



1%

  
GREEN BUDGET  
FY2015

## Organizations that Endorse the Green Budget

Appalachian Mountain Club  
Arborway Coalition  
Association to Preserve Cape Cod (APCC)  
Berkshire Natural Resources Council  
Boston Harbor Island Alliance  
Boston Park Advocates  
Buzzards Bay Coalition  
Charles River Conservancy  
Charles River Watershed Association  
Clean Water Action MA  
Conservation Law Foundation  
Emerald Necklace Conservancy  
Environment Mass  
Environmental Business Council  
Esplanade Association  
Essex County Greenbelt Association  
Franklin Land Trust  
Franklin Park Coalition  
Friends of Alewife Reservation  
Friends of the Blue Hills  
Green Decade Newton  
Hilltown Anti-Herbicide Coalition  
Jones River Watershed Association  
Lakes & Ponds Association of Western Massachusetts  
Lowell Parks and Conservation Trust  
Mass Audubon  
Massachusetts Association of Conservation Commissions  
Massachusetts Climate Action Network  
Massachusetts Congress of Lake and Pond Associations  
Massachusetts Energy Consumers Alliance  
Massachusetts Horticultural Society  
Massachusetts Land Trust Coalition  
Massachusetts Organization of State Engineers and Scientists (MOSES)  
Massachusetts Rivers Alliance  
Massachusetts Sierra Club  
Mystic River Watershed Association  
Nashua River Watershed Association  
Neponset River Watershed Association  
New England Wild Flower Society  
North and South Rivers Watershed Association  
OARS: For the Assabet, Sudbury and Concord Rivers  
Save the Harbor/Save the Bay  
Sudbury Valley Trustees  
Tatnuck Brook Watershed Association  
The Nature Conservancy - Massachusetts  
The Trustees of Reservations

1% for the Environment  
Green Budget  
Fiscal Year 2015

Nancy Goodman || Erica Mattison



February 2014

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**“Nature is inexhaustibly sustainable if we care  
for it. It is our universal responsibility to pass a  
healthy earth onto future generations.”**

**– Sylvia Dolson**

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February 2014

Dear Legislators and Colleagues:

Three simple facts are indisputable and interrelated.

First, in the aggregate, state spending on environmental protection is less than 1% of the entire state budget. In the past decade, state agencies including the Departments of Environmental Protection, Conservation and Recreation, and Fish and Game have borne deep cuts that have not been fully restored. For a progressive state such as Massachusetts, spending less than 1% is a disgrace.

Second, if Superstorm Sandy had moved a few miles further north, Boston and the Massachusetts coastline — instead of New York and New Jersey — would have been devastated. The urgency of dealing with the destructive nature of climate change is readily apparent. More and more is being asked of state agencies, but state agencies cannot achieve their mission without adequate funding. You cannot do more with less...you can only do less with less.

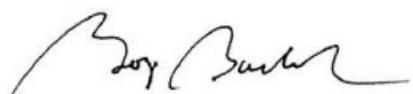
Third, there is an inextricable link between investment in environmental protection and the economy. Every dollar we invest in the environment yields a four dollar return, according to a recent report by The Trust for Public Land. With over 5,500 clean energy firms in Massachusetts, this sector now employs approximately 80,000 workers and represents the fastest growing segment of our economy, according to the Massachusetts Clean Energy Center. If Massachusetts can lead the nation with the first offshore wind farm, we will create even more new businesses and jobs that develop new technology in solar, wind, and energy efficiency.

Outdoor recreation in Massachusetts is a \$10B industry. Agriculture, forestry, and fishing represent another \$13B. And if we finally build a 21st century transit system, weatherize older buildings, and modernize our infrastructure to fix gas pipe leaks and our failing water system, we will not only protect our environment but also put the building trades to work.

Businesses locate and expand in Massachusetts, not because we are a low-cost state, but because of our talented workforce and quality of life. We must protect our rivers, beaches, forests, and parks if we are to attract the companies and retain the talent that will grow our economy. The connection between the environment and the economy should not be ignored.

The bottom line is a triple bottom line. Spending on environmental agencies will protect our environment, strengthen our economy, and make our Commonwealth safer and healthier. But to enjoy a return on investment, we must first make the investment. It starts with this budget.

Sincerely,



George Bachrach  
President



Nancy Goodman  
Vice President for Policy



Erica Mattison  
Legislative Director

# Executive Summary

Our annual Green Budget recommendations seek to ensure that the agencies responsible for protecting public health and our natural resources have sufficient funding to carry out an increasingly broad array of critical responsibilities.

Last year, the Massachusetts Legislature increased funding for the environmental agencies by over \$12M, an increase of 6% over FY2013.

**Despite this step forward, as the state budget has increased overall during the past number of years, environmental agency funding has not kept pace and continues to lag.** Our natural resources, residents, visitors, and economy feel the impact of these cuts.

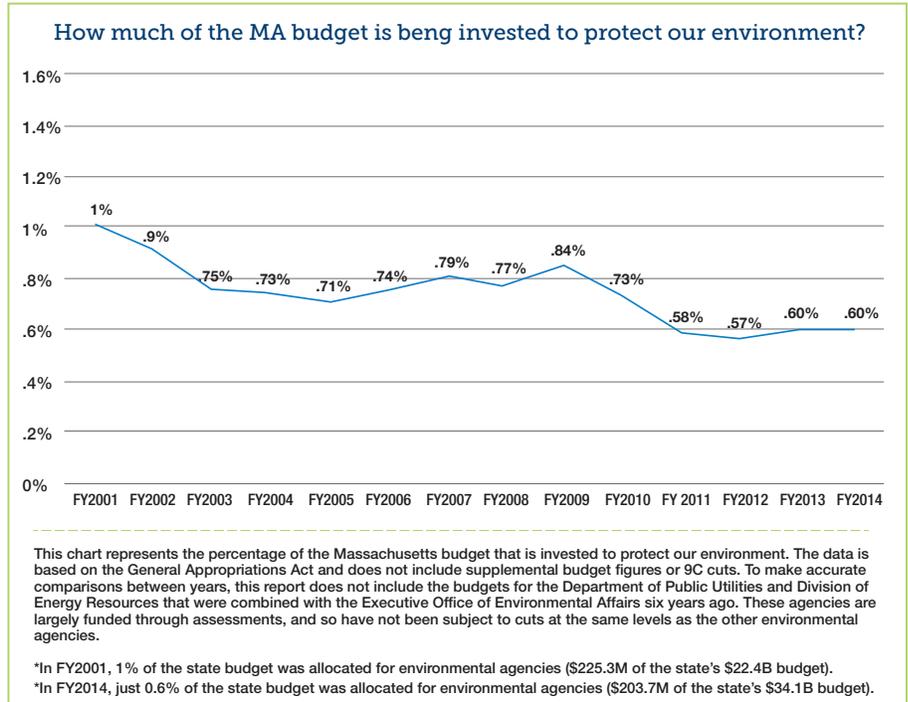
**We call for a restoration of environmental funding to 1% of the state budget. This Green Budget highlights priority programs and activities that have been negatively impacted by substantial budget cuts and are in need of heightened investment.**

## Breakdown of Funding by Agency

In FY2014, the environmental agencies' budgets were 6% lower than they were in FY2008. Of note, is that the two largest agencies, the Department of Environmental Protection and the Department of Conservation and Recreation, have borne the deepest cuts.

