FFY11 Year-End Annual Report

MassDEP/U.S. EPA Region I Environmental Performance Partnership Agreement: 2010-2012

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Introduction

This document is the Massachusetts Department of Environmental Protection's (MassDEP's) Federal FY 2011 Year-End Annual Report for the MassDEP/US EPA-Region I Program Plan/Performance Partnership Agreement (PPA). In Federal FY 2011 (October 1, 2010 – September 30, 2011), MassDEP received about $13 million from U.S. EPA under an umbrella grant agreement called the Performance Partnership Grant (PPG). The PPG, and the associated narrative agreement that outlines work commitments to be performed by MassDEP (called the Performance Partnership Agreement [PPA]), covers MassDEP's implementation of federally-delegated programs under the Clean Air Act, Clean Water Act, RCRA, etc. For the last 13 years, MassDEP has elected to combine the annual PPA narrative with the annual agency-wide Program Plan in an attempt to have a single comprehensive plan for the agency's activities for the coming year (including federally-funded and non-federally funded).

This document provides information on MassDEP's accomplishments for FFY 2011 and has three parts:

Part 1: Accomplishment Highlights -- Brief narrative summary of noteworthy accomplishments in FFY11. These accomplishment highlights are organized into the following goal areas:

Part 2: Priorities and Commitments – Tables summarizing progress made toward the environmental goals and in meeting the commitments contained in the FFY11 PPA Grant Workplan

Part 3: Inspection Tables -- Inspection tables showing the number and type of inspections conducted in FFY11.

For more information on MassDEP's activities, including MassDEP Program Plan/Environmental Performance Partnership Agreements (PPAs) and Year-End Annual PPA Reports for previous years, please see the MassDEP website at the following URL: http://www.mass.gov/dep/about/priorities/ppahome.htm

For additional information on Massachusetts environmental progress and trends, see the MassDEP website:

- MassDEP priorities and results: http://mass.gov/dep/about/missionp.htm
- Statistics & Progress on cleaning up waste sites in Massachusetts: http://www.mass.gov/dep/cleanup/priorities/progeval.htm
- Trends in air pollution: http://www.mass.gov/dep/air/priosres.htm
- Trends in solid waste generation: http://www.mass.gov/dep/recycle/priorities/dswmpu01.htm#recycling
- Trends on toxics use reduction: http://www.mass.gov/dep/toxics/tura/turadata.htm
- Status of water, wastewater and wetlands: http://www.mass.gov/dep/water/priorities/epphome.htm

GOAL 1: Clean Air and Global Climate Change

Climate and Energy

Clean Energy Results Program Launched

After a few months of preparation, the Massachusetts Department of Environmental Protection (MassDEP)/Department of Energy Resources (DOER) *Clean Energy Results Program* was launched in November 2011. This is a major, innovative new initiative that will advance the Patrick-Murray Administration's goals for creating sources of renewable energy and encouraging energy-efficient development. The Clean Energy Results Program will further encourage the development of clean-energy projects in Massachusetts by focusing the scientific expertise of MassDEP and DOER in an effort to streamline the technical and regulatory barriers and siting and permitting processes related to these projects.

In 2007, the Patrick-Murray Administration made the landmark move of combining state energy agencies (Department of Public Utilities and DOER) into the Environmental Secretariat alongside MassDEP and other environmental agencies. Since that time, Massachusetts has become the most energy-efficient state in the country, according to the American Council for an Energy-Efficient Economy (ACEEE). ACEEE's state-by-state energy efficiency scorecard ranked Massachusetts above California, noting the Patrick-Murray Administration's clean energy agenda, which includes innovative energy efficiency programs like this one.

In the fall of 2011, the Massachusetts Clean Energy Center (MassCEC) announced significant growth in the Massachusetts clean-energy economy, which now employs more than 64,000 people, according to its 2011 Massachusetts Clean Energy Industry Report. The report identified 4,909 clean-energy companies across the state that saw a 6.7 percent increase in jobs between July 2010 to July 2011.

Governor Patrick has also directed all agencies to achieve permitting at the speed of business, and this initiative will harness MassDEP's unique scientific and regulatory expertise to advance the timely permitting of clean-energy projects. Working together, MassDEP and DOER have developed the following short- and long-term goals for this results-driven initiative:

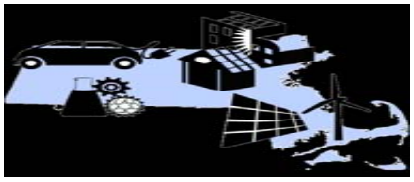
- In conjunction with public and private sector partners, ensure that at least three anaerobic digestion/Combined Heat and Power (CHP) projects are permitted, constructed, and operated by 2014, and monitor environmental performance to determine best practices.
- By 2012, and in coordination with the Massachusetts Department of Public Health, complete the review of any potential health impacts associated with wind turbines through the expert science panel that has already been convened, and advance public discussion on the health effects of wind turbines based on sound science.
- By 2013, increase the use of renewable energy at participating Energy Leaders drinking water and

wastewater treatment facilities by 50 percent using the benchmark of 2007 energy generation and use.

- Increase energy production from aerobic and anaerobic digestion to 50 megawatts (375 GWh/y) by 2020.
- Achieve the Commonwealth's goals of diverting 350,000 tons per year of organic material from landfills and incinerators by boosting use of anaerobic digestion, CHP, recycling, and composting.
- Achieve zero-net energy at 20 percent of drinking water and wastewater treatment facilities by 2020 through generation of on-site energy in a quantity equal to or greater than the total amount of energy consumed.
- By 2020, achieve 50 megawatts of new solar photovoltaic on underutilized contaminated land (landfills and Brownfields), helping meet the Renewable Energy Portfolio Standard (RPS) Solar Carve-Out target of 400 megawatts of solar photovoltaic (PV), and creating green jobs and tax revenue benefitting Massachusetts communities.

For more information on the MassDEP/DOER Clean Energy Results Program, go to: www.mass.gov/dep/cleanenergy.htm

Clean Energy and Climate Plan to Reduce Greenhouse Gas Emissions 25 percent by 2020



The Executive Office of Energy and Environmental Affairs (EEA) set the statewide greenhouse gas (GHG) emissions limit for 2020, required by the Global Warming Solutions Act of 2008, at 25 percent below 1990 levels, the maximum authorized by the Act. Measures already in place will get Massachusetts much of the way toward that goal. A targeted portfolio of additional policies, chosen because they promise overall cost savings, will allow the Bay State to reach the most ambitious target for GHG reduction of any state in the country.

The 136-page *Clean Energy and Climate Plan for 2020,* released December 2010, contains a "portfolio" of established and new measures that reduce energy waste, save money, and stimulate the adoption of clean-energy technologies, thereby creating jobs at the same time that they reduce GHG emissions. It is estimated that 42,000 to 48,000 jobs would result from full implementation of the plan in 2020, both jobs that fill every niche in the clean-energy supply chain – electricians, installers, researchers, architects, manufacturers, plumbers, energy auditors, technicians, and scientists – and jobs throughout the economy as lower fossil-fuel energy expenses lead to more spending on in-state goods and services.

Existing policies include the Green Communities Act requirement of capturing all cost-effective energy efficiency, which has given Massachusetts the most far-reaching energy efficiency program in the country, projected to yield $6 billion in customer savings from $2 billion of investment over three years. Continuation of these energy efficiency efforts, plus additional building-related measures such as deep-energy improvements in buildings; advanced, flexible building energy codes; and a new energy rating and labeling system that will be the equivalent of miles-per-gallon auto fuel efficiency ratings for buildings, beginning as a pilot program in western

Massachusetts, will reduce GHG emissions statewide nearly 10 percent by 2020.

In electricity supply, established programs like the Regional Greenhouse Gas Initiative and the Renewable Portfolio Standard will be supplemented by efforts to obtain additional clean-energy imports such as Canadian hydropower and a proposed Clean Energy Performance Standard, which would require electricity suppliers to favor lower- and no-emissions sources in the mix of electricity delivered to their customers, will reduce emissions 7.7 percent by 2020. In transportation, MassDOT's *GreenDOT* sustainability program and other efforts to limit growth in driving, federal fuel efficiency standards, and lower-carbon fuels are expected to produce 7.6 percent GHG reductions. And in non-energy-related sources of emissions, new and expanded programs will address leaking refrigerants that are more powerful greenhouse gases than carbon dioxide, for additional reductions of 2 percent.

Additional information on the Clean Energy Plan may be found at http://www.mass.gov/Eoeea/docs/eea/energy/2020-clean-energy-plan.pdf

Climate Change Adaptation Report

The first of its kind in the state, the Massachusetts Climate Change Adaptation Report provides a comprehensive overview of observed and predicted changes to Massachusetts' climate and the anticipated impacts of and potential adaptation strategies to prepare for climate change. Prepared by EEA and the 34-member Climate Change Adaptation Advisory Committee established under the Global Warming Solutions Act of 2008, it includes a sector-by-sector look at how climate change may impact natural resources and habitat; infrastructure; human health and welfare; local economy and government; and coastal zone and oceans.

Like many other coastal states, the report finds that Massachusetts is faced with increasing sea-level rise and storm surges, higher temperatures, and changes in precipitation over the course of this century – all of which could contribute to profound impacts on our coastal infrastructure and businesses, public health, and natural ecosystems in coming years. EEA and its agencies plan to evaluate potential strategies contained in the report and work with stakeholders to prioritize them and assess feasibility of implementation. In addition, EEA plans to form a stakeholder group that will explore mechanisms for addressing the potential impacts of climate change (such as sea-level rise) as part of EEA's Massachusetts Environmental Policy Act review process. The report aims to provide guidance on how communities, businesses and governments can prepare for and respond to climate change effects such as these. Potential approaches include conducting vulnerability assessments of public health, physical structures and assets, natural resources and economic sectors. Data collected from these assessments would inform future planning, development and management of existing and planned resources.

The report also highlights the importance of protecting existing infrastructure and development from inundation,

especially structures along coasts and in flood plains, and the importance of including climate change predictions in future development and design practices. The report includes potential strategies to enhance emergency-response tools, to protect and preserve natural habitats and the hydrology of watersheds, to establish redundant supply routes and to incorporate climate-change projections into municipal planning.

Additional information on the Massachusetts Climate Change Adaptation Report may be found at: http://www.mass.gov/Eoeea/docs/eea/energy/cca/eea_climate_adaptation_report.pdf.

The Regional Greenhouse Gas Initiative (RGGI)

The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory, market-based effort in the United States to reduce greenhouse gas emissions. Ten Northeastern and Mid-Atlantic states, including Massachusetts, have capped and will reduce CO2 emissions from the power sector 10% by 2018.

RGGI has completed eleven successful GHG emission credit auctions to date. Each state directs its own strategy for investing RGGI proceeds in programs that benefit consumers and build a clean energy economy.

Massachusetts, through the Department of Environmental Protection (DEP) and the Department of Energy Resources (DOER), has developed a plan for the distribution of RGGI auction proceeds to a range of consumer-benefit programs, with the largest distribution going to utility-administered energy-efficiency programs.

A report released in February 2011 shows that, overall, RGGI Participating States are investing 80 percent of CO2 allowance proceeds, which now total more than $900.5 million, in strategic energy programs:

52 percent to improve energy efficiency;
11 percent to accelerate the deployment of renewable energy technologies;
14 percent to provide energy bill payment assistance, including assistance to low-income ratepayers;
1 percent for a wide variety of greenhouse gas reduction programs, including programs to promote the development of carbon-emission-abatement technologies, efforts to reduce vehicle miles traveled, and programs to increase carbon sequestration.

The report is based on each state's plan for the investment of CO2 allowance proceeds and on evaluations of strategic energy programs. These investments are reducing CO2 emissions and generating important consumer benefits, including lower energy bills, greater electric system reliability and more jobs. Evaluations of several energy efficiency and renewable energy programs in the RGGI Participating States show $3-$4 in benefits for every $1 invested.

Additional information on the benefits being generated in Massachusetts may be found at http://www.rggi.org/rggi_benefits/program_investments

Clean Air

MassCleanDiesel “Clean Air for Kids"

Mass Clean Diesel 'Clean Air for Kids" is the nation's first fully-funded statewide voluntary program to reduce air pollution from school buses. The school bus retrofit program significantly reduced air pollutants emitted from thousands of older school buses serving nearly 310,000 students in 300 communities across the Commonwealth over the past three years. With $16.5 million in state and federal funding provided by the Massachusetts Department of Transportation (MassDOT), the MassCleanDiesel program installed pollution controls - known as diesel retrofits - on 2,114 diesel-powered school buses that served 300 local communities.

The MassCleanDiesel program is responsible for reducing emissions of harmful air pollutants by more than 27.2 tons per year. With the retrofit of the school bus fleet, particulate matter (PM) emissions are reduced by approximately 1.5 tons per year or by approximately 8.9 tons over the next six years, which is the expected life of the pollution control devices installed. Hydrocarbon (HC) emissions are reduced by approximately 5.4 tons per year or 32.5 tons over the life of the equipment, while carbon monoxide (CO) emissions are reduced by 20.3 tons per year or 121.9 tons over the life of the equipment.

Overall, there were 4,598 buses in school systems across the state that signed up for the program; 2,114 buses received the retrofits, while 2,484 buses were deemed ineligible because the buses already came with factory-installed emission-reduction technology or would not remain in service for at least three years.

By participating in the program, the eligible school buses received a diesel oxidation catalyst (DOC), a crankcase ventilation (CCV) system, or both. DOCs, which function like a catalytic converter in the engine exhaust system, reduce tailpipe emissions. CCVs, which are installed on the engine, greatly reduce the infiltration of blow-by gases from the engine into the bus's interior.

There is strong scientific evidence that PM is implicated in the rising asthma rates in school-age children and is also considered a probable carcinogen. HC helps form ground-level smog, and exposure to this pollutant is associated with increased hospital admissions for respiratory distress, such as bronchitis. Exposure to CO can cause headaches, nausea, and even be fatal in some instances.

