

Snow and Ice Control

Wisconsin Salt Wise Partnership

A coalition of organizations coming together to reduce salt pollution in our lakes, streams and drinking water.



Northcentral Wisconsin Stormwater Coalition



Madison Metropolitan Sewerage District





$\$1 \text{ salt} = \10 damage



Chloride in our Lakes and Rivers

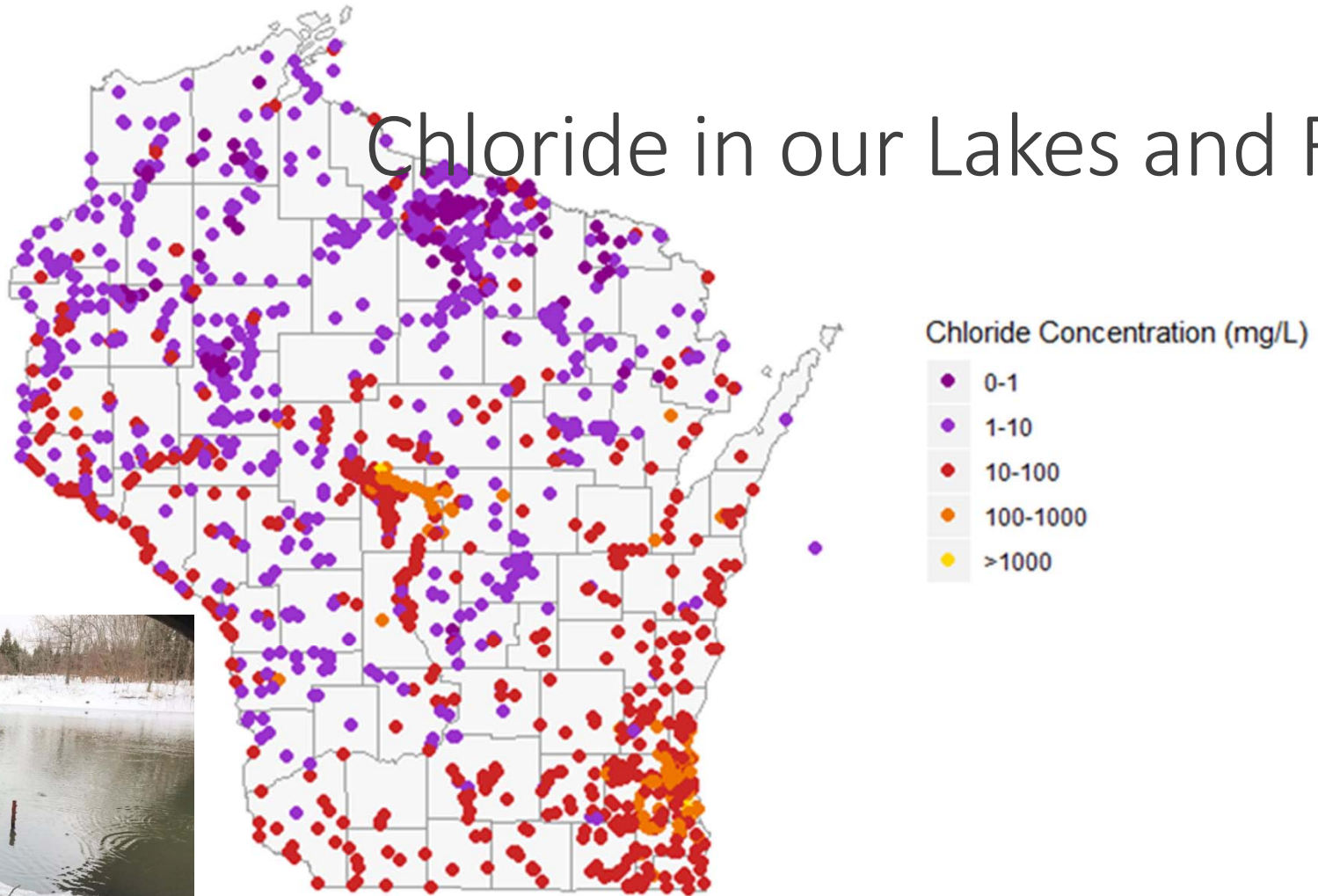
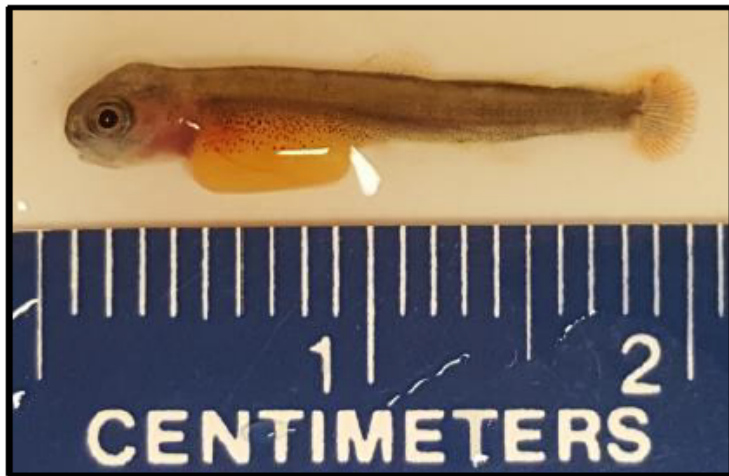