The Green Budget details the important work carried out by our environmental agencies and highlights new programs and responsibilities that need support. With cuts to federal funding and expanded mandates such as the Sustainable Water Management Initiative and dam safety requirements, **our environmental agencies require additional resources to survive and thrive.**

By investing in environmental programs, we safeguard our natural resources while improving public health, creating jobs, complying with federal law, generating tourism revenue, and enhancing quality of life.



	FY2008	FY2014	% Change FY2008 to FY2014
EOEEA	\$23.3 M	\$24.7 M	6%
DEP	\$60.0 M	\$56.5 M	-6%
DFG	\$19.2 M	\$23.2 M	17%
DCR	\$96.8 M	\$79.8 M	-21%
DAR	\$17.7 M	\$19.4 M	9%
<b>TOTAL</b>	<b>\$217.1 M</b>	<b>\$203.7 M</b>	<b>-6%</b>

Funding for MA environmental agencies is down 6% compared to FY2008.

## Executive Summary, cont'd.

### FY2014 Agency Highlights

#### Dept. of Environmental Protection

- In the process of instituting a ban on food waste from large commercial facilities. Made \$3M in low-interest loans available to private companies building anaerobic digestion facilities that will produce energy from this waste.
- Since 2010, DEP's technical staff have reviewed and permitted solar projects at 46 closed landfills with the potential to generate more than 86 megawatts of electricity annually.

#### Dept. of Conservation and Recreation

- Hosted the Head of the Charles Rowing Regatta, which attracts over 9,000 athletes and 300,000 spectators to the Boston area, and Boston's Fourth of July Spectacular — attended by over half a million people.
- Provided post-storm emergency response and public safety services.
- Stormwater Management: Prevented flooding, restored polluted streams, and beaches and met federal obligations by inspecting and cleaning approximately 3,800 catch basins.
- Office of Watershed Management: Updated the statewide Drought Management Plan, which will help the Commonwealth better anticipate and prepare for water supply shortages, fire danger, and streamflow impacts.

#### Executive Office of Energy and Environmental Affairs

- Office of Technical Assistance: Over 350 recommendations provided to companies in FY2013 have already been implemented, helping increase regulation compliance, reduce energy and water consumption, and prevent pollution.



Brothers Pond,  
Attleboro

#### Dept. of Fish and Game

- Commissioner's Office: Supported the 480-acre Maple Hill Farm Conservation Project in West Stockbridge, which includes habitat for several state-listed species of rare plants and animals.
- Division of Ecological Restoration: Obtained a \$10.4M award from the U.S. Fish and Wildlife Service from Superstorm Sandy funding to complete four ecological restoration projects in southeastern MA, which will help protect our coasts and generate an estimated 181 jobs and \$25.4M in economic output for the MA economy.
- Division of Marine Fisheries: Over the past 10 years, this division's work has generated over \$20M in federal relief funds for Massachusetts fishermen.

#### Dept. of Agricultural Resources

- Agricultural Preservation Restriction (APR) Program: Permanently protected over 840 farms with a total land area of nearly 70,000 acres of prime working landscapes. In FY2013, APR helped permanently conserve more than 1,350 acres of farmland.
- The Farm Viability Enhancement Program: In FY2013, the program provided technical assistance to 14 farms, all of which completed business plans. Of these, 13 farms received funding and were placed under agricultural covenants, resulting in the protection of more than 860 acres.

# FY2015 Funding Priorities: Summary Recommendations

		FY13	FY14	FY15 Recommended
<b>Department of Environmental Protection (DEP)</b>				
2200-0100	DEP Administration	\$25,624,684*	\$28,354,269	\$33,696,542
2200-0107	Recycling & Solid Waste Management	\$375,000	\$375,000	\$1,459,987
2260-8870	Hazardous Waste Site Cleanup	\$13,459,639*	\$13,611,481	\$16,525,923
2210-0105	Toxics Reduction <sup>1</sup>	\$3,120,894	\$3,120,894	\$3,532,043
2260-8881	Board of Registration of Hazardous Waste Site Cleanup Professionals	\$385,030	\$384,470	\$412,879
<b>Department of Conservation and Recreation (DCR)</b>				
2800-0101	Watershed Management	\$1,010,223	\$1,010,223	\$1,455,310
2800-0401	Stormwater Management	\$397,738	\$405,042	\$896,643
2800-0700	Office of Dam Safety	\$354,153	\$355,263	\$435,428
2810-0100	State Parks & Recreation	\$39,929,387*	\$42,554,957	\$53,748,330
2800-0501	Seasonal Staff	\$12,456,552	\$12,651,578	\$14,651,578
<b>Department of Fish and Game (DFG)</b>				
2300-0100	Office of the Commissioner	\$708,559*	\$869,979 <sup>2</sup>	\$835,668
2300-0101	Division of Ecological Restoration	\$416,770*	\$494,488	\$650,000
2310-0300	Natural Heritage and Endangered Species Program	\$150,000	\$150,000	\$250,000
2330-0100	Division of Marine Fisheries	\$4,812,837 <sup>3</sup>	\$5,509,039 <sup>4</sup>	\$5,387,887
<b>Department of Agricultural Resources (DAR)</b>				
2511-0100	DAR Administration	\$4,722,151*	\$5,336,426	\$5,506,927
<b>Executive Office of Administration and Finance (A&amp;F)</b>				
1790-xxxx <sup>5</sup>	Geographic and Environmental Information (MassGIS)	N/A	N/A	\$700,000

<sup>1</sup> Funding for this line-item is through retained revenues from fees and penalties on industry. The funds support the Office of Technical Assistance (OTA), the Toxics Use Reduction Institute (TURI), and DEP toxics use reduction work. The FY14 line-item total is \$3,120,894; of that amount at least \$644,096 is allocated to OTA and \$1,657,449 is passed through to TURI at UMass Lowell, with the remaining funding supporting DEP's toxics work. We recommend funding OTA at \$1,055,245 in FY2015 to restore some of the deep cuts borne by the program and level fund TURI.

\*Includes 9C cuts

<sup>2</sup> Includes one-time \$150k grant program for port recovery.

<sup>3</sup> Includes one-time earmark of \$425,000.

<sup>4</sup> Includes one-time earmark of \$675,000.

<sup>5</sup> We propose the creation of a new line-item.

