



CLEAN WATER HUB

IZAACK WALTON LEAGUE OF AMERICA



Using the Clean Water Hub to Facilitate Local Change

Heather Wilson

Midwest Save Our Streams Coordinator

July 28, 2023



Roadmap

Clean Water Hub Overview

Data Access & Export

Taking the Next Step

Clean Water Hub Overview

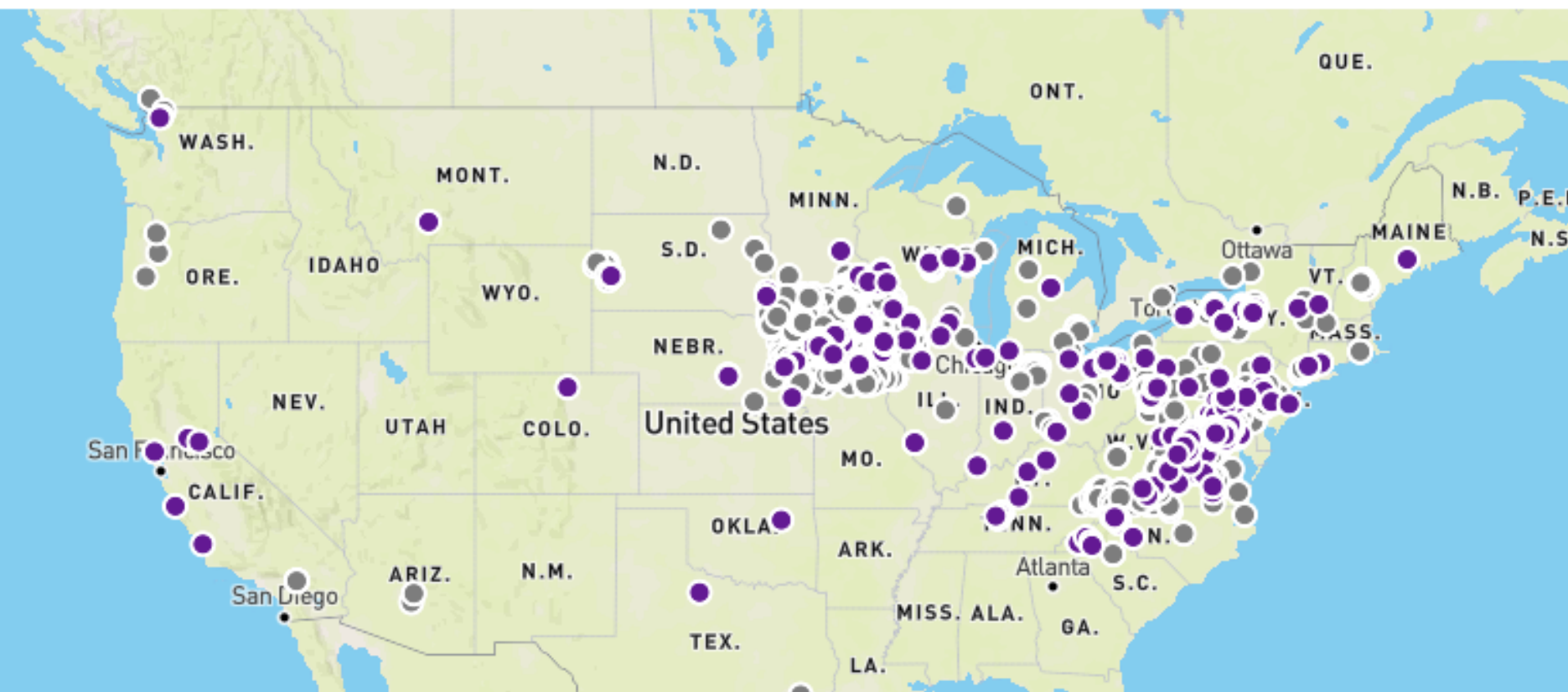
Clean Water Hub™

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

[SIGN UP](#)

[SIGN IN](#)

[EXPLORE THE MAP](#)



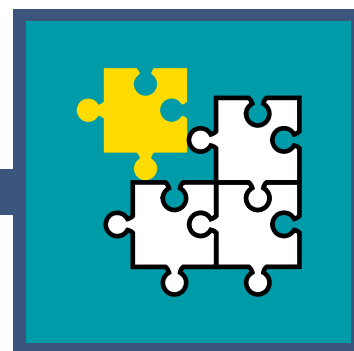


What is the Hub?

National water quality database

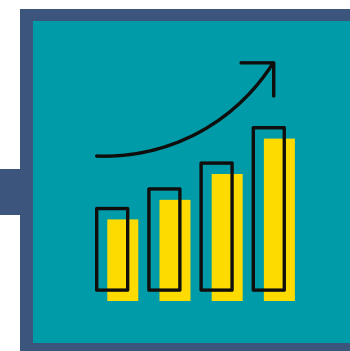
Collaborative tool to help volunteers and organizations track water quality in local creeks and streams

A place to 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.



Who is it for?

- Community groups
- IWLA Chapters
- Educators
- Conservation organizations
- Freelance water quality monitors



What data does it collect?

- SOS Chemical
- SOS Biological
- VA SOS
- Creek Critters
- Salt Watch
- Nitrate Watch





How do I get started?

Create a free account on
cleanwaterhub.org

Email sos@iwla.org if you would like
your organization to have a profile.

CLEANWATERHUB.ORG



Clean Water Hub stats*

15185

stations

53294

samples

195

organizations

1142

members







*as of July 24, 2023

Clean Water Hub

Getting Started & Troubleshooting

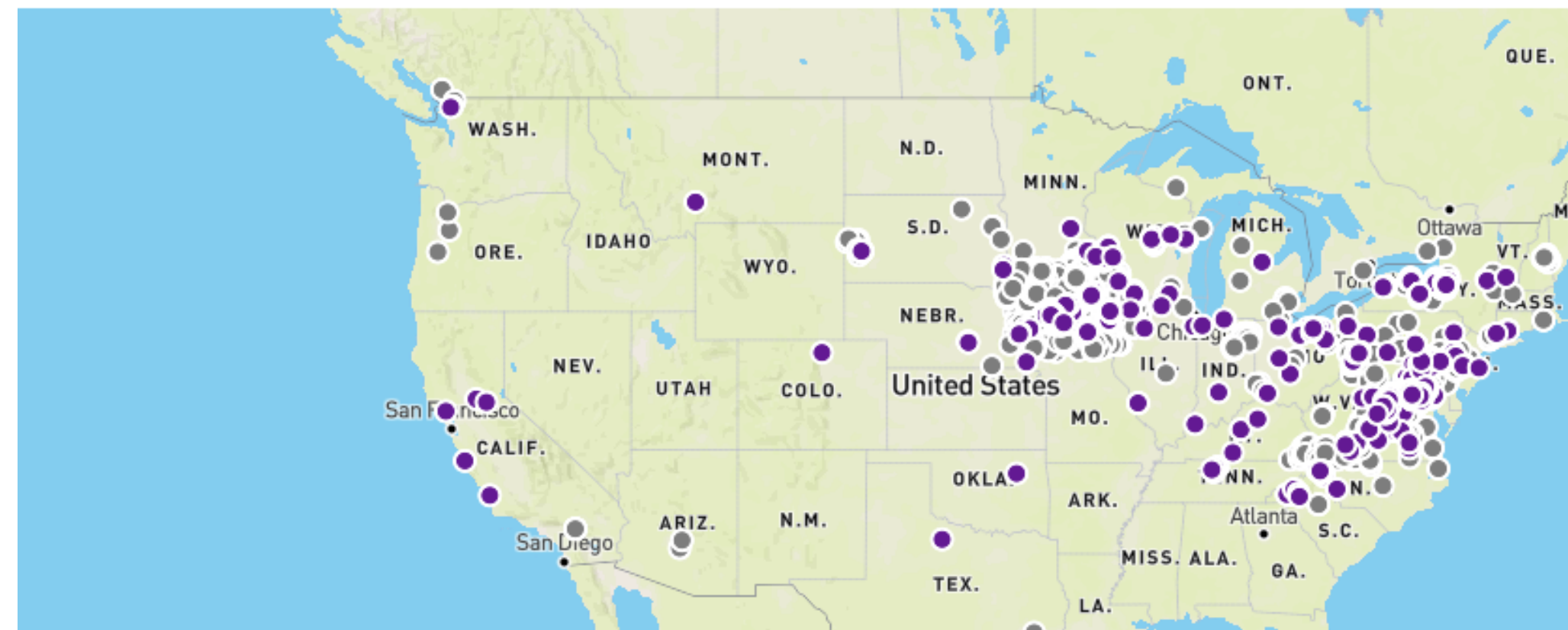
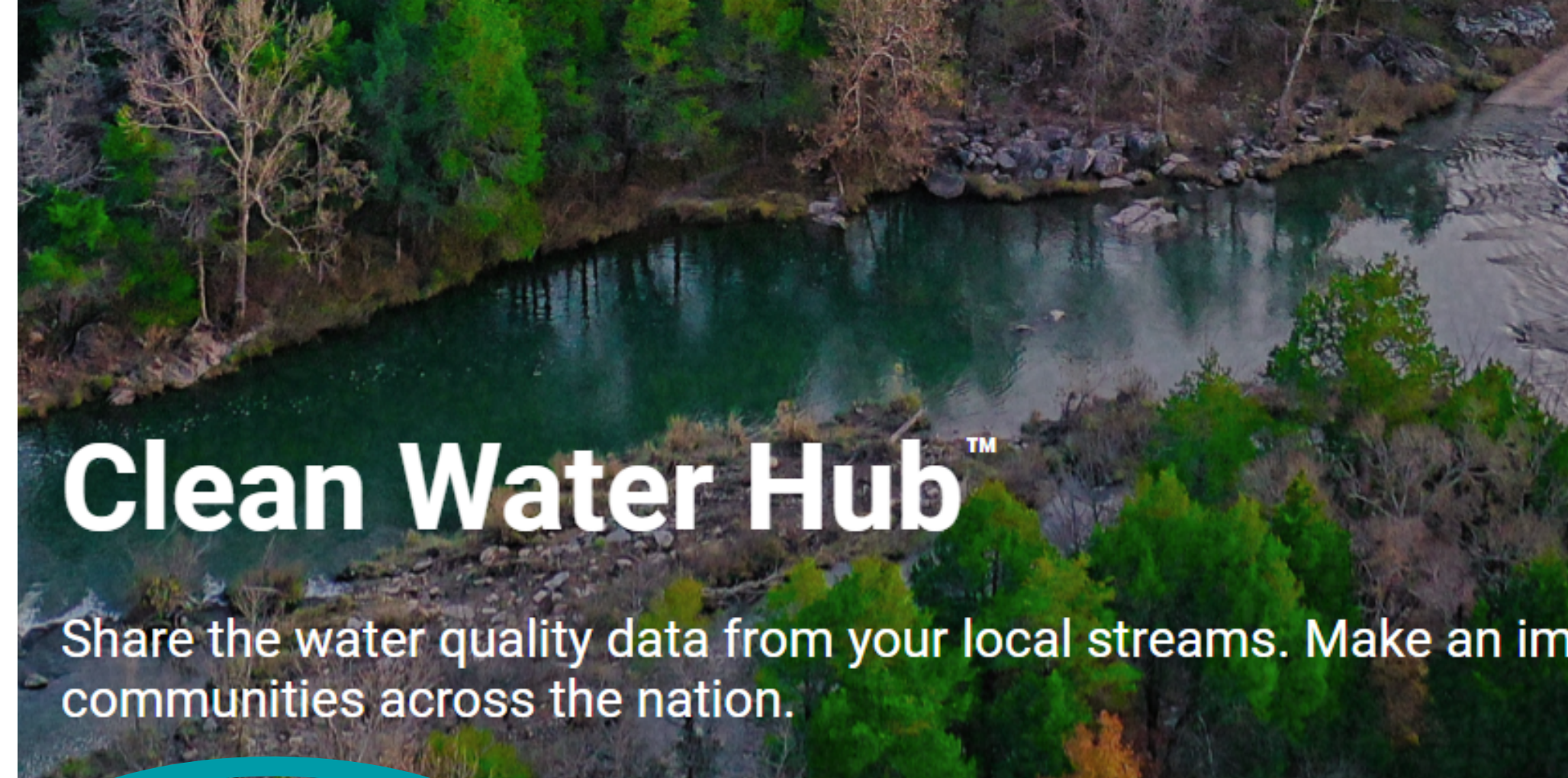
- "Help" tab
 - Users Guide
 - FAQs
 - Sharing your data
- Need more help? Email us!
 - sos@iwla.org



-  **Clean Water Hub Basic Users Guide**
What you need to know to start entering data
 By Samantha and 2 others • 8 articles
-  **FAQs**
 By Samantha and 2 others • 11 articles
-  **Sharing Your Data**
Communication and advocacy resources to help you use your water quality data for good!
 By Samantha and 1 other • 7 articles

How to Submit Data

1. Sign up for the Clean Water Hub.
2. Enter your information and join an organization
3. Create a site OR click on an existing site
4. Click "Create a new reading" and select an option from the dropdown menu.
5. Complete the data form
6. Check all fields and hit "Save Changes"



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If your organization isn't already in the Hub, fill out the form and request that it is added.

