

COMMISSIONER'S COLUMN

Is a "greener" lawn a better lawn?

After the long winter we had and the slow start to spring, my wife and I are certainly itching to get outdoors and start enjoying our yard. Most, if not all of us take pride in how our landscaping and lawn look. When it comes to lawns, we have all been conditioned to believe the greener the better, because green is good for the environment, right? Not necessarily so! In an attempt to get the desired "green" look, many homeowners apply unneeded chemical fertilizers and pesticides to their lawn without realizing the harm to the environment they can cause. With a few minor changes to your garden and lawn care routine, you can achieve the desired "green," while saving yourself both time and money.

You can start by taking a close look at your landscaping and gardening practices. Do you need all that lawn? Reducing the size of your lawn will not only save you time and money from mowing, watering and fertilizing, but

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LOGGING & THE ENVIRONMENT

There are right ways to harvest timber

Timber best management practices are practical, low-cost techniques designed to control and disperse water on truck roads, skid trails, and log landings. Best management practices, or BMPs, if properly constructed, minimize erosion and reduce sedimentation to wetlands and surface waters. In New Hampshire, loggers and landowners are required to follow *Best Management Practices for Erosion Control on Timber Harvesting Operations in New Hampshire*, published by the Division of Forests and Lands of the Department of Resources and Economic Development.

Disregard of best management practices may have significant environmental consequences. Crossing streams and wetlands without proper crossing devices, or improperly installed crossing devices, can lead to water quality degradation, sedimentation to wetlands and streams, excessive soil compaction, and severe rutting. Sites where timber harvesting operations are conducted in such a manner, even if restored, may take years to recover and if not properly restored, may result in the inadvertent creation of more



wetlands.

Ensuring compliance with timber harvesting BMPs is the responsibility of the DES Wetlands Bureau, which, in cooperation with the Division of Forests and Lands, investigates allegations of improper logging practices related to wetlands and surface waters. Although only approximately 10 percent of the 300 to 400 complaints received by the DES Wetlands Bureau annually involve timber harvesting operations, these cases are difficult to investigate and are time consuming to pursue. Very often, the operation involves sometimes hundreds of acres of land. Every location where BMPs are not used, and which result in a wetlands violation, is documented and photographed. If water quality violations are observed, water samples are collected and analyzed

Timber BMPs, *continued on page 2*

Timber BMPs

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at the DES lab for water clarity, known as turbidity.

Recently, New Hampshire Attorney General Michael Delaney announced that superior courts in Grafton and Merrimack counties had approved a settlement in a civil lawsuit filed by the state against three individuals for violating state laws and regulations relating to their failure to use best management practices at two logging sites. As a result, numerous wetlands and streams were filled with mud and sediment, and other wetlands and streams were damaged through the use of logging equipment on improperly designed crossings.

The settlement imposes a \$100,000 penalty against the defendants, half of which will be permanently suspended if the defendants do not significantly violate state wetlands laws in the next five years and if they become certified



Adhering to best management practices for timber harvesting can keep environmental damage such as this from happening.

in the New Hampshire Timberland Owners Professional Loggers Program.

A permit from DES may be required before conducting a timber harvest in

which equipment will cross wetlands and surface waters. For more information, contact the DES Wetlands Bureau at (603) 271-2147. ■

New forestry guide published

After over two years and many hours of discussion, writing and revisions, the second edition of *Good Forestry in the Granite State – Recommended Voluntary Forest Management Practices for New Hampshire* is ready for distribution. The guide gives landowners, and the professionals who work with them, practical recommendations to care for their woodlots. Originally published in 1997, the revision of *Good Forestry* incorporates advances in knowledge and changes in forestry markets, practices and state laws. A 24-member steering committee, representing conservation organizations, state agencies, and the forest industry led the revision.

The 225-page guide comes in a three-ring binder format and includes a CD. Copies are \$25 apiece and can be ordered on-line at www.goodforestry.org, or ordered by mail by sending a \$25 check made payable to “UNH Cooperative Extension” to Forestry Information Center, 211 Nesmith Hall, 131 Main Street, Durham, NH 03824. For further information call 800-444-8978. ■

ENVIRONMENTAL NEWS

Environmental News is published six times a year by the N.H. Department of Environmental Services.

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Rick Chormann named as new State Geologist

Frederick H. "Rick" Chormann, Jr. has accepted the position of State Geologist and Director of the New Hampshire Geological Survey. Rick is eminently qualified for the job, with his many years of state service, including, most recently, as Acting State Geologist. This past winter, Rick was honored with the David S. Chase Memorial Award for Outstanding Achievements in Science. Congratulations, Rick!

