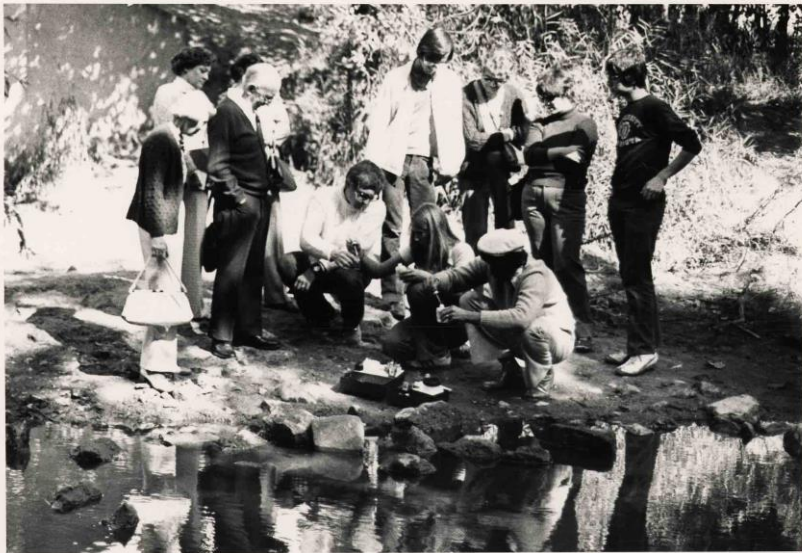




SAVE OUR STREAMS

IZAACK WALTON LEAGUE OF AMERICA



“...a laissez faire approach by EPA will be insufficient...”

“Keys to success are for EPA to focus on effective communication and authentic collaboration...”

NACEPT, Information to Action, Strengthening EPA Citizen Science Partnership For Environmental Protection, April 2018

EPA 220-R-18-001

Izaak Walton League of America



“Pick out your favorite river and divide it into convenient assignments for adoption and protection from polluters.”

