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Protecting and Restoring Our Environment

Annual Report 2008

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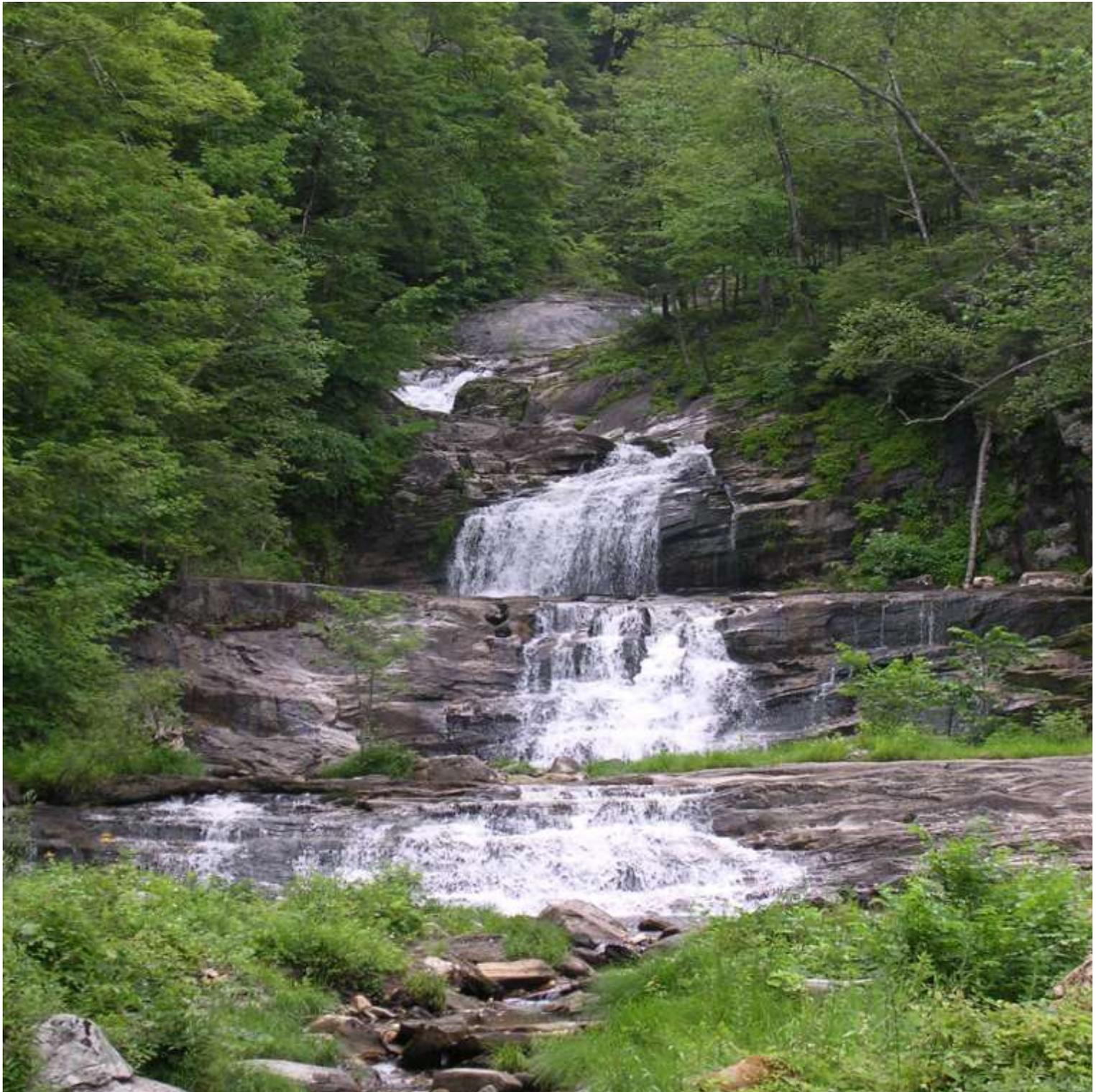


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Park, Kent

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Introduction

The Connecticut Department of Environmental Protection (DEP) is pleased to present its Annual Report for 2008. While the mission remains the same, DEP is incorporating new and innovative approaches into business processes as part of its continuing efforts to enhance its ability to address the complex environmental issues of the 21st century.

Important steps were taken in 2008 to strengthen the effectiveness of the agency. DEP implemented Lean practices to maximize efficiency, continued to build capacity within its workforce, and increased stakeholder involvement in regulatory and permitting processes. In addition, operating policies and procedures were revised to conserve energy and resources in DEP's own operations so the agency can "lead by example."

At the same time, important work continued on pressing environmental challenges. Some examples include:

Climate Change – DEP moved forward to develop detailed implementation plans to reduce carbon emissions. At the same time, the agency began assessing the impact emissions are having on our environment, to put "adaptation" strategies in place.

Water Quality – DEP was actively engaged in efforts to safeguard Connecticut's waters for future generations. Great progress was made on developing new stream flow regulations as well as in creating initiatives for more protective management of storm waters and for "low impact" approaches to land use.

No Child Left Inside – DEP continued building on the success of its nationally recognized No Child Left Inside initiative. This initiative is designed to reconnect children to the outdoors and give them a greater appreciation for the world of nature so they will work to preserve and protect the environment as adults.

Finally, during 2008 DEP continued to put an increased focus on enforcement to help assure compliance with Connecticut's environmental laws and regulations. The results of this approach can be seen in the number of significant cases that were addressed during the year.

Taking Care of the Business of DEP

The Connecticut Department of Environmental Protection (DEP) is incorporating new and innovative approaches into business processes as part of its continuing efforts to enhance its ability to address the complex environmental issues of the 21st century. DEP is undertaking Lean practices to maximize efficiency; continuing to build capacity within its workforce; leading by example through its conservation plan; increasing stakeholder involvement in regulatory processes and working with interstate organizations to achieve environmental gains.

Efforts to Maximize Efficiency

DEP's Lean Journey

During 2008, the DEP has successfully applied Lean principles and practices to improve the way the DEP conducts business. Lean is a process improvement approach and set of methods that seek to eliminate non-value added activities or waste. The Lean process provides the ability to eliminate waste, save time, standardize workflow, reduce backlogs and decrease process complexity. By using the Lean process, DEP has become more efficient while maintaining environmental requirements and as a result, has been better able to address new environmental challenges as they arise.

In January 2008, DEP managers attended a one-day Introduction to Lean and fifteen more staff (DEP Lean Implementation Team) attended a four day Certification Program to learn how to integrate the Lean Philosophy into the DEP. In April 2008, the Team prepared an Implementation Plan that included the following recommendations: instill a culture shift towards continuous improvement; create support at all levels within the DEP; create support within the regulated community; and keep all interested groups (both internal and external) informed of changes. In June 2008, three Lean projects were undertaken as part of the Lean I event. Subsequent to this Lean I event, the DEP has undertaken two other Lean events which has resulted in a total of ten projects that will impact and improve business processes for approximately 24% of the DEP's workforce.

The Lean events/projects that have been undertaken by the DEP include the following:

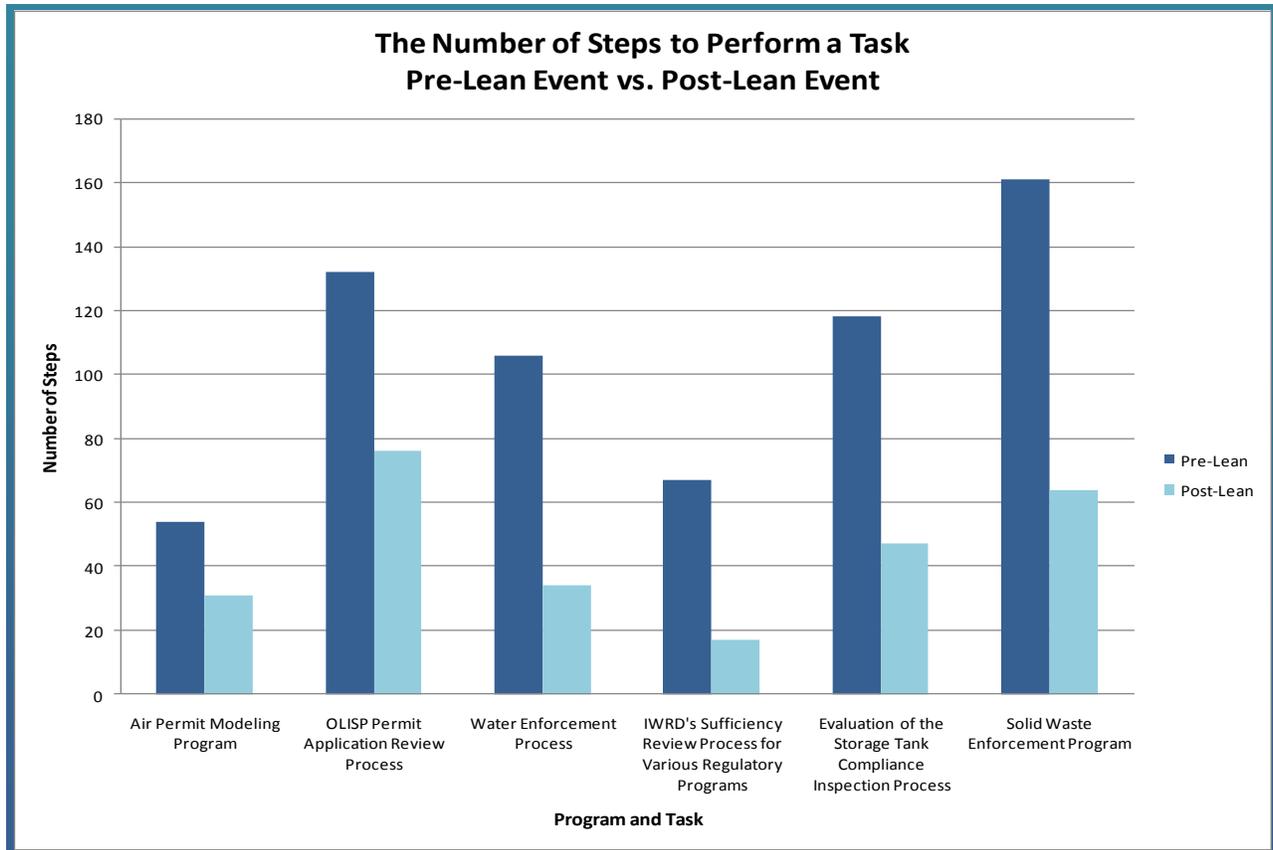
Lean I Projects – June 2008

- *Air Permit Modeling Program:* 43% reduction in the number of total steps to perform task; reduced their processing time for dispersion modeling analysis performed in support of a permit application; developed time measurement system for tracking and reporting projects; updated guidance and databases to improve communication flow and placed on DEP website; and now require electronic request of data for speed and tracking purposes.
- *Office of Long Island Sound Program (OLISP) Permit Application Review Process:* 58% reduction in the number of steps to perform task; reduced the average processing time of initial response letter (89% reduction in time); reduced the average processing time from application receipt to permit decision (91% reduction in time); reduced the average time to public notice (92% reduction in time).
- *Water Enforcement Process:* 68% reduction in the number of total steps to perform task; reduced the Notice of Violation (NOV) response review time (75% reduction in time); reduced the NOV backlog (46% reduction in backlog; on track to eliminate 75% of backlog by June 2009), reduced the enforcement elevation decision time (88% reduction); reduced the time for drafting formal enforcement documents (73% reduction in time); and reduced the timeframes for review by staff, supervisors and managers.

