

## COMMISSIONER'S COLUMN

### Get Ready for the Next Storm Now

“New Hampshire Hit Hard by Storm-Related Power Outages.” Does this newspaper headline sound familiar? If it doesn't, it should. According to the New Hampshire Public Utilities Commission, the recent snow storm the day before Thanksgiving resulted in the 4th most storm-related power outages. Since 2008 New Hampshire has experienced the top six storm-related power outages in our state's history. That is just in the past seven years.

These data are evidence of the fact that we in the northeast are experiencing more extreme weather as a part of the impacts from climate change. Studies performed by the UNH Institute for the Study of Earth, Oceans, and Space indicate that these increases have become more prominent since the 1970s. Higher air temperatures allow more water to be held within the atmosphere, and, when that moisture is released, it results in more intense precipitation events.



*Thanksgiving Day Storm - image courtesy PSNH*

To become better prepared to handle these events, it is important that we all plan ahead – individuals, municipalities, state and federal government. As individuals and families, we need to pay attention to weather reports for strong storms. We should all have a personal/family preparedness plan for emergencies or storm events, and don't forget about your pets or livestock. Be prepared to be without electricity for several days. Be sure to have potable water and non-perishable food and batteries on hand. When a winter storm hits, like the Thanksgiving

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### NHDES Awards Wetlands Protection Grants

#### \$1,077,943 Provided to Ten Projects

The New Hampshire Department of Environmental Services Aquatic Resource Mitigation (ARM) Program has awarded funding from the Aquatic Resource Mitigation Fund for ten projects totaling \$1,077,943.

The NHDES ARM Fund, established by law, is a mitigation option for certain projects impacting wetlands and when other forms of mitigation are not available. An ARM Fund Site Selection Committee is charged with identifying proposals to be funded by selecting high priority projects that most effectively compensate for the loss of functions and values from the projects that paid into the Fund. According to the law, the projects determined to be appropriate for receipt of ARM Fund monies are subject to approval by the US Army Corps of Engineers and the NH Wetlands Council.

#### Projects receiving funds include:

##### Pemigewasset-Winnepesaukee River Service Area:

- \$64,236 for the protection of 27.44 acres of land and one mile of shoreline on Lake Wicwas in Meredith. The Lakes Region Conservation Trust and Lake Wicwas Association will permanently protect four separate

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## Commissioner's Column *continued from page 1*

storm, use your refrigerator as a cooler: pack plastic containers with snow and place them in the refrigerator. This will help the food stay cold and prevent unnecessary spoilage. The New Hampshire Department of Safety's Division of Homeland Security and Emergency Management has created [www.ReadyNH.gov](http://www.ReadyNH.gov), which provides all the information needed to help citizens and households prepare for the next big storm.

NHDES is helping many municipalities with their emergency preparedness and adaptation planning. Our flood and geologic hazards program, in partnership with numerous units in NHDES and other state agencies, is providing ongoing technical expertise and data to towns and citizens to better inform them about how rivers meander, especially during high flow events. Knowledge of river dynamics before, during and in the recovery stage from a flood event can help to reduce impacts in the future.

The Drinking Water and Groundwater Bureau and Wastewater Engineering Bureau are both promoting preparedness to municipalities during operator training sessions and in other venues. We are advising municipalities to update and utilize their emergency plans, have generators on site, or at least have a power transfer switch to readily accept mobile generators. Communities are also advised to evaluate their systems' risk to flooding and take protective measures in advance of storms as necessary, including flood-proofing buildings, raising system components. We're also encouraging energy efficiency measures, which will reduce the release of greenhouse gases to help avoid the worst impacts of climate change, as well as enable facilities to operate on lower power during emergency conditions. We are reviewing design requirements and may be proposing changes to regulations pertaining to new systems and components, to provide greater protection against flooding.

By preparing, communities can avoid significant costs, whether economic, social or ecological. In an effort to plan for future events and develop strategies for adapting, communities are incorporating climate change into their existing planning efforts. A Workgroup of the NH Energy & Climate Collaborative has developed an Adaptation Toolkit (<http://des.nh.gov/organization/divisions/air/tsb/tps/climate/toolkit/learn.htm>) that provides communities with a path to take in planning for future extreme weather events.

