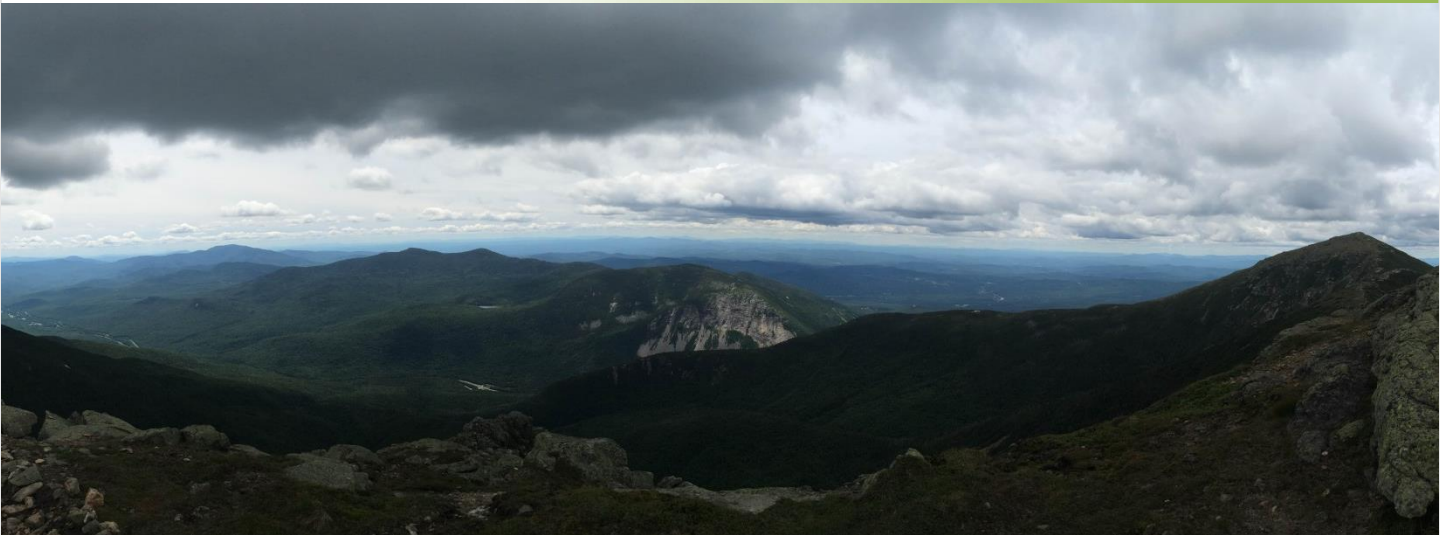




Biennial Report 2013 - 2014



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Pollution prevention, also called P2, refers to activities or strategies that reduce or eliminate waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream.

The New Hampshire Pollution Prevention Program (NHPPP) has provided free, confidential, non-enforcement compliance and pollution prevention assistance to the state's businesses, municipalities, public agencies, organizations and residents since 1991. The program has worked with hundreds of New Hampshire businesses, helping them to save millions of dollars on everything from material purchases to water and energy savings, and from hazardous and solid waste management to disposal costs. NHPPP provides assistance in the form of site assessments, technical research and compliance assistance.

This report highlights the program's activities for calendar years 2013 and 2014. During the reporting period, NHPPP focused on specific business sectors and projects including: the hospitality industry, grocery stores, small quantity generators of hazardous waste, golf courses, energy efficiency projects in state agency buildings, and mercury reduction.

In the spirit of P2, this biennial report is offered electronically to minimize paper use and printing costs. If you would like a paper copy or additional information about any of the projects discussed, contact the P2 staff at nhppp@des.nh.gov. You can also go to the Department of Environmental Services' web page at www.des.nh.gov and, under the A to Z List, look for pollution prevention.

We look forward to hearing from you!