Register

Your Email Address

First Name

Last Name

Organization Name

If you do not associate with an organization, you will be automatically labeled as a Freelancer.

Don't See your Organization? [Submit](#) it to Izaak Walton League!

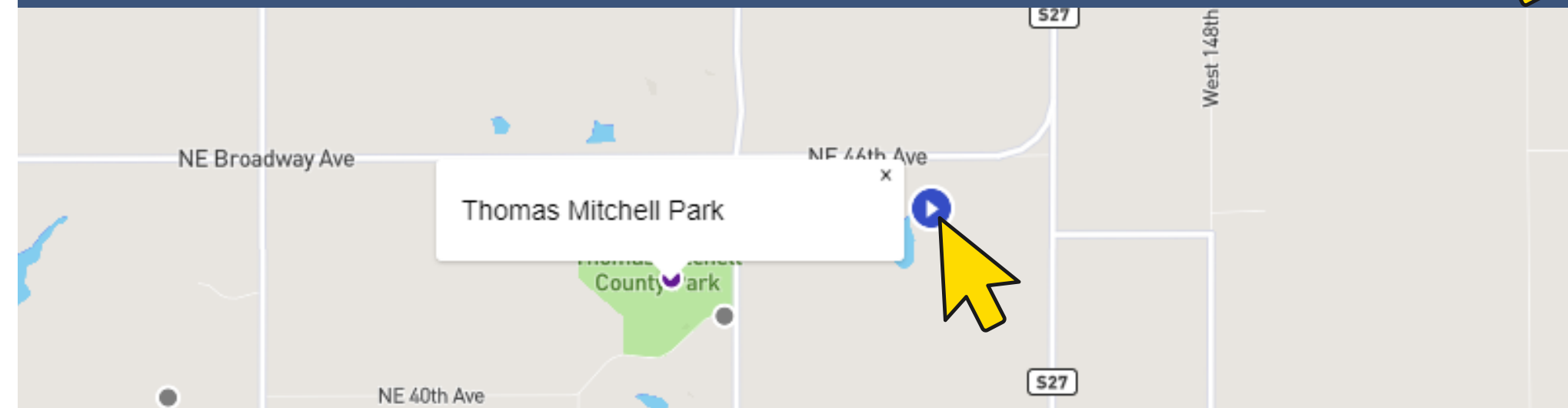
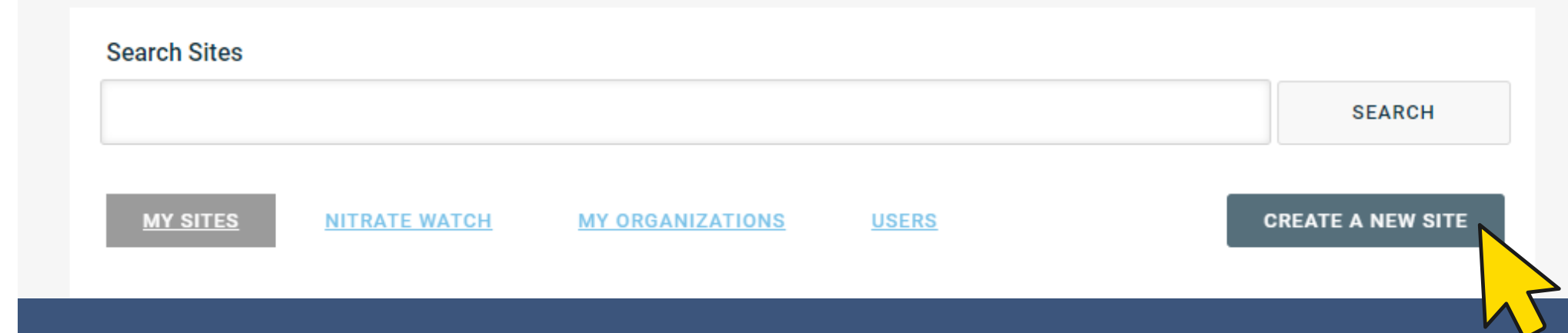
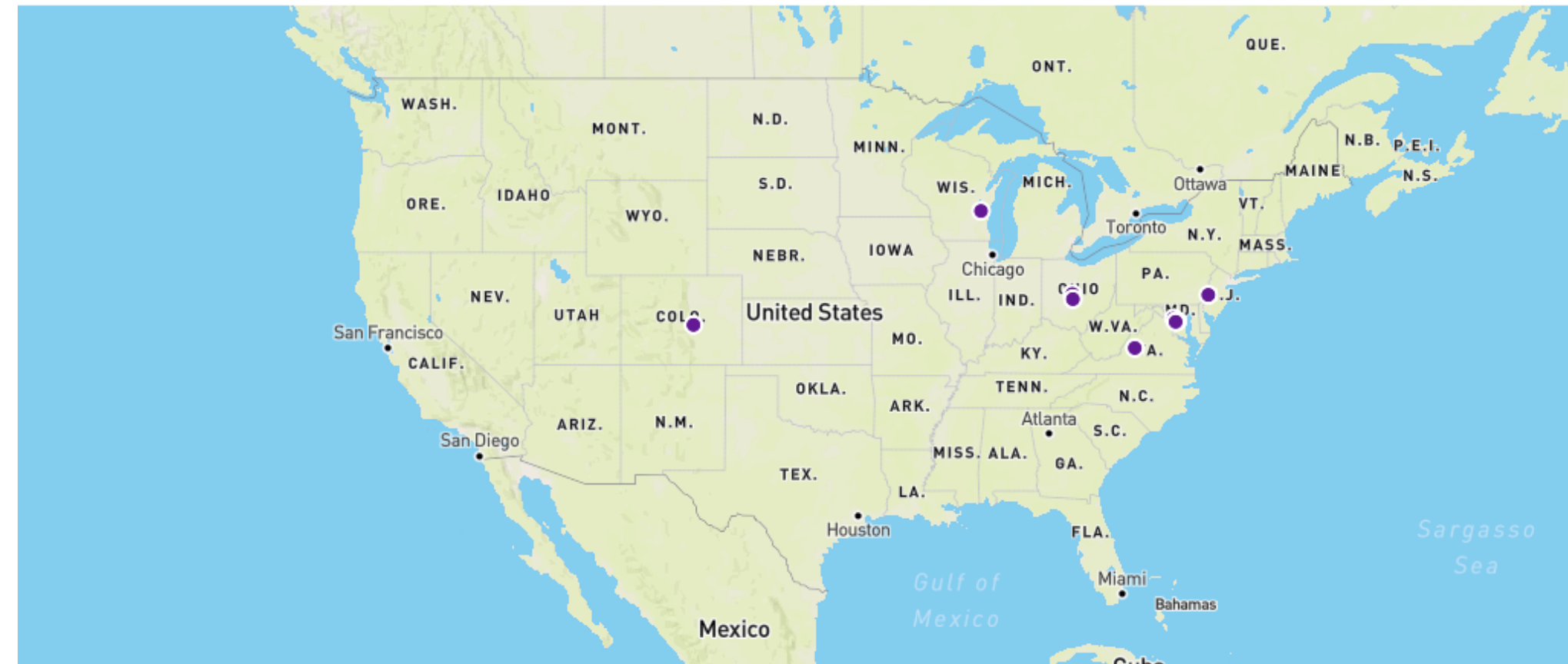
Type a password

Retype your password

CREATE ACCOUNT

How to Submit Data

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THOMAS MITCHELL PARK



Create a Reading

Create a New IOWA Chemical Reading 

Create a New SOS Chemical Reading [IOWA](#)


Create a New SOS Biological Reading

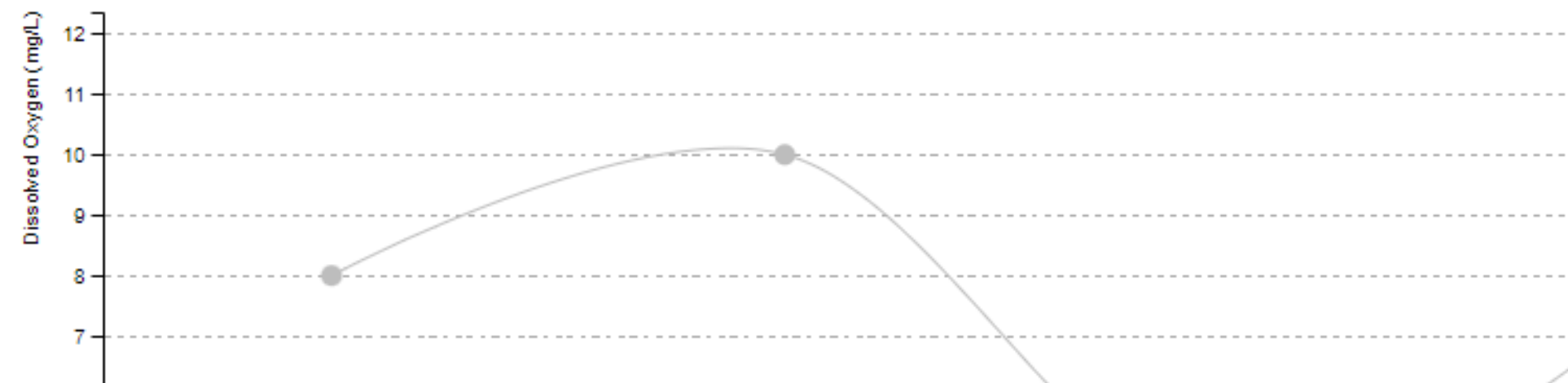
Create a New VASOS Rocky Bottom Reading

IOWA CHEMICAL

SOS CHEMICAL

LATEST READING - IOWA CHEMICAL

 Sep 15, 2003  09:30AM -



How to Submit Data

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5. **Complete the data form**
6. Check all fields and hit "Save Changes"



You can submit data forms with incomplete data, as long as all required fields are filled out.

THOMAS MITCHELL PARK CHEMICAL MONITORING DATA

CAMP CREEK
Polk, IA

SAVE CHANGES

DISCARD CHANGES

DELETE

Is this data ready to share?

Number of People In Group

Survey Date

Survey Start Time

Survey End Time

Predominate Weather Today

Predominate Weather Yesterday

Predominate Weather Day Before Yesterday

Saturation

Click on your temperature reading (Celsius) on the top axis and your DO reading (mg/L) on the bottom axis to draw a line between the two points. Where the line crosses the angled axis is your percent saturation (%). Please type your percent saturation (%) in the appropriate box above the graph.

Dissolved Oxygen (mg/L)

Temperature (Degrees Celsius)

Saturation (%)

FINDING THE PERCENT SATURATION OF DISSOLVED OXYGEN

Water temperature °C



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SAVE CHANGES

Nitrate Watch Form

Site Selected **Michigan Ave** [edit](#)

New Nitrate Watch Reading

Survey Date **(required)**

mm/dd/yyyy

Nitrate (ppm) **(required)**

Most Recent Precipitation
(required)


Water Source **(required)**

Comments

How to Submit Data

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5. Complete the data form
6. **Check all fields and hit "Save Changes"**

THOMAS MITCHELL PARK CHEMICAL MONITORING DATA

CAMP CREEK
Polk, IA 

SAVE CHANGES

DISCARD CHANGES


DELETE

Is this data ready to share?

