

SALT REDUCTION WORKGROUP

- Minutes -

Monday, October 29, 2007

3:30 to 6:30 pm

Londonderry Municipal Buildings

268 B Mammoth Road

Londonderry, N.H.

ATTENDEES:

Janusz Czyzowski,	DPW Town of Londonderry	Jaime Sikora,	Federal Highway Admin.
Rick Russell,	DPW Town of Salem	Pam Mitchell,	N.H. DOT
Dave Wholley,	DPW Town of Salem	Myra Schwartz,	EPA
Alan Cote,	DPW Town of Derry	Douglas Heath,	EPA
Craig Durrett,	DPW Town of Derry	John LeLacheur,	N.H. State Police
Craig Bulkley,	Derry Town Council	Kathy DesRoches,	UNH T2 Center
Paul Carrier,	N.H. DES	Butch Leel,	UNH T2 Center
Phil Trowbridge,	N.H. DES	Minda Shaheen,	Nashua RPC
Barbara McMillan,	N.H. DES	Jill Robinson,	Rockingham RPC
Eric Williams,	N.H. DES	Bill Archieri,	VHB
Mark Hemmerlein,	N.H. DOT	Owen Williams,	Freshwater Farms
Caleb Dobbins,	N.H. DOT	Robert Roseen,	UNH Stormwater Center
Pamela Mitchell,	N.H. DOT	Kristopher Houle,	UNH Stormwater Center
Peter Stamnas,	N.H. DOT	Ben Amsden,	Plymouth State Univ.
Bill Cass,	N.H. DOT	Steve Whitman,	Jeffrey H. Taylor & Assoc.
Bill O'Donnell,	Federal Highway Admin.		

Invited but unable to attend

Joe Paradis,	Londonderry Town Council	Steve Kahl,	Plymouth State Univ.
Dave Sullivan,	Windham Town Administrator	Matt Merrill,	Condominium Manager
Everett McBride,	Salem Board of Selectman	Ryan Carr,	RG Carr LLC
Harland Eaton,	Auburn Board of Selectman	Mike Oleson,	DPW Town of Chester
Chester Board of Selectman		David Preece,	Southern N.H. RPC.
Michael Dross,	DPW Town of Auburn	Steve Williams,	Nashua RPC
Nick Wallner,	AAA		
Robert Sculley,	Motor Transport Association		
David Poulson,	DPW Town of Windham		
Jack McCartney,	DPW Town of Windham		

MEETING MINUTES

Introductions

Steve Whitman of Jeffrey H. Taylor and Associates welcomed everyone, and led the participants through introductions and a review of the agenda.

Presentation of the TMDLs for Policy Brook and North Tributary to Canobie Lake

Phil Trowbridge of the New Hampshire Department of Environmental Services presented the draft TMDLs for the two watershed areas. Trowbridge explained the methodology

used for collecting and analyzing the chloride data, and then presented the findings on chloride export from the watershed and the sources of chloride. The Policy Brook Watershed will require a 24.5% reduction in chloride loading, and the smaller North Tributary Watershed will require a 40% reduction in chloride loading. The full presentation and the draft TMDL reports are available at:
<http://www.rebuildingi93.com/content/environmental/waterquality/> .

Steve Whitman facilitated a discussion with the attendees at the conclusion of Trowbridge's presentation. Some of the concerns that the participants shared related to making these reductions included:

- The role of planning boards if new development is expected to contribute to salt loading; and
- Tracking of salt use, especially on private parking lots.

Some of the approaches discussed for making the necessary reductions included:

- The continued use of technology and new equipment on state and local roads
- The use of pervious pavement on new or reconstructed parking lots
- Town ordinances to require accounting of salt use on private parking lots

One participant asked if the ability of the watershed to assimilate the loads reduces over time. Trowbridge responded that he assumes so based on data from the North Tributary to Canobie Lake watershed. A large groundwater discharge from water softener was active in that watershed for years. Even though that discharge ceased in 2005, the watershed still appears to be affected by it.

The discussion continued and included a clarification that implementation may be phased, but there needs to be some type of accounting system in place to track use and measure the reductions. In 2008 there may be legislation at the State level enabling local communities to regulate salt use on private property. This raised concerns from the towns about hiring staff for enforcement. They have a hard enough time enforcing existing snow dumping ordinances. Paul Currier explained that municipalities may be asked to work with the state to implement an ordinance at the municipal level on accounting of how much salt is being put down. The state could provide money and technical assistance to these communities to assist with implementation. This implementation could be phased in over time, but it needs to be measured.

- Measure how much goes into the watershed.
- Measure how much goes out of the watershed.

It was also suggested that more costly, but effective, deicing materials might be an option on the private parking lots. Some of the participants questioned the possibility of reducing the treatment standard stating that they are already using the minimum amount of salt they can. This led to a discussion on behavior change involving the driving public, and the need for training of private contractors.

The local road maintenance professionals also explained that school buses and the pressure to avoid snow days often drives treatment decisions. If more cooperation and

flexibility could be available from the school districts, or if the buses could be better equipped to handle winter driving conditions, some reduction in treatment levels is possible. It was suggested that ten percent more salt is used to treat the roads one more time for the morning commute.

