



# INSPIRING AT HOME ACTIONS:

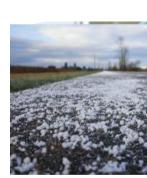
# Making a Difference Faithfully: A Steward's Guide to Reducing Road Salt

#### **ACTION KIT**









GOING FORTH





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#### INTRODUCTION TO SALT WATCH



IPC engages congregations in caring for our shared watershed by raising awareness and providing hands-on assistance for projects like rain gardens and tree plantings, Our mission is to inspire and equip people of faith to honor, protect, and restore our shared watershed.



Founded in 1922, the Izaak Walton League (IWLA) is one of the nation's oldest and most respected conservation organizations. With a powerful grassroots network of nearly 200 local chapters nationwide, the League takes a common-sense approach toward protecting our country's natural heritage and improving outdoor recreation opportunities for all Americans (iwla.org).



In 2017, a Clean Water Fellow at the IWLA noticed a huge pile of salt left by a salt truck sitting directly next to a storm drain. Inspired by the success of the League's Save Our Streams community science program, IWLA staff launched Salt Watch (saltwatch.org) to mobilize community scientists to monitor chloride (salt) levels in local creeks and streams. Volunteers can share and use this data with their local watershed groups, neighbors, and local government. By raising awareness and using real data, we can create meaningful behavior change.







#### **ROAD SALT FACTS: WHY REDUCE OUR USE?**

Road Salt is the most popular option used to de-ice roads and highways. Road salt is everywhere during winter months. It keeps us safe on roads and sidewalks, but it can also pose a threat to fish and wildlife as well as human health. Towns, cities, businesses, and individuals dump roughly 10-20 million tons of salt every year, depending on the winter weather conditions. As snow melts or rain falls, that salt gets washed into our storm drains, our streams, and even into our drinking water.

"Pet friendly" or "environmentally safe" salts are becoming more and more popular - but these products are made of salts that still put chloride on the ground and into our water. Even if we quit using road salt today, the salt already in the ground can persist for decades, and the salt content in our streams will rise as salt continues to percolate through the soil.

#### **ENVIRONMENTAL IMPACT**

In the environment, chloride can dry out and kill vegetation, compact soil, and become toxic to fish and bugs that live in the 150 freshwater streams that all lead to the Bay!



Potomac River, MD

#### **HUMAN HEALTH IMPACT**

Road salt pollution may also cause health issues for people who are prescribed low-sodium diets for pre-existing health issues. Water utility services are not able to remove sodium or chloride from the source water, so it is critical to focus on the prevention of road salt pollution. High sodium levels can affect people with high blood pressure, and high chloride levels can be toxic to some fish, bugs, and amphibians. \*Help your community by taking the Salt Watch Pledge and GET YOUR FREE kit by clicking this link!



#### **PUBLIC SAFETY**

It can damage roadways, bridges, vehicles, and other infrastructure including parking lots and sidewalks. Almost 15% of bridges across the US are structurally deficient due to corrosion, which is made worse by road salt.







## Once you put salt down, it doesn't go away...



Salt alters the soil, harms plants, and weakens infrastructure like bridges and roads.

It gets into our streams, lakes, and rivers, putting aquatic life and human health at risk.



...to pollute **5 gallons of water** 

Salt applied by cities, businesses, and homes adds up.



#### **IMPACTS ON WATER QUALITY**

Road salt pollution is the leading cause of chloride pollution in waterways throughout the United States. As previously mentioned road salt breaks down into sodium and chloride ions, which can each cause environmental and health problems in aquatic systems, wildlife, and humans. Chloride pollution also comes from other sources including water softener discharge and sewage discharge. The impact of chloride on human health is an area of ongoing research, but there are several health risks that are known to be linked to increased chloride in drinking water.

## DRINKING WATER STANDARD

The drinking water standard for chloride is 250 mg/L, as established by the US Environmental Protection Agency (EPA) in 1988. At this level, water starts to taste "salty." There is no health-based guidance for chloride in drinking water, but there can be health implications for consuming sodium. Sodium and chloride concentrations in water are often related since sodium chloride (NaCl) is the most common type of road salt being applied in the winter. The EPA recommends sodium in drinking water be less than 20 mg/L for individuals on severely restricted sodium diets.