The school bus retrofits were performed by New England Transit Sales of Tyngsboro, Shuster Corporation of New Bedford, and Tri State Truck Center, Inc. of Shrewsbury.

For more information about school bus diesel retrofits, go to: http://www.mass.gov/dep/air/diesel/masscleandiesel.htm.

Grant Program Helps to Retrofit 170 Waste Collection Vehicles, Cutting Harmful Diesel Emissions

Nine private waste haulers and sixteen municipalities installed diesel pollution control equipment on 170 garbage trucks and recycling vehicles to reduce emissions under MassDEP's MassCleanDiesel grant program. The program is supported by funding from the Diesel Emissions Reduction Act (DERA) and funding from an enforcement settlement with American Electric Power.

The private waste haulers that installed the retrofit equipment are B. P. Trucking Company, Inc. of Ashland, Central Mass Disposal, Inc. of Auburn, Capitol Waste Services, Inc. of East Boston, Mike Delprete & Sons Trucking of Rockland, Casella Waste Systems of Rutland, P. Pellegrino Trucking Company, Inc. of Shrewsbury, Atlantic Refuse Leasing Equipment of Tyngsborough, Allied Waste Services of Boston, and Russell Disposal, Inc. of Somerville. These companies serve 36 communities across the Commonwealth.

The municipalities received retrofits on the following vehicles: Blackstone; Bourne; Brookline; Chicopee; Clinton; Framingham; Greenfield; Holyoke; Lynn; Melrose; Natick; Norwood; Quincy; Springfield; Wakefield; and Westfield.

Two retrofit equipment vendors under state contract with MassDEP, Shuster Corporation of New Bedford and Southworth-Milton, Inc. of Milford, installed the retrofit devices.

Additional information may be found at http://www.mass.gov/dep/air/diesel/masscleandiesel.htm

Grant Programs To Further Reduce Diesel Emissions

MassDEP has successfully given out $2,232,500 in funding under the American Recovery and Reinvestment Act of 2009 for the following five projects.

Massachusetts' state-owned on-road heavy-duty diesel vehicle fleet: 261 heavy-duty vehicles, including dump trucks, plow trucks, rack trucks, and truck/crane combination vehicles, owned by Massachusetts Department of Transportation and the Department of Conservation and Recreation, were retrofitted with diesel oxidation catalysts (DOCs) by New Bedford based Shuster Corporation. These vehicles are typically used for on-highway construction projects and/or snow plowing and other uses including movement of materials and personnel.

Waste Collection Vehicle Retrofit Program: 43 waste collection vehicles owned by two private waste haulers, Capitol Waste Services and Russell Disposal, were retrofitted with DOCs. The retrofit devices were installed by Shuster Corporation of New Bedford and Southworth-Milton, Inc. of Milford. These 43 waste collection vehicles join the other 170 vehicles retrofitted under (DERA) and funded from an enforcement settlement with American Electric Power.

MBTA Locomotive Head End Power Repower Program: MassDEP provided the Massachusetts Bay Transportation Authority (MBTA) funding to repower 12 head-end power

(HEP) generator sets in its commuter locomotive fleet. HEP generators supply electrical power used for heating, cooling, and lighting the passenger coaches. Although much smaller than main locomotive engines (670 horsepower versus 3,000 hp), HEP engines typically consume 40 percent or more of the diesel fuel used by a locomotive and emit a substantial amount of the total emissions.

Northeast Hybrid Truck Consortium Hybrid Truck Purchasing Program: MassDEP used ARRA funding to offset the incremental cost (up to 25%) of purchasing four diesel medium and/or heavy-duty hybrid trucks owned by National Grid and NSTAR as replacements for the conventional diesel-powered trucks in their fleets.

Massport Fish Pier Electrification Project: MassDEP provided funding to Massport to enable fishing vessels berthed at the Boston Fish Pier to switch power from diesel engines to the electrical grid system. The ARRA funding was used to add three power stations to accommodate six additional vessels.

GOAL 2: Clean and Safe Water

Millions for Clean Water and Drinking Water Projects

Eighty-eight municipal projects across the Commonwealth became eligible for 2-percent loans in FFY11 to fund projects to improve water quality, upgrade or replace aging wastewater and water supply infrastructure, and cut municipal energy use and costs.

The Commonwealth offered low-cost State Revolving Fund (SRF) financing worth nearly $400 million to 71 communities throughout Massachusetts to fund projects implemented by cities and towns, regional water supply and wastewater treatment districts, and the Massachusetts Water Resources Authority (MWRA). The projects included 57 clean water initiatives totaling nearly $300 million and 31 drinking water projects totaling $100 million. The funding round also included financing for 23 projects worth more than $64 million for green infrastructure projects or components of projects that involve energy-efficiency upgrades to treatment plants and the on-site installation of renewable energy technologies for solar and wind power.

Energy use at wastewater and drinking water facilities is a major contributor to overall energy consumption for many cities and towns, with communities statewide spending approximately $150 million per year on electricity to treat 662 billion gallons of wastewater and drinking water. Up to 30 percent of municipal energy use is devoted to water treatment.

This funding round also provided nearly $18 million in loan-principle forgiveness for 21 construction projects in 15 municipalities, which are considered Environmental Justice (EJ) communities, with below average Median Household Income levels. EJ areas are home to lower-income people and communities of color who may experience a disproportionate share of environmental burdens and often lack environmental assets in their neighborhood.

The SRF is comprised of two programs: the Clean Water Fund, which has awarded nearly $4.5 billion in loans since the program's inception in 1991; and the Drinking Water Fund, which has awarded nearly $1.1 billion in projects since it began in 1999.

The Clean Water SRF funds planning and construction projects, such as wastewater treatment facilities and upgrades to existing sewer systems. The Drinking Water SRF funds the engineering, design and construction of drinking water projects that protect public health and strengthen compliance with state and federal drinking water requirements.

Massachusetts awards infrastructure financing under the SRF, which is administered by the Massachusetts Water Pollution Abatement Trust - a joint effort of the Massachusetts Department of Environmental Protection (MassDEP), the Executive Office of Administration and Finance and the State Treasurer's Office.

The Clean Water Projects funded for 2011 are listed in Table 1 on the third page of the following document:

2011 Final Clean Water Intended Use Plan
http://www.mass.gov/dep/water/wastewater/cwiup11.pdf

The Drinking Water Projects funded for 2011 are listed in Table 1 on 4th page of the following document:

2011 Final Drinking Water Intended Use Plans
http://www.mass.gov/dep/water/wastewater/dwiup11.pdf

Grants awarded to Assess Water Quality in Watersheds

In June 2011, $201,812 was awarded in grants to four projects across the Commonwealth to conduct watershed non-point-source-pollution assessment and planning work to address water quality impairments.

The projects, selected by the Massachusetts Department of Environmental Protection (MassDEP), are located in Adams, Carver, Milton and Woburn. The grants are funded through the non-point source program established by section 319 of the U.S. Clean Water Act.

Since 1998, MassDEP has funded 68 projects under this program for approximately $3,176,113. Non-point source (NPS) pollution is caused by diffuse sources that are not regulated and are normally associated with precipitation and stormwater runoff from the land or infiltration into the soil. Common types of NPS pollution include phosphorus and nitrogen from lawn and garden fertilizers, bacteria from pet waste and waterfowl, oil and grease from parking lots and roadways, and sediment from construction activities and soil erosion.

Qualified proposals were selected on a competitive basis and grant recipients include municipalities and regional planning commissions. Funding for the projects will be available this summer. The projects awarded grants this year are:

- ***Bacteria Source Tracking (BST) & Mitigation in the Hoosic River Watershed*** (Adams) - $56,300. The Berkshire Regional Planning

Commission will identify non-point sources of bacterial contamination in the Hoosic River Watershed and develop strategies to mitigate the sources found. This project will continue work initiated by MassDEP's Pilot BST Program, conducted by the Division of Watershed Management, to address the primary cause of impairment in the watershed.

- ***Cranberry Bog Nutrient Loss Study*** - $58,642 (Carver) - This project will collect data on nutrient losses from various types and configurations of cranberry bogs to better inform estimates of potential nitrogen discharges from cranberry bogs of various configurations. This information can be used to more accurately model the potential contribution that cranberry bogs may be making to the eutrophication of Buzzards Bay and Cape Cod estuaries. In addition to being the largest freshwater contributor to Buzzards Bay, the Weweantic basin has more cranberry bog acreage than any other coastal watershed in Massachusetts.

- ***Milton Best Management Practices (BMP) Development Project*** - $37,000 (Milton) This project will identify suitable sites for retrofitting with structural and non-structural stormwater BMPs using a Low Impact Design (LID) approach to address pathogens and other pollutants of concern. Conceptual designs and cost estimates will be developed for BMPs at three or more sites. The project will use a methodology for identifying and prioritizing BMP retrofit opportunities that are currently employed on three projects in Sharon, Canton, and Dedham respectively.

- ***Aberjona River Watershed Best Management Practices (BMP) Development Project*** - $49,860 (Woburn) - This project will evaluate sub-watersheds in Woburn, Burlington, Reading and Winchester to identify suitable sites for retrofitting with structural stormwater BMPs. Potential retrofit sites will be prioritized based on water quality assessment, Geographic Information System (GIS) analysis, site surveys, and a collaborative decision-making process. Conceptual designs and cost estimates will be prepared for one site in each of the four participating municipalities.

Federal Study Maps Concentrations of Arsenic and Uranium in Private Bedrock Well Water

The U.S. Geological Survey (USGS) released a study in the summer of FFY11 which indicated that levels of naturally-occurring arsenic and uranium exceed drinking water standards in some private drinking water wells in central and northeastern Massachusetts. State officials worked with USGS to develop resources to help private-well users use an on-line predictive tool to determine whether their water might meet federal safety standards, and provide guidance on water testing and treatment. MassDEP and the MDPH provided funding and assistance to complete this study.

USGS researchers analyzed water samples from 478 private bedrock wells in 116 area cities and towns and found that 13 percent exceeded federal drinking water standards for arsenic, and 3 percent exceeded standards for uranium. Both arsenic and uranium are found naturally in some types of bedrock in the study area.

Because private wells are regulated at the local level, MassDEP and MDPH provided health and water treatment information to health officials in each town with a higher probability of contamination from bedrock sources.

In its investigation, USGS plotted the tested wells on a map showing types and extent of bedrock in the study area to relate concentrations of arsenic and uranium to bedrock type. They then plotted the remaining wells and estimated that about 5,700 of the estimated 90,000 wells in the study area may exceed the standard for arsenic, and about 3,300 may exceed the standard for uranium. Testing is needed to confirm any predicted concentration.

Public drinking water concentration standards for arsenic and uranium are conservatively set at low levels that can account for even those health risks associated with decades of regular consumption. Long-term exposure to arsenic above the standards can cause darkened patches of skin on the body, and has been linked to skin, bladder, and lung cancer. Long-term exposure to uranium in drinking water can damage the kidneys. Based on information available on water testing results and the MDPH companion effort testing for arsenic and uranium in urine, the probability that anyone's well poses an acute health concern is very low.

Public water supply sources regulated by MassDEP that serve residences are routinely monitored for arsenic and uranium and, if necessary, they have been treated to put those sources into compliance with the standards.

The USGS study is the first detailed look at the distributions of arsenic and uranium in 116 communities within the Massachusetts portion of the New England "arsenic belt," a swath of naturally-occurring arsenic in bedrock stretching from Dudley to Salisbury. Bedrock wells are a significant source of groundwater in the area. USGS led the study to help site future public water supplies as demand for groundwater grows in the arsenic belt, and to inform private-well owners following the recent adoption of new federal drinking water safety standards.

The report, "Arsenic and Uranium in Water from Private Wells Completed in Bedrock of East-Central Massachusetts – Concentrations, Correlations with Bedrock Units, and Estimated Probability Maps" , is posted online at:

http://pubs.usgs.gov/sir/2011/5013/

To determine any risk in an area or to get advice on testing and information on the potential health effects of arsenic and uranium, visit the Massachusetts Department of Environmental Protection at:

http://mass.gov/dep/water/drinking/au/aulocate.htm

MassDEP and EPA Offer Stormwater Workshops

The Massachusetts Statewide Stormwater Seminar Series in FFY11 provided 16 individually designed hands-on stormwater

workshops across the Commonwealth. The workshops could have covered up to 20 topics, including: Low Impact Development; Illicit Discharge Detection and Elimination; Writing a Local Stormwater Ordinance; and Funding Local Stormwater Programs. Municipal interest in specific topics was solicited in advance, and tailored programs were created for each workshop based on this input. These seminars offered practical steps and actions that town officials and residents can take to reduce stormwater pollution into local rivers, streams, ponds and lakes. The seminars were offered in 16 locations across the state, were free, and open to all.

Funded by the MassDEP 319 Nonpoint Source Pollution Competitive Grant Program, these seminars were presented by Vanasse Hangen Brustlin, Inc., in collaboration with the Center for Watershed Protection, the Horsley Witten Group, and Stacey DePasquale Engineering. In addition, local organizations such as the Central Massachusetts Regional Planning Commission, the Merrimack River Watershed Council, and Save the Bay hosted the seminars.

GOAL 3: Land Preservation and Restoration

Task Force on Building Capacity for Managing Organic Material – Anaerobic Digestion, Composting and Recycling

The Draft 2010-2020 Massachusetts Solid Waste Master Plan proposes ambitious goals of reducing the quantity of waste disposed of in the Commonwealth by 30% (2 million tons) by 2020, and by 80% (5.2 million tons) by 2050. The Master Plan also sets a sub-goal for 2020 of diverting an additional 350,000 tons of organic material from disposal by that year, over the 650,000 tons that were diverted in 2009. Meeting this goal requires significant increases in in-state capacity at anaerobic digestion, composting, and recycling facilities.

This aggressive target is consistent with the recently released Massachusetts Clean Energy and Climate Plan for 2020. Achieving the goals of both of these Plans will produce important environmental benefits.