# Department of Environmental Protection (DEP)

## DEP Administration 2200-0100

FY 2013 with 9C cuts  
\$25,624,684

FY 2014<sup>1</sup>  
\$28,354,269

FY 2015 Recommended  
\$33,696,542



The Department of Environmental Protection (DEP) is responsible for implementing the Commonwealth's environmental laws and **protecting our air, water, land, and health** from environmental threats. Through the department's essential programs, DEP:

- Makes our air cleaner and healthier by reducing levels and toxicity of air emissions;
- Ensures safe drinking water for all Commonwealth residents;
- Monitors water quality and quantity in our rivers, lakes and streams;
- Protects wetlands and waterways by administering and enforcing the Massachusetts Wetlands Protection Act;
- Ensures emergency response when hazardous waste spills threaten public health and safety; and
- Through inspections and permitting, regulates Massachusetts recycling and composting operations, as well as solid waste transfer stations, landfills, and municipal waste combusters.

### Funding History

To support effective implementation of DEP's core programs, it is vital to fully fund DEP's operating accounts. We are encouraged that the Legislature provided funding last year to maintain current levels of permit and compliance staff, including a new \$2.5M retained revenue account.

DEP relies on a combination of the annual state appropriation and federal grant dollars to provide funding for virtually all of the core programs that support its environmental mission. Unfortunately, recent gains on the operating side of the budget have been eroded by losses on the federal side. Several of DEP's federal grants were cut in FY2013 as a result of sequestration and related federal budget cuts, with further cuts still expected.

### Workforce

80% of DEP's state funding and 33% of federal funding received by DEP supports staffing needs. Any significant reduction to either the state appropriation or federal dollars undermines the department's ability to adequately carry out its programs and enforcement activities.

DEP's mandate under the federal **Clean Water Act** requires regular water body monitoring and development of detailed plans to address pollution in each compromised water body. **The program is currently operating with just 30% of the optimal staff level.**

Looking to next year, DEP will have primary responsibility for **implementing a new Sustainable Water Management Initiative** — the result of a four year process that is drawing to a close and will result in better stewardship of our water resources, with an emphasis on protecting drinking water supply and streamflow. To robustly implement the program, it is estimated that DEP will need five new staff members.

Previous cuts to DEP's funding have resulted in:

- Water quality monitoring being severely compromised;
- Delays in analyses supporting drinking water safety, quality of recreational water and air quality;
- Continued reductions to solid waste management programs;
- Delay in attainment of federal air quality standards;
- Slippage in fulfilling EPA grant commitments, potentially undermining future grant awards;
- Reduction in Brownfields site development assistance to developers and municipalities; and
- Less discovery and assessment of the dangers of leaking underground storage tanks.

<sup>1</sup> Includes \$482,000 in pass-through earmarks.

## Department of Environmental Protection (DEP)

# Recycling and Solid Waste Management 2200-0107

FY 2013  
\$375,000

FY 2014  
\$375,000

FY 2015 Recommended  
\$1,459,987

DEP provides technical and financial assistance to businesses and communities to help reduce waste and establish and maintain cost-effective recycling programs.

DEP also enforces the state's disposal bans which are designed to keep toxic materials out of the waste stream, prevent the disposal of valuable recyclable materials, and preserve capacity at landfills.

### Funding History & Needs

In FY2008, the budget for recycling and solid waste management was more than \$2M. By FY2013, the budget was cut to a mere \$375,000.

Since FY2008, staff levels have been reduced from 19 to 10. Among other needs, additional staff is needed to administer and track municipal recycling grants that are funded by waste-to-energy credits.

In spite of work to streamline permit requirements for some solid waste management facilities, this work has increased over the last several years, particularly as interest has grown in redeveloping closed landfills for renewable energy production. Since 2010, DEP staff have reviewed and permitted solar panel projects at 46 closed landfills.

### Environmental & Economic Benefits

Massachusetts residents and business spend over \$300M annually to dispose of solid waste — most of which can be recycled. By converting raw materials into products, recycling creates jobs, builds more competitive manufacturing industries and adds significantly to the Massachusetts economy. More than 14,000 people in Massachusetts work in the recycling industry, which has annual revenues of \$3.2B.<sup>1</sup> With a relatively small increased investment in recycling, we would see growth in recycling, based businesses and jobs.

The Commonwealth has set a goal of reducing solid waste disposal by an additional 2 million tons by 2020. By achieving this goal, we can reduce the equivalent of 3.5 million metric tons of carbon dioxide and save enough energy to power 1.4 million homes annually.



Town of Harwich  
Recycling Center

The image shows a photograph of a recycling center with several bins. A yellow callout box is overlaid on the top right of the image, containing the text 'Town of Harwich Recycling Center'. The bins are labeled with various materials like 'ALL CANS HERE', 'ALUMINUM FOIL POTS AND PANS', 'ALL PAINT AND AEROSOL CANS HERE', and 'PLASTIC ONLY'. There are also some plastic bottles and containers on the ground in front of the bins.

<sup>1</sup> U.S. Recycling Information Study, prepared for the Northeast Recycling Council, February 2009

## Department of Environmental Protection (DEP)

# Hazardous Waste Site Cleanup

## 2260-8870

FY 2013 with 9C cuts  
\$13,459,639

FY 2014  
\$13,611,481

FY 2015 Recommended  
\$16,525,923

DEP's Bureau of Waste Site Cleanup oversees the Commonwealth's assessment and cleanup of contaminated sites and provides 24/7 emergency response to spills of oil and chemicals that pose environmental threats.

More than 40,000 hazardous waste sites and spills located throughout the Commonwealth have been reported to the Hazardous Waste Site Cleanup Bureau since 1993.

For anyone living or working nearby, these sites can pose serious risks, such as contaminated private drinking water wells and vapor intrusion.

More than 36,000 sites have been remediated since 1993. Approximately 6,000 sites are "open" at any one time, meaning they are in the process of being cleaned up. In 2013, 1,246 new sites were reported, and clean up of 1,181 sites was completed.

### Funding History

Over the last several years, this program has suffered very significant losses of both staff and program expertise. Although the program received a 12% increase from FY2012 to FY2013 and was level funded in FY2014, **the program is still operating at 18% below FY2009 levels.** As a result, the program is unable to fully meet key responsibilities such as keeping current with regulatory changes, maintaining oversight of compliance and enforcement programs, and licensing hazardous waste facilities in a timely manner.

### Economic Development & Brownfields

The Bureau takes an active role in encouraging economic development through the Brownfields Support Team (BST), which provides focused technical, legal, and funding assistance for complex sites that have important

redevelopment potential. Since its creation in 2008, the BST has provided assistance for redevelopment projects in Worcester, Fall River, Haverhill, Springfield, Grafton, Chelmsford, Somerville, Brockton, Attleboro, Gardner, and Chicopee.

### Federal Funding Cuts

Waste site cleanup efforts in Massachusetts have been hindered not only by insufficient state funding but also by years of cuts to EPA grants that supplemented state funds. For instance, we've seen a 25% cut in federal brownfields response grants over the past five years.