Hydrography dataset updated for New Hampshire

The New Hampshire Hydrography Dataset, or NHHD, is a GIS representation of the surface water features in the state. The NH Geological Survey recently announced that an updated copy of the state's implementation of the National Hydrography Dataset is now available on-line at [\\desgis2\data\arcdata\nhgs\NHDinGEO](http://desgis2\data\arcdata\nhgs\NHDinGEO). This updated version of the NHHD incorporates revisions to the location of surface water features and their attributes based on the most recent high-resolution orthophotography.

Previously reported errors and other known data quality issues have been resolved. Revisions primarily include the correction of surface water features that were either digitized incorrectly or have changed their position since they were originally mapped on the USGS 1:24,000 scale USGS topographic quadrangle maps. In addition, a change to the underlying data model has been fully implemented. Important differences from the older data model are the integration of the most recent watershed boundaries and a change in the way they are named. As a result of these changes, users will find broken links in previously created map documents.

As formal steward for the hydrography dataset, NHGS welcomes suggestions for areas of improvement and requests that erroneous names, attributes, or geometries of features be reported whenever they are identified. Please contact Neil Olson, DES assistant hydrogeologist, at neil.olson@des.nh.gov or at (603) 271-2875 with any errors or suggestions. ■



NHHD flowlines displayed on a topographic map.



Commute Green New Hampshire 2011

Commute Green New Hampshire, the annual promotion to encourage people living and working in New Hampshire to choose inexpensive, healthier and more environmentally-friendly transportation options, is challenging commuters to reduce 50,000 miles driven from May 16-20.

Commute Green New Hampshire's primary goal is to encourage people to carpool, bicycle, walk and use public transportation to work, school, shopping and similar trips from May 16-20, which coincides with the 55th Annual National Bike/Walk to Work Day on May 20. Commute Green New Hampshire also provides people and employers with resources on how to start using those transportation methods.

Commute Green New Hampshire is also a time for fun and friendly competition. Registration for employer teams opens April 18th and will remain open until May 2 on the Commute Green New Hampshire website, www.commutegreennh.org. Registering a team takes two minutes to do and ensures your business, co-workers and friends will get to enjoy the fun.

Individual registration will open on May 16 when people will get to affiliate with the teams their team captains created. The website will also feature a leader board display so that teams and individuals across the state can see how they are doing against each other in real time.

For more information, go to the Commute Green New Hampshire website at www.commutegreennh.org or Facebook page at www.facebook.com/CommuteGreen or call (603) 226-6020. ■

REWARDING EXCELLENCE

Recognizing the commitment to energy efficiency

Once again, the annual Energy Conference means honoring some special people and agencies that have made a commitment and a contribution to energy efficiency. On April 15, the following awards were presented.

Model Energy Agency: Dept. of Information Technology

DoIT was instrumental in the relaunch of the Kilowatt Countdown. This automatically deployed energy-saving settings to employee PCs. In addition, DoIT has taken on the first phase of a server virtualization project. One hundred twenty-five stand-alone servers are being replaced with six virtual units which will greatly reduce the electric load of the facility. The virtual server project is 100 percent funded through the American Recovery and Reinvestment Act (ARRA).

Outstanding Energy Initiative: LEED Buildings in State Government

Several agencies have taken the initiative to build or renovate their buildings above-and-beyond the state's energy code requirements. The Community College System, the Liquor Commission, and the Bureau of Court Facilities were

all honored for their LEED certified buildings. LEED, as it is known, stands for Leadership in Energy and Environmental Design, and requires a facility to meet energy efficiency, water efficiency and emission reduction requirements. Additionally, a commitment to improved work environments and using local or recycled resources can earn a facility a silver, gold or platinum rating.

State Energy Champion: Beverly Kowalik, Dept. of Administrative Services, Bureau of Public Works

Beverly Kowalik was chosen as this year's State Energy Champion. Beverly has led a tireless effort managing over \$10 million in ARRA energy projects while still completing the tasks of her regular job. In addition to managing the ARRA projects, Beverly is also the lead engineer on the largest ARRA project – a \$3.8 million biomass cogeneration plant and upgraded hydro-electric system at the Glencliff Home. This project will eliminate much of the fossil fuels burned at the Glencliff Home and will make Glencliff a leader in renewable energy in New Hampshire. ■



At the New Hampshire Employee Support for Guard and Reserve (ESGR) Committee's "Annual Training and Awards Conference" held recently in Portsmouth, DES received the "Pro Patria Award" for its support of SGT Steven Couture and his unit, C. Company, 3rd Battalion, 238 Aviation Regiment (Medevac). The Pro Patria award is the highest level of recognition the state ESGR can present to an employer, and signifies the employer's support that goes above and beyond what is required by federal or state law. Pictured here, from left to right, are State ESGR Chairman Ted Kehr; Rene Pelletier, Assistant Director, DES Water Division; SGT Steve Couture, DES Rivers Coordinator; ESGR National Executive Director Ron Young; and MG William Reddel, New Hampshire National Guard TAG.