Extreme precipitation events are the "new normal." These new normal conditions now affect important public infrastructure, local economies, public health, natural resources, and our homes and will continue to do so throughout New Hampshire. Residents and communities need to plan and prepare for these impacts while we all continue our work to decrease our contribution to a changing climate. ■

## This Season, Let's Celebrate Water

By Curt Spaulding, EPA Region 1 Administrator

Article originally published December 12, 2014

There's more to celebrate this month than just the holidays – this month also marks the 40th anniversary of the federal Safe Drinking Water Act.

We all rely – and have come to expect – that plenty of clean water will flow from our faucets whenever we need it. Whether for drinking, cooking, or bathing, water plays an obvious role in our daily lives.

It's hard to imagine then, that 40 years ago all sorts of pollution -- sewage, chemicals, and trash -- was carelessly dumped into our rivers, lakes, and streams. More often than not, this contamination would find its way into our drinking water. Back then we lacked the authority, science, technology and funding to adequately tackle the problem.

The passage of the Safe Drinking Water Act by Congress in 1974 changed all that. This law proved to be a giant step forward in protecting public health. In fact, it sets the U.S. apart as one of the world leaders in drinking water protection.

The Act specifically allows EPA to regulate the nation's public drinking water supplies by setting and enforcing national standards for drinking water quality. EPA now has drinking water regulations that protect us from more than 90 contaminants, including bacteria, disinfectants, inorganic and organic chemicals, and radioactive materials. Approximately 12.5 million New Englanders

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### ENVIRONMENTAL NEWS

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## **Wetlands** *continued from page 1*

parcels in the northeast part of the lake.

### **Salmon Falls to Piscataqua River Service Area:**

- \$121,000 to permanently protect the former Rand Lumber Yard property located on Wallis Road in Rye. The purchase of 73+/- acres of land which will contribute to existing protected lands and the upland buffers.
- \$100,000 to the Town of Exeter to remove the Great Dam in downtown Exeter. The project has the opportunity to benefit the diadromous fish populations in the Exeter River and the wider Great Bay Estuary and reduce Exeter's vulnerability to the growing risk of flooding.
- \$15,000 to permanently protect approximately 8 acres of wetland and 24.18 acres of upland buffer in the regionally significant Spruce Swamp in Fremont. The Spruce Swamp Area and its surrounding forest are one of the few wilderness areas remaining in southern New Hampshire.
- \$100,000 for the replacement of an undersized culvert with a precast concrete bridge structure that will restore full stream connectivity of Thompson Brook. Successful completion of the project will provide spawning and rearing habitat for brook trout and diadromous species of concern including river herring (both blueback and alewife).

### **Merrimack River Service Area:**

- \$75,000 for the acquisition of six (6) parcels owned by Manchester Sand and Gravel for the conservation of 218 acres of land in Hooksett. The project will combine Bear-Paw Regional Greenways ownership with a conservation easement held by the New Hampshire Fish and Game Department.
- \$197,707 to permanently protect approximately 86 acres of land located on Guinea Ridge Road in Gilmanton. The parcel will protect approximately 21 acres of wetlands and 65 acres of upland along a significant wetland and perennial stream resource located in the BRCC Focus Area.
- \$150,000 to permanently protect the undeveloped 177-acre Shost property through the purchase of a conservation easement to be held by the Society for the Protection of NH Forests.

### **Lower Connecticut River Service Area:**

- \$115,000 to improve aquatic organism passage by removing the Falls Brook culvert located on Hale Hill Road. The project will provide approximately 15 miles of barrier-free passage which is an area of excellent brook trout thermal refugia and spawning habitat.

- \$140,000 to the Monadnock Conservancy for the acquisition of two conservation easements on the 552-acre West Hill Property in Keene, Swanzey & Chesterfield. These easements will protect: 25.8 acres of wetland; 526.2 acres of upland; approximately 16,850 feet of streams; 13 potential vernal pools; and 3 known vernal pools.