Due to sequestration reductions and anticipated EPA budget reductions, further declines are expected for grant funding that supports the Bureau of Waste Site Cleanup.

## Case Study: Attleboro

The Brownfields Support Team has supported the development of an intermodal transportation center and surrounding transit-oriented, mixed-use developments as part of the City's Downtown Redevelopment and Revitalization Project.

**RESULT:** Redevelopment of eight properties along the Ten Mile River that have been contaminated with asbestos, heavy metals, PCBs, chlorinated solvents and other petroleum products due to historical commercial and industrial uses. The redevelopment also included a park with a riverfront walking trail and road infrastructure to support the transportation center.



## Department of Environmental Protection (DEP)

# Toxics Use Reduction 2210-0105

FY 2013  
\$3,120,894

FY 2014  
\$3,120,894

FY 2015 Recommended  
\$3,532,043<sup>1</sup>

### Office of Technical Assistance

The Office of Technical Assistance (OTA) helps businesses reduce the use of toxic chemicals in the manufacturing of their products. OTA staff provide one-on-one direct and confidential assistance to manufacturers to transition to more environmentally benign methods of production. Working in collaboration with the Toxics Use Reduction Institute and the Department of Environmental Protection, OTA brings in-the-field experience to chemical policy development by the Administrative Council for the Toxics Use Reduction Act (TURA). OTA also works with businesses and municipalities on energy and water conservation.

### Funding History

**OTA's budget was slashed by almost 40% from FY2009 to FY2013, resulting in 10 staff lay-offs — more than half of OTA's staff — seriously handicapping the program.**

These cuts have severely curtailed outreach to business, transfer of information on new best management practices and cost saving approaches, and support for development of innovative technologies.

Through site visits and small business assistance, OTA helps make Massachusetts' industries safer, more cost-effective, more efficient, and globally competitive. During FY2013, more than half of OTA site visits were to businesses with less than 100 employees. Prior to budget cuts during the economic downturn, OTA provided assistance to schools, hospitals, departments of public works, and manufacturing facilities. In recent years, staff reductions have forced OTA to scale back despite a 20% increase in demand.

OTA currently has limited capacity to engage with newer or rapidly expanding manufacturing sectors such as pharmaceuticals, nanotechnology, renewable energy, aerospace and medical devices. Additional funding would allow for a more robust program that is able to specifically target many more small businesses and to anticipate industry needs and challenges.

### Recent Accomplishments

Over 350 recommendations OTA made to companies in FY2013 have already been implemented, resulting in increased regulation compliance, reduced energy and water consumption, and pollution prevention. OTA also hosted a workshop to highlight health and safety aspects of working with insulation. The workshop was attended by 80 professionals such as builders, contractors, and inspectors.

### Initiatives Calling for Funding

With increased funding and staff capacity OTA could:

- Provide **targeted assistance to local governments and the regulated community**, which will help reduce the likelihood of serious accidents resulting from poorly managed hazardous processes.
- **Increase outreach**, for instance by hosting more accident prevention trainings throughout the Commonwealth (last year the training was only offered in three locations: Cambridge, Fall River, and North Andover).
- **Increase engagement with newer or rapidly expanding manufacturing sectors** and help them reduce toxics use and resource consumption.

<sup>1</sup> Funding for this line-item is through retained revenues from fees and penalties on industry. The funds support the Office of Technical Assistance (OTA), the Toxics Use Reduction Institute (TURI), and DEP's toxics use reduction work. The FY14 line-item total is \$3,120,894; of that amount at least \$644,096 is allocated to OTA and \$1,657,449 is passed through to TURI at UMass Lowell, with the remaining funding supporting DEP's toxics work. We recommend funding OTA at \$1,055,245 in FY2015 to restore some of the deep cuts borne by the program and level fund TURI.



**Key Highlights**

- Designed with detachable base comprised of recycled post-industrial material
- Used MoldFlow analysis tool to eliminate plastic for lightweighting
- Innovation for 250L design includes reducing energy use at customer site and minimizing packaging

A Product Development Engineer from EMD Millipore Corporation, a Toxics Use Reduction Act 20th Anniversary Leader, shows environmental design improvements made to the Mobius® CellReady 3L Bioreactor.

## Toxics Use Reduction Institute

In 1989, Massachusetts proudly passed the Toxics Use Reduction Act, the first of its kind in the nation. The Toxics Use Reduction Institute (TURI), located at the University of Massachusetts in Lowell, was established to help implement the Act. **TURI provides professional training, research, and grants assistance to businesses and communities.**

Implementation of the Toxics Use Reduction Act has resulted in a steady decline in the use of dangerous chemicals. From 2000 to 2011, companies reported a 20% decline in the use of dangerous chemicals, a 41% reduction in toxic byproducts, and a reduction in on-site releases of toxics to the environment by 70%.

### Activities

TURI provides grants and assistance to community groups, and small and large businesses. Current projects include:

- **Leading a research consortium of companies in the aerospace and defense supply chain** to evaluate safer alternatives to toxic chemicals. Phase I research on hexavalent chromium alternatives in sealants revealed promising alternatives. This research will help to reduce toxic chemical use and make Massachusetts companies compliant with new Department of Defense requirements.
- **Working with dry cleaners** to encourage them to stop using perchloroethylen, a likely human carcinogen known as “perc.” With the help of a recent \$15,000 grant from TURI, KMK Cleaners in Walpole switched from using perc to professional wet cleaning, a safer alternative. With TURI’s help, more and more cleaners in Massachusetts are adopting professional wet cleaning.
- **Providing seed grant funding** for graduate students and faculty to develop environmentally friendly alternatives to hazardous materials currently used in industry.

## Department of Environmental Protection (DEP)

# Board of Registration of Hazardous Waste Site Cleanup Professionals 2260-8881

FY 2013  
\$385,030

FY 2014  
\$384,470

FY 2015 Recommended  
\$412,879



DEP emergency response to a release of mercury in Beverly.

In 1993, in an effort to expedite the cleanups, Massachusetts became the first state in the nation to privatize its hazardous waste site cleanup program. Individuals and companies that are financially responsible under Massachusetts law for assessing and cleaning up hazardous waste sites must retain a Licensed Site Professional (LSP) to oversee the work. The Board of Registration of Hazardous Waste Site Cleanup Professionals (also known as the LSP Board) was established to license and regulate LSPs and ensure high standards of practice so that public health, welfare, and the environment are protected.

**The primary goal of the LSP Board is to provide DEP and the public with confidence that waste site cleanups are being carried out by qualified professionals and meeting state standards.**

### Funding History

Following budget cuts, in FY2011 the LSP Board was reduced by half, leaving it with just three staff. This staffing level severely impacts the program's ability to fulfill its most important role as regulator and enforcer. Deep budget cuts have DEP exploring the privatizing of other agency responsibilities. Our experience with the LSP program and the reduction in oversight of cleanups due to budget reductions raises serious concerns about this model being expanded to other areas.