Number of People In Group

5

Survey Date

 12/28/2022

Survey Start Time

10 00 AM

Survey End Time

10 45 AM

Predominate Weather Today

Snow

Predominate Weather Yesterday

Snow

Predominate Weather Day Before Yesterday

Snow

Saturation

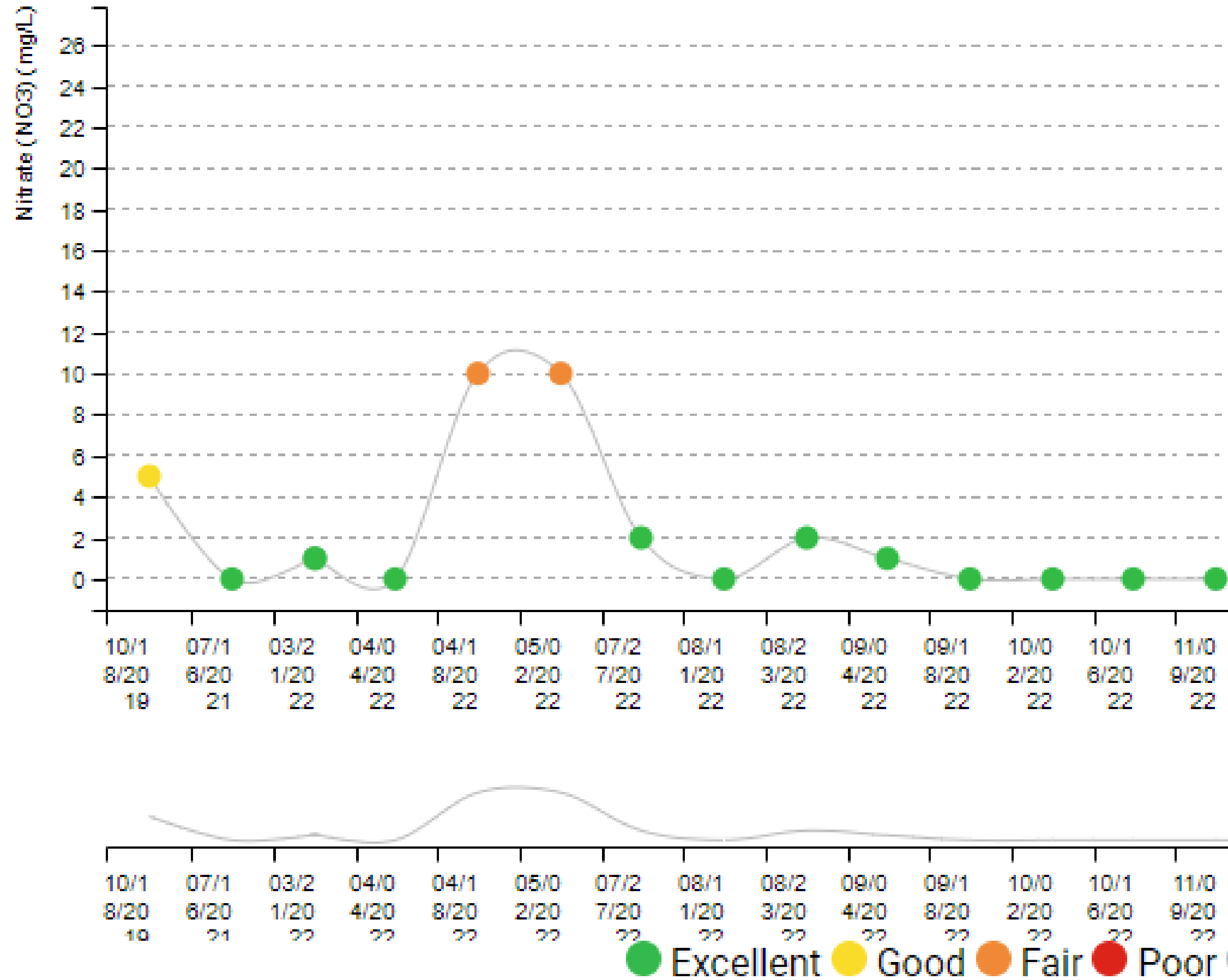
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Dissolved Oxygen (mg/L)

Temperature (Degrees Celsius)

Saturation (%)

Data Access & Export



A map of the United States is shown in the background, with a dark blue rectangular box overlaid on the left side. Inside the box, the words "Data Access" are written in a large, white, sans-serif font. The map shows state abbreviations like ONT., MICH., ILL., GA., and FLA., and city names like Chicago and Miami. The Gulf of Mexico is labeled at the bottom left.

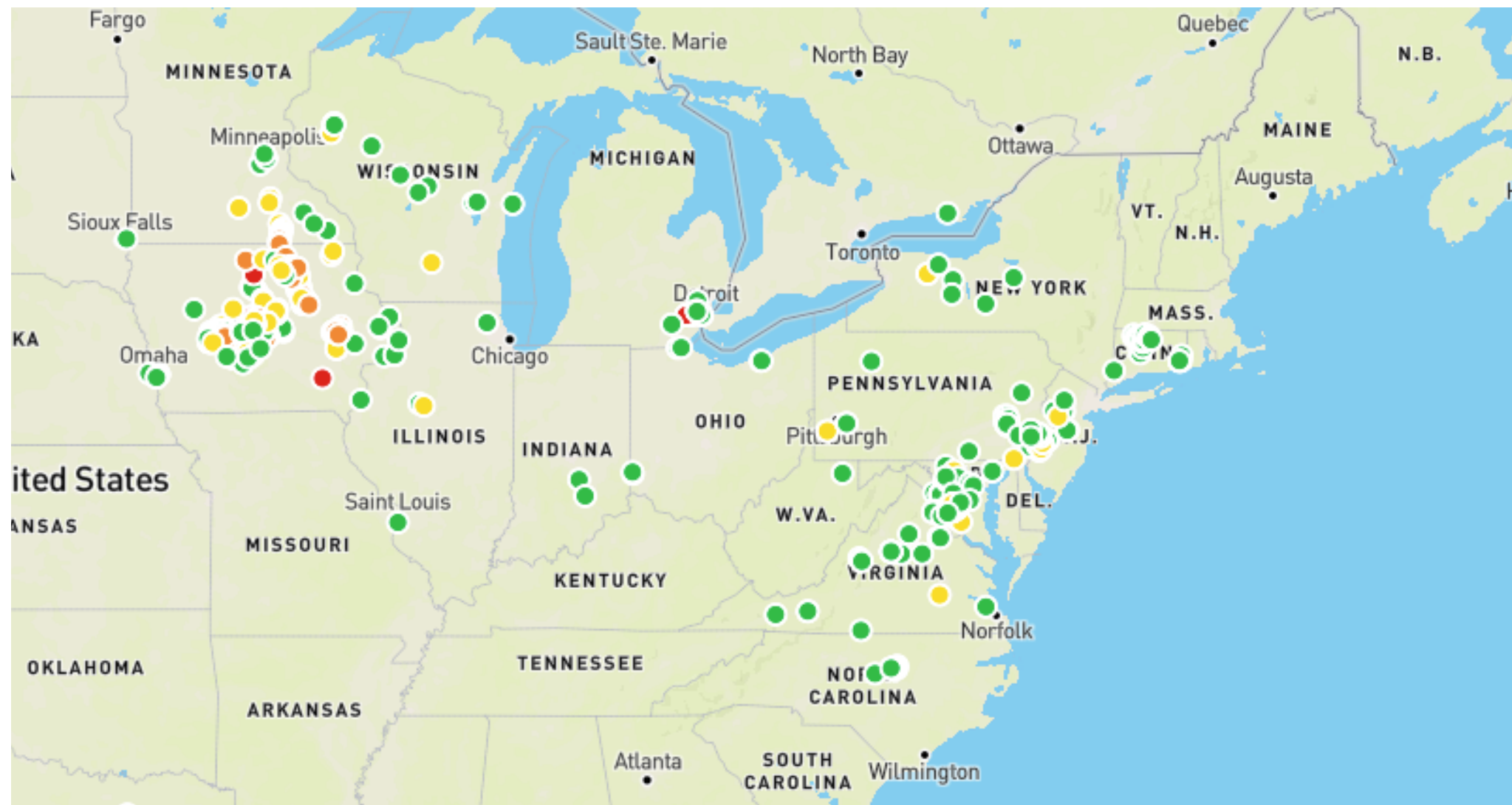
Data Access

- Publicly accessible
- Created with usability in mind:
 - Data is **easy to access, understand, and share**
- Data visualization:
 - color-coded readings
 - auto-generated graphs
 - interactive maps