#### TREATING AND TESTING

Most water treatment plants are not equipped to remove chloride from water, yet are required to do so by the EPA once chloride levels exceed 250 mg/L. **This will likely put the cost of constructing and running new treatment plants on the taxpayers.** 

Additionally, approximately 43 million Americans get their water from private wells, which are not regulated by the EPA. Well users are responsible for testing their own water. Most states recommend testing at least once every other year. **Refer to pages 2 and 8** for information on testing your water source.



#### **BEST PRACTICES**

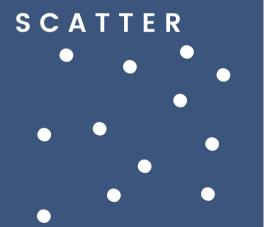






#### **HOW TO BE A SMART SALTER**







Clear walkways before snow turns to ice.

A 12 oz mug holds enough salt to treat a 20' driveway or 10 sidewalk squares!

Sweep up excess salt and reuse it!





#### **CONGREGATIONS TAKE ACTION**

### How clean are your congregation's streams?

Salt Watch is a national community science program where volunteers can order free kits to track levels of chloride in their local streams or drinking water. **This is a great activity for individuals, youth groups, homeschool co-ops, and small groups.** By raising awareness and using real data, we can make smarter and safer salting decisions!



Request your **free kit** at

<u>www.saltwatch.org</u>

2

Sample your stream or drinking water





3

Upload your results to the Clean Water Hub

4

Share your findings with the community







#### **CONGREGATIONS TAKE ACTION**

#### **Be A Smart Salter**

Who applies road salt to your facility's driveways, sidewalks, and parking lots in the winter? Share smart salting techniques with your grounds crew, contractor, or whoever applies salt. By using less salt, you can protect your community and save money.



#### Augment Your Stormwater Management Projects

Have you installed a rain garden, rain barrel, or impervious surface through Interfaith Partners for the Chesapeake? Excessive road salt may be damaging or hindering your stormwater management efforts. Increase your environmental impact through Smart Salting practices!



Episcopal Church of the Ascension -Gaithersburg Rain Garden Blessing

#### **Outreach & Education Opportunities**

Hosting an educational event for congregation members that highlights the impact of road salt pollution and providing resources on how to test tap water is vital in road salt reduction. Click HERE for more ways your congregation can take action by hosting a salt reduction campaign in your community, including links to advocacy resources!



Fairhaven United Methodist Church Road Salt
Reduction Information Table





#### **CONGREGATIONS TAKE ACTION**









#### Join the Salt Watch

The Salt Watch program engages community members in a data collection opportunity to identify chloride pollution hotspots and empowers them to advocate for smart salting practices. Your Congregation can request free Salt Watch kits to quickly and easily test salt levels in local waterways and drinking water - a great activity for people of all ages!

#### **Youth Groups**

Salt Watch is a great service project for youth groups. It can also serve as an environmental education experience for homeschool co-ops. Students can collect data and/or participate in a <a href="Paint the Plow event!">Paint the Plow event!</a>

#### **Share With Your Congregation**

We have graphics and flyers available in both English and Spanish here that you can include in your weekly bulletin or newsletter. Let your members know about this service opportunity that they can participate in individually or in groups by requesting their kit!

#### **Learning Opportunities**

Interested in learning more? Salt Watch staff can provide an in-person or virtual presentation to help your congregation get involved. **Email saltwatch@iwla.org to request a presentation.** 

Watch IPC's Learning Lab click HERE!





#### INDIVIDUALS TAKE ACTION

#### Reduce your salt use to protect our sacred waters!

#### Do your own salt application!

#### 1. Shovel



Clear snow from sidewalks and parking lots before it turns to ice. The more snow you remove, the less salt you'll have to use - and the more effective it will be!

#### 2. Scatter



If you use salt, scatter it so there's space between the grains. A coffee mug of salt is enough to treat an entire 20 foot driveway!

#### 3. Sweep



Once the salt has done its job, sweep up the extra so you can reuse it for later storms - and prevent it from washing away.

#### 4. Switch



Salt doesn't work when the pavement temperature is 15 degrees or lower. Switch to sand or use a different deicer that works at low temperatures.

#### Hiring a snow removal contractor?



Choose a contractor who is certified through a winter salt certification program.

#### Use an alternative or use less salt!

The simplest way is to use less salt! Look at the example on pages 4 and 6 to see how much salt should be used on a 20 ft driveway and follow the steps 1-4 above!

Salt is not intended for grit or traction. If you are spreading more and more salt, without waiting for it to dissolve, so that you can walk on the crystals and have a grip on the ice, you are using salt incorrectly. **Instead, reach for a product like sand or gravel to provide a layer of traction between your boot and the ice.** Plus, at the end of the season, you can sweep up the remaining gravel and use it again the following year, saving money and helping the environment!