Enforcement was also identified as an area that could be expanded on, and a lower speed limit during storm events would be part of that approach. It was also suggested that working with law enforcement to ticket people when they don't slow down enough during a storm would help, and that the police shouldn't react so quickly to one person going off the road with the whole town having to be treated. People need to wait. Mandatory snow tires was also discussed as a way to reduce the need for salt on the roads.

One participant suggested sending the message to planning boards that they are going to need to reduce the number of road miles treated. It was also noted that there are communities like Chester which have a lot of land to be developed and will contribute to the loading in the watersheds.

It was also noted that reducing the amount of loading on private parking lots (as a per lane mile calculation) is an area that deserves some attention. This may include a need to somehow limit the liability on private lots where the private contractor's and property owners are open to lawsuits. One suggestion was to examine the ski industry and the mechanisms they use for limiting liability. Education and certification of private contractors was also discussed as an alternative that should be pursued.

The development of local design standards that limit impervious surfaces and require the use of porous pavement, and other infrastructure, which will reduce the need for salt was also suggested. This is an area where towns will also need some assistance. Rob Roseen explained that parking lots could use pervious pavement, and decrease the application rates down to 0-25% of the existing rate. They have studies with data for one year at UNH.

Presentation on Focus Group Research

Ben Amsden of Plymouth State University's Center for the Environment presented an over view of the focus group process, and an initial summary of the findings. The full presentation is available at:

<http://www.rebuildingi93.com/content/environmental/waterquality/saltreduction/>.

More detailed analysis will be available in January 2008 as part of the second report produced by Jeffrey H. Taylor and Associates. Following Ben's presentation there were several clarifying questions related to the focus group participants and their perceptions. When asked about the selection process and sample size for the focus groups Ben explained that they provided a \$50 incentive to all participants, and most of the recruiting was by word of mouth. This lead to a discussion of how to handle communication with

the public. Dave Wholley of Salem explained that some of the behavior change needs to include stopping things like pumping water off their properties and onto the street. This creates a need for additional road treatment, but could be eliminated.

Doug Heath, EPA, suggested that an effort is needed in the schools to raise awareness of the salt related issues. Several participants employed by DPWs discussed the need to require use of snow tires on private vehicles. There was also a suggestion that education efforts raise awareness of winter weather as a dangerous situation similar to other natural events, and possibly relate the loss of life to other events that are perceived as dangerous (floods, fires, etc.). Amsden explained that one theme that surfaced from the Focus Groups was that there is a need to prepare the roads somewhat for the workers who do not have an option to telecommute or go into work late.

Summary of Internet and Literature Research

Steve Whitman gave a brief update on the work recently completed by Jeffrey H. Taylor Associates and Plymouth State University. The findings from this research will be included in the next report to the Workgroup which is scheduled for completion in December. The overall findings included:

- There is no “quick fix” or “silver bullet”
- The field of work on this topic is fairly narrow and recent.
- No one set of best practices exist for the reduction of salt
- New technologies were often employed in conjunction with one another, making it difficult to assess the usefulness of any single approach
- Effectively communicating the true nature of road conditions during a storm is a critical element of changing drivers’ approach to winter weather.
- Sharing any up-to-the-minute conditions with drivers, allowing them to make their own decisions using the best possible information, could be used to compliment traditional education campaigns
- Overall voluntary approaches seem to be more promising when it comes to the driving public and road maintenance professionals.
- Exceptions to the voluntary approaches cited would be winter speed limits and mandatory use of snow tires for the public, and appropriate storage and application of road salt by winter maintenance professionals.
- Importance of monitoring water quality and road safety data to determine the effectiveness of road salt reduction efforts.

The results of this research and the sources collected will be circulated within the Steering Committee and then posted on <http://www.rebuildingi93.com/content/environmental/waterquality/saltreduction/> for review by Workgroup members and others in the near future.

Short-Term Education and Funding Opportunities

Steve Whitman explained the current approach to developing funding criteria for the dispersment of funds, and the timeline for the draft criteria. The current thinking of the

Steering Committee is to start circulating draft criteria, and to settle on a set of criteria by April of 2008. This will provide an opportunity for the local communities to demonstrate their commitment to salt reduction efforts, and to begin accessing funds for the development of a local approach to salt reduction on public and private roads and parking lots.

The participants expressed an interest in reviewing draft criteria as they become available. The discussion included an emphasis on engaging municipal boards in this discussion leading up to April of 2008, and ensuring that the funding can be used on these initial administration tasks (staff time, developing a salt accounting system, etc.). Municipalities would need a permanent funding source to maintain staff to manage salt inventories. They cannot hire someone for two years with state funds and then lose those funds. If everyone was required to use snow tires, the towns could reduce their salt application. One participant expressed that people who bother to change their tires for winter also have a different mindset regarding winter driving. Lastly, a participant commented that the distribution of funds must be related to the amount of area (roads and parking lots) in that community that receives treatment.

Future Meetings

At the conclusion of the meeting the Town of Salem requested input on their Snow and Ice Removal Plan, which will be submitted on November 12.

A workgroup meeting has been tentatively scheduled for April of 2008.