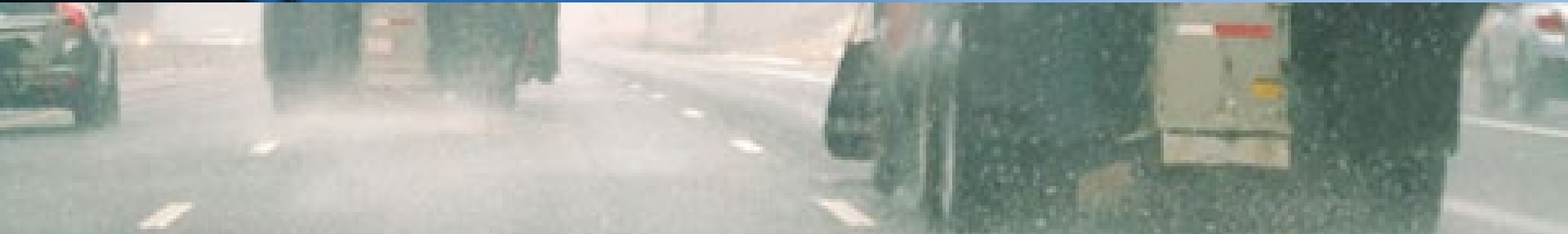




Clean Water Safe Roads

Hannah Grall Project Manager



A SUSTAINABLE FUTURE



FOR THE
ADIRONDACKS

Our mission

AdkAction creates projects that address unmet needs, promote vibrant communities, and preserve the natural beauty of the Adirondacks for all.

Our vision

AdkAction and its projects will significantly improve the social, economic, and cultural lives of local residents and enhance the long term natural resources and character of the Park.



Road Salt Action Timeline

2010

AdkAction underwrites and distributes "Review of Effects and Costs of Road De-icing with Recommendations for Winter Road Management in the Adirondack Park"

2010

AdkAction organizes the first Road Salt Conference in the Adirondacks and establishes through scientific presentations that NYS uses too much salt.

2011

AdkAction organizes 2nd Road Salt Conference which centers on a comparison of state salt use to local salt use.

2014

AdkAction organizes 3rd Road Salt Conference which led to the creation of the Adirondack Road Salt Working Group.

2016

Economic Impact Study commissioned by AdkAction shows depreciation value of vehicles decreased by 10%, cost of corrosion exceeds material cost of road salt.

2017

AdkAction and FUND for Lake George underwrite PSC AWI's Well and Aquifer study which demonstrates widespread groundwater contamination across the Adirondacks in homes downslope from state roads.

2018

NYS DOT, DOH, DEC join AdkAction to form the Strategic Road Salt Working Group.

AdkAction publishes the "Road Map to Reduce Road Salt."

2020

The Randy Preston Adirondack Road Salt Reduction Act becomes NYS Law.