*Everett E. Lowry
One of the IWLA Founder, 1927*

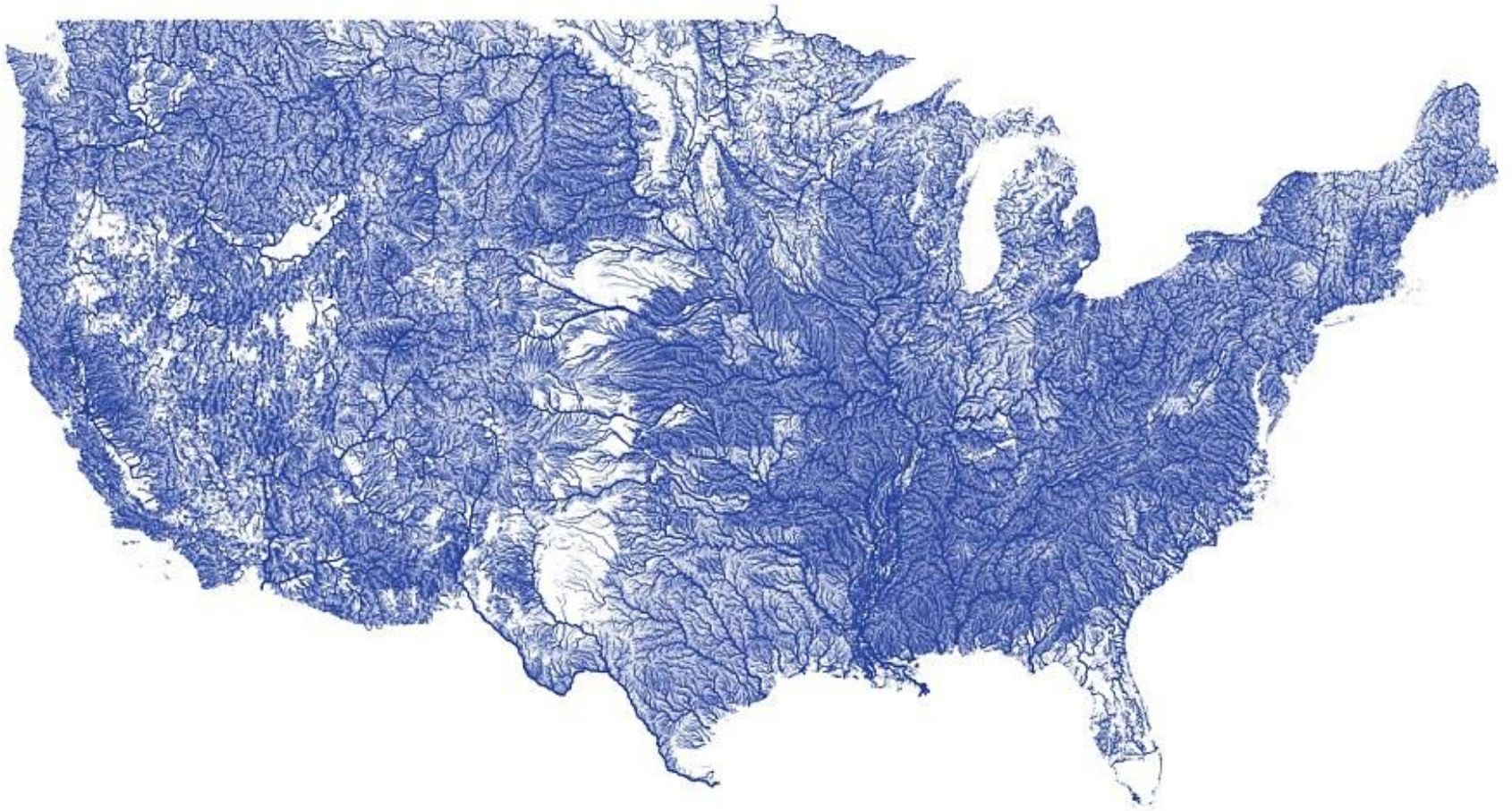


Dave Whitney's Journey in Clean Water



Our Journey for Clean Water
BY DAVE WHITNEY

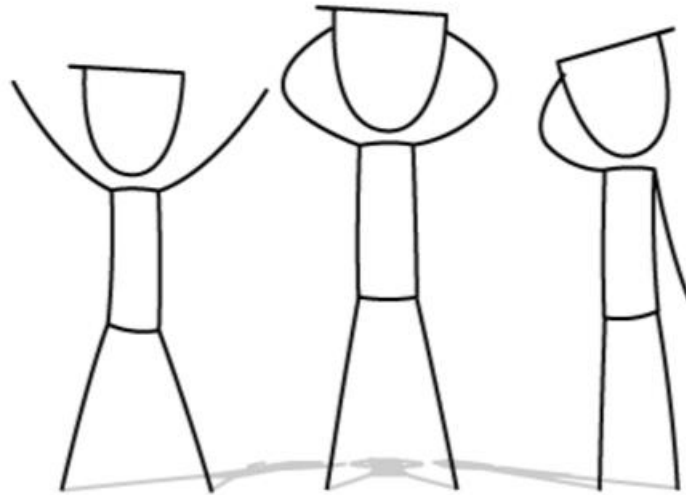
Bloodlines of Our Nation



One of the signs warning of the dangers at Craigavon Lakes. INLM29-004



1 in 3 Americans get their drinking
water from small streams
protected by the Clean Water Rule.

