

What's Going On In Our Corner? Southeast WI MS4 Permittees



Recording Lane Miles For 2022 MS4 Annual Report

When reporting winter maintenance activities, be sure to accurately report how many lane-miles of roadway your MS4 is responsible for snow and ice control. A reminder that one mile of two-way road would equal two miles.

How Does Your Community Track Road Salt Usage?

Tracking application practices can help optimize winter maintenance strategies. Some municipalities track by how much is used per storm event, such as prescribed pounds per lane mile, and/or through truck GPS tracking capabilities. Others track by how much road salt was at the start and how much is left at the end of the season.



City of Glendale fire truck brine applicator.
Photo credit: Ricky Neth, City Mechanic

Topics

P.1 Winter Road Management

P.2 Road Salt Storage

P.3 Upcoming Dates, Reminders
And Events

City Of Glendale Takes An Innovative Approach For Brine Application

The City of Glendale set a goal to use more liquids and less granular salts to treat the City's roads.

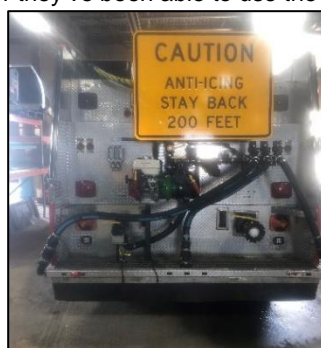
The City's Director of Public Works, Charlie Imig, has played a crucial role by approving equipment purchases, encouraging staff training and the buy-in for brining. Through these efforts, Imig's DPW crew has seen cost savings of material, by using less salt, without compromising the safety of the roads. In fact, the crew has taken it to another level with the addition of a fire truck brine applicator!

The idea to purchase the truck was originally brought up by the City's former Mechanic. At that time, it was just a thought. A year later, the City purchased the fire truck from their fire department and started converting the fire truck to apply brine. Neth stated this is the first winter they've been able to use the truck,

and they continue to see the City's salt usage go down. In addition to the fire truck being a brine applicator, it has also been set up to water freshly planted trees during the summer.

Since the conversion of the fire truck, the City has encouraged other municipalities to get on board with brine applications and has trained local high school grounds maintenance on calibration and the benefits of using brine.

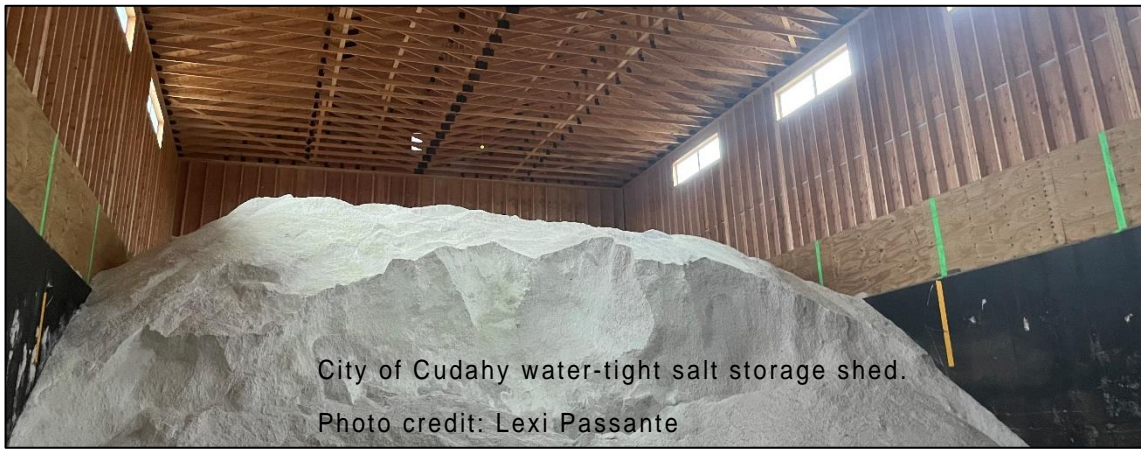
Imig stated the City's Department of Public Works crew are all very proud of how they keep the roads of Glendale safe while using less salt.



Charlie Imig (Public Works Director) and Ricky Neth (City Mechanic) can be reached at:

c.imig@glendalewi.gov
Mechanic@glendalewi.gov

for more information regarding the City's winter road management and fire truck brine applicator.



City of Cudahy water-tight salt storage shed.

Photo credit: Lexi Passante

Road Salt Storage

When talking salt reduction strategies, we often hyperfocus on application. *Do you calibrate your equipment? How many pounds per lane mile are you applying? Do you consider pavement temperature?* However, it's important to remember proper salt storage and handling can make an impact too.

During the winter season, road salt storage becomes highly active from trucks loading and unloading. Communities should evaluate what best management practices (BMPs) can be used to avoid road salt stormwater contamination.

Salt sheds are a very common (and effective!) structural BMP for source control. However, it's fairly common for salt to be stored outside under cover (e.g., tarps and covered bays). Covering salt inside of a watertight building or under appropriate cover protects the salt from rain, snow, and wind – reducing the risk of stormwater contamination.

While source control structural BMPs like salt sheds are commonly thought of, non-structural BMPs should also be considered.

To help identify what BMP is most appropriate for your site, think about the source of pollution, its flow path, and discharge location. For example, if there is a storm drain near the salt shed, consider covering it during loading and unloading.