2021

AdkAction launches the Clean Water, Safe Roads Partnership

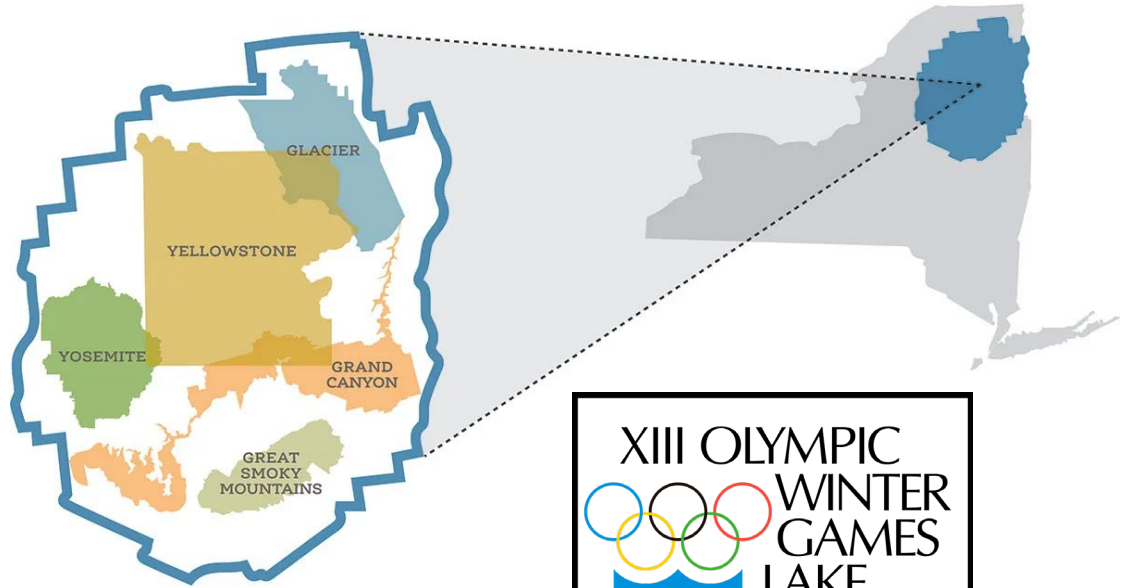
The Adirondack Park

6 Million Acre State Park in NYS

130,000 Year-Round Rural Residents

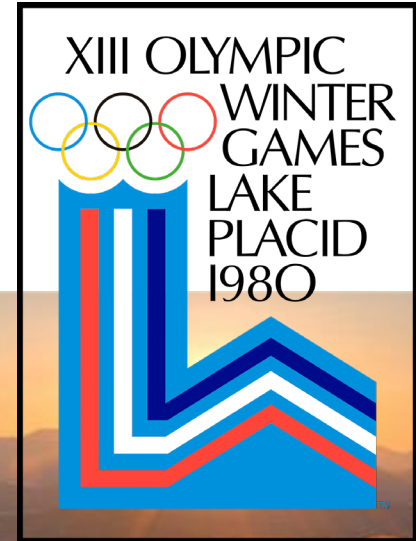
Known for pristine lakes

Most homes drink private well water



Many old-timers remember:

The Olympics. That's when the salting began.



Well contamination is widely known



*Ben and Barbara Sweeney of Boonville.
Photo by Mike Lynch. Text by Ry Rivard. Published
by Adirondack Explorer, 2020*

“You can’t go buy bottled water for a herd of dairy cattle”



Our drinking water is contaminated by road salt. 64% of wells tested came up salty

Contamination is highest for wells downslope of state highways.

We are seeing some levels akin to brackish water estuaries at 1000 ppm in groundwater.

Groundwater pollution affects vegetation and aquatic ecosystems, homeowner expenses, property, quality of life, and human health.



Clean Water, Safe Roads Network Partnership



Clean Water Safe Road Partnership: 3 Phase Project

Local & County Highway

Driving Public

Private Contractors

Empower regional change in chloride reduction

Build broad base for support for road salt reduction

Drive demand for change with private winter road management



Clean Water Safe Road Partnership: Phase 1

Engagement

Surveys & pledges administered to municipalities

Tools

Training materials and water quality reports produced

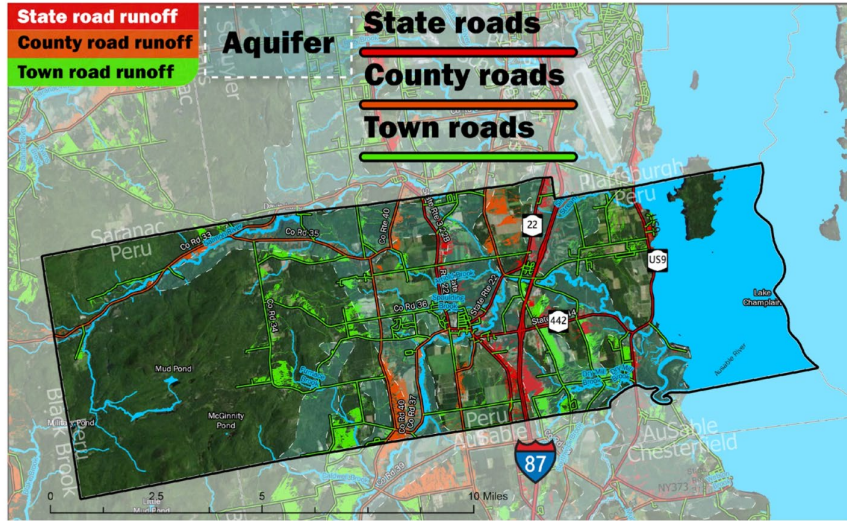
Action

Continued effort to engage communities to reduce road salt through action plans, & training opportunities