Lean II Projects – October/December 2008

- *Inland Water Resources Division (IWRD) Sufficiency Review Process for various Regulatory Programs:* 75% reduction in the number of total steps to perform the task; reduced response times back to applicants (67% reduction in time); improved communication among regulatory staff – collapsed seven separate regulatory programs to two technical disciplines.
- *Evaluation of the Storage Tank Compliance Inspection Process:* 60% reduction in the number of steps to perform the task; developed and produced written Standard Operating Procedures for the inspection process.
- *Solid Waste Enforcement Program:* 60% reduction in the number of total steps to perform the task; reduced the time needed to process enforcement cases; increased inspection rates of permitted facilities including recycling facilities; drafting Standard Operating Procedures.
- *Connecticut Statewide Trout Fish Distribution:* This project was initiated in December 2008. In the early implementation phase, the team's goals include: increase staff efficiency by 10%; expand number of available fish for high demand stocking; reduce fuel consumption by 25%; and decrease average run time by 15%.

The below graph illustrates the reduction in the total number of steps taken to complete a task for each program that participated in the Lean I and II events (except the Statewide Trout Distribution Project).



Lean III Projects – February 2009

The following projects initiated in February 2009 are in the early implementation phase:

- *Transition from Teaching Boating Safety Education to testing:* The Lean event identified a 73% reduction in the number of steps to perform the task; and the potential to reduce the number of forms by 75% resulting in fiscal savings to the state.
- *Improvements to the Environmental Land Use Restriction (ELUR) Application Process:* The Lean event identified a 77% reduction in the number of steps to perform the task. The goal is to streamline and simplify ELUR applications and the approval process to support remediation of contaminated properties.
- *Improvements to DEP's Requisition and Purchasing Workflow Process:* The Lean event identified a 32% reduction in the number of total steps to perform the task. The goal is to make more standard and provide for more efficiencies in the entry, approval, processing and delivery of goods and services within the DEP.

As a result of the Lean events to date, there has been a change in the DEP culture that can be characterized as being more innovative, more energetic and more participatory where staff identify and implement improvements with the full support of managers. Lean has proven successful and DEP has planned for another three Lean events to take place – May 2009; October 2009 and January 2010.

TRIP Enhances Staff Cross Training and Improves DEP Effectiveness

During 2008, the DEP began a program to provide staff the opportunity to enhance their professional development while at the same time making a meaningful contribution to the DEP's mission. A Temporary Reassignment in Position (TRIP) allows staff to bring new perspectives, experience and skills to a specific project in another program. The following describes examples of three TRIPs that were conducted in 2008.

Dam Safety Program

Six staff participated in a TRIP to conduct safety inspections of private dams across the state. Dams in all hazard classes were inspected from the highest potential hazard, Class C, to the lowest potential hazard, Class AA. TRIP staff conducted inspections from June through September and followed up each inspection with a written report and photographs that documented the condition of each dam inspected. Without this TRIP, some of the 80 dams visited would not have been inspected for several more years¹.

Many dam owners requested to be present during the inspections and inspectors used this opportunity to give dam owners guidance materials and encourage them to inspect and maintain their dams on a regular basis.



With only a few exceptions, dams inspected were found to be in need of some kind of maintenance. The owners of the inspected dams were sent a written request to perform maintenance or hire an engineer to investigate a problem or design dam repairs.

Approximately 44% of the dams inspected were found to be in poor or fair condition and approximately 36% of dams inspected were found to be in need of repairs significant enough to require a dam safety permit. These more significant repairs require investigation and design by an engineer familiar with dam construction.

¹ Dam Inspection Regulations require that over 600 dams in Connecticut be inspected annually. The Department currently prioritizes inspections of those dams which pose the greatest potential threat to downstream persons and properties.

As an additional benefit of the Dam Safety TRIPs program, the DEP has gained some additional staff expertise to assist the Dam Safety Section in responding to statewide flooding emergencies that pose a risk of dam breaches all over the state.

Climate Change Adaptation

One staff person participated in a TRIP to coordinate the preparation of Climate Change Adaptation Fact Sheets. The fact sheets discuss the challenges posed by and the actions necessary to deal with a changing climate in Connecticut. Each fact sheet focuses on overlapping technical areas or categories including; biodiversity and habitats, fisheries, forestry, infrastructure, natural coastal shoreline environment, outdoor recreation, water resources, and wildlife. Working in close consultation with program staff and managers, the TRIP staff compiled information on the current state of affairs, identified the potential for environmental change related to climate change, and recommended existing and future strategies and actions necessary to meet these challenges. To learn more about the Climate Change Adaptation Fact Sheets, please see the Energy/Climate Change chapter of this report.

Compliance Guide for Conditionally Exempt Small Quantity Generators of Hazardous Waste

One staff person participated in a TRIP to update Resource Conservation Recovery Act (RCRA) small business outreach materials. The TRIP involved drafting and posting on the DEP website an updated compliance guide for Conditionally Exempt Small Quantity Generators (CESQG) of hazardous waste. A CESQG is a business that generates less than 220 pounds (100 kilograms or about 26 gallons) of hazardous waste per month and accumulates no more than 2,200 pounds (1,000 kilograms or about 260 gallons) of hazardous waste on-site at any one time.

Energy Conservation Plan Maps DEP's Efforts to Lead by Example

In addition to increasing efficiency through the Lean events, DEP is continuing its efforts to reduce costs and lessen the impact of its operations on the environment. Through the DEP Conservation Plan, introduced in 2008, the DEP is dedicated to taking specific and measurable actions to reduce energy usage, make a stronger commitment to "reduce, reuse and recycle", and, for example, modify the use of state cars.



The Plan outlines opportunities for the DEP to operate more efficiently in six major areas:

Transportation, Building Mechanical Systems, Primary Office, Field Offices, Recycling and Solid Waste Management, and Environmentally Preferable Purchases. The Plan was introduced to DEP employees by Commissioner McCarthy via e-mail. Every few weeks a chapter of the plan is highlighted on the main lobby bulletin board (as shown above) encouraging staff to participate and to keep them apprised of the efforts to conserve resources.

DEP goes to Partial Power to Save \$\$

As part of the Conservation Plan, an energy saving measure was implemented in 2008 at DEP headquarters. The Department of Public Works (who owns and operates the DEP 79 Elm Street facility) along with the contracted building operator, Servus Management, elected to use "partial power" from 7 am - 5 pm, Monday – Friday. Partial power means having the center bulb of each lighting fixture turned off with the outer two bulbs in use.

Previously, partial power was only utilized from 5 - 10 pm and then changed over to night lighting (emergency circuits only) from 10 pm - 6 am. After pilot testing, the use of partial power on all floors began in January 2009. DEP employees have seen little difference in the amount of light in their workspace.

Office Clean-up Days

As part of the Lean process, the DEP implemented building-wide office clean-up days in May 2008 to clean out and organize office spaces, filing cabinets and storage closets. Tons of material was recycled over just a few days. Some examples of materials recycled or reused include:

13 tons of mixed paper *	7 large boxes of scrap metal	1000 pounds of techno-trash.	gallons of paper clips
160 pounds of corrugated cardboard	10 gallons of batteries,	2,000 binders	10 large boxes of file folders

***Recycling that paper instead of putting it in the trash saved the equivalent of approximately: 533,000 kwh of energy, 117 barrels of oil, 702 million BTUs of energy, 780 pounds of air pollutants or 91, 000 gallons of water**

As part of the Conservation Plan, DEP employees can do their part by making suggestions via the DEP's internal website. The following are some actual employee comments:

"Can we eliminate light pollution at night by turning off all of our lights internally from midnight to dawn ? Except for the emergency or essential services areas?"

"A suggestion to conserve paper is to print documents on both side of the sheet. If we have rough drafts, use remaining blank pages for scrap paper, before it is recycled."

Energy and Climate Change Challenges

2008 was a landmark year for climate change-related initiatives in Connecticut. A major piece of legislation was passed mandating that the state meet significant greenhouse gas (GHG) emission reduction targets, regulations to reduce GHG emissions from power plants were adopted, and DEP began assessing climate adaptation.

Regional Greenhouse Gas Initiative

In July 2008, regulations implementing the Regional Greenhouse Gas Initiative (RGGI) in Connecticut were adopted. RGGI is a 10-state cap-and-trade program which DEP began working on in 2003. The goal of RGGI is to stabilize, then reduce by 10%, carbon dioxide (CO₂) emissions from large fossil fuel-fired electricity generating units (EGUs) by 2018. Beginning on January 1, 2009, RGGI EGUs will have to measure and report each ton of CO₂ emitted, and at the end of the first 3-year compliance period, will need to hold one CO₂ allowance for each ton of CO₂ emitted to demonstrate compliance.

One of the significant design elements of RGGI is that most of the allowances are auctioned, as opposed to being given away as has been done in previous cap-and-trade programs. RGGI successfully held two regional CO₂ allowance auctions, the first of their kind in the United States, in 2008. Over 90% of the auction revenue collected in Connecticut is to be invested in energy efficiency projects and clean energy projects.

Global Warming Solutions Act

Public Act 08-98, the Global Warming Solutions Act (GWSA), was also passed in 2008. This important piece of legislation will be a primary driver for future climate change actions in Connecticut. The GWSA sets the following mandatory greenhouse gas (GHG) reduction targets for the state:

- By January 2020, reduce Connecticut GHG emissions to 10% below 1990 levels; and
- By January 2050, reduce Connecticut GHG emissions to 80% below 2001 levels.

To achieve these significant GHG reductions, many initiatives will need to be implemented in Connecticut. DEP has primary responsibility for a number of tasks within the GWSA, including publishing a 1990 and 2001 baseline inventory of Connecticut GHG emissions; publishing a summary of GHG emission reduction strategies; conducting modeling of GHG reduction scenarios and an evaluation of economic and environmental benefits and opportunities; analyzing GHG emission reduction strategies and making recommendations;

and developing a schedule of regulatory actions to show reasonable further progress towards achieving the required GHG emission reductions.

It is clear that in order to meet the 2020 and 2050 GHG emissions reduction goals mandated by the GWSA, meaningful contributions will need to come from all sectors in Connecticut, including state & municipal governmental agencies, environmental groups, businesses, industries, schools and all citizens.

The GWSA is also significant because it recognizes that there are impacts from the amount of GHGs already released into the atmosphere globally. DEP and other agencies represented on the Governor's Steering Committee on Climate Change (GSC) must identify and address how to address the foreseeable implications of climate change. Under PA 08-98, an Adaptation Subcommittee of the GSC has been formed and is directed to assess the impacts of climate change on state and local infrastructure, public health, natural resources and habitats in Connecticut; to develop recommendations and plans that, if adopted, would enable state and local government to adapt to such impacts; and to provide technical assistance to implement such recommendations and plans.

Adapting to Connecticut's Changing Climate

"Adaptation" refers to actions to avoid, withstand or take advantage of current and projected climate change impacts. In preparation for the impact analysis required under the GWSA, the DEP has developed a series of initial climate adaptation fact sheets that detail current observations and provide some preliminary recommendations for alternative approaches to foster adaptation at the local and regional level.

During the development of these adaptation briefs several themes became apparent. Past events can no longer be relied upon for anticipating future ecological patterns. Resilience in our natural world depends upon diversity of species and protection of varied habitats in Connecticut and throughout New England. Management of habitats and wildlife must be partnered with responsible growth to ensure the most robust outcome for the natural environment. Economic and environmental concerns will have to be balanced in new ways when considering further investment in our state's extensive infrastructure, natural resources and ecological habitats, public health, and agriculture.

These fact sheets address the following overlapping technical areas or categories:

[Fisheries](#): The first and most severe fisheries change from adaptation could stem from warmer waters, which would increase warm water tolerant fish and decrease cold water

species. The DEP is working to protect, restore and enhance fish habitat so that fish populations have a chance to adapt to a changing climate by providing migration access to upstream spawning habitat and potentially cooler water temperatures, bolstering fish population numbers through stocking and monitoring the health of fish populations.

