention Act. When Lukashuk sold the property to another purchaser in 2005, he did not record a notice that hazardous waste was disposed of on the property at the Registry of Deeds, as required under the state's Hazardous Waste Management Act. For more information check here: <http://www.mass.gov/ago/news-and-updates/press-releases/2014/2014-03-27-lukashuk-trial.html>

Air and Hazardous Waste Violations at Lahey Clinic Hospital in Burlington

In September 2014, MassDEP announced a major environmental enforcement action against the Lahey Clinic Hospital in Burlington that included a large financial penalty and a significant Supplemental Environmental Project (or SEP). As part of the clinic's campus expansion project, Lahey installed a three-megawatt engine device to help reduce their electrical costs and the facility's draw on the electrical distribution system but did so without determining the engine's impacts on air quality and seeking an air quality permit from MassDEP. Agency personnel discovered that Lahey had already installed the engine and it was in operation, and a subsequent inspection also uncovered numerous hazardous waste violations. In a negotiated settlement, Lahey agreed to a penalty totaling \$540,000, including a \$100,000 payment for the SEP. The SEP funds will go to the Middlesex 3 Coalition to fund projects that will decrease air emissions in the hospital area. The clinic will also do other work to come back into and stay in compliance with MassDEP regulations.



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