ENVIRONMENTAL NEWS

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Newsletter of the N.H. Department of Environmental Services May - June 2013

COMMISSIONER'S COLUMN

The State of New Hampshire's Environment

The first step to protecting New Hampshire's special environment is to become more aware of and knowledgeable about its current condition. I get asked many questions by New Hampshire's citizens and visitors, but one of the most common and most important is quite straight forward: "How is New Hampshire's environment doing?" In other words is our environment doing well? Is it getting better or worse? The full answer to this question could fill volumes, so I am pleased to announce that NHDES has developed a web-based tool that will make it easy to get a quick answer, and to dig deeper for more answers if you want to.

NHDES manages well over a hundred programs related to the health of our air, water and land, all of which delve deeply into the complex science of our environment. We certainly know that our environment is better today than it was, say, 40 years ago. Rivers catching fire and smoke stacks spewing pollution are thankfully a thing of the past. That is not to say, however, that we don't face environmental challenges today. While perhaps not as "in your face" as the environmental challenges of the past, the environmental challenges of this generation pose just as great a threat to our environment and our health.

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ENVIRONMENTAL PROTECTION

Jury Returns Historic Verdict in MTBE Case

On April 9, 2013, Attorney General Michael A. Delaney and NHDES Commissioner Thomas S. Burack announced that the jury returned a record $236 million verdit in the civil suit brought by the State of New Hampshire against ExxonMobil. It was the longest civil trial ever presented to a Merrimack County jury, lasting more than three months. However the jury returned a verdict in less than two hours. New Hampshire is the first state to bring MTBE litigation before a jury, seeking clean-up costs related to the contamination of the State's groundwater.

"By its verdict, the jury validated what we knew - Exxon was aware of the risks of manufacturing MTBE gasoline, but went ahead and added MTBE to New Hampshire's gasoline," said Attoney General Delaney. ExxonMobil attempted to blame the State for the groundwater contamination, a defense the jury rejected.

MTBE, or methyl tertiary butyl ether, is an additive designed to oxygenate gasoline, reducing carbon monoxide and ozone from engine emissions. The Environmental Protection Agency (EPA) classified it as a "possible human carcinogen" and it was banned from use in New Hampshire in 2007. The lawsuit initially included 15 other petroleum manufacturers, but all reached settlements prior to or just after the start of the trial on January 14, 2013.

Attorney General Delaney reported that his office will now work with NHDES to develop a plan to investigate eligible contaminated sites and clean up New Hampshire's groundwater. ■

Removal of MTBE contaminated soil at Lee Circle Mobil, Lee, New Hampshire

Commissioner's Column

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To help New Hampshire citizens get a sense of the State's environmental well-being, NHDES has created a web-based New Hampshire Environmental Dashboard, which can be found on the NHDES homepage at www.des.nh.gov. The dashboard provides the public with a basic status report on a short list of key environmental indicators, which can be viewed individually or collectively based on the reader's interest.

These indicators cover the spectrum of environmental topics including air pollution, coastal waters, contaminated property, drinking water, lakes, ponds, rivers and streams, waste management, water availability, and wetlands. The discussion of each indicator includes a summary of its current condition along with an evaluation of the current condition or trend represented by either a green circle indicating a positive condition or trend, a yellow triangle for a cautionary condition or trend, or a red square for a negative condition or trend.

Water sampling at Hampton Beach

For example, one of the indicators chosen to represent the health of our lakes, ponds, rivers and streams was beach advisories. NHDES collects water samples at public beaches during the swimming season and tests these samples for fecal bacteria to ensure protection of the public's health. NHDES issued 68 beach advisories in 2012, fewer advisories than in the three previous summers. On any day at any beach, the chance of an advisory being in effect was never more than 2.3 percent. This indicator, therefore, has a green or positive condition and trend.

More information for each indicator is available by clicking on the indicator, current condition or trend icon on the chart. This information provides a clear, concise explanation of each indicator and information on efforts by NHDES to addresses it through one of our programs or partnership organizations or with our volunteer groups.