Waste Management Conference, May 17

The 2011 Business and Industry Association/Dept. of Environmental Services Waste Management Conference will be held on May 17 from 8 a.m. to 4 p.m. at the Center of New Hampshire in Manchester. The main topics include DES Waste Management Division updates; case studies of practical techniques for bedrock investigation; arsenic at contaminated sites; 1,4 dioxane removal using point-of-entry treatment techniques; vapor intrusion; BMPs for rock blasting activities to protect groundwater; photovoltaic solar arrays on landfills; hazardous building surveys; and professional ethics. The intended audience is environmental consultants, contractors and attorneys. For more information, please go to the BIA's home page at www.nhbia.org/ and click on "Events." ■

DES-sponsored solid waste training suspended

Due to a number of factors, all DES sponsored continuing education classes for solid waste facility operators are temporarily suspended. When classes begin again, DES will notify all certified operators. In the meantime, certified operators are encouraged to fulfill their continuing education training requirement by participating in any approved non-DES sponsored training opportunities.

The delay in training classes does not mean you can delay renewing your certification. You must still file a renewal application with the required application fee before your current certification expires. If you have not fulfilled the continuing education requirement because you were signed up to attend one of the cancelled classes and have been unable to participate in one of the alternative non-DES training opportunities — you will be automatically granted extended certification provided you file your renewal application with fee and fulfill the continuing education requirement soon after the DES classes resume.

For more information, please see the [DES solid waste operators website](#). ■

“Beach Karma” puts humorous twist on a messy issue

For dogs and their owners, ocean beaches are wonderful places to walk, run and play! Wahoo! It's like doggy heaven with all the water, smells, sticks, seagulls, kids, sand, other dogs ... you name it!

There's also a lot of dog poop—which may be fun for the dogs, but no one else. And dog owners who don't scoop the poop run the risk of experiencing “beach karma.”

“What's ‘beach karma?’” you may ask.

You'll have to watch the new video-PSA produced by the Blue Ocean Society and DES, which humorously illustrates the need for dog owners to pick up after their pets when on the beach.

Humor aside, dog waste left anywhere is a potential public health risk. Pet waste on beaches, playing fields, sidewalks or even backyards is unhealthy and messy. Unlike those pesky disks that washed up on coastal beaches this winter, dog feces contain high levels of *E. coli* and other bacteria. Burying dog feces in the sand is not a solution either, since children digging in the sand may uncover the waste (eww!). Additionally, bacteria in the sand supply bacteria to the water as tides or water levels fluctuate. Who wants a closed beach on a hot summer day because of high bacterial counts? It happens.

So please pick up after your dog or run the risk of beach karma. Less dog waste on beaches and in watersheds means a happier and healthier community for all!

To view “Beach Karma,” please go to the Blue Ocean Society website at http://www.blueoceansociety.org/Research/pet_project.html.

To start a community campaign to promote “scoop the poop,” please see www.des.nh.gov and go to “Pet Waste Outreach Campaign.” ■



Wastewater treatment disks found far-a-stream

By now many of you are aware that lots of small, white, circular shaped mesh disks were released into the Merrimack River from the Hooksett wastewater treatment facility on March 6, 2011 following heavy rainstorms. The town originally indicated that 10 percent to 20 percent of the disks used in the treatment tanks may have been released, or an estimated 4 million to 8 million disks. In late April, the estimation of released disks was lowered to approximately 4.3 million. While the 1.75-inch disks were considered solid waste and safe enough

to be disposed of as trash, the sheer volume of disks created a monumental cleanup task downstream, particularly on the New Hampshire and Massachusetts beaches closest to



the mouth of the Merrimack River. It is estimated that at least 3.3 million have been cleaned from those beaches. The disks have since been found, in smaller numbers, on beaches as far north as York, Maine and as far south as Cape Cod, Mass. For more information about the event, please see <http://des.nh.gov/organization/divisions/waste/orcb/srcis/hooksett-wwtp-incident.htm>. ■