Current solid waste regulations pose barriers to the development of anaerobic digestion ("AD", a technology that turns organic waste like food waste into gas for energy production), certain types of recycling, composting, and other clean/green cutting edge technology development in the Commonwealth.

In February 2011, the Executive Office of Energy and Environmental Affairs established a Task Force on Building Organics Capacity in Massachusetts to:

- Identify the barriers to advancing management of organic material in Massachusetts,
- Identify ways to reduce or eliminate these barriers, and
- Recommend specific actions to expand the infrastructure for composting, recycling, and organics management

The Task Force concluded that the technologies for composting and recycling organics have improved a great deal over the last 20 years or so. Today, anaerobic digestion, composting, and recycling operations are less like solid waste dumps and more like modern manufacturing plants.

Regulatory changes have been proposed that would bring the regulations up-to-date with the development of these innovative technologies by establishing an appropriate level of MassDEP oversight over these activities, facilitating siting of these projects, and maintaining high environmental standards and local oversight.

An expansion of in-state recycling/processing capacity will also create jobs and economic development opportunities. Expanding in-state capacity to process diverted organic material will have important co-benefits for Massachusetts farms and will help anaerobic digesters at Massachusetts wastewater treatment plants operate more efficiently and economically.

For additional information on the Organics Task Force, visit the Massachusetts Department of Environmental Protection at:

http://www.mass.gov/dep/public/committee/adtf.htm

For additional information on Anaerobic Digestion at Waste Water Treatment plants, view:

"**Tapping the Energy Potential of Municipal Wastewater Treatment: Anaerobic Digestion and Combined Heat & Power in Massachusetts and Beyond**"
http://www.mass.gov/dep/water/priorities/we_prore.htm

Waste-to-Energy Credit Regulations
In 2010, MassDEP promulgated Waste-to-Energy Credit (WEC) regulations, to implement a provision in recently-enacted legislation which allows waste-to-energy facilities to be paid for the electricity they produce as "renewable." Fifty percent of the revenue must be used in FY 2011 to support recycling programs approved by MassDEP. The Sustainable Materials Recovery Program (SMRP) made awards of $1.4m to 107 communities in November 2011 for recycling and waste reduction activities and awarded a contract for a vendor to develop a Commercial Recycling Assistance Program which will provide a variety of services to businesses in Massachusetts to help increase solid waste diversion and recycling.

MassDEP Recycling Grants to Communities: MassDEP provided recycling grants to four communities switching to single-stream recycling programs in order to increase recycling and decrease trash disposal. MassDEP provided $100,000 each to the city of Springfield and the towns of Brookline and Framingham, and $86,500 to the town of Franklin. These funds – part of our successful Sustainable Materials Recovery Program (SMRP) – will help the communities offset the costs to purchase the recycling carts, which are the heart of the single-stream system.

These communities are among the 70 that have gone to the single-stream recycling program. Under this program, residents are encouraged to put all of their recyclables into the one container – providing more capacity than the traditional

blue bins. And instead of separating it at home, the "single stream of recyclable materials" is separated at a sorting facility – making it easier for residents to participate. Single-stream recycling with carts results in an average 20 percent increase in recycling tonnage, with some communities achieving more than 50 percent increase.

Single-stream recycling in these communities and in the others across the state has greatly increased recycling tonnage, significantly decreased trash disposal, saved communities hundreds of thousands of dollars a year in disposal fees, helped to reduce our greenhouse gas emissions, and employed more than 14,000 people in the recycling industry. This program is a great success, and MassDEP will provide assistance to other cities and towns that want to make the switch.

Time-Critical Removal Actions

In FY11 MassDEP conducted testing of various media, including surficial soils at sites where elevated concentrations of hazardous materials had been detected and no viable responsible parties have been identified, to determine whether the locations met the criteria for EPA's Removal Program. Based on assessments conducted by MassDEP, EPA's Removal Program conducted time-critical removal actions and restoration at a number of locations, including a residential neighborhood in Milton with lead and arsenic contamination in surface soils; a municipal park in Salem where surface soils were contaminated with PAHs from the former use of the site for a manufactured gas plant; and a residential neighborhood in Lawrence where surface soils were contaminated with PCBs and lead from the adjacent former scrap yard. MassDEP also worked with EPA's Removal Program on grid sampling of surface soils at a residential condominium development in Danvers with elevated levels of metals and dioxins ,and surface soil sampling at a residential neighborhood in Hyde Park/Boston with elevated levels of PCBs. MassDEP coordinated with EPA's Removal Program on the assessment and cleanup of residential properties contaminated with PCBs, lead and PAHs in New Bedford, as well as chromium-contaminated soils at the Walton Lonsbury site in North Attleboro. At each of these locations, MassDEP coordinated with EPA staff and assisted in communication with residents and local officials, as needed.

Superfund Program

MassDEP completed the take-over of the long-term operation of the Groveland Wells groundwater treatment system at an annual projected cost of approximately $600,000. MassDEP has now assumed operation of three of these large long-term systems at an annual cost of approximately $2 million. Cleanup of the Hathaway and Patterson site was completed, making it the first cleanup completed in the Nation using ARRA funds. MassDEP also initiated efforts to locate renewable energy technologies at the Baird and McGuire site for the operation of the groundwater treatment system. If it is determined to be feasible, we hope to have these installed during this year.

MassDEP also advanced sites toward consideration for listing on EPA's National Priority List (NPL). At the former Creese & Cook tannery in Danvers, EPA has performed an Expanded Site Assessment and preliminary Hazard Ranking Score at MassDEP's request. MassDEP has met with town officials and

residents of condominiums on the former tannery site to present the results of the site assessment and discuss possible future actions by EPA and/or MassDEP. At the Fireworks Site in Hanover, MassDEP has worked with EPA to inform and educate town officials and the community about the pending NPL listing proposal.

Brownfields Support Teams

The Brownfields Support Team (BST) Initiative brings together staff from key state and federal agencies to help municipalities solve problems that impede the redevelopment of contaminated properties. These teams are made up of staff from MassDEP, MassDevelopment, the Massachusetts Department of Transportation and the Executive Office of Housing and Economic Development. EPA New England Regional office is also an integral part of the Brownfields Support Team as is the Attorney General's Office. In FY11 six sites statewide received BST support. Highlights from these projects include:

- Uniroyal/Facemate, Chicopee - assistance with technical, legal and funding issues related to the municipally-owned former Uniroyal and Facemate properties helped the City to "reposition" the properties for a mixed-use redevelopment along the Chicopee River to be known as "RiverMills at Chicopee Falls." As a result of the team efforts, the City is able to market this municipally-owned site for commercial reuse creating jobs and tax revenue. Chicopee has prioritized the revitalization of this area and its redevelopment will include a river walk/bikeway that will connect the site to the downtown commercial district. The City has committed to locating its new +/- 21,000-square-foot Older Adult Community Center on a portion of the Facemate site.

- Fisherville Mill, Grafton - MassDEP worked to acquire all necessary federal, state, and local permits for the design of a containment structure to collect oozing oil and to dredge oil-laden sediments in the canal at this abandoned blighted mill. The property is located on the Blackstone River and the Town of Grafton is constructing a public park with river access on a portion of the property. MassDEP work is funded with ARRA LUST and EPA Brownfield's Coalition Funds.

More information on the Brownfield Program may be found at http://www.mass.gov/dep/cleanup/brownfie.htm

GOAL 4: Healthy Communities and Ecosystems

Expanding the Bottle Deposit Law

When we throw bottles and cans away, we waste natural resources and energy. The original Bottle Deposit Law, enacted in 1982 and implemented the following year, was aimed at recovering soda, beer and other carbonated-beverage containers for recycling. That law did not cover water, juice or sports drink containers, which

represent more than 30 percent of all beverages sold in Massachusetts today.

Water, juice, and sports drink containers are a major source of litter and trash in our communities and cost millions of tax dollars to collect and recycle. The Massachusetts Legislature is considering several proposals that would expand the Bottle Deposit Law to cover these additional containers. If passed, the expanded Bottle Deposit Law will:

- Save cities and towns millions of dollars in collection and disposal costs annually,
- Create and save hundreds of jobs across Massachusetts, and
- Generate an estimated $20 million in new revenues.

Currently, more than 30,000 tons of non-carbonated beverage bottles are discarded and not recycled each year – enough bottles to fill Fenway Park, from the press box to the Green Monster, five times. There are four times as many non-carbonated beverage containers in litter than containers with deposits. More than 75 percent of residents and about 200 communities favor updating the deposit law to include water, tea and sport drink containers.

Expanding the existing nickel deposit on carbonated drinks to also cover water and sports drinks is a very high priority for MassDEP. An expanded Bottle Bill will increase recycling rates, reduce the bottle and can litter that we see on our streets, parks and beaches, and it will save communities up to $7 million a year in trash costs.

Governor Patrick has in the past included legislation in the budget to expand the Bottle Bill. That legislation would add a deposit for containers that are not currently covered by the existing law, such as bottled water and juice drinks. MassDEP has been tasked with leading the charge to obtain passage of this legislation, which reduces litter, saves money for our cities and towns, and promotes recycling. Passage of this law is a top priority for MassDEP. The Legislature declined to include the Governor's proposal in the Fiscal Year 2012 budget. The Governor's budget proposal for Fiscal Year 2013 will be filed early this year.

Natural Resource Damages Program

MassDEP achieved significant ecosystem improvement milestones this year under the Natural Resource Damages program, including:

- GE/Housatonic River NRD Restoration - The Housatonic River Floodplain Forest Restoration Project is restoring and enhancing the integrity of important floodplain forests. In partnership with the Berkshire Natural Resources Council and MassWildlife, the Project contributed funds toward the acquisition of the 273-acre Flat Brook Wildlife Management Area in West Stockbridge in the headwaters of the Williams River, a tributary of the Housatonic River. In addition, a multi-year effort to restore degraded wildlife habitat in floodplain forest, re-establish native plants along the Housatonic River, and promote increased educational opportunities associated with the river continued in FY11 with the planting of native floodplain species and control of invasive plant species on the Sedgwick Reserve and Taft Farm; monitoring reports document a

75% reduction in invasive plants. Education and outreach efforts have reached students of all ages as well as underserved populations (e.g. developmentally-disabled adults, high-school students with learning disabilities, and urban youth with little prior experience in nature).

- Textron/MMR NRD Restoration - MassDEP serves as the Lead Administrative Trustee for the Textron/MMR NRD settlement and oversees implementation of groundwater-restoration projects. In FY11, the Town of Sandwich focused on completing the Phase I needs assessment of a Comprehensive Water Resources Management Plan that will be an essential component in on-going regional water resources planning to address nitrogen loading, ground and surface water protection, and inform options for regional wastewater treatment. Also, the Upper Cape Water Supply Regional Cooperative has been working to identify existing and proposed municipal and residential water withdrawals, sensitive environmental receptors and wastewater discharges as part of an overall project to achieve sustainable regional management of the Sagamore Lens. This project is intended to consider competing demands for environmental resources, groundwater clean-up operations and waste disposal; the Cooperative has also been collaborating with the USGS groundwater modeling effort underway as part of the ongoing U.S. DoD cleanup programs at MMR.

GOAL 5: Compliance and Environmental Stewardship

MassDEP's Compliance Assurance Strategy

MassDEP employs a Compliance Assurance Strategy that promotes environmental compliance through compliance assessment activities, enforcement, technical assistance, and public education. We need to ensure that as we strive to achieve our ultimate goal—maintaining a clean and healthy environment--we strategically utilize and integrate all these compliance assurance tools, utilizing the best mix of these tools that will achieve strategic goals, including:

- ***Compliance Assessment and Verification:*** Efforts designed to assess how a sector or group of sources is performing, or the effectiveness of a particular compliance assurance strategy. As MassDEP increasingly relies on compliance information provided by the regulated entities to determine compliance status, an important element of these efforts is to ensure the validity of this information and actual compliance.

- ***Protecting Healthy Communities through Environmental Compliance:*** MassDEP regularly develops compliance assurance and enforcement initiatives to address matters that have direct impacts on public health or the environment.

- ***Targeted Enforcement to Achieve Results:*** Compliance assurance efforts that are targeted to address a sector or regulated entities for which we know or suspect there are noncompliance issues, including coordinated enforcement action targeting a specific sector with a known history of poor compliance.

- ***Leveraging Partnerships to Achieve Environmental Goals:*** Collaborating with other agencies, both state and federal, as well as with municipalities, leverage resources and expertise. During difficult economic times, when state and local governments face significant budgetary and resource constraints, such partnerships are even more critical.

Agency-wide Planning Approach to Compliance Assurance

In FY11, MassDEP implemented a robust agency-wide planning process to ensure we are proactive and strategically planning our compliance resources to achieve our goals.

Through this process, MassDEP looked at all planned compliance assessment activities, as well as the goal or aim of each activity. Compliance activities are used for:

- Regular, routine inspections of our largest facilities, to ensure they remain in compliance, and to meet our federal commitments;
- Inspections to follow up on significant compliance concerns we become aware of at other facilities;
- Enforcement blitzes, designed to identify violators and improve performance of a sector with a known or suspected compliance problem;
- Assessment of the environmental performance of a group or source to determine if there are compliance problems endemic to that group, which may need to be addressed systematically.

Compliance and Enforcement Activities

A crucial element of any effective compliance assurance strategy is a robust compliance and enforcement program that maintains a highly-visible presence in the regulated community, includes the issuance of timely and appropriate penalties, and takes other enforcement actions against environmental scofflaws. The goal is to deter current and would-be rule-breakers by finding violators, and to make those violators return to compliance, restore any damage caused, and pay a penalty that exceeds the economic benefit of non-compliance. In addition, MassDEP's enforcement efforts continued to yield important environmental benefits, such as reduced ozone pollution, fewer asbestos particles released to the air, proper cleanup of contaminated soils, and protected water for Massachusetts citizens.