Data Access

Color-coded readings

- Excellent
- Good
- Fair
- Poor
- No Threshold



Data Access


Auto-generated graphs




HARDIN E 53 

Bridge crossing



HARDIN CREEK 
Jefferson, IA

Create a Reading 

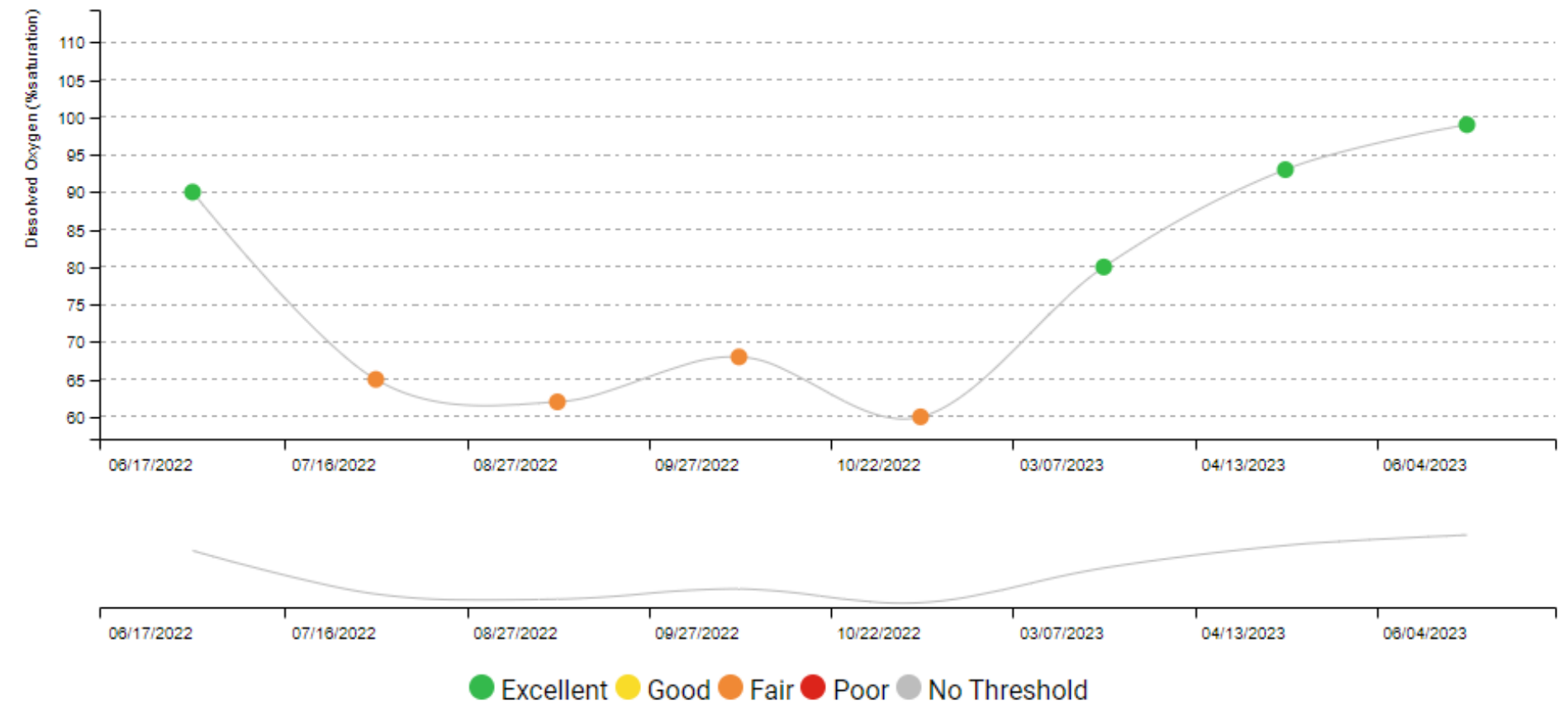
SOS CHEMICAL

SOS BIOLOGICAL

LATEST READING - CHEMICAL

CREATE A NEW SOS CHEMICAL READING

 Jun 4, 2023  01:00PM - 01:15PM





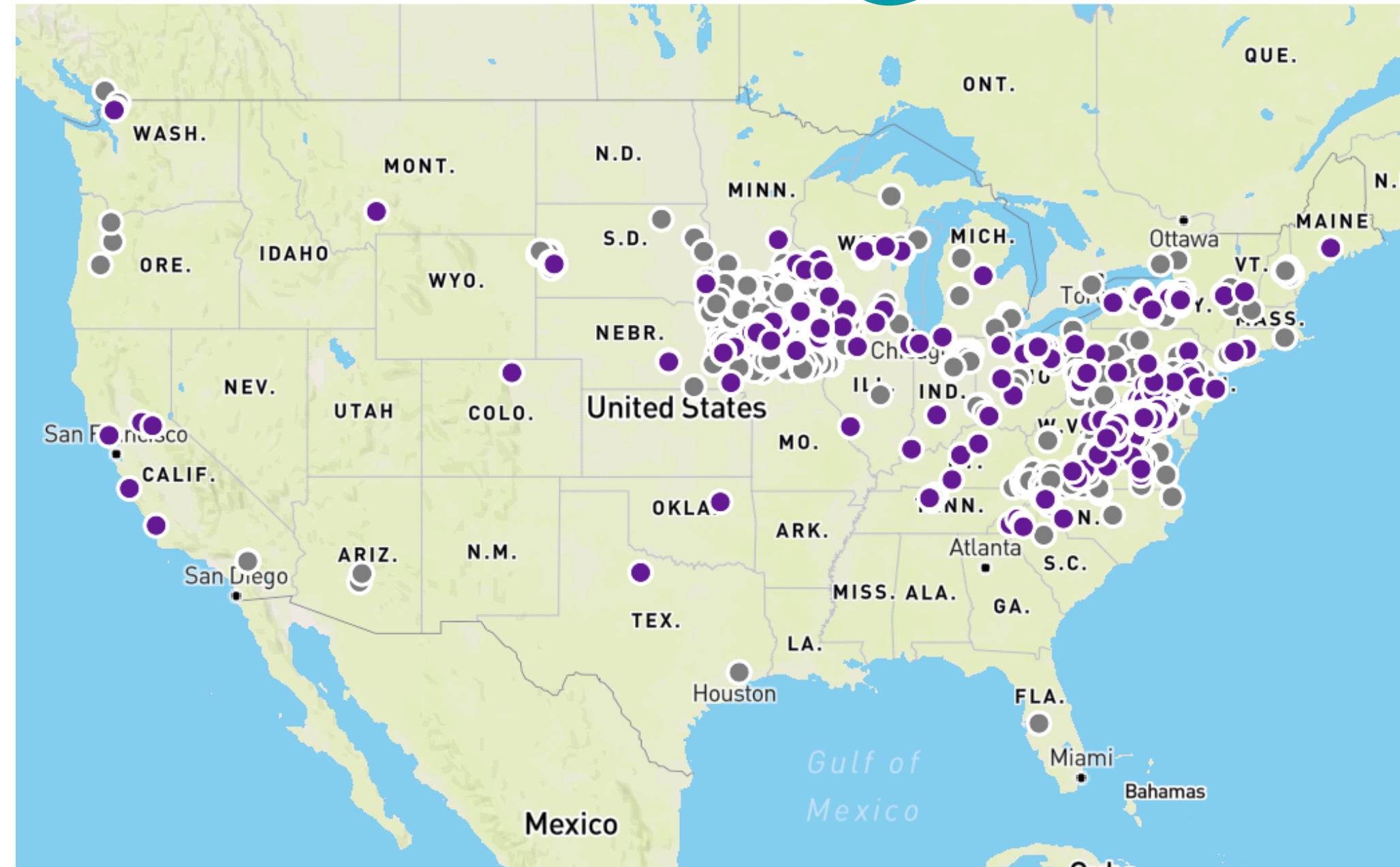
Interactive Maps

Community Map

- Includes:
 - SOS Chemical
 - SOS Biological
 - VASOS
 - Creek Critters
 - Nitrate Watch
 - Salt Watch

- Color code:

-  Current
-  Over 1 Year Old



Community

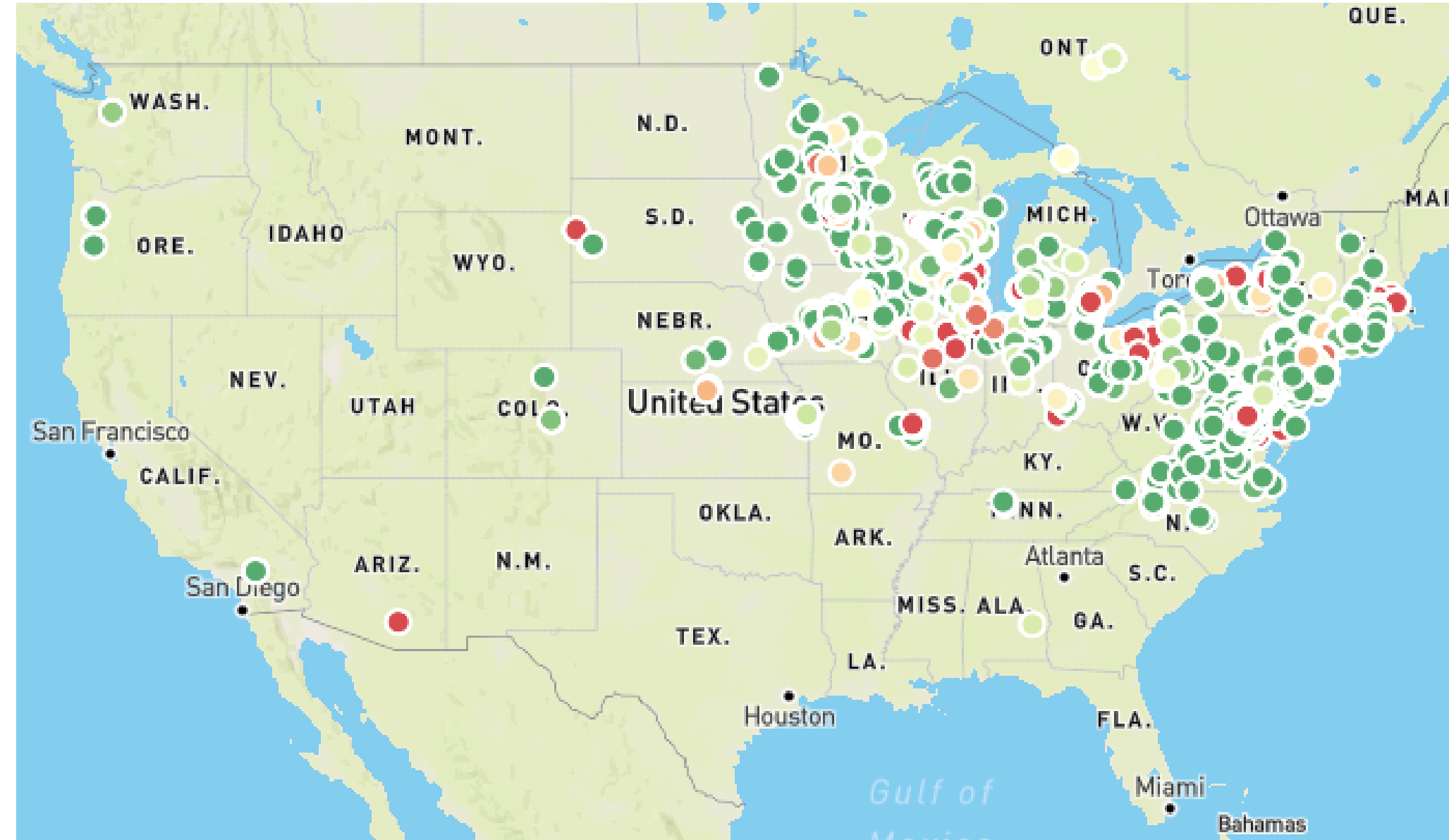
Search Sites

[SITES](#)

[ORGANIZATIONS](#)

Salt Watch Map

Start Date End Date Filter by Dates



Interactive Maps

Salt Watch Map

- Includes:
 - Salt Watch data from Water Reporter
 - Chloride readings from SOS Chemical
- Filter by date

Salt Watch

Road salt keeps us safe on roads and sidewalks during the winter months. Towns, cities, businesses, and individuals dump roughly 20 million tons of salt every year. And as snow melts or rain falls, that salt gets washed into our storm drains, our streams, and even into our drinking water. [The Izaak Walton League is taking action.](#)

In 2017, a Clean Water Fellow at the Izaak Walton League of America noticed a huge pile of salt left by a salt truck sitting directly next to

Interactive Maps

Bonus Salt Watch Map

- www.SaltWatch.org/results
- Includes:
 - Salt Watch data from current season
- Larger dots = more data
- Zoom to individual data points

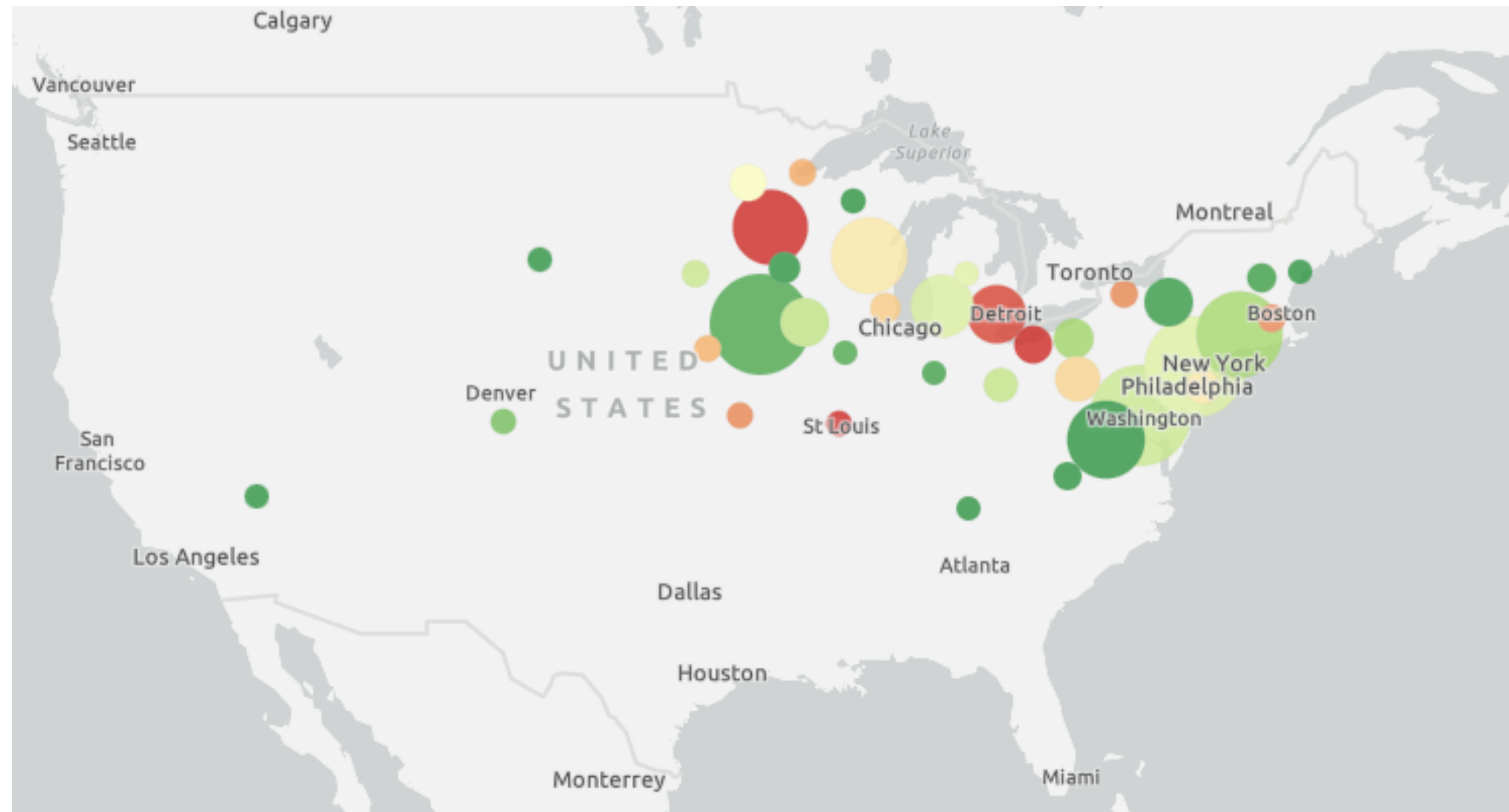
Salt Watch Results



Season 6 of Salt Watch is here! As the Salt Watch community science program spreads across the country, it's also expanding around the year.