*Hinman Pond II Project, Hooksett, NH*

For more information on the NHDES Aquatic Resource Mitigation Program, visit the NHDES website at [des.nh.gov](http://des.nh.gov) and use the A to Z list to find the program page or contact NHDES Mitigation Coordinator, Lori Sommer, at [lori.sommer@des.nh.gov](mailto:lori.sommer@des.nh.gov) or (603) 271-4059. ■

## **Water** *continued from page 2*

benefit from the clean and safe public drinking water, ensured by the protections of the Safe Drinking Water Act.

In addition to its regulatory responsibilities, EPA works in partnership with community water systems to improve their technical and financial capabilities in delivering safe drinking water. Since 1997, the Drinking Water State Revolving Fund has provided funding for drinking water infrastructure projects, including the repair and replacement of pipes for transmission and distribution of water and storage.

Ray Raposa, Executive Director of the New England Water Works Association acknowledged "the passage of the Safe Drinking Water Act not only raised the level of attention to public health by regulating public drinking waters nationally, but also ushered in a great period of partnership between water suppliers and EPA. We still have a few remaining challenges, but we should take time to celebrate the great progress we've made in protecting public health."

So this holiday season, let's raise a glass and toast to 40 years of progress from source to tap!

To learn more about the history of drinking water protection in the U.S., visit <http://www2.epa.gov/safedrinkingwater40>.

## 2014 Employee of the Year - Amy Smagula

NHDES supports a rewards and recognition (R&R) program to recognize truly outstanding work performed by a single individual during the current year. Criteria for selecting the recipient include a person's impact on NHDES, demonstrations of initiative and leadership, improved efficiency, participation in Lean activities, improvement of inter/intra-agency cooperation, innovativeness and effective customer service. Candidates are selected by the NHDES R&R Committee; that then recommends to the Commissioner the most deserving candidate for this year-end award. Since the inception of the R&R program, fewer than a dozen individuals, selected from more than 420 members of staff and management, have been honored in this way.

our waters. Her work days include night meetings and her work weeks don't end on Fridays as Amy is booked for annual lake meeting presentations nearly every Saturday from June to August. The summer of 2014 was typical for Amy and a couple Saturdays had her present at a morning meeting, only to run to an afternoon meeting at another lake to honor commitments to her invaluable stakeholders. The return investment of these Saturday presentations was realized this summer when volunteers trained by Amy contacted NHDES when they found milfoil in Beaver and Baboosic Lakes for the first time. Within 24 hours of each call, Amy mobilized her team, verified the type and scope of infestation, organized a response plan, implemented that plan, conducted follow-up inspections, and now, both lakes are free of milfoil.



Amy Smagula, Limnologist and Exotic Species Program Coordinator in the Watershed Management Bureau's Biology Section, was selected as the 2014 NHDES Employee of the Year. Amy is a driven and highly respected expert who has continually made NHDES shine. Her commitment to management and prevention of exotic, aquatic species in our waters is well known and revered regionally and nationally. Customer service and commitment to excellence drive Amy to be one of the best at NHDES.

A typical year for Amy involves managing exotic species prevention and control grants, oversight of nearly 100 control and management activities, coordination of aquatic plant inventories, providing testimony in the NH House and Senate, and fulfilling a myriad of public speaking, training, and workshop requests. Amy is passionate about educating the public on the benefits of early detection and rapid response for the prevention of exotic aquatic species infestations in

Another indication of an exemplary 2014 is the passage of Senate Bills 266 and 292 and the countless hours of expert testimony Amy provided during public hearings, study committees, and various house and senate meetings. SB 266 expanded the Exotic Aquatic Weeds and Species Committee to allow state agency representatives and stakeholder interest groups to serve on this vital committee. The Bill was initiated and passed in the 2014 legislature. Senate Bill 292 relative to an increase in the boat registration fee to provide funding for lake restoration and preservation, and the prevention and control of exotic, aquatic plants in NH surface waters originated in 2003, was reintroduced in 2005, 2009, and 2013 before being signed by Governor Hassan on July 21st of this year.