Freshwater beach sampling by DES likely to be suspended

As of press time, it appears likely that, commencing with the summer of 2011, state budget reductions will result in the elimination of a DES program that has historically collected and analyzed water samples for bacterial contamination at many public freshwater beaches. In the event that continued state funding for this program is not provided, DES is urging municipalities, beach associations and others who have historically relied on this program for this service to be prepared to provide their own sampling and inspection efforts to ensure that beach water quality is adequately monitored and is safe for bathing. Implementation of a well-designed sampling program will help minimize the exposure of swimmers to elevated levels of bacteria during times when these may be at unacceptable levels. DES also encourages beach users to check with beach managers on whether

water quality has been recently tested and the testing results.

While site visits and sampling by DES staff will not occur, state laboratory personnel will continue to serve as a resource for organizations that submit samples to the state water laboratory in Concord. Water samples will be analyzed for bacteria for \$20 per sample and the results will be explained. Notification of unacceptable bacteria results will be provided within 24 hours. More information on how to collect and submit beach water quality samples is available at <http://des.nh.gov/organization/divisions/water/wmb/beaches/index.htm>.

Everyone who manages or uses beaches should also be on the alert for water with blue-green colored “blooms” or scum layers near beach areas and report these to DES for advice or follow-up. These blue-green blooms are likely to be dense cells of cyanobacteria and a serious concern. Cyanobacteria may produce toxins that can adversely affect domestic animals, livestock and humans. Dog fatalities have occurred in other states from consumption of water containing high concentrations of cyanobacteria cells. Human exposure to toxic cyanobacteria scums may cause various symptoms, including nausea, vomiting, diarrhea, mild fever, skin rashes, and eye and nose irritations.

DES staff will continue to respond to calls concerning cyanobacteria blooms and will inspect and collect samples of



Brewster Beach in Wolfeboro.

reported blooms whenever possible. Water users or beach managers may collect and deliver samples of suspected cyanobacteria blooms to DES for analysis and advice when concerns exist. DES will also continue to provide guidance on the appropriate actions for beach managers to take, such as posting of beach advisories and issuing lake-wide warnings, when cyanobacteria outbreaks exist. The existing on-line system to post cyanobacteria warnings and advisories will continue at www.des.nh.gov.

In addition, two important beach sampling programs will continue. DES will still implement the sampling program for New Hampshire’s saltwater beaches along the coast, using resources provided by a federal grant under the Beaches Environmental Assessment and Coastal Health Act dedicated to this purpose. In addition, beaches at licensed youth camps will continue to be inspected and sampled as part of the seasonal inspections of these facilities.

Please direct questions and material requests to Teresa Ptak at (603) 271-8803 or teresa.ptak@des.nh.gov; Jody Connor at (603) 271-3414 or jody.connor@des.nh.gov; or beaches@des.nh.gov. ■

Freshwater Beach Inspections

Historically, DES inspects freshwater beaches during the summer months. The following statistics were collected between June 21 and Sept. 3, 2010.

Total number of inspections at public-accessed freshwater beaches: 652

No. of beaches inspected:	158
No. of federal beaches:	1
No. of state beaches:	22
No. of town beaches:	123
No. of privately-owned beaches:	12

652 inspections yielded a total of 1,592 **E.coli** samples taken.

No. of E.coli violations:	183
No. of beach advisories:	57
No. of beaches affected:	47

652 inspections yielded a total number 90 **cyanobacteria** inspections.

No. of cyanobacteria advisories:	10
No. of beaches under advisories:	9
No. of cyanobacteria warnings:	12
No. of lakes under warnings:	12

Stormwater management for homeowners

DES has released two new tools to help homeowners better manage “stormwater”: the water running off their properties during storms.

The New Hampshire Homeowner's Guide to Stormwater Management: Do-It-Yourself Stormwater Solutions for Your Home provides fact sheets with step-by-step instructions to install stormwater treatment practices that homeowners can do themselves, such as dry wells and rain gardens. These stormwater treatment practices help protect nearby streams and ponds from water pollution, and help reduce flooding, create wildlife habitat, recharge groundwater, and conserve water resources.

The second tool, *The New Hampshire Residential Loading Model*, is a modeling tool for homeowners to estimate the amount of nutrients, specifically phosphorus and nitrogen running off of their properties.

According to DES Water Division Director Harry Stewart, “our intent is to provide homeowners and local building officials with a simple tool to identify cost effective ways to offset potential impacts to water resources.”