Season 6 kicked off in July 2022, and volunteer scientists immediately got to work, submitting findings from Connecticut, Virginia, Michigan and other states. By late December, volunteers had completed 45 percent more chloride tests than at the same time last year.

Below, explore the interactive map of Season 6 results coming in from all over the United States. Click on any dot to see more data. Then, explore more results from previous years.



Interactive Maps

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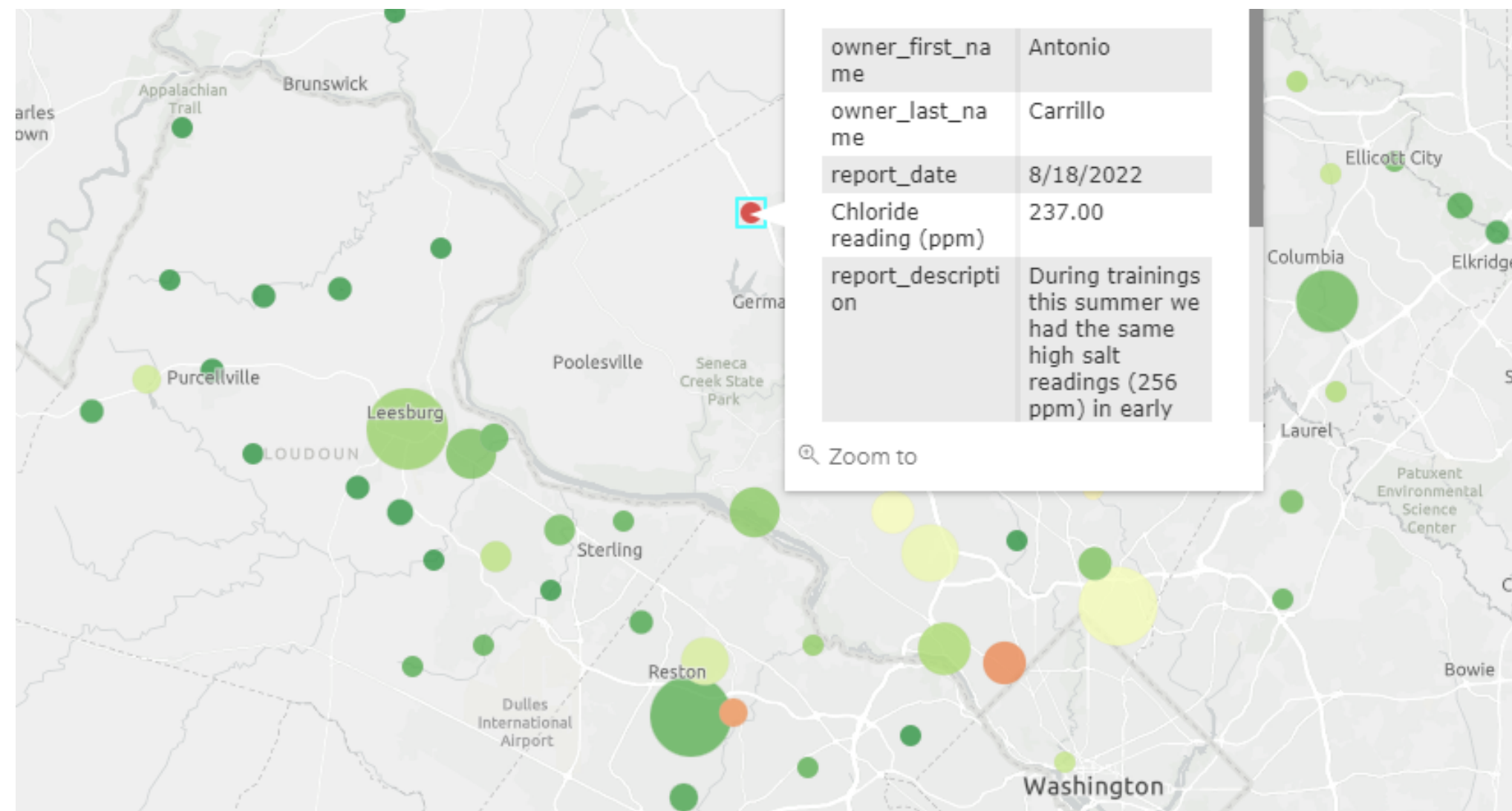
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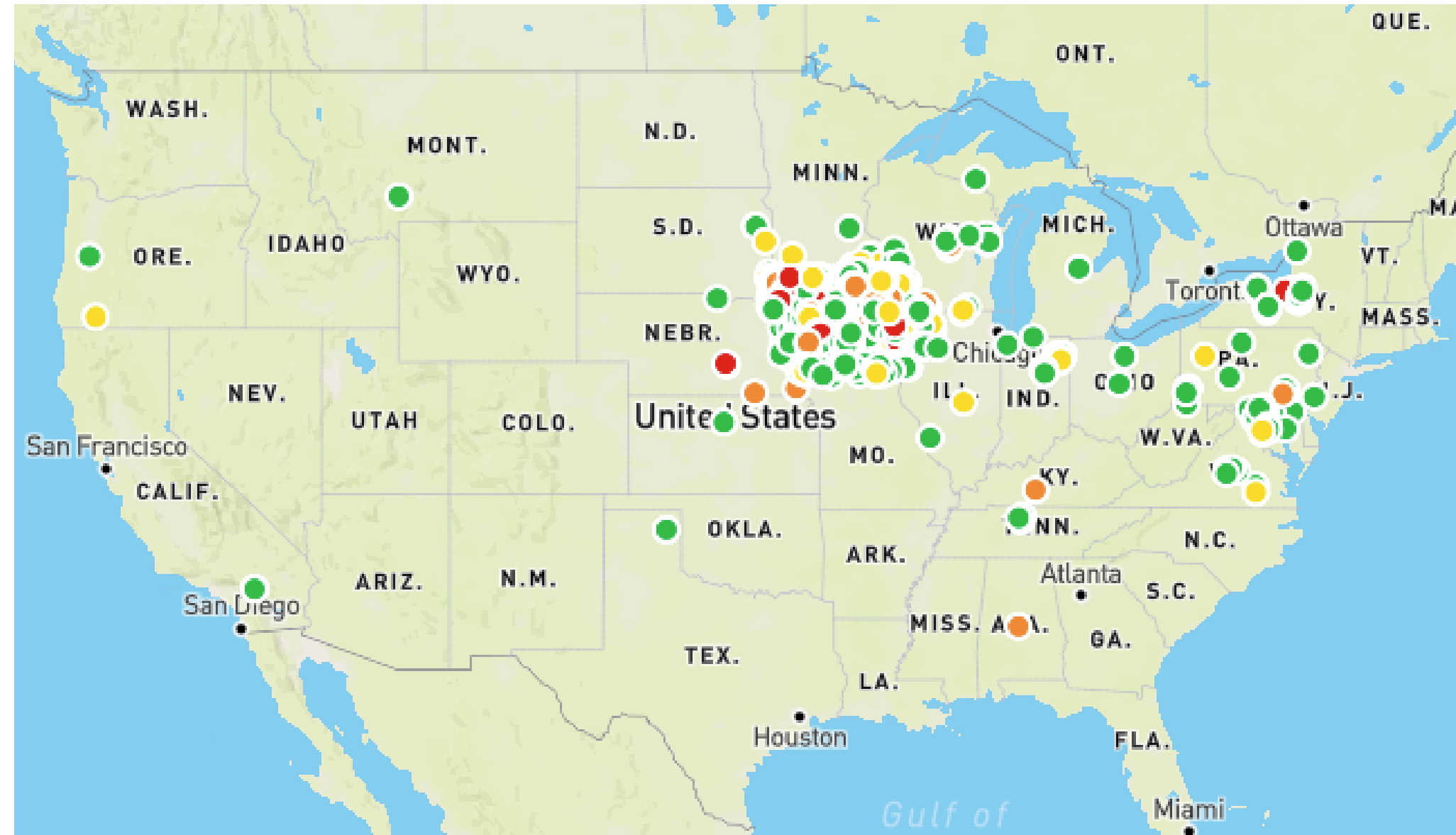
Interactive Maps

Nitrate Watch Map

- Includes:
 - Nitrate Watch data
 - Nitrate readings from SOS Chemical
- Filter by date

Nitrate Watch Map

Start Date End Date Filter by Dates



Nitrate Watch

Nitrate (NO_3^-) is a naturally occurring compound and an essential nutrient for plant growth. Unfortunately, human activities produce more nitrogen than natural systems can use. Water containing excess nitrate from sources like fertilizers, manure, and sewage can pose serious problems for the health of humans and the environment.

A map of the United States with several colored circles (green, red, orange) scattered across it, representing data points. The map shows state abbreviations like ONT., MICH., ILL., GA., FLA., and city names like Chicago and Miami. A dark blue rectangular box is overlaid on the map, containing the text 'Data Export' in white.

Data Export

- Export data for...
 - a site
 - an organization
- Export data via...
 - screenshot
 - data download

Data Export

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

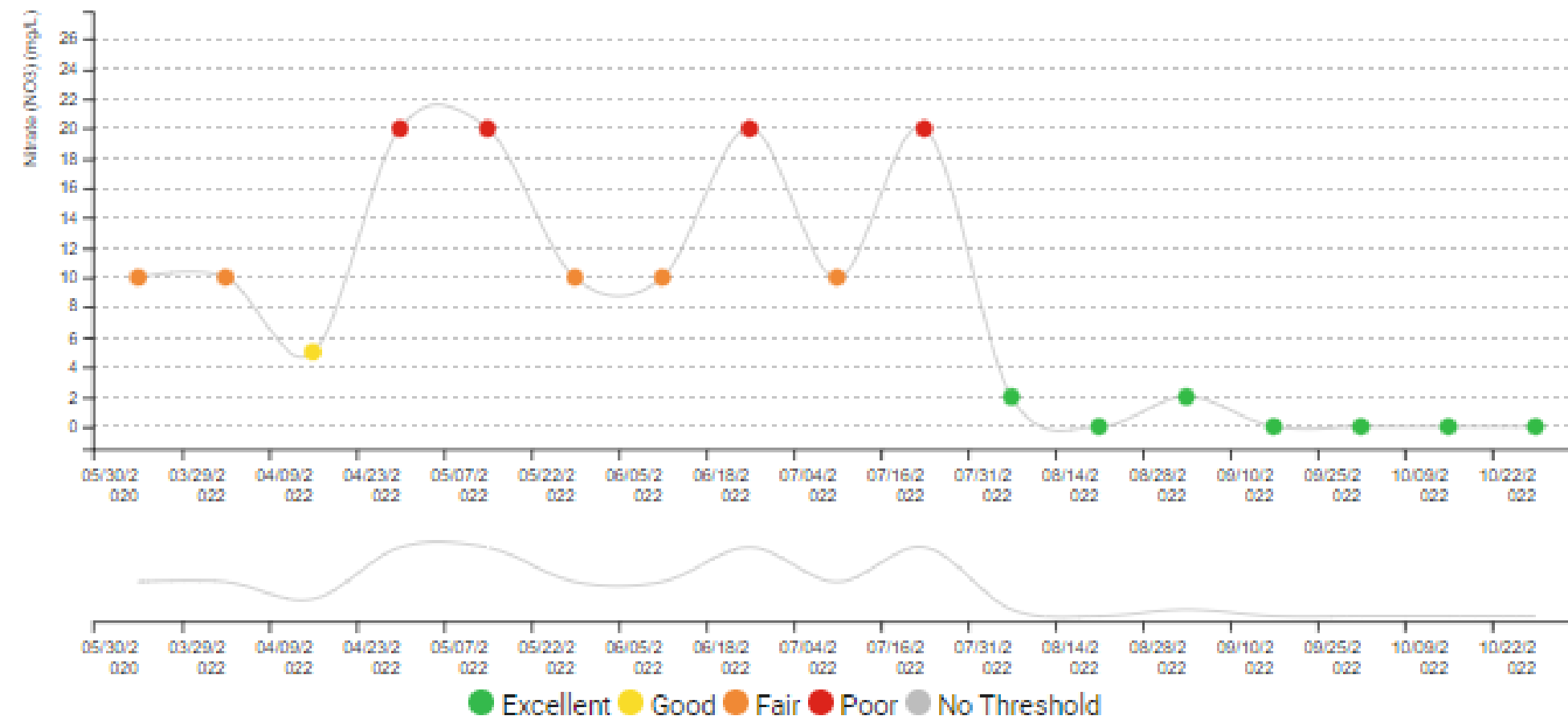
SOS CHEMICAL

SOS BIOLOGICAL

LATEST READING - CHEMICAL

Oct 22, 2022 05:30PM - 06:00PM

CREATE A NEW SOS CHEMICAL READING



8 mg/L
Dissolved Oxygen

Learn More

12 °C
Temperature

Learn More

73 %
Dissolved Oxygen
Saturation

Learn More

7
pH

Learn More

1 mg/L
Reactive Phosphate
(PO4X3)

