Road salt applicators can now get green credentials and possibly make more green, too. A new certification program in New Hampshire addresses a gap in professional accreditation and a growing environmental problem at the same time.

Since 1941, when New Hampshire was the first state to use road salt for regular highway maintenance, background chloride levels have increased 100 times in some watersheds.

Almost 200,000 tons of salt are now applied in the state each winter and

Continued on page 6
Letter from the Director

Many of us in the Public Works and University communities got the opportunity to wish Kathryn Myers the very best in her new endeavor with FIRST before she departed from the Technology Transfer Center. Kathryn joined the T² Center almost seven years ago for her first job following college. Her enthusiasm and professional approach to all her responsibilities in her first few years led to her outstanding performance as the T² Center manager for the past 3 years. It was truly a pleasure to work with Kathryn and we will look forward to having the opportunity to continue our professional relationship with her as she pursues her new career with FIRST.

As sad as it was to say good bye to Kathryn it is equally exciting to see the Center’s team of students and faculty welcome Beth Hamilton as our new training program manager. Beth was fresh out of college a little over 7 months when she joined the Center. Her rapid ascension to training program manager acknowledges our judgment of her potential to excel as a leader within the LTAP community. She is intellectual, highly motivated and has the full support of all of us at the Center. We have challenged her to look forward at various opportunities to help us better serve the Public Works Community. Please feel free to welcome Beth on your own and begin sharing your thoughts to help her excel in her new endeavor.

Regards

Dr. Charles Goodspeed
The Federal Highway Administration has launched a new program called Every Day Counts (EDC). Its initiatives are meant to take on the challenges of working more efficiently in an economy that has forced us to change the way we approach projects. We are all familiar with the increasing need to shorten schedules and within budget. The two biggest initiatives are “accelerating technology and innovation deployment” and “shortening project delivery”. These initiatives include, plans, and toolkits to increase adoption and usability.

In each state, the Local Technical Assistance Programs (LTAP), are hosting national broadcast webinars and “town hall” forums to bring these initiatives to those who maintain the local roads. The Technology Transfer Center will be coordinating with the NHDOT and FHWA for five Exchanges in the coming months.

The schedule for the Every Day Counts Exchange webinars, is as follows:

- February 16, 2012: Geosynthetic Reinforced Soil (GRS)
- April 19, 2012: Flexibility in Right of Way (ROW)
- June 21, 2012: In Lieu Fees/Mitigation Banking

Each Exchange will include expert instruction, a discussion with locals, and the opportunity to bring issues up in a national forum.

For more information about upcoming EDC Exchanges, please contact Beth Hamilton at the Technology Transfer Center at 603-862-1362 or see the T² website at www.t2.unh.edu. For more information on the Every Day Counts initiatives, see the Every Day Counts website at www.fhwa.dot.gov/everydaycounts/

References
- Every Day Counts website, www.fhwa.dot.gov/everydaycounts/

T² Needs Assessment Survey Available Online

The UNH Technology Transfer Center has created an online survey available online for you to share your thoughts pertaining to our programs. We appreciate all honest feedback regarding our programs and how we can better fit your needs in the future. Please take a few minutes and complete our survey online. We certainly value your opinion and rely on it to create a better program based on your needs.

You can find a link to the Needs Assessment Survey on the T² webiste at www.t2.unh.edu or at the following website hosted by SurveyMonkey:

UNH T² Master Roads Scholars

**Master Roads Scholar**

**John Ahlman**

John Ahlman works for the City of Franklin and achieved his Master Roads Scholar the summer of 2011. John Ahlman is interested in antique automobiles. Tom is also interested in being self-sufficient by farming and raising animals.

**Master Roads Scholar**

**Bruce Felch**

Bruce Felch is the Highway Foreman for the Town of Seabrook where he has worked for 18 years. Bruce has worked hard to keep up-to-date with the newest information by pursuing a Master Road Scholar certification. Bruce is married to his wife, Sherry, and has three children. Bruce enjoys hunting and fishing.

**Master Roads Scholar**

**Warren Hilton**

Warren Hilton has been a Truck Driver for the City of Dover Community Services Department for 11 years. Warren enjoys how his job and responsibilities change with the seasons. He has been married for 13 years and has three children. In his free time he enjoys farming.

**Master Roads Scholar**

**Harold Johnston**

Harold Johnston is the Facilities Team Leader for the City of Lebanon. Harold earned his Master Roads Scholar in the spring of 2011 and attended the luncheon with his wife Cindy, shown above.