## Department of Conservation and Recreation (DCR)

# Office of Watershed Management 2800-0101

FY 2013  
\$1,010,223

FY 2014  
\$1,010,223

FY 2015 Recommended  
\$1,455,310

The Office of Watershed Management (OWM) manages and protects the drinking water supply watersheds for approximately 2.5 million residents of Massachusetts and promotes water quality.

### Funding History

Since FY2008, the program's funding has been slashed by 65%. As of fall 2013, OWM staffing is down almost 20% compared to 2007 (13 staff currently vs. 16 staff in 2007).

In addition to these staffing reductions, the decrease in OWM's budget has translated into less funding for:

- Projects to remove invasive aquatic plants that are choking our waterways;
- Lake assessments;
- Beach improvements; and
- Technical and financial assistance to municipalities, lake associations, and homeowners.

**More than half of OWM's funding (close to \$550,000) is earmarked for unrelated issues such as the Thames River flood control PILOT payments and the Town of Clinton's reservoir, which is part of the MWRA, leaving an operational budget of just under \$500,000 for all of OWM's programs.**

### Planning: Drought Management and State Hazard Mitigation

- In 2013, OWM finalized updates to the statewide Drought Management Plan that will guide decision making and help the Commonwealth better anticipate and prepare for drought related impacts such as water supply shortages, fire danger, and streamflow impacts.

- OWM maintains the state's eligibility for federal disaster assistance and hazard mitigation funding by keeping the State Hazard Mitigation Plan updated in cooperation with the Massachusetts Emergency Management Agency (MEMA). DCR and MEMA are awaiting a decision regarding pending grant applications to FEMA for over \$12M for hazard mitigation projects.

### Protecting Lives and Property using Rainfall and Streamflow Data

OWM coordinates two critical data collection networks: the Massachusetts Rainfall Monitoring Network and the U.S. Geological Survey Stream Gage and Groundwater Network. Real-time and historic data from these networks are used by diverse groups to protect lives, property, and the environment, and to better plan for future water conditions including droughts, floods, and climate change. OWM scientists also play an active emergency response role at MEMA during flood emergencies.

**Real-time and historic data provided by OWM are used by diverse groups to protect lives, property and the environment, and to better understand and plan for future water conditions including droughts, floods, and climate change.**

### Funding Needs

In recent years, OWM has received requests to help address **aquatic invasive species** such as the zebra mussel that is causing destruction to businesses and private property. With additional funding, OWM would be positioned to play a key role.

# Stormwater Management

## 2800-0401

FY 2013  
\$397,738

FY 2014  
\$405,042

FY 2015 Recommended  
\$896,643

Stormwater runoff poses a serious pollution threat to all water bodies in the Commonwealth. The Stormwater Management Program maintains over 400 miles of DCR parkways and 700 DCR facilities to ensure that roads drain quickly and with minimal erosion and flooding of adjacent parklands and properties.

### Funding History

From FY2008 to FY2014, the stormwater management operating budget was cut by 57%. This is a major impediment in DCR's ongoing efforts to comply with the stormwater management requirements of the federal Clean Water Act.

### Impact

In 2013, DCR inspected and cleaned approximately 3,800 catch basins. DCR uses high-efficiency vacuum street sweepers on all roadways that discharge to polluted streams. DCR also repaired 320 catch basins and over

4,000 linear feet of associated drainage piping at 20 parks and parkways throughout the state. This work is essential to preventing flooding, restoring polluted streams and beaches, and meeting the state's federal obligations.

Recent work includes:

- Restoring Blair Pond in Cambridge, where dredging and other restoration work will serve to improve water quality in the pond and downstream in Alewife Brook and the Mystic River.
- Permitting a restoration plan for Spring Pond, part of the Emerald Necklace, where unauthorized drainage connections overwhelmed DCR's drainage system and caused erosion and flooding along the Jamaica way. The restoration work is expected to be completed in 2014.
- Collaborating with MassDOT to develop and implement stormwater best management practices for accelerated bridge projects in the lower Charles River basin and other MassDOT/DCR project areas. Improvements will help to reduce pollutants in our waterways.

### Stormwater Management Program responsibilities are broad and include:

- street sweeping;
- trail maintenance;
- removal of abandoned or dumped materials;
- responding to hazardous materials spills or releases;
- water quality sampling at DCR swimming facilities;
- catch basin and drainage outfall cleaning and repairs;
- drinking water well services to ensure that DCR properties are in compliance with environmental regulations including the Clean Water Act and Safe Drinking Water Act.

### Untapped Opportunities

With increased funding, the program could undertake pilot projects demonstrating the benefits of using permeable pavements on parking lots. For instance, by replacing the existing surface at parking lots on Soldiers Field Road with permeable pavement, we would eliminate polluted stormwater discharge to the Charles River, replenish groundwater, and save money on catch basin cleaning and maintenance.



Constructed and restored stormwater & wetland meadows, DCR Alewife Reservation.

# Office of Dam Safety

2800-0700

FY 2013  
\$354,153

FY 2014  
\$355,263

FY 2015 Recommended  
\$435,428

The Office of Dam Safety (ODS) plays a critical role in ensuring that dams are inspected and kept in a state of good repair. ODS maintains vital records on **dam location, condition, and performance** while exercising its authority to **monitor the ongoing inspection, maintenance, operation, and repair** of dams by dam owners.

There are thousands of dams in Massachusetts, and many of them pose substantial risks.

Source: National Inventory of Dams, US Army Corps of Engineers

## Funding History

ODS is responsible for regulating nearly 1,500 privately and publicly owned dams. Since FY2008, ODS's budget has been cut 75% from \$1.4M to approximately \$355,000. These cuts significantly reduce ODS's ability to comprehensively and effectively fulfill critical oversight, safety and enforcement functions.

## Addressing Hazardous Dams

Dams classified as High Hazard or Significant Hazard have the potential to cause serious damage to life, property, and public infrastructure and utilities in the event of failure.

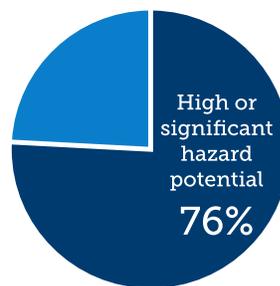
Staff cuts have left ODS unable to effectively monitor unsafe dams in the Commonwealth. Given staff shortages, **each engineer is currently responsible for an impossibly large workload of approximately 400 dams.**

Recent work includes repairs to:

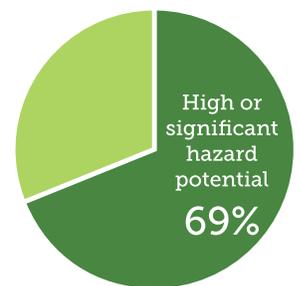
- Echo Lake Dam in Princeton **HIGH HAZARD**
- Centennial Dam in Dedham **HIGH HAZARD**
- Lost Wilderness Dams in Tolland **SIGNIFICANT HAZARD**
- Dean Pond Dam in Brimfield **SIGNIFICANT HAZARD**
- Ruggles Dam in Wendell **SIGNIFICANT HAZARD**
- Hopkinton Reservoir Dam in Ashland **HIGH HAZARD**

ODS plans to repair the Aldrich Lake Dam in Granby in FY2015. **SIGNIFICANT HAZARD**

## Municipal Dams



## State Dams



Source: Local Financial Impact Review: Massachusetts Dam Safety Law, issued by Auditor of the Commonwealth, January 2011

## Funds Needed to Meet New Responsibilities

Chapter 448 of the Acts of 2012 created new dam safety mandates and imposed additional requirements upon ODS. Unfortunately, these new mandates and requirements were not accompanied by additional funding or resources to support effective implementation.