Forestry: The 1.8 million acres of Connecticut land covered by forests provides the state with economic commodities, including timber and timber-byproducts, critical biodiversity habitat, clean air and water, temperature moderation, recreational opportunities and carbon sequestration. The percentage of the state that is forested is among the highest in the country. Connecticut currently has a diverse representation of tree species, due in large part to the number of species at the edge of their climate tolerance (i.e., northern cold species' southern-most tolerant range and vice versa for southern species). In order to conserve adaptable forest resources, DEP directly manages 170,000 acres of Connecticut forest for tree and wildlife health, and regulates the forestry industry to ensure sustainable and proper tree harvesting.

Infrastructure: A changing climate will impact Connecticut's infrastructure as the resiliency of the structures will be tested repeatedly over the coming years. To prepare for climate change, Connecticut must assess its primary infrastructure that includes recognizable features such as homes and neighborhoods, and the bridges, roads, railroads, schools, airports, ports, water supply treatment systems and reservoirs, sewage treatment plants, power plants, transmission lines, and recreational, industrial and commercial facilities that support Connecticut's economy and lifestyle. The infrastructure can serve to magnify or mitigate the anticipated effects of climate change on both the natural and human habitat depending on location, design and most significantly, Connecticut's preparedness and ability to adapt to those changes.

Natural coastal shoreline environment: One of Connecticut's largest and most diverse water resources is Long Island Sound, which will be impacted by climate change through sea level rise, shoreline and barrier beach erosion and increased hypoxia (low dissolved oxygen). These changes would decrease the quality and availability of habitat for Long Island Sound biodiversity. To combat the affects of climate change on Long Island Sound, DEP continues to protect state managed coastal lands, monitor changes in ecological indicators, and seek proactive options to protect coastal habitats in a way that fosters adaptation to changing climatic conditions.

Outdoor Recreation: Climate change will not only affect Connecticut habitats and biota, but also the way the public interacts with nature through recreation. The hardest hit recreation center could be winter sports, such as skiing and ice skating, as warmer weather produces an inhospitable winter environment for sustained snow and ice. Warmer weather will also tax summer recreational opportunities, such as our public beaches, and could increase the length of time that the public is exposed to disease-causing pathogen vectors, such as West Nile Virus-carrying mosquitoes. To increase safe, quality recreational opportunities in Connecticut in response to the pressures of climate change, DEP is extending the camping season at some state parks, expanding the state trail system, increasing warm and cool water fish species stocking and providing new opportunities for Long Island Sound access.

Water Resources: Connecticut has a wealth of water resources which could be affected by climate change. While climate change might increase precipitation, it will be delivered mostly as rain and in more severe storm events, which would increase flooding and decrease water quality and aquatic health through increased sewer overflow and land runoff. Climate change also could cause more frequent and intense drought periods. Climate change effects on water resources will be exacerbated by development, which increases imperious surface. DEP is promoting water supply sharing, flood skimming and

reservoir expansion to more comprehensively address periods of drought and control downstream overflows. DEP also encourages low impact development (LID) for new development and reduction in impervious cover in preexisting developed areas to mitigate stormwater runoff.

Wildlife: Connecticut hosts an incredible diversity of wildlife due to the variety of habitats it contains from the coastal plain and Long Island Sound in the south to the northwest hills. The accelerated rate of climate change will have a direct impact on habitats and the wildlife that depend upon them. These impacts will alter the suitability of habitats for specific species of wildlife over time. These include habitat loss and fragmentation, introduction of exotic invasive plants and animals, and habitat degradation. Connecticut can anticipate that some species will adapt to shifts in their habitat by shifting their ranges upward in elevation, northward or inland. DEP maintains healthy, diverse, sustainable wildlife populations by conducting research, inventories and species and habitat management (e.g., timber harvesting, brush mowing and burning are methods to maintain early successional habitat on state land).

Biodiversity and Habitat: Biodiversity can be defined as the sum of life and its processes, including the variety of living plants, animals and other organisms, and the ecosystems in which they occur. In spite of its small size, Connecticut has a large diversity of plant and animal life, and it is the responsibility of the DEP to be vigilant stewards in maintaining this diversity and the important habitats that support it, in spite of the habitat changes that climate change may bring. To combat the decline of biodiversity in Connecticut, DEP protects endangered species by surveying the biodiversity of the state and disseminating an endangered species list and biodiversity map which is used by DEP during environmental reviews of proposed development. DEP is directly involved in protecting diverse habitat to ensure the strength of biodiversity in the state through land management, which includes restoring tidal wetlands by removing invasive species, and utilizing land acquisition grants to prepare for the impacts of climate change by acquiring critical habitat for species of greatest conservation need.

As discussed previously in this report, the Governor's Steering Committee (GSC) on Climate Change has created an Adaptation Subcommittee, in accordance with the requirements of Public Act 08-98. This Subcommittee will assess the impacts of climate change on infrastructure, natural resources and ecological habitats, public health, and agriculture and report back to the GSC by December 31, 2009. By July 1, 2010, the Subcommittee will develop recommendations for changes to programs and laws that would enable state and local government to adapt to such impacts. (Please see www.ctclimatechange.com for more information.)

Climate Change Leadership Awards Program

The Connecticut Climate Change Leadership Awards Program was developed by the GSC to recognize individuals and organizations that have taken exemplary action in the past year to reduce greenhouse gas emissions and adapt to climate change and who make a significant impact by engaging a larger group to reduce greenhouse gas emissions. The awards were first presented in 2006.

Those presented with a 2008 Climate Change Leadership Award include:

Little People, Big Changes, Wilton

Two young CT citizens, Jordan Reichgut and Alex Scaperella of Wilton, co-founders of “Little People, Big Changes” have demonstrated that a small group of committed people – no matter what their age – can have a big impact. This organization in Wilton has signed up more than 120 homes for clean energy under the CTCleanEnergyOptions program and launched a “no idling” campaign to reduce harmful air emissions from cars, trucks and buses. “Little People, Big Changes” has also conducted a number of presentations to schools, town officials, and local community groups on clean energy and global warming, and publishes a column in the local newspaper and in school newsletters. “Little People, Big Changes” was launched when Jordan Reichgut and Alex Scaperella were eight years old. They are now 10 and still working hard to focus attention on climate change. (See article “Kids Can Make a Difference”)



CitySeed, New Haven

CitySeed operates four farmers' markets in New Haven, where only products grown or produced in Connecticut are sold, and established the first year round open-air farmers' market in Connecticut. CitySeed seeks to engage the community in growing an equitable, local food system that promotes economic development, community development and sustainable agriculture.

City of Stamford

The city of Stamford has committed to using 20% clean energy by 2010 and to reducing its greenhouse gases (GHGs) by 20% by 2018. Stamford has inventoried their GHG emissions and has a local GHG action plan. Since 1998, the city has reduced energy use by over 11million kilowatt-hours annually through energy efficiency projects in city buildings, saving almost \$1.3 million a year.

Some of the specific steps the city has taken to reduce energy use and GHG emissions include: solar installations for lighting at Kosciusko Park and at the recycling center; establishing a \$6.1 million energy performance contract in more than 20 schools; reducing street lighting and piloting highly efficient Light Emitting Diode (LED) street lights; replacing downtown decorative lighting to achieve a 62% energy savings; and replacing all traffic signals with LED lights.

Curtis Packaging, Newtown

In 2007, Curtis Packaging became the first deluxe printing and packaging company in North America to go 100% carbon neutral and was the first company in its industry to be certified by the Forest Stewardship Council, the world's most comprehensive system for guiding forest management to sustainable outcomes.

The company also purchases wind energy certificates to offset 100% of the electricity used at its facilities. Curtis Packaging structured this purchase to include more than 1 million kilowatt-hours of CTCleanEnergyOptions,

Green Council at Whitney Center, Hamden

Comprised of seniors from the Whitney Center retirement community, the Green Council has promoted conservation awareness in elderly communities throughout Connecticut. This group of senior citizens created a website at www.grayisgreen.org, which provides information on a wide range of environmental issues including climate change and energy efficiency.

ING, Windsor

In 2007 ING in the United States purchased more than 70 million kilowatt-hours of clean energy, which offsets 100% of the electricity used for its facilities nationwide. This represents the largest clean energy purchase by a company headquartered in Connecticut. ING structured this purchase to include more than one million kilowatt-hours of CTCleanEnergyOptions, which helped its former host community, Hartford, to earn a solar electric system under the Clean Energy Communities program.

Ridgefield Action Committee for the Environment, Ridgefield

Formed in 2007 to promote sustainability in Ridgefield, the Ridgefield Action Committee led the effort to have this town commit to supporting 20% clean energy by 2010 for all town operations. The committee sponsored a "Mayors Challenge" on clean energy sign ups to six surrounding towns, developed an anti-idling campaign that resulted in 10% reductions, helped decrease energy use in town schools by 12%, and educates the community and schools about recycling and clean energy.

Kids Can Make a Difference

by Jordan Reichgut and Alex Scaperotta of Little People, Big Changes

We are Jordan Reichgut and Alex Scaperotta and we started the organization Little People, Big Changes two years ago, when we were eight years old. We first got the idea to do this when we saw Al Gore's *An Inconvenient Truth* and wanted to do something about climate change and pollution. We thought that even though we were kids we could make a difference.

We had noticed that a lot of people were idling their cars at the bus stop and the pickup line at school. So, with the help of our moms and the Internet, we gathered information and learned about ways we could help reduce carbon emissions. For example, we learned that if you idle your car for 10 seconds or more, it uses more gasoline than it takes to turn your car off and then on again when you need to. When you idle your car for 10 minutes, it uses more gasoline than it takes to drive five miles. We found out that not a lot of people knew these facts, so we came up with a slogan, "*If you're stopped for more than ten, turn it off and on again*" to encourage people to turn off their engines rather than idle their cars. We also created a PowerPoint presentation about idling and energy conservation and presented it to almost every class in our school. In our presentation, we ask other kids to think about how old we all will be in 50 years, when many of the effects of climate change will have occurred. They then think of how old all of our parents will be and realize that it is we kids and our children who will be most affected, so it is we who should start making a difference.

We continued our "no idling campaign" with a poster-making session at the library, where kids created posters to help remind people not to idle. We put these posters up in stores and buildings all around town. We later found out that kids were starting to bug their parents not to idle and that there were fewer cars idling at bus stops and other places as a result of our presentations and posters!

Then we learned about the CT Clean Energy Options program available through CT Light and Power. We noticed that a lot of people hadn't signed up because they probably either didn't know about it or didn't know how to sign up. So we spread the information and made signups easy to do by creating a website (www.littlepeoplebigchanges.org) where people could sign their households up in 30 seconds. By this time, we had a membership in our club of over 50 kids in Wilton, many of whom worked with us to gain clean energy signups. We stood at the grocery stores, at Earth Day events and other environmental events in town to explain the program and get people to signup. Today, we have over 200 households in Wilton signed-up for clean energy. Because of that, we helped to earn our town two free solar panel systems.

On May 29, 2008, we received *The Governor's Climate Change Leadership Award* which was presented to Little People, Big Changes and only 6 other organizations in all of Connecticut! We each received a letter from Governor Rell and a plaque in recognition of our efforts. Also, on October 9, 2008 we attended the One Thing expo in Hartford. There we presented our PowerPoint presentation once again. After we presented, we explored the expo, made some cool crafts, and found out about a few things we didn't know already. We love science, so we did a lot of research about the evidence that climate change results from human activities, and we know we can do something to change it.

We are still working very hard to do whatever we can to stop global warming. We are continuing our no idle and clean energy campaigns. We still give our presentations to various audiences and are planning some new ones for our school with a school energy audit activity led by the kids. We write a regular column for *The Wilton Bulletin*, with tips on how to save energy by eating local healthy foods, and not using the dryer (we did a special campaign for "National Hanging Out Day" last year). We still face many challenges and we have a ton of work to do, but even though we are little people, we know that if we all work together, we can still make some big changes in the world!

