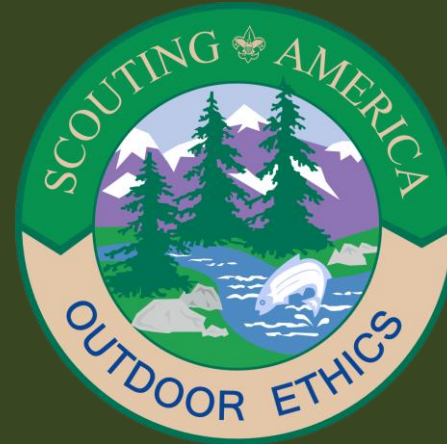




Citizen Science for Clean Water



Outdoor Ethics & Conservation Roundtable

February 11, 2026



Agenda

- Welcome and opening
- Safety moment—Ice Fish Responsibly
- Citizen Science for Clean Water
- Announcements
- Closing
- Open discussion



Paul Schimke, National Capitol Area Council



Pledge

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one Nation under God, indivisible, with liberty and justice for all.





Scout Oath

On my honor I will do my best
to do my duty to God and my country
and to obey the Scout Law;
to help other people at all times;
to keep myself physically strong,
mentally awake, and morally straight.





Scout Law

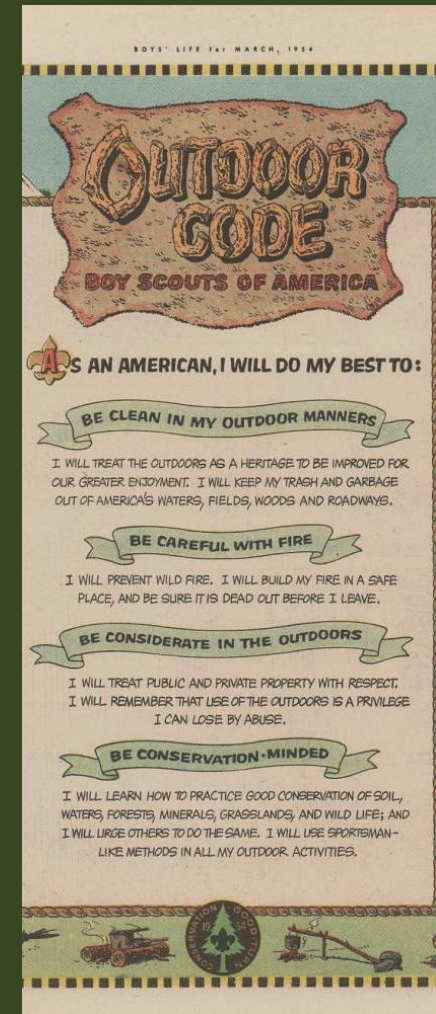
A Scout is:
Trustworthy, Loyal, Helpful,
Friendly, Courteous, Kind,
Obedient, Cheerful, Thrifty,
Brave, Clean, Reverent.





Outdoor Code

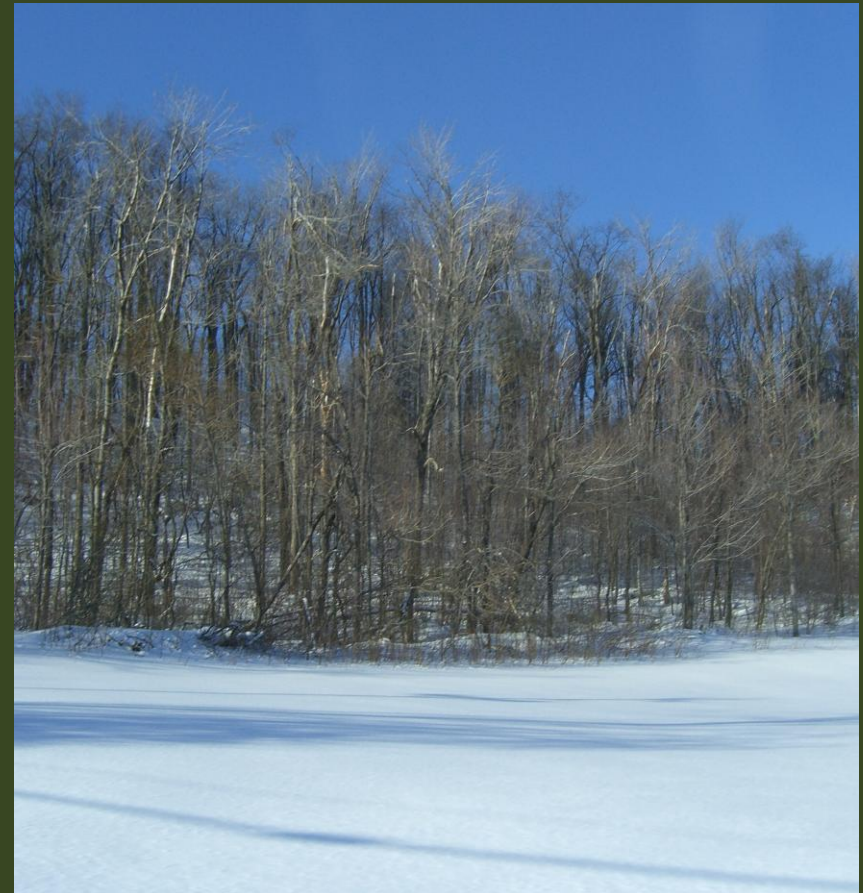
As an American, I will do my best to –
Be clean in my outdoor manners.
Be careful with fire.
Be considerate in the outdoors.
Be conservation minded.





Ice Fish Responsibly

Michelle Bierstedt, Sioux Council



Paul Schimke, National Capitol Area Council

Safety Moment



ICE FISH RESPONSIBLY

Check the weather

Tell someone where you're going.

Bring a friend - for company and safety.

Look for signs that others have been out on the ice first. **Never be first on the ice!**

Check ice thickness and clarity

- There should be at least 4-6 inches of clear ice

If there's snow on the ice, use caution. It can hide the ice condition.

Don't approach open water.

Stay clear of pressure ridges and/or large cracks.

Be extra cautious around areas that can make ice weaker such as docks and other structures, inlets and outlets, and springs.

Spread out if you have a big group.

Using lead-free tackle is a simple choice that saves wildlife.

Broken gear, scrap materials, and unused equipment should also be packed out. Small disturbances made during winter can have outsized effects once the spring thaw allows materials to move freely into the water.

Mark or fill holes when possible to reduce hazards for people, pets, and wildlife.

ICE FISHING SAFETY

BEFORE YOU GO

BRING:

- WARM CLOTHES
- THROW ROPE be prepared
- ICE PICKS to grip the ice
- EMPTY BUCKET to sit on

CHECK THE WEATHER

TELL SOMEONE where you are

BRING A FRIEND for company & safety

ON THE ICE

- CHECK ICE THICKNESS at least 4 to 6 in.
- AVOID open water
- CLEAR ICE is stronger than cloudy ice
- LOOK FOR HOLES drilled by others (and don't step in one)
- AVOID pressure ridges
- SPREAD OUT if you have a big group

MONTANA DPHHS
Healthy People. Healthy Communities.
Department of Public Health & Human Services

Public Health IN THE 406

MONTANA FISH, WILDLIFE & PARKS

MONTANA ICE SAFETY GUIDE

NO ICE IS 100% SAFE MINIMUM ICE THICKNESS FOR CLEAR, HARD ICE



<4"

Stay off ice!
*bobcats ok



4"

You &
your gear



5"

Grizzly bear
(be bear aware!)

6"

Figure Skating
Bigfoot

7"

ATV or
snowmobile

10"

Small car

11"

MaiaSaura

12"

Pickup or
SUV

Ice Fish Responsibly

Know The 7

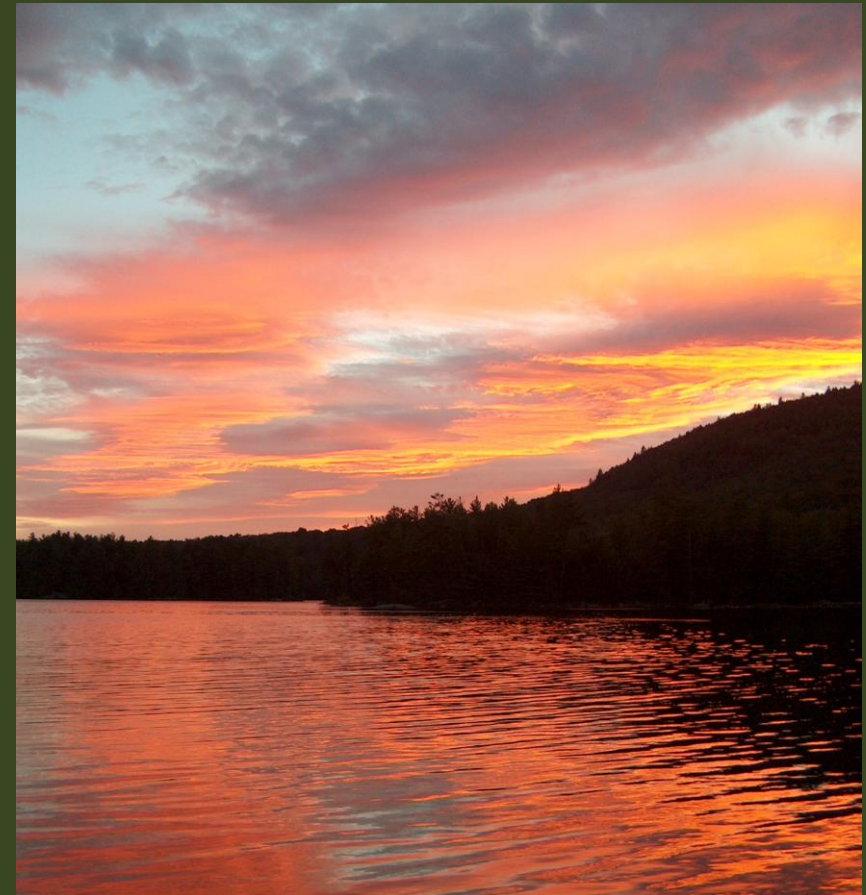
Protect the ice.
Protect the fishery.
Protect the experience.





Citizen Science for Clean Water

Maggie Dombroski, Izaak Walton League of
America



Dave O'Leary, Western Massachusetts Council



IZAAK WALTON LEAGUE OF AMERICA



IZAAK WALTON LEAGUE OF AMERICA

Community Science Water Quality Monitoring

Maggie Dombroski, Mid-Atlantic Save Our Streams Coordinator
Izaak Walton League of America



Izaak Walton League of America

To conserve, restore, and promote the sustainable use and enjoyment of our natural resources, including soil, air, woods, waters, and wildlife.