Figure by Linnea Rock using data from waterqualitydata.us

After 25 days



Bill Hintz,
University of Toledo



Scientists have found a ‘sleeping giant’ of environmental problems: Earth is getting saltier

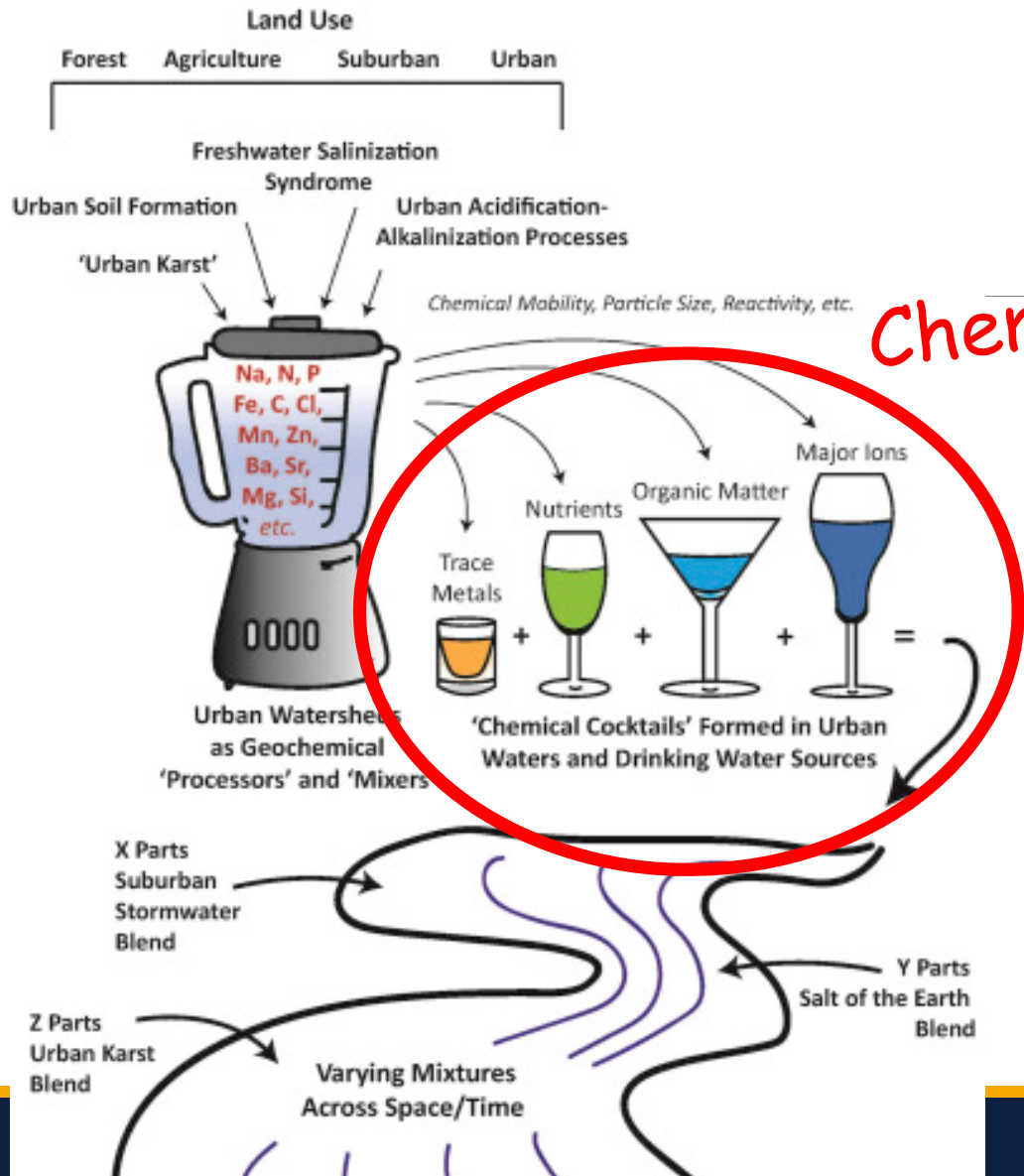
Salt used to de-ice roads is the single biggest source of salt in the U.S.