Both resources are available at www.des.nh.gov by entering in “Stormwater Management” in the “search this site” at the top right of the DES home page. For more information please contact Eric Williams at (603) 271-2358 or at eric.williams@des.nh.gov. ■

Perfecting their craft



DES in conjunction with the Karner Blue Toastmaster's club has initiated a quarterly “speechcraft” workshop to help improve the public speaking and presentation skills of staff. The first class of “speechcrafters” graduated this spring. Pictured here are: (front row) Melanie Doiron, mentor; Jessica Morton, mentor; Sue Francesco, mentor; Barbara Dorfschmidt; DES Commissioner Tom Burack; Tara Mae Albert; James Martin; Alicia Carlson, mentor; (back row) Paul Gildersleeve; Mike McCluskey; Rick Rumba; Kerry Barnsley, course leader. (Not all graduates are pictured.)

Recent retirees

Please join us in bidding a fond adieu to the many DES staff members who have served the state for more than 20 years, and who have retired within the last year. Thank you for all you have contributed to DES!

Barbara Fales, ARD Technical Services, 7/1/10

David Chappell, WD Dam Bureau, 11/1/10

Real Mongeau, WD Subsurface Systems, 12/1/10

Kathleen Brockett, ARD Technical Services, 1/1/11

Richard Thayer, WD Drinking Water & Groundwater, 1/1/11

Frederick Gobeille, WD Winn. River Basin, 1/1/11

Thomas Beaulieu, WMD Oil Rem. & Comp., 2/1/11

Gail Fraser, Comm. Office, 2/1/11

James Gill, WD Drinking Water & Groundwater, 3/1/11

Vernon “Chris” Hipkiss, WD Winn River Basin, 3/1/11

Alan Leach, WD Drinking Water & Groundwater, 3/1/11

Kenneth Kettenring, WMD Haz. Waste Mgt., 4/1/11

Robert Mann, WD Drinking Water & Groundwater, 4/1/11

Carl Woodbury, WMD Oil Rem. & Comp., 4/1/11

Robert Lyon, CO Laboratory Services, 5/1/11

Patricia Siekaniec, CO Laboratory Services, 6/1/11

Michael Galuszka, WMD Oil Rem. & Comp., 6/1/11

Thomas Andrews, WMD Haz. Waste Mtg., 6/1/11

Lorraine Aldo, CO Facility Services, 6/1/11

Paul Currier, WD Watershed, 6/1/11

Sandra Kocher, Comm. Office, 6/1/11

Brian Phelps, CO OSHA Consultation, 6/1/11

Judith Ladd, CO Accounting, 6/1/11

Steven Beyer, CO OSHA Consultation, 6/1/11

Commissioner

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it will also save our streams, rivers, lakes and ponds from runoff of nutrients in fertilizers, and harmful chemicals in pesticides. Reduce the size of your lawn by planting attractive native groundcovers, trees, flowers and shrubs that naturally help water infiltrate into the ground and prevent soil erosion or stormwater runoff.

How healthy is your soil? Test your soil to know what it actually needs or doesn't need before applying fertilizer or lime. If you must fertilize, select a slow release fertilizer or organic fertilizer to avoid excess nutrients running into streams and nearby waterbodies. Extra nutrients, like nitrogen and phosphorus, produce algal blooms in waterbodies and increase aquatic plant growth. Their eventual decay depletes oxygen needed by fish and other aquatic creatures, thus choking the life out of the waterbody. Remember, if streams or waterbodies are nearby, even slow release or organic fertilizers can have an impact, so apply no closer than 25 feet to the shoreline.

Do you use compost? Professional landscapers and gardeners suggest adding organic material to your soil by mulching your plantings and top dressing your lawns with compost. Compost will reduce the need for fertilizers and water by adding organic material and helping the soil retain more moisture.

The New Hampshire Department of Environmental Services has several articles and fact sheets that provide useful information and tips on environmentally conscious lawn care on our website at www.des.nh.gov. Another good source of free information about New Hampshire gardens and lawns, soil testing, native plants, composting, and more, is the UNH Cooperative Extension Family Home & Garden



"Red Trillium (Trillium erectum)," by Heather Pike, Department of Information Technology at DES. From the 2007 DES Photo Contest.

Education Center at <http://ceinfo.unh.edu/FHGEC/FHGEC.htm> and its info-line at (877) 398-4769.

Sometimes I find it helpful to take a step back and remember that it's just grass—it doesn't need to be the perfect shade of green, and the more there is of it, the more work we're compelled to put into it. Healthy lawns are naturally green, safe for children and pets, and a lot less work!

Tom Burack, *Commissioner*



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