SAVE OUR STREAMS
 IZAAK WALTON LEAGUE OF AMERICA



Creek Critters!



SALT WATCH
 IZAAK WALTON LEAGUE OF AMERICA



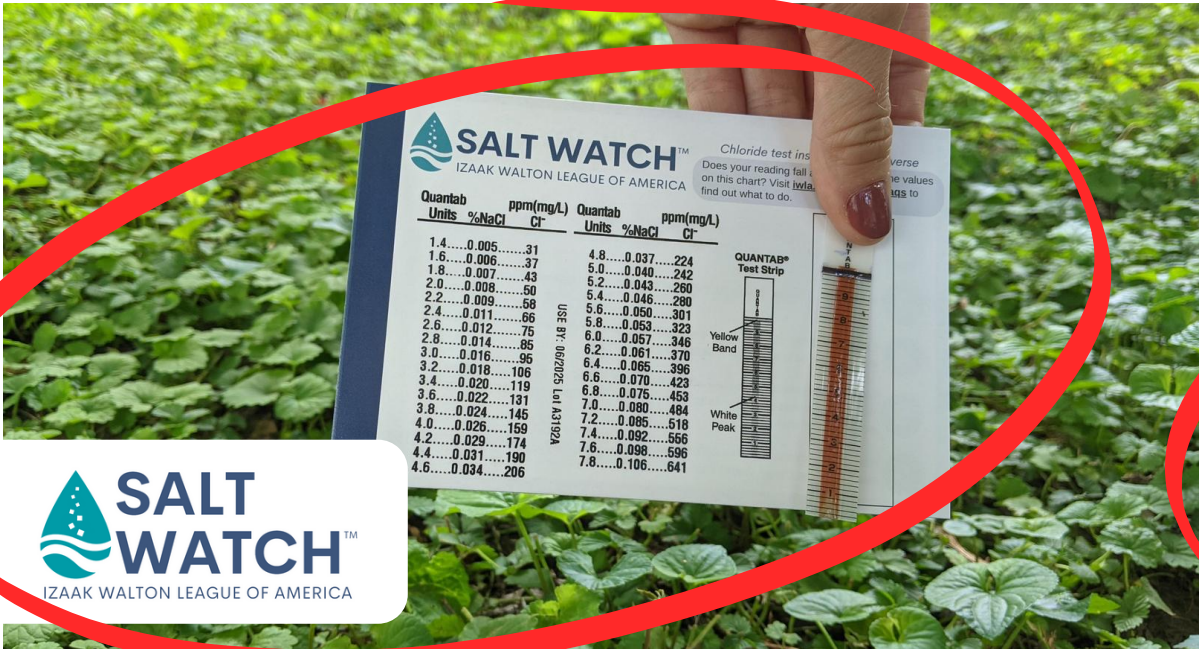
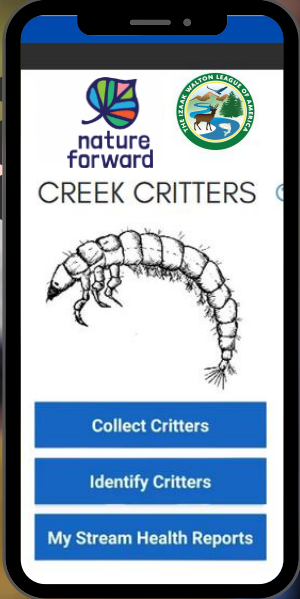
NITRATE WATCH
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SAVE OUR STREAMS
 IZAAK WALTON LEAGUE OF AMERICA



Creek Critters!



SALT WATCH
 IZAAK WALTON LEAGUE OF AMERICA

SALT WATCH™
 IZAAK WALTON LEAGUE OF AMERICA

Chloride test instructions: Does your reading fall on this chart? Visit [Izaak Walton League of America](#) to find out what to do.

Quantab Units %NaCl			ppm(mg/L) Cl ⁻			Quantab Units %NaCl			ppm(mg/L) Cl ⁻		
1.4	...	0.005	...	31	4.8	...	0.037	...	224		
1.6	...	0.006	...	37	5.0	...	0.040	...	242		
1.8	...	0.007	...	43	5.2	...	0.043	...	260		
2.0	...	0.008	...	50	5.4	...	0.046	...	280		
2.2	...	0.009	...	58	5.6	...	0.050	...	301		
2.4	...	0.011	...	66	5.8	...	0.053	...	323		
2.6	...	0.012	...	75	6.0	...	0.057	...	346		
2.8	...	0.014	...	85	6.2	...	0.061	...	370		
3.0	...	0.016	...	95	6.4	...	0.065	...	396		
3.2	...	0.018	...	106	6.6	...	0.070	...	423		
3.4	...	0.020	...	119	6.8	...	0.075	...	453		
3.6	...	0.022	...	131	7.0	...	0.080	...	484		
3.8	...	0.024	...	145	7.2	...	0.085	...	518		
4.0	...	0.026	...	159	7.4	...	0.092	...	556		
4.2	...	0.029	...	174	7.6	...	0.098	...	596		
4.4	...	0.031	...	190	7.8	...	0.106	...	641		
4.6	...	0.034	...	206							

USE BY: 06/2025 Lot: KA192A

QUANTAB® Test Strip

Yellow Band

White Peak



NITRATE WATCH
 IZAAK WALTON LEAGUE OF AMERICA



SALT WATCH™

IZAAK WALTON LEAGUE OF AMERICA





Goals of Salt Watch

- To raise awareness in the general public about the connection between salt and stream/public health
- To identify chloride hot spots in freshwater
- To advocate for smarter application of road salt by sharing results with private landowners and local and state agencies





WHAT IS ROAD/WINTER SALT?

NaCl - Sodium Chloride

KCl -Potassium Chloride

MgCl₂ - Magnesium Chloride

CaCl₂ - Calcium Chloride



HOW IS SALT APPLIED?



It only takes
1 teaspoon of salt



to permanently pollute 5
gallons of water





**50# Bag of
Salt**

Pollutes



**10,000
Gallons of
Water**

IMPACTS



Wildlife



Infrastructure



Drinking Water



Habitat



Pets

Wildlife Impacts



- Affects fish, but macroinvertebrates, plankton, and microbes may be even more sensitive than fish
- Vernal pools may be more intensely affected--as well as the organisms that spawn in them
- Migratory fish not able to find spawning ground due to elevated salinity

Infrastructure Impacts



- Chloride is incredibly corrosive
- Impacts to roadways (pavement), bridges, concrete surfaces, cars, culverts, pipes, appliances, stormwater infrastructure and more!
- It is estimated to cost between \$1,740-17,086 in damages per ton of road salt used (adjusted for inflation in 2023 by Bolton and Menk, Inc)

Drinking Water Impacts

- Chlorides not typically removed at water treatment plants due to high cost
- Higher levels of sodium in water
- Contaminated water cannot be used for dialysis treatment
- Concern of pipe corrosion leading to heavy metals in drinking water
- Well water not regulated by government



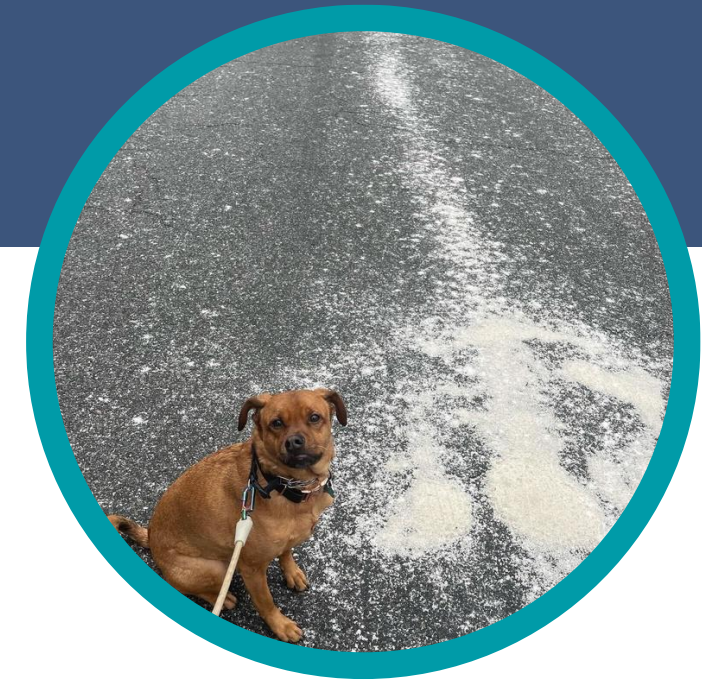
Habitat Impacts

- Plant desiccation (drying out) and death
- Plants near sidewalks and roadways most at risk
- Aquatic plants at risk, altering freshwater habitats
- Salty soil less likely to retain water and can become compacted
- Chloride mobilizes heavy metals in the environment



Pet Impacts

- Poisoning through ingestion
- Dehydration
- Paw and skin irritation, dryness, cuts, and burns



Salt Watch Kit

Includes:

- 4 Hach 30-600ppm chloride test strips
- Sample testing instructions
- Conversion chart
- Data uploading instructions



When Should Volunteers Monitor in Winter?



Before a winter weather (to get a baseline reading).



After the first winter storm (when salt has been applied to roads).



