

Sustainable strategies

The best ways to save materials, time and costs in winter road maintenance

Sustainability means more than using less. It's a full spectrum of strategies that help winter road maintenance agencies to keep the roads safe while respecting the environment, operator and supervisor time, and department budgets.

Here are the best ways to work more sustainably while maintaining the levels of service drivers have come to expect.

Equipment & storage



Equipment calibration

Keep yours up to date by calibrating prior to each winter season.
Win: Save as much as 50%.



Measurements

Know whether you're achieving every one of your goals.
Win: Reduce waste by 10% - 30%.



Equipment upgrades

Modernize operations while optimizing the budget.
Win: Greater efficiency, precise (and less) application, optimized operator time.



Proper salt storage

Store 100% capacity, distributed across the state, and secure against runoff.
Win: Fewer service delays, minimal environmental impact.

Liquids



Liquid use

They can all reduce the amount of material used each season.
Win: Save significant materials and effort, and provide excellent levels of service.



Pre-wetting

Add brine to the road salt before it hits the road.
Win: Save at least 30% compared to using dry salt alone.



Anti-icing

Use a decision chart or get a recommendation from a provider.
Win: Use up to 75% less salt and reduce or eliminate frost callouts.



Cold temperature use

Avoid using dry salt in pavement temperatures below 15° F — it's not very effective.
Win: Save 100% of salt by using liquids or abrasives instead.

Modern tools



Forecasts

Hyperlocal weather + road weather forecast data makes all the difference.
Win: Save time and materials while keeping the roads safer.



Technology

Major advancements help you use precise applications and amounts.
Win: Save 30% - 40% in material usage, and boost efficiency and communication.



Variable application rates

Optimize the application rate with a maintenance decision support system (MDSS) or decision matrix chart.
Win: Reduce salt use up to a factor of 7 compared to a single application rate.

Agencies & policies



Accountability

Connect goals to results: Use data, storm analysis and treatment suggestions.
Win: Get a 10% - 50% performance boost with 10% - 50% less effort and materials.



Level of service

Communicate with policymakers to influence sensible changes.
Win: Achieve goals with up to 30% less effort and meet public expectations.



Training

Comprehensive, continual, and empowering training sets us all up for success.
Win: Every possible benefit.

Vaisala is here to help

From sensors to systems and digital services, Vaisala gives road stakeholders unrivaled road network visibility and decision support — so everyone can keep moving toward better, more insightful ways of operating. We are recognized experts in transportation, and we continue to channel our curiosity into new ways of making roadways safer and more efficient than ever — as reflected in our guiding principles:



Move ahead



Mobility and beyond



The innovators



See, understand, decide

Drive improvement in your road maintenance organization.