Disaster Debris Management Preparedness

In 2008, the State continued to take significant steps toward responding to any major natural disaster by receiving Federal Emergency Management Agency (FEMA) approval of the **State Disaster Debris Management Plan, September 2008 (Annex to the State Natural Disaster Plan)** and by executing State contracts that retained the services of three private contractors to manage and remove large amounts of debris that could be generated by such an event. The State now has three primary documents that cover natural disaster and related state-wide level response and operations:

- **State Natural Disaster Plan** establishes the mission assignments of state agencies in responding to natural disasters of a severity and magnitude typical for Connecticut. The Plan describes the interaction of state government with local governments, private response organizations (e.g., utilities, the American Red Cross) and the federal government in natural disaster situations. The CT Department of Emergency Management and Homeland Security (DEMHS) prepared this Plan.
- **State Disaster Debris Management Plan** establishes the framework for proper management of debris generated by a natural disaster, with the goal of facilitating prompt and efficient recovery that is cost effective, eligible for FEMA reimbursement, and protective of the environment. At the time the Plan was written, the State qualified under a FEMA initiative entitled Public Assistance (PA) Pilot Program – this program would have made the State eligible for an additional 5 percent in federal reimbursement costs associated with debris clean-up, as well as other program incentives. Connecticut is the only state in the Northeast Region that has received FEMA approval. While the Pilot Program ended in December 2008, it is currently

Connecticut is a coastal state with a high probability of being affected by a natural disaster, such as a hurricane. DEMHS has identified a Category 3 hurricane as the most probable, worst case scenario facing the State.

The DEP has projected that the amount of debris that could be generated by such an event could range from 5.5 million tons to 20 million tons. It has been estimated that the amount of debris generated from the Hurricane of 1938 totaled 20 million tons. In Connecticut, the quantity of solid waste (municipal solid waste and construction and demolition debris) normally processed and disposed annually is 5 million tons.

being evaluated and may continue in some form in the future. The DEP prepared this plan in coordination with other State and federal agencies.

The Plan addresses natural disasters such as hurricanes, tornadoes, floods, forest fires, earthquakes, ice storms, catastrophic animal mortalities, and catastrophic vegetative waste. The types of debris resulting from such natural disasters include: green waste/vegetative debris; putrescent municipal solid waste; household hazardous waste; hazardous waste; construction and demolition debris (C&D) from structures; aggregate (fill materials); scrap wood; white goods; electronic waste; contaminated soil, silt, and sediment; animal mortalities; stray and abandoned vehicles and boats; waste tires; and utility related debris.

Connecticut's approach to managing disaster debris would be divert as much material as possible through recycling, composting and other legitimate diversion options; utilize volume reduction techniques to improve debris management efficiencies and minimize impacts on landfill capacities; use Connecticut's in-state disposal capacity for disposal of disaster debris as efficiently as possible; rely on the permitted volume reduction facilities and transfer stations to properly manage and transport waste that cannot be diverted from disposal to waste handling facilities out-of-state for disposal; consider alternative technologies for managing portions of the debris waste stream, in-state and out-of-state; and use approved Temporary Debris Storage and Reduction Sites (TDSRS) for processing debris for recycling and disposal.

State Contracts. In order to receive FEMA approval of the Plan, the State was required to have pre-qualified contractors for both the monitoring of the disaster debris removal operations and disaster debris removal. State Contracts were executed in June and August 2008. These contracts can assist the State in disaster debris recovery operations and also assure the immediate availability of coordinated debris removal support following a debris producing incident. These contracts will be used on an as needed basis and will be activated only by the Governor as the result of an emergency declaration. The contracts will be administered at the sole discretion of the State. In the event that a municipality cannot effectively manage debris removal or are overwhelmed, municipalities may request assistance through their DEMHS Regional Office. All requests for assistance will be prioritized at the State Emergency Operation Center. The State will direct its contractors to work with the municipality. There is currently a multi-agency (federal and state) effort

underway that is furthering the planning and response capabilities of Connecticut by working with our contractors to better define disaster debris management recovery operations. Contracts for debris removal were awarded to AshBritt, Inc.; and Phillips and Jordan, Inc. A contract for debris monitoring was awarded to Beck Disaster Recovery, Inc.

- **Guidance for Connecticut Municipalities – Overview of Disaster Debris Management Planning, 2006** provides a brief and useful guide to the key elements for planning, mobilizing, organizing, and controlling a large-scale debris clearance, removal and disposal/recycling operation. City and town governments are responsible for all peoples and properties within their boundaries and jurisdictions to the limits of their resources. The Guidance documents recommends that to assure rapid response, it is prudent for municipalities to have in place a short-term Time and Materials Contract limited to the maximum of 70 hours of actual work in compliance with FEMA guidance. After that point, longer term contracts must be competitively bid on a unit price basis or municipalities may request, should they be overwhelmed by the declared disaster, that the State assume the responsibility to remove the debris from within their boundaries. The Guidance document recommends that municipalities have a Disaster Debris Management Plan for their jurisdiction, as well as the importance to have identified potential Temporary Debris Storage Reduction Sites.

Watershed Based Planning Incorporates Low Impact Development

In 2008, the DEP created a new Low Impact Development (LID) program to support Watershed Management and Nonpoint Source Program activities. LID techniques manage stormwater runoff by imitating the natural movement of water in the environment. LID decreases the volume of runoff and improves water quality by infiltrating, filtering, storing and evaporating stormwater.

The new program offers outreach to educate residents, organizations and municipal officials about LID and responsible land use decisions; provides technical coordination to municipalities for revising local regulations and ordinances to remove barriers to LID; and reviews department-wide projects for opportunities to incorporate LID techniques and best management practices to address storm water quality and quantity concerns.

Development of a watershed management plan is a key step in watershed management, leading to restoration of a polluted or otherwise impaired waterbody. Development and implementation of these plans to focus on addressing a specific nonpoint source impairment identified on DEP's [Impaired Waters List](#) qualifies them as Watershed Based Plans, with the ultimate goal of reducing or removing the impairment, so the waterbody can meet Water Quality Standards, and be removed from the list. The US EPA has described nine elements that must be addressed in an approved Watershed Based Plan to qualify for funding under Section 319 of the Clean Water Act (CWA). Watershed management plans can have a wider scope by addressing other water and land resource issues on a watershed scale, above and beyond the specific impairment identified on DEP's Impaired Waters List.

The DEP has assisted external stakeholders in developing Watershed Based Plans (WBPs) that focus implementation efforts in watersheds with identified problems related to nonpoint source runoff. The DEP and EPA work to incorporate "on-the-ground" implementation recommendations that will further help towns across the State of Connecticut to evaluate land use decisions more consistently and meet water quality goals in impaired watersheds.

Environmental Benefits of LID

Helps maintain the natural hydrology of the site and the health of surface and ground water supplies.

Preserves the ecological and biological balance of the natural system.

Protects water quality by reducing sediments, nutrients, and other pollutants.

Preserves trees and other natural vegetation.

Provides habitat for wildlife.

Municipal and non-profit organizations can apply for the Section 319 CWA grant funds to support WBP implementation planning and projects.

The following are examples of WBPs developed by DEP and external stakeholders during 2008.

The Niantic WBP was drafted with funds secured as the result of National Oceanic and Atmospheric Association, Office of Ocean and Coastal Resource Management (NOAA-OCRM) approval of Connecticut's Coastal NPS Management (6217) Plan. During 2008, DEP continued work on the Niantic WBP with external stakeholders to successfully fund and implement many recommended projects from the plan including education projects, outreach to citizens on water quality, and projects including:

- Creation of a part-time Niantic Plan Coordinator position, through Eastern CT Conservation District, Inc.
- Stream gage installation and surface flow and water quality monitoring in the three main freshwater tributaries to the Niantic River, through U.S. Geological Survey-CT Science Center.
- Stormwater retrofit demonstration and outreach at Children's Museum of Southeastern CT, through U.S. Geological Survey- CT Science Center.
- Pine Grove, East Lyme nitrogen in groundwater monitoring study, through U.S. Geological Survey- CT Science Center.
- Connecticut Clean Marina certification for Three Belles Marina, East Lyme.
- Grassroots community watershed education programs and museum display through Save The River-Save The Hills, Inc.
- Annual summary of targeted watershed outreach and public participation efforts, to support three of four stormwater MS4-regulated communities in the Niantic River watershed.

The Coginchaug River WBP funded through Section 319 of the CWA, was finalized in July 2008. This WBP followed the nine required elements of EPA's WBP model, including recommendations for implementation of non point source program projects that will reduce pollutants to Connecticut's waters. The DEP and external stakeholders have begun implementation of this plan using the three-pronged approach: 1) Remediating existing problems; 2) Ensuring new problems are not created by new development or land use changes (including support of LID); and 3) Promoting public awareness and stewardship to advance individual actions essential to pollution prevention and landowner management that minimizes environmental impact.

Work on the North Branch Park River WBP began in March 2008. The first step was to begin drafting a Watershed Management Plan to incorporate EPA's nine required elements in watershed based planning and therefore be eligible for future federal funding for implementation projects recommended within the Plan. The process through 2008 included a project initiation meeting to formalize the goal of the plan and formation of a Steering Committee that includes outside stakeholders and municipalities.

Throughout late 2008 and early 2009, DEP offered a pilot project –The Farmington River Enhancement Grant – Municipal Land Use Evaluations - to assist municipalities to review and revise current regulations and ordinances in towns located in the Farmington River Watershed. Funding was secured for this grant from Supplemental Environmental Project² funds. The Farmington River Watershed towns will be awarded funding to hire professional services including but not limited to legal, engineering, environmental planning and facilitation services, to review and revise town specific land use regulations with the intent of encouraging consistent town supported regulations and ordinances for implementation of LID. These grants were awarded in March 2009 and towns have begun working with DEP on finalizing scopes of work and implementation of regulatory reviews.

Examples of LID Practices

Swales – Broad, shallow channels planted with dense vegetation along roads, driveways and parking lots. Properly designed and maintained swales can trap pollutants, increase groundwater recharge and slow the flow of runoff, reducing erosion.

Buffers – Natural or landscaped areas used to separate a body of water from an area of intensive land use, preventing sediment and other pollutants from reaching the water.

Permeable Pavements – Surfacing materials such as gravels, concrete pavers, and porous asphalt/concrete which allow rainwater and runoff to infiltrate into the ground, instead of running into the storm drain.

GreenRoofs –Engineered systems of soil and plants that detain, absorb and filter rain, and reduce the volume of roof runoff. Green roofs may be applied to many existing flat roofs and new construction. Some green roof companies will work with a homeowner to supply a “do-it-yourself” kit that is appropriate for a residence.

Narrowed Roads – Reduce runoff by decreasing the amount of paved area. This will increase infiltration into the ground and decrease the volume of water sent into the storm sewer system. These roads also calm traffic and can add to neighborhood aesthetics.

² A Supplemental Environmental Project (SEP) refers to a project that may serve in addition to a monetary penalty as the basis for the consensual settlement of an enforcement case. SEP projects produce important benefits to the environment and public health and welfare that go above and beyond regulatory requirements.

DEP Develops Guidance for Municipalities

The Municipal Primer – Your Guide to Creating a "Green and Growing" Community was completed by the DEP in September 2008 to provide basic information and guidance to municipal officials on a wide variety of topics related to environmental protection so that local decision-makers are informed about key environmental topics. From land use decisions, to purchasing practices, to the operation of municipal facilities, *The Municipal Primer* provides municipal officials with a tool that allows them to quickly determine which DEP programs relate to any given situation and identifies sources of additional information, including web pages and staff contacts. The publication is available online at www.ct.gov/dep/municipalprimer.

In conjunction with the release of *The Municipal Primer*, the DEP held two workshops in 2008. The first, in October, was for local chief elected officials and municipal public works officials. There were over 40 attendees representing both municipalities and regional planning organizations. The second workshop was held in December and the target audience was chief elected officials and local land use decision makers and their staff. There were nearly 70 attendees, primarily representing municipalities and regional planning organizations.