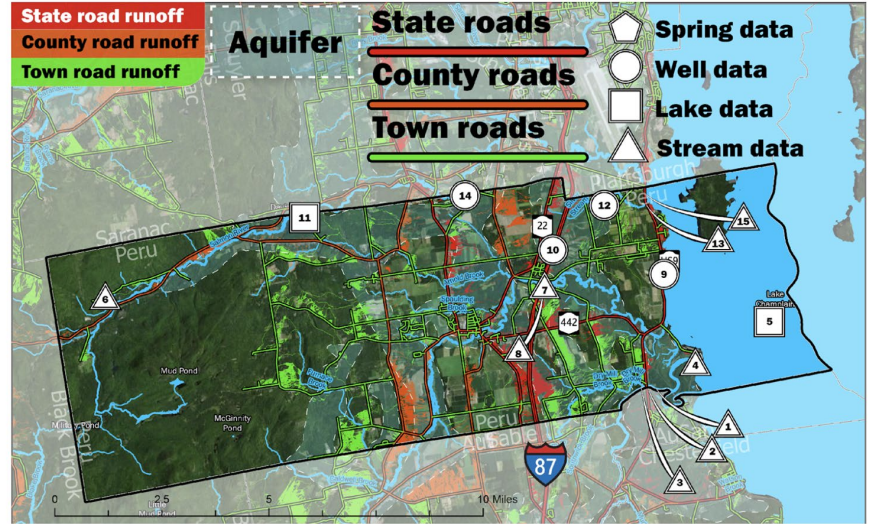
Town by Town Maps: Peru

Runoff from State Routes in the Town of Peru travels through about 1433.9 acres of land (Map 3). Most of the runoff associated with the 32.1 miles of State Routes maintained year-round flows a short distance directly into surface water. Runoff from Local roads in the Town of Peru travels through about 4826.1 acres of land, 1276.01 County and 3830.62 town, with much of this runoff overlaying the surficial aquifer system and thus posing a risk towards contaminating this valuable underground water resource.



Map 3 Town of Peru: Paved Road Runoff Areas.

There are 15 water quality monitoring locations in the Town of Peru (2 lake, 9 stream, and 4 well locations) (Map 4, Table 1).



Map 4 Town of Peru: Water Sampling Locations

Operator Training + Opportunities for Shared Learning = Practical, Safe Salt Reduction



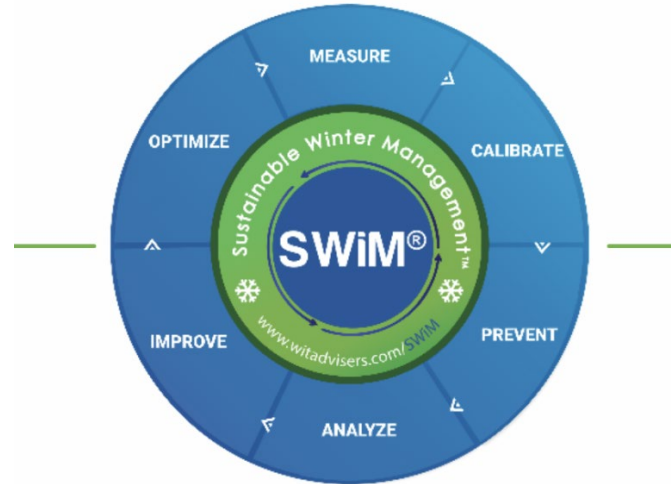
Operator Training + Opportunities for Shared Learning = Practical, Safe Salt Reduction



SWiM® Standards Implementation by Category of Policy
October 19, 2023 Workshop, Whitehall, NY

Policy	Season 1 – 2023/'24	Season 2 – 2024/'25	Season(s) 3, 4 or 5
Measure			
Calibrate			
Prevent			
Analyze			
Improve			
Optimize			

AdkAction uses Sustainable Winter Management standards (SWiM)





“

Working on road salt reduction has brought our entire shop together.