Amy was actively involved in re-drafting the bill language, tracking iterations of the bill since 2003, testifying and acting as an agency resource over the last 12 years. Given her annual workload, but especially in 2014, Amy is to be commended for her commitment to this new legislation and all she does each and every year to benefit the New Hampshire environment for generations to come. Congratulations, Amy! ■

### NHDES Recycling Stats

600 lbs of technotrash since 2006  
2,000 toner cartridges since 2000  
20,000 Tyvek envelopes since 2001  
How much have you recycled?



## 2014 David S. Chase Memorial Award - Ken Edwardson

Every year, many NHDES staff members work diligently to improve New Hampshire's environment by contributing to the scientific and technical knowledge base that underpins the agency's priorities and strategic goals. The work of these individuals is key to the NHDES' success in achieving its mission of "...helping to sustain a high quality of life for all citizens by protecting and restoring the environment and public health in New Hampshire."

The award is named in honor of David S. Chase, the NHDES Radon Program Manager who passed away very unexpectedly in November 2008. Dave served as the Radon Program Manager at NHDES and the Department of Health and Human Services for 16 years. He earned a BS in Forestry from UNH in 1971 and his PhD in Botany and Economic Geography from the University of Wales (UK) in 1978. Dave was extremely dedicated and devoted to the radon program, and under his guidance, New Hampshire's radon program received national recognition by the Conference of Radiation Control Program Directors in 1994. Dave was a world-renowned authority on radon, and served on many committees and boards, including the working group for global standards for radon measurement and mitigation at the World Health Organization, and the National Environmental Health Association's radon certification program.

Recognition of such scientific achievements continues today and has been institutionalized as the annual David S. Chase Award for Extraordinary Achievements in Science. The 2014 recipient of this prestigious award is Ken Edwardson, who works in the NHDES Watershed Management Bureau. Ken is the recipient of the award in recognition of his outstanding scientific contributions in the field of water resources. His work has helped to enhance our understanding of the complex physical, chemical and biological interactions within surface waters and the management efforts necessary to protect and restore their quality.

Ken earned a Bachelor of Science and Master of Science degree in Water Resources from the University of New Hampshire. Ken's master's work involved studying the saturated zones below Arctic streams and led to two peer-reviewed journal articles.

Ken joined NHDES in 2000 and manages the Surface Water Quality Assessment Program in the Watershed Management Bureau. Among his many duties, he is responsible for assessing and accurately reporting on the health of all surface



waters in New Hampshire. This requires detailed analyses of over one million water quality data points for each two-year assessment cycle.

Analyses of those data and making the results accessible to the public would not be possible without Ken's methodologies, databases and applications. Ken has been the lead author of one of the nation's most detailed and comprehensive assessment and listing methodologies. Ken has supervised the development of an assessment database which includes complex algorithms to automatically compare surface water monitoring data in each of 8,800 water segments to state surface water quality standards. In addition, he created an ingenious application which, with the click of a few buttons, allows one to quickly view graphs showing the monitoring results, data and criteria for each parameter of interest. This tool provides invaluable information for making defensible water quality assessment decisions. Finally, he has made these results available to the public through online GIS-based tools and web-based water quality report cards for each waterbody.

When not working on assessments, Ken's technical knowledge and analytical skills are often called upon to peer review internal and external documents. He excels at questioning conventional wisdom and providing alternative perspectives, and always in a kind and respectful manner. Outside of NHDES, Ken is well respected by his colleagues, participates on national committees, and is regularly asked to present at regional meetings in recognition of NHDES' advanced assessment and tracking systems. In short, Ken is a scientist's scientist! ■

## Longevity Awards & Retirement

The following NHDES employees are celebrating a milestone in years of service to the State of NH. Congratulations!