**Master Roads Scholar**

**Nathaniel Jones**

Nathaniel Jones is the Water Distribution Supervisor in the Highway and Utilities Division for the City of...
Nathaniel Jones

Concord. He has worked for the City since May of 1990, when he started as a Laborer. He is responsible for the maintenance of the city’s water distribution system with a crew of 3-6 people. He is also responsible for being on-call for all water, sewer, and highway emergencies during non-business hours. Nathaniel enjoys spending time with his wife of 10 years, Cindy and their 14 year old son Cameron. In their free time the family likes hunting and boating with their two dogs.

MASTER ROADS SCHOLAR
Bruce McDonald

Bruce McDonald has been a Heavy Equipment Operator for the City of Franklin 15 years. He is eager to continue his learning through the Roads Scholar Program. In his spare time Bruce enjoys small engine repair.

Jack Meaney

Jack Meaney has been a Selectman for the Town of Bradford for two and a half years, after he retired from working for the State of New Hampshire. Jack is also the owner and operator of a drilling and blasting company. He has worked with many public works departments through contracts and in winter maintenance. He likes being involved in guiding his town’s highway department with projects and assisting them with equipment. Jack also works hard to persuade the public to back projects done by the highway department. He intends to continue with the Roads Scholar Program, and is always in pursuit of knowledge. Jack has three daughters aged 26, 27, and 29. In his free time he enjoys hunting, fishing, and motorcycle riding.

Thomas Plourde

Thomas Plourde is the Road Agent for the Town of Greenville. He achieved his Master Roads Scholar in August of 2011.

Andrew Smith

Andrew Smith has been the Highway Foreman for the Town of Conway for seven years. He enjoys Public Works because of the interesting variety of work. He plans on further educating himself through the Roads Scholar Program as new workshops are added. Andrew achieved Master Roads Scholar in October of 2011. In his free time he enjoys camping and canoeing.

Roads Scholar II
50 training contact hours and coverage of specific subjects: technical, tort liability or safety, supervision or personal development, and environmental

Jere Calef, Barrington
Rick Carlson, Derry
Perry Cloutier, Mont Vernon
Scott Cook, Exeter
Craig Dunn, Moultonborough
Jon Graichen, Salem
Benji Knapp, Weare
David LaCasse, Acworth
Skip McEvoy, Exeter
Peter Neary, Derry
James Pacheco, Salem
Steve Paul, Barrington
Mike Rau, Walpole
Ryan Sharpe, Hampton
Doug Urquhart, Hooksett

Roads Scholar I
25 training contact hours

Lee Adams, Rye
Phill Arnone, Hooksett
Cory Bergeron, Claremont
John Bettencourt, Salem
Scott Carey, Lebanon
Bob Cepurneek, Bow
Ron Clough, Hancock
Harry Cote, New Hampton
Robert Crane, Washington
Brian Deschenes, Concord
Joshua Dugdale, Atkinson
Michael Fowler, Derry
Peter Gamache, Weare
Tony Guilbault, Wolfeboro
Jan Hall, Concord
Todd Hartshorn, Franconia
David Hathaway, Weare
Scott Hazelton, Farmington
Robert Herrick

Andrew Higham, Chester
Craig Hoffman, Pelham
Ricky Hurteau, Derry
Chad Jaquith, Concord
Gary Langlois, Bennington
George Maloney, Goffstown
Shawn Marchetti, Lebanon
Frank McGrath, Derry
Adam Mendoza, Pembroke
Tim Milligan, Wolfeboro
Mike Murphy, New London
Ivan Nault, Wolfeboro
Joseph Newcomb
Jerry Parent, Franklin
Richard Rae, Amherst
Philip Redmond, Bradford
David Smith, Concord
Russell Stevens, Stratham
Stephen Vertigens, Amherst
Ted Wadleigh, Claremont
Mike Walton, Goffstown
David Witley, Atkinson

Have a question about what level you have achieved or what workshops you’ve taken? Contact Beth Hamilton at 603-862-1362 or e-mail t2.center@unh.edu to request information regarding your Roads Scholar transcript.
consequently more than 40 water bodies in the state are polluted. The effects of the pollution range widely from increased deer-strikes as they are drawn closer to roadways by salty runoff, to polluted residential wells, fish and plant death, decreased soil quality, and increased erosion.

The chloride problem is more challenging than other water quality concerns due to the complete solubility of the chloride ion. Once salt is dissolved in water it cannot be removed by any practical means until it flows out of the watershed. This occurs relatively quickly in surface waters (rivers and streams) but when salt-laden runoff from roads and parking lots enters the groundwater, it can take a long time to leave the system since groundwater moves much more slowly than surface water.