While I wish I could say that all of our environmental indicators have a positive trend, that is unfortunately not the case. However, one of our goals of providing this environmental dashboard to the public is that it will help to educate interested residents on the current status of our environment. This kind of knowledge is valuable to all of us – NHDES, policy makers, businesses, non-profit organizations, and citizens of all ages and walks of life. Equipped with this knowledge, we are all better able to take the actions needed to protect our air, waters and land. I encourage you to check out our new environmental dashboard and to provide us with your feedback. We plan to continuously update and improve the data and information that we provide on the dashboard, so that all of our citizens and visitors can easily learn about the current status of New Hampshire's environment. We hope that you will take a look at the dashboard and use your newfound knowledge to help us to protect and restore New Hampshire's special environment. ■

Photo by Chris Bonner

ENVIRONMENTAL NEWS

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Largest Wetlands Fill in N.H. History

Torromeo Industries, Inc., has agreed to pay $700,000 in penalties to the State after it was discovered to have illegally filled approximately 12.5 acres of wetlands and diverted over a mile of perennial streams at its gravel mine and ready-mix concrete plant in Kingston, New Hampshire. It is believed to be the largest illegal wetlands fill in State history.

Under the agreement, Torromeo will provide 8,333 tons of stone and $175,000 in cash as payment for the penalties. The remaining $225,000 will be suspended on the condition that Torromeo complete wetland restoration of the site. Torromeo is required to restore 12.5 acres of wetland and nearly 800 feet of a diverted perennial stream, a project that is already underway. The agreement also protects 69 acres of wetlands and adjacent land owned by Torromeo on Bayberry Pond in Kingston. The stone will be used in the Suncook River and Leighton Brook stabilization project in Epsom, New Hampshire. This project will protect the Route 4 bridge and Black Hall Road from future flood damage.

Dredging or filling of wetlands is strictly prohibited under State law, unless an individual or company applies for and receives a permit to do so. Individuals or companies that illegally fill wetlands are required to remove the fill and restore the wetlands to the greatest extent possible. "Restoration is an important componenet of resolving all violations. We cannot allow a penalty for a violation to simply be a cost of doing business," said NHDES Commissioner Thomas S. Burack. "I am pleased that Torromeo has cooperated with the State and has already restored almost three acres of wetlands."

In a separate, federal action, EPA announced that Torromeo will pay a $135,000 civil penalty, implement a $500,000 Supplemental Environmental Project and implement a compliance program to resolve numerous violations of the Clean Water Act at its Kingston plant. The two enforcement actions arose from a joint inspection by EPA and NHDES in 2009. ■

The Torromeo gravel yard fill site. Credit: Google Earth

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Nonpoint Source Management Plan Update

We have a big job to do and we'd like your help.

The State's last Nonpoint Source Management Plan (Plan) was published in 1999. The Plan lays out specific actions to reduce the impacts of nonpoint source pollution in New Hampshire and improve water quality. While clean water is everyone's responsibility, the Plan recognizes NHDES's leadership role and acknowledges the full array of contributions by organizations and individuals to achieve results.

In addition to the Plan being out of date, EPA is requiring all states to update their plans by 2014 to remain eligible for federal Section 319 funds. With new program guidelines in place, EPA requires that Section 319-funded projects be listed in the Plan and that watershed projects must occur in priority watersheds.

While funding is important and is, in fact, driving the Plan update, we recognize the value of talking about what is needed in the state to keep clean water clean and to restore polluted water bodies. Since stormwater contributes to 80 percent of our polluted waters, it will take a concerted effort to achieve clean water over the long term. From individual homeowners to large companies, municipalities, watershed organizations, and state and federal agencies, all have a role to play in protecting and restoring clean water.