”

Town of Peru

– Tyler Jarvis
Deputy Superintendent
Peru Highway Department



Full Elimination of Sand

Switched to brining all routes

Moving towards all live edge plows

\$70,000 savings, 50% chloride reduction

100% of participants

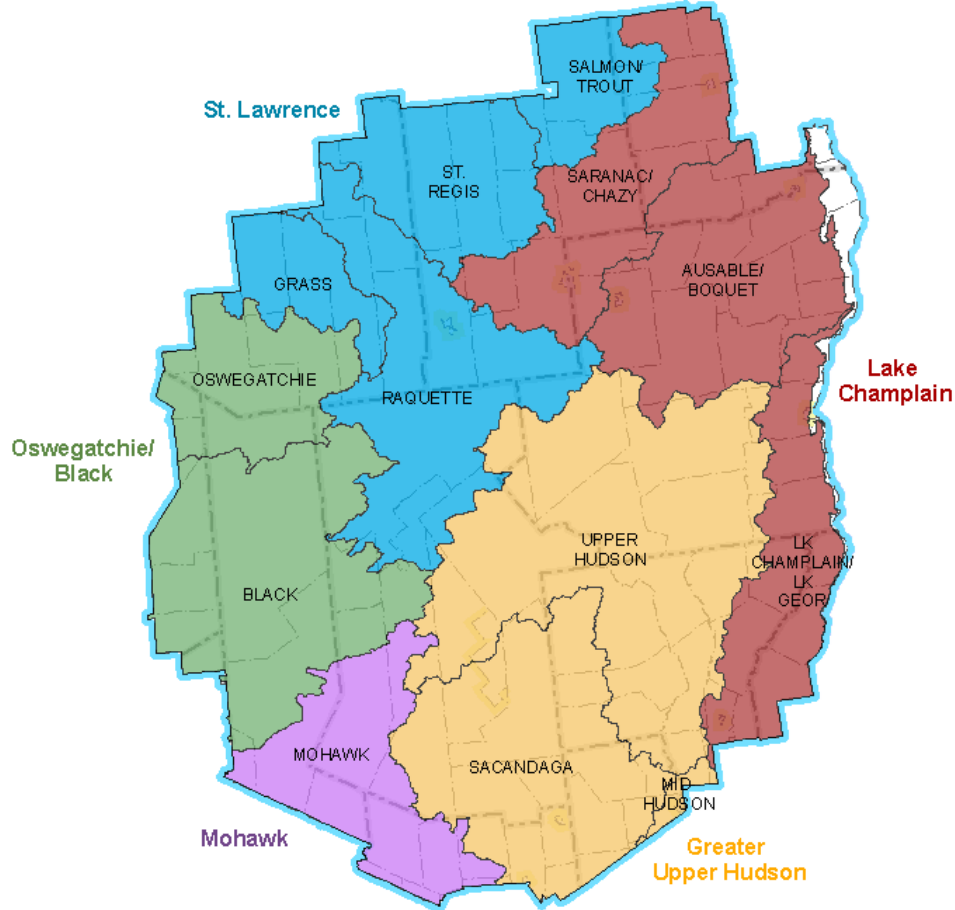
Measured more

Changed a policy

Wanted to continue in Year 2



Adirondack Park Digital Wetland Covertype Mapping Complete for All Major Watersheds



Now scaling our work across Adirondack watersheds

- **Champlain cohort**
- **St. Lawrence cohort**
- **Greater Upper Hudson cohort**

Peru, Plattsburgh, Ausable, Chesterfield, Saranac, Saranac Lake, Keene, Wilmington, St. Regis Mohawk Reservation, Washington County, Putnam, Fort Ann, Cambridge, Whitehall, Dresden, Argyle, Hartford and Hartford School District, Harrietstown

....and growing



Next:

- 1. Increasing the pace of reduction for cohort members**
- 2. Equipping departments with necessary tools**
- 3. Continue to increase # of highway departments involved**



CWSR Partnership: Phase 2 Driving Public

Attention-Getting

Approachable,
science
communication

Informational

Homeowner, renter,
visitor, driver
information

Action-Oriented

Personal pledge to reduce
road salt

Letter to encourage muni
engagement

Tips for contracting
private snow removal

www.AdkAction.org/Salt

At the October 3, 2023 Salt Summit, AdkAction launched...