By [Kasha Patel](#)

October 31, 2023 at 6:00 a.m. EDT





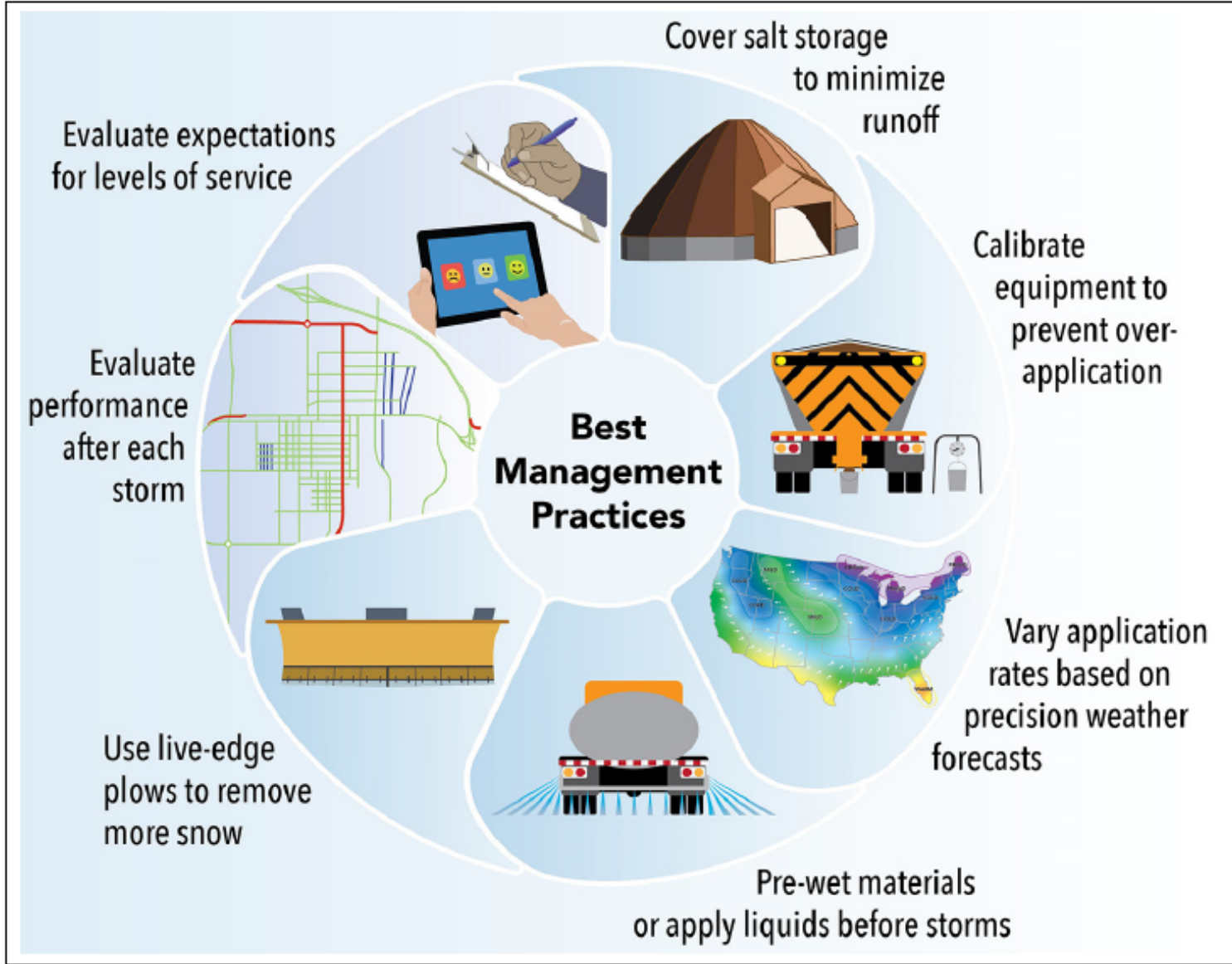
Chemical Cocktails



Sujay Kaushal,
University of Maryland



Brown water pours from an opened hydrant on Wednesday in Potomac, Md. Montgomery County residents have been making reports about it since March. Officials blame salt and manganese. (Michael S. Williamson/The Washington Post)



Salt-Wise Grant

The purpose of the grant is to raise awareness of the importance of reduced road salt usage by training city winter maintenance professionals and implementing a public outreach campaign.