Melissa Zych

Pollution Prevention Program Manager



Hospitality



Grocery Stores



*Small Quantity
Generators of
Hazardous
Waste*



*Energy
Efficiency in
State Buildings*



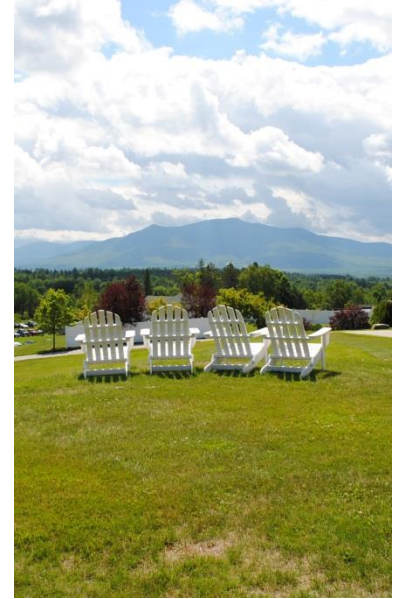
Golf



*Mercury
Reduction*

Sustainable Hospitality

In 2013 and 2014, NHPPP continued its partnership with the New Hampshire Lodging and Restaurant Association's Sustainability Program (NHLRSP) to promote energy use reduction, water conservation, food waste and other solid waste reductions, and the switch to safer cleaning products. Since 2009, this successful partnership has helped nearly 100 hospitality facilities certify that they have taken measures to reduce their impact on the environment. The certification process requires each facility to fill out an application and meet requirements in each of the categories: energy, waste and water. Staff from NHPPP and NHSLRP then visit the facilities to verify these requirements. These initiatives not only help to lessen the impact on the environment, they often save the facilities thousands of dollars annually.



During this biennium, staff conducted 30 site visits at restaurants and hotels throughout the state. Five of the visits were follow-up audits to re-certify facilities that were previously certified. During the visits, NHPPP was able to offer suggestions for further reductions.

A major focus for this project was food waste reduction. NHPPP wrote an article in the New Hampshire Department of Agriculture's *Weekly Market Bulletin* to reach local farmers who raise animals. Names and locations of farmers interested in collecting food scraps from food service facilities were then entered into a database. An outreach campaign (including a video: <https://www.youtube.com/watch?v=rpW7qO1-txE>) was launched, targeting restaurants located near those farmers, to encourage participation. Through this effort, NHPPP connected 10 farmers with food service facilities to divert 97,200 pounds of food waste from landfills. Food waste, when landfilled, generates methane – a potent greenhouse gas. By diverting this food waste, 4.94 tons of methane (which is equal to 112 metric tons of carbon dioxide equivalent [MTCO_{2e}] *) was prevented from being released to the environment.

This EPA grant-funded project resulted in the following reductions:

Target areas	Reductions	Savings
Hazardous cleaning chemicals	6,673lbs	\$1,200
Food waste reductions (including composting)	367,220lbs	\$16,600
Water use	4,774,000gal	\$27,000
Energy use	1,115 MTCO _{2e}	\$179,000

*Calculations determined using EPA's Waste Reduction Model

http://www3.epa.gov/epawaste/conserve/tools/warm/Warm_Form.html

Grocery Stores

NHPPP chose to work with grocery stores due to the significant amount of energy consumed and waste generated. This sector has made some strides to reduce its environmental impact, but opportunities exist for further reductions. As a way to offer guidance and provide recognition for efforts achieved, NHPPP, along with pollution prevention programs from the New England States and New York, worked together to develop a comprehensive workbook consisting of energy efficiency, water conservation and waste reduction strategies. This workbook will ultimately serve as an application for a regional recognition program. NHPPP staff also created an Environmental Leader Toolkit that includes handouts providing information on energy efficiency, water conservation, green cleaning and solid and universal waste management. This toolkit was delivered to 11 different grocery stores. During these site visits, staff met with store managers and provided information about the recognition program and the benefits of participating. This project, funded by an EPA grant, is still in its early stages. Results will be detailed in future reports.



Small Quantity Generators of Hazardous Waste

New Hampshire regulates all businesses that generate even small amounts of hazardous waste. There are over 2,100 businesses located across the state that have filed notifications with NHDES that they are New Hampshire Small Quantity Generators (SQGs). Cumulatively, these SQGs generate an average of 730,000 pounds of hazardous waste annually. There are also many businesses that generate hazardous waste but have not notified the state and may be disposing of their wastes improperly. NHPPP launched a project in October of 2013 to help both “notifiers” (those businesses currently identified as generators) and “non-notifiers” (businesses suspected of, but not confirmed to be, generating hazardous waste) understand the rules, manage their wastes properly and find less or non-hazardous chemical alternatives. Along with compliance assistance, NHPPP was also able to offer suggestions for reductions in waste, energy and water use.