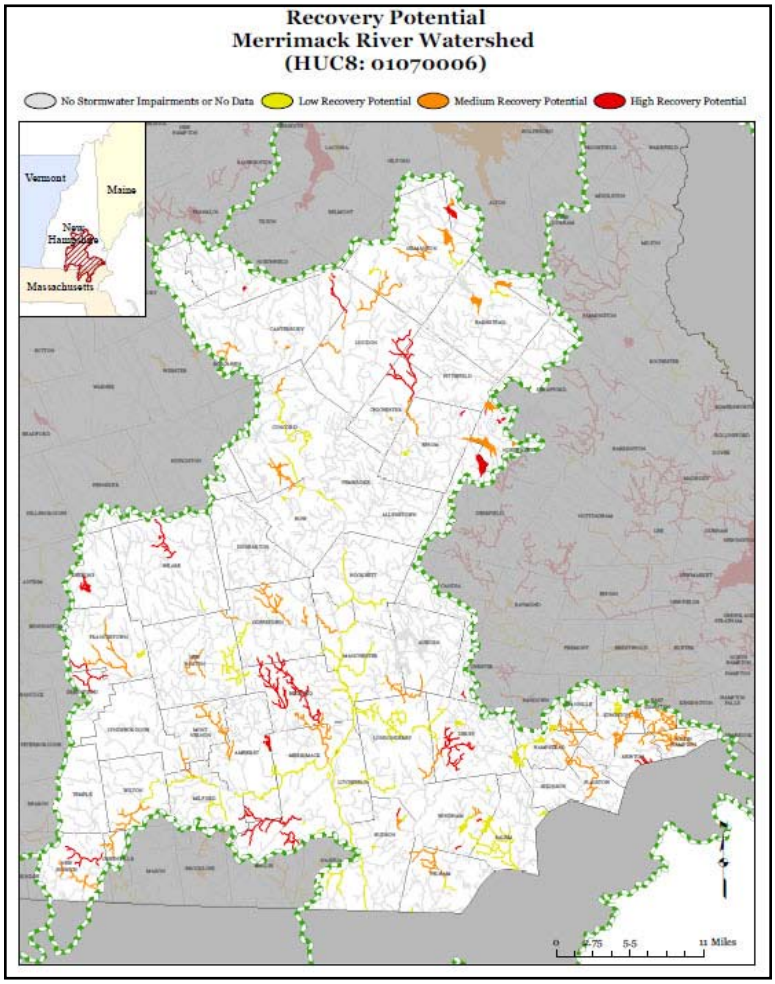
One of the most significant changes in the new plan will be identifying the priority watersheds for restoration and for protection of high quality waters. NHDES has chosen to use a science-based process to determine where to apply our collective resources most efficiently for clean water.

Using EPA's Recovery Potential Screening Tool (RPST), NHDES is generating a list of priority restoration and priority protection watersheds throughout the state. The top ranking watersheds on the lists indicate those with greatest likelihood that restoration or protection efforts will succeed in achieving or maintaining healthy water quality. To generate these lists, NHDES first delineated the watershed boundary for each stream segment, lake, pond, impoundment, or estuary in the state. We then gathered data on a variety of ecological, stressor, and social indicators for each watershed. RPST uses the indicator data to calculate a specific recoverability or protection score for each watershed to develop the priority ranking.

In addition to the priority watershed identification, the Plan will emphasize specific actions needed to address categories of nonpoint sources, such as stormwater, septic systems, and hydromodification, as well as other factors that magnify nonpoint source problems, such as climate change.

As more pollutant loading studies quantify the magnitude of pollutant reductions necessary to restore water quality, it has become evident that increased measures are needed to adequately address pollution sources on a statewide scale. Some examples of these measures include NHDES's Soak up the Rain program, where small-scale stormwater practices are built on properties in watersheds implementing watershed-based plans; salt reduction in the I-93 watersheds; the Lake Winnipesaukee Association's project to encourage septic system evaluation and replacement in the Lake Waukewan watershed; and NHDES's Fluvial Erosion Hazards program that identifies imbalance in natural stream systems.

We'd like to know your thoughts concerning our approach to the Plan update, the nonpoint source pollution issues we've discussed here, and other issues that you think should be priorities for the State. Remember that the Plan will include specific actions and milestones covering the next five years (2014-2018). Send your ideas to Jillian McCarthy at jillian.mccarthy@des.nh.gov. ■



Polluted waters in the lower Merrimack watershed are assigned priority codes based on restoration feasibility in this draft NPS Plan map.