While dam safety and repairs are essential, **additional funding would allow ODS to identify dams that should be removed.** Due to changes in industry, many dams no longer serve a purpose. When an obsolete dam is removed, it's a win-win – we restore rivers to a more natural state and remove the liability of a deteriorating dam.

## Department of Conservation and Recreation (DCR)

# State Parks and Recreation 2810-0100

FY 2013 with 9C cuts  
\$39,929,387

FY 2014  
\$42,554,957

FY 2015 Recommended  
\$53,748,330

### The Department of Conservation and Recreation manages over 450,000 acres of public land.

From the Boston Harbor Islands to Mount Greylock, DCR provides a variety of recreational and cultural experiences for Massachusetts residents and visitors. The agency's campgrounds, trails, summits, historic areas, skating rinks, swimming pools, playgrounds, ball fields, and beaches provide places for quiet enjoyment or active recreation, are an important connection to the natural world, and directly support Massachusetts' \$10B annual recreation economy.

In addition, DCR is responsible for critical public infrastructure across the state including dams, seawalls, flood control structures, and bikeways. DCR also manages the drinking water source for nearly 2.5 million people in the metropolitan Boston area.



### Funding History

**DCR's overall operating budget has been reduced by nearly 30% since FY2009.** The agency has lost approximately 250 staff positions, reducing the overall workforce by more than 25%. DCR has become increasingly efficient, but the reductions in both full-time and seasonal staff translate directly into on-the-ground impacts on service delivery – park supervision, forest fire control, visitor services, natural resource protection and park safety and cleanliness. Since FY2010, this particular line-item has been reduced by 9%, or \$4M.

### Benefits of DCR's work

#### Natural Disaster Recovery Aid

Many communities rely on DCR to help with recovery from natural disasters. Over the course of 2011 and 2012, Massachusetts was hit by numerous storms, including a tornado, Hurricane Irene, and Superstorm Sandy. In each of these instances, DCR played an integral emergency response and public safety role. In addition, as one of the lead agencies **in storm preparation and response** efforts, DCR played an important role in inspecting vital public safety and environmental infrastructure such as dams and coastal infrastructure. DCR personnel also responded by providing immediate emergency cleanup assistance and helped communities recover from the damaging effects of these storms by coordinating funding programs that led to the restoration and reforestation of many public areas in affected communities. With predictions for increased extreme weather events, adequate funding for DCR is essential.

#### Hosting Special Events

In addition to its routine responsibilities, DCR hosts several large-scale annual events such as the Head of the Charles Rowing Regatta, which attracts over 9,000 athletes and 300,000 spectators to the Boston area, and Boston's Fourth of July Spectacular — attended by over half a million people and televised for millions more to see.

#### Providing Accessible Sidewalks

In winter months, DCR is responsible for clearing its extensive network of parkways throughout the state and all DCR owned sidewalks in the metropolitan Boston area. Massachusetts residents rely on DCR for a safe commute and a safe walk to school after a snowfall.



## Impact of Budget Cuts

The severe budget cuts DCR has weathered have led to reduced access to state facilities.

### Closure of Facilities

The following facilities were closed or unstaffed during the 2013 season:

- Chester-Blandford State Forest
- Windsor State Forest Day Use and Camping Areas
- Berry Pond in Harold Parker State Forest
- Fearing Pond Day Use Area in Myles Standish State Forest
- Massasoit State Park Camping Area
- Lake Lorraine State Park
- Streeter Point Recreation Area
- Gardner Heritage State Park

Without additional funding, many of these areas will continue to remain closed or unstaffed and camping seasons at many locations will remain shortened in 2014. In order to provide more quality outdoor experiences to Massachusetts residents and visitors, it is essential that DCR staffing levels be increased.

## Outdoor Recreation and the Economy

“In Massachusetts, outdoor recreation generates **\$10B in annual consumer spending**... **The tax revenue attributed to outdoor recreation spending equals \$739M annually.**”

Spending on outdoor recreation also helps local businesses that hire Massachusetts residents.

**Approximately 90,000 jobs in the state are supported by this spending**, accounting for \$3.5B in wages and salaries. Much of that earned income is then spent in local communities, further magnifying the economic impact of outdoor recreation.”

*Source: The Return on Investment in Parks and Open Space in Massachusetts, The Trust for Public Land, September 2013, page 6.*

# Department of Conservation and Recreation (DCR)

## DCR Seasonal Staff 2800-0501

FY 2013  
\$12,456,552

FY 2014  
\$12,651,578

FY 2015 Recommended  
\$14,651,578

Seasonal staff play a significant role in supporting DCR's parks operations and comprise a considerable portion of the staff needed to keep open critical recreational amenities such as swimming pools, campgrounds, and skating rinks.

### Funding History

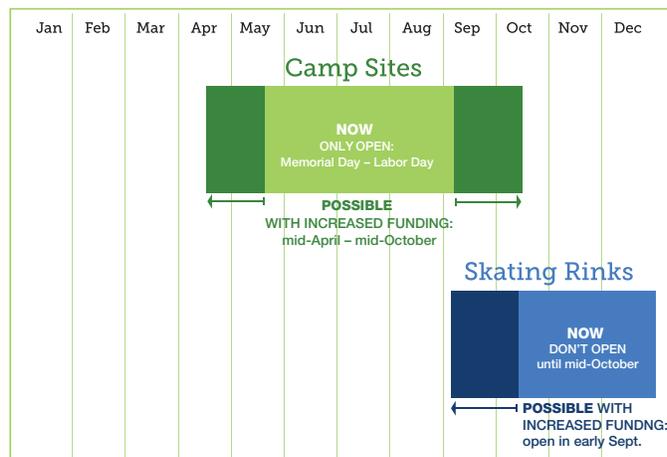
Since FY2009 this line-item has been cut approximately \$3.2M (20%), forcing DCR to reduce its seasonal workforce from the FY2009 level of 2,325 to the current FY2014 level of 1,676 (a 28% reduction that translates into 649 fewer seasonal staff).

### Funding Needs

Budget cuts have impeded DCR's ability to provide a welcoming, safe, and positive experience for users of state parks, forests, beaches, and swimming facilities. Although a \$2M increase would not bring the seasonal account to pre-FY2009 levels, it would provide the agency the flexibility to address many of its critical staffing needs in the field and seasonal staffing shortages that frequently result in closures or unstaffed areas.