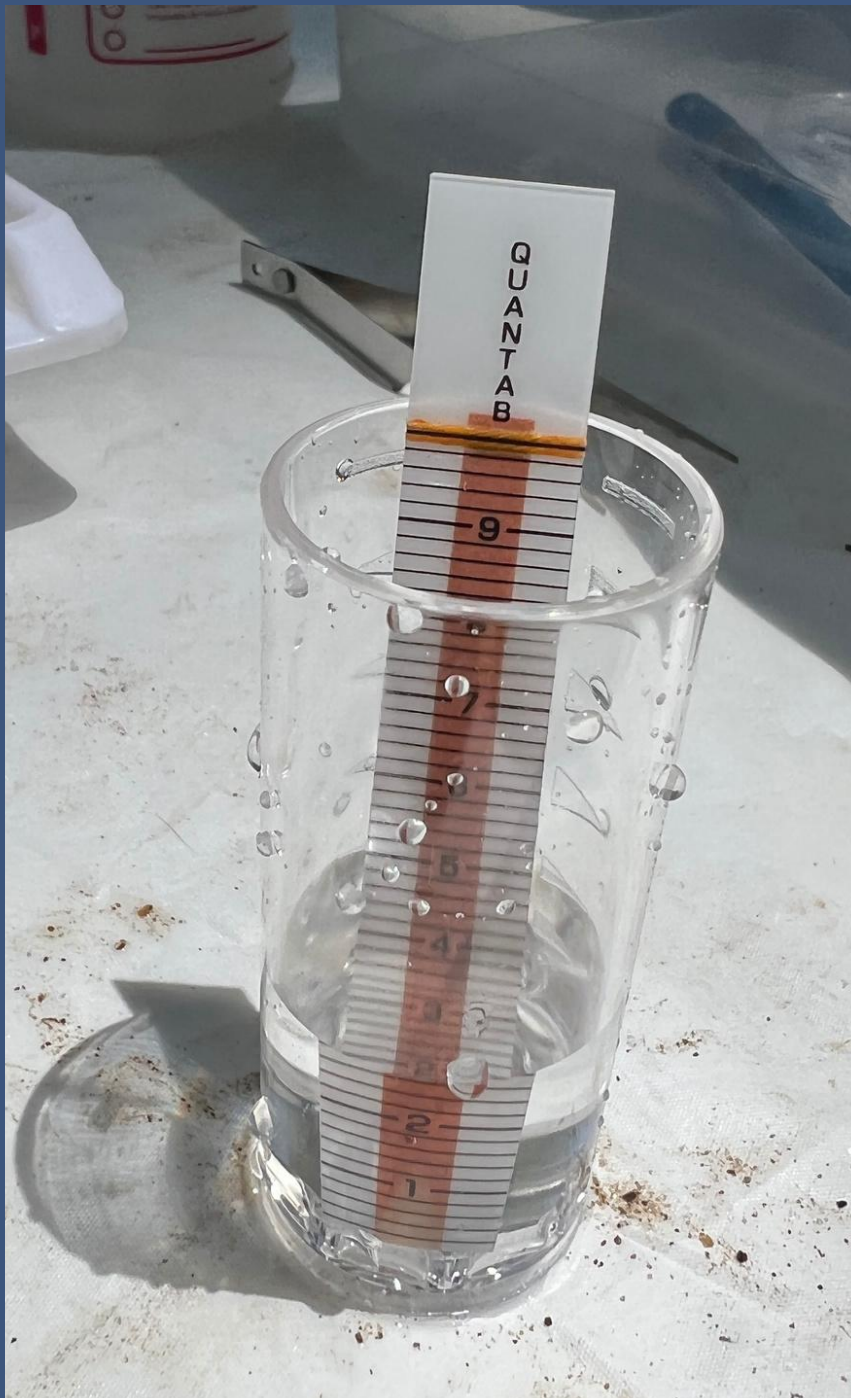
After the first thaw or rainstorm of winter.



After the next rain event.

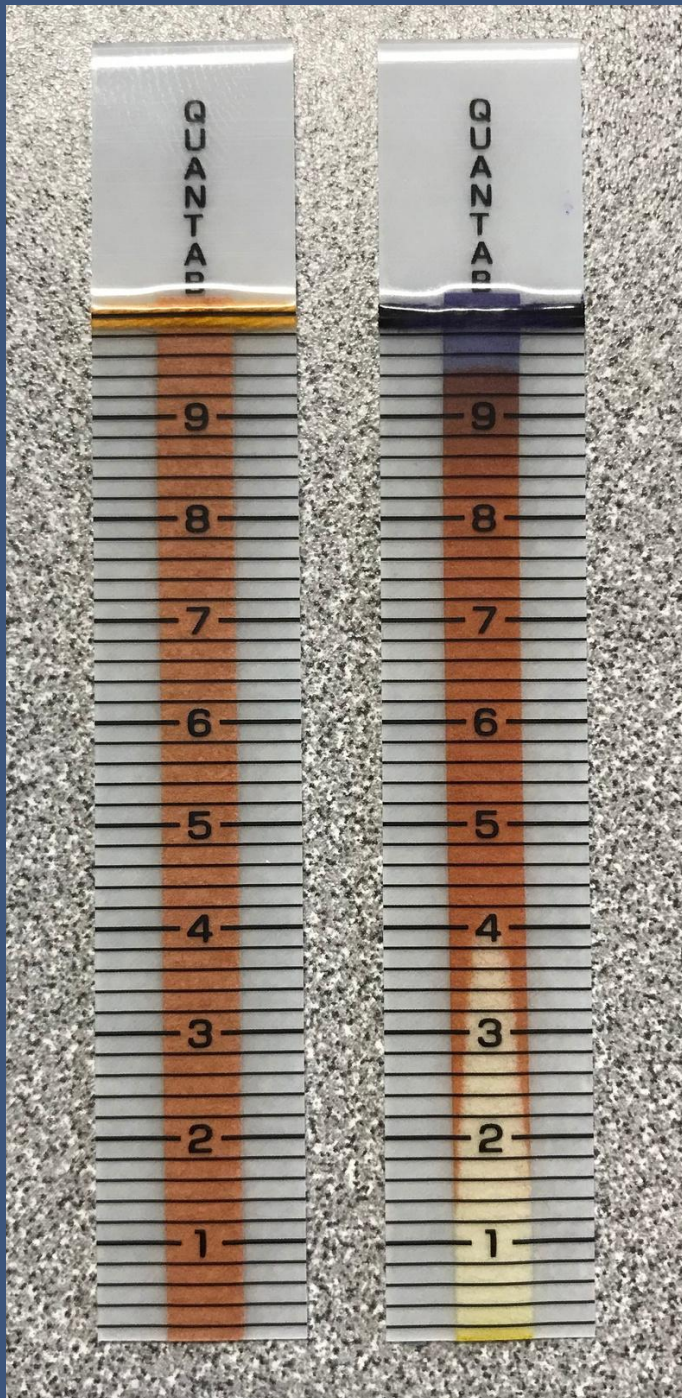


Consistently throughout the year (e.g. the first Saturday of every month).



Taking Your Sample

- 1 test strip
- 1 small jar/cup
- Add water
 - Rinse and repeat 3x
 - Leave 1/2-1" of water
- Wait ~3 minutes



Taking Your Sample

- 1 test strip
- 1 small jar/cup
- 1-2 inches of water
 - Add water
 - Rinse and repeat 3x
 - Leave 1/2-1" of water
- Wait ~3 minutes



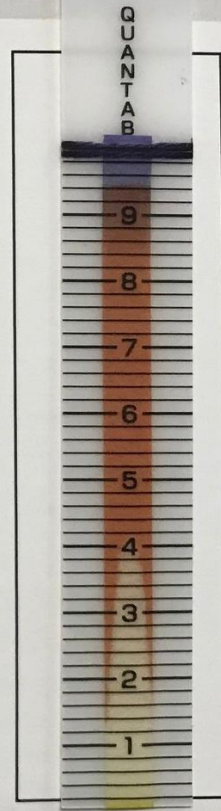
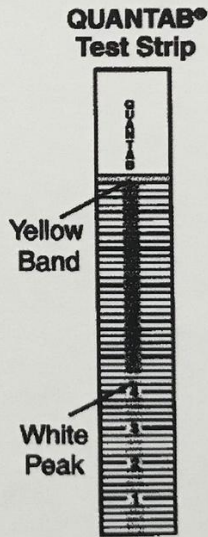
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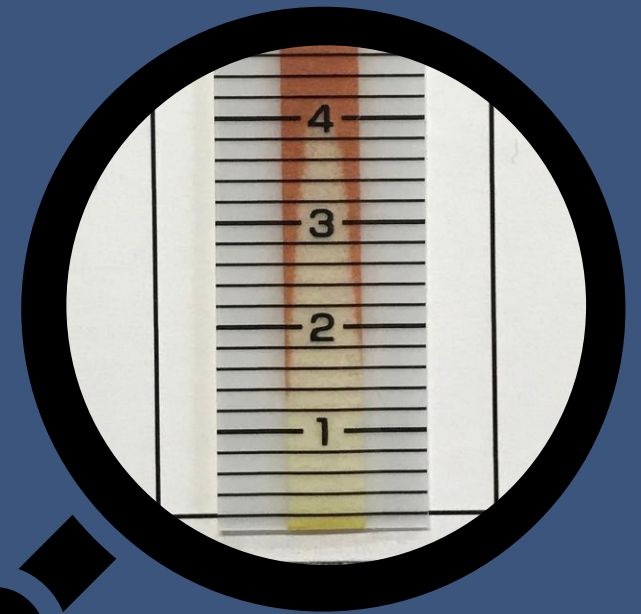
Chloride test instructions on other side.
Need help? Visit www.saltwatch.org.

Quantab Units	%NaCl	ppm(mg/L) Cl ⁻	Quantab Units	%NaCl	ppm(mg/L) Cl ⁻
1.4	0.005	31	4.8	0.036	220
1.6	0.006	37	5.0	0.039	238
1.8	0.007	44	5.2	0.042	257
2.0	0.008	50	5.4	0.046	276
2.2	0.010	58	5.6	0.049	297
2.4	0.011	66	5.8	0.052	318
2.6	0.012	75	6.0	0.056	341
2.8	0.014	85	6.2	0.060	365
3.0	0.016	95	6.4	0.064	391
3.2	0.017	106	6.6	0.069	418
3.4	0.019	117	6.8	0.074	448
3.6	0.021	130	7.0	0.079	479
3.8	0.024	143	7.2	0.085	513
4.0	0.026	157	7.4	0.091	551
4.2	0.028	172	7.6	0.098	592
4.4	0.031	187	7.8	0.105	637
4.6	0.034	203			

USE BY: 08/2024 Lot A2238



This test strip reads:
4 Quantab Units





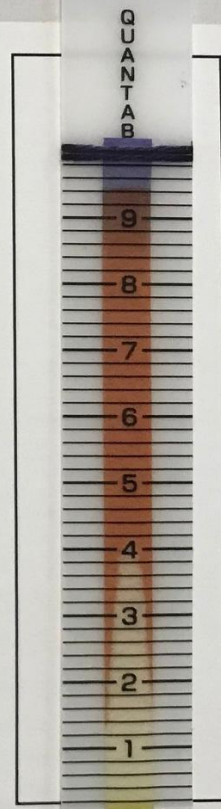
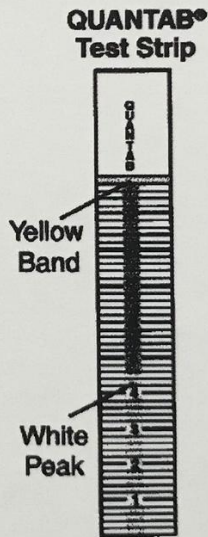
SALT WATCH™

IZAAK WALTON LEAGUE OF AMERICA

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USE BY: 08/2024 Lot A2238



This test strip reads:
4 Quantab Units

4 Quantab Units means the sample
is 157ppm



What do Chloride Levels Mean?

