ENVIRONMENTAL NEWS

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Newsletter of the New Hampshire Department of Environmental Services January-February 2020

COMMISSIONER'S COLUMN

Looking for answers to solid waste, recycling in NH

With significant changes affecting the recycling markets over the last couple of years, news coverage of how New Hampshire communities have been reacting has become commonplace. This has sparked a larger public conversation about what the State of New Hampshire and NHDES can do to improve recycling and solid waste management across the state. There have been a few recently-issued reports that help to inform this conversation.

In October, NHDES' Solid Waste Management Bureau (Bureau) issued the 2019 Biennial Solid Waste Report. Required by statute, biennial solid waste reports are intended to provide the Legislature and other stakeholders a general update on solid waste management in the state and also assess progress toward the statewide goal to divert 40% of solid waste generated in New Hampshire. This goal was initially established by the Legislature in 1990 to encourage waste diversion via recycling, composting and reuse as a means to reduce reliance on disposal in landfills and incinerators.

One of the main takeaways from the 2019 Biennial Solid Waste Report is that it is unclear where New Hampshire currently stands relative to the 40% diversion goal. Due to a number of factors, including resource deficiencies, the Bureau has struggled to assess progress toward the goal. Over the past several years, a series of general fund budget constraints curtailed the Bureau's ability to fulfill a number of its

Commissioner's Column, cont. page 2

New Hampshire is "charging forward"

As you may know, New Hampshire is the beneficiary of approximately $29 million dollars from the Volkswagen Settlement. This allows for the use of up to 15% of the total funding allocation for projects involving the acquisition, installation, operation and maintenance of new light-duty zero-emission vehicle supply equipment, namely electric vehicle charging stations.

New Hampshire's Beneficiary Mitigation Plan commits the State to using the full 15% (approximately $4.6 million) towards charging station buildout. The Electric Vehicle Charging Stations Infrastructure Commission, established by the New Hampshire Legislature (Senate Bill 517), and others have been working to identify priority electric vehicle corridors and develop criteria for the use of this funding.

New Hampshire needs adequately spaced charging infrastructure statewide to support the use of electric vehicles for travel within and through the state. To address this need, the Office of Strategic Initiatives (OSI), the state Lead Agency for the Volkswagen Settlement, and NHDES have released a Request for Proposals (RFP) for a project entitled "New Hampshire Electric Vehicle Supply Equipment Grant Program – Round 1" to support development of a direct current fast charging (DCFC) network on important travel corridors in New Hampshire.

The goal of this RFP is to provide DCFC and co-located Level 2 charging to enable electric vehicle travel to and around our state for our residents and visitors. Through this solicitation, the State seeks a qualified applicant to provide a strategic network of electric vehicle charging stations and associated operations, maintenance and management services. Approximately $2 million is available for this solicitation, which is a portion of the 15% of Volkswagen funding dedicated for this purpose.

Spread the word! Proposals are due January 24, 2020 by 4PM. More information about the RFP process is available on the VW funding page of the OSI website. ■

Commissioner's Column *continued from page 1*

statutory duties, including solid waste planning, technical assistance and outreach. Unfortunately, such developments have limited the State's capacity to address various solid waste reduction and diversion challenges.

Similar observations were also made in a November report issued by the HB 617 Committee to Study Recycling Streams and Solid Waste Management in New Hampshire. The charge of this legislative committee, which was chaired by Deputy Speaker of the House Karen Ebel, was to study recycling streams and solid waste management issues in New Hampshire. The Committee held 14 meetings from the end of August through October, and covered a wide range of topics, including recycling markets, landfill capacity, food waste diversion and various strategies adopted by other states. In its final report, the Committee noted that New Hampshire's solid waste management planning and education efforts have fallen behind those of other New England states, due largely to a lack of consistent funding support.

Among the many recommendations contained in the Committee's report, a key suggestion centers on establishing a dedicated fund to support the state's solid waste management programs (at present the Bureau is funded entirely by general funds). As stated in recommendation three of the report, "DES Solid Waste Management Bureau must be provided with adequate funding to perform its vital, statutory long-range planning duty and, because general funds have proven to be an unreliable funding source, a new method of funding must be developed. Like most other states, New Hampshire should create a dedicated fund to support the vital activities of the Bureau based on a per ton disposed surcharge."