Learn More

46 mg/L
Chloride (Cl)

Learn More

0 mg/L
Nitrate (NO3)

Learn More

46 cm
Transparency

Learn More

Data Export

- Site Data
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| | Survey Date | Dissolved Oxygen | Dissolved Oxygen Saturation | Water Temperature | pH Units | Chloride | Phosphate | Nitrate n | transparency |
|----------------------|--------------|------------------|-----------------------------|-------------------|----------|----------|-----------|-----------|--------------|
| VIEW | Oct 22, 2022 | 8 | 73 | 12 | 7 | 46 | 1 | 0 | 46 |
| VIEW | Oct 9, 2022 | 8 | 75 | 14 | 8 | 39 | 0.2 | 0 | 60 |
| VIEW | Sep 25, 2022 | 6 | 60 | 17 | 8 | 46 | 0.8 | 0 | 60 |
| VIEW | Sep 10, 2022 | 10 | 107 | 20 | 7 | 39 | 1 | 0 | 60 |
| VIEW | Aug 28, 2022 | 6 | 70 | 24 | 7 | 33 | 1 | 2 | 24 |
| VIEW | Aug 14, 2022 | 6 | 70 | 24 | 9 | 33 | 1 | 0 | 60 |
| VIEW | Jul 31, 2022 | 10 | 123 | 27 | 9 | 33 | 0.4 | 2 | 60 |
| VIEW | Jul 16, 2022 | 8 | 95 | 25 | 9 | 33 | 0.6 | 20 | 32 |
| VIEW | Jul 4, 2022 | 8 | 96 | 26 | 9 | 33 | 1 | 10 | 50 |
| VIEW | Jun 18, 2022 | 6 | 65 | 21 | 9 | 33 | 1 | 20 | 22 |
| VIEW | Jun 5, 2022 | 10 | 110 | 21 | 9 | 33 | 0.6 | 10 | 49 |
| VIEW | May 22, 2022 | 12 | 115 | 15 | 9 | 33 | 0.4 | 10 | 60 |

Data Export

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[SOUTH SKUNK RIVER @ 150TH ST](#) CHEMICAL MONITORING DATA

SOUTH SKUNK RIVER
story county, IA



Group Name

Organizations

Description

Sample from Anderson Canoe Access

Other stream Assessment Observation and Notes

Oct 22, 2022 05:30PM - 06:00PM

Created By

[No username listed](#)

Last Monitored By

[No username listed](#)

Weather Conditions

Sunny Today

Sunny Yesterday

Day Before Yesterday

LATEST READING

Excellent Good Fair Poor No Threshold

Dissolved Oxygen (mg/L)

8mg/L

Temperature (Degrees Celsius)

12°C

Dissolved Oxygen (%saturation)

73%

pH Units

7pH

Chloride (Cl) (mg/L)

46mg/L

Reactive Phosphate (PO4X3) (mg/L)

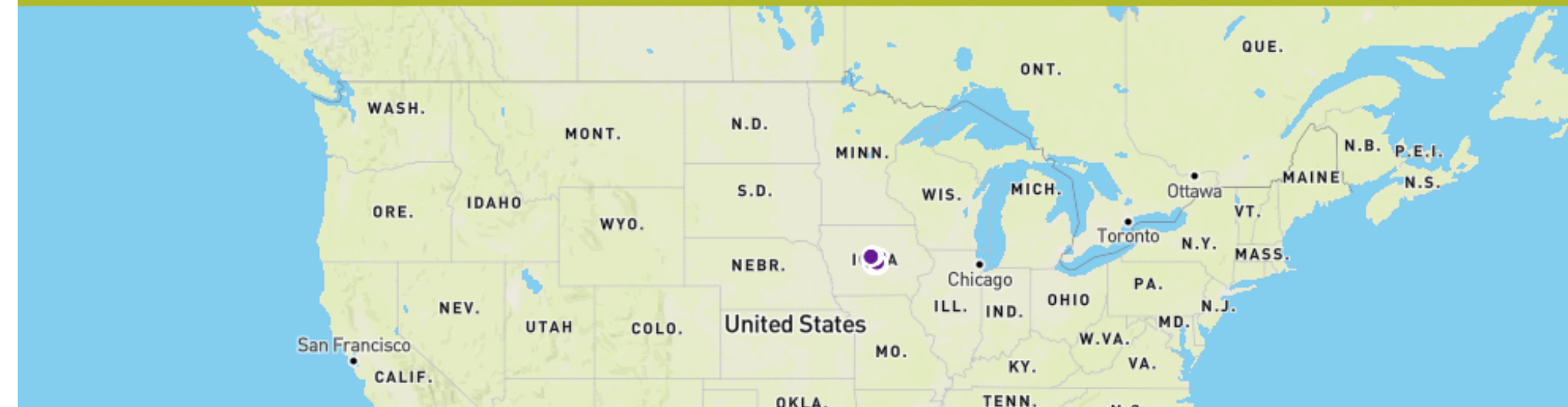
1mg/L

Nitrate (NO3) (mg/L)

0mg/L

Transparency (cm)

46cm

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, Iowa 50010

[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 

DOWNLOAD SITES AND READINGS

Data Export

- Site Data
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 - **Export dataset**

The screenshot shows a Microsoft Excel spreadsheet with the following data:

| | A | B | C | D | E | F | G | H |
|----|-------|--|------------------|-------------------|---|------------------------|------------|-------|
| 1 | id | Site Name | Latitude Measure | Longitude Measure | Description | Name of Stream | City | State |
| 2 | 10241 | West Indian Creek @ Story County Fairg | 42.01705486 | -93.45779915 | Sample from th | West Indian Creek | Nevada | IA |
| 3 | 11578 | South Skunk River @ Broad St. (Story Ci | 42.18678802 | -93.58645825 | River Access #2 | South Skunk River | Story City | IA |
| 4 | 10939 | Keigley Branch @ 160th St. | 42.12251791 | -93.58177346 | Park on southea | Keigley Branch | Story Cou | IA |
| 5 | 12203 | Wolf Creek @ 305 ST | 41.913376 | -93.242598 | HUC 12 - Headw | Wolf Creek | Collins | IA |
| 6 | 10726 | South Skunk River @ 150th St | 42.13754957 | -93.56731419 | Sample from Ar | South Skunk River | story cour | IA |
| 7 | 10937 | Bear Creek at Pleasant Valley Rd. | 42.11553777 | -93.55990303 | Site is 0.43 mile | Bear Creek | Gilbert | IA |
| 8 | 10744 | East Indian Creek @ Praeri Rail Trail | 42.1668 | -93.4617 | Parking on 620t | East Indian Creek | Roland | IA |
| 9 | 12179 | South Skunk River @ Inis Grove (private | 42.049061 | -93.610491 | | South Skunk River | Ames | IA |
| 10 | 11577 | South Skunk River @ 265th St. | 41.97310811 | -93.57926844 | River Access #2 | South Skunk River | Story Cou | IA |
| 11 | 11575 | Walnut Creek @ 564th Ave. | 41.9384479 | -93.57034015 | | Walnut Creek | Story Cou | IA |
| 12 | 10969 | Peterson Park West @ deepest point | 42.086253 | -93.595352 | | | Ames | IA |
| 13 | 11781 | Tedesco Environmental Learning Corrid | 41.99164314 | -93.63902392 | Park at core facility. Access stream from | | Ames | IA |
| 14 | 11826 | Ballard Creek at 4th St., Cambridge | 41.900422 | -93.527744 | Ballard Creek at | Ballard Creek | Ames | IA |
| 15 | 10971 | South Skunk River @ 180th St. | 42.0923191 | -93.58646469 | Site is the Peter | South Skunk River | Ames | IA |
| 16 | 10724 | South Skunk River @ S. 16th St | 42.00867162 | -93.59545128 | Sample from S. | South Skunk River | Ames | IA |
| 17 | 10942 | East Indian Creek @ 250th St. | 41.99363563 | -93.36867499 | | East Indian Creek | Story Cou | IA |
| 18 | 10728 | South Skunk River @ 170th St | 42.1061313 | -93.56983099 | Sample from So | South Skunk River | story cour | IA |
| 19 | 10931 | Long Dick Creek at 580th Ave. | 42.17729204 | -93.54087536 | halfway betwee | Long Dick Creek | Story City | IA |
| 20 | 12207 | West Indian Creek @ 180th St | 42.092506 | -93.488045 | Site is located 1 | West Indian Creek | | IA |
| 21 | 10967 | Dye Creek @ 670th Ave. | 41.99629171 | -93.36770245 | | Dye Creek | Colo | IA |
| 22 | 10195 | Grant Creek @280th St | 41.95037367 | -93.45745251 | Grant Creek at J | Grant Creek (Ditch #5) | Story Cou | IA |
| 23 | 12584 | Hamilton Co - LDC @ 370th St | 42.252883 | -93.523079 | | Long Dick Creek | | IA |
| 24 | 12181 | South Skunk River @ Christytown (Ham | 42.217184 | -93.582836 | Sample from br | South Skunk River | Randall | IA |
| 25 | 10732 | Drainage Ditch 13 @250th St | 41.99373 | -93.554097 | Perennial creek | Ditch 13 | story cour | IA |
| 26 | 10972 | West Indian Creek @ Carroll Prairie (200 | 42.06344105 | -93.48041158 | Site is located o | West Indian Creek | Nevada | IA |
| 27 | 10932 | Bear Creek at West Maple St. (Roland) | 42.16629037 | -93.50517653 | Park in the park | Bear Creek | Roland | IA |
| 28 | 12026 | Calamus Creek @ 650th Ave. (Maxwell) | 41.87244367 | -93.40592543 | | Calamus Creek | maxwell | IA |
| 29 | 10981 | South Skunk River @ S. 16th St. | 42.00870972 | -93.59541993 | South Skunk Riv | South Skunk River | Ames | IA |
| 30 | 10977 | Onion Creek @ North Dakota Access | 42.046264 | -93.677489 | Testing has bee | Onion Creek | Ames | IA |
| 31 | 11581 | East Indian Creek @ 670th Ave. | 42.10330981 | -93.36658961 | | East Indian Creek | Story Cou | IA |
| 32 | 12585 | Hamilton Co - S. Skunk @ 380th St | 42.23823802 | -93.58579211 | | South Skunk River | Randall | IA |
| 33 | 10940 | East Indian Creek @ S27 (650th Ave., no | 41.9522436 | -93.40580301 | | East Indian Creek | Story Cou | IA |
| 34 | 11777 | South Skunk River @ River Valley Park (| 42.03722448 | -93.59806829 | Above dam | South Skunk River | Ames | IA |
| 35 | 11598 | Ballard Creek @ 570th Ave. | 41.90859764 | -93.56061074 | | Ballard Creek | Cambridg | IA |
| 36 | 11782 | Tedesco Environmental Learning Corrid | 41.99689129 | -93.62979933 | | | Ames | IA |
| 37 | 11823 | Worrell Creek @ S. 16th St. | 42.0103141 | -93.6321127 | | Worrell | Ames | IA |
| 38 | 10725 | South Skunk River @ 13th St | 42.03716371 | -93.59912796 | Sample above c | South Skunk River | ames | IA |