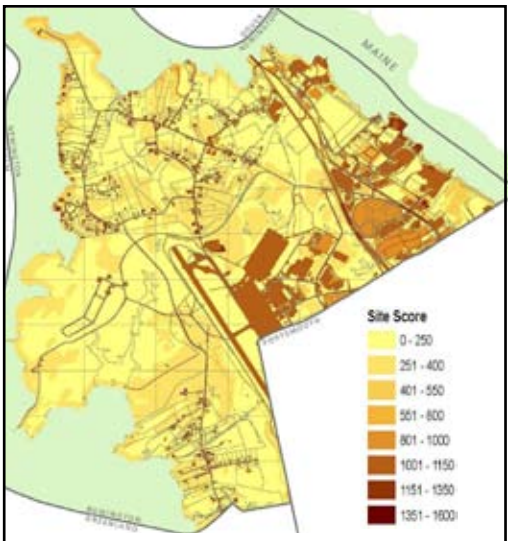
Great Bay "Biopalooza" Launched

What do you call a concerted effort to install stormwater bioretention practices at multiple locations in a watershed to get the most pollutant reduction possible? Biopalooza, of course.

The Great Bay Municipal Bioretention Program, otherwise known as "Biopalooza," was established through a partnership between the UNH Stormwater Center (UNHSC) and the Southeast Watershed Alliance (SWA) to assist watershed municipalities in implementing and tracking pollutant load reduction achieved through stormwater management.

Phase 1: Tools for Maximizing Water Quality Benefits

Phase 1 of the program includes optimization modeling of updated, watershed-wide impervious area (IA) data used to target pollution hotspots based on land use, zoning, soils, proximity to a water body, and other common GIS data layers. Stormwater-derived loadings were modeled and classified to identify hotspot locations for installation of cost-effective stormwater solutions that maximize pollutant load reductions.



Potential hotspots for Municipal Stormwater Remediation in the town of Newington. Higher scores indicate greater suitability for effective stormwater management solutions.

Effective selection and siting of stormwater treatment practices is highly dependent on location, thus using optimization modeling to target specific management approaches can result in strategic water quality improvements. Because IA is strongly correlated with land use and municipal zoning, modeling can offer reliable forecasts of current and future (buildout) pollutant loads for engineers, planners, municipal officials, and others seeking to prioritize expenditures to control stormwater pollution with maximum results.

Additionally, optimization modeling results can be used to develop a preliminary evaluation of discharges to impaired waters, as part of a Water Quality Response Plan for the new MS4 permit, and aid in implementation and tracking of municipal stormwater management programs.

Phase 2: Implementing On-the-Ground Installations

Coming this summer to a municipality near you – Biopalooza Phase 2 – where high-impact, high-visibility bioretention practices will be installed in Durham, Epping, Newington and Stratham. The systems will be sited, designed and installed in partnership with municipal staff, design engineers and UNHSC personnel. Results from the optimization model will be used to maximize water quality benefits and develop pollutant load reduction estimates for the installed practices.

As part of the project, the SWA and UNHSC will partner on the development of internet resources to facilitate bioretention implementation from optimization through installation. The web resource should be available soon.

For more information about Biopalooza, contact James Houle, UNHSC Program Manager, james.houle@unh.edu ■

Small Coastal Community Takes Great Steps Forward

The town of Newfields is better pared for extreme weather events with the help of a NHDES Coastal Program grant. Since Spring 2012, partners from the Coastal Adaptation Workgroup, led by the University of New Hampshire Cooperative Extension, have been working with Newfields residents to create an action plan to get the community ready for the impacts of extreme weather. Their action plan has focused on two key areas of adaptation: emergency preparedness and stormwater management.

Highlights of the action plan include a discount generator purchase program for Newfields residents led by the Newfields Chief of Police. Community members are currently signing up for the program. The planning board has also utilized a model stormwater regulation, originally prepared for the Southeast Watershed Alliance by the UNH Stormwater Center and Rockingham Planning Commission with funding by the NHDES Coastal Program, and revised it to fit its local site plan and review regulations.