Accordingly, the committee recommended legislation to establish a surcharge assessed on all waste landfilled or incinerated in New Hampshire. Committee member Senator David Watters has introduced a bill for the 2020 session, with bipartisan sponsorship including all of the Committee members, that would establish a surcharge and a dedicated Solid Waste Reduction Management Fund. The proposed Fund would provide resources to 1) ensure that NHDES can provide vital long range solid waste planning and technical assistance services, 2) provide payments to New Hampshire municipalities to offset their costs associated with the surcharge, and 3) provide matching grants to municipalities and businesses to support projects that promote waste reduction and diversion. This fund would positon NHDES to better respond to current and future solid waste challenges, and would create dedicated resources to incentivize recycling and waste reduction in New Hampshire. NHDES looks forward to working with legislators, waste industry representatives, the business community, municipalities and the public at large to advance this discussion and address these vital issues. ■

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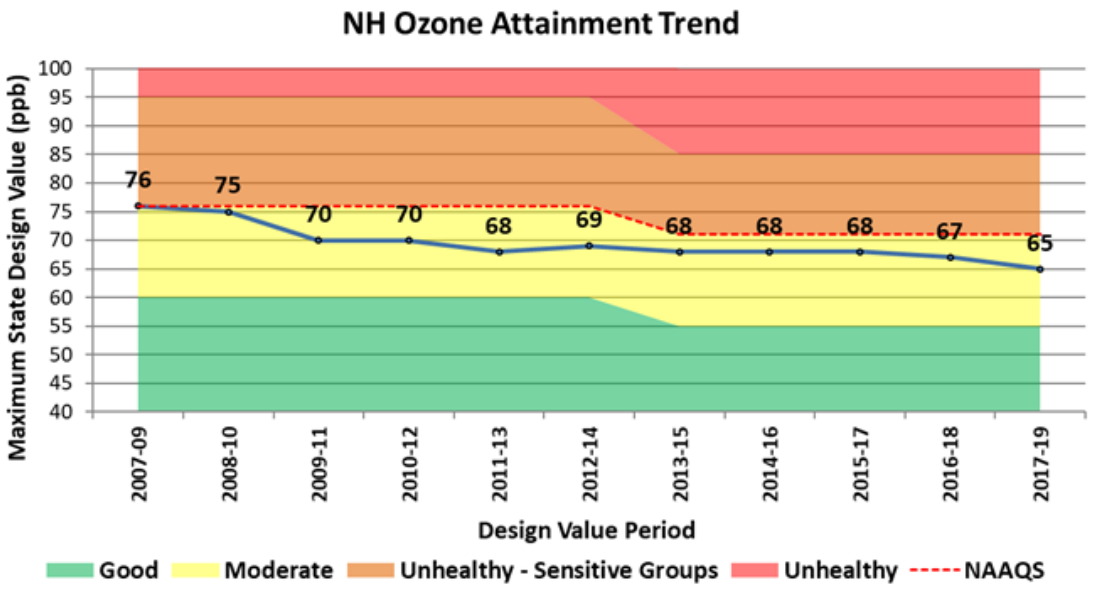
A summer of good air



