

Road Salt Conference Hopes to Refocus State/Local Attention on Serious Environmental Problem in Adirondack Park

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SARANAC LAKE, N.Y. -- Water quality and wildlife habitat are being damaged needlessly in the largest park in the contiguous United States, because New York State is the heaviest user of road salt in the nation, said the Adirondack Council and AdkAction.org.

New York can curb its appetite for road salt and stop the damage, without compromising highway safety, said the two groups whose headquarters are in New York's most remote and mountainous area, where winter driving can be a challenge.

The two organizations are co-sponsoring a second inter-organizational conference on June 13 at Paul Smith's College to address the growing problem of winter road salt damage in the Adirondack Park. Both organizations have issued major studies on the over-use of road salt since 2009.

The Paul Smith's College Adirondack Watershed Institute also will participate in the conference, by issuing a new report on chloride contamination in the park's waters, especially in places close to roads and highways.

Also attending the conference will be state and local officials whose duties include winter road maintenance, salt application and highway maintenance policies.

"Excess road salt has become a very serious problem in the Adirondack Park," said Adirondack Council Executive Director Brian L. Houseal. "It contaminates drinking water. It harms fish and wildlife. It kills plants and trees. It damages roads, sidewalks, guard rails and street signs. It is costing us all a fortune. But it doesn't have to."

"There are ways to control the damage and the cost, without making roads unsafe. The evidence suggests that the salt damage in the Adirondack Park could be reduced by 50 percent or more with changed practices, at no increase in long-term cost and no reduction in safety," said Lee Keet, chairman of the AdkAction.org water quality committee. "But we need both state and local officials to embrace these ideas before we can make real progress."

The June 13 conference is open to individuals responsible for winter road maintenance policy and execution, including county, town and village executives, elected officials, state agency personnel, environmental groups and news reporters.

Attendees at last year's conference reached general consensus on several key proposals to reduce the use of road salt and the damage it causes to Adirondack lakes and roadside environments. They also reached agreement on the need to reduce the heavy costs associated with salt application and the resulting damage to vehicles and infrastructure.

However, attempts to take those proposals to Albany for action in 2010 were hindered by governmental inertia when a lame-duck governor (David Paterson) was packing to leave and several candidates were vying to take his place.

Keet noted that New York applies an average of 225 pounds of pure salt per lane mile, per application, on state roads. This can happen many times during a single storm, he explained.

The June conference will consider some specific recommendations for improved sharing of services; common purchasing of equipment and chemicals; standardized approaches to snow and ice management; improved training; and, reduction of overlap in responsibilities.

The conference also will examine the "clear roads" policy adopted in the Adirondacks to accommodate traffic at the 1980 Winter Olympic Games with consideration of whether it could be modified without compromising public safety.

Daniel Kelting, executive director of the Paul Smith's Adirondack Watershed Institute (AWI), will report at the meeting on results of his new research on chloride loading in Adirondack watersheds along road networks in the Adirondack Park. (Abstract attached below.)

The AWI last year released an important publication commissioned by AdkAction.org titled Review of Effects and Costs of Road De-icing with Recommendations for Winter Road Management in the Adirondack Park. It is available online at www.adkaction.org.

The Adirondack Council's 2009 study Low Sodium Diet: Curbing New York's Appetite for Damaging Road Salt, is available online at www.adirondackcouncil.org.

In 2008, the Adirondack Council filed a Notice of Intent to Sue in federal court against the Village of Saranac Lake in an effort to compel local officials to cover or remove the village's uncovered salt storage pile, which was melting into Colby Creek and nearby Lake Colby. The village agreed to construct a salt storage building.

The conference will run from 10 a.m. to 3:30 p.m.

AdkAction.org is a not-for-profit citizen action group made up of both seasonal and fulltime Adirondack residents who work on selected issues they consider of vital importance to the economic and environmental future of the Adirondacks. More information is available about the group, its board and current issues on which it is working on its web site at www.AdkAction.org.

Founded in 1975, the Adirondack Council is a privately funded, not-for-profit organization dedicated to ensuring the ecological integrity and wild character of the Adirondack Park. The Council carries out its mission through research, education, advocacy and legal action. Its headquarters are in Elizabethtown, Essex County. The Council also maintains a media and government relations office in Albany.

WATERSHED BASED ANALYSIS OF LAKE SODIUM AND CHLORIDE CONCENTRATIONS

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(ABSTRACT)

The objectives of our study were to develop baseline levels for sodium and chloride for lakes in watersheds without paved roads, and to determine the effect of paved roads on levels of sodium and chloride in lakes. The goal of our analysis was to provide science-based information to help inform decision making regarding the use of road salt (sodium chloride) in winter road management. For our analysis we used average sodium and chloride data for 138 lakes obtained from the Adirondack Lakes Survey Corporation and the Adirondack Lakes Assessment Program combined in a watershed based analysis of paved road networks. The watersheds used in our study represented a broad range in paved road density and type (local roads and state roads), 56 of which had no paved roads to allow us to meet

our first study objective. The average sodium and chloride levels were 0.6 and 0.8ppm, respectively, for the 56 lakes in watersheds without paved roads, so baseline levels of less than 1ppm would represent a least impacted reference condition. In contrast, the average sodium and chloride levels for the lakes in watersheds with paved roads were 5.5 and 9.9ppm, respectively, significantly higher than their respective baseline levels. Also the mass ratio of sodium to chloride in lakes in watersheds with paved roads was not significantly different from the mass ratio of road salt, indicating that the higher levels of these two elements originated from road salt applied to paved roads in the watersheds. When not considering the type of paved road, road density (defined as miles of road per square mile of watershed area) was positively correlated with sodium and chloride levels, but only explained 8 percent of the variation. When considering the type of paved road, the relationship between road density and sodium and chloride levels improved greatly, with paved roads explaining 85 percent of the variation. In this analysis only state roads (State and US Routes, and Interstates) were significantly correlated with sodium and chloride levels and local roads did not contribute to explaining the variation in either sodium or chloride. We also developed models that show the effect that road proximity to surface water has on sodium and chloride levels. These models could be used as part of a larger effort to identify areas sensitive to winter road management.