Despite diminishing resources, in FY11 MassDEP continued to strive to maintain a robust compliance and enforcement presence, as summarized below:

- **Inspections**: 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 best be measured by the number of facilities its inspectors visit. The traditional inspection – a physical visit to review the compliance status of a regulated facility or site – remains the mainstay of MassDEP's compliance assessment program. Inspections are conducted for a variety of reasons: routine compliance assurance targeting of business sectors, follow-up at previously inspected facilities where violations were found, or investigation of complaints from the public.

In FFY11, MassDEP performed 6,643 inspections. In spite of budget and staff cuts, we continued to focus efforts on maintaining a credible compliance and enforcement presence.

- **Enforcement Actions:** While inspections can be used to further any number of strategic compliance and enforcement goals, a primary reason for performing them is to discover violations. MassDEP is committed to undertaking timely and appropriate enforcement actions when facilities are found to be out of compliance. In FY11, MassDEP issued over 2,750 enforcement actions, including:
  - **Lower Level Enforcement (LLE)**, including a variety of notices of non-compliance (NONs). These 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 FY11, MassDEP undertook over 2,100 lower level enforcement actions.
  - **Higher Level Enforcement (HLE)**, encompassing the range of enforcement actions generally pursued for more serious violations. These include administrative consent orders (ACOs) with or without penalties, penalty assessments (PAN), permit and license suspensions or revocations, and referrals to the Attorney General (AGO) or U.S. Environmental Protection Agency (EPA). In FY11, MassDEP undertook 681 HLE actions.
  - **Penalties:** An important element of a credible enforcement program, appropriate penalties and fines send a strong message to regulated facilities that breaking environmental rules won't gain them any financial advantages and, in fact, will cost them more in the long run.

    In FY11, MassDEP independently assessed approximately $3.4 million in administrative penalties and secured an additional $7 million in fines in fines and restitution through actions pursued jointly with the Massachusetts Attorney General.

- **Largest-ever Environmental Violations Penalty**: In 2011 MassDEP joined the Attorney General's office in a major enforcement action against Wheelabrator trash-to-energy facilities in Saugus, North Andover and Millbury for violations involving ash disposal and the release of wastewater into wetlands. The $7.5 million penalty against Wheelabrator is the largest monetary penalty ever imposed on a violator for claims arising from environmental violations. The settlement with the company followed more than 21 months of inspections and investigative work by MassDEP's Environmental Strike Force, and the AG's office. The complaint alleged that the Saugus and North Andover facilities committed multiple violations by failing to properly treat and dispose of ash and failed to contain fugitive ash. The Millbury and Saugus plants also committed violations by releasing ash-contaminated water and ash sludge into nearby wetlands and waterways.

  As part of the settlement, Wheelabrator must pay a total of $7.5 million; $4.5 million will be paid to

communities that dispose of their trash at the Saugus and North Andover facilities, while $2 million in fines will be paid to the Commonwealth, $500,000 will be donated to the Massachusetts Natural Resource Damages Trust, and another $500,000 will be used for supplemental environmental projects. Wheelabrator must also hire an independent environmental auditor to monitor the company's compliance for the next three years.

- **Walpole Superfund Site**: MassDEP joined the Attorney General's Office, the federal Department of Justice and the U.S. Fish and Wildlife Service in a settlement with the owners of the Blackburn and Union Privileges Superfund site in Walpole. More than $1 million has been secured to restore and protect natural resources at the site. Decades of heavy industrial use caused asbestos, arsenic, lead and other toxic substances to contaminate soil and water there. In fact, the contamination has affected the nearby Neponset River, associated wetlands and groundwater under the site.

  The settlement funds secured under the Natural Resource Damages statute will be used to fund local projects that will help to restore the groundwater, wetlands and other resources. MassDEP will staff the Trustee Council for the Commonwealth, and make sure that the local community and the public will be active participants in the restoration process.

- **Professional Development Training for Agency Compliance/Enforcement Staff**
  - May 17-18, 2011 (Boston, MA) MassDEP sponsored a full two (2) day training for 120 people (approx. 100 MassDEP staff and 20 from sister environmental enforcement agencies), which was designed for experienced inspectors and investigators. Day One focused on a variety of issues including pre-inspection fact gathering; Fourth Amendment challenges related to premises entry; evidence gathering and preservation; and sampling protocols. Day Two was a full-day seminar on overall communication skills in the inspection and enforcement context. Reviews from attendees were very positive. The Northeast Environmental Enforcement Project ("NEEP"), of which MassDEP is a member, paid for outside costs associated with this event.
  - August 30 - September 1, 2011 (Sayerville, NJ) MassDEP sent three (3) program staff and one person from a sister agency (DPH) to participate in a comprehensive Multi-Media Sampling Training at the Middlesex County Fire Academy in Sayerville, NJ. The focus of this training was science as it applies to sampling and overall sampling skills. Training activities included instruction on pre-sampling protocols, sample preparation, and developing a sampling plan. A full day was also spent on field simulated exercises using a variety of "real life" scenarios that including sampling of drums, tankers, sewers, and water sources. The Northeast Environmental Enforcement Project ("NEEP"), of which

MassDEP is a member, paid for outside costs associated with this event.

- Ongoing Webinar Trainings - Throughout the year, MassDEP makes EPA's NETI (National Enforcement Training Institute) schedule of webinar trainings available to staff. Scores of MassDEP staff are able to 'plug in' and obtain relevant trainings on a variety of topics.

For information on MassDEP's compliance assistance activities: http://www.mass.gov/dep/service/complian.htm

For information on MassDEP's enforcement activities: http://www.mass.gov/dep/water/enforcem.htm

Cross-Cutting Issues

In recent years, MassDEP has experienced significant budget cuts resulting from the national economic downturn. In 2002, MassDEP's annual funding was $62.9 million with a staff of 1,200. Today, MassDEP's budget is down to $46.4 million and 840 employees, the lowest levels since the mid-1980s. Yet MassDEP's responsibilities have increased rather than contracted during this time period, with the regulation of greenhouse gases, under the Massachusetts Global Warming Solutions Act, the transfer to MassDEP of responsibility for oversight of thousands of commercial underground storage tanks, the transfer from DCR of the Well Driller Program and the implementation of the Mercury Management Act, among other new responsibilities.

To face these challenges, MassDEP undertook a series of initiatives in FFY11 focused on maintaining high standards of environmental protection while operating with reduced resources and increased responsibilities. These included:

Applying the Speed of the Internet

Each year MassDEP has continued to increase web-based interactions providing the regulated community with direct on-line access for completing and submitting permit applications and compliance reports. In FY10 we received 561,170 new permit applications, certifications, and registrations online – compared to 312,895 forms submitted in FY09 – a 79% increase in one year.

Decisions at the Speed of Business

As a part of Governor Patrick's Regulation at the Speed of Business initiative, MassDEP renewed its focus on permit streamlining. Over the last three years, MassDEP has:

- Completed in-depth analysis and reform of key permit categories, including air quality, waterfront access licenses (Ch.91), and groundwater discharge of wastewater;
- Reduced most permit review timelines by 20% ;
- Issued 97% of permit decisions within 180 days or less;
- Streamlined wetlands appeals process, with 90% of appeal decisions issued within 90 days.

Regulatory Reform & Restructuring

MassDEP launched a reform effort it hopes will serve as a model for remaking government agencies for the 21st century.

The agency is moving forward with a planning process to align resources with responsibilities. The process has three components: 1) regulatory reform; 2) internal restructuring; and 3) upgrade information technology systems.

1. **Regulatory Reform**: A task force was created to identify a package of reforms that achieves strong environmental outcomes with less staff labor. This effort is an attempt to strategically cope with the budget cuts MassDEP has suffered in recent years. Many of the proposed reforms 1) incentivize better environmental outcomes by reducing permitting procedures for environmentally beneficial projects 2) seek to eliminate duplication in current permitting reviews, and 3) seek to reduce direct staff oversight of activities that are routine and that do not pose the most significant environmental protection concerns, allowing MassDEP staff to instead focus on those activities that deserve the most scrutiny.

   These reforms may be found in the Draft Action Plan for Regulatory Reform at: http://www.mass.gov/dep/about/priorities/regreform/actionplan.htm

2. **Internal Restructuring and Efficiency**: We have commenced a review of our agency's 20-year-old internal structure to ensure that it is still the right structure for an agency that has lost approximately one-third of its workforce. We are looking for ways to reorganize to achieve greater efficiencies, break down silos, maximize synergy among staff, and improve communication and consistency across offices.

3. **Information Technology Systems Upgrades**: An outdated IT system requires manual tasks of enforcement staff that could be automated, such as picking out environmental violations from thousands of pages of reports. While our staff still uses pen and paper that require manual data entry, eating up staff time and resources, some other states, such as Connecticut, have implemented programs where inspection staff has tablet computers in which to input results of the inspection to a central database. Further, our files and data are currently not as accessible as they could be to the public. MassDEP needs to increase agency efficiency to help make up for staff losses by upgrading outdated systems so that we can conduct inspections and permitting online, use our databases to spot violations and track compliance trends, and make our environmental databases accessible to citizens.

   As we develop our regulatory reform and internal restructuring initiatives, it is critical that we have the benefit of the IT expertise to inform them. For example, we want to identify technological innovations which would allow MassDEP to fundamentally change its current business practices, such as the utilization of remote sensing and data gathering in lieu of a physical inspection. This will ensure that the programmatic/business components are optimized prior to any system development.

By tightly integrating an IT analysis in this project with the internal restructuring and the regulatory reform, MassDEP will ensure that all opportunities to utilize information technology will be identified and considered. MassDEP received state funding to hire a consultant to study these issues and to make recommendations on how to proceed; it is a top priority for the Department to complete the phase I analysis by January 2012 so that recommendations for the phase II system design or acquisition and implementation will be in place to secure capital funding for the upgrade in 2013.

Environmental Justice Policy

The Commonwealth's Executive Office of Energy and Environmental Affairs (EEA) established an Environmental Justice (EJ) Policy to help address the disproportionate share of environmental burdens experienced by lower-income people and communities of color who, at the same time, often lack environmental assets in their neighborhoods. The policy is designed to help ensure their protection from environmental pollution as well as promote community involvement in planning and environmental decision-making to maintain and/or enhance the environmental quality of their neighborhoods.

MassDEP continued to implement its core programs in permitting, compliance and enforcement, and financial assistance consistent with the Executive Office's Environmental Justice Policy. In FY11, MassDEP conducted a significant percentage of site visits in EJ areas, approaching 50% or more in some regions, and handled a number of asbestos and illegal dumping related enforcement cases in EJ locations. Although the MassCleanDiesel Program which provided school bus diesel retrofits ended on June 30, 2011, the program will provide air quality benefits for many years to come. For example, more than 300,000 kids in nearly 300 municipalities across the Commonwealth ride to school in lower-polluting buses. And overall, the program is responsible for reducing emissions of harmful air pollutants by more than 27 tons per year. In addition, more than half the municipalities identified in the 2011 Clean Water State Revolving Fund (SRF) Intended Use Plan are EJ communities. New Bedford, Bourne, Dartmouth, Framingham, Revere, Taunton, Southbridge, Chicopee, Barnstable, Leominster, Lowell, Lawrence, Fall River, Marlborough, Yarmouth, Quincy, Salem, and Webster made the SRF list for projects ranging from CSO mitigation to WWTF upgrades to sewer extension projects.

Significant staff effort was also expended in FY11 on: Brownfields development in EJ areas; the assessment/remediation of the Parker Street hazardous waste site in New Bedford; and permit review of the proposal for an electric generation facility in Brockton as well as a proposed power plant in Springfield. MassDEP staff also continued to work with EPA on the Upper Mystic Watershed initiative and participated in EPA's EJ 2014 initiative.

Emergency Preparedness - Field Assessment and Support Team (FAST)

MassDEP has assembled a team of staff chemists, biologists, engineers, and environmental scientists to provide 24/7 technical support at chemical and oil spill incidents. A number

of equipment assets have also been procured to facilitate and support these deployments, including a 27-foot-long mobile laboratory vehicle.

The FAST program has been developed to enable the agency to better fulfill its statutory mandate to ensure the protection of public health and the environment. Working with other response agencies and partners, FAST personnel will assess air, water and soil for petroleum and chemical contaminants, and provide information, data, and recommendations to emergency responders and/or Incident Command.

FAST emergency response incidents in FFY11 include:

- PEABODY – October 29, 2010 – MassDEP FAST responded to a spill of mercury in a science laboratory at the Peabody High School. FAST personnel worked throughout the weekend to investigate areas of contamination pre-and post-cleanup using a highly sensitive Lumex mercury analyzer.
- LAWRENCE – November 13, 2010 – FAST personnel joined EPA to investigate a vapor cloud emanating from an unmarked compressed gas cylinder at a metals recycling facility. Using a gas chromatograph/mass spectrometer (GC/MS) in the FAST mobile laboratory, MassDEP staff were able to identify the leaking substance as a mixture of refrigerants, and establish that conditions in an adjacent residential area were safe.
- BOSTON (BRIGHTON) – March 1, 2011 – FAST personnel responded to an apartment complex where a resident had committed suicide using potassium cyanide. As the only responding party with a Hydrogen Cyanide testing meter, FAST air monitoring data was a key component in determining that conditions in neighboring units were safe.
- MIDDLETON – March 13, 2011 – FAST joined with EPA personnel to respond to an explosion at the Bostik chemical facility. Using gas chromatographs in the FAST mobile laboratory, staff were able to demonstrate that air quality was safe in a nearby residential neighborhood, and that only trace amounts of Volatile Organic Compounds were present in the adjacent Ipswich River, which is a drinking water supply for a downstream community.
- MALDEN – March 16, 2011 – FAST responded to a spill of mercury from a thermostat that was brought into the Malden High School by a student, to investigate areas of contamination pre-and-post cleanup using a highly sensitive Lumex mercury analyzer.
- REHOBOTH – May 4, 2011 – FAST and EPA staff responded to a fire at the G&W Foundry that was caused by an out-of-control chemical reaction. Using gas chromatographs in the FAST mobile laboratory, MassDEP staff were able to demonstrate that air quality at the facility, located upwind of two schools, was safe, but that fire-fighting runoff contained levels of 1,2,4 Trichlorobenzene that warranted follow-up.
- SPRINGFIELD – June 7, 2011 – The FAST mobile laboratory was dispatched to monitor air for asbestos near buildings being demolished following a tornado. On-board microscopes were used to determine fiber levels in the air, which resulted in several directives to increase fiber suppression (watering) operations.

