The Winter Salt Scarcity: How One Small Vermont Town Beat the Freeze and Saved $40,000

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Every public works director knows the mid-winter pit in their stomach when the forecast calls for a deep freeze, the salt pile is running low, and supply chains dry up. During the 2025–2026 winter season, that exact nightmare became a reality across the region. Salt was scarce, prices were volatile, and record-low temperatures threatened to render standard rock salt completely useless.

Municipalities were caught between a rock and a hard place: how do you maintain safe, black roads for your community when the raw materials you rely on simply aren't available?

A Smarter Strategy in Bolton, VT

Instead of rationing salt and hoping for the best, the Town of Bolton's highway crew chose a different path. They anticipated the challenge and, in the fall of 2025, implemented a specialized Liquid Magnesium Chloride INH (26%) program.

Magnesium chloride has a highly efficient melting ability and a slow dilution curve, meaning it stays on the road and keeps working far longer than standard brines or rock salt. Even better, it functions beautifully in bitter, dry cold where traditional salt fails completely. By acting proactively, Bolton's winter operations team set out to achieve a definitive goal: reduce total material output, cut costs, and elevate public safety.

Overcoming the Odds

The 2025–2026 winter didn't make things easy. It turned out to be an above-average winter for snowfall and cold. To make matters worse, the Bolton crew lost a team member mid-season, leaving them short-handed during long-duration storms.

But their new liquid strategy changed the mechanics of the fight:

- **The Anti-Icing Edge:** The crew pre-treated roads with the Magnesium Chloride liquid before the flakes fell. This prevented snow from bonding to the pavement, acting like a non-stick cooking spray on the roads.
- **Cleaner Scrapes:** When plows hit the road, they achieved a cleaner surface scrape to the bare asphalt, preventing dangerous hardpack from forming.
- **The Pre-Wet System:** During marathon storms, the crew used an on-board pre-wet system to add a minimal amount of the liquid to their remaining salt, keeping the chemical working right at the surface.

Because the product performed so efficiently, the short-handed crew didn't have to make constant, exhausting re-application trips. They trusted the liquid to do the heavy lifting, allowing them to maintain superior road quality with fewer boots on the ground.

The Ultimate Victory: By the Numbers

Bolton's shift from a reactive salt approach to a proactive liquid program yielded staggering, measurable success during an incredibly tough winter.

Financial Triumph

The program drove massive budget efficiencies, proving that environmental responsibility and fiscal conservatism can go hand-in-hand:

- **Gross Savings:** $39,527.06
- **Net Savings:** $18,643.36 *(This net figure completely paid for the initial equipment assets needed to launch the program in its very first season!)*
- **Material Cost Savings:** $10,392.50 *(Calculated by subtracting the cost of the liquid material from the massive reduction in salt)*.
- **Fuel Savings:** $10,000.00 *(Achieved through a drastic reduction in necessary application trips)*.

Drastic Material Reduction

In an average season, Bolton typically burns through 750 to 800 tons of salt. Despite this past winter being harsher than normal, **the town reduced its salt usage by 175 tons**. In some areas, application rates were cut down to just **1/3** of what traditional products require.

Environmental Safeguards

Because magnesium chloride requires a fraction of the application rate and resists quick dilution, it radically minimized chloride runoff into local watersheds. Furthermore, the product utilized built-in corrosion inhibitors (INH), actively protecting resident vehicles and town infrastructure from rust and premature degradation.

An Appreciative Community

The true measure of a public works project is how it feels to the people driving the roads. Bolton's residents didn't just notice the cleaner, safer streets—they actively rallied behind the highway department. Throughout the season, the crew received overwhelming vocal support and encouragement from the local community. Residents commended the town's dual victory of saving taxpayer money while protecting Vermont's beautiful natural environment.

Bolton proved that public safety doesn't have to depend on an endless, expensive supply of rock salt. With the right strategy, a small town can achieve premier, state-recognized road service, keep its budget firmly in the black, and protect the local ecosystem for seasons to come.