

**Notes**  
**WI Salt Wise Partners Meeting**  
**12:30 pm on September 27, 2018 at MMSD**

**Attendance:**

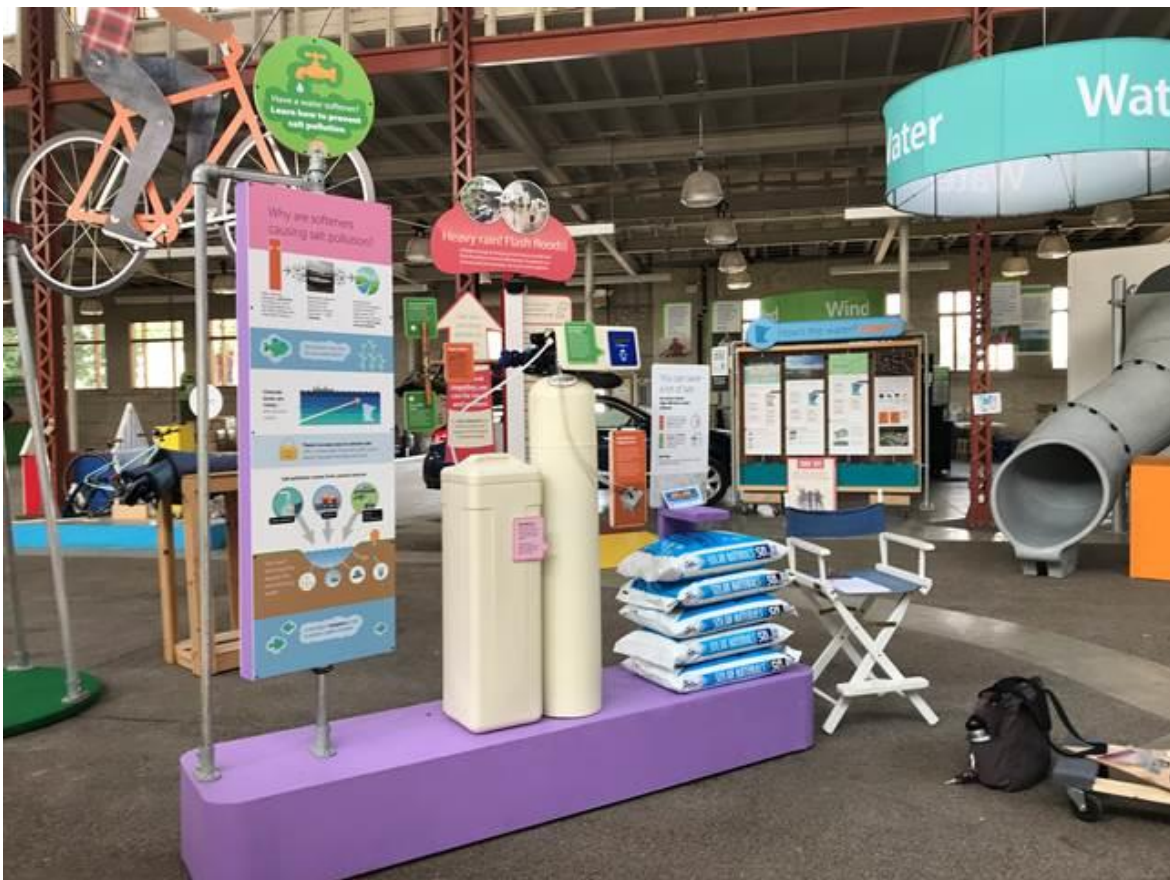
Susan Sandford – Dane County Land and Water Resources (LWRD)  
Christal Campbell – LWRD & MAMSWP  
Sarah Fuller – Capital Area Regional Planning Commission (CARPC)  
Ellen Geisler – City of Fitchburg Sustainability  
Catherine Harris, Emily Jones and Kathy Lake – Madison Met. Sewer District (MMSD)