Background information on FAST can be found at:
http://www.mass.gov/dep/about/organization/fast.htm

No.	MassDEP's PPA Commitments to EPA for FFY 2011	End of FFY 11 - Status Update
	GOAL 1: TAKING ACTION ON CLIMATE CHANGE & IMPROVING AIR QUALITY	
	Objective 1.2. Improve Air Quality	
	Ozone, $PM_{2.5,}$ PM_{10} and CO	
1	Participate in EPA's AIRNOW program. This includes: 1) Submitting ozone and PM2.5 real-time data and forecasts to the Data Management Center; 2) Issuing EnviroFlash alerts; 3) participating in Region I's outreach and forecasting workshop; and 4) as state travel restrictions allow, attending the annual National Air Quality Conference.	Done
2	Continue development of 2008 periodic emission inventory. Select base year for 2010 8-hour ozone standard SIPs.	Ongoing (2007 selected as base year)
3	Ensure that the state's air emissions database is compatible with EPA's re-designed National Emissions Inventory (NEI) database system.	Near completion. 2009 data flowed, but will need some corrections. Changes were made to the underlying database and to the forms to incorporate new codes and encode CERS validation rules to ensure data quality. All modifications should be complete by end of 2011 and therefore in placed for the 2011 reporting year.
4	Submit 2009 point source data for large, type A sources (MA's Air Operating Permit and SM80 sources) to EPA's NEI by December 31, 2010.	2009 data flowed, but will need some corrections

5	Develop and implement any rules necessary pursuant to the following new CTGs issued by EPA: 1) Industrial Cleaning Solvents; 2) Offset Lithographic Printing & Letterpress Printing; 3) Flexible Package Printing; 4) Paper, Film, and Foil Coatings; and 5) Miscellaneous Industrial Adhesives.	Public hearing on adhesives and sealants rule, which addressed CTG for Misc Industrial Adhesives was held on November 17. Regulation development ongoing for 1) Industrial Cleaning Solvents; 2) Offset Lithographic Printing & Letterpress Printing; 3) Flexible Package Printing; 4) Paper, Film, and Foil Coatings
6	Identify the number of sources, analyze what current rules need to change, and prioritize those rule changes for future action, for the following sources subject to EPA's new CTGs: 1) Metal Furniture Coating; 2) Miscellaneous Metal Products and Plastic Parts Coatings; 3) Fiberglass Boat Manufacturing Materials; and 4) Flat Wood Paneling Coatings.	On the basis of the analysis MassDEP has determined that we will need to promulgate regulations for all of these CTGs. They will be combined with the CTGs in 5 above.
7	Submit a negative declaration for the following CTGs: 1) Large Appliance Coatings; and 2) Automobile and Light-Duty Truck Assembly Coatings.	Analysis ongoing to confirm no facilities in 1) Large Appliance Coatings sector. Will submit negative declaration for eligible sectors with next SIP revision, which will occur when we have promulgated enough regulatory changes to create a substantial package of revisions.
8	Submit rules relied on in 8-hour attainment demonstration, including rules limiting emissions from asphalt paving, adhesives & sealants.The NOx provisions of 310 CMR 7.29 will also be submitted. *(MassDEP can do this upon securing 5.5 FTEs.)*	Public hearing on adhesives and sealants rule held on November 17, 2011. Asphalt paving rule is still under development.
9	Once EPA finalizes the Transport Rule, work with EPA to transition from the existing state CAIR program to the Transport Rule program.	MA was not included in the final Transport Rule promulgated by EPA. We are currently 1) exploring options for revising MassCAIR to establish a MA-only ozone season NOx emissions cap program and 2) examining MA options for maintaining NOx reductions to prevent "backsliding" (a lessening of standards which is not allowed under EPA rules). May have a stakeholder meeting to discuss options in December 2011.
10	Explore options for addressing Electric Generating Units (EGU) emissions during high electricity demand days (HEDD). Keep apprised of efforts made by other New England states on this issue, and explore the feasibility of adopting a HEDD regulation.	No MA regulation under consideration. Continue to follow this issue, including HEDD through the OTC.

11	Complete and submit annual I/M reports to EPA. (OTAQ 06)	Annual report in final review; expect to submit to EPA by end of CY 2011
12	Submit ozone designation recommendation by the date required in EPA's ozone implementation rule	Done.
14	Process conformity determinations for 8-hour ozone nonattainment areas and CO maintenance areas. (OTAQ 03a).	Final letter to EPA with conformity determinations signed 11/2/11; copy sent to EPA
16	Participate in Northeast Diesel Collaborative to advance state and regional programs to reduce diesel emissions. Implement EPA/NEDC grant funding projects (school buses and construction equipment).	Participating in bi-weekly NEDC Steering Committee calls, workgroups, and annual meetings; School bus and construction equipment grant implementation is complete.
17	As resources and priorities allow, promote FY'11 diesel funding opportunities to local communities and other partners to encourage the submission of proposals from MA organizations. (OTAQ 01a)"	Ongoing; currently conducting solicitation process for diesel reduction projects at MA markets and distribution centers
	NO_2, SO_2 and Pb	
18	Submit draft lead NAAQS infrastructure SIP to EPA for review. Provided EPA will provide guidance by July 11, Final submittal due Oct 15, 2011.	Preliminary draft provided informally to EPA staff on 10/3/2011. Draft is being revised to respond to EPA comments and EPA's final guidance issued on 10/14/2011.
19	Submit NO_2 designation recommendation by January 22, 2011.	Done.
20	Submit SO_2 designation recommendation June 2, 2011	Done.
	Regional Haze	

21	Participate in the modeling activities of the Ozone Transport Commision (OTC) and in the northeast regional haze planning organization Mid-Atlantic and Northeast States Visibility Union (MANE VU) to ensure that Massachusetts' ozone and Regional Haze modeling obligations are appropriately addressed..	Ongoing.
22	Submit regional haze SIP, with BART provisions, to EPA. (OAQPS N08). *(At current staffing levels, MassDEP can get the draft Regional Haze SIP out for public comment. Upon securing an additional 5.5 FTEs, MassDEP can initiate rule development on the underlying regulations.)*	MA is working closely with EPA on options for finalizing SIP.
	Title V / NSR Permits	
24	Insure that 100 percent of Title V operating permit significant modifications are issued within 18 months of receiving a complete permit application or settlement of an enforcement case. Provide necessary data through the TOPS Tracking Form to document the goal every six months. (OAQPS P11).	Done, TOPS report submitted to Region 7/28/11
25	Insure that 100 percent of new Title V operating permits are issued within 18 months of receiving a complete permit application or settlement of an enforcement case. Provide necessary data through the TOPS Tracking Form to document the goal every six months. (OAQPS P11).	Done, TOPS report submitted to Region 7/28/11
26	Title V operating permit renewals: Document the number of expired Title V permits as of Oct. 1, 2010 and reduce the total universe by 10% during the fiscal year. Provide necessary data through the TOPS Tracking Form to document the goal every six months. (OAQPS P11).	Done, TOPS report submitted to Region 7/28/11
27	Insure that 78 percent of major NSR permits are issued within 12 months of receiving a complete permit application. Provide necessary data to document the goal every six months. (OAQPS P001).	No Appendix A applications in process or permits issued by MassDEP in FFY 2011. No PSD applications submitted to MassDEP in FFY 2011
28	Insure that data are submitted to EPA's RACT, BACT, LAER Clearinghouse for new major sources and major modifications within 90 days of permit issuance. Provide the data documenting the timeliness of the submissions in the end of year report.	No PSD or Appendix A permits with BACT or LAER determinations issued by MassDEP in FFY 2011.

29	Until such time that MA DEP has its own federally-approved PSD program or resumes partial delegation of the federal Prevention of Significant Deterioration program, MA DEP and EPA-Region I will collaborate closely in EPA's issuance of PSD permits for MA facilities. MA DEP will take the lead in drafting the permit and fact sheet for new permit applications, unless EPA agrees that other permit data is sufficient or a draft fact sheet is not needed. EPA will attend joint meetings with MA DEP and applicants or potential applicants to discuss the most efficient and timely way to process specific permit applications.	PSD delegation completed in 4/11
30	MassDEP will request delegation of the PSD program and EPA will expedite parallel processing of the Massachusetts PSD SIP revision upon receipt of the proposed regulation. MassDEP and EPA agree to begin to negotiate the terms of the delegation agreement to the satisfaction of both parties as first step. EPA agrees to provide details of the current federal PSD program in support of MassDEP's delegation request.	Delegation completed – 4/11; draft regulations for PSD under development, EPA and DEP conferring on draft regulations
	Air Monitoring	
31	Air Monitoring Network: Implement plans to monitor for October, 2008 lead NAAQS. Annual network plan should address the need for any lead source based monitors to be operational by in accordance with lead final rule (0.5 TPY). The Annual network plan should address population based/ NCore based lead monitors which must be operational by January 1, 2011. (OAQPS M22).	Network Plan was finalized and approved by EPA. MA is monitoring for 2008 lead NAAQS.
32	Air Monitoring Network: Phase in use of NCore monitors, especially trace gas monitors, in order for the NCore sites to be fully operational by the required January 1, 2011 start date. Once operational, report data to AQS.	NCore monitors are fully operational and data is being reported to AQS.

33	Air Monitoring Network: Submit to EPA by July 1, 2011 the annual air monitoring network plan and schedule (40 CFR 58.10). Plan should include work toward developing new monitoring networks consistent with the requirements on NO2, SO2, and ozone NAAQS rules. (OAQPS M08).	Done. Network Plan was approved by EPA and posted on DEP's website.
34	Air Monitoring Network: Operate EPA-approved network (SLAMS, PAMS, PM), enter the air monitoring, precision and accuracy data into AQS within 90 days (180 days for PAMS) of the end of each calendar quarter (40 CFR 58.12, 58.14, & 58.16) (OAQPS M11) and submit the Annual Air Quality Data certification by May 1, 2011 (40 CFR 58.15). (OAQPS M06).	Monitoring Ongoing. Annual Air Quality Data certification was submitted.
35	Toxics Air Monitoring: Continue operation of the toxics air monitoring sites and enter the data into AQS. (OAQPS M20).	Ongoing.
36	Quality Assurance: Ensure all approved QAPPs are reviewed by November 1, 2010, and confirm this in writing to EPA. Major changes will require a QAPP revision. Ensure adequate, independent QA audits of NAAQS monitors or participate in NPAP and PEP QA programs. (OAQPS M10).	QAPPs were reviewed. Audits are ongoing.
37	If not completed in FY'10, submit 5 year Air Monitoring Network Assessment in accordance with 40 CFR 58.10(d).	Done.
38	Prepare to terminate or extend, as needed, the FY11 PM §103 air monitoring grant on March 31, 2011.	PM grant was extended.
	Air Toxics	

39	Upon receiving new funding from EPA, MassDEP will work with EPA to develop an implementation strategy for the Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAPs promulgated by EPA.	No funding received
40	As MassDEP staffing and priorities allow, assist the Region implement its strategy for the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Paint Stripping and Miscellaneous Surface Coating and Auto Body Refinishing.	Resources have not allowed state to do this to date
41	MassDEP will consider pursuing additional funding from EPA to assist the region in conducting implementation activities for other priority recent area source NESHAP regulations including: (1) the iron and steel foundry rule, (2) reciprocating internal combustion engine rule, (3) gas distribution rule, (4) gas dispensing rule; and/ or (5) the chemical manufacturing rule, where elements of this work will support MassDEP's current regulatory program.	No funding available but provided EPA with current listings of engines in MA
42	Continue delegation and implementation of toxic requirements under section 112, 129, and 111(d) for major sources rules, area source rules, and residual risk rules. (OAQPS T06)	Ongoing. Note that MassDEP has accepted delegation for these programs at Air Operating Permit Sources only.
43	Submit revisions to 310CMR 7.08 which meet EPA's May 10, 2006 final rule for Large Municipal Waste Combustors and EPA's December 16, 2005 rule for Other Solid Waste Incinerators.	Draft regulations are under review by Commissioner's Office and Legal Office
44	Review the final revised Commercial and Industrial Solid Waste Incinerators (CISWI) rule and submit either a negative declaration letter or a State Plan within one year of the effective date of the final revised CISWI rule.	The review is ongoing
45	Review and comment on the draft 2008 National Air Toxics Assessment (NATA)/National Air Pollutant Assessment (NAPA) when it is available for comment.	Reviewed draft data provided to states and provided comments..