With these additional funds, DCR would have the ability to:

- **Increase staffing levels by an additional 150 to 175 individuals.**
- **Lengthen the camping season at iconic properties.**
  - A longer season would unlock the potential for increased tourism dollars for local and regional economies. Working with the Massachusetts Office of Travel and Tourism, DCR could create a program that integrates DCR attractions and accommodations with other nearby attractions and accommodations and offer visitors a multi-day experience, while promoting opportunities to support local economies through tourism.
  - **Lengthen the season at DCR skating rinks** to better align with youth hockey seasons and make the best, widest use of the rinks.
- **Re-staff and re-guard many inland waterfront beaches and expand lifeguard services at coastal beaches** that currently have limited guarded areas. As a result, areas currently closed to swimming would be opened.
- **Expand the swimming season at DCR pools** and spray decks to open earlier in the season.



## Department of Fish and Game (DFG)

# Office of the Commissioner

## 2300-0100

FY 2013 with 9C cuts  
\$708,559

FY 2014  
\$869,979<sup>1</sup>

FY 2015 Recommended  
\$835,668

**The Department of Fish and Game (DFG) is responsible for stewardship of the Commonwealth's marine and freshwater fisheries, wildlife species, plants, and natural communities.** It is essential to fully fund and staff this line-item to provide policy guidance and oversight for DFG. Due to previous cuts, Commissioner's Office positions that coordinate the functions of the four divisions remain unfilled.

The Commissioner's Office also includes the **Land Protection Program**, which identifies and protects the most ecologically important habitats throughout the Commonwealth. In FY2013, through DFG's efforts, a total of 3,525 acres of critical fish and wildlife habitat in 26 towns were protected, bringing the total number of acres under DFG's care to just over 200,000. Conservation lands acquired by DFG provide important habitat for a wide variety of common and rare species such as moose, black bears, bobcats, bald eagles, Blanding's turtles, and timber rattlesnakes.

In addition, the Commissioner's Office coordinates activities that **support the Commonwealth's economy**, including Massachusetts' growing environmental restoration economy, a multi-billion dollar marine fisheries industry, and marine, inland and public access recreational programs that support outdoor public recreation. According to the Outdoor Industry Association, **in Massachusetts, outdoor recreation generates \$10B in consumer spending.**

The requested amount would help cover existing personnel expenses and correct a funding imbalance that has existed in the Office of the Commissioner.

<sup>1</sup> Includes one-time \$150k grant program for port recovery.

The Commissioner's Office supported the **480-acre Maple Hill Farm Conservation Project in West Stockbridge**. This site includes a pond and wetland complex that is habitat for several state-listed species of rare plants and animals and is superb habitat for waterfowl and other wildlife.

Maple Hill Farm  
Conservation  
Project in West  
Stockbridge.

# Division of Ecological Restoration<sup>1</sup>

## 2300-0101

FY 2013 with 9C cuts  
\$416,770

FY 2014  
\$494,488

FY 2015 Recommended  
\$650,000

The Division of Ecological Restoration (DER) restores and protects the Commonwealth's rivers, wetlands, and watersheds for the benefit of people and the environment. **At any given time, DER staff typically support over 70 restoration projects that improve stream flow, protect drinking water, reduce flooding, restore habitat, and provide fish passage.** Communities rely on DER's expertise and timely technical assistance to help design, fund, and construct projects that deliver significant economic and environmental benefits to municipalities. DER contributes to Massachusetts' growing restoration economy.

### Funding History

Budget cuts since FY2009 have kept operational funds for this highly effective division below maintenance levels, resulting in lost opportunities to leverage additional non-state funding.

Staffing has remained 20% below FY2009 levels and cannot meet the growing demand from communities for technical assistance on construction projects, including culvert replacements and dam removals. These projects not only restore critical natural habitats but also create local jobs, bolster the state's green economy, and help protect public health and safety.

### Recent Activities

- Since 2009, DER has helped communities secure competitive non-state funding awards totaling over \$40M to complete restoration projects of local and statewide importance.
  - A 2013 award from the U.S. Fish and Wildlife Service of \$10.4M from Superstorm Sandy funding will enable DER to complete four ecological restoration projects in Southeastern MA. It is estimated that these four projects will generate 181 jobs and \$25.4M in economic output for the MA economy.<sup>2</sup> These projects also enhance ecosystem services that directly benefit communities. For example, the Muddy Creek Estuary Restoration Project in Chatham and Harwich will improve water quality and help those two towns save millions of dollars in wastewater infrastructure costs needed to meet mandatory water quality standards.
- Dam Removals and Culvert Upgrades: DER assists communities with design and construction. At its present funding level, DER cannot keep up with the demand from communities seeking assistance with removal of deteriorating dams and replacement of undersized culverts that damage the environment and threaten public health and safety.

## Case Study: Whittenton Dam Removal, Taunton

Completed in 2013, this dam removal is part of a long-term project to restore the Mill River. The Whittenton Dam gained national attention in 2005 when it nearly failed during a large flood. Downtown Taunton had to be evacuated, and the city worked with state and federal agencies to complete emergency repairs. The dam removal project eliminated a liability and major public safety hazard, and it will increase migratory fish access to habitat in the upper Mill River watershed.



<sup>1</sup> In 2009, the Department of Fish and Game's Riverways Program was combined with the Wetlands Restoration Program, formerly part of MA Coastal Zone Management, to form DER.

<sup>2</sup> MA EOEEA, Massachusetts Ecological Restoration Projects Receive \$10.4M in Federal Superstorm Sandy Funding, <http://www.mass.gov/eea/pr-2013/eco-projects-funding.html>, October 25, 2013

# Natural Heritage and Endangered Species Program

## 2310-0300

FY 2013  
\$150,000

FY 2014  
\$150,000

FY 2015 Recommended  
\$250,000

The Natural Heritage and Endangered Species Program (NHESP) is responsible for the conservation and protection of more than 430 species of plants and animals listed as Endangered, Threatened, or of Special Concern in Massachusetts.

### Funding History

In FY2004, the line-item for NHESP was eliminated from the budget and the program was forced to rely solely on federal grants, fees charged for environmental review services, and the small amount of funding generated by the check-off on the state income tax form.

In FY2012, the NHESP line-item was restored at \$150,000 and has been maintained at that level. This was an important step in re-establishing a sound fiscal foundation for the program. Before the line-item was eliminated, funding for NHESP was more than half a million dollars. Additional funding would enable the program to expand science, mapping, management, and restoration efforts.