No Child Left InsideSM

2008 was an exciting year for Connecticut's **No Child Left InsideSM** initiative as the programs grew and provided free outdoor activities to thousands of children statewide. The DEP worked hard to provide outdoor activities and adventure-style programs to children, parents, grandparents and boys and girls organizations, while at the same time introducing them to Connecticut's 138 state parks and forests. The initiative is designed to reconnect families with the outdoors and build the next generation of environmental stewards.

A key component of **No Child Left InsideSM** is **The Great Park Pursuit: Connecticut State Parks Family Adventure**. Since the program began in 2006, more than 2,000 parents and children from across the state have decoded clues to discover the exciting opportunities available at Connecticut's State Parks and Forests – all while having fun.

The **2008 Great Park Pursuit- The Connecticut State Parks Family Adventure** was even more exciting than the previous two years. The Pursuit, now in its third year, grew to over 950 families signing up to play. Over the course of seven weeks families traveled to a variety of state parks and forests to participate in outdoor activities which included:

- [Hammonasset Beach State Park](#) in Madison to learn all about how air quality impacts the health of everyone;
- [Salmon River State Forest](#) in Colchester to go letterboxing;
- [Talcott Mountain State Park](#) and [Penwood State Park](#) in Bloomfield to go hiking;
- [Sherwood Island State Park](#) in Westport to learn all about water quality, watersheds, and water conservation;
- [Bigelow Hollow State Park](#) in Union, [Goodwin State Forest](#) in Hampton, [Nehantic State Forest](#) in Lyme, [Mansfield Hollow State Park](#) in Mansfield, [Mashamoquet Brook State Park](#) in Pomfret, [Sleeping Giant State Park](#) in Hamden, [Shenipsit State Forest](#) in Somers, and [Southford Falls State Park](#) in Southbury to celebrate Connecticut Trails Day;
- [Harkness Memorial State Park](#) in Waterford to enjoy a day of picnicking and lawn games; and
- [Peoples State Forest](#) in Barkhamsted for the finale and campout.

What is letterboxing?

Letterboxing is a treasure hunt type game. It involves a plastic container hidden in some specific location out in nature, along with a set of clues as to how to find that container. Inside the container is a stamp and a stamp pad. The visitor uses this stamp to mark his or her visit to this letterbox site into the visitor's own, personal record book.

Additionally, there is a record book in the letterbox container. The visitor uses his or her own stamp to mark this record book, leaving a record of your visit to this letterbox.

At each location, teams were asked to complete various activities such as scavenger hunts, hikes, and fishing contests. At the end of each task, families received a clue to the following week's park or forest.

Of the 950 families registered 120 visited all seven locations making them eligible to compete in the finale. One hundred families joined the final campout at People's State Forest, many who had never camped before.

The Great Park Pursuit Experience by the Young Family, Winners of the 2008 Great Park Pursuit

Participating in the No Child Left Inside Great Park Pursuit has been a wonderful experience for our family. At each of the guided events there was such a variety of fun activities that everyone from the youngest (who was 4 at the start) to the oldest (the kids' grandmother) found things they enjoyed, and we always stayed and played in the parks all day. The kids played games; did crafts; flew kites; learned about animals, shells, rocks, and more; tested water for bacteria; fished and so much more. As a family we canoed, biked, hiked, built sand castles, camped and enjoyed picnics in the parks.

We have enjoyed the unguided events just as much—hiking and letterboxing and participating in Trails Day. During the Great Park Pursuit, our kids looked forward to each weekend and the new adventure that awaited us in the parks. The Great Park Pursuit encouraged us to get outside and see for ourselves the beauty and diversity of our state parks and forests.



One thing that made the Great Park Pursuit so much fun is the people involved, the participants, volunteers and DEP personnel. All the DEP people we met were enthusiastic, happy to be in the parks, and seemed to be having as much fun as the participants. The families participating in the Pursuit were very friendly, cheerful, and happy to be out enjoying the parks and the outdoors. At each year's Pursuit, we made new friends and reconnected with old ones.

Grandparents as Parents Support Network

During the summer of 2008, **No Child Left Inside**SM partnered with the Grandparents as Parents Support (GAPS) Network through the Connecticut Department of Social Services (DSS). Two separate events targeting families led by grandparents were organized at state parks to provide a day of outdoor recreational activities. Families spent the day fishing, canoeing and creating crafts. DSS provided lunches for the families. Bus transportation was provided to families in the Hartford, Willimantic and New Haven areas.

Park Passes for Foster Families/ State Park Passes at Libraries

For the third year in a row, through a grant from Bank of America, DEP, along with the Connecticut Department of Children and Families (DCF), was able to provide 2008 Season Park Passes to more than 1300 foster families throughout the state. Also, DEP partnered with the Connecticut Library Consortium to provide 2008 Connecticut State Park Day Passes to public libraries in all 169 towns in Connecticut.

Urban Fishing

In 2008 alone, 2,500 students, in over 65 classes in urban environments, participated in a Connecticut Aquatic Resource Education (CARE) class. Included are the more than 1,000 urban youth reached through the DEP's summer City Fishing program.

Water Safety

In conjunction with the DCF "Have a Safe Summer" campaign, and in partnership with various YMCA's throughout the state, DEP offered free swim lessons at six state parks and eight YMCA's. More than 900 individuals took advantage of these free lessons and several hundred more participated in water safety programs.

The Night Sky

Traditionally Connecticut's State Parks and Forests close to the public at sunset, but an exception was made for **No Child Left Inside**SM night time programs. In collaboration with the Astrological Society of New Haven evening programs were held at various state parks after sunset so that visitors could observe and learn about the summertime night sky.

Bike and Hike for Health and Happiness

The Connecticut Childhood Obesity Council and **No Child Left Inside**SM provided funding for a bike and hike for health and happiness program in the fall of 2008 which was focused on combating childhood obesity. Over the course of five weekends, bus transportation was provided for children and families from Hartford to various state parks where participants could bike, hike and eat a nutritious lunch.

2008 Winter Festival

In February 2008, DEP held the 2rd annual **No Child Left Inside**SM Winter Festival at Chatfield Hollow State Park in Killingly. Activities included: snowshoeing, orienteering, fish stocking, ice fishing, tracking, and a marshmallow roast. Last year over 800 people come out for this wonderful and free family day of fun.

Compliance Assurance

The mission of the DEP is to protect the public health and welfare and to conserve, improve and protect the natural resources of the State of Connecticut. As trustee of the environment for present and future generations, the DEP assures compliance by controlling pollution through regulation, enforcement, and licensing procedures; by managing the State's parks and forests and other recreational amenities; and by developing and coordinating compliance assistance and educational programs with other public and private agencies. The DEP carries out its mission in a way that encourages the social and economic development of the State while preserving the natural environment and the life it supports. It is the policy of the DEP to achieve the highest level of environmental protection for the citizens of Connecticut by use of traditional enforcement methods together with financial, regulatory, and compliance assistance, including the facilitation and promotion of pollution prevention techniques, to produce a comprehensive compliance assurance program.

Montville Commons Settlement Includes Beneficial Environmental Projects

In May 2008, the DEP and the Office of the Attorney General reached a \$750,000 settlement with the developer and builders of the Montville Commons Shopping Center in Montville.

Under the agreement, Montville Commons will fund Supplemental Environmental Projects (SEPs) that include \$200,000 to fund a study of potential impacts associated with the use of crumb rubber from recycled tires for products like artificial turf and gardening mulch. Another \$275,000 will fund further development of DEP's system to electronically monitor state-owned dams and to promote awareness of dam safety. The remaining \$275,000 of the settlement will be paid as a civil penalty.

The settlement resolves violations of state environmental laws in 2005 during construction of the shopping center. The site owner, developers and builders failed to secure a permit for a dam that failed to contain water from heavy rains, forcing evacuation of homes on Podurgiel Lane at the base of the site and temporarily closing Route 32. The settlement also addresses storm water management violations that contributed to a slope failure and a mudslide along Podurgiel Lane.

As a result of DEP's intervention and enforcement action, a modified water retention system was subsequently permitted and installed to replace this dam and site improvements were made to ensure the stability of the steep slope on the site.

The state settled with developer Second Family, LLC and construction firms Manafort Brothers, Inc., Antrim Development, Inc., and Nittany Construction, Inc., as well as shopping center tenant Home Depot, the company that also owns the site where the illegal dam was located. Podurgiel Lane residents reached a separate settlement with the developer, builders and Home Depot for damage to their homes and properties.

Piercing the Corporate Veil

In September 2001 the DEP along with the Town of Hamden, obtained a judgment in state court for injunctive relief and \$3.7 million in penalties against Joseph Farricielli and several companies owned or controlled by him for Farricielli's failure to close a site in Hamden and North Haven known as the Tire Pond. Instead of complying with the 2001 judgment, Farricielli embarked on a course of action whereby he, with the assistance of his wife, used another company owned and controlled by them (State Five Industrial Park, Inc.) to pay select debts and personal expenses of Farricielli, while making it appear as though Farricielli lacked the assets to comply with the 2001 judgment.

In September 2005, the DEP and the Town sued State Five and Mrs. Farricielli on theories of piercing the corporate veil. The DEP and the Town sought to hold the defendants liable for all the obligations imposed on Farricielli by the 2001 judgment. After a six-day bench trial on February and March 2008, the Hartford Superior Court rendered a decision on January 4, 2009 in the DEP's favor. The court held that Farricielli and Mrs. Farricielli are alter egos of State Five, and that the interests of justice and equity require that they be held liable for the 2001 judgment. The court entered judgment in favor of the DEP and the Town of Hamden in the amount of \$4.1 million. Farricielli and State Five have appealed to the Appellate Court.

Landmark Settlement With Thames Shipyard and Repair Company

The DEP, with the help of the Attorney General's Office, entered a settlement in January 2008 with The Thames Shipyard and Repair Company ("Thames Shipyard") to resolve several violations of environmental laws and regulations. Thames Shipyard is engaged in the construction, repair and maintenance of ships and ferries at 50 Farnsworth Street and 2 Ferry Street in New London. The site is an area of longstanding industrial use spanning over a hundred years.

This is a landmark settlement that resolves a broad array of violations regarding the storage, treatment and disposal of hazardous waste; discharges to the Thames River of

wastewaters and stormwater; air pollution; and maintenance of certain coastal structures such as docks and barges without proper authorization.

Thames Shipyard and related companies agreed to a settlement worth \$747,011. Of that, \$178,700 will be paid as a civil penalty and the remaining \$568,311 will be in the form of SEPs to improve the shipyard property and the vital surrounding environment. DEP staff worked closely with shipyard representatives to ensure improvement in shipyard operations and to resolve the outstanding violations.

The DEP's inspections revealed extremely poor waste management practices, and virtually no established hazardous waste compliance program. Inspections also revealed many unpermitted wastewater and stormwater discharges to the Thames River, and numerous unpermitted and environmentally unsound structures at the site including dilapidated piers and docks in or near the Thames River in violation of state environmental laws and regulations.

The settlement also requires Thames Shipyard to conduct an investigation and remediate the effects of out-door storage of hazardous wastes, and painting and sandblasting operations conducted without sufficient controls to prevent releases directly to the ground.

Non-Compliant Underground Storage Tanks (UST) Get Red Tags

During 2008, the DEP issued more than a dozen "Red Tags" for non-compliant UST systems. In all cases the DEP prevailed either through an adjudicatory hearing process proving that the violations prompting the "Red Tag" did, in fact, occur and were continuing; or by the Respondents stipulating to the basis for the "Red Tag" and waiving their right to hearing.



In 2005, Public Act 05-3, provided the Commissioner of Environmental Protection with the ability to "Red Tag" certain non-compliant USTs. This legislation added a new and extremely valuable enforcement tool in the DEP's effort to promote compliance with the regulations governing underground storage tanks.