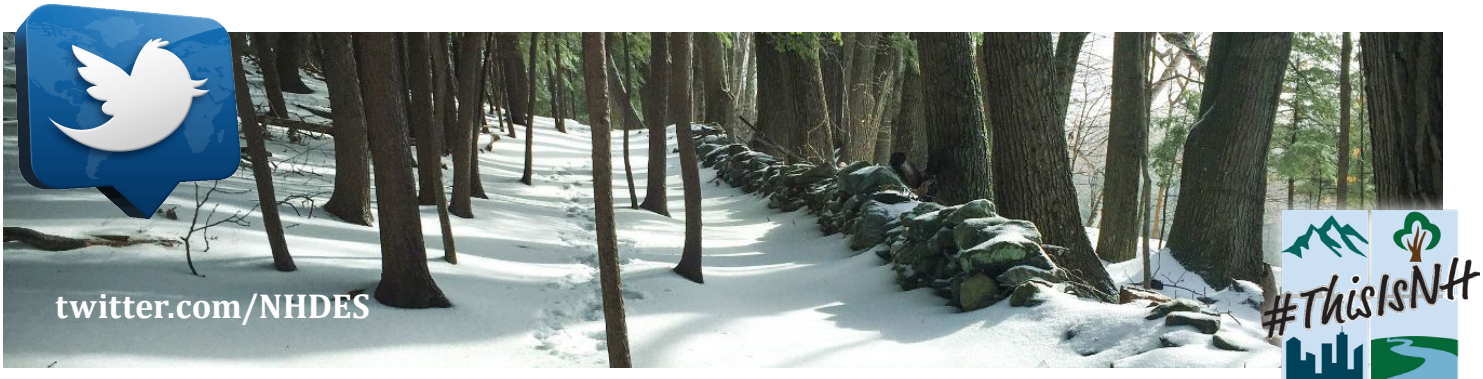
New Hampshire had very good air quality during the summer of 2019, thanks to a lot of hard work, and some good luck. The hard work includes years of planning and implementation of emissions reductions in and upwind of New Hampshire, and the good luck is that winds were favorable for clean air this last summer. As a result, there was only one day in 2019 that the 8-hour ozone concentration reached the level of unhealthy for sensitive groups. This occurred on July 30th at Odiorne Point in Rye. Ozone is the primary ingredient in SMOG and is not directly released by pollution sources. Instead, it is formed in a chemical reaction between two commonly emitted air pollutants, nitrogen oxides and volatile organic compounds, in the presence of strong sunlight and heat. In New Hampshire, cars and truck emissions are the most common source of these precursor emissions of ozone.

Ozone concentration trends for New Hampshire have been decreasing slowly and all portions of the state have been in attainment of the National Ambient Air Quality Standard (NAAQS) since 2010. The NAAQS allows a small number of days to exceed the threshold and still meet clean air requirements, which is why New Hampshire can have days considered to be unhealthy each summer and still attain the health standard. Ideally, New Hampshire can get rid of all the unhealthy ozone days sometime soon. This can be a challenge because the NAAQS is periodically reviewed and was lowered for ozone from 75 parts per billion to 70 parts per billion in 2015.

New Hampshire is fortunate compared to other northeast states, most of which have seen modest increases in ozone in recent years. This means that with different wind patterns, New Hampshire could see a few more high ozone days in summers to come. ■

PROTECT YOUR TAP
10-minute lead test

EPA, in partnership with NHDES, created Protect Your Tap: 10-Minute Lead Test, an online guide that walks homeowners through a series of steps to see if they have lead pipes bringing water into their home, how to reduce their exposure to lead and how to get their water tested. If you would like to share the guide with your community, please contact Amy Rousseau at (603) 271-0893 or amy.rousseau@des.nh.gov for more information. ■



Balch Hill Natural Area in Hanover from #ThisIsNH Storymap. Credit: Courtney Dragiff

2019 Employee of the Year – Paul Susca

Paul Susca was recognized in December as the 2019 NHDES Employee of the Year. This year, Paul took the lead on re-evaluating the drinking water standard for arsenic. Paul was assigned to lead this legislatively-mandated project because of his longtime work to boost private well testing and treatment for arsenic and radon; his long-standing leadership with developing and supporting New Hampshire's Arsenic Consortium; and his extensive work with the primary legislative sponsors of the bill concerning the dangers of arsenic in drinking water. In addition, Paul had worked extensively with the primary legislative sponsors of the bill concerning the current arsenic standard to educate them about the dangers of arsenic in drinking water. The goal was to make the process similar to the national process, including consideration of occurrence, and the ability to detect and treat, and quantify costs and benefits. It is important to understand that this kind of re-evaluation had never occurred before, and Paul was starting from scratch.

As always, Paul met the challenge. He identified what needed to be done and which experts and disciplines needed to be involved. This included identifying new research on health risks associated with arsenic, pulling in experts from the EPA, working with the NHDES' health risk assessment team, specialists from NHDHHS, as well as finding and contracting with health economists to monetize the benefits of reducing the current drinking water standard. Paul met the January 1, 2019 deadline with a recommendation to lower the existing MCL from 10 parts per billion to 5. This was accompanied by an impressive report that is recognized nationally as a prototype for similar efforts. As a result, Paul has been invited to present his findings at a number of state, regional, and national conferences to share NHDES' experience and knowledge on the subject.