0-100 mg/L

Chloride in freshwater naturally occurs *

230 mg/L

Chloride is "chronically" toxic to aquatic life

250 mg/L

EPA Secondary Standard of Drinking Water

860 mg/L

Chloride is "acutely" toxic to aquatic life

Be a Smart Salter

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.

It only takes 1 teaspoon of salt...
...to pollute 5 gallons of water

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



Americans use 20 million tons of road salt every year.



Reduce your salt use to protect our water!

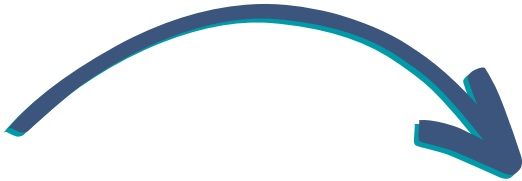
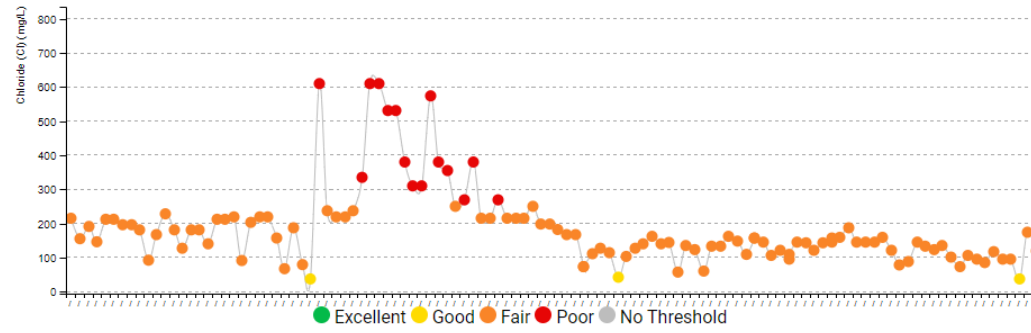
Do your own salt application?

- 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.

Find out about salt application courses from your state Department of Transportation or visit www.saltwatch.org!



Data Action

TTF Streamkeeper Testifies at Philadelphia City Council about Road Salt

Jamilee Hoffman
Mar 17, 2022



The Washington Post
Local Opinions
Opinion: The true cost of salt on the D.C. area's roads

An Annapolis city employee spreads salt on the downtown sidewalks as a storm-winter storm dumped snow and ice across the region in February 2021. (Jonathan Newton/The Washington Post)

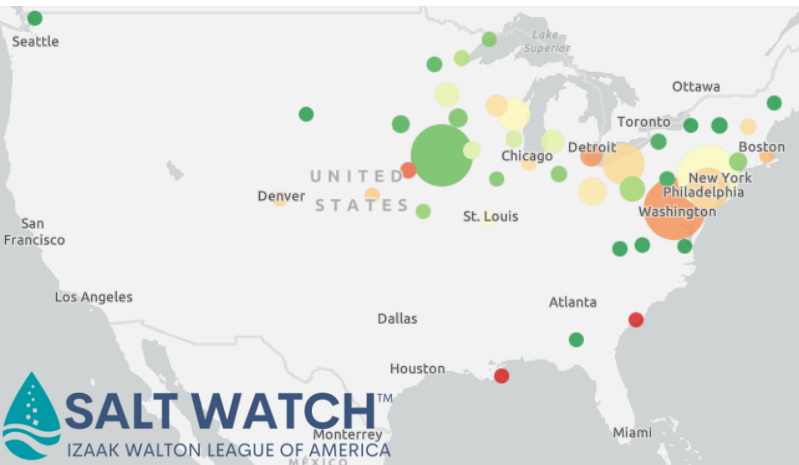
By Karl Van Nester
January 19, 2022 at 2:45 p.m. EST

ACTION ALERT

Keep freshwater fresh for future generations!

Abby – Stand up for clean water in Minnesota by reducing salt pollution! In many areas of the United States, road salt is used in the winter to create safe travel conditions, but excessive salting is a growing problem. Excess road salt ends up in our waterways, creating toxic conditions for aquatic life and threatening human health.

You can take action on this pervasive problem! [Let your state representatives know that you would like to see reduced road salt pollution in Minnesota.](#)





Shovel

Clear walkways before snow turns to ice.



Scatter

A 12 oz mug holds enough salt to treat a 20-foot driveway or 10 sidewalk squares.




Sweep

Sweep up excess salt and reuse it!



Resources




Chloride in Drinking Water

Road salt pollution is the leading cause of chloride pollution in waterways throughout the United States. 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 are 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.



Fact Sheets

Be a Smart Salter

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. It only takes 1 teaspoon of salt... to pollute 5 gallons of water.

Reduce your salt use to protect our water!

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.

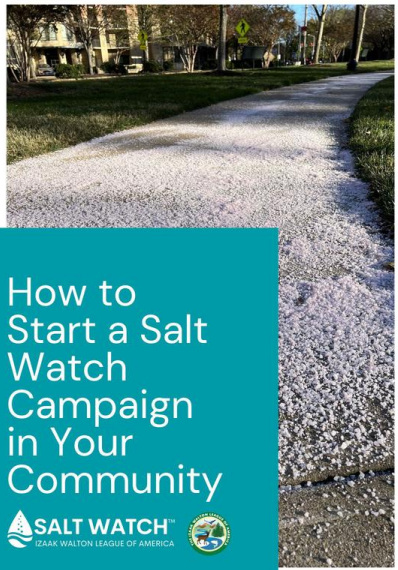
Hiring a snow removal contractor?

Choose a contractor who is certified through a winter salt certification program. Find out about salt application courses from your state Department of Transportation or visit www.saltwatch.org




Salt applied by cities, businesses, and homes adds up. Americans use 20 million tons of road salt every year.



Flyers



How to Start a Salt Watch Campaign in Your Community



Advocacy Guide



¿Cuánta sal de carretera hay en sus arroyos?

¡Solicite un kit de prueba GRATIS para averiguarlo! Ideal para estudiantes y científicos comunitarios de todas las edades.

www.SaltWatch.org

ÚNETE A SALT WATCH



Spanish Resources

Bonus: Letter to State Representative (edit with your own experience and voice)

Dear Representative/Senator [your rep's name],

Every winter, snowy weather creates dangerous conditions on our roads. Since the 1940s, communities across the U.S. have been spreading road salt on streets, sidewalks and parking lots to melt ice and create safer traveling conditions. Road salt is effective when used correctly, but we have fallen into a pattern of over-applying and misusing road salt in ways that have damaging side effects on wildlife, human health and the environment. I am asking that you work towards salt reduction in [the name of your community/state].

Road salt inevitably ends up in our streams, rivers and lakes. USGS monitored 30 streams from 1960-2011 in Wisconsin, Illinois, Colorado, Michigan, Ohio, Pennsylvania, Maryland, Texas and the District of Columbia and found that 84 percent of those streams experienced high chloride concentrations due to road salt. And once road salt enters bodies of water, it is extremely difficult and expensive to remove; it's simply not feasible to filter it out at water treatment plants.

Road salt threatens our water quality in multiple ways, by contaminating drinking water, corroding pipes and leaching metals into our water. High levels of chloride are dangerous to human health, especially for people with pre-existing conditions such as high blood pressure. Chloride is also toxic to aquatic life and can degrade vegetation and soil. All told, our current road salt practices cost the U.S. \$16-19 billion a year in damages.

It's possible to reduce salt usage without endangering travelers; some communities are already doing it. Minnesota, for example, has substantially reduced salt usage without seeing any loss of safety on the roads. They've accomplished this through strategies including training salt applicators in smarter salting practices, offering a smart-salting certification to professional applicators and private property owners, drafting model contracts between applicators and owners (<https://www.epa.state.mn.us/water/smart-salting-training>), and requiring applicators and manufacturers to properly store salt supplies.

[Your community/state] can take these steps too. By supporting smarter salting practices, you will be protecting water quality for generations of [Marylanders/Illowans/etc.] to come. Please [insert specific action you want legislator to take: introduce a bill requiring smarter salting practices, co-sponsor an existing bill, etc.]

Sincerely,

[Your Signature]

[Your Name]

Template Letters

SALT RESPONSIBLY



Visit:
www.saltwatch.org

Email:
saltwatch@iwla.org

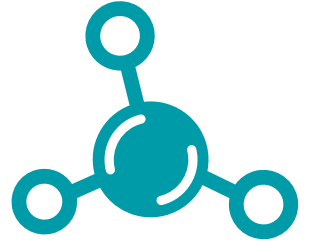


NITRATE WATCHSM

IZAAK WALTON LEAGUE OF AMERICA



What is nitrate pollution?



- Nitrate (NO_3^-) is naturally occurring
- Nitrogen is important for plant growth
- Soils and plants aren't able to take up all the nitrate that is applied
- Excess nitrate is carried to surface water via runoff or groundwater via infiltration



Sources of excess nitrate

Fertilizers



Animal Feedlots



Wastewater treatment



Atmospheric deposition



Nitrate pollution impacts...

Environment



Human Health



Economy

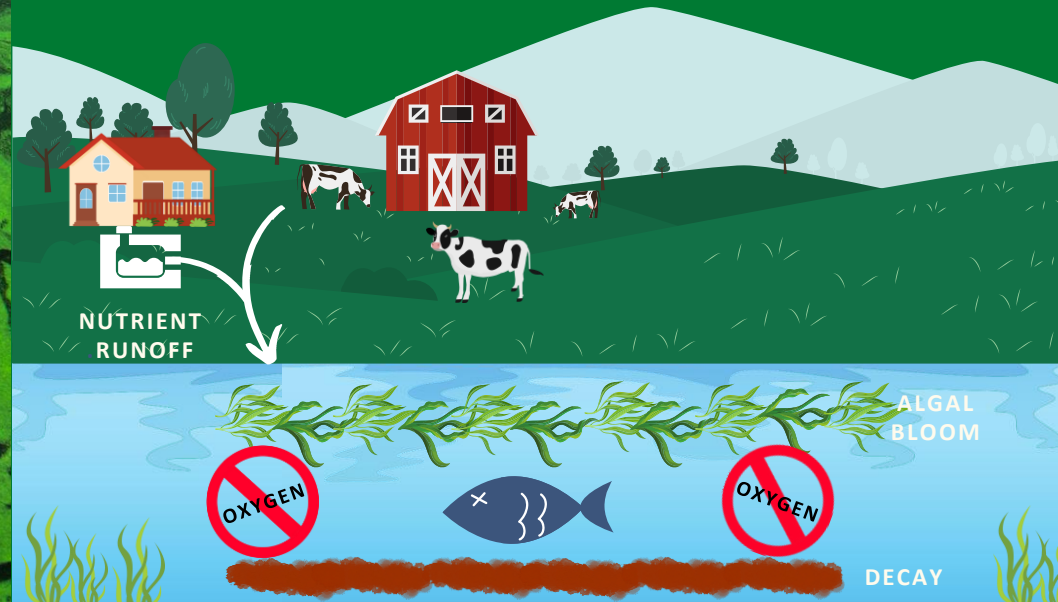


Environment



Environmental impact

- Excess nutrients lead to:
 - Algae blooms
 - Fish kills
 - Dead zones



Human Health



Human Health impact

In surface water:

- Toxins from harmful algae blooms

In drinking water:

- Methemoglobinemia (blue baby syndrome)
- Thyroid disease
- Birth defects
- Colon cancer

Drinking water standard

US EPA maximum contaminant level: **10 mg/L**

- created in 1992
- to prevent blue baby syndrome
- other health effects observed with prolonged exposure to lower concentrations

Private wells are not regulated



Human Health



Economy



Economic impact

- Drinking water treatment
- Medical costs
- Fishing industry
- Recreation
- Property values

Estimated US economic impact:
\$210 billion/year



Mobilizing volunteers to monitor nitrate in surface water & drinking water

Goals:

- **Raise awareness** about the impacts of nitrate on the environment and human health
- **Identify hotspots** of nitrate pollution
- **Advocate for solutions** that reduce nutrient pollution.