- I. Status updates
  - a. Logo: designer revisiting existing options, and generating new ones. Options will be shared with group via email, and at optional review meeting to select & finalize design.
  - b. Water quality visualizations: surface water modeling progressing; will be a useful tool in communicating cl location, concentration, impacts. Two examples of others' work included as attachments for ideas.
  - c. Recap on first City training: sold out with minimal advertisement, many municipal employees. Based on feedback, the format will slightly change in the future.
  - d. Promoting certification program: driving demand is currently difficult because of information lag in dates & sign-ups. Making sign-ups/posting dates for future sessions ahead of time will help.
- II. General outreach, winter plans 2018-2019
  - a. Marketing tools for certified applicators: discussion with applicators was planned for the first winter maintenance training of the season, however factors prevented full discussion. Instead, salt wise partners should reach out to their contacts to gain insight on resources needed/wanted. Questions to evaluate applicator needs attached.
  - b. Additional trainings – MAMSWaP and county have funds, to support additional trainings in late winter. Fall has been best time because winter is uncertain, but need for more training was identified. Window of opportunity to influence contracts/demand for certification may be mid-summer. In the future, having local trainers (train the trainer format) may help. Initial feedback from some organizations indicates they would like to have all of their employees trained at their sites all at once (30-50 people). Local trainers with increased availability may also remedy this barrier.
  - c. Outreach Kit – currently being updating to include business outreach
  - d. Revisit “problem reporter”/kudos map as engagement tool for active watershed groups
- III. Recognition/Awards – discussion tabled until next meeting
- IV. WI Salt Wise Organizational Structure
  - a. Review “[common language](#)” draft, discussion brings up larger questions about organization structure for intergovernmental cooperation ([state statutes](#).)
- V. Next Meeting(s) & Future Agendas
  - October 9, 9:30am-10:30am – At Dane County’s Fen Oak office
    - WI Salt Wise – Review Common Language for posting on About Us page
    - Evaluate options for organizational structure, decision-making
  - November 8, 9:30-10:30am – Location & Agenda TBD
  - December 4, 9:30-10:30am – Location & Agenda TBD

Other: Reminder, many documents are kept in the WI Salt Wise common Google Drive, [HERE](#)