Since there is no feasible way to remove the salt, then the only option to deal with the problem is to use less. Salt alternatives, such as calcium magnesium acetate, are part of the solution, but since sodium chloride is so much cheaper, a focus on salt reduction is needed.

Long considered to be a highway problem, recent studies in the southern I-93 corridor have shown that up to 50% of the total salt load is coming from private parking lots and driveways. In addition to state and municipal highway crews, salt reduction is needed from the diverse array of private salt applicators, who number in the thousands.

Since salt applicators’ primary goal is maintaining safety, New Hampshire’s approach to salt reduction is to improve efficiency in salt use. Applying salt when it is not needed adds unnecessary pollution to local water bodies and wastes money.

To improve communications with private applicators and increase training opportunities, the University of New Hampshire Technology Transfer Center (UNH T²) created the Green SnowPro certification program.

Patrick Santoso works with the private sector to teach winter maintenance equipment calibration techniques.
The voluntary program allows salt applicators to become green certified by participating in training and passing a test.

Training topics include: how salt works, anti-icing with liquids, pre-wetting, spreader calibration, material storage and housekeeping, and salt accounting. UNH T² developed a web-based salt accounting system so that applicators can track usage storm by storm or annually.

The first two training sessions were at maximum capacity and resulted in over 100 applicators earning Green SnowPro certification.

This response is attributed to several factors. Green certification can be an asset in marketing winter maintenance services to clients concerned about environmental impact. Applicators learn techniques that maintain level of service while using less salt, saving time and money. Increased professionalism is better business and can reduce risk exposure.

For more information about Green SnowPro certification, contact Patrick Santoso at 603-862-4209 or Eric Williams at 603-271-2358, or see www.t2.unh.edu for more information.

ADA Prioritization Software

By Dave Salzer, University of New Hampshire Technology Transfer Center

T² is currently developing a system for municipalities to collect and manage their handicapped sidewalks and access ramps to be in compliance with the Americans with Disabilities Act (ADA). A pilot/development project was started with the City of Concord in July to accomplish the following four goals:

1. Identify attributes of the pedestrian network that limit pedestrian mobility;
2. Evaluate the condition of the existing pedestrian facilities;
3. Prioritize facilities on a need for renovation basis;
4. Identify locations where new pedestrian facilities are needed;

The program is built on a weighting system that allows the asset owner to assign points based on a variety of factors. Additionally the program considers environmental factors like population density, proximity to public facilities (libraries, schools, hospitals) and access to public transportation to prioritize repairs and replacements. A preliminary report will be published in January outlining the program methodologies and a final product is expected by mid-summer 2011.

To learn more about the Project or to find out how you can be involved email Dave Salzer at dsalzer@unh.edu.
Mosaic Parcel Map Project Update

By Dave Salzer, University of New Hampshire Technology Transfer Center

The New Hampshire Department of Revenue (DRA) and The University of New Hampshire Technology Transfer Center (T²) have partnered to create the first sustainable statewide mosaic parcel map in the country as part of DRA’s Granite to Green Program. The project has been underway since December of 2011, and since that time over 200 New Hampshire municipalities have participated in the effort.

What is the Mosaic Parcel Map?
A Mosaic GIS Parcel Map is a merging of each municipality’s tax maps into a single composite layer that provides a representation of all property boundaries in the state. The map is linked to a limited property assessment database that contains basic information about each parcel. Data sets like the Mosaic Parcel Map are critical for disaster relief and response enabling local, county, state and federal government access to critical information in a short amount of time and is currently still underway. Since July, the project team has collected data from over 180 municipalities accounting for over 85% of the parcels in the state. It is anticipated that by the end of February 2012, the project team will have collected data for over 95% of the parcels in the state.

Mosaic in 2012 & Beyond
Currently the DRA is only sharing the mosaic information with other state agencies to respect the private nature of the data. In 2012 selected data will be made available to all participating municipalities via a “sharing pool”. The sharing pool will contain all municipal data that has been approved by its owner for release to other municipalities. Providing this composite data back to the municipalities in a secure environment will help them better coordinate with their neighbors on planning, zoning and mutual aid initiatives.