Education for:

- Operators – Driver Meetings & Training
- Residents – Updated Website & PSA's
- Elected Officials - Handout

Salt Wise

MILWAUKEE

Snow and Ice Control

Paving the way as a Salt Wise urban center on a Great Lake

The overuse of salt costs taxpayers and jeopardizes the health of our freshwater resources, the foundation of our economy, and our quality of life. Adoption of best management practices today protects against the need for expensive repairs and remediation tomorrow.

Salt degrades freshwater resources and damages infrastructure

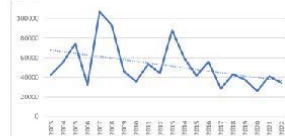
Salt pollutes freshwater lakes, streams, and drinking water. High salt (sodium chloride) concentrations stress the plants and animals adapted to freshwater environments. Currently, over 100 miles of rivers in the Milwaukee River basin are impaired with high chloride levels. Lake Michigan's salinity has nearly doubled in the last 40 years.

Salt weakens concrete, brick, and stone in our homes and roads. One ton of rock salt causes between \$800 and \$3,300 of damage to our built infrastructure. Nationwide we spend over \$5 billion annually to repair salt damage to roads and bridges and we're not keeping up.

Salt Use

Public safety is our top priority when responding to snow events. Salt use is one tool that we use to keep Milwaukee moving.

We continue to implement best practices to reduce our salt use while still meeting public safety goals. Our average tons of salt used is has been declining for the past 20 years.



5 Salt Wise principles:

1. Maximize mechanical removal
2. Application Rates
3. Incorporate brine
4. Train operators
5. Educate the public



5 Salt Wise principles employed by Milwaukee DPW:

Maximize Mechanical Removal

Our plow trucks are outfitted with an underbelly and/or front plow blade to support the efficient movement of snow off the road surface as quickly as possible. During heavy snow we may pause salting; as we want to plow snow, not salt. Plow more, salt less.

Application Rates

We make adjustments to application rates based on current and future conditions to use the least amount of salt needed to get the job done. Our equipment is properly calibrated to ensure consistent application.

Incorporate brine

We anti-ice (apply brine directly to the street) in advance of storms to prevent the formation of a bond between snow and the pavement enabling a quicker return to better road conditions. We also pre-wet the salt with brine as it leaves the truck to activate it more quickly and keep it in the driving lane.

Train Operators

All operators receive training on salt use best management practices including the elements of pre-storm planning, deicer materials, precision application rates, mechanical removal, and the environmental impacts of salt.

Educate the public

We developed outreach materials that promote reasonable expectations for our winter roads and encourage our residents to take a proactive approach to winter weather.