The legislation provides the DEP with the authority to place a disabling device on a UST system which renders the system out of service pending a hearing to be held within two business days. The specific nature of the non-compliance for which a system can be disabled are specified to be 1) a release from a non-residential UST system, or a finding that such system is 2) not designed, constructed, installed, and operated in accordance with the statutory requirement for all systems installed on or after October 1, 2003 to utilize double-walled tanks or the applicable regulations, 3) fails to have or operate proper release detection equipment, or 4) fails to have or operate proper overfill and spill protection. The "Red Tag" would require emptying of the UST and prohibit both the dispensing of product and the delivery of product to and from the system.

To date, the types of facilities which have been disabled are varied including, gas stations, construction companies, marinas, and businesses which have USTs to service their own company vehicles. The most common finding prompting "Red Tags" has been failure to conduct Release Detection. Release Detection is a critical element of UST compliance. It is the first line of defense against the major contamination which can occur from a leaking UST system. In general, it includes probes and monitors which can determine and provide an alarm in the event of a loss of a petroleum product from the system. The DEP, EPA, and the Legislature take the need for such preventive measure seriously. It is in cases in which facilities have not complied with the requirements for Release Detection, where the serious step of shutting down a system or entire facility is most often taken.

Courts Vindicate Connecticut's Denial of Islander East's Authorization

In December 2008, the U. S. Supreme Court rejected a request by the Islander East Pipeline Company, LLC for an appeal of a lower court decision upholding DEP's denial of its water quality certificate. This is an important victory for the unique habitat in the area of the Thimble Islands that are home to shellfish beds, bird life and sea mammals. DEP fought long and hard to prevent the construction of the natural gas pipeline which would have caused the entire area to be irreparably harmed by its construction. The following provides the background leading up to this important court decision that ultimately put a stop to the proposed route of the natural gas pipeline.

Background

In 2001, the Islander East Pipeline Company, LLC, a partnership between subsidiaries of Spectra Energy and KeySpan Energy, proposed to construct a 24-inch diameter natural gas

pipeline that would cross 22 miles of Long Island Sound from Juniper Point in Branford, Connecticut to Wading River, Long Island, New York. Islander East applied for a Water Quality Certificate under section 401 of the federal Clean Water Act on February 13, 2002. This certificate of compliance with Connecticut's federally approved Water Quality Standards was required as a precondition of Islander East's approval by the Federal Energy Regulatory Commission (FERC) on September 22, 2002.

On September 18, 2002, FERC issued its Order approving the Islander project with conditions. Although FERC staff had concluded that an alternate pipeline route was environmentally preferable to the proposed route, FERC concluded that the proposed route was acceptable and should be approved. The approval was conditioned on Islander East obtaining subsequent Coastal Zone Management Act (CZMA) concurrences and Clean Water Act Section 401 Water Quality Certificates (401 WQC) from both Connecticut and New York.

On October 15, 2002, CTDEP issued an objection to Islander East's CZMA consistency certification, since the proposed work was determined inconsistent with the Connecticut Coastal Zone Management Program because it would degrade water quality and alter and permanently destroy essential shellfish habitat. Islander East then appealed to the Secretary of Commerce to override Connecticut's objection, and DEP issued a public notice proposing to deny Islander's 401 Water Quality Certification.

Islander East withdrew their original 401 WQC application and submitted a revised one on March 14, 2003. On July 29, 2003, Connecticut issued a second objection to Islander East's CZMA consistency certification statement, finding that the project would still adversely affect prime shellfishing areas, and Islander again appealed to the Secretary of Commerce. While the CZMA appeal was pending, DEP also denied Islander East's revised application for the 401 WQC on February 5, 2004, a decision which Islander East appealed to state Superior Court.

On May 5, 2004, the Secretary of Commerce overturned Connecticut's CZMA consistency denial of the Islander East project, finding that the pipeline substantially furthered the national interest in energy development to an extent that outweighed the minor and temporary adverse coastal effects of the project, and that there was no reasonable alternative available. The language of the Secretary's determination was a thorough and decisive setback, but Connecticut nonetheless appealed it to federal District Court.

On August 8, 2005, Islander East withdrew its pending appeal and took immediate advantage of a provision of the newly signed federal Energy Policy Act to move its appeal to the U.S. Second Circuit Court of Appeals (Circuit Court).

On October 5, 2006, by a 2-1 decision, the Circuit Court criticized DEP's WQC decision as arbitrary, capricious and unsupported by the record, and particularly criticized the "surprising brevity" of the six-page letter of denial. However, the Court's opinion did not order the issuance of the 401 Certificate, but remanded the case back to DEP for fuller consideration of the existing record.

On December 19, 2006, DEP issued a new denial of the request. Islander East appealed that new denial to the Second Circuit Court of Appeals. On May 2, 2008, in another 2-1 Decision, the Circuit Court upheld Connecticut's third denial of the 401 certificate. In the Court's words, "[w]hatever reservations might legitimately be voiced as to this latest decision," DEP had supported its denial with reasoned explanations tied to record evidence, and thus could not be dismissed as arbitrary and capricious.

Islander East asked the U.S. Supreme Court to consider the case, a request the high court rejected in December 2008.

Settlement Results in Reduction of Discharge to Housatonic River

The Chromium Process Company, a metal finishing facility located in Shelton Connecticut which maintains discharges of treated wastewater to both the Housatonic River and Shelton sanitary sewer, entered into a Stipulated Judgment on August 25, 2008 for numerous alleged violations of its wastewater discharge permits and hazardous waste regulations.



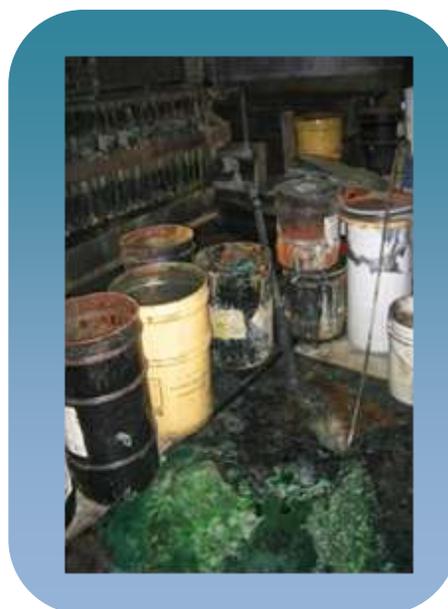
The Judgment requires Chromium Process to immediately reduce its discharge to the Housatonic River by 60%, from 144,000 gallons a day to 60,000 gallons a day and completely eliminate the discharge by December 31, 2009. Chromium Process was also required to eliminate the use of cyanide at the facility by December 21, 2008. In addition, Chromium Process is required to pay a civil penalty of \$75,000 and pay up to

\$600,000 in potential future penalties for failure to comply with the injunctive provisions of the Judgment. An additional civil penalty of \$1,000 is to be paid by the company's General Manager.

The stipulated penalties for future violations are to be paid through a \$50,000 cash bond posted by the company with the Superior Court. Should the cash bond be exhausted, Chromium Process must post a second \$50,000 cash bond. In the event that Chromium Process fails to replenish the bond or depletes the bond a second time, it must immediately surrender its discharge permits. After the bond is exhausted, any further violations require that Chromium Process pay the balance of the remaining \$600,000.

The DEP began an investigation into the Chromium Process Company after observing piping modifications that allegedly allowed the facility to bypass its pretreatment system and discharge untreated wastewater directly to the Shelton sanitary sewer. It appeared that the treatment system piping had been altered such that metal hydroxide sludge, a hazardous waste, could also be sent directly to the sewer.

Further review of the treatment systems disclosed additional examples of disrepair, including inoperative monitoring equipment and missing pumps. The DEP also discovered that the company was not collecting representative samples of its discharges for its self monitoring program. Analysis of a sample collected by the DEP at the proper location contained over 5,000 times the concentration of metals contained in a sample collected at the location used by Chromium Process.



In May 2007, the Connecticut Attorney General's Office filed a 21 count complaint on behalf of the DEP against the Chromium Process Company and its General Manager. The complaint cited the company for persistent noncompliance with its discharge permits and violations of hazardous waste regulations.

Alleged violations included failure to properly operate and maintain the wastewater treatment systems, failure to properly monitor the discharges, failure to accurately report monitoring results, failure to comply with the stormwater general permit, and failure to meet effluent limits. Additionally, the DEP collected eight samples of the discharge to the Housatonic River for aquatic toxicity analysis. All eight samples failed to meet permitted limits. During the same time period, the Chromium Process Company reported that the NPDES discharge met all aquatic toxicity limits.

Connecticut Receives National Awards for RCRA Stewardship Permit

In September 2008 the Environmental Council of the States presented the DEP with an award for innovation in developing a RCRA Stewardship Permit. This follows an award received in May 2008 when the US EPA presented the DEP with a "National Notable Achievement Award" for a state's "Outstanding Use of Innovative Approaches" in RCRA permitting and Corrective Action.

The Stewardship Permit simplifies and consolidates the multiple aspects of hazardous waste permitting and remediation into a single enforceable mechanism. The permit is transferrable to future owners, who can review the permit to understand the specific obligations associated with owning the facility. This type of permit brings certainty to the process and financing of environmental cleanup and thus fosters revitalization of idle properties.

In summary, a stewardship permit provides a RCRA facility with an enforceable document that:

- Defines long-term monitoring and maintenance obligations of the permit holder;
- Provides public participation in cleanup;
- Documents cleanup as it is completed; and
- Requires financial assurance obligations for institutional and engineered controls.

Issuance of a stewardship permit to a facility also provides public officials and the public with a clear sense of the current and future status of a RCRA facility. In today's regulatory environment, it is increasingly important and helpful to convey a clear path forward for cleaning up a RCRA facility.

Increased Stakeholder Involvement in Regulatory Processes

Hazardous Waste Advisory Committee Assists With Enhancement of Compliance Assurance Tools

As a result of an analysis of the DEP's hazardous waste management program, the Hazardous Waste Advisory Committee (HWAC) was established in November 2008. In July 2008, the DEP, in cooperation with a workgroup of external stakeholders, completed the analysis.

A list of [priority recommendations](#) was developed that includes:

- Enhancing the DEP webpage with the long term goal of developing interactive compliance assistance tools;

- Eliminating the "incorporation by reference" format of the regulations and replacing with full text version;
- Providing greater incentive for accelerating the regulated community's efforts to return to compliance;
- Expanding use of electronic submissions; and
- Enhancing the DEP's existing closure guidance.

Critical to the successful implementation of such recommendations is the creation of the HWAC. The purpose and responsibilities of the HWAC are to:

- Assist the DEP in implementing the priority recommendations and training;
- Continue the open dialogue and constructive information sharing between the DEP and regulated community;
- Identify emerging issues and propose solutions; and
- Act as sounding board for implementation activities.

HWAC membership is open to the public, and meetings will be held in an open stakeholder forum. It is anticipated that meetings will be held three times per year. See the new DEP website dedicated to the HWAC for membership and upcoming meeting information, including agendas and presentations at www.ct.gov/dep/HWAC.

Increased Access of Environmental Justice Communities in the Permitting Process

In May 2008, the Governor signed into law Public Act 08-94 to ensure that Environmental Justice Communities are provided enhanced notice leading to meaningful public participation in certain permitting processes. Effective January 1, 2009, the new law, along with the DEP's existing Environmental Justice Policy, requires applicants seeking a permit for a new or expanded "applicable facility" that is proposed to be located in an "environmental justice community," to file an Environmental Justice Public Participation Plan with and receive approval from the DEP **prior** to filing any application for such permit.

The DEP developed [Environmental Justice Public Participation Guidelines](#) and an [Environmental Justice Public Participation Fact Sheet](#) to provide information for the regulated community on how to comply with the new law when applying for a permit.

The law requires applicants seeking a permit, from the DEP or the Connecticut Siting Council, for a facility that is defined as an affecting facility and is proposed to be located or expanded in an environmental justice community, to:

- file a meaningful public participation plan (Environmental Justice Public Participation Plan) with and receive approval from the DEP or Siting Council prior to filing any application for such permit,

- consult with the chief elected official or officials of the town or towns in which the affecting facility is proposed to be located or expanded to evaluate the need for a community environmental benefit agreement, and
- notify, in writing, local residents and environmental groups potentially affected by the facility activities and operations.