The Employee of the Year Award highlights the outstanding work performed by NHDES staff throughout the year. The criteria for the Employee of the Year Award are: significant impact or innovation within NHDES or the State; initiative and leadership; improved efficiency; improved interagency cooperation. ■

Service Time Awards

The following NHDES employees celebrated a milestone in years of service to the State of New Hampshire in 2019. Congratulations!

40 YEARS
John Duclos

35 YEARS
Walter Henderson
Nelson Ordway
Frederick Chormann
Theresa Sabbia

30 YEARS
Newton Strickland
Jennifer Day
Vince Perelli
Eric Thomas
John Baas, III
Mary Ellen Clairmont

25 YEARS
Robin Mongeon
Allyson Gourley
Barbara Davis
Michael Wimsatt
Paul Susca
Sharon Crane

20 YEARS
Steve Couture
Pierce Rigrod

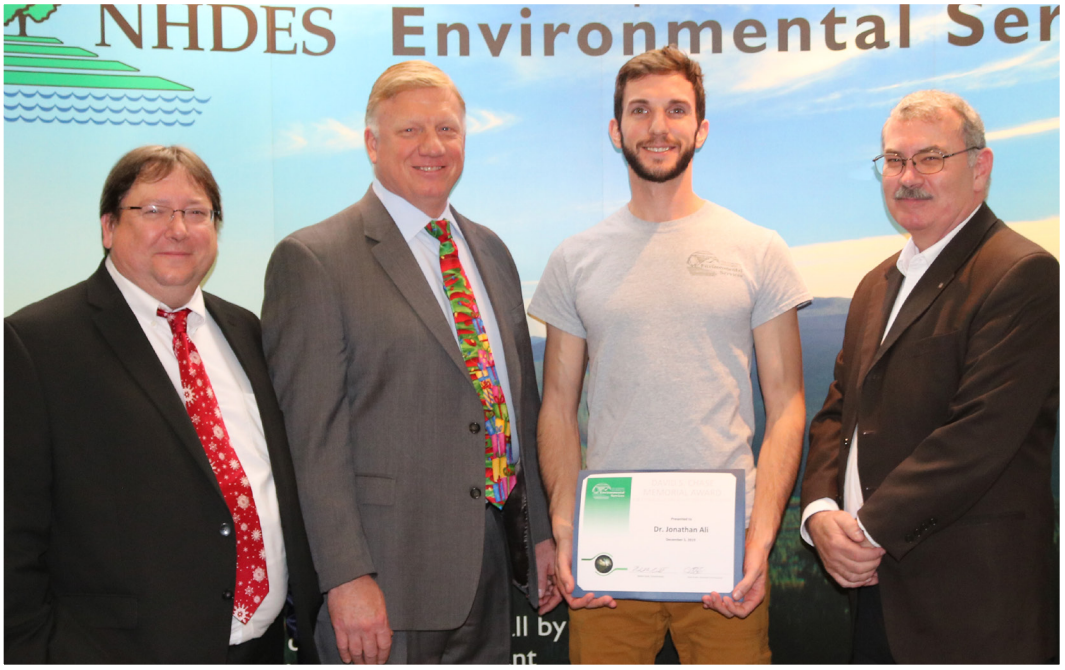
20 YEARS, cont.
Steve Croce
Wendy Bonner
Peter Ames
Patrick Bell
Andrew Hoffman
Jocelyn Henry
Harding Schofield
Donna Jones
Paula Scott
Matthew Wood
Scott Klose
Andrew Cornwell
Patricia North
Dale Guinn
Christian Williams
Margaret Bastien
Sarah Yuhas Kirn

15 YEARS
Jim Martin
Timothy Pelletier
Kerry Barnsley
Stacey Herbold
Lara Hrobak

10 YEARS
Kevin Lucey
Andrew Fulton
David Cloutier
Tom Fargo
Bonita Huckins
Catherine Beahm
Shane Csiki
Jennifer Grace
Darrel Dietlein
Debra Patterson
Robert Gordon
Charles St. Jacques
Jenna Wilson

RETIREMENTS
Gino Infascelli
David Leathers
Linda Birmingham
Keith Dubois
Steve Cullinane
Mark Stevens
Lauren Noether
Mary Jane Meier
Dan Fenno
Bonita Huckins
Melanie Doiron
Scott Hilton
Mark Ledgard
Allyson Gourley
Lisa Landry
Gloria Andrews
Collis Adams

David S. Chase Award for Extraordinary Achievements in Science – Jonathan Ali



Toxicologist Dr. Jonathan Ali was awarded the 2019 David S. Chase Memorial Award for Extraordinary Achievement in Science in early December.