46	Support EPA's efforts to produce an accurate National Emission Inventory (NEI) for Hazardous Air Pollutants (HAPs). This includes reviewing Massachusetts point source data released for comment under EPA's Risk and Technology Review rulemakings, to the extent that appropriate emissions data is available.	Completed review of EPA NATA inventory data for high risk facilities. EPA requested no other reviews.
	Objective 1.3 Protect the Ozone Layer	
	No specific PPA related action for the State	
	Objective 1.4 Radiation	
	No specific PPA related action for the State	
	Objective 1.1 Address Climate Change	
48	Complete the development of a guidance document for mitigating GHG emissions from development projects (MEPA GHG policy). The Guidance Document would assist EOEEA agencies, including MassDEP, in identifying the most cost-effective measures for reducing project impacts, and can also serve as a resource for project proponents subject to this requirement.	Final document in development
49	Participate in NESCAUM's Regional Adaptation Planning effort.	Ongoing
50	Work with ISO NE and EPA on annual marginal emission rate analysis from power pool	Ongoing
	GHG Permitting	
51	Upon receiving additional staff using new funds from EPA, MassDEP will sponsor workshop(s) and provide technical assistance for industry on the implementation of GHG permitting, which commences on January 2, 2011.	No additional funds available

52	If not completed in FY'10, submit a letter to EPA which explains whether the State will apply EPA's meaning of the term "subject to regulation" and if so, whether the state intends to incorporate that meaning of the term through interpretation, and without undertaking a regulatory or legislative process. If a state must undertake a regulatory or legislative process, then the letter should provide an estimate of the time needed to adopt the final rules.	Letter submitted to EPA, dated August 2, 2010
53	After January 2, 2011, MassDEP will address the permitting requirements for GHG emissions for only those sources currently subject to the PSD permitting program, i.e. those that are newly constructed or modified in a way that significantly increases emissions of a pollutant other than GHGs (assuming PSD program delegation is complete). Note that timeliness of these activities will be impacted by availability of additional staff using new funds from EPA.	Ongoing with PSD delegation complete
54	After July 1, 2011, MassDEP will address the permitting requirements for GHG emissions for PSD sources, including first-time new construction projects that emit GHG emissions of at least 100,000 tpy and modifications at existing facilities that increase GHG emisssions by at least 75,000 tpy, even if they do not exceed the permitting thresholds for any other pollutant (assuming PSD program delegation is complete). Note that timeliness of these activities will be impacted by availability of additional staff using new funds from EPA.	Ongoing
55	Work on revised NSR and Title V rules to meet the GHG permitting requirements of EPA's Final GHG Tailoring Rule.	Regulations under development
	Actions in the buildings sector	
56	Work with EPA to encourage local communities to participate in the New England Community Energy Challenge. Include complementary activities in the "MassDEP only" portion of the plan.	ongoing
	Actions in the industrial sector	

57	Upon receiving additional staff using new funds from EPA, MassDEP will support EPA on the implementation of the Greenhouse Gas Reporting Rule and analysis of the reported data. Activities may include: 1) reviewing a preliminary list of MA facilities subject to reporting rule; 2) assisting EPA in notifying facilities potentially subject to the rule; 3) answering and/or directing questions from facilities on the rule; 4) helping EPA analyze and do quality assurance on the reported data, etc.	DEP has a grant from EPA for these activities . Because portions of EPA's rule and reporting system have been delayed, all we have worked on to date is 1) providing EPA with input on their system based on our experiences with GHG reporting 2) ,providing EPA with a list of filers under the MA GHG reporting rule, and 3) participating in beta testing of EPA's reporting system
58	Work with EPA and the Bureau of Ocean Energy Management on permits, rules and reporting for offshore energy development.	No involvement to date.
59	Work with EPA, MA DOER, and MA EOEEA to implement a Net Zero Energy goal program and promote energy efficiency upgrades in the wastewater and drinking water sectors. Strategies include energy management planning, aeration and pump optimization, promoting more efficient motors and/or boilers, and onsite power generation opportunities where they save energy and reduce emissions. Include complementary activities in the "MassDEP only" portion of the plan.	Successful collaboration with EPA. DOER, energy providers and others continues.
	Actions in the transportation sector	
60	Continue to implement the MA Rideshare program	Ongoing
61	Through the Northeast Diesel Collaborative(NEDC) promote programs to improve fuel efficiency and reduce emissions from transportation and goods movement such as EPA's SmartWay Transport Partnership and EPA's Clean Ports USA program. (OTAQ 04).	Ongoing through participation in NEDC ports workgroup and MA markets program

62	Through the Northeast Diesel Collaborative promote cleaner transportation fuels, including E-85, low sulfur diesel fuel in marine and locomotive applications, and biodiesel. Note MassDEP will implement provisions of the new climate change/energy efficiency legislation (Green Communities Act. Global Warming Solutions Act, and the Clean Energy Biofuels Act). BWP will work on this initiative to the extent that resources allow and these EPA activities are consistent with state mandates.	Not doing due to lack of state resources.
	Enhance Science & Research	
	No specific PPA related action for the State	
	GOAL 2: CLEAN & SAFE WATER	
	Objective 2.1 Protect Human Health	
	Sub-Objective 2.1.1 By 2011, 91% of the Population Served by CWSs will Receive Drinking Water That Meets all Applicable Health Based Standards	
	Certification of Drinking Water Labs	
63	Maintain full certification of the DEP WES state principal laboratory and follow up promptly on any action items resulting from EPA's audits of the laboratory. Maintain required schedule for private laboratory inspections.	The MassDEP/WES state principal laboratory continues to maintain certification. The Laboratory Certification Program, including the frequency of inspections of MassDEP-certified laboratories, continues to meet EPA requirements.
	Source Water Protection	
64	Continue to support implementation of local programs and, where appropriate, continue to integrate source water projection implementation into other programs appropriate (e.g., UIC, stormwater). (Subobjective 2.2.1, Strategic Target SP-4a-b).	Drinking Water Program continued to provide technical support.

	Drinking Water	
65	Work to achieve target of 91% of population served by CWSs that receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection. (Subobjective 2.2.1).	3rd Quarter FY2011= 90.4% (4th quarter data not yet available)
66	Work to achieve target of 90% of CWSs that provide drinking water that meets all applicable health-based standards through approaches including effective treatment and source water protection. (Strategic Target SP-1).	3rd Quarter FY2011= 82.4% (4th quarter data not yet available)
67	Work to achieve target of 95% of "person months" (i.e., all persons served by CWSs times 12 months) during which CWSs provide drinking water that meets all applicable health-based drinking water standards. (Strategic Target SP-2).	3rd Quarter FY2011= 96.6% (4th quarter data not yet available)
68	LT2/Stage2: Implement rules and coordinate, as necessary, with Region. Work with Region to make any changes necessary to primacy package to obtain EPA approval.	completed
69	GWR: Submit primacy package and implement rule per extension agreement. Upon submittal of package, work with Region to make any changes to package to obtain approval.	completed

70	Sanitary surveys: Continue expanded use of electronic sanitary survey tool; conduct surveys of Community Water Systems (CWS) on three-year cycle (and 5 year cycle if system has met the MassDEP outstanding performance criteria) and non-transient non-community water systems (NTNCWSs) and transient non-community water systems (TNCWSs) on five-year cycle. At a minimum, report surveys for surface water and GWUDI systems to SDWIS. Note: three-year cycle for surveys conducted at CWSs (served by surface water/GWUDI) will be measured for FY10 based on the period 1/1/08 through 12/31/10. With implementation of new GWR requirements regarding surveys, "self-audits" by systems will not count as sanitary surveys toward the meeting the measure. (Measure SDW-1a).	84.3% are complete as of 10/18/2011.
71	Program Reviews (previously called Data Verifications): Work with the Region to improve SDWIS data quality highlighted in the Data Reliability Study. Prepare for the next program review by reviewing the deficiencies identified in the past program review and discussions with the Region as part of the data reliability study, and evaluate policies, procedures, and data management to ensure that compliance determinations are consistent with state and federal regulations. Continue to implement the corrective action plan developed to follow-up on the deficiencies outlined during the most recent program review.	Progam Reviews were suspended by EPA. Most recent review was conducted September 2008. That review reported no MCL/TT deficiencies (100% complete and accurate). M/R deficiencies were identified due to inadequate Compliance Determinations. The majority of the discrepancies were identified in two rules: TCR - for failure to identify violations due to late reporting, and DBPR - for failure to identify violations when a PWSs did not report the RAA for disinfectant monitoring. The former issue is a resource challenge for MassDEP to enforce the 10 day reporting timeline. The latter issue was addressed by either requiring PWSs to submit this report or by documenting staff calculations.
72	Security/Emergency Response: continue to coordinate with EPA on security workshops, drills and all hazards preparedness.	ongoing
73	Implement Short-Term Lead and Copper Rule (LCR) revisions and submit primacy package per extension agreement. Continue to follow-up on any LCR action items (e.g., follow-up on LCR data verification).	completed

74	Maintain timely and accurate reporting to Safe Drinking Water Information Systems (SDWIS) and otherwise comply with 40 CFR 142.15.	Quarterly reporting to SDWIS/FED occurs by 3/15, 6/15, 9/15 and 12/15 as per our TPA with EPA Region 1.
75	Logic Model: Support Region as necessary in roll-out of Logic Model. (The Region will work to minimize any needed support/feedback from MassDEP.)	The EPA region did not request assistance.
	UIC	
76	Continue to identify and to close or permit identified High Priority Class V Wells (UIC National Measure SDW-8). Continue to close, permit or convert identified motor vehicle waste disposal wells. Continue to report UIC activities (e.g., number of inspections conducted, number of permits issued, number of wells closed, UIC enforcement activity, etc.) to EPA per 7520 forms.	ongoing
77	Complete eDEP (electronic registration - UIC applications), complete upgrades to MassDEP UIC database (authorized-by-rule and permitted Class IV & V wells) and complete schema to transfer UIC data to EPA UIC database. Provide updates responses and clarifications to questions raised during EPA's primacy review related to 1999 amendments to EPA's Class V regulations that may be impacted by recent (and proposed) MassDEP UIC related regulatory revisions that have occurred since the original MassDEP application for the Class V 1999 amendments. Develop a schedule to finalize and submit a revised MassDEP Primacy Package that reflects the MassDEP UIC related regulatory revisions that have occurred since the original MassDEP application for primacy for the Class V 1999 amendment.	eDEP electonic registration project was completed. Because of the time involved in the completion of this effort, the program was unable to begin the process of updating the Primacy package. A schedule will be developed for revising the Primacy Package during the coming year.
	Sub-Objective 2.1.2 By 2011, Reduce Public Health Risk and Allow Increased Consumptions of Fish and Shellfish	
	No specific PPA related action for the State	

	Sub-Objective 2.1.3 By 2011 Improve the Quality of Recreational Waters	
	Beaches	
78	Coordinate with MA DPH to implement beach monitoring program, including meeting performance criteria established by federal BEACH Act to remain eligible for FY11 beach grant. (SP-9, SS-2).	DEP had some preliminary communication with DCR last spring regarding performing beach testing that would follow established criteria with the results then reported to DPH. In the end, however, we did not perform any analysis of samples.
	Sub-Objective 2.2.1 By 2012 use Pollution Prevention and Restoration Approaches to Protect the Quality of Rivers, Lakes and Streams on a Watershed Basis	
*	*2010 Integrated List- submit final (*carry over from 2010)*	Draft was submitted by April 1, 2010 deadline. Final was submitted to EPA for approval after public comment 12/30/2010; Mass DEP still awaiting EPA approval.
80	Submit electronic updates for the 305(b) and 303(d) Integrated Report using ADB by April 1, 2011. (WQ-7)	Completed, but this required an entire overhaul of our initial assessment decisions.
81	Submit CALM (Comprehensive Assessment and Listing Methodology) document by Oct. 31, 2011 if not completed during FY10.	Underway but may not be completed by the close of FFY 2011
82	MassDEP will continue to georeference waters to NHD 1:25,000 and will begin using 1:24,000 when MassGIS is updated to reflect the finer resolution.	Georeferencing is an ongoing process for all new segments.
	Monitoring	
83a	By 1/31/11, meet with EPA Region I to develop a strategy for FY12 and beyond to address the growing resource constraints in MassDEP's surface water quality monitoring and planning program.	Met with EPA on 4/7/2011 to discuss staffing shortfalls and options to address them. Additional discussions are planned in FY12

83b	Continue implementing final comprehensive water monitoring strategy covering lakes, rivers and estuaries, as financial resources allow. Continue implementation of probabilistic design survey, as resources allow . (WQ-5).	Probabilistic sampling designed and implemented in the Nashua, French, Quinebaug, Millers, Blackstone and Ten Mile River Watersheds but at much smaller scale. Monitoring strategy identifies a shortfall of about 33 FTEs to conduct all the monitoring being requested by EPA. Since the strategy was developed in 2004 DWM has lost 14 additional FTEs, 7 of which were related to monitoring and assessment work. Moving forward we have agreed to meet with EPA in November to discuss options for addressing the shortfall and develop a plan by next May.
84	Provide updated monitoring strategy to EPA if not completed during FY10.	Underway but may not be completed by the close of FFY 2011
85	Report on outcomes of monitoring activities using FY2010 106 supplemental funding for monitoring by Sept. 30, 2011, and prepare workplan for FY2011 106 supplemental funds by May 1, 2011.	Report developed and under initial review. Just received FFY 2012 estimated state allocation and will be developing a plan shortly.
	STORET/WQX (Water Quality Exchange)	
86	Continue routine annual uploads of physical, chemical and biological data to WQX (formerly STORET).	This activity required the development of an entirely new data management system to store all our data and upload to EPA. The new system (WRATS) has been under development for several years but was put into production last August. The new system has some problems that must be addressed by the consultant under warrantee but should be completed in early FY12. DWM has also worked with ITO to link WRATS to the WQX system and we have successfully flowed several years of data to EPA. More data still needs to be processed for future uploads.
	Water Quality Standards - Biological, Nutrient, Temperature	
87	EPA will provide support to DEP, EEA, DCR and other state and federal agencies in their efforts toward addressing flow quantity and water level issues as part of their Sustainable Water Management Initiative.	EPA task