Work Groups Provide Input on Proposed Revisions to Stream Flow Standards

In January 2009, DEP released an overview of its planned revisions to Stream Flow Standards. The document, entitled *Stream Flow: The Next Two Decades-Balancing Human Use and Ecological Health*, provides a “plain language” overview of DEP’s regulatory proposal to assist interested citizens in understanding the proposed new stream flow requirements so they can most effectively participate in the ongoing process of managing Connecticut’s stream and river resources.

The DEP is developing revisions to the Stream Flow Standards in response to PA 05-142, enacted in 2005. This statute directed DEP to develop regulations that would expand the coverage of the stream flow standards to include all rivers and streams, rather than only those stocked with fish, as was the case previously.

The proposed Stream Flow Standards revisions:

- Consider the best science available to provide a framework to balance the human needs of water for drinking, washing, fire protection, irrigation, manufacturing, and recreation with the needs of fish and wildlife, that also rely upon the availability of water to sustain healthy, natural communities;
- Provide for meaningful public input to the process, under the Public Trust Doctrine; and
- Recommend a phased implementation of regulatory requirements to encourage and support water planning and conservation efforts.

While the proposed Stream Flow Standards are protective of Connecticut’s river and stream systems, it is not simply about providing more water for fish. It’s about promoting better, more efficient management of water supplies, so that all needs, both human and ecological, can be met both today and in the future.

Two workgroups were convened by DEP to assist in the process of developing the revised regulations.

A Science and Technical Workgroup was formed consisting of recognized experts in the fields of stream and river ecology, fisheries biology, hydrology, and drinking water supply management to insure that the regulations would be based on the best available science.

A Policy and Implementation Workgroup was also convened to evaluate various policy options relating to implementing the revised regulations. This workgroup included members representing the interests of municipalities, water utilities, environmental advocacy organizations, and State agencies such as the Departments of Public Health and Agriculture.

Both Workgroups met numerous times over the course of three years and actively participated in the development of the revised regulations. A Commissioner's Advisory Group was also formed to provide DEP with a broad perspective on the potential impact of the revised regulations on water utilities, farmers, industry, consumers, and citizens who recreate in Connecticut waters or simply have a strong interest in preserving Connecticut's natural environment. As directed by the statute, DEP consulted with other State agencies, such as the Department of Public Health, the Department of Agriculture, the Department of Public Utility Control, and the Office of Policy and Management as well as non-governmental stakeholders.

Advisory Committee Established for Spill/Release Reporting

In 2008, the DEP Commissioner invited a broad representation of stakeholders to form a Release Reporting Advisory Committee to assist the DEP in developing release reporting regulations. The regulations will define those releases considered to be reportable under Section 22a-450 of the Connecticut General Statutes (CGS) and establish procedures and requirements for notifying the DEP of important information such as the nature and cause of the release and the proximity of the release to population centers and sensitive environmental areas.

The mission of the Advisory Committee is to develop recommendations for a strategy to define the reporting of releases to the DEP under Section 22a-450 of the CGS that:

- Clearly identify and articulate notification requirements for the regulated community;
- Streamline the DEP's emergency response actions to properly address the protection of human health and the higher priority environment receptors;
- Promote compliance through appropriate enforcement of nonreporters; and,
- Clarify the cleanup requirements for spill/release response activities.

DEP's Collaborative Efforts With Interstate Organizations

The DEP is a member of three New England interstate organizations that include the New England Interstate Water Pollution Control Commission (NEIWPC), the Northeast Waste Management Officials' Association (NEWMOA) and the Northeast States for Coordinated Air Use Management (NESCAUM).

The purpose of these interstate organizations is to provide scientific, technical, analytical, and policy support to the air quality, climate, water quality, hazardous and solid waste, and pollution prevention programs of the eight Northeast states. These organizations develop and sustain an effective partnership of states that helps achieve a clean, healthy, and sustainable environment by exploring, developing, promoting, and implementing environmentally sound solutions.

The groups fulfill their missions by providing a variety of support that:

- facilitates communication and cooperation among member states, between the states and the U.S. EPA, and between the states and other stakeholders;
- provides research on and evaluation of emerging issues, best practices, and data to help state programs maximize efficiency and effectiveness; and
- facilitates development of regional approaches to solving critical environmental problems.

The example below demonstrates how the coordinated efforts of these interstate organizations can result in significant environmental gains.

Action to Reduce Mercury Deposition from Out-of-Region Sources

In accordance with Section 319(g) of the Clean Water Act, the New England States and New York State (States) have prepared a petition requesting a management conference to address waterbodies impaired by atmospheric deposition of mercury. This collaborative effort, coordinated by the NEIWGCC, reflects the consensus within the States on how to address an important regional priority.

In the petition, the Northeast states ask that U.S. EPA convene a management conference of all relevant states, determine the degree to which the contributing states are contributing significant nonpoint source mercury pollution to the Northeast states' waters, and develop an agreement amongst the states that will assure improvement of the Petitioning States' water quality and compliance with Clean Water Act requirements and each Petitioning State's water quality standards by implementing plant-specific Maximum Achievable Control Technology (MACT) limits for mercury under Section 112(d) of the Clean Air Act to control power plant emissions by 90 percent by cost-effective and available technologies.

The petition describes the mercury problem in the Northeast and provides background about the Northeast states' previous mercury reduction efforts including mercury emissions reductions, controls on mercury-containing products, and most recently, the Northeast Regional Mercury Total Maximum Daily Load (TMDL). The States strong commitment to mercury reduction has eliminated almost all in-region sources of mercury. The TMDL

demonstrates that between 1998 and 2002 the Northeast States have reduced in-region deposition of mercury by over 70%.

Relying on atmospheric deposition modeling data, the petition states the percentages of mercury deposition in the region that are from out-of-region sources and lists the states that are the most significant contributors. The atmospheric modeling data used in the petition was compiled by the Northeast States for Coordinated Air Use Management (NESCAUM) from a modeling effort undertaken by U.S. EPA Headquarters contractors. The modeling data show that approximately 70 percent of mercury deposited in the Northeast region originates from sources outside of the U.S. When considering only U.S. sources, approximately 48 percent of the mercury deposited in the Northeast states is due to sources outside of the region.

At the same time, with the assistance of NEWMOA's Interstate Mercury Education and Reduction Clearinghouse (IMERC), Connecticut and the other Northeast states continue regional and state based mercury reduction efforts through product phase out and management.

Compliance Rates

The Department's strategic planning process includes an analysis of compliance patterns and rates and environmental data. The analysis helps the Department identify the environmental problems or areas of noncompliance that need to be addressed. Available permitting, compliance assistance and enforcement tools are then evaluated to determine the appropriate application and integration of tools necessary to resolve the problem.

The compliance rates for Federal Fiscal Year 2008 indicate that major sources of air pollution, water pollution and large quantity generators of hazardous waste ("LQGs") have steady rates of compliance with environmental regulations. These encouraging compliance rates are a result of a combination of factors. The factors include the Department's commitment to a strong enforcement presence through regularly scheduled inspections of those facilities and follow-up on violations found at those facilities, as well as effective permits and compliance assistance efforts. Another important factor is the commitment on the part of the regulated community to comply with environmental regulations.

While the Department is interested in maintaining the encouraging trend of compliance of major sources of pollution, these compliance rates inform the Department that there may be other areas of high noncompliance or environmental problems that need to be addressed. Specifically, the Department recognizes that smaller sources of pollution also need attention. Additional enforcement tools may need to be developed or adjusted to address these different entities.

Federal Fiscal Year ("FFY") 2008 Compliance Rates

The following tables show more detailed compliance rates for FFY2008 for particular industry sectors in the following Department media programs: Hazardous and Solid Wastes, Wastewater Discharges, Air Emissions, Pesticides, PCBs and Underground Storage Tanks. (The Federal Fiscal Year runs from October 1 through September 30.)

Unless otherwise noted the compliance rate for each category was calculated as follows:

$$\% \text{ Compliance} = 100 - \frac{\# \text{ of enforcement cases initiated}}{\# \text{ facilities inspected}} \times 100$$

Hazardous and Solid Wastes

Hazardous wastes inspections in all inspection categories met or exceeded the projected inspection number for FFY 08; 65% of inspected hazardous and solid wastes facilities were found to be in compliance in FFY 08.

Inspection Category	Inspection Projected FFY 08	Inspections Conducted FFY 08	Total # Facilities by category	# of NOV's FFY 08 (1)	# of inspections with SNC (2)	% of SNC Non-compliance	% inspected facilities in compliance
Treatment Storage Facility	25	25	174	6	0	0	75%
Large Quantity Generator	37	39	269	22	10	25%	44%
Small Quantity Generator	31	42	1678	13	7	16%	70%
Transporter	5	5	169	2	0	0%	60%
Volume Reduction Facility	N/A	4	30	0	0	0%	100%
Resource Recovery Facility	N/A	0	7	0	0	N/A	N/A
Transfer Station	N/A	8	143	1	0	0%	88%
Landfill	N/A	4	34	0	2	50%	50%

- (1) Does not include 24 SW NOV's resulting from complaint investigations.
 Does not include 6 HW NOV's issued to CESQGs
 Does not include 11 HW non-notifier NOV's
- (2) Does not include 9 SW formal enforcement actions resulting from complaint investigations
 Does not include 2HW CESQG formal enforcement actions
 Does not include 2HW non-notifier formal actions

SNC (Significant Non-compliance) – The violator/violation is significant enough to require formal enforcement response.

Wastewater Discharges

Wastewater discharge inspections exceeded the projected inspection number by 54 inspections. The average compliance rate in FFY 08 for the facilities that were inspected was 85%.

Inspection Category	# of Facilities	Annual Compliance Inspections Projected FFY08	Actual Inspections FFY08	%Facilities in Compliance based on inspections*
NPDES Industrial Majors	35	21	34	85%
NPDES Sewage Treatment Plant (STP) - Majors	67	67	40	88%
Pretreatment SIU-Significant Industrial Users	196	98	133	84%
NPDES Industrial-Minors	41	4	19	95%
NPDES- STP- Minors	30	3	21	90%
Stormwater	N/A	N/A	114	69%**

* Based on whether a NOV was issued from the annual compliance inspection.

** Many of the stormwater inspections are to investigate complaints, therefore, a higher rate of non-compliance is expected as compared to routine annual inspections of municipal and industrial facilities

Pesticides

The majority or 73% of inspected pesticides facilities were found to be in compliance. Market Place, Restricted Use Dealers and Producer Establishment inspected facilities had greater than 85% compliance rates.

Inspection Category	Inspections Projected FFY 08	Inspections Conducted FFY 08	# of Enforcement Cases Initiated in FFY 08	% Inspected Facilities in Compliance
Agricultural Use & Complaint Follow-Up	22	18	11	39%
Non-Agricultural Complaint/Concern Follow-Up & Use Investigation	80	85	20	76%
Producer Establishment	5	5	0	100%
Market Place	85	83	11	87%
Certified Applicator Records	120	107	39	64%
Restricted Use Dealers	10	10	1	90%

PCBs

PCBs inspections in FFY 08 exceeded the projected inspections by eleven facilities. The majority, or 78% of inspected PCBs facilities were found in compliance.

Inspection Category	Inspections Projected FFY 08	Inspections Conducted FFY 08	# of Enforcement Cases Initiated in FFY 08	% Inspected Facilities in Compliance
Referrals	8-13	8	4	50%
Complaints	12-17	16	3	81%
Clean-up Sites	10-15	25	4	84%
Other Neutral Scheme	10-15	2	0	100%

Underground Storage Tanks

The UST program increased inspections by 814 in FFY 08 in part due to the Federal Energy Policy Act of 2005 requirement that UST facilities be inspected every 3 years.