Dr. Jonathan Ali has distinguished himself as an exceptional scientist in his work to derive health-based drinking water and groundwater standards for four PFAS chemicals. He has set the bar on what toxicologists must do in addressing contaminants of emerging concern in the absence of EPA drinking water standards, and his fine, peer-reviewed work will result in public health protection throughout New Hampshire for years to come.

In his short time at NHDES, Jon was able to identify, organize, review and decipher a voluminous amount of complex scientific material related to PFAS. While assisted by others, it was Jon's formidable intellect, drive and technical skills that resulted in New Hampshire's ability to meet the legislature's mandated short timeline to have standards in place.

Since coming to NHDES in October 2018, he has also participated in a number of internal and external workgroups, and somehow found the time to collaborate with other scientists to co-author a scientific paper on PFHxS that will be published soon in the scientific journal titled, Regulatory Toxicology and Pharmacology.

Jon shoulders any challenge presented to him and meets or exceeds expectations. He identifies and uses both internal and external resources and experts, and has created valuable contacts for the ongoing research and work for NHDES. In addition to his technical expertise, project planning and management skills, Jon has shown an exceptional ability to explain extremely technical information to both the public, the regulated community and his co-workers.

The David S. Chase Memorial Award for Extraordinary Achievements in Science is presented to a deserving NHDES scientist who possesses the special skills and dedication necessary to continue the pursuit of scientific discovery at the agency. The award is named in honor of the late Dr. David S. Chase, who served as the Radon Program Manager at NHDES and the Department of Health and Human Services for 16 years. His devotion to his work made a significant impact on our understanding of radon, and how the public can mitigate the risks associated with this compound. After Dr. Chase's passing, this award was established to recognize other NHDES employees who have made important accomplishments in the field of science. ■

NHDES Snapshot: River Trend Monitoring

NHDES staff can't fulfill the agency's mission only from our desks. To protect environmental quality and public health in New Hampshire, we are out in the field every day: testing water quality in our ponds and lakes, sampling private well water, monitoring air emissions, assessing storm damage, responding to oil and chemical spills, training water works and solid waste operators, and so much more. "NHDES Snapshot" is an occasional series that takes a quick look inside the day of one of those employees.

After driving for a few hours, Ted Walsh and Ethan Maskiell park on the side of the road along the Connecticut River and hop out of the NHDES car. While Ethan calibrates the sensors, Ted takes the orange bucket, rope and bottle to the middle of the bridge and starts the process of gathering water samples.

Ethan, a NHDES intern, is helping Ted collect water quality samples across the state for the River Trend Monitoring Program within the NHDES Watershed Management Bureau. Ted is the Surface Water Monitoring Coordinator, overseeing numerous river water quality monitoring programs for the state. Throughout the year, Ted and his coworkers visit 40 fixed stations that are representative of all rivers in New Hampshire, ranging from pristine to degraded. The 40 river trend stations are sampled once a month from June through August. Each year, a fourth sampling round is also collected that rotates between spring, winter and fall. On this trip, they're visiting the Connecticut River in Northfield, Mass., Ashuelot River in Hindsdale and Tully Brook in Richmond.

After ensuring the bacteria sample bottle is secured Ted lowers it around a hundred feet to the water then carefully raises it and secures the cap: it's important that it remains as sterile as possible. Then he hooks the rope to the bucket and slowly lowers it down to the water. After rinsing it three times, he gathers about 4 gallons of water and returns to the car to fill bottles for individual samples for testing of chloride, E. coli, total nitrogen and total phosphorus. Before dumping out the bucket, they also use one handheld meter to gather data for dissolved oxygen, conductivity (how well the water can conduct an electrical current), and water temperature, one for pH, and one for turbidity (the amount of particles that make the water appear cloudy). Then they pack up their gear and drive to the Ashuelot River station in Hindsdale and repeat the process.