To date, 13 facilities have received assistance. A total of 18 minor compliance issues were found and resolved. Over \$5,800 was saved through simple energy efficiency suggestions. At one company, 48,000 pounds of previously landfilled waste is now being recycled, and the company is generating income from a waste by-product that was costing them money to manage. This EPA grant-funded project ended in September of 2015, but this type of assistance will continue through our core activities as time and resources allow.

Greening State Government through Energy Efficiency

As part of the New Hampshire Climate Action Plan (http://des.nh.gov/organization/divisions/air/tsb/tps/climate/action_plan/nh_climate_action_plan.htm), the State of New Hampshire mandated a goal of reducing fossil fuel energy consumption in state buildings by 25% below 2005 levels by the year 2025. The State Energy Manager from the Department of Administrative Services (DAS) is tasked with overseeing this effort. Funding from an EPA grant gave NHPPP the opportunity to assist DAS with energy and efficiency projects and outreach. NHPPP and DAS have partnered successfully in the past to greatly reduce the amount of hazardous chemicals in products used to clean State-owned buildings. NHPPP efforts have been effective in implementing energy efficiency projects in buildings that have funding but no qualified or dedicated staff to carry out the projects. NHPPP has also implemented energy efficiency projects (installing LED lighting) in two of the State's visitor centers, assisted with an energy audit at the Northern New Hampshire Correctional Facility, and developed a handout for New Hampshire State Parks promoting energy efficiency to visitors with recreational vehicles. This project ran from October 2013 through September 2015, and additional results will be detailed in future reports.



Golf



The second year of a 2-year EPA grant-funded Golf Course project ended in September of 2013. During that year, a guidance document entitled, *Making your Golf Course Greener: A Handbook for Golf Course Managers* was created and distributed to golf courses throughout the state. NHPPP conducted 12 site visits to offer suggestions for energy efficiency, water conservation and waste reduction. Initial resistance by some course superintendents was overcome when they were made aware of our program's non-enforcement assistance policy and when they realized that we were there to offer cost-saving suggestions. Subsequently, they were happy to share information, including techniques and insights on how they manage chemical and water use.

Wide variations in course management practices were noticeable but the common denominator was the desire to reduce excessive chemical and water use costs. Many superintendents would like to adopt a more “natural” method of managing turf but are reluctant to do so because they feel obligated to meet the oftentimes unreasonable expectations of their patrons. These expectations for the perfect turf surface usually require large amounts of resources (fertilizer, pesticides and water). Superintendents who choose a more natural approach to managing turf were able to find different ways to promote it to their patrons for acceptance. They highlighted these areas on their courses and marketed them to golfers as “Naturalized Hazards” and “Native Fescue Areas” (among other titles) as an attempt to augment the exclusive image of the course. NHPPP promoted these types of management strategies in the guidance document.

Mercury Reduction

NHPPP continues to coordinate the NHDES mercury reduction efforts in accordance with the New Hampshire Mercury Reduction Strategy and the Northeast Regional Action Plan, both adopted in 1998. New Hampshire met its initial goals (also shared by the other New England states and the Eastern Canadian provinces) of reducing mercury emissions by 50% by the end of 2003 and achieving a 75% reduction by 2010, with the ultimate goal of the virtual elimination of human-caused mercury releases. As of the end of calendar 2014, total mercury emissions in New Hampshire have been reduced by 95%. NHDES continues to work on reducing or eliminating the remaining sources of mercury to the environment – in particular, mercury in products and wastes.