Inspection Category-	Inspections Conducted FFY 08	# of Enforcement Cases Initiated in FFY 08	% Inspected Facilities in Compliance
Operational/Structural*	1,567	33	65%**

***Operational inspection**- assessment of compliance with release detection and maintenance requirements

Structural inspection- assessment of tank and line construction, and corrosion protection

**Based on both # of Enforcement Cases Initiated and Sites Reported to EPA as being in Significant Operational Noncompliance

Air Emissions

Of the inspected air emissions facilities, 81% were found to be in compliance.

Unless otherwise noted below, non-compliance means that an enforcement action (e.g., an NOV, Consent Order, Unilateral Order or AG referral) was taken at a facility during Federal Fiscal Year (FFY) 2008

Compliance Monitoring Activity – Federal Fiscal Year 2008

Facility/Inspection Category	Reports Reviewed FFY 08 ¹	Inspections Projected FFY 08	Inspections Conducted FFY 08	# of Facilities in Category	# of Facilities w/ Non-compliance	Compliance Rate ⁵	# of Facilities w/SNC ⁶	SNC Rate
Title V Sources	196	44	45 FCE*	87 ²	10	89%	7	8%
General Permit to Limit the Potential to Emit	250	51	77 FCE	254 ²	19	93%	7	3%
Minor Sources		150	50 FCE	~1500	59	96%	3	0%
Stage II		1530	2470 ³	1534	567 ⁴	63%		
Complaints		500	630					
Other (enforcement follow-up, inspections, routine investigations)		100	701					

Footnotes:

- Includes quarterly Continuous Emissions Monitoring reports, semi-annual monitoring reports and compliance certifications.
- Number of facilities in category means both those who have applied and those who have received permits under the applicable program.
- Summation of Department of Consumer Protection (DCP) and DEP inspections.
- Violations comprise DCP red tags, DCP repair orders (multiple repair orders issued to the same station on the same day are counted as a single violation), and NOV's.
- Compliance Rate Calculation:

$$\text{ComplianceRate} = \left[\frac{\# \text{ of facilities in category} - \# \text{ of facilities w/ non-compliance}}{\# \text{ of facilities in category}} \right] \times 100$$

- Significant Non-Compliance (SNC) is defined as follows:

- For Title V, General Permit to Limit Potential to Emit and Minor Sources, SNC means the facility was either a State of Connecticut Definitive High Priority Violation ("HPV") or Federal HPV during FFY 2008.
- For Stage II facilities, SNC means there was either an actual failure of the vapor recovery equipment or a failure to demonstrate that the facility was maintaining a properly operating vapor recovery system.

SNC is calculated as follows:

$$\text{Non-ComplianceRate} = \left[\frac{\# \text{ of facilities w/ SNC}}{\# \text{ of facilities in category}} \right] \times 100$$

*Full Compliance Evaluation

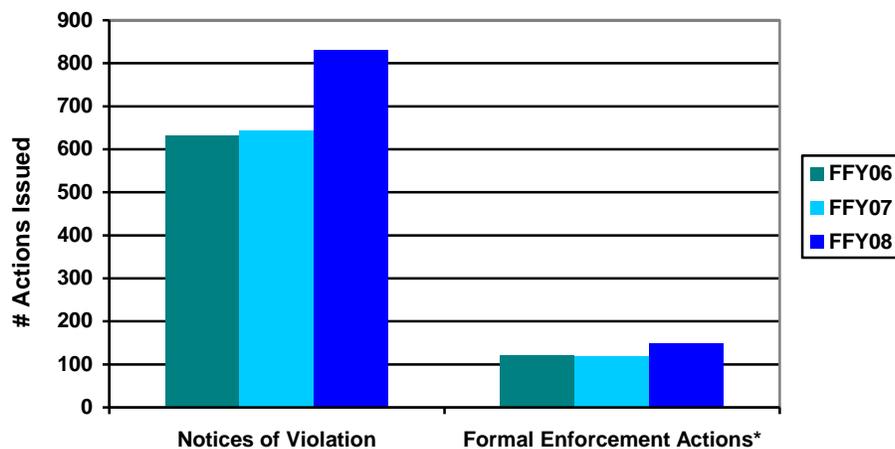
Enforcement and Permitting Outputs

The Department maintains a strong enforcement presence by conducting compliance inspections, taking appropriate enforcement action and enforcing strict permit conditions. This combination enables the Department to assure that compliance with environmental requirements is achieved and maintained by the regulated community.

The following are the FFY08 enforcement statistics for the Bureaus of Air Management; Materials Management and Compliance Assurance and Water Protection and Land Reuse as well as the five-year Department-wide average. Also included is the Department's report on permitting efforts as required by CGS 22a-6r.

In FFY08 enforcement statistics reflect a strong and increased commitment to enforcement to achieve the cleanest, safest environment possible for Connecticut's citizens. This year the Department increased the inspections conducted with 8,314 inspections (up from 6,910 in FFY07), issued 831 Notices of Violation (up from 643 in FFY07) and issued 150 formal enforcement actions (up from 120 in FFY07) and collected over \$1.56 million in combined administrative penalties and supplemental environmental project funds. These statistics demonstrate that when serious violations are encountered the Department takes aggressive action.

Three Year Comparison of Enforcement Actions Issued



*Formal enforcement actions include administrative consent orders, unilateral orders and referrals to the Attorney General's Office.

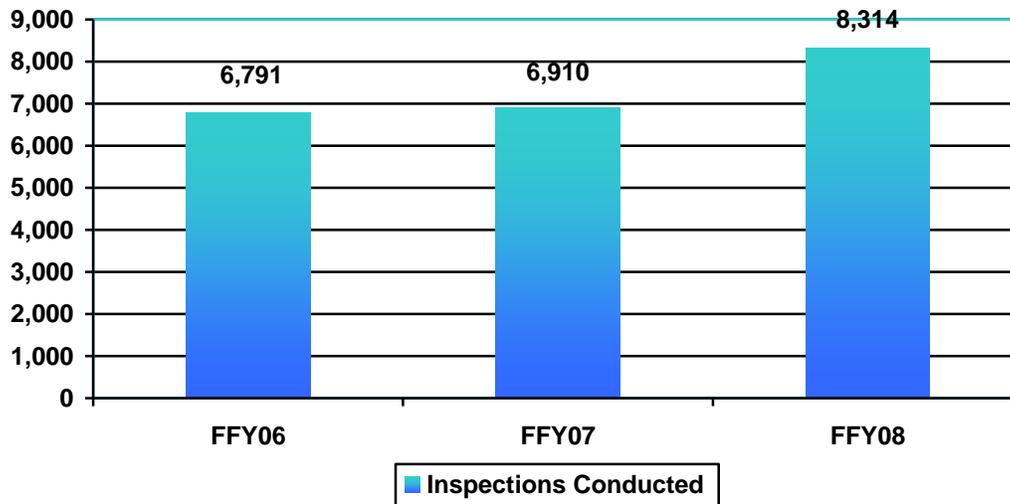
**Department-wide Federal Fiscal Year 2008 Enforcement Statistics
(10/01/07-9/30/08)**

Federal Fiscal Year 2008 penalties from administrative consent orders and judicial settlements totaled \$4,122,878.

Action Type	Bureau of Air Management	Bureau of Water Protection and Land Reuse	Bureau of Materials Management and Compliance Assurance	Total
Notice of Violation	227	158	446	831
Consent Order	36	25	46	107
<i>Administrative Penalties Assessed</i>	\$165,790	\$118,445	\$544,252	\$828,487
<i>Supplemental Environmental Projects</i>	\$306,611	\$142,678	\$284,110	\$733,399
Unilateral Order	3	4	14	21
Attorney General Referral	4	3	15	22
<i>Judicial Settlement Penalties</i>	\$10,000	\$665,000	\$1,225,681	\$1,900,681
<i>SEPs</i>	\$0	\$85,000	\$575,311	\$660,311
Chief State's Attorney Referral	1	0	2	3
Referral to EPA	1	0	6	7
Inspections Conducted	4695*	529	3090	8,314

*1,962 inspections conducted by Consumer Protection

Three Year Comparison of Department-wide Inspections Conducted



Department-Wide Five Year Average Federal Fiscal Years 2004-2008

The Department-wide trend for referrals (AG/EPA/CSA), orders, notices of violation, total enforcement actions and inspections has been steady or increasing for the past five federal fiscal years. The largest year-to-year change occurred in inspections, with a 1,404 increase from FFY07 to FFY08.

Activity	2004	2005	2006	2007	2008	Five Year Average
Referrals(AG/EPA/CSA)	41	28	36	23	32	32
Orders	160	140	103	104	128	127
Notices of Violation	778	657	631	643	831	708
Total Enforcement Actions	979	825	770	770	991	867
Inspections	7345	6420	6791	6910	8314	7156

State Fiscal Year 08 Permitting Statistics

Section 22a-6r of the Connecticut General Statutes requires the Commissioner to report on permitting efforts, including: revenues received from permit application fees and any revenues derived from the processing of such applications as set forth in Chapter 439 of the General Statutes; the Department's appropriation from the general fund for permitting activities; and the number and amount of permit application fees refunded; the number of permit applications received; the number of permit decisions issued and the number of permits pending.

As the Department transitions to a new data management system, the data is presented in a slightly different format than previous reports. As the new system evolves, we will evaluate additional reporting opportunities for future reports.

Bureau	Permit Type	Applications Received	Permits Issued	Applications Closed ¹	Applications Pending (as of 6/30/08)
Air	General Permits	3	5	3	3
	Individual	175	146	71	123
	Short Process	0	0	0	0
Hazardous Waste	General Permits	0	0	0	0
	Individual	139	100	120	125
	Short Process	0	0	0	0
Inland Water Resources	General Permits	46	47	31	33
	Individual	157	118	67	91
	Short Process	0	0	0	0
Office of Long Island Sound Programs	General Permits	28	23	14	19
	Individual	114	116	16	79
	Short Process	199	172	169	171
Pesticides	General Permits	0	0	0	0
	Individual	0	0	0	0
	Short Process	513	506	483	488
Solid Waste	General Permits	150	60	50	136
	Individual	57	46	27	45
	Short Process	0	0	0	0
Water Discharges	General Permits	810	778	638	740
	Individual	120	12	7	101
	Short Process	0	0	0	0
All DEP	General Permits	1037	913	736	931
	Individual	813	538	309	612
	Short Process	713	678	652	659
	Totals All Apps	2563	2129	1697	2202

¹ Applications Closed represents the total number of applications that were closed including: permits issued; applications which are withdrawn, rejected for insufficiency, or denied on the technical merits of the application; and applications which were received but no permit is required.

Average Time to Close Permit Application

Average Time to Close Permit Applications¹ from 7/1/07-6/30/08 for All Applications Received	
Program	Average Days to Close Application²
Air	430
Hazardous Waste	120
Inland Water Resources	263
Long Island Sound	404
Pesticides	37
Solid Waste	306
Water Discharges	164

¹Includes individual permit, general permit and short process permit applications

²Applications Closed represents the total number of applications that were closed including: permits issued; applications which are withdrawn, rejected for insufficiency, or denied on the technical merits of the application; and applications which were received but no permit is required.

Permit Related Revenue Information

Revenues Received from Permit Application Fees and Any Revenues Derived from the Processing of Such Applications*	
7/1/07-6/30/08	\$2,315,937

* These figures represent application fees due on submittal and permit issuance fees. They do not include annual fees and other registration fees such as medical and industrial X-ray, pesticide registrations, UST's, property transfer, LEP, etc.

General Fund Appropriation*	
7/1/07 - 6/30/08	\$1,165,812

* There is no specific state budget appropriation for department permit programs. This figure reflects actual expenses, drawn from the general fund, for air, water, and waste permitting and enforcement staff.

Amount of Permit Application Fees Refunded* (7/1/07 - 6/30/08)
Application Fees Refunded for a Total of \$29,137

* Refunds reflect withdrawn applications, duplicate fees, etc.