#### Things to Consider -Clean Water is a Human Right

- Road salt pollutes
   waterways and
   increases chloride in
   drinking water
   resulting in higher
   health risks for
   underserved
   communities with
   older and poorly
   maintained
   infrastructure.
- This can lead to leached metals, including dangerous materials like lead, into our drinking water.
   Youth are especially vulnerable, as lead can damage their developing brains and contribute to learning or behavioral problems.
- We need
   congregations to fight
   with us on water
   quality issues. Join IPC
   and click here to find
   out more about how
   you can advocate for
   positive change!
- Learn more about IWLA's Salt Watch Program and take the Salt Watch Pledge to get your FREE kit by clicking this link HERE!





#### **FAITH IN ACTION**

As a community of faith, we seek to protect the life and dignity of every person, to care for those who are vulnerable, and to preserve our common home. We believe that "Love thy neighbor" extends to all of creation-not just people, but butterflies and birds too!

"Do unto those downstream as you would have those upstream do unto you." ~ Wendell Berry

#### Islamic Faith

Water is of paramount importance connected to cleaning and healing. Water is praised as the source of all creation, per the Qur'anic dictum: "And We made from water every living thing" (21:30). O Children of Adam!... Eat and drink: But waste not by excess, for God loveth not the wasters." Surah al-Araaf (The Heights) 7:31

#### **Jewish Tradition**

According to the book of Genesis, water existed even before the creation of the world, when "the spirit of G-d hovered over the waters" (Genesis 1:2). Since then, water has played a major role in Jewish tradition. Water has been used to purify the impure, to ritually wash our hands before eating bread and water was split to show God's love and power. The word mikvah contains the same root as the word used in the Book of Genesis to describe how God brought the waters together to create oceans and land. The mikvah (ritual bath), refers to ritually washing of hands before eating bread.

#### **Christian Prayer of Confession**

Gracious God, Forgive our neglect of what you have entrusted to us as stewards. We confess that we take your gift of water for granted and acknowledge the need for repentance and action. We are reminded of your power and love with every nourishing drink, and every cleansing shower. Empower us to speak for those who are without, and to work to ensure justice and peace for all. Amen.

## <u>The Sacred Quality of Water in Religious Beliefs and</u> Practices

Click the link above to learn more about water from different faith perspectives!

## Winter Care, Clean Water: Sign the Road Salt Reduction Pledge





Congregation Name: \_\_\_\_\_

# OUR COMMITMENT TO CARE FOR CREATION BY REDUCING ROAD SALT

#### **THINGS OUR CONGREGATION WILL DO:**

Use Salt Sparingly	Host a Pledge Campaign
Use Eco-Friendly Alternatives	Host or Attend Educational Workshops
Shovel First, Salt	Advocate for Sustainable Practices

## Winter Care, Clean **Water: Road Salt Reduction Pledge**







Name:

#### **COMMITMENT TO CARE FOR CREATION BY REDUCING ROAD SALT**

#### **THINGS I WILL DO:**

Use Salt Sparingly
Use Eco-Friendly Alternatives
Tell Others
Advocate for Sustainable Practices
Attend Educational Workshops

## Winter Care, Clean **Water: Road Salt Reduction Pledge**





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Name:

#### **COMMITMENT TO CARE FOR CREATION BY REDUCING ROAD SALT**

#### THINGS I WILL DO:

Use Salt Sparingly
Use Eco-Friendly Alternatives
Tell Others
Advocate for Sustainable Practi

Workshops

**Attend Educational** 

### Winter Care, Clean Water: Road Salt Reduction Pledge





Name:	

#### COMMITMENT TO CARE FOR CREATION BY REDUCING ROAD SALT

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#### **CONTACT THE IZAAK WALTON LEAGUE**

EMAIL SALTWATCH@IWLA.ORG
LOOK ONLINE AT SALTWATCH.ORG
CALL (301) 548-0150

The One Water Partnership is a growing network of faith communities in the Chesapeake Bay watershed coming together to care for local waterways in their own communities.



If you would like to learn more about our existing One Water Partnership regions, or how you can bring the One Water Partnership to your community, please contact us at OneWater@InterfaithChesapeake.org or by phone at (410) 609-6852.

Visit our website at the link below:

<u>IPC Staff Page</u> Special Thank You to Our Funders!