Learn more at:
milwaukee.gov/snow

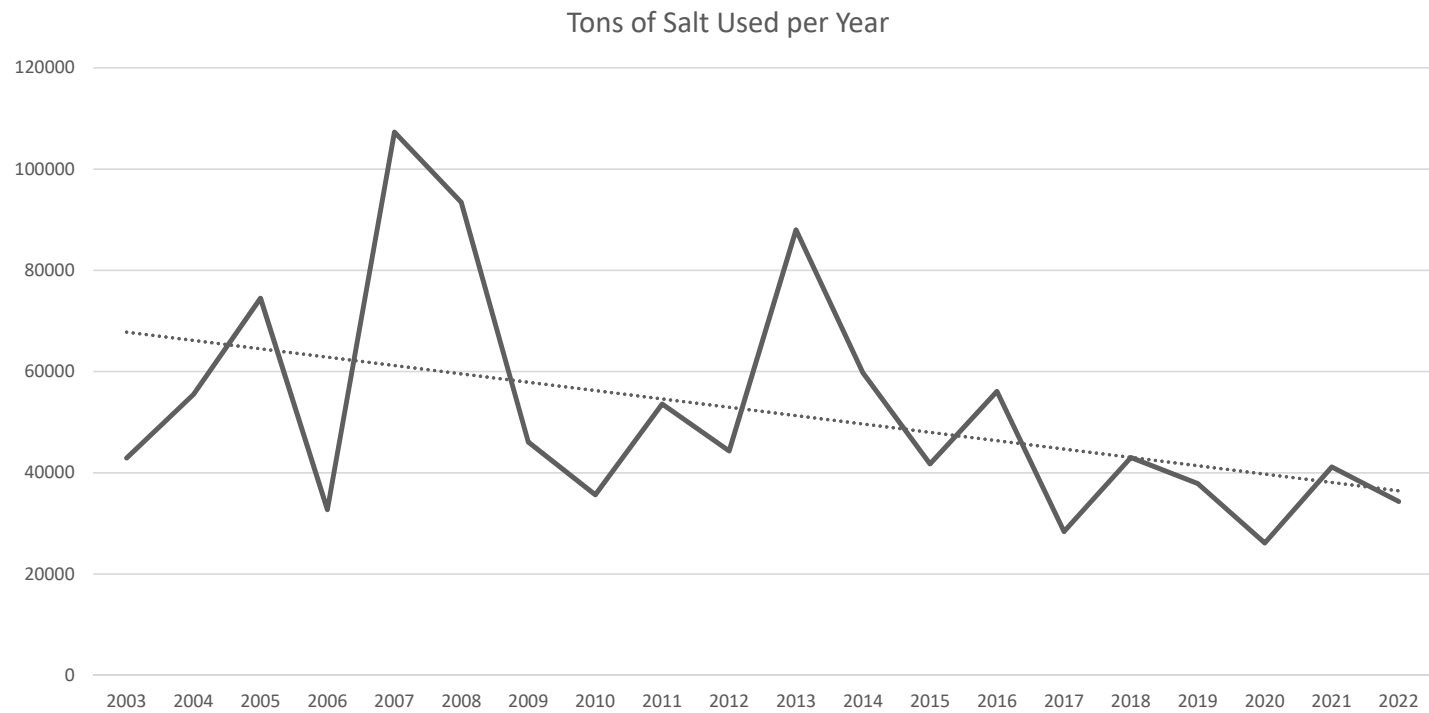


Public Service Announcements

[Preparing for Winter](#)

[Keep Milwaukee Moving](#)

Average Salt Use



Brine Use



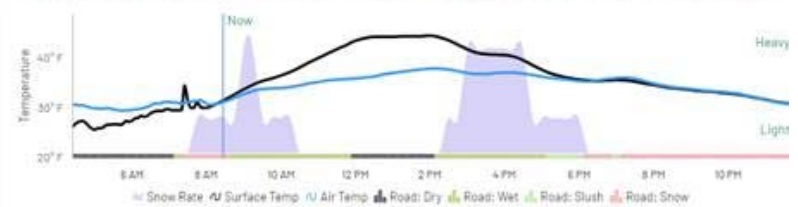
Pavement Sensors

6 Locations

- 4 Bridges
- 2 Intersections



Photo Details:
S 35th & Park Hill Ave
Oct 31, 23:07:07 AM CDT
Air: **30.5°F**
Surface: **29.8°F**
Dew Point: **24.1°F**
Humidity: **62.3%**
Wind: **3.1 mph SE**



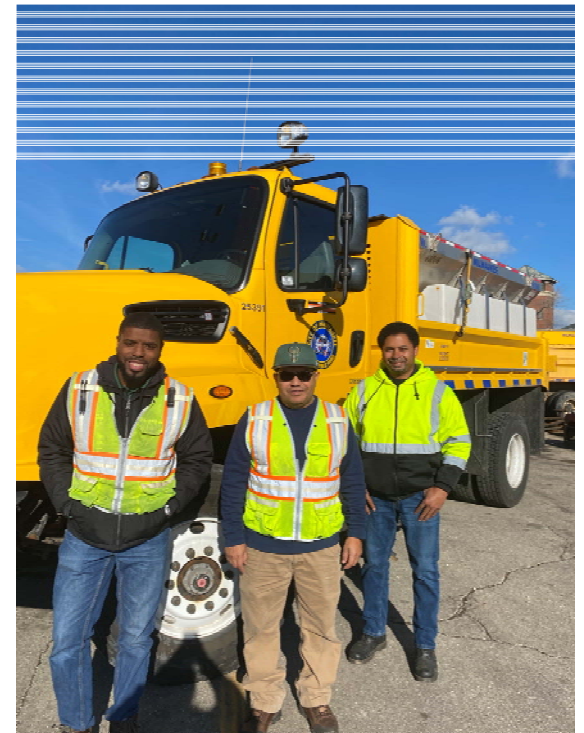
Operators

A/B Team Experience

Retirees

Resignations

New Employee Hiring




Reminders

Winter Parking December 1 – March 1

- No parking on many arterial streets
- Map at [milwaukee.gov/parkingregulations](https://www.milwaukee.gov/parkingregulations)

[milwaukee.gov/snow](https://www.milwaukee.gov/snow)

- See up to date information of service impacts/Snow Emergency
 - Sign up for parking text alerts
- 



**KEEPING
MILWAUKEE
M❄️VING**