While the Connecticut River and Ashuelot River samples were taken from bridges, the Tully Brook station is slightly different: this is a smaller river so Ethan has to access the middle of it by putting on a pair of waders to collect the necessary water samples. Ted crouches on the river bank to use the water sensors.

After spending the day traveling to sites around southwestern New Hampshire, it's time to head back to the office: Depending on when they leave, they need to return to the lab by 3 PM or within six hours from the first sample taken. Either Ted, Ethan or one of the other interns will analyze the chloride sample in the Limnology Lab while the Department of Health and Human Services (DHHS) completes the testing for the other water samples.

Snapshot, cont. page 7

"Pump it up!" event moves drivers toward better fuel economy

Leaves are falling, temperatures are dropping, and so is the pressure in your tires. Low tire pressure can be a contributing factor to poor fuel economy, which costs you money and increases harmful emissions, like carbon dioxide (CO_2). Every one pound per square inch (PSI) decrease in pressure for four tires can decrease fuel economy by 0.2%.

That's why NHDES Green Team volunteers hosted their fourth Pump It Up! event on Thursday, November 21, 2019. For two hours in the afternoon, they provided free tire pressure checks and adjustments for state employee vehicles. A total of 76 drivers visited their drive-thru at 29 Hazen Drive in Concord. A team of 17 volunteers was strategically placed in four stations in the parking row next to the Bunker Lot.

This year, NHDES Green Team volunteers pumped up 252 tires on 63 vehicles! Assuming these vehicles maintained the manufacturer's recommended tire pressure during 2019, this would have saved 2.01 tons of CO_2 from entering the atmosphere – this is equal to the amount of CO2 emitted by driving a car for 4.5 months, or consuming 227 gallons of gasoline, or using 82.3 propane tanks for a gas grill!

As you prepare for the holiday travel season, be sure to keep your tires properly inflated ... drive towards better fuel economy and leave $C0_2$ emissions in the dust! ■

Snap Shot *continued from page 6*

Overall, the data they're gathering help track how New Hampshire rivers change over time, specifically water quality, water temperature, macroinvertebrates and fish populations. They can also compare a specific station to the state average for a given parameter, such as total nitrogen, to gain a better understanding of its status. The trend stations have also been used for specific projects, most recently for PFAS sampling.

"Doing our trend sampling and measuring the various parameters on a consistent schedule allows us to provide water quality data that shows the ability of the rivers in the state to support aquatic life and functions that are essential to New Hampshire's environment," Ethan said." ■

New wetlands rules in effect

The new NHDES wetlands rules are in effect as of December 15, 2019. The Wetlands Bureau has been undertaking many changes to accommodate the new rules – from developing new documents to updating its database and links to OneStop, all while maintaining some of the old rules and documents for those applications submitted earlier and now in the permitting queue at NHDES.

When using the Wetlands OneStop query online, the status of files submitted pre-December 15 may have an "X-" prefix that does not have any bearing on the status of the file. The code was created to assist NHDES in the transition of old files to new files in the Wetlands database. If you need clarification of a permit status, please call the Wetlands Bureau at (603) 271-2147.

The Wetlands Bureau conducted 13 public outreach events to more than 700 attendees this past fall. Additional outreach events and materials are planned for 2020. Past and future presentations will be posted on the Wetlands Bureau webpage.

If you have any questions, please contact Sandy Crystall at sandra.crystall@des.nh.gov or (603) 271-4062. ■

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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Annual holiday food drive

NHDES employees once again helped the Capital Region Food Program's Holiday Food Basket Project by collecting over 300 food and toiletry items and donations in the amount of $775. Bob Scott, NHDES Commissioner, is pictured here with Maria Manus Panichaud of the Capital Region Food Program, at the State Armory on December 17. ■

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 87 children with Christmas presents in 2019. In addition, over $4,320 was raised from a bake sale, silent auction, basket raffles, a Crock-Pot cook-off and 50/50 drawings.

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. ■