Data Export

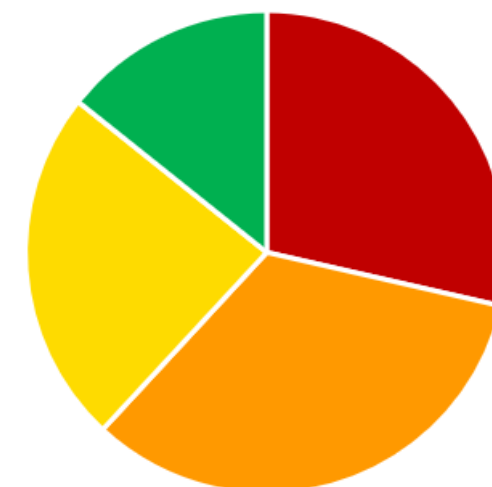
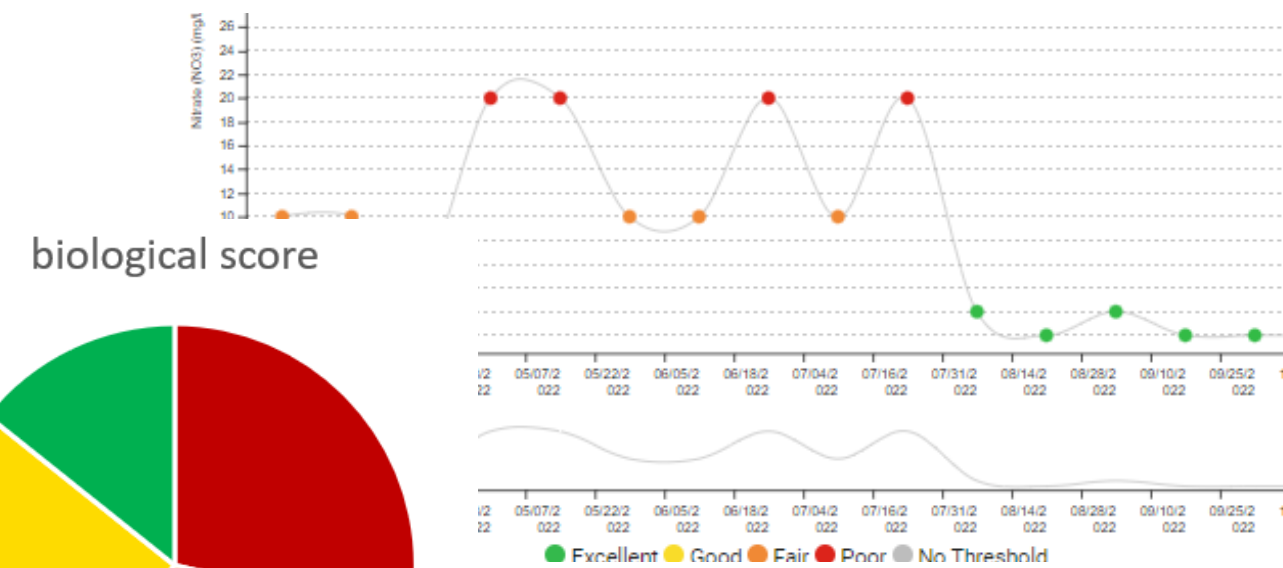
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| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | not |
|----|--------------------|---------|------|-----------|----------|----------|------------|------------|-----------|-----------|-----------|----------|-----------|----------|-----------|------------|-----|
| 1 | survey_date | site_id | id | last_modi | number_c | weather | weather | weather | water_ter | dissolved | dissolved | ph_units | nitrate_n | chloride | phosphate | transparen | not |
| 2 | 2019-06-10 0:00:00 | 561 | 315 | 97 | 1 | Overcast | Sunny | Sunny | 18 | 10 | 103 | 8 | 5 | 32 | 1 | 65 | |
| 3 | 2019-06-10 0:00:00 | 561 | 315 | 97 | 1 | Overcast | Sunny | Sunny | 18 | 10 | 103 | 8 | 5 | 32 | 1 | 65 | |
| 4 | 2019-10-18 0:00:00 | 10241 | 635 | 97 | 4 | Sunny | Sunny | Sunny | 14 | 10 | 95 | 8 | 5 | 30 | 0.2 | 61 | |
| 5 | 2019-10-09 0:00:00 | 10195 | 636 | 97 | 3 | Overcast | Overcast | Overcast | 17 | 12 | 120 | 9 | 2 | 30 | 0.1 | 61 | |
| 6 | 2019-10-09 0:00:00 | 561 | 637 | 97 | 2 | Overcast | Overcast | Overcast | 16 | 10 | 100 | 8 | 2 | 30 | 1 | 51 | |
| 7 | 2019-10-09 0:00:00 | 561 | 637 | 97 | 2 | Overcast | Overcast | Overcast | 16 | 10 | 100 | 8 | 2 | 30 | 1 | 51 | |
| 8 | | 10241 | 813 | 97 | 0 | | | | | | | | | | | | |
| 9 | 2020-05-30 0:00:00 | 10723 | 998 | 97 | 2 | Sunny | Sunny | Intermitte | 16 | 8 | 80 | 8 | 5 | 30 | 1 | 6 | |
| 10 | 2020-05-30 0:00:00 | 10724 | 999 | 97 | 3 | Sunny | Overcast | Intermitte | 22 | 8 | 90 | | 10 | 30 | 1 | 9 | |
| 11 | 2020-06-30 0:00:00 | 10725 | 1000 | 97 | 3 | Sunny | Overcast | Intermitte | 22 | 8 | 90 | 7 | 10 | 30 | 2 | 7 | |
| 12 | 2020-05-30 0:00:00 | 10726 | 1001 | 97 | 2 | Sunny | Overcast | Intermitte | 16 | 8 | 80 | 8 | 10 | 30 | 0.4 | 7 | |
| 13 | 2020-05-30 0:00:00 | 10727 | 1002 | 97 | 2 | Sunny | Overcast | Intermitte | 15 | 5 | 50 | 8 | 10 | 30 | 1 | 7 | |
| 14 | 2020-05-30 0:00:00 | 10728 | 1003 | 97 | 2 | Sunny | Overcast | Intermitte | 15 | 10 | 95 | 8 | 10 | 30 | 0.8 | 6 | |
| 15 | 2020-07-05 0:00:00 | 10732 | 1128 | 110 | 4 | Sunny | Sunny | Sunny | 25 | 6 | 72 | 7 | 5 | 30 | 0.5 | 55 | |
| 16 | 2020-07-05 0:00:00 | 10732 | 1128 | 110 | 4 | Sunny | Sunny | Sunny | 25 | 6 | 72 | 7 | 5 | 30 | 0.5 | 55 | |
| 17 | 2020-06-24 0:00:00 | 10744 | 1156 | 290 | 1 | Sunny | Sunny | Intermitte | 20 | 8 | 88 | 8 | 10 | 0 | 0.6 | 20 | |
| 18 | 2020-06-24 0:00:00 | 10744 | 1156 | 290 | 1 | Sunny | Sunny | Intermitte | 20 | 8 | 88 | 8 | 10 | 0 | 0.6 | 20 | |
| 19 | 2020-07-23 0:00:00 | 10744 | 1197 | 290 | 1 | Sunny | Sunny | Overcast | 25 | 8 | 100 | 8.5 | 6 | 0 | 0.4 | 60 | |
| 20 | 2020-07-23 0:00:00 | 10744 | 1197 | 290 | 1 | Sunny | Sunny | Overcast | 25 | 8 | 100 | 8.5 | 6 | 0 | 0.4 | 60 | |
| 21 | 2020-08-27 0:00:00 | 10744 | 1300 | 290 | 1 | Sunny | Sunny | Sunny | 24 | 4 | 50 | 8 | 0 | 0 | 0.8 | 15 | |
| 22 | 2020-08-27 0:00:00 | 10744 | 1300 | 290 | 1 | Sunny | Sunny | Sunny | 24 | 4 | 50 | 8 | 0 | 0 | 0.8 | 15 | |
| 23 | 2020-08-27 0:00:00 | 10723 | 1365 | 290 | 1 | Sunny | Sunny | Sunny | 28 | 10 | 130 | 9 | 4 | 0 | 3 | 34 | |
| 24 | 2020-09-25 0:00:00 | 10723 | 1366 | 290 | 1 | Sunny | Sunny | Sunny | 22 | 12 | 110 | 9 | 0 | 42 | 1 | 60 | |
| 25 | 2020-07-23 0:00:00 | 10723 | 1367 | 290 | 1 | | | | 24 | 8 | 95 | 9 | 4 | 0 | 0.6 | 60 | |
| 26 | 2020-09-25 0:00:00 | 10744 | 1368 | 290 | 1 | Sunny | Sunny | Sunny | 22 | 10 | 110 | 8 | 0 | 0 | 0.2 | 60 | |
| 27 | 2020-09-25 0:00:00 | 10744 | 1368 | 290 | 1 | Sunny | Sunny | Sunny | 22 | 10 | 110 | 8 | 0 | 0 | 0.2 | 60 | |
| 28 | 2021-07-24 0:00:00 | 10977 | 1403 | 365 | 1 | | | | | | | | | | | | |
| 29 | 2020-10-18 0:00:00 | 10977 | 1406 | 365 | 2 | Sunny | Sunny | Sunny | | | | | | | | | |
| 30 | 2020-10-21 0:00:00 | 10981 | 1409 | 355 | 2 | Overcast | Intermitte | Snow | 7 | 6 | 49 | 8 | 0 | 40 | 0 | 60 | |
| 31 | | 11584 | 1417 | 110 | 0 | | | | | | | | | | | | |
| 32 | | 11584 | 1418 | 110 | 0 | | | | | | | | | | | | |
| 33 | 2020-10-24 0:00:00 | 11584 | 1419 | 369 | 1 | Sunny | Overcast | Intermitte | 7 | 8 | 65 | 7 | 0 | 35 | 0.4 | 60 | |
| 34 | 2020-10-27 0:00:00 | 11573 | 1420 | 366 | 1 | Sunny | Overcast | Overcast | 5.5 | 8 | 63 | 6 | 10 | 199 | 4 | 49 | |
| 35 | 2020-10-17 0:00:00 | 11515 | 1421 | 362 | 1 | Sunny | Sunny | Sunny | 15 | 8 | 78 | 8 | 2 | 33 | 0 | 50 | |
| 36 | 2020-10-24 0:00:00 | 11581 | 1440 | 364 | 1 | Overcast | Overcast | Overcast | 12 | 9 | 82 | 8 | 0 | 28 | 0.2 | 17 | |
| 37 | | 11583 | 1442 | 174 | 0 | | | | | | | | | | | | |
| 38 | 2020-11-03 0:00:00 | 11577 | 1457 | 174 | 0 | Sunny | Intermitte | Intermitte | 11 | 8 | 72 | 7 | 3 | 113 | 0.4 | 65 | |

Taking the Next Step

Data



■ poor ■ fair ■ good ■ excellent

TTF Streamkeeper Testifies at Philadelphia City Council about Road Salt

Jamilee Hoffman
Mar 17, 2022



The Washington Post
Local Opinions
Democracy Dies in Darkness

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



SAVE OUR STREAMS IZAAK WALTON LEAGUE OF AMERICA What is Nitrate?

Healthy streams are vital to healthy communities. It's where our kids play and dogs splash. And some of these streams provide the water we drink. But is the water in these streams clean and safe? The truth is, for most local streams, no one knows. That's a problem – one the Izaak Walton League has been working on since 1969.

Nitrate

Nitrates are chemical compounds that can be found in nature. Nitrates are made up of nitrogen and other elements, which plants and animals need to grow and thrive. Now, the most common source of nitrates are artificial fertilizers used by farmers and homeowners for crops, lawns, and landscaping.

Although a small amount of nitrate is important for a healthy stream, too much nitrate can cause serious problems. Rain can wash fertilizer from farms and lawns into nearby streams, causing nitrate levels to spike. These spikes then cause bacteria and algae to grow into dramatic "blooms."

Blooms

Algae and bacteria live naturally in freshwater streams. However, when high nitrate levels let algae and bacteria "bloom," the stream suffers. Blooms block sunlight, starving aquatic plants below. As these plants die and decompose, the amount of oxygen in the water plummets. If untreated, blooms can choke a stream and kill off most of the underwater life.

How can you help?

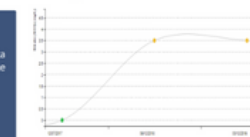
Anyone can be a stream health monitor! The data you collect will be used to restore and protect the creeks and streams in your own backyard.

Find your local chapter or contact the Izaak Walton League to organize a training event in your area!

Save Our Streams is a project of the Izaak Walton League of America



The Little Creek earned a Good nitrate level. This means that the amount of runoff has not harmed the stream. However, the amount of nitrate in the stream has gone up over the past three years. This means that the Creek water quality will probably continue to degrade. The Friends of the Little Creek are working with farmers and landowners along the creek to try and reduce the amount of runoff washing into the stream.



Action


Resources on the Hub

- Help pages
- Fact Sheets
- Advocacy Guide




Clean Water Hub Basic Users Guide

What you need to know to start entering data

 By Samantha and 2 others • 8 articles




FAQs

 By Samantha and 2 others • 11 articles



Sharing Your Data

Communication and advocacy resources to help you use your water quality data for good!