The Pollution Prevention Section Supervisor previously co-chaired the New England Governors’/Eastern Canadian Premiers’ Regional Mercury Task Force. The task force was formed in 1998 to work on regional and international mercury reduction efforts. Progress to date includes developing model mercury-added products legislation to reduce mercury in consumer and commercial products, numerous outreach and education efforts, and significant reductions in mercury emissions from major source categories, such as municipal waste combustors and medical waste incinerators. Under the guidance of the task force, emissions reductions in the region are estimated at 75% or greater. NHPPP staff members also participate in the Interstate Mercury Reduction and Education Clearinghouse, which serves as a coordinating body for state efforts to regulate and manage the sale and disposal of products that contain mercury.

In addition, NHPPP continued to conduct outreach and encourage efforts to capture and recycle sources of mercury that previously were discarded in solid waste, allowing the release of mercury into the environment.

Core Activities

NHPPP continues to offer free, confidential, non-enforcement compliance assistance and pollution prevention strategies to all requesting New Hampshire businesses, institutions, municipalities and agencies. Without the risk of enforcement, these facilities can schedule a site visit, at which staff will assist with compliance issues and offer suggestions to reduce waste, energy use and water consumption. After the visit, a confidential report containing observations and suggestions is generated and sent to the company.

NHPPP also provides support by phone and email. In 2013 and 2014, NHPPP responded to 235 requests for technical research, product information and regulatory questions. Staff conducted 17 site visits (in addition to the sector-based site visits) to various facilities to provide compliance assistance and waste reduction strategies.

Some of the other core programs previously offered, such as the Governor's Pollution Prevention Award, have been suspended in part due to the lack of staff resources to maintain the program. There is still interest in revamping the award program, if time allows. NHPPP feels it is very important to recognize businesses and organizations that make pollution prevention a high priority.

The NHDES/UNH Pollution Prevention Internship Program (P2I) saw a hiatus in 2013 due to the retirement of UNH professor Ihab Farag, who dedicated over 20 years of his time and energy to make this program a huge success. In the spring of 2013, NHPPP, backed by NHDES Commissioner Thomas Burack and USEPA Region 1 Administrator Curt Spaulding, encouraged UNH to continue the internship program and in response, Jim Malley, Professor of Civil and Environmental Engineering, volunteered to oversee the program starting in the spring of 2014. The NHDES/UNH P2I was renamed the Clean, Sustainable Industry Internship (CSI2). In 2014, two UNH students were placed in manufacturing settings. Both facilities were pleased with the students' efforts. NHPPP continues to support this program by encouraging businesses to participate. For more information about the internship program, go to: <http://des.nh.gov/organization/commissioner/p2au/pps/ppp/p2-internship-program.htm>

NHPPP provided P2 training and presentations to a wide variety of audiences, such as colleges and universities; small and full quantity generators of hazardous waste; planning commissions; and even a Boy Scout troop. Other outreach efforts include developing animated videos to promote P2 and NHPPP, which are available at <https://www.youtube.com/user/NHDES>. NHPPP, with help from other NHDES programs, updated its *Green Business Workbook*. The new edition (<http://des.nh.gov/organization/commissioner/p2au/pps/ppp/documents/green-business-handbook.pdf>) includes a handy checklist for businesses to check off items they are already doing and provides suggestions for future initiatives. This new edition also includes information and links to regulatory information.

Upcoming Projects

Along with the core activities, and previously mentioned Small Quantity Generator, Greening State Government, Grocery and Hospitality projects, NHPPP will be adding several new projects. NHPPP will be working with hazardous waste generators that generate waste solvents to help them reduce solvent use and/or find safer alternatives. Microbreweries in New Hampshire are a growing industry and NHPPP plans to introduce brewers to pollution prevention strategies to reduce waste, energy and water use. And, in support of NHDES' strategic plan to address climate change, NHPPP will launch an outreach effort for New Hampshire Hazardous Waste Coordinators to help them understand the importance of both climate change mitigation and preparedness. NHPPP will illustrate the importance of mitigation by using pollution prevention strategies to promote energy efficiency and safer chemical alternatives. NHPPP will also encourage reductions in quantities of on-site storage of hazardous materials and safe storage of chemicals to minimize toxic chemical releases during severe weather events.

For more information, go to: <http://des.nh.gov/organization/commissioner/p2au/pps/ppp/index.htm>, or contact Melissa Zych at nhppp@des.nh.gov or (603) 271-6460.