89	Continue ongoing WQS activities and work with EPA to resolve outstanding issues.	This is an ongoing process. We are still awaiting final decisions from EPA on several WQS revuisions from the 2007 triannual review.
90	Work with EPA to facilitate adoption of numeric phosphorus and nitrogen Nutrient criteria for lakes/ponds/impoundments and rivers/streams/estuaries at the earliest possible time. (WQ-1a, 1b).	DWM is in the process of developing nutrient criteria/guidance values using existing data from MA. Our initial approach was presented to the Commissioner's office but we are currently re-thinking that approach and will provide details in the next couple of months.
91	Provide performance milestone dates to EPA for the development, proposal and adoption of numeric water quality standards for Nutrients ~~t~~otal phosphorus and total nitrogen for lakes/ponds/impoundments, rivers/streams, and estuaries in Massachusetts by December 2010 (WQ-1c).	MassDEP provided a draft schedule and approach to EPA on December 30, 2010.
91A	In meeting their responsibilities under commitments 90 and 91, EPA and DEP recognize that there is not sufficient data available in Massachusetts to establish numeric criteria for both phosphorus and nitrogen in lakes/ponds, impoundments, rivers/streams and estuaries and therefore "as early as possible" in some instances will be significantly in the future. Further, EPA and DEP agree to work together to collect any necessary data, as well as, assess the progress being made within the region and nationally on the development of science for establishing phosphorus and nitrogen numeric criteria.	Ongoing
	Watershed Approach	

92	Using the PPA process, 303(d) list, the nonpoint source RFP, national estuary program CCMP, and other state processes, work to identify priority watersheds and water bodies for the state to focus effort to identify and remediate specific sources and to protect and improve water quality. (SP-10, SP-11, SP-12).	This is an ongoing activity. We use all these mechanisms to identify and remediate sources. We do NOT prioritize individual watersheds but we do prioritize projects if they are in impaired waters or in 303d listed waters. This allows for funding/approval of higher quality projects that are ready to go rather than be forced to select poor projects simply because they are located in a priority watershed.
93	In those priority water bodies and watersheds, work to leverage existing tools such as the state's TMDL, nonpoint source, water quality, permit, SRF grant, national estuary, and source water assessment programs to concentrate implementation efforts and to measure improvements.	This is an ongoing activity. We use all these mechanisms to identify and concentrate implementation efforts. Where point sources are involved limits are put into NPDES permits consistent with TMDL recommendations. SRF and grant programs also include higher priority points for projects associated with impaired waters and/or where a TMDL exists. Measuring improvements has been a sticking point however between EPA and most states including MA since it can take many years before actual water quality improvements are observed in the ambient water.
94	Develop a list of water bodies for EPA by 2/15/11 that the state is working to fully restore (measure L) or partially restore (measure Y) over the next several years. (SP-10, SP-11).	We asked EPA to take this out of the PPA because it does not serve a valid purpose for the state and is over burdensome under the fiscal constraints we have. Regardless, MassDEP agreed that we would try to provide a brief status report of ongoing implementation activities in each watershed. Although we cannot develop a report for every watershed each year we propose to summarize implementation activities in several watersheds each year and try to identify those that may qualify as success stories (relates to item #101 below) The first 2 have been developed and were submitted to EPA in Nov. 2011 along with a list of several potential success stories.

95	For measure W, work with EPA Region 1 to review and update (if needed), a list of impaired watersheds (at the 12-digit level)- where the state is implementing strategies, plans, or undertaking significant work that is designed to produce results that "may" meet the improved definition for measure W watersheds (SP-12).	See status to item 94 above.
96	Collaborate with EEA and EPA on environmental justice initiatives as appropriate, including the Mystic River Watershed Initiative (which among other things provides assistance and guidance to Massachusetts Environmental Trust in investing settlement money from Exxon Mobil spill in selected wetlands restoration and water quality projects).	Staff from MassDEP's Northeast Regional office continues to participate in the Mystic River Steering Committee, Mystic River Water Quality Forums, and other meetings amongst stakeholders to promote improved water quality throughout the watershed.
97	Collaborate on the Mystic River Watershed Initiative to improve water quality and environmental conditions throughout the watershed by serving on the Mystic River Watershed Initiative Steering and Science Committees and actively participate in all meetings, support priority actions, including environmental justice, to the best of each agency's ability and within their authorities. Assist with identifying and removing numerous suspected sources of pollution from the Mystic River Watershed through coordination of EPA's and the MA DEP's monitoring, water quality, remedial, and enforcement programs.	MassDEP/NERO has been working cooperatively with EPA in splitting up communities in the Mystic River Watershed for actions involving the cleanup of stormdrain discharges. In this regard, NERO still has outstanding enforcement actions against Belmont, Arlington, Somerville, and Melrose, and the work is ongoing. MassDEP is working to advance these cases to the best of our ability, given serious staff losses in recent years.
	NPS 319	
98	Continue to use the 2004 Nonpoint Source Program and Grants Guidelines for States and Territories to identify eligible activities, program priorities and reporting requirements.	Ongoing
99	A representative of the state's NPS program should attend all NPS and GRTS national and regional meetings convened by EPA if possible. States shall utilize s. 319 funds to cover travel expenses for NPS program staff to attend regional and national GRTS training meetings, national NPS conferences, and regional NPS meetings and conferences, unless prevented by state-wide travel bans.	Ongoing. MassDEP staff has just returned from GRTS training in Denver.

100	Continue to work with other government agencies to influence the targeting of a portion of the Farm Bill Programs (e.g., EQIP) to areas of environmental concern (i.e., impaired waters, fragile waters in need of protection, and a watershed approach).	Ongoing. Next NRCS State Tech Committee meeting 12/7/11.
101	Continue to target 319 funds for priority segments or water bodies to include measure W/L watersheds. Idenfify water bodies that were recently partially or fully delisted due to water quality improvement, and investigate whether local, state, or federal NPS mitigation occurred that might make these waterbodies a candidate for a NPS Success Story. If possible, prepare and submit one success story for restored or partially restored water bodies in accordance with EPA national computational guidance. If no water bodies are identified for success stories, submit a strategy in the annual workplan for increasing NPS program performance in the restoration or partial restoration of impaired waters. (SP-10, SP-11, SP-12, WQ-10).	Ongoing. LYW report recently submitted to EPA. Several potential success stories are being investigated.See discussion in item #94 above.
102	Continue to enter all 319 grant dollars and mandatory data elements into the Grants Reporting Tracking System (GRTS) by Feb 15th of each year and provide timely review of national GRTS reports prepared for the state. (WQ-9).	Completed for 2011.
103	Continue to ensure that watershed based plans developed using incremental dollars portion of the 319 funds will contain the 9 (a- i) elements specified in the 2004 guidance. (WQ-10).	Completed for FFY 2012 round, planned for FFY 2013.
104	Continue to submit a 319 related workplan and annual report for all projects and activities. Identify match sources and amounts. Provide information annually relative to the distribution of funding toward implementation projects, staffing, and statewide nonpoint program activities, progress in meeting the annual priorities and commitments and in carrying out the state NPS Management Program, improvements in water quality resulting from program implementation, and the status of implementation projects.	Completed for FFY 2010, under development for FFY 2011.

105	Maintain current levels of funding to implement structural and non-structural BMPs and watershed projects that continue or enhance successful water quality restorations that can be reported to Congress and OMB.	Ongoing
	NPDES Development	
107	Identify NPDES work-sharing activities for FY 2011.	ongoing/ as needed. These are discussed at the regular monthly and quarterly meetings with EPA.
108	MassDEP will work with EPA to develop efficiencies for processing NPDES permits including ways to reduce duplication between the agencies, increase production of permits, develop nutrient effluent limits, consolidate state agency reviews, and explore state NPDES delegation.	ongoing/as needed
109	Participate in bi-monthly coordination and planning calls on the status of joint NPDES permits.	ongoing/as needed
110	Coordinate on NPDES Permitting for Power Plants.	ongoing/as needed
111	Assist EPA in responding to comments received during public comment periods.	ongoing/as needed
112	Assist EPA in defending NPDES permit appeals.	ongoing/as needed
113	Assist in the issuance of "priority" permits during FY 11. These permits will be determine in the late months of FY2010 and include, but are not limited to GE-Lynn, Brayton Point, and Taunton. EPA and MassDEP will identify any and all critical issues associated with any priority permit prior to its going to public notice so as to avoid any delay in issuance thereafter. (WQ-19a).	Completed
114	Assist as applicable in the development and issuance of General Permits including drafting any state specific requirements for GPs. Provide coordination and state reviews and approvals of NOIs under all effective GPs as required. (WQ-12a).	ongoing
115	Continue current level of effort on joint administration and enforcement of the Phase II MS4 Permit.	ongoing

116	Subject to DEP's decision to jointly issue the MS4 GPs: assist in public notice and issuance of new Phase II MS4 general permits; Assist in the review of NOIs and other permit-related documents; Assist in authorizing discharges under new Phase II MS4 GPs, as resources allow.	ongoing
117	Continue current level of support to the regional program by helping with storm water permitting outreach efforts.	ongoing
118	Assist in the joint reissuance of Phase I MS4 permits for Boston and Worcester. (WQ13a & b).	ongoing
119	Assist in the development of new Phase II Storm Water MS4 GP for issuance if all final GPs are not issued in FY10. Assist with public inquiries regarding the implementation of the new Construction Storm Water GP and Multi-Sector GP.	ongoing
120	Continue to work with EPA to approve and enforce Long Term CSO Control Plans. Work with EPA to deal with Communities that chose sewer separation as the cost-effective alternative and want to amend their LTCP to address the added requirement of treating stormwater.	ongoing
121	Continue to work with EPA to reconcile policy issues related to variances/water quality standards determinations/and affordability issues.	ongoing
	TMDL Development	
122	Complete any remaining prior year TMDL commitments. (WQ-8b).	MassDEP completed and received approval of the Taunton River Bacteria TMDL and the Mt. Hope Bay bacteria TMDL. Combined, they were the equivalent of 27 TMDLs. We also developed a draft North Coastal Bacteria TMDL which was the equivalent of another 40 TMDLs. However, we need to deal with a few water quality standards issues before we can submit it to EPA.

123	Establish and submit to EPA for approval 40-50 TMDLs during FY11, and provide tentative list of water bodies (future substitutions allowed) by 9/30/10. Work with EPA contractor toward completion of TMDLs under development. (WQ-8b)	MassDEP completed and received approval on the Upper/Middle Charles River TMDL which was the equivalent of 31 TMDLs however we did not meet our annual commitment which was based on the scheduled receipt of many technical reports associated with the Mass Estuaries Projects (MEP).
124	Participate in Region 1/State/NEIWPCC TMDL efforts to improve environmental effectiveness of the TMDL program. (WQ-8b).	This is an on-going activity. DWM/WPP participates on the NEIWPCC TMDL workgroup as well as the Water Quality Standards and Nutrient Criteria workgroups. We are also active members of the Long Island Sound TMDL 5-state workgroup and serve on the Executive Committee @ NEIWPCC.
124 a	EPA agrees to continue to monitor and report on RI efforts to develop a TMDL for Nitrogen for Narragansett Bay.	This is an EPA task.
125	EPA agrees to closely coord. w/ MA & carefully consider MA strategies & implementation plans prior to initiating residual designation (RD) efforts, or making a decision on any RD petition. EPA will solicit & give strong consideration to DEP's views on whether RD is necessary to ensure reasonable progress toward meeting WQS. Agencies agree to coordinate closely in event an RD is considered as part of the implementation plan for any future TMDLs. (WQ-8b).	This is an EPA task.
	Sub-Objective 2.2.2 By 2011 Prevent Water Pollution and Protect Coastal and Ocean Systems to Improve National Coastal Aquatic Ecosystem Health	
	Dredged Material Management	
126	Participate on Regional Dredging Team Technical Workgroup to coordinate with other federal and state agencies on planning and regulatory activities associated with dredging and dredged material management.	MassDEP has participated in the Workgroup as needed.
127	Participate Joint Processing to coordinate with other federal and state agencies on planning and regulatory activities associated with dredging and dredged material management (CO-6).	Federal agencies discontinued Joint Processing. MassDEP continues to coordinate with agencies to review permit applications and issue appropriately conditioned permits.

	No Discharge Areas	
128	Coordinate with MA CZM to implement outreach and enforcement strategies in support of current NDAs (Buzzards Bay, Cape Cod Bay, Boston Harbor, North Shore, and Salem Sound), and future NDAs (Mt. Hope Bay, south Cape and Islands). (CO-2).	This coordination has not been required this year, but MassDEP remains available on an as-needed basis.
129	Support efforts by MA CZM to complete NDA designation for Mt. Hope Bay and south Cape Cod and the Islands. (CO-2)	This support has not been required this year, but MassDEP remains available on an as-needed basis
	Objective 2.3 Science & Research	
	Water Monitoring	
130	Participate as feasible in New England-wide projects such as the Biological Condition Gradient (BCG) workgroup, other biological/water quality monitoring activities, and attend relevant regional meetings/conferences (e.g., NEAEB).	MassDEP DWM-WPP participates on this committee on an ongoing basis.
131	Participate in, as feasible, or coordinate with EPA Office of Water's National Aquatic Surveys (NAS) and submit workplan reflecting level of participation.	Because of insufficient staff resources DWM-WPP has not accepted responsibility for conducting these surveys. Rather DWM agreed to have EPA conduct this work. DWM did participate in the planning and occasionally assisted in the field.
	GOAL 3: LAND PRESERVATION & RESTORATION	
	Objective 3.1 Preserve Land	
	Sub-Objective 3.1.1 By 2011, Reduce Materials Through Product and Process Design and Increase Materials and Energy Recovery from Waste Otherwise Requiring Disposal	
	Resource Conservation Challenge	

132	MA will continue to work on projects that reduce or divert municipal solid waste from incineration and landfills including the recycling of commodities identified in the Resource Conservation Challenge (RCC) - paper, organics (yard and food waste), construction and demolition debris, within their current budget constraints.	MassDEP issued $1.5 million in grants to municipalities to advance waste reduction and recycling (PAYT, Equipment, Pilot Projects). Banned the disposal of gypsum in July 2011. Drafted new regulations for organics and recycling facilities. Certified another 85 supermarkets under the supermarket organics program.
	Sub-Objective 3.1.2 By 2011, Reduce Releases to the Environment by Managing Hazardous Wastes & Petroleum Products Properly	
	RCRA Training & Meetings	
133	Attend EPA sponsored regional and national RCRA meetings and training as appropriate.	James Paterson participated in a national ASTSWMO-sponsored meeting.
	RCRA Authorization	
134	Draft rules (Labs Rule, DTC, Evaporators and remaining HSWA listings) submitted to EPA for review and comment.	Draft rules were submitted to EPA; EPA reviewed and commented on the draft regulations. DEP now going through (extensive) EPA comments.
	RCRA Permit Renewals	
135	Renew TSDF permits at three (3) TSDFs on 09-11 permit renewal baseline. (HW0)	One TSDF permit renewal was completed during the 9-11 baseline. Two TSDF permit renewals are in the draft stage and will be completed during FFY2012 as agreed to by EPA.
	UST	
	STAG funds are included in the PPG to cover costs for UST Program activities that are ineligible with LUST Prevention (LP) Funds. LP funds are not PPG eligible - funds are in separate cooperative agreement.	