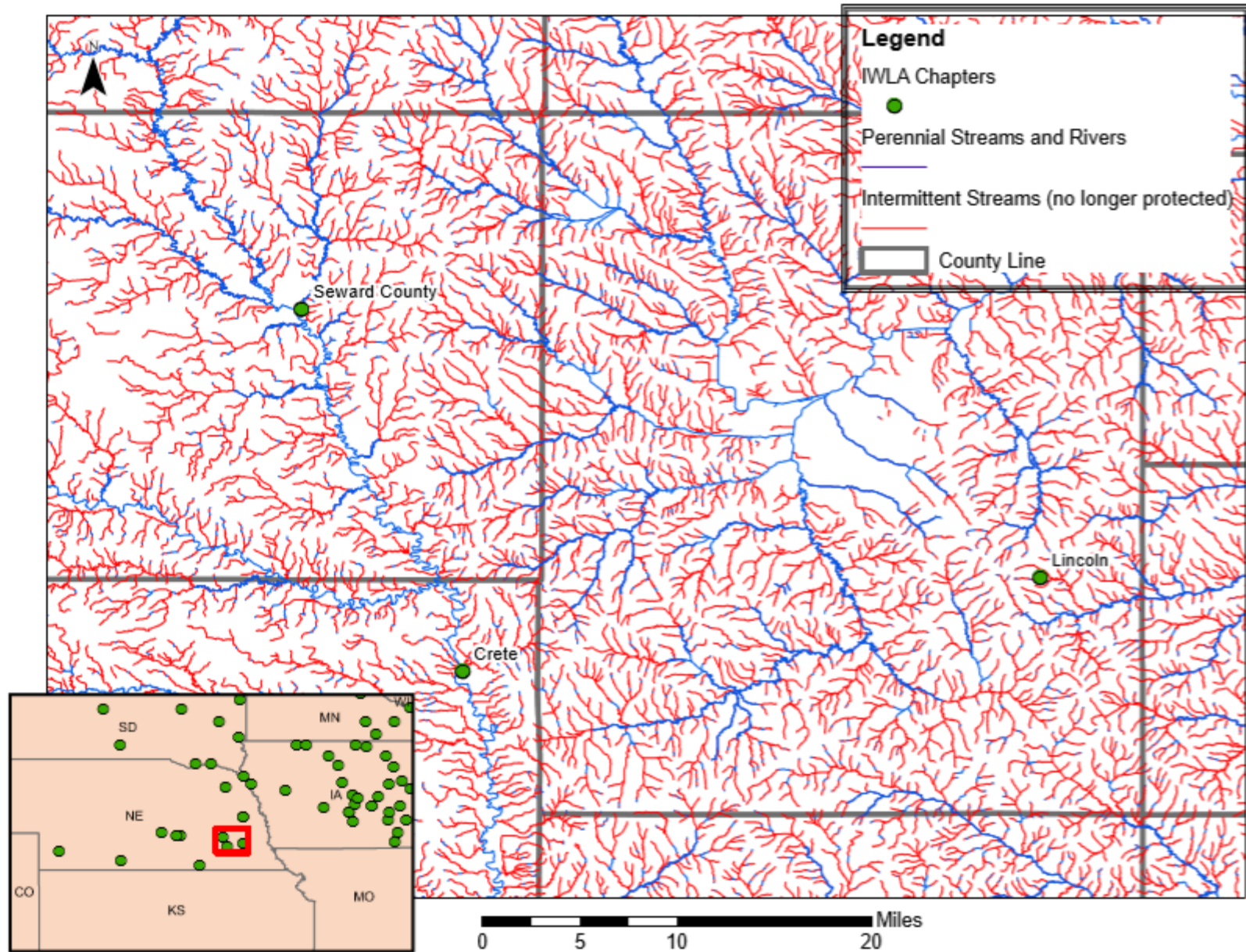


That's 117 Million of Us!

Clean Water Act

“The League will continue to fight to ensure the EPA relies on science to make decisions about our nation’s natural resources. Whether it’s safe drinking water or quality outdoor recreation, there’s simply too much at stake to put politics ahead of science.”

Change in Stream Protection around Lincoln, Nebraska



CLEAN WATER CHALLENGE

By 2022

100,000 streams sites

100th anniversary



How Many Streams Are in the US?