Outreach Examples  
from MN PCA

infographic and  
state fair info booth



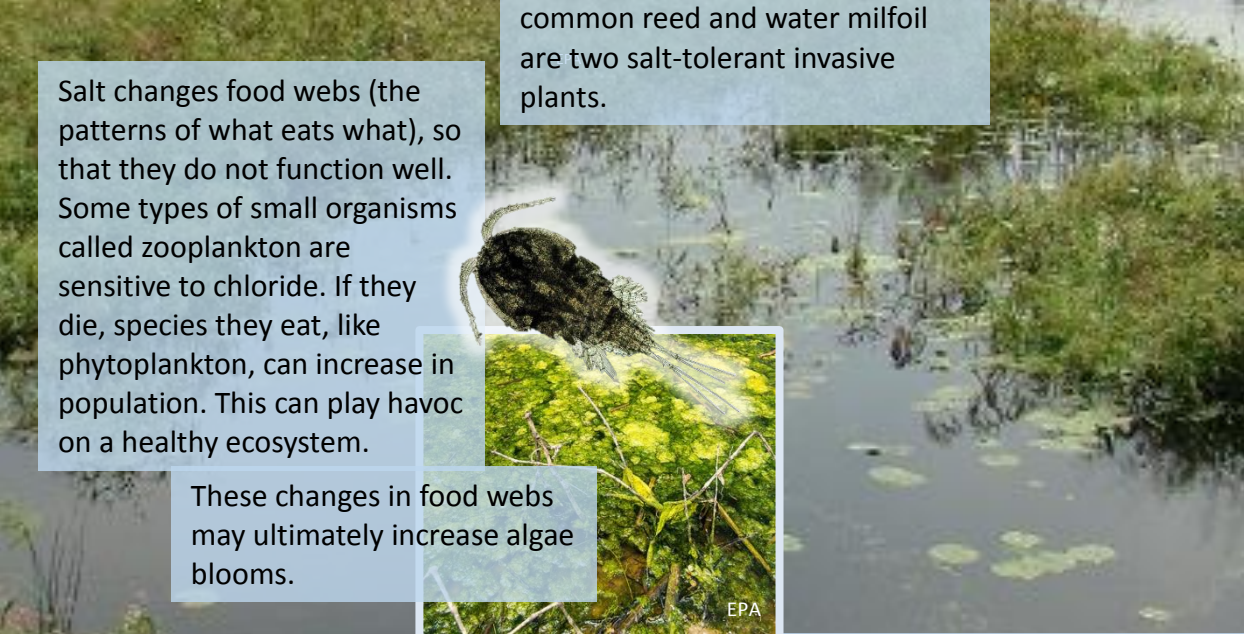
# Salt in Our Fresh Waters

Salt is toxic but it does more than kill sensitive plants and animals...

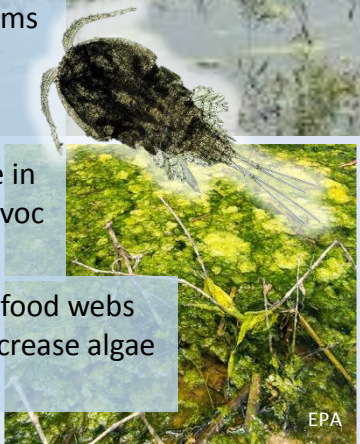


Some invasive species are more tolerant to salt and can outcompete native species. Salt helps these species push out native species. In the Midwest, common reed and water milfoil are two salt-tolerant invasive plants.

USFWS




Salt changes food webs (the patterns of what eats what), so that they do not function well. Some types of small organisms called zooplankton are sensitive to chloride. If they die, species they eat, like phytoplankton, can increase in population. This can play havoc on a healthy ecosystem.



These changes in food webs may ultimately increase algae blooms.

EPA



Chloride can affect growth and reproduction. For example, rainbow trout hatchlings exposed to high levels of calcium chloride and sodium chloride had reduced growth, which affects how many offspring they have and how well they can avoid predators

<sup>1</sup>Hintz, W. D. and R. A. Relyea. 2017. Impacts of road deicing salts on the early-life growth and development of a stream salmonid: Salt type matters. Environmental Pollution 223(Supplement C): 409-415. <sup>2</sup>Skultety, D. and J. W. Matthews. 2017. Urbanization and roads drive non-native plant invasion in the Chicago Metropolitan region. Biological Invasions, 1-14. <sup>3</sup> Hintz, W. D. and R. A. Relyea. 2017. Impacts of road deicing salts on the early-life growth and development of a stream salmonid: Salt type matters. Environmental Pollution 223(Supplement C): 409-415.

# More than just “table salt”

## Environmental Costs of Salt

Salt can be toxic, but it does more than just kill sensitive plants and animals. Salt can:

- Increase the ability for invasive species to push out (outcompete) native species. Many invasive species, like common reed (right), are not as sensitive to salt as our native freshwater species



- Change food webs, so that they do not work well. Some types of small animals (zooplankton) are sensitive to salt. If they die, species they eat (phytoplankton) reproduce too quickly. This can wreak havoc on a healthy ecosystem, sometimes causing algae blooms.

- damage plants along streets (right), slowing growth and killing sensitive species.



- Affect growth and reproduction. For example, rainbow trout hatchlings exposed to high levels of calcium chloride and sodium chloride had reduced growth. This affects how many offspring they have and their ability to avoid predators.

## Human Costs of Salt

Along with costs to outdoor recreation and the environment, salt can have direct effects on human health and safety.

- Salt can get into ground wells and other drinking water supplies. For sensitive groups, like people on salt-restricted diets, this can contribute health problems.



Once wells are contaminated, it can take years for them to become usable again, even if the sources of salt are stopped immediately.



- Salt can increase the corrosivity of drinking water, increasing the potential for the water to leach lead from lead pipes.

This is treatable, but it does increase costs of water treatment and possibly the amount of additives in drinking water.

- Corrosion due to road salt costs billions of dollars annually through damage to cars, bridges, concrete, and more.



- Moose, and likely deer, are attracted to road salt, just like a salt lick. Greater numbers of moose collisions are in areas with increased road salt usage.