How to Participate

What you need:

- smartphone or computer
- free Nitrate Watch kit

Kit includes:

- 25 nitrate test strips
- sample testing instructions
- data uploading instructions
- Nitrate Watch Sticker

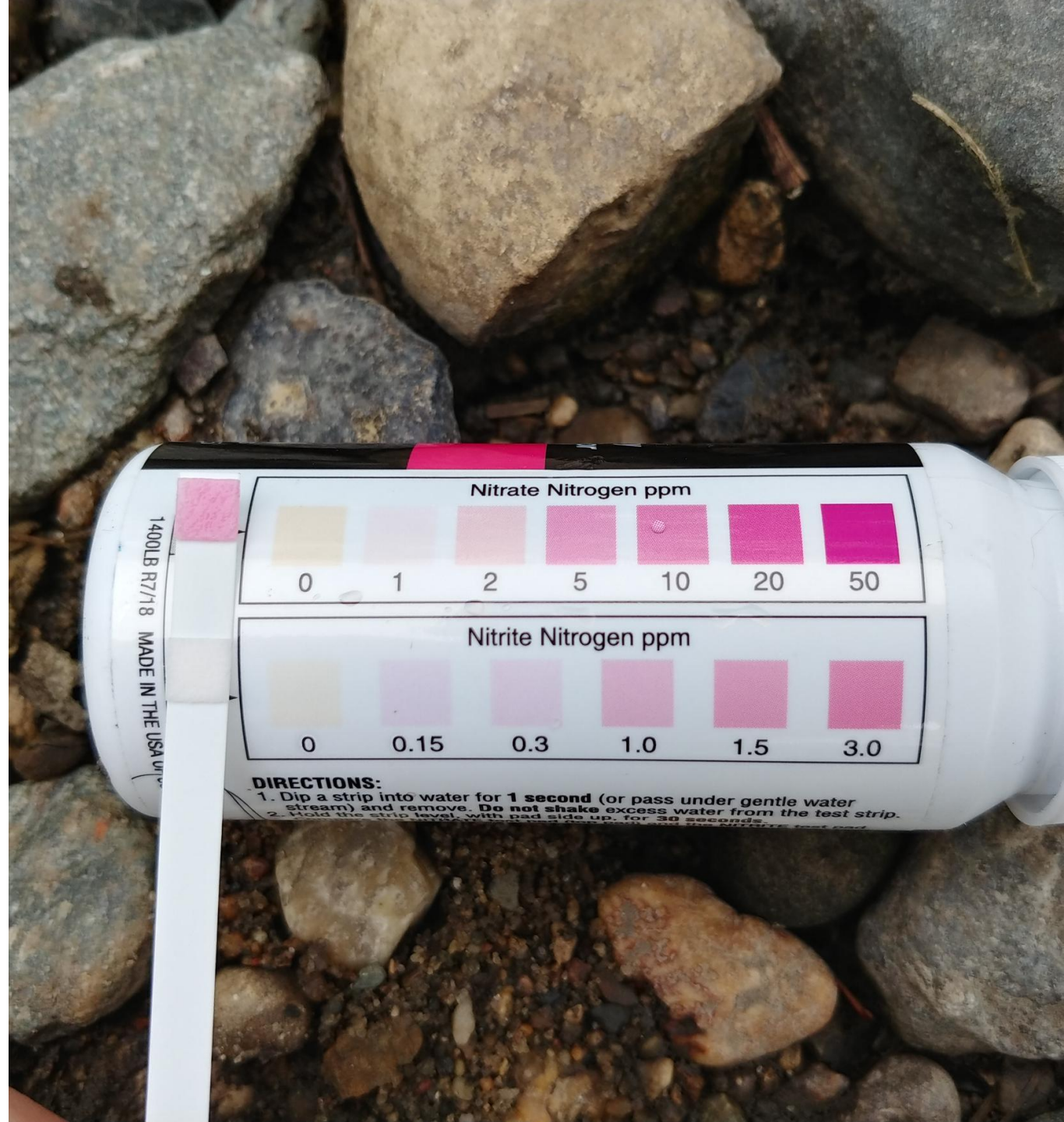
Request a free kit at
www.nitratewatch.org



How to Participate

1. Dip test strip in any source of water (pond, stream, tap etc.) for 1 second
2. Wait 30 seconds
3. Take reading by comparing color to bottle at exactly 30 seconds
4. Enter data on Clean Water Hub

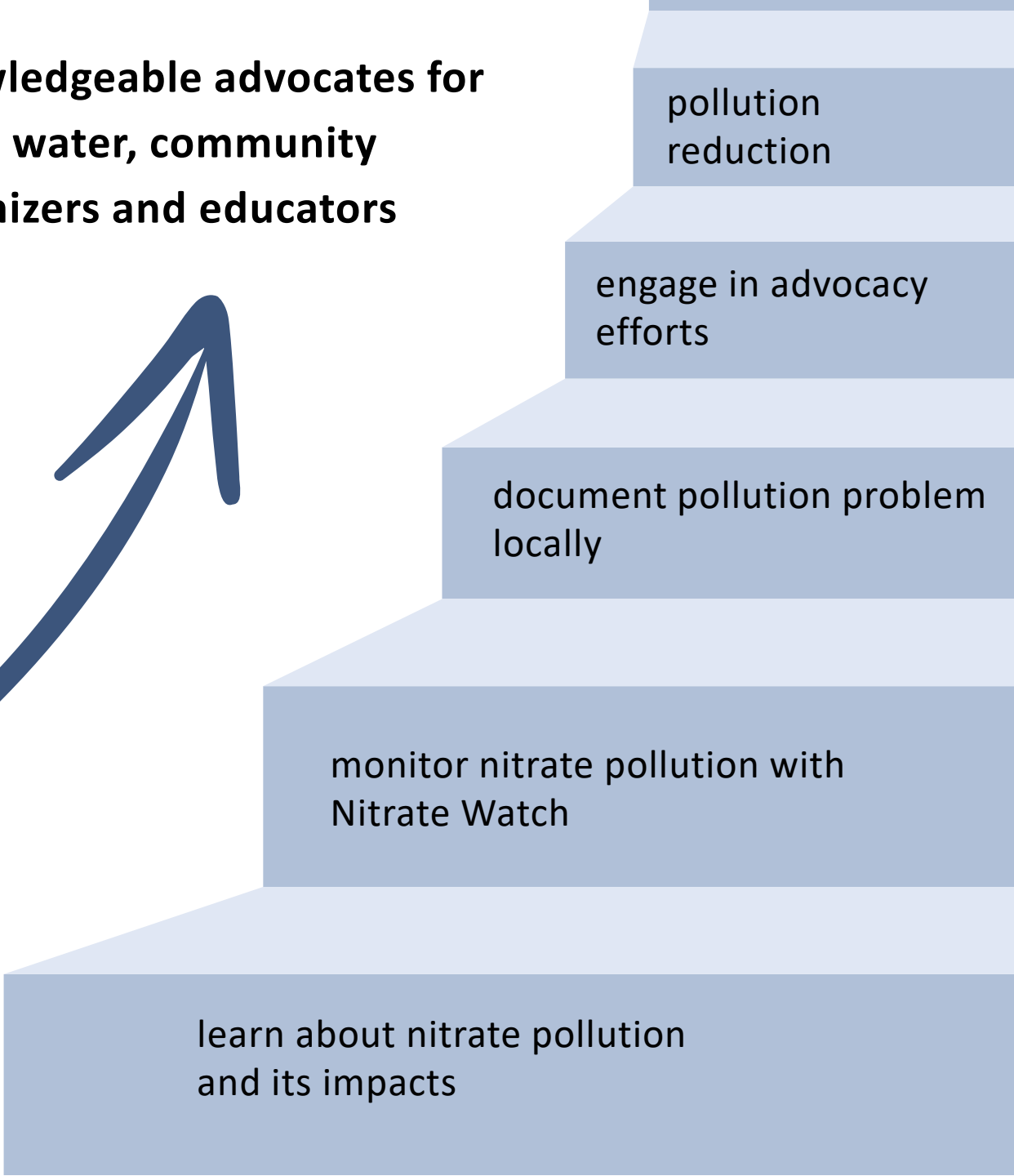
Monitor consistently throughout the year (ideally monthly)



**Knowledgeable advocates for
clean water, community
organizers and educators**



**Un-engaged, little to no
knowledge of local or regional
water quality issues**



Resources for Monitors: *advocacy*

Petition



Time to Call a Halt to Harmful Nitrate Pollution

Nitrate is a well-known and highly prevalent water pollutant with harmful impacts to human and environmental health. Nitrates are abundant in synthetic fertilizers, animal manure, and sewage. They are easily picked up by rainfall and frequently run off into water bodies and seep through soil into the groundwater below. Dangerously high levels of nitrate present in our surface waters and drinking water sources are unacceptable and demand action.

High nitrate levels lead to algae blooms which deplete the oxygen in waterways, creating dead zones where aquatic life is scarce. Algae blooms may also harbor toxic cyanobacteria, which can cause rashes, nausea, and in some cases death to humans and animals that come into contact with the bacteria.