136	Continue MassDEP UST program development work including, but not limited to, development of MassDEP UST regulations to replace existing Department of Fire Service regulations; development of on-line (eDEP) registration, change of status and third party inspection report submittal and automated data systems; verification of regulated universe information and database clean-up; and development of additional compliance assistance materials and outreach.	The MassDEP UST Program continues to: • Work with UST stakeholders to develop revised UST regulations. • Improve program submittal protocols and procedures to ensure timely and accurate reporting and record keeping. • Work on "clean up" of the existing UST database to delete incorrectly entered systems, correct system/tank statuses, update entered data, etc. • Develop systematic queries to track Program C&E and target compliance assistance and outreach
137	Improve UST Operational Compliance: (a) Perform state lead field inspections to determine significant operational compliance.	MassDEP performed a total of 309 inspections in FFY2011 (60 statistically significant random inspections and 249 targeted inspections). Based on the statistically significant random inspections, 36% of applicable UST systems were determined to be in significant operational compliance (SOC) with applicable program requirements.
138	Improve UST Operational Compliance: (b) continue to improve operational compliance by 0.5% over rate of previous year. (ACS Code: ST6 / 3/1.2).	MassDEP assumed responsibility for administering the in-use compliance from the Department of Fire Safety July 1, 2009. MassDEP is working to effectively determine SOC of the regulated community and improve the Commonwealth's SOC rate annually.
139	Inspect all regulated UST facilities once every 3 years; complete all inspections by 8/8/13	MassDEP is on track to meet this requirement.
140	Reduce Number of Confirmed UST Releases Annually – Regional target of <400; In FY09, confirmed releases were 260 (<4% of National total). (ACS Code: ST1 / 3.1.2).	Through efficient and effective implementation of UST Program requirements and timely and appropriate enforcement, MassDEP is working to reduce the number of confirmed UST releases annually.
141	Continue development and implementation of operator training. All operators must be trained by 8/08/12.	MassDEP is on track to meet this requirement.

142	Post the annual USTCA public record which will include: the number, sources, and causes of underground storage tank releases; the record of compliance by USTs; and data on the number of UST equipment failures in State. THIRD ANNUAL REPORT DUE 12/31/2010.	The UST Program currently posts annual (FFY) UST Program inventory numbers for active UST systems, facilities inspected, percent in SOC, and confirmed releases. -The UST Program in coordination with the Bureau of Waste Site Cleanup has developed an online link between the UST Program's UST Facilities Query Tool and the BWSC's Searchable Sites List where the source and cause of UST releases can be found from available report submittals. -The UST Program and BWSC have also proposed a plan for updating current online BWSC reporting forms to include the source and cause of UST releases. Action on proposed updates are pending IT resources.
	Objective 3.2 Restore Land	
	Sub-Objective 3.2.1 By 2011, Reduce and Control the Risks Posed by Accidental and Intentional Releases of Harmful Substances Through Emergency Preparedness	
143	EPA will continue to work with the New England states on Homeland Security and emergency response readiness issues through routine, day-to-day coordination and the existing Regional Response Team mechanism.	EPA Activity
	Sub-Objective 3.2.2 By 2011, Control the Risk to Human Health and the Environment at Contaminated Properties or Sites Through Clean-up, Stabilization, or other Action and Make Land Available for Reuse	
	Corrective Action Sites	
144	Achieve Human Exposures Controlled Under Current Conditions at one (1) facility. (CA1).	The environmental indicators (EI) for controlling human exposures were met using EPA lead sites. We did not complete EI's at any state lead sites as we only have a few sites left at which to meet them. However, EPA's contractor met the commitment for Massachusetts at non-authorized sites overseen by 21E.

145	Achieve Contaminated Ground Water Migration Under Control at one (1) facility. (CA2).	EI's were met using EPA lead sites. We did not complete EI's at any state lead sites as we only have a few sites left at which to meet them. However, EPA's contractor met the commitment for Massachusetts at non-authorized sites overseen by 21E.
146	Achieve site-wide Remedy Selection at three (3) facilities.	We met our 3 statewide Corrective Action (CA) and Remedy selection goals this year using two state lead facilities (Solutia Mfg. and S-K Salisbury) and one EPA Lead site (Columbia MFG.).
147	Achieve Construction Complete at three (3) facilities. (CA5).	We met our 3 statewide CA complete and Remedy selection goals this year using two state lead facilities (Solutia Mfg. and S-K Salisbury) and one EPA Lead site (Columbia MFG.).
148	Assessment of financial assurance current status for all new remedies.	completed by the end of FFY11
149	Verify adequacy of financial assurance instrument for all remedies, as resources allow.	completed by the end of FFY11
	LUST	
	Not PPG eligible - funds are in separate LUST Trust Cooperative Agreement.	
150	The National target for annual clean-ups completed of releases from leaking underground storage tanks (LUSTs) is 12,250. At end of year of FY09, cumulative number of 14,120 LUSTs clean-ups were completed in New England, with 2,982 open LUST sites. Specific number of LUST cleanups completed for Massachusetts in FY11 will be negotiated in fall 10. (ACS Code: 112 / 3.2.2).	80 LUST cleanups were completed in FY'11.
	Sub-Objective 3.2.3 Through 2011, Conserve Federal Resources by Ensuring that Potentially Responsible Parties Conduct or Pay for Superfund Cleanups Whenever Possible	
	No specific PPA related action for the State	

	Objective 3.3 Enhance Science & Research	
	GOAL 4: HEALTHY COMMUNITIES & ECOSYSTEMS	
	Objective 4.1 Chemical, Organism & Pesticide Risks	
	Sub-Objective 4.1.1 By 2011, Prevent and Reduce Chemical Risks to Humans, Communities, and Ecosystems	
	No specific PPA related action for the State	
	Sub-Objective 4.1.2 By 2011, Protect Human Health and the Environment From Chemical Releases Through Facility Risk-Reduction Efforts and Building Community Preparedness and Response Capabilities	
	No specific PPA related action for the State	
	Sub-Objective 4.1.3 Through 2011 Protect Human Health by Implementing our Statutes and Taking Regulatory Action to Ensure Pesticides Continue to be Safe and Available When Used in Accordance with the Label	
	No specific PPA related action for the State	
	Sub-Objective 4.1.4 Through 2011 Protect the Environment by Implementing our Statutes and Taking Regulatory Action to Ensure Pesticides Continue to be Safe and Available When Used in Accordance with the Label	
	No specific PPA related action for the State	
	Sub-Objective 4.1.5 Through 2011 Ensure the Public Health and Socio-Economic Benefits of Pesticides Availability and Use Are Achieved	
	No specific PPA related action for the State	
	Objective 4.2 Communities	
	Sub-Objective 4.2.1 By 2011, Reduce the Air, Water and Land Impacts of New Growth and Development Through Use of Smart Growth Strategies in 30 Communities	
	No specific PPA related action for the State	

	Sub-Objective 4.2.2 By 2011, 30 Communities with Potential Environmental Justice Concerns will Achieve Significant Measurable Environmental or Public Health Improvement Through Collaborative Problem Solving Strategies	
	Environmental Justice	
151	MassDEP will continue to implement EJ policies.	ongoing
	Sub-Objective 4.2.3 Working with State, Tribal and Local Partners Promote the Assessment, Cleanup, and Sustainable Reuse of Brownfields Properties	
	No specific PPA related action for the State	
	Sub-Objectives 4.2.4, 4.2.5, and 4.2.6 Pertain to US Mexico Border, Pacific Island Territories and the Artic - No PPA Action for NE States	
	No specific PPA related action for the State	
	Objective 4.3 Ecosystems	
	Sub-Objective 4.3.1 By 2011, Working With Partners, Achieve a Net Increase in Wetlands Acres with Additional Focus on Assessment of Wetland Condition	
	Wetlands	
152	Update annually a tracking report on gains and losses on wetlands state-wide by December 31st of each year. Report will be based on available gain/loss data while DEP develops an electronic tracking mechanism as part of the eDEP and WIRe applications. Every five years (2010, 2015, etc.) report of trends and patterns for the previous five years. (WT-2).	Wetland gain and loss information will be reported in the end of year report. Electronic data is now available for the period 2009 through 2011.
153	Web-based report on the status of DEP Wetland Program Development Grant projects.	Web-based report on the status of DEP Wetland Program Development Grant projects are posted at the following location: http://www.mass.gov/dep/water/priorities/wethome.htm

154	Continue to participate in the NEBAWWG biological monitoring and assessment effort.	BRP continues to participate in NEBAWWG, and presents our state update on December 1, 2011
155	Continue implementing wetlands biological monitoring and assessment plan. (WT-4).	BRP is continuing to implement our wetlands biological monitoring and assessment plan.
	Sub-Objective 4.3.2 By 2011, Working with Partners Protect or Restore and Additional 250,000 Acres of Habitat Within the Study Areas of the 28 National Estuaries	
	National Estuary Program	
156	EPA to provide administrative, technical, and financial support to the National Estuary Programs in your state. (CO-4).	EPA activity
157	EPA to disseminate national and regional guidance and award grants and cooperative agreements in a timely fashion. (CO-4).	EPA activity
158	Participate on Buzzards Bay National Estuary Program Steering Committee and coordinate with MA CZM to support implementation of Buzzards Bay CCMP. (CO-3, CO-4, and 4.3.2).	MassDEP participation ongoing
159	Participate on Massachusetts Bays Estuary Program Management Committee and coordinate with MA CZM to support implementation of Massachusetts Bays CCMP. (CO-3, CO-4, and 4.3.2).	MassDEP participation ongoing

160	Participate on Narragansett Bay Estuary Program Management Committee and coordinate with RI DEM to support implementation of Narragansett Bay CCMP. (CO-3, CO-4, and 4.3.2).	MassDEP participation ongoing
	Sub-Objective 4.3.3, 4.3.4, 4.3.5, 4.3.7, 4.3.8, 4.3.9 Pertain to National Estuaries Outside of New England	
	No specific PPA related action for the State	
	Sub-Objective 4.3.6 By 2011, Prevent Water Pollution, Improve Water Quality, Protect Aquatic Systems, and Restore the Habitat of Long Island Sound	
	No specific PPA related action for the State	
	Objective 4.4 Enhance Science & Research	
	No specific PPA related action for the State	
	GOAL 5: COMPLIANCE & ENVIRONMENTAL STEWARDSHIP	
	Objective 5.1 Improve Compliance and Objective 5.2 Improve Performance Through P2 and Innovation	
	Sub-Objective 5.1.1 By 2011 Prevent Noncompliance or Reduce Environmental Risks Through Compliance Assistance	
	Sub-Objective 5.1.2 By 2011 Identify and Correct Noncompliance or Reduce Environmental Risks Thought Compliance Incentives	
	Sub-Objective 5.1.3 By 2011 Identify, Correct and Deter Noncompliance Through Monitoring and Enforcement	
161	Submit annual Compliance Plans containing descriptions of the state's compliance, assistance and innovative programs, including projections for inspections and other priority activities. See "FY2011 Guidance for Compliance and Assistance and Innovative Program Strategies in New England Performance Partnership Agreements".	Ongoing

162	Submit annual 2011 End of Year report on Compliance, assistance and innovation program accomplishments, activities and results.	Done
163	Enter/send information necessary to satisfy the inspection, testing, compliance monitoring, and enforcement minimum data requirements (MDRs) to EPA's national AFS data system at least once every 60 calendar days (as required by the ICR). (CAA 16, CAA 17).	Ongoing
164	Identify/address/resolve HPVs in accordance with EPA's Timely and Appropriate Enforcement Response to High Priority Violators (the HPV policy), July 1999. Inform the EPA NE liaison in person, by phone, or by email within 45 days of identifying/addressing/resolving an HPV. (CAA 16, CAA 17).	Ongoing
	Objective 5.4 Enhance Science & Research	
	CROSS CUTTING ISSUES	
	Re-Opener Clause	
165	The Regional Office will strive to honor the spirit of the PPA. In keeping with this spirit the Region will work with EPA HQ to limit the impact of unexpected demands on the states. To address new, very high priority issues that might emerge a re-opener clause will be included as part of this process permitting the Regional Office and/or the state to introduce necessary changes to the PPA.	
	Performance Partnership	
166	A process for jointly evaluating and reporting progress and accomplishments under the workplan must be developed and described in the workplan. The process must be based on a negotiated schedule. (40CFR35.115).	See PPA and QMP

167	An annual written progress report must be submitted within 90 days after the end of the annual grant period. (40CFR35.115, 40CFR31.40).	Completed
	QMP QAPP	
168	Continue to implement the State Quality Management Plan (QMP) and submit an Annual update letter to the EPA-NE Quality Assurance Unit documenting the status of annual quality system assessments and any changes necessary to the QMP.	Ongoing
169	Review the State QMP and summarize changes made to the QMP in the update letter to the EPA-NE Quality Assurance Unit.	Completed
170	Update the State Quality Assurance Quality Assurance Project Plan inventory list.	Completed
171	MassDEP, with assistance from EPA, will work towards an approved generic QAPP for model simulations in the TMDL program by end of 2010.	MassDEP DWM-WPP developed and received EPA approval for a generic modeling QAPP.