### 35 YEARS

John J. Duclos, WMD  
Sharon A. Yergeau, WMD  
Thomas J. Croteau, WD  
Jack Chwasciak, WMD

### 30 YEARS

Rebecca L. Towle, CO  
Walter M. Henderson, Jr., WD  
Gino E. Infascelli, WD  
Scott E. Hilton, WMD  
Nelson E. Ordway, WMD  
Frederick H. Chormann, Jr., CO  
Wesley J. Ripple, WD  
Theresa H. Sabbia, WD

### 25 YEARS

Stanislaw Bomba, WD  
Sharon G. Perkins, WMD  
Sonny Strickland, ARD  
Vincent R. Perelli, CO  
Jennifer M. Day, CO

### 25 YEARS, continued

Eric J. Thomas, WD  
John C. Baas, III, WD  
Talcott G. Hubbard, WMD  
Carroll M. Brown, Jr., WMD  
Mary Ellen Clairmont, WD

### 20 YEARS

Deborah S. Loislle, WMD  
Allyson L. Gourley, WD  
Robin Mongeon, WMD  
Steven C. Dolloff, WD  
Gary S. Lynn, WMD  
Barbara A. Davis, WD  
Michael J. Wimsatt, WMD  
Paul A. Susca, WD  
Sharon E. Crane, ARD  
Valerie H. David, ARD

### 15 YEARS

James W. Gallagher, Jr., WD  
Margaret A. Bastien, WMD

### 15 YEARS, continued

Sarah L. Yuhus Kirn, WMD  
Pierce A. Laskey-Rigrod, WD  
Steven M. Couture, WD  
Steven A. Croce, WMD  
Wendy S. Bonner, WMD  
Wayne A. Wheeler, WMD  
Peter C. Ames, WD  
Harding N. Schofield, WMD  
Patrick L. Bell, WD  
Jocelyn S. Weldon, WD  
Andrew J. Hoffman, WMD  
Melanie Doiron, WMD  
Ana K. Ford, WD  
Donna M. Jones, WD  
Paula M. Scott, CO  
Scott M. Klose, ARD  
Matthew A. Wood, WD  
Andrew D. Cornwell, ARD  
Patricia R. North, ARD  
Allisen E. Heath, WMD  
Dale F. Guinn, WD

### 10 YEARS

James P. Martin, CO  
Kerry D. Barnsley, CO  
Stacey P. Herbold, WD  
Timothy P. Pelletier, WD

### RETIREMENTS

Barbara Hoffman, ARD  
Bronislav Karnauk, WMD  
Carl Baxter, WMD  
David Murphy, WD  
Deborah Mayo, ARD  
Diana Morgan, WD  
George Carlson, Jr., WD  
Gregory Kirby, WMD  
Harry Stewart, WD  
Kenneth Judkins, Sr., WD  
Michael Stanley, WD  
Nancy Kursewicz, WMD  
Ralph Wickson, WMD  
Richard Pease, WMD  
Susan Willoughby, WD

## Operation Santa Claus



The NHDES Operation Santa Claus (OSC) Team works diligently each year to help address the needs of less fortunate children (and their families) during the holiday season and beyond. The OSC campaign is sponsored by the State Employees Association of New Hampshire (SEIU Local 1984). As a result of generous donations, NHDES was able to provide 81 children with Christmas presents. In addition

to individual contributions, \$3,172.50 was also raised from basket raffles, a bake sale, 50/50 drawings and the annual Chili Bowl contest.

NHDES finds comfort in knowing that many wonderful children across New Hampshire, who may be living in challenging conditions through no fault of their own, will be smiling during the holidays knowing that the SEA, NHDES, other state and local agencies, organizations and schools truly care about their happiness and well-being; not only for the holidays, but throughout the year. ■

## Food Drive

The NHDES food drive was a great success this year. 1,077 items and \$298.72 were collected for donation to the Capital Region Food Program. ■



# Shoreline Management Conference Promotes Community Dialogue

By Rebecca Zeiber, NH SeaGrant Science Writer

Over 100 stakeholders gathered for the NH Shoreline Management Conference in Portsmouth on December 11, 2014 to discuss techniques that the state's coastal communities can use to begin to adapt to sea-level rise, storm surge and increasing flooding events. Sea walls, sand dunes, beach nourishment, living shorelines and coastal retreat are some of the methods presented as options for communities to deal with rising sea level and increases in storm surge. There are no easy solutions, but the success of any strategy or combination of strategies relies on the ability of people to work together to find the right solution.