Consuming nitrates in drinking water is known to have negative impacts on human health, including methemoglobinemia ("blue baby syndrome"), thyroid disease, central nervous system birth defects, and colorectal, bladder, ovarian, and kidney cancers. While the EPA has set a drinking water standard of 10 mg/L for nitrates, private water supplies from groundwater wells are not regulated and do not have established standards for

Letters to the editor & Letters to representatives

A little fertilizer goes a long way.

Many modern agricultural practices depend on synthetic fertilizers that are high in nitrates to produce crop yields that will support a growing population. Unfortunately, those nitrates can be harmful to human health and the environment when they run off into waterways. From July 2017 to June 2018, Iowa distributed 4,486,121 tons of fertilizer. Runoff from rain and snow may carry the nitrates from fertilizers into groundwater or into drainage systems which empty into streams. About 80% of the nitrogen in fertilizers is lost from the fields where they are applied. Iowa has more than 22 million acres of row crop agriculture, and most of it remains incompletely or inadequately treated for nitrate pollution.

High levels of nitrates in streams can lead to unsafe drinking water. More than 118 million Americans depend on local streams for drinking water. In 1990, the Environmental Protection Agency (EPA) established the drinking water standard for nitrates as 10 mg/L. But studies have found that water with nitrate levels even lower than that may not be safe to ingest. Some health risks related to ingesting high levels of nitrate include methemoglobinemia (blue baby syndrome), cancer, thyroid disease, respiratory issues, and birth defects. Only about 10% of public water suppliers in Iowa treat their water for nitrate, and private water supplies, such as groundwater wells, are not regulated and do not have standards for contaminants. Together, that means that about one third of the households in Iowa are at high risk of nitrate exposure.

[add data from your Nitrate Watch testing and/or share why this issue is important to you personally]

As an Iowan, I understand the responsibility that our state has for providing food for our people and country. However, our current farming practices can be modernized to improve soil health and reduce runoff so fertilizers applied to fields don't poison our water. Our agriculture systems must evolve so that we can continue to feed a growing population without harming our waters. Government officials and our communities need to unite to reduce chemical fertilizer use, advocate for alternative farming practices, and stop polluting our waterways.

For more information about nitrate pollution, visit nitratewatch.org.

Fact Sheets

The Cost of Nitrate Pollution

The contamination of surface water and drinking water with nitrate is dangerous to human health and harmful to the environment. But what is the economic impact of nitrate pollution?

WATER TREATMENT COSTS

When nitrate is present in drinking water sources, water utilities must remove the excess to meet the EPA standard. Specialized nitrate removal infrastructure is required, which is expensive to install and operate.

MEDICAL COSTS

Health conditions associated with nitrate pollution - like thyroid disease, birth defects, and some cancers - are costly to treat.

IMPACT ON THE FISHING INDUSTRY

Algae blooms that harbor toxic cyanobacteria can contaminate fish and shellfish, meaning the commercial fishing industry suffers.

DECLINING PROPERTY VALUES

Unsightly and dangerous algae blooms affect the value of waterfront property.

Visit www.nitratewatch.org to learn about nitrate pollution and how you can help protect clean water in your community.



LOSS IN RECREATION

Nitrate pollution can lead to unsightly and dangerous algae blooms. It makes sense that this would negatively impact recreation activities, like fishing and paddling.

ESTIMATED U.S. ECONOMIC IMPACT:

\$210 BILLION/YEAR¹

1. Sobota, D. J., Compton, J. E., McCrackin, M. L., & Singh, S. (2015). Cost of reactive nitrogen release from human activities to the environment in the United States. Environmental Research Letters, 10(2). <https://doi.org/10.1088/1748-9326/10/2/025006>

Clean Water Hub Overview

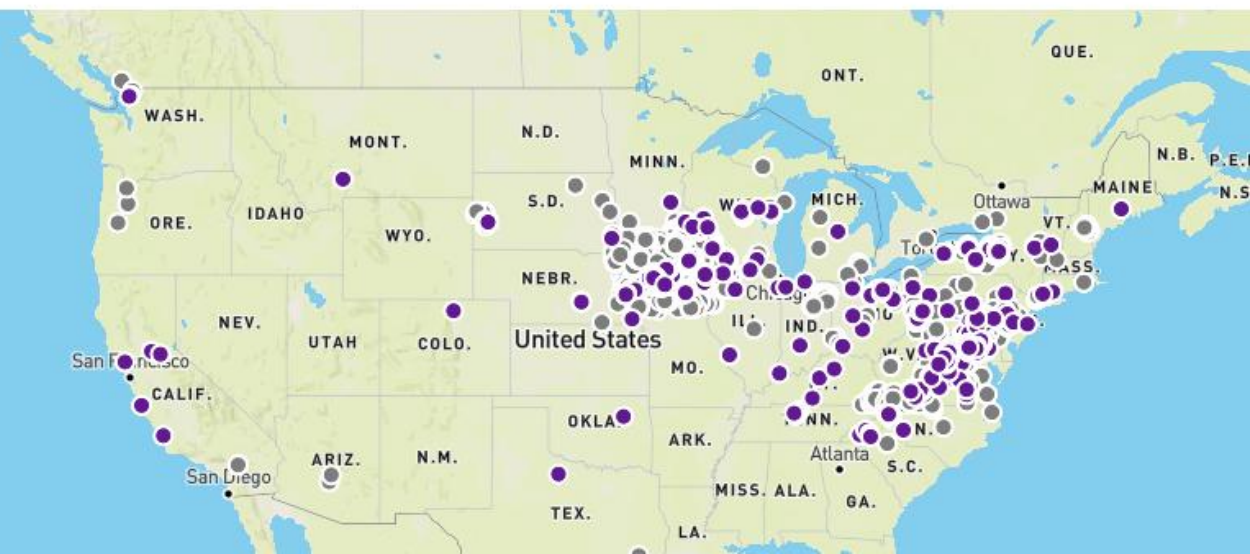
Clean Water Hub™

Share the water quality data from your local streams. Make an impact in communities across the nation.

[SIGN UP](#)

[SIGN IN](#)

[EXPLORE THE MAP](#)



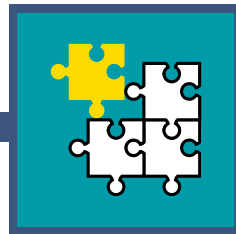


What is the Hub?

National water quality database

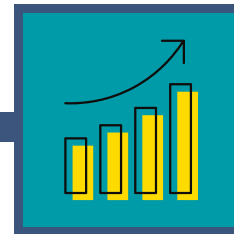
Collaborative tool to help volunteers and organizations track water quality in local creeks and streams

A place to view and share **local data** with the goal of making a **broader impact**



SHARE

Share water quality data from your local streams.



TRACK

See changes in water quality in your community.



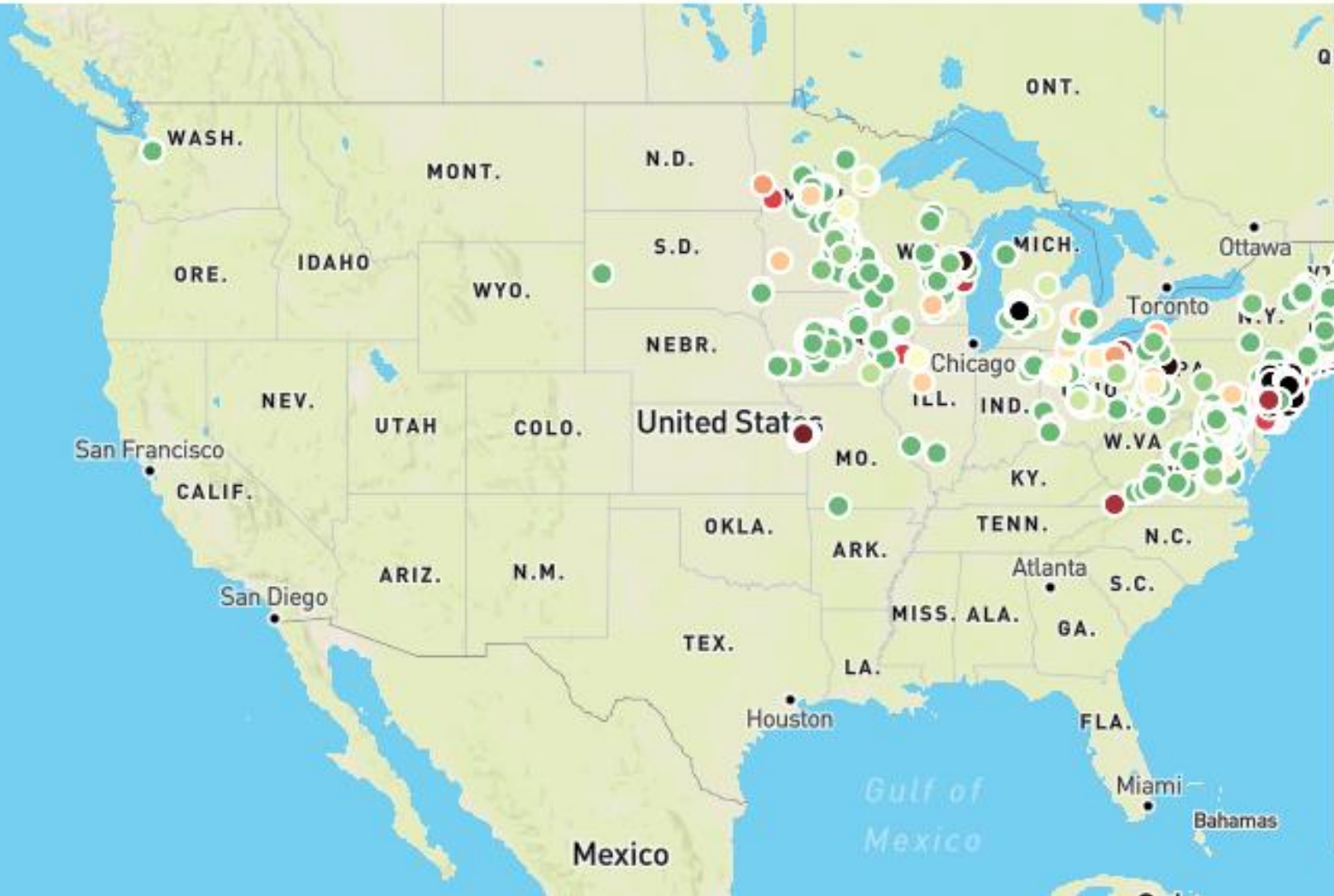
DISPLAY

Connect with, join, and explore the nationwide effort.