Project Progress
In December of 2009 the DRA contracted with T² to develop a pilot 18 municipality mosaic map. The goal of the pilot project was to establish the feasibility of assembling a statewide GIS parcel layer with a related municipal assessing attribute database. The pilot proved successful and DRA proceeded with a full scale effort to create a statewide mosaic parcel layer in April of 2010. Phase I data collection and assembly began that same month and continued through June of 2011 encompassing data from over 175 municipalities. Phase II data collection and assembly began in July of 2011.
Greetings! My name is Beth Hamilton, I am the new Training Program Manager for the LTAP and Roads Scholar Program at the UNH Technology Transfer Center. Although we are all sad to see Kathryn move on, I am also met with a feeling of overwhelming excitement for a fresh start of my own here at T². I learned as much as I possibly could from Kathryn in our time working together, as she built the Roads Scholar Program to the level it has become today. I also have incredible support from Charlie Goodspeed, the Director of the Technology Transfer Center; Dave Salzer and Pat Santoso, both Project Managers here at T²; and Butch Leel, our Senior Training Instructor. I am truly lucky to be a part of such a hard working and dedicated team! I hope to bring new ideas and a new sense of enthusiasm of my own, as well.

Our LTAP Center hosts more than the Roads Scholar Program, but as there are hundreds who participate in the Roads Scholar workshops each year, in the eyes of the public, it may be the most recognized. We will continue to offer a wide variety of workshops that we have offered in the past, including Backhoe Operation & Safety, Chainsaw Maintenance & Operation, and Culvert Installation and Maintenance. I also hope to bring in a more Public Works focused supervisor and leadership training program, as well as new initiatives such as the Every Day Counts Exchanges. I hope it will prove to be an exciting year!

There are several changes also happening “behind the scenes” here at the Center. We’ve recently launched our new Technology Transfer website (www.t2.unh.edu), the NH Salt Accounting Database (www.roadsalt.unh.edu), and are currently working on the development of an online database. We are also excited about the possibility of offering online training videos and workshops in the future. As technology speeds forward, we are eager to use it to make our workshops, training, and information available to everyone.

If I have not met you yet, I look forward to it. Please feel free to call or e-mail at any time with questions, comments, or new ideas for T². We will rely on you and your opinions to creat a Center that will meet your needs. Call 603-862-1362 or email e.hamilton@unh.edu

The Technology Transfer Center (T²) is working with the New Hampshire Departments of Environmental Services, Transportation, and municipal officials to develop an expedited the permitting process for routine culvert installation and maintenance. Individuals who complete a one day workshop and pass an exam covering: computer-aided culvert design, culvert repair/replacement best management practices, and regulatory standards will be allowed to conduct routine culvert repair and replacement up to a maximum nominal diameter (Anticipated 48”) without prior notification to NHDES. Reports detailing maintenance performed will be required post construction on a monthly or quarterly basis. The workshop is being developed with professional experts. Pending approval by NHDES, the program will begin this spring. T² is excited to be a part of this exciting process and look forward to the seeing the benefit to Municipalities and state agencies.
The 6th Annual Ken Ward Memorial Snow Plow Rally took place September 21st at the Hopkinton State Fairgrounds in Hopkinton, NH. The competition attracted over 160 municipal workers and exhibitors who enjoyed cheering on their favorite teams.

New London’s team of Bob Harrington and Eric Allen took first place over the 11 other municipal teams. The 2010 Defending Champs, Benji Knapp and Jeff Lewis from the Town of Weare took second place. The Champion Municipal team then went up against the NH DOT Champs Michael Wheeler and Matt LeBlanc from District 5. The Town of New London once again prevailed and Harrington and Allen were crowned NH State Champions. The new State Champs competed at the New England Regional Competition in Leominster, MA on November 2, 2011 against other State Championship teams from throughout New England.

Another big draw was the Dana Wright Backhoe Competition which was held during the Plow Rally. Mike Walton, Town of Goffstown, set up the backhoe course and had nearly (25) competitors jump on the NORTrax John Deere equipment to test their talents. First and Second place winners had exactly the same score, however, the best time went to Bob Harrington of New London besting second place finisher, Benji Knapp, Town of Weare by just 16 seconds!

Congratulations to all. I hope to see everyone back next year, Wednesday, September 19, 2012.

For more information about the annual Ken Ward Memorial Plow Rally and how to get involved, contact Catherine Schoenenberger at Stay Safe Traffic Products, Inc. at (866) 692-2114 or email staysafetraffic@aol.com

2011 Municipal Teams

2011 Winners from New London
Bob Harrington and Eric Allen

2011 Backhoe Champion
Bob Harrington, New London
The rain and gloomy weather didn’t stop nearly 1,000 high school students from all across New Hampshire from attending the third annual NH Construction Career Days event held at the Hopkinton State Fairgrounds. This event promotes awareness of careers in the construction and transportation industries to young adults who will soon fill the gap in vocational, trade and technical jobs left by the retiring Baby-Boomers. Those involved with this event know it is a part of something bigger than what they do on a daily basis. The interaction allows these students to explore a career they may have thought was not for them. NH Construction Career Days is a catalyst which gives confidence and support to interested students as they evaluate their future career options.