Coastal Community *continued on page 6*

Promoting the Value of Drinking Water Infrastructure

According to a recent study on infrastructure needs, approximately 857 million dollars is estimated as needing to be spent on improving drinking water infrastructure in New Hampshire over the next 10 years. That figure is spread over the almost 2,500 public water systems that are regulated in the state, but will mostly affect the larger municipal systems due to aging pipes – many are over 100 years old.

Back when many of the water systems in New Hampshire were first installed, groups of investors, engineers, and innovators came together in a community with the shared commitment to improving public health, providing a means to fight fires, and to attract new industry to the area. Today, we benefit from their foresight. The quality of life in New Hampshire is among the highest – these pioneers and the tap water they promoted truly delivered.

Since then we've had and will continue to have the responsibility to steward the water systems that are so critical to the success of our economy and for the health and well-being of our children. However, because the cost of water service today is relatively inexpensive in most communities, we have under-valued this critical service, which in turn has often resulted in under-investment in the aging infrastructure. When it comes time for communities to vote on warrant articles to allocate funds for infrastructure replacement, they are often turned down. The problem then escalates as deferred projects all come due in a short span of time, and are inevitably more expensive when they fail and emergency repairs are needed instead of planned renewal or replacement.

To make matters worse, there is a perception that tap water is a less safe or convenient choice for the water we drink each day. One way to help improve this perception is by installing new access points like bottle filling stations that serve as a visible reminder to the public about the great product tap water truly is. Bottle filling stations allow building occupants to refill their personal bottles quickly and efficiently, promoting good health and the use of the building's water as a great way to promote sustainability and green practices. NHDES recently partnered with the City of Concord on a prototype installation at its Concord headquarters, complete with signage that reminds users of the source of Concord's water.

NHDES Commissioner Tom Burack and Phil Bilodeau, Deputy Director of General Services, City of Concord

New stations are being installed at schools, government buildings, and other public access points in many major cities across the country. Contact us to find out how you can get started with your own project and to learn more about promoting sustainable infrastructure in your community. ■

New Hamphsire River Council President Michele Tremblay and NHDES Commissioner Tom Burack sign a new, three-year partnership agreement.

Learn more about the NHDES Partners program at http://des.nh.gov/organization/commissioner/partners_program.htm

Coastal Community *continued from page 5*

To view the entire action plan go to http://library.constantcontact.com/download/get/file/1101388046438-483/Newfields+Action+Plan.pdf

Learn more about the Coastal Adaptation Workgroup at http://nhblog.stormsmart.org/

For more information on the Newfields project, please contact UNH Cooperative Extension staff Amanda Stone and Chris Keeley at amanda.stone@unh.edu or chris.keeley@unh.edu or 603-862-6707.

The funds for this project were made available to the NHDES Coastal Program through the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management.

Take Action to Reduce Summertime Air Pollution

Along with hot weather, summertime can bring increased levels of air pollution, especially ground-level ozone (smog), to New Hampshire. Unhealthy air is a significant concern for people who suffer from asthma and other respiratory diseases. When unhealthy air is expected, NHDES declares an Air Quality Action Day and advises people to take precautionary measures to protect their health.

On days when unhealthy air is forecasted, do the following to decrease air pollution:

- Conserve energy. Turn off lights, appliances, computers and other electronics when not in use. Use drapes on windows and fans to cool your home.
- Drive less. Postpone or combine errands; use public transit or carpool. Telecommute or teleconference when able.
- Turn off your engine. Don't idle cars and trucks, especially diesel vehicles.
- Refuel vehicles after 6 PM. Vapors released when gas is pumped are "cooked" in the sunlight and cause ozone and smog.
- Postpone outdoor work. Avoid using gasoline- and diesel-powered equipment, such as lawnmowers and generators. Avoid outdoor painting and use of solvents.

You can stay informed about current air quality forecasts by:

- Visiting www.airquality.nh.gov
- Calling the Air Quality Information Line at 1-800-935-SMOG.
- Signing up for EnviroFlash email notifications of air quality forecasts and action days at www.enviroflash.info.