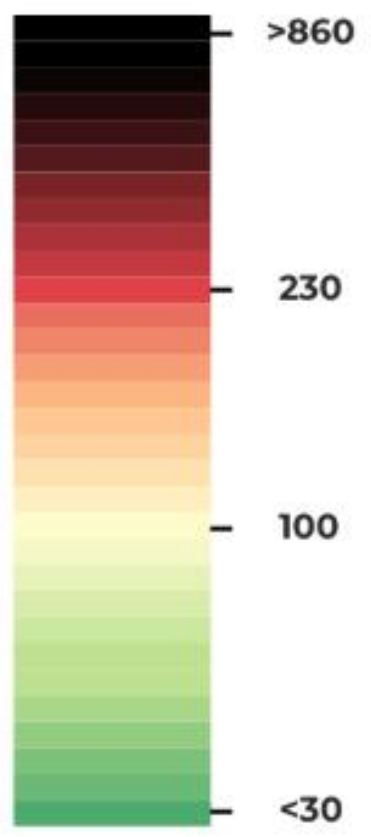
Salt Watch Map

Start Date End Date

Satellite

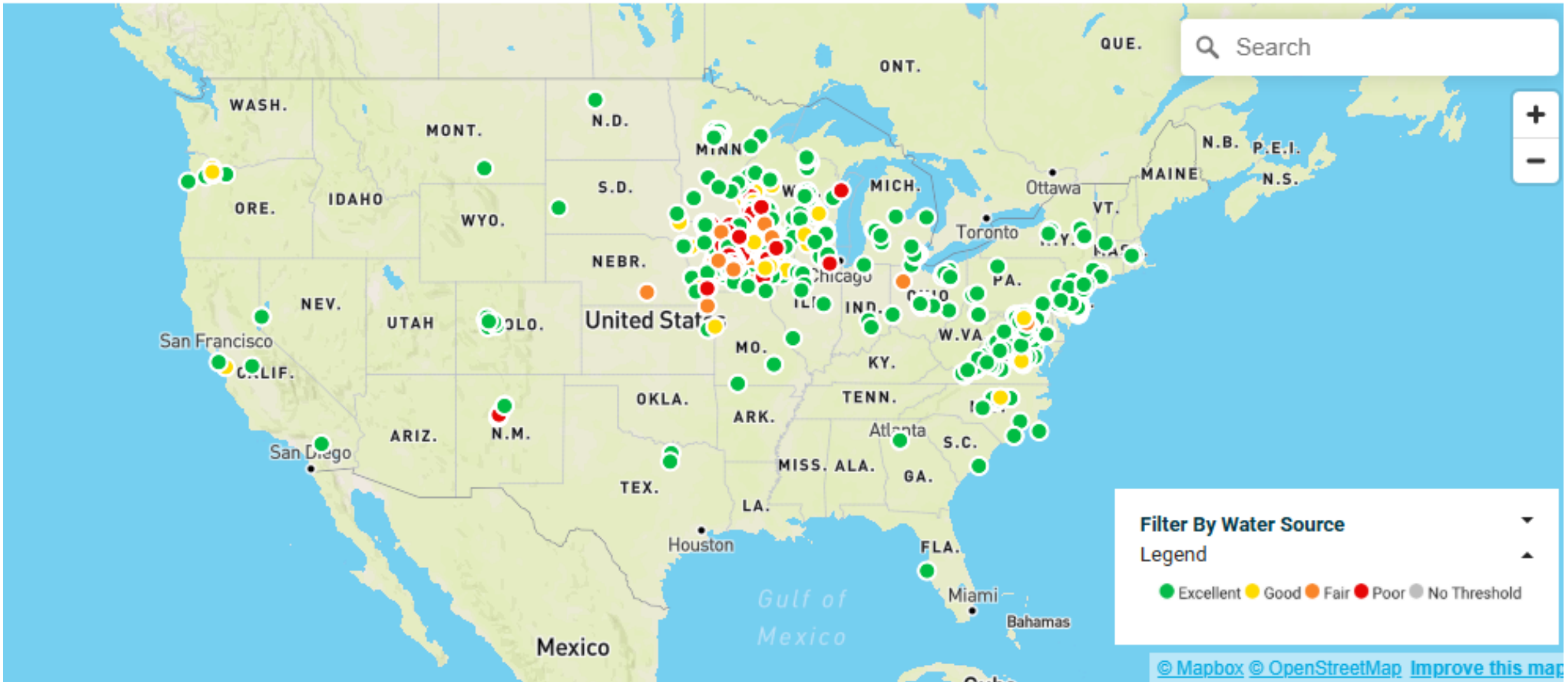


Filter By Water Source
Legend



Nitrate Watch Map

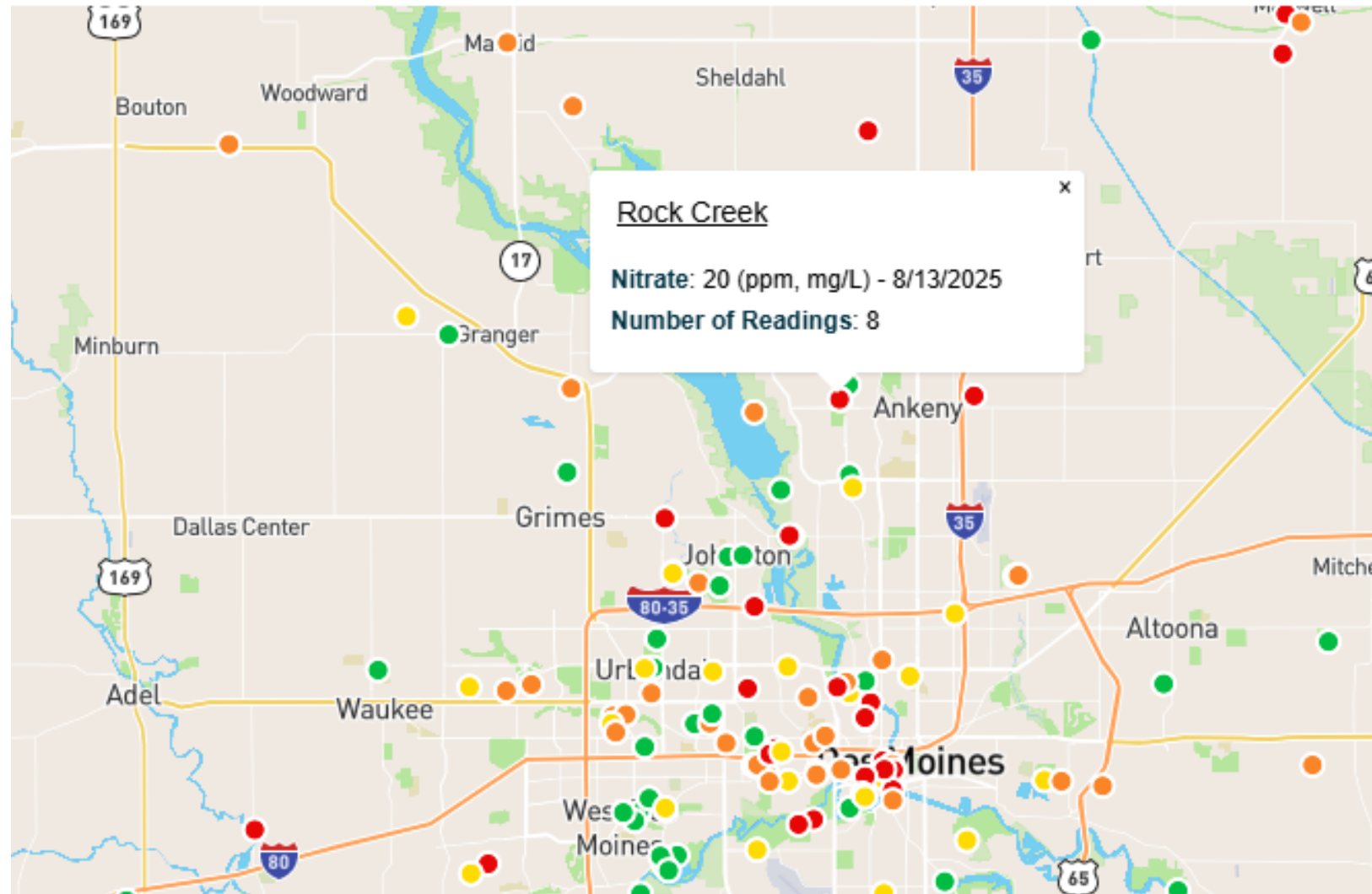
Start Date End Date

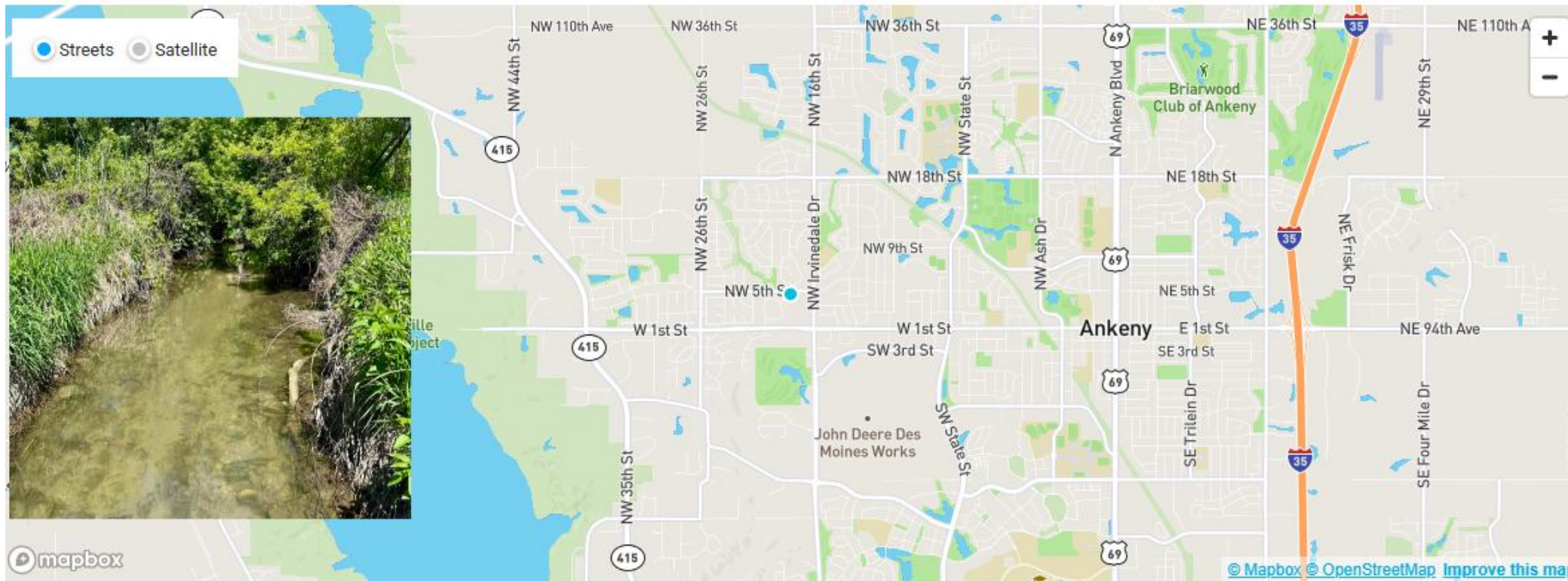


Nitrate Watch Map

Start Date End Date

Individual Sites





ROCK CREEK

Creek runs through more recently developed areas and neighborhoods.