<sup>1</sup> Skultety, D. and J. W. Matthews. 2017. Urbanization and roads drive non-native plant invasion in the Chicago Metropolitan region. *Biological Invasions* 1-14.  
<sup>2</sup> Hintz, W. D. and R. A. Relyea. 2017. Impacts of road deicing salts on the early-life growth and development of a stream salmonid: Salt type matters. *Environmental Pollution* 223(Supplement C): 409-415.  
<sup>3</sup> Hintz, W. D., B. M. Mattes, M. S. Schuler, D. K. Jones, A. B. Stoler, L. Lind, and R. A. Relyea. 2017. Salinization triggers a trophic cascade in experimental freshwater communities with varying food-chain length. *Ecological Applications* 27(3): 833-844.  
<sup>4</sup> Learn, J. R. 2017. The hidden dangers of road salt. Retrieved from <https://www.smithsonianmag.com/science-nature/road-salt-can-disrupt-ecosystems-and-endanger-humans-180963393/>. (Accessed December 28 2017).  
<sup>5</sup> Kelsey, P. D. and R. G. Hootman. 1992. Deicing salt dispersion and effects on vegetation along highways. Case studies: Deicing salt deposition on the Morton Arboreum. In: *Chemical Deicers and the Environment* (F. M. D'itri ed.), Lewis, Chelsea, MI. pp. 253-281.  
<sup>6</sup> Pollock, S. J. 1992. Remediating highway deicing salt contamination of public and private water supplies in Massachusetts. In: *Chemical Deicers and the Environment* (F. M. D'itri ed.), Lewis, Chelsea, MI. pp. 519-537.  
<sup>7</sup> Stets, E. G., J. Lee, D. A. Lytle, and R. Schockc. 2018. Increasing chloride in rivers of the conterminous US and linkages to potential corrosivity and lead action level exceedances in drinking water. *Science of the Total Environment* 6131498-1509.  
<sup>8</sup> Koch, G. H., M. P. Brongers, N. G. Thompson, Y. P. Virmani, and J. H. Payer. 2002. Corrosion cost and preventive strategies in the United States.  
<sup>9</sup> Rea, R. V., C. J. Johnson, and S. Emmons. 2014. Characterizing moose-vehicle collision hotspots in Northern British Columbia. *Journal of Fish and Wildlife Management* 5(5): 46-58.

#### Questions for local applicators

- 1) Have you heard of the City of Madison Winter Salt Certification?
- 2) Are you certified, or planning to certify? Explain your decision making (ie. why or why not are you pursuing certification,? What value will it add?, or if not, what's missing – what would make it more enticing?)
- 3) (For those certified/certifying) How will your business use the City's Salt Certification? e.g. Marketing, get new clients, charge premium, just to learn how to do job better
- 4) What tools or resources could WI Salt Wise provide your business as part of the certification program, to make the certification useful? Ideas could include: press release/special publicity for being certified, recognition luncheon/breakfast, branded bumper stickers/window decals, uniform patches, certification ID cards, certificates, signage for areas managed by certified crews, recognition among peers, recognition from media, etc.
- 5) How do you reach new potential clients?
- 6) How do you communicate with existing clients? What are those communications about? (ie. bills only, educational information, discounts, information about new products/services)

#### Questions for local storefront/business owners

- 1) Does this business/facility hire a contractor for winter maintenance? Who at your business is in charge of signing contracts for winter maintenance?
- 2) Have you heard of the City of Madison's Winter Salt Certification?
- 3) Have you asked your current contractor whether they are certified? Have you gone further to suggest that they get certified?
- 4) Knowing that road salt is a major pollutant in this area, and that training programs exist for salt applicators to learn the responsible amount of salt to use, would you choose a certified contractor over a non-certified one, even if it meant paying a premium for service?
- 5) Would you be willing to promote the fact that you are hiring a certified applicator? If provided, what tools or resources would you use? Ideas could include: special publicity or acknowledgement, recognition luncheon/breakfast, Salt Wise logo'd window decals, signage for areas managed by certified crews, something else?