Bald Eagle.  
State Status:  
Threatened

## Department of Fish and Game (DFG)

# Division of Marine Fisheries 2330-0100

FY 2013  
\$4,812,837<sup>1</sup>

FY 2014  
\$5,509,039<sup>2</sup>

FY 2015 Recommended  
\$5,387,887

The Division of Marine Fisheries (DMF) has a broad suite of responsibilities, including managing the fishery with the largest landing value in the nation in the City of New Bedford. **The overall marine economy in Massachusetts generates approximately \$5B in economic activity and revenue each year.**

### Funding History

Although DMF has endured difficult budget cycles the past several years (experiencing reductions of nearly 25% between FY2009 and FY2012), between FY2012 and FY2014 the DMF budget has been restored by approximately 9%. **Still, the growth in size and value of Massachusetts fisheries has out-paced the state's investment in its fisheries agency.**

Over the past 10 years, **DMF work has generated over \$20M in federal relief funds** for Massachusetts fishermen.

### Need for Additional Funding

With modest funding increases, DMF could enhance its use of sound science to better understand the complexities of healthy and sustainable fish populations, which in turn would benefit the marine economy.

The recommended level of funding would enable implementation of new programs and support improvements to existing programs:

- **Launch a Massachusetts Seafood Marketing Program:** In line with recent recommendations by a legislature-appointed commission, DMF seeks to raise public awareness of Massachusetts' fisheries and the benefits of consuming fresh, healthy seafood products, increasing demand for wild-caught seafood landed in-state.
- **Improve Fisheries Management Support:** All commercial fishermen and seafood dealers in Massachusetts (over 8,500) must report the daily harvest, purchase, and sales activities of all fresh seafood. Additional funding would enhance DMF's research and development and ability to utilize electronic reporting devices. Streamlining current reporting practices, improving accuracy, and increasing efficiency will save time for permit holders and agency employees alike.

### Revenue Enhancement Recommendation

Revenues could be significantly enhanced by increasing a select group of commercial permit fees. For almost a quarter-century, fees for commercial harvester and seafood dealer permits issued by DMF have not increased. A modest permit fee increase in certain categories would align the Commonwealth's fees with the cost of similar permits in other Atlantic coastal states and could be used to support recommended program development and enhancement.

<sup>1</sup> Includes one-time earmark of \$425,000.

<sup>2</sup> Includes one-time earmark of \$675,000.

## Department of Agricultural Resources (DAR)

# DAR Administration

## 2511-0100

FY 2013 with 9C cuts  
\$4,722,151

FY 2014  
\$5,336,426

FY 2015 Recommended  
\$5,506,927

### Agriculture is a significant contributor to the Massachusetts economy.

- Massachusetts' 7,700 farms generate **\$516M in revenues** to the state's economy annually.
- Greenhouse and nursery sales are the top contributor to Massachusetts' agriculture with **sales estimated at \$158M**. Cranberries, at \$102M, were the next largest contributor.
- It is estimated that **local agriculture employs more than 14,000 people** throughout the state.

### Funding History

Despite a FY2014 increase in funding, this line item remains below pre-recession budgetary levels.

### Initiatives

In addition to being an economic driver, beautiful working landscapes reflect our heritage, help provide food security, and contribute to residents' quality of life. **DAR works with the agricultural community to protect farmland, increase farm viability and profits, and reduce the use of toxic pesticides.** DAR fosters sustainable agricultural practices, while helping to increase Massachusetts residents' access to locally grown food.

### Agricultural Preservation Restriction (APR) Program

**This first-in-the-nation voluntary program is one of the agency's most impactful. To date, the APR program has permanently protected over 840 farms with a total land area of nearly 70,000 acres of prime working landscapes.** In FY2013, more than 1,350 acres of farmland were permanently conserved.

The U.S. Department of Agriculture's Farm and Ranch Lands Protection Program provides a 50% federal match on all approved APRs, offering an enormous opportunity for the Commonwealth to conserve farmland and leverage federal resources.

### The Farm Viability Enhancement Program

Since its inception in 1996, the program has helped farmers expand and improve their businesses:

- 452 farms have been selected to participate;
- 386 farms have been protected by five or ten year covenants; and
- 73% of participating farmers invest additional capital beyond the grant amount to implement business improvement strategies. Average additional investment: \$31,800 per farm.

## Opportunities that Call for Additional Funding

With sufficient resources, DAR would expand programs such as:

- Farm Energy: improves energy efficiency and facilitates the adoption of clean energy technologies.
- Matching Enterprise Grants for Agriculture Program: assists new and beginning farm businesses with start up or expansion costs.
- Agricultural Environmental Enhancement Program: encourages Best Management Practices to improve environmental impacts.



# Geographic and Environmental Information (MassGIS)

1790-xxxx<sup>1</sup>

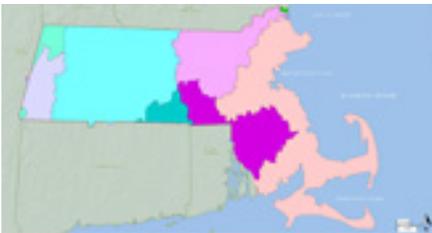
FY 2013  
N/A

FY 2014  
N/A

FY 2015 Recommended  
\$700,000

MassGIS is responsible for collecting, mapping and translating a wide array of data that has major applications in environmental protection, economic development, transportation, public safety, and health and human services.

The MA Executive Office of Energy & Environmental Affairs depends on MassGIS services to support the work of agency staff responsible for water supply protection, endangered species mapping and habitat protection, ocean resources, alternative energy siting, environmental permitting, and land conservation.



The data layer on this map represents the eight mega-drainage basins for MA.

## Who relies on MassGIS information?

State agencies, the regional planning agencies, environmental and land trust organizations, educational institutions, and most cities and towns.

## Need for Additional Funding

MassGIS is funded solely through a “chargeback” to executive agencies with no line-item in the general budget. This limits the program’s potential contributions to planning and policy across all levels of government.

We propose the creation of a new line-item for \$700,000 within the Information Technology Division that would enable MassGIS to:

- Develop data and provide technical assistance to communities for **modeling and planning for climate change** such as identifying and mapping infrastructure at risk and developing plans for responding to major weather events.
- Help answer questions regarding the best locations for development and density levels, based on understanding locations offering existing infrastructure, drinking water supply availability, job growth, and new development opportunities that will have minimal impact on natural resources. With additional funding, MassGIS can help with these decisions by extending its current mapping to more accurately **track ongoing patterns of development.**

With this funding MassGIS could fund two new staff positions and contract for **LIDAR services** — highly detailed elevation data — which is essential for identifying areas at risk from **extreme weather events related to climate change.**

## What does MassGIS map?

Examples include:

- Public water supplies and aquifers
- Floodplains
- Legislative districts
- Rare species habitat
- Shellfish sampling locations
- Potential wind power sites
- Canoe access points

MassGIS data informs hundreds of important decisions related to protecting the public and connecting people and services.

<sup>1</sup> We propose the creation of a new line-item.

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**“Without the soaring birds, without the great forests, the free-flowing streams, the sight of the clouds by day, and the stars by night, we become impoverished in all that makes us human.”**

**– Thomas Berry**