ROCK CREEK
Ankeny, IA


[SOS BIOLOGICAL](#)

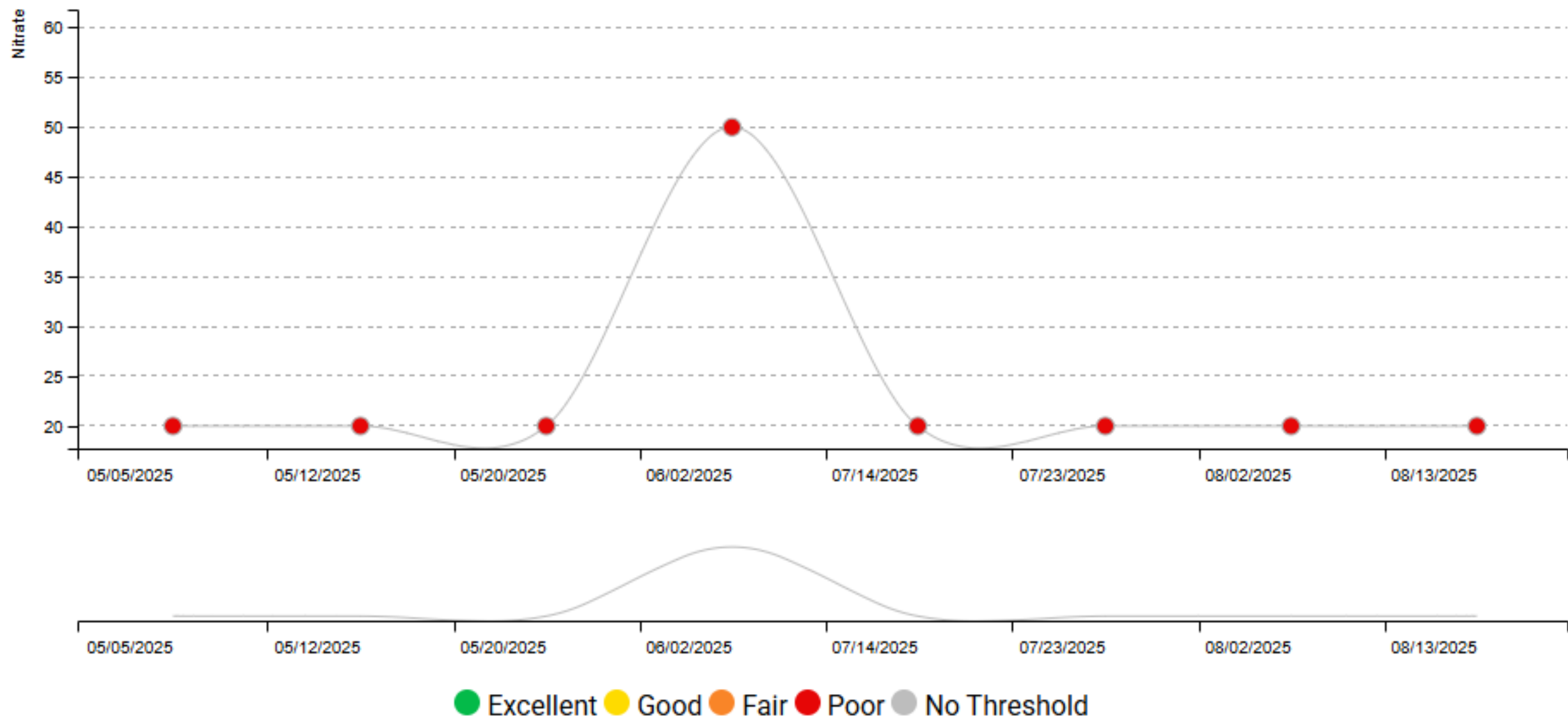
[SOS CHEMICAL](#)

[SALT WATCH](#)

NITRATE WATCH

LATEST READING - NITRATE WATCH

 Aug 13, 2025



STORY COUNTY CONSERVATION



[JOIN ORGANIZATION](#)

ABOUT

Connecting people with nature and improving natural resources – making Story County a great place to live, work, and recreate. Story County Conservation manages more than 3,100 acres of parks and natural areas, including lakes, campgrounds, and trails, and an additional 5,500 acres of roadside habitat through our Integrated Roadside Vegetation Management program. The environmental education staff serves Story County schools and the public with interpretive and informational programs for all ages. Story County Conservation's volunteer program provides volunteer opportunities to individuals and groups interested in making a difference in local natural resources.

56461 180th St.
Ames, IA

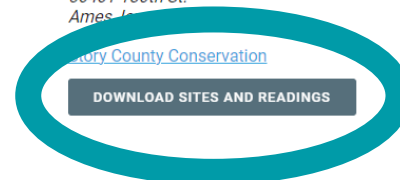
[Story County Conservation](#)

[DOWNLOAD SITES AND READINGS](#)

Data Export

- Site Data
 - View & Screenshot graphs
 - View all site data
 - View individual readings
- Organization Data
 - **Export dataset**

[DOWNLOAD SITES AND READINGS](#)





www.saltwatch.org
saltwatch@iwla.org



www.nitratewatch.org
nitratewatch@iwla.org

My contact: mdbroski@iwla.org



Announcements



EvelynAnn Bruno, National Capitol Area Council

2027 Outdoor Ethics and Conservation Conference is Coming to Sea Base.



February 15 - 21, 2027



Our past conferences have been tied to the land, and now it's time to embrace Scouting America's aquatic adventure side, so we are headed to Sea Base for our next conference! Join us for a week of outdoor ethics and conservation education focused on both land and aquatic activities, hands-on field experiences, and Sea Base adventure opportunities. This event includes pre-conference training courses, sessions led by subject-matter experts, off-site environmental tours and much more!

Main Conference Dates: February 18 (afternoon) - February 21

Pre-Conference Dates: February 15 - February 18 (morning)

While on property, you will be staying in spacious bunkhouses with plenty of ground-level bunks to park your flip flops under. There are two cost options to choose from which include your housing and all meals while on site.

Full Week (February 15 - 21) \$325

The full-week option includes a pre-conference course or optional Sea Base activity of your choice and the main conference, but excludes any additional course/adventure fees that may apply.

Main Conference Only (February 18 - 21) \$230

Getting there is easy! Sea Base is served by airports in Miami, Fort Lauderdale or Key West. Shuttle service is available to and from these airports for a fee of \$55 each way if you don't want to rent a car.

Our planning team is working to bring our members some really great experiences and we hope to see you there! Stay tuned for more information as we finalize our plans.

* Costs are not final yet.

CONSERVATION AT THE SUMMIT



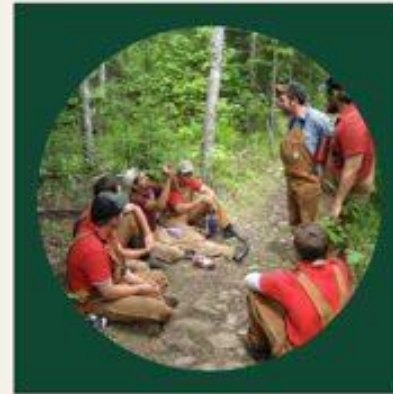
SCOUTING AMERICA

SCOUT CONSERVATION TRAINING

Come ready to gain knowledge, work outside, and become equipped to bring what you learned back home!

WHAT TO EXPECT

- Classroom training on concepts
- Hands-on application of concepts in the outdoors
- Recreation day at the Summit
- Registration for the week is \$350



SUNDAY MAY 31- SATURDAY JUNE 6, 2026

THE SUMMIT BECHTEL FAMILY NATIONAL SCOUT RESERVE
2550 JACK FURST DRIVE GLEN JEAN, WV 25846

JOIN US NOW! REGISTER AT [SUMMITBSA.ORG/TRAINING](https://summitbsa.org/training)



Leave No Trace Level 2 Instructor Courses

Dates	Council	Camp	Course Info	Field Experience
2026				
May 16-22	National Council	<u>Summit Bechtel Reserve</u>	<u>Info/Registration</u>	Non-Trek
August 9-14	National Council	<u>Northern Tier High Adventure Base, Ely, MN</u>	<u>Flyer</u> <u>Info/Registration</u> Contact: <u>Mark Hammer</u>	Canoeing
Sept 25-30	National Council	<u>Philmont Scout Ranch, Cimarron, New Mexico</u>	<u>Information/Registration</u>	Backpacking
Oct 18-23	National Council	<u>Summit Bechtel Reserve</u>	<u>Info/Registration</u>	Non-Trek



SCHOLARSHIPS Available



Partial course scholarships are available for scouters needing financial assistance in order to attend a Scouting America Leave No Trace Level 2 Instructor Course. Please see our [Dan Howells Scholarship](#) webpage for more information.

The Dan Howells Memorial Fund was established to honor the memory of this passionate leader and his lifelong commitment to Leave No Trace and Scouting.

Thanks to the Howells' family and Leave No Trace for creating this wonderful way for us to honor Dan's legacy.



Scouting for Clean Waterways

- Sign up online to receive updates
- <https://www.scouting.org/outdoor-programs/scouting-clean-waterways>





Please send in your photos of Outdoor Ethics education, Conservation projects, or great nature photos you've taken!

roundtable@scouting-oec.org



Paul Schimke, National Capitol Area Council



Your feedback is a gift!
Was this roundtable helpful?
What would you like to see
covered in future roundtables?

roundtable@scouting-oec.org

Feedback !?



Recordings of Outdoor Ethics & Conservation roundtables are posted at <https://scouting-oec.org/roundtable>



Scouting America Outdoor Ethics & Conservation Virtual Roundtables

● Past Roundtable Resource Links - [see below](#)



Watershed Address

What's your watershed address?

Practice your map skills!

Interactive Watershed Explorer

<https://mapscaping.com/interactive-us-watershed-map/>

How's My Waterway? <https://mywaterway.epa.gov/>



Paul Schimke, National Capital Area Council



Thank you for attending.
See you next month!

Youth Talk About the
DCSA



Shreemann Patel, Council, Pathway to Adventure Council