 By Samantha and 1 other • 7 articles

Resources on the Hub

- [Help pages](#)
- [Fact Sheets](#)
- [Advocacy Guide](#)



Sharing Your Data

Communication and advocacy resources to help you use your water quality data for good!



By Samantha and 1 other • 7 articles

Advocacy Guide

[How to take a screenshot](#)

[How to add a map from the Clean Water Hub to your website](#)

[Send a Letter to the Editor](#)

Fact Sheets

[How to use SOS and VASOS fact sheet templates](#)

[SOS and VASOS Fact Sheet Templates](#)

[Salt Watch & Nitrate Watch Fact Sheets](#)

Resources on the Hub

- Help pages
- Fact Sheets
- Advocacy Guide

Fact Sheets



By Samantha and 1 other • 3 articles

[How to use SOS and VASOS fact sheet templates](#)

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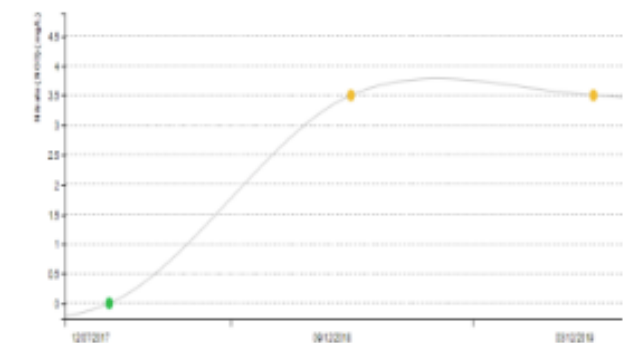
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Resources on the Hub

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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

Safe winter driving is easy as 1-2-3

1. **Wait**
Wait to allow time for plowing and deicing.
2. **Know**
Know the current road conditions before you leave.
3. **Slow**
Travel slowly and use caution on the roads.

Reduce your salt use to protect our water!

1. **Shovel**
Clear snow from sidewalks and driveways 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.

Americans use 20 million tons of road salt every year.

Wisconsin Salt Wise SALT WATCH

Nitrates and Algae

Pollution can lead to harmful algal blooms, which can threaten human health, the environment, and economic stability. Luckily, Nitrate Watch gives you the ability to monitor nitrate pollution in the waterways you care about.

NECESSARY NUTRIENT TO POLLUTION PROBLEM
Nitrate is an important nutrient for plant growth. Excess nitrate, however, is a major ingredient in many fertilizers. Excess nitrate runoff often causes excessive amounts of nitrate to wash away and collect in waterways or seeps into groundwater.

ALGAL BLOOMS
When exposed to excess nitrate, algae utilize the nutrient and explode in population, forming an algal bloom. The rapid growth and decay of algae causes a cascade of effects, including:

- Lack of oxygen and available food causes fish kills and dead zones
- Release of toxins like microcystins threatens wildlife, pets and humans
- Film of scum impacts recreation, businesses, and property values
- Raises treatment costs for drinking water

JOIN NITRATE WATCH
Want to learn more about nitrate pollution in your community? Visit nitratewatch.org to request your free nitrate test kit!

NITRATE WATCH IZAAK WALTON LEAGUE OF AMERICA

Nitrates in Drinking Water

Human activities have led to elevated levels of nitrate in many public water systems and private wells. The impact of nitrates on human health is an area of ongoing research, but there are several health risks that are known to be linked with nitrates in drinking water.

DRINKING WATER STANDARD
The drinking water standard for nitrates is 10 mg/L, as established by the Environmental Protection Agency in the 1990s. However, current research suggests that exposure to nitrate levels below 10 mg/L can lead to increased health risks.

WELL WATER ISN'T TESTED
Private wells 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.

HEALTH CONCERNS

- THYROID DISEASE
- BIRTH DEFECTS
- COLON CANCER
- BLUE BABY SYNDROME (METHEMOGLOBINEMIA)

WHAT TO DO
If your drinking water contains nitrate levels above 10 mg/L, take the following steps:

- Contact your local health department.
- Obtain drinking water from a safe source, such as bottled water. **Boiling water will not remove nitrate.**
- Consider drilling a new well or installing a reverse osmosis, ion exchange, or distillation water filtration system.

JOIN NITRATE WATCH
Want to find out how much nitrate is in your water? Visit nitratewatch.org to request your free nitrate test kit!

NITRATE WATCH IZAAK WALTON LEAGUE OF AMERICA

HEALTHY SOIL, CLEAN WATER

Soil health and water quality go hand in hand. Healthy soil contains an ecosystem of bacteria, fungi, and microbes that help plants to thrive. These organic components create pores, allowing the soil to soak up water like a sponge.

Soil life suffers when it is plowed, sprayed, fed a steady diet of chemical fertilizer, or limited to just one or two crops. When soil health is threatened, water quality is too.

Luckily, there are solutions!
Read on to discover some of the regenerative practices that benefit farmers, soil health, & water quality.

LOW OR NO TILL
Tilling can destroy beneficial fungi and increase erosion. "No-till" and conservation tillage leave plant material on the surface to protect the soil from erosion, improve water retention, and feed soil microbes.

COVER CROPS
Cover crops nourish microbes, soak up nutrients, and hold the soil in place when it would otherwise be bare after crops are harvested. Farmers who use cover crops enjoy improved soil health, decreased soil compaction and erosion, and up to 50% reduction in nitrogen runoff.

EXTENDED CROP ROTATION
Planting additional crops beyond corn and soybeans helps to feed a diversity of soil fungi and bacteria and break up pest and disease cycles. Like cover crops, extended rotation retains soil and nutrients on the field, all while increasing yields and making a profit.

The Izaak Walton League advocates for policies and programs that improve water quality for all Americans by helping farmers and ranchers restore the health of their soils.

To learn more about this work, visit iwla.org/soil.

NITRATE WATCH IZAAK WALTON LEAGUE OF AMERICA

Nutrient Pollution

Eutrophication (n): the process by which a body of water becomes enriched by excessive nutrients, especially nitrogen and phosphorus.

Algal blooms are caused by nutrient pollution which may come from runoff, wastewater discharge, industrial operations, or stormwater.

Algal blooms sets off a cascade of effects, illustrated below.

- A nutrient influx encourages the rapid growth of algae
- The resulting algal bloom blocks sunlight, lowers the pH, and uses up available nutrients.
- When the algae dies, its decomposition depletes oxygen in the water.
- The lack of oxygen creates a dead zone, where aquatic wildlife and plants struggle to survive.

ALGAL BLOOM

DECAY

DEAD ZONE

Want to learn more about nitrate pollution near you? Visit nitratewatch.org to request your free nitrate test kit!

NITRATE WATCH IZAAK WALTON LEAGUE OF AMERICA

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.

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.

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

NITRATE WATCH IZAAK WALTON LEAGUE OF AMERICA

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(7). <https://doi.org/10.1088/1748-9322/10/7/075006>

Resources on the Hub

- Help pages
- Fact Sheets
- **Advocacy Guide**



Sharing Your Data

Communication and advocacy resources to help you use your water quality data for good!



By Samantha and 1 other • 7 articles

Advocacy Guide



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Taking the Next Step

Share the Hub

- Share the Hub with...
 - Organizations/groups that can use it for data storage
 - Likeminded groups that can use data to advocate for clean water



[City of Marion](#)
City of Marion, Iowa



[Jackson County Conservation \(Iowa\)](#)
Jackson County Conservation provides outdoor recreation and education opportunities and encourages the development and conservation of natural



[Black Hawk Soil and Water Conservation District](#)



[North Carolina Museum of Natural Sciences](#)



[Houston Public Schools](#)



[Friends of the Rouge](#)
Friends of the Rouge (FOTR) is a nonprofit 501(c)(3) organization that was founded in 1986 to raise awareness about the need to clean up the Rouge River in southeast Michigan.



[Oregon Ridge Park and Nature Center](#)
Oregon Ridge Park contains 1,100 acres of forests, meadows, streams and grassy park play areas. The park has two streams that border it, Baisman Run to the south and Oregon Branch to the Northeast. Both streams provide water for drinking to



[Water Insecurity Correction Coalition \(WICC\)](#)

Water Insecurity Correction Coalition, Inc. (WICC) advocates for and directly aids and advocates for residents of water-insecure communities in the U.S. through fundraising, grassroots development, grassroots activities, policy advocacy

Participate in Public Outreach

- Find the opportunities that fit:
 - Farmers markets
 - Festivals
 - Fairs
 - Earth Day celebrations
 - and more!
- Need supplies? We may be able to help!
 - Email sos@iwla.org



Taking the Next Step

Attract Media Interest

- Letters to the Editor
- Press releases
- Data AND the act of collecting data are both newsworthy

Opinion | The true cost of salt on the D.C. area's roads

By Karl Van Neste

January 19, 2022 at 2:46 p.m. EST



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

Share Comment 56

Karl Van Neste is a vice president of the Muddy Branch Alliance. He lives with his family in Gaithersburg.

Winter is fully upon us, and we are bracing for ice and snow [Thursday](#) and possibly [this weekend](#). We should become aware of the problems associated with salt use on our roads and sidewalks.

Salt is a convenient substance to use on slippery roads and sidewalks because it is cheap and somewhat effective in melting ice. It turns out that “cheap” is a big problem. Because salt is so cheap, we tend to throw it everywhere: on our streets, driveways, storefronts and sidewalks.

Taking the Next Step

Communicate with decision makers

- Neighborhood association
 - City council
 - DNR/DEQ regional office
 - Legislators
-
- Pay attention to legislation/rule-making that impacts water quality

TTF Streamkeeper Testifies at Philadelphia City Council about Road Salt

Jamilee Hoffman
Mar 17, 2022



Testimony for City Council Hearing on Issues Around Road Salting

These past few months, we've paid a lot of attention to the impact of road salt on our waterways. Working with partners, we have been successful at raising the profile of this critical issue with the media, elected officials, and citizens. We're proud that Philadelphia City Councilman Isaiah Thomas, Chair of the Streets and Services Committee, reached out to us to share comments and that Geoffrey Selling, TTF Streamkeeper, testified at this hearing on our behalf.

March 10, 2022 at 1:00PM

Testimony by Geoffrey Selling, 514 E. Durham St., Philadelphia 19119

H: 215-248-5998 C: 215-360-5708 gselling@germantownfriends.org

Good afternoon Councilman Thomas and members of the Streets and Services Committee:

Taking the Next Step

Get to Know Your Watershed

- AND its polluters
- upstream & downstream monitoring can pinpoint a pollution problem



"They say that one person can't make a difference. I really feel like they can."

PAM WOLTER
Quarter Section Run, Iowa

Taking the Next Step

Add monitoring to existing events

- River clean-ups
- Fishing programs
- Youth activities
- Any programming near water!



Taking the Next Step

Organize a Snapshot

- Sample many locations at the same time for a view of water quality across your area
- Great way to introduce new volunteers to monitoring
- Newsworthy!



Conservation group hosts its first-ever 'snapshot' of Cedar River nitrate levels

Izaak Walton League led the efforts, collaborating with Cedar Rapids city staff



Brittney J. Miller

May. 24, 2023 6:00 am, Updated: May. 24, 2023 11:41 am



City of Cedar Rapids water quality analyst Candice Kucera records notes after testing a water sample at Winnebago Park in Cedar Rapids, Iowa on Tuesday, May 23, 2023. (Nick Rohlman/The Gazette)

CEDAR RAPIDS — In the cool morning air, Candice Kucera walked to the edge of a small pier jutting out from Cedar Rapids' [Mohawk Park](#) into the Cedar River. She grasped a small bucket-like container in one hand, tied to a rope she held in her other palm.

In one fluid motion, she launched the container into the air. It landed with a splash. Hand over hand, she pulled it back to the pier with the rope — and was rewarded with a full bucket of river water for her efforts.

Kucera — a city of Cedar Rapids water quality analyst — stood on the pier with several other city staffers and members of the conservation organization the [Izaak Walton League](#). Together, the group participated Tuesday in the league's first-ever "clean water snapshot" of nitrate levels in the Cedar River.

A scenic view of a river flowing through a dense forest. The river is dark blue and reflects the sky. The trees are lush green, with some showing early autumn colors. The sky is bright blue with scattered white clouds. A teal rounded rectangle is overlaid on the center of the image, containing the text "Other ideas?".

Other ideas?



CLEAN WATER HUB

IZAACK WALTON LEAGUE OF AMERICA



Questions?

Heather Wilson

Midwest Save Our Streams Coordinator

hwilson@iwla.org