Of most interest to all in attendance, was the chance to gain hands-on experience at operating heavy equipment, welding, carpentry, plumbing, electrical wiring, surveying and other construction related jobs. There was a variety of additional exhibits including truck driving simulators, distracted driving demonstrations, working the wing on a plow truck, sewer video inspection, personal protection equipment, storm water run-off education, tree climbing and jack hammering.

The excitement was evident as the students talked with construction professionals who shared their passion for what they do. The students left with an appreciation of the skills required and a clearer understanding of the importance and potential of a career in construction and related businesses. Several students were able to visit with the Governor as he toured through the exhibits on Friday.

Representatives from several colleges and secondary education opportunities were on hand to discuss educational resources and career training pathways. Students were able to learn about high school programs, registered apprenticeships, two and four year college curriculums and programs run by professional associations, and by state and local government.

A great deal of collaboration from the construction companies, school districts, state agencies and professional organizations was necessary to make this event such a great success. Thank you to all those involved with a special thanks to Meghan Theriault, Town of Goffstown, NH; Dan Stover, Associated Builders and Contractors – NH/VT Chapter; Mary Laturnau, NH Department of Education; and Chairperson Catherine Schoenenberger, Stay Safe Traffic Products.

Governor Lynch with students at the 2011 Construction Career days in Hopkinton

For more information about Construction Career Days and how to get involved, contact Catherine Schoenenberger at Stay Safe Traffic Products, Inc. at (866) 692-2114 or email staysafetraffic@aol.com
New Hampshire Public Works Mutual Aid

With record storms, flooding, and most recently Hurricane Irene, and the October Nor’easter hitting New Hampshire in the last several years the need for mutual aid is ever increasing. In times of crisis a mutual aid agreement allows neighboring communities to provided assistance in the form of labor and equipment to help see your municipality through the disaster. Mutual aid is a FEMA approved contract and will make the assistance eligible for federal reimbursement.

Mutual Aid is available for only $25 annually and the benefits are numerable for more information visit the T² website at www.t2.unh.edu/ma or contact Beth Hamilton at 603-862-1362.

Retroreflectometer Loan Program

NH LTAP has three retroreflectometers available to rent to NH municipalities. The retroreflectometers are able to measure the retroreflectivity of road signs from a distance in a very accurate way. Make the use of one part of your plan for meeting the MUTCD Retroreflectivity Standards today by loaning one today!

The fee for the equipment loan is $25, and municipalities may keep the retroreflectometer for up to six weeks (additional time may be requested).

For more information
www.t2.unh.edu/retroreflectometer
t2.center@unh.edu
603-862-2826

Visit the new UNH T² website today!

www.t2.unh.edu

• Access to the most up-to-date calendar
• Register for workshops online
• Access to NH Road Salt Database
• See important announcements
• Access to the UNH T² facebook page

NH LTAP is on Facebook & Twitter!

Want to stay informed of our activities? Want to connect with other professionals who attend our training? Want to look at pictures from our training classes and other events? Then “like” us on Facebook or “follow” us on Twitter to stay connected! We are posting information daily on our activities, new programs, training, local news, and services.

www.facebook.com/nhltap
www.twitter.com/nhltap
Crossword Puzzle

Be the first to complete this crossword and fax it (603-862-0620) to win a FREE T² workshop!

NAME

AFFILIATION

E-MAIL

PHONE

ACROSS

1. Certification program by T² Center and the NHDES
2. Tool used to measure how to retroreflective a sign is
3. Certification program to reduce the use of road salt
4. The site you should visit to take the T2 Survey
5. The event over 1,000 high school students attended at the Hopkinton State Fair grounds
6. Last name of new Training Program Manager
7. Town the 2011 Ken Ward Plow Rally winning team is from
8. Contaminant found in many NH watersheds
9. Every Day Counts will host 5 _____ with the T2 Center.
10. The type of parcel map T2 Center is working on

DOWN

2. Tool used to measure how to retroreflective a sign is
4. The site you should visit to take the T2 Survey
6. Last name of new Training Program Manager
7. Town the 2011 Ken Ward Plow Rally winning team is from
## SPRING 2012 TRAINING CALENDAR

More dates to be announced soon!

Check out our website for the most up-to-date calendar
[www.t2.unh.edu/training-calendar](http://www.t2.unh.edu/training-calendar)

<table>
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