Examples of salt handling and storage BMPs

- Salt shed. Make sure it is watertight.
- Covered outdoor storage. Make sure the salt is protected from elements (rain, snow, wind).
- Store salt where stormwater doesn't flow. Don't store it at a low point.
- Only uncover salt when working. Make sure it's covered when you're done.
- Keep it tidy. Sweep after loading/unloading. Store in containerized space (e.g., 3 sided bays).
- Cover up nearby storm drains when loading and unloading or during busy season.
- Install barriers around brine tanks to prevent puncture.
- Secondary containment around brine tank to capture if spilled.

Calibrating Anti-icing Equipment At The Village Of Mukwonago

At the Village of Mukwonago, training for winter's seasonal events became a challenge without the introduction of new technology. As a result, two years ago, the Village began involving staff in the calibration of anti-icing equipment material application. The Village's Public Works Director, Ron Bittner, explained that while no event is the same, driver awareness of what should and shouldn't be happening can go a long way in reducing a community's salt application.

Bittner's DPW crew participate in recording transmission pulses, measuring dispensed salt and prewet material, and entering the data into the controller. This may seem like a small step in reducing usage but ultimately has provided driver awareness in material application. In fact, two years ago, Bittner

explained that drivers requested lower defined application rates on their equipment, and this past year, two drivers asked to recalibrate their equipment based on inconsistent material application. The Village has reduced the amount of road salt usage over the years, and their numbers show it:

Year	Total Salt Usage	Number Of Storm Events And Lane Miles
2019-2020	555 tons	19 events, 91 lane miles
2020-2021	462 tons	17 events, 91 lane miles
2021-2022	331 tons	20 events, 91 lane miles

Plowing: How Do You Store Snow?

Snow can be contaminated with deicers, oil, grease, heavy metals from vehicles, litter, and debris.

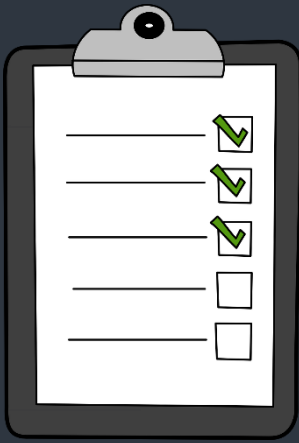
Consider storing snow piles on pervious surfaces (e.g., grass). If pervious surface storage is not an option, store snow away from stormwater inlets or areas where snowmelt on a slope could sheet flow into nearby waterways or wetlands should be considered.

Snowmelt can leave behind litter and debris picked up during plowing. Good housekeeping practices could include picking up litter left behind and sweeping the area on impervious surface shortly after the snowmelt event.

If snow storage is occurring at a municipal property that has a stormwater pollution prevention plan (SWPPP), the area should also be identified on the SWPPP map!



Photo credit: [Melting snow reveals runoff concerns | WLUK \(fox11online.com\)](#)



Want to be featured in the MS4 Spring Edition?

We want to hear about your municipality's success stories, practical procedures that work well for your MS4 program, etc. so we can share with the rest of the region!

Please reach out to SE stormwater specialists with stories:

Lexi Passante

(Elexius.passante@wisconsin.gov)

or

Samantha Katt

(Samantha.katt@wisconsin.gov)

Upcoming Dates, Reminders And Events

MS4 2022 Annual Report Due 3/31/2023

Via the epermitting system ([Storm Water MS4 eReporting \(wi.gov\)](https://stormwater.ms4.eReporting.wi.gov)). A WAMS ID is required in order to access the Annual Report. If you do not have a registered WAMS ID, please visit: [Wisconsin Web Access Management System](#).

General MS4 Permit: Upcoming TMDL Permit Conditions

Permittees under the [General MS4 Permit](#) within the Rock River and/or Milwaukee River Basin TMDL should have received emails on 2/15 or 2/21/23 on upcoming permit condition reminders.

North Shore And Menomonee River Group Permittees: Upcoming Permit Conditions

Permittees under the North Shore or Menomonee River Group Permit should have received emails on 2/24/23 on upcoming permit condition reminders.

**If you did not receive these emails, please contact Lexi Passante (Elexius.passante@wisconsin.gov) or Samantha Katt (Samantha.katt@wisconsin.gov). **

WI Salt Wise Webinars

[Granular & Liquid Deicer Calibration](#)

Calibration is a key best practice in winter maintenance. Properly calibrated equipment helps agencies ensure consistent application rates, gain invaluable data for trials, and determine a viable starting point during an event. Bryan Pickworth, Road Maintenance Supervisor at the City of Farmington Hills, Michigan, has helped share his knowledge on calibration of de-icing equipment at state and national conferences across the US.

[Green SnowPro: Liability Protection in NH - April 5](#)

New Hampshire's voluntary Commercial Salt Applicator Certification program (Green SnowPro) has been in effect for over a decade. Staff from New Hampshire's Department of Environmental Services will discuss the program's evolution, lessons learned, and how the limited liability protection for Green SnowPro certified contractors has played out in the courts.

[Smart Salting: Reviewing the Basics - May 10](#)

When we talk smart salting, liquids get a lot of buzz, but other best practices are equally important. Attention to salting speed, spinner speed, and materials (treated salt vs straight salt), can significantly reduce total salt use. Increasing the efficiency of mechanical removal by choosing the right cutting edge and adjusting your plowing speed has direct implications on salt rates as well. Matt Wittum, Highway Superintendent with the Town of Linn, dives in BMPs that every agency should be using.

Urban Nonpoint Source & Storm Water (UNPS) Management Planning Grant Webinar Recording Available

If you were unable to attend the webinar on Feb. 14, 2023 or would like a refresher, a recording of [the webinar is available online](#). Google Chrome or Microsoft Edge are the preferred browsers for viewing the webinar. UNPS Planning Grant applications for projects beginning in 2024 are now available on the DNR's [grant program webpage](#).