Cory Riley, manager for the Great Bay National Estuarine Research Reserve in Greenland, NH, began the day by stating that the goal for the conference was to promote dialogue. She cited a recent study that found that the sea walls built to protect Japan from tsunamis provided very little benefit. However, the ability of those communities to work together was more important than engineered structures in response to the disaster. Combining everyone's strengths and expertise and listening to one another will help to promote social cohesion in the Seacoast communities, Riley added.

New Hampshire's modest coastline belies its importance in the Granite State; its two coastal counties (Rockingham and Strafford) are home to more than 420,000 people and the region brings in more than \$19 billion of the state's gross domestic product, said Steve Couture, program manager of NHDES' Coastal Program. The coast and Great Bay provide many ecosystem services — a term describing the goods and services that people receive from our coastal environment. Ecosystem services should be factored into decision-making about shoreline management, he said.

"We can't ignore the tradeoffs every time we make a decision about the shoreline," Couture said. "It's not a question

of if we'll pay to adapt, but when we'll pay to adapt. We can plan ahead and get to where we want to be, which is called anticipatory adaptation, or we can incur damages, clean up the mess and live with the consequences, which is called reactionary adaptation." The literature shows us that for every \$1.00 invested up front (in anticipatory adaptation) saves us \$4.00 in costs from recovery.



NHDES Coastal Program Fellow Kirsten Howard helps facilitate a group activity at NH's first Shoreline Management Conference, held in Portsmouth in December. Photo credit: Cathy Coletti, NHDES Coastal Program.

The conference also included speakers from our neighboring states and case studies of success. Geomorphic coastal processes and permitting were some of the basic building blocks presented for the assembled group to understand the considerations necessary to make decisions for our coast.

The NH Shoreline Management Conference was sponsored by the National Estuarine Research Reserve Science Collaborative and the NH Coastal Adaptation Workgroup. For more information about the NH Coastal Adaptation Workgroup, please visit <http://nhblog.stormsmart.org/>. ■



The New Hampshire Pollution Prevention Program is reinvigorating its Wastelines newsletter with a new look and format. The newsletter will be in the form of a one page e-news bulletin containing tips to help businesses and organizations reduce waste and provide examples of waste reduction strategies in the form of case studies submitted by businesses throughout

New Hampshire. There will also be a compliance assistance element providing updates on new rules and answers to frequently asked questions. Subscribers will be able to stay up to date on events, trainings and publications offered by various NHDES programs. To sign up for this monthly newsletter go to [des.nh.gov](http://des.nh.gov) and click on the e-news icon (located on the left side of the page), fill in the required information and check the "Wastelines" box. While you're there check out all the other terrific publications offered by other NHDES programs.

# Public Service Announcement Regarding Outside Fires

In light of recent storm damage, the New Hampshire Department of Environmental Services wants to remind homeowners and businesses that there are restrictions on the types of material that can be burned in outside fires.



*It is unlawful to burn items such as:*

- Construction and demolition debris.
- Household trash.
- Tires.
- Furniture.
- Any kind of painted, treated, or glued wood.

Burning these materials releases toxic air pollutants, creates potentially hazardous ash, and puts your family, neighbors, and the environment at risk. Therefore, these requirements are effective all year regardless of rain or snow cover.



*Materials acceptable for burning include:*

- Brush less than five inches in diameter originating on-site.
- Clean lumber scraps, originating on-site.
- Campfire wood.
- Charcoal.
- Clean wood pallets.

Prior to conducting any burning, be sure to contact your local Fire Warden, Fire Department, or Town offices for additional restrictions and local ordinances.

For more information on what materials are acceptable for burning, you can contact the New Hampshire Department of Environmental Services at (603) 271-5629, or visit [des.nh.gov](http://des.nh.gov) and click on "Open Burning" under the A to Z topics list. ■



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