Don't Be Salty ADK

Clean Water Pledge

I pledge to take proactive steps to reduce road salt usage in my community and minimize its environmental impact. I recognize that excessive road salt can harm ecosystems, contaminate drinking water, and corrode infrastructure. To fulfill this commitment, I will:

(Required)

Select all the actions you will take to protect clean water from salt pollution:

- Educate: I will educate myself and others about responsible road salt usage.
- Encourage: I will encourage neighbors, friends, local authorities, and public works departments to adopt more environmentally-friendly practices.
- Monitor Conditions: I will stay informed about weather forecasts to salt only when necessary.
- Reduce My Use: If I am responsible for maintaining my own driveway or walkways, I will use salt sparingly and consider alternatives like sand or shoveling to keep them safe during winter, especially near waterways or sensitive vegetation.
- Promote Safety: I will practice and encourage safe driving practices in winter conditions to minimize the need for excessive road salt, including: reducing speed, maintaining a safe following distance, and using winter tires.
- Support Change: I will support local and regional policies that encourage responsible road salt usage and encourage investment in research for more sustainable deicing methods.

By taking these actions and advocating for responsible road salt usage, I pledge to reduce the environmental impact of salt on our communities and contribute to a healthier, more sustainable future. Please type your name below to sign the pledge! *(Required)*



Be a part of the solution
(and we don't mean the brine)

Did you know?

Driving too close behind a plow can cause more salt to bounce off the road - **leave 6 car lengths** to keep salt where it belongs!



#DON'TBESALTYADK

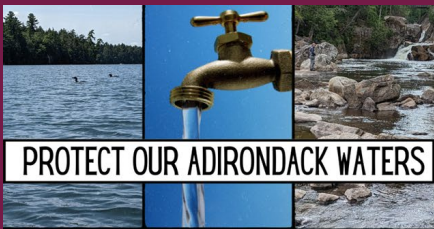


ADK ACTION

At the October 3, 2023 Salt Summit, AdkAction launched...

Don't Be Salty ADK





PROTECT OUR ADIRONDACK WATERS

Each year, an estimated 193,000 tons of road salt are applied to roadways in the Adirondacks, posing a threat to aquatic and terrestrial ecosystems, water quality, and the safety of drinking water.

3,687 miles of streams and 820 lakes and ponds are at risk

31% of ADK homes may be experiencing corrosive damage to plumbing from sodium in their well water

CLEAN WATER SAFE ROADS

WE CAN HAVE BOTH

Road crews in the Clean Water Safe Roads Network are trained in sustainable snow and ice removal practices that reduce the need for salt, and keep the salt that is used where it is needed (on the road) and out of our water.



BE A PART OF THE SOLUTION TO STOP ROAD SALT POLLUTION

ADKACTION.ORG/SALT



SALT SUSTAINABLY! TIPS FOR YOUR HOME OR BUSINESS

USE WINTER DEICING SALT SPARINGLY

Apply salt only where it's needed most, such as walkways, driveways, and steps.



A 12 ounce coffee mug full of salt is enough to treat a 20-foot driveway or 10 sidewalk squares.

MONITOR WEATHER CONDITIONS



Salt doesn't work below 15°F. Sand can be used for traction on ice during a cold snap (and can be swept up in the spring for reusing).

If a snowstorm is predicted, consider pre-treating surfaces to prevent ice from forming.

SHOVEL FIRST

Clear snow and ice mechanically before applying salt. The less snow and ice there is to melt, the less salt you'll need.



SPREAD EVENLY

Use a spreader to evenly distribute salt. Avoid piling it in one area, as this can lead to more polluted runoff.

SUPPORT SUSTAINABLE PRACTICES

Encourage your local municipality to adopt eco-friendly winter maintenance practices and join AdkAction's Clean Water, Safe Roads Network.

SIGN YOUR CLEAN WATER PLEDGE

to get a FREE sticker or car magnet



ADKACTION.ORG/SALT

#DONTBESALTYADK



At the October 3, 2023 Salt Summit, AdkAction launched...

Don't Be Salty ADK



Thank you!

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AdkAction.org