For more information on the health effects of air pollution, call (603) 271-1370 or visit www.des.nh.gov A to Z List "Air Quality Forecast."

COMMUTE GREEN NEW HAMPSHIRE

Join us in an effort to reduce air pollution, encourage healthy lifestyles and save money spent on gas!

This year's goal is to eliminate 12,000 trips state-wide by Dec 31, 2013 by biking, walking, carpooling, or taking public transit!

May 13th is the kick-off to the season! New Hampshire residents and employees can log trips every time they commute green. To join in, visit http://www.commutegreennh.org/ ■

Just Say No to the "Drug Terminator"

Some local police departments have purchased a device called the "Drug Terminator," or similar device, to destroy illegal drugs and other evidence seized during investigations. There are specific regulatory issues related to this device, and there are also concerns about its impact on the surrounding community's health.

The primary regulatory issue is air toxics. Because the types and combinations of seized materials can vary considerably, it is difficult to clearly identify all the air toxics of concern without requiring the investment of several thousand dollars on emissions testing. A few expected air toxics include hydrogen chloride, dioxins and furans, and possibly certain metals depending on the types of materials seized.

Operation of these devices creates the potential for substantial dioxin and furan formation, with no control technology to remove or reduce this pollutant. The "Drug Terminator" units generally have little to no exhaust stack, which means that emissions from these units are dispersed directly into our breathing zone. Community members in the vicinity of this activity could be impacted by the emissions.

Another concern is proper ash management. The ash must be tested to determine if it needs to be disposed of as hazardous waste. If it is not hazardous waste, it must be managed in accordance with our solid waste rules.

While these units are not banned in New Hampshire, NHDES does not suggest these units for destroying illegal drugs. Those who purchase these units must show compliance with the state air pollution control and toxics rules. This requires investment in emissions testing several times the cost of the Drug Terminator. NHDES suggests police departments use the large municipal waste-to-energy incinerators that are properly designed and authorized to destroy these types of wastes.

For more information, please contact the Air Resources Division at (603) 271-1370. ■

Wetlands Rules Overhaul in Progress

NHDES continues to work on significant changes to the Wetlands Program rules, and has established a schedule that calls for extensive stakeholder input and the adoption of new rules by the end of 2014. The schedule calls for the ongoing work on draft rules to address many of the concerns expressed about the existing rules to be completed by the end of August, 2013. This draft set of rules will be used as a starting point for a series of public and stakeholder input sessions to be held from September 2013 to February 2014. At the conclusion of those sessions, NHDES will use the input received to create an Initial Proposal to take through formal rulemaking. The formal process is expected to begin in late April-early May 2014 and will include at least two public hearings on the proposed rules. Depending on the extent of revisions to the Initial Proposal, NHDES may prepare a Draft Final Proposal for additional public review as is now allowed by RSA 541-A. NHDES currently intends to file a Final Proposed Rule for review by the Joint Legislative Committee on Administrative Rules at its September or October 2014 meeting.

In conjunction with this effort, NHDES has initiated a rulemaking proceeding to readopt the existing rules in Env-Wt 300-700 that would otherwise expire in April 2013 without change, so that resources can be focused on the new rules. NHDES also has initiated a rulemaking proceeding to readopt Env-Wt 200 with amendments to reflect statutory changes, but will remain open to making further revisions in conjunction with the work on the other chapters.

Although we will be working hard to get the word out to our stakeholders, please check the NHDES web site in early September to see the draft rules and schedule of public/stakeholder input sessions. We look forward to working with you, our stakeholders, to reach the goal of implementing new, comprehensive and clear Wetlands Program rules by the end of 2014. ■

Photo by Kathryn Michener

NHDES paid tribute to Steve Couture, NHDES Coastal Program Manager, who is scheduled for deployment to Afghanistan with the other members of the NH/MI 238th MEDEVAC Unit this spring. NHDES staff formed an informal "honor guard" line stretching from the third floor of the building and into the parking lot. NHDES wants to thank Steve, his family and all of our armed service members for their service to our country.

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