3.5M
miles of streams

357,403 miles of
streams are
public water
systems

60% of the
stream miles only
flow seasonally
or after storms

SAVE OUR STREAMS

CLASS OF 2018



Engagement - Expanding the “We”



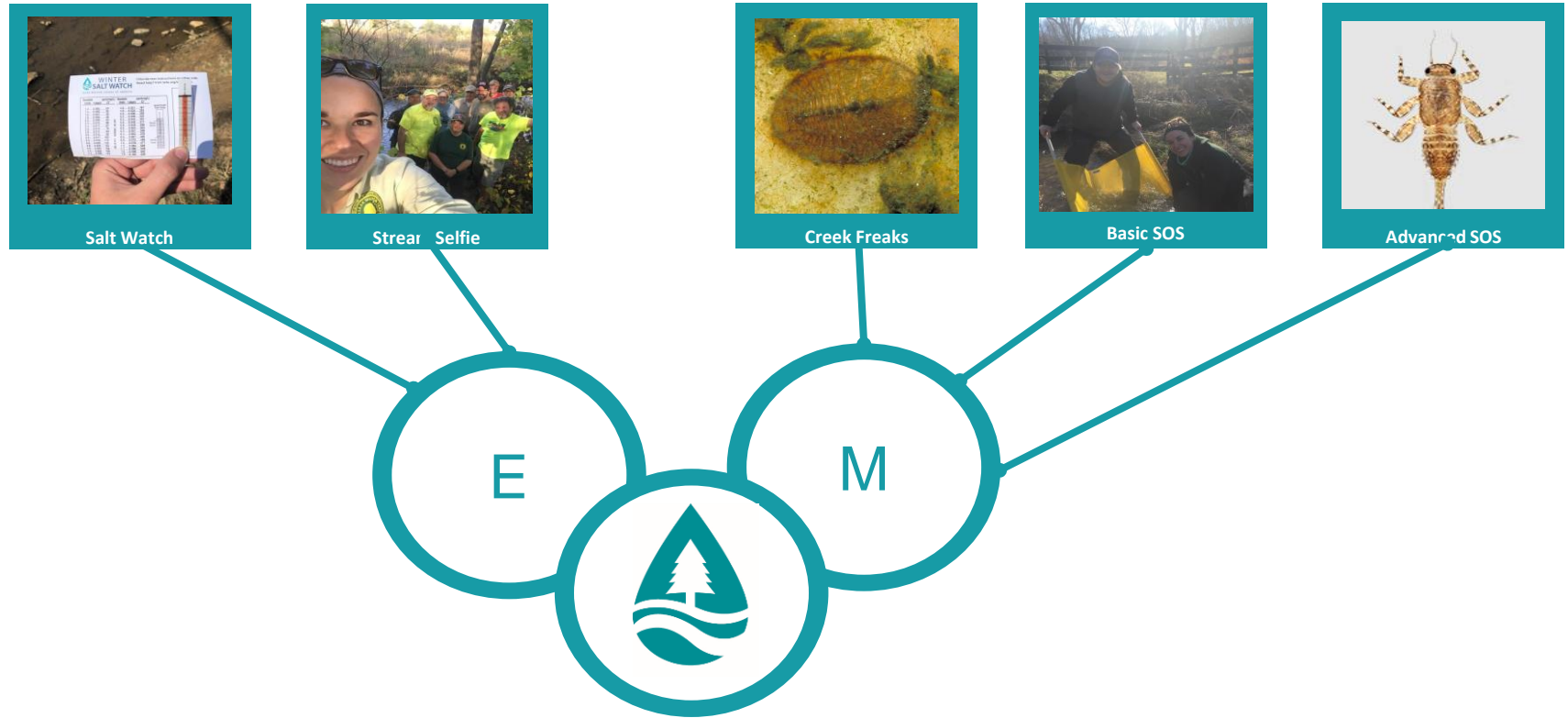
First Exposure

First Taste

Change of Heart

Big
Contributions

Clean Water Challenge Engagement



Stream Selfie



#StreamSelfie



#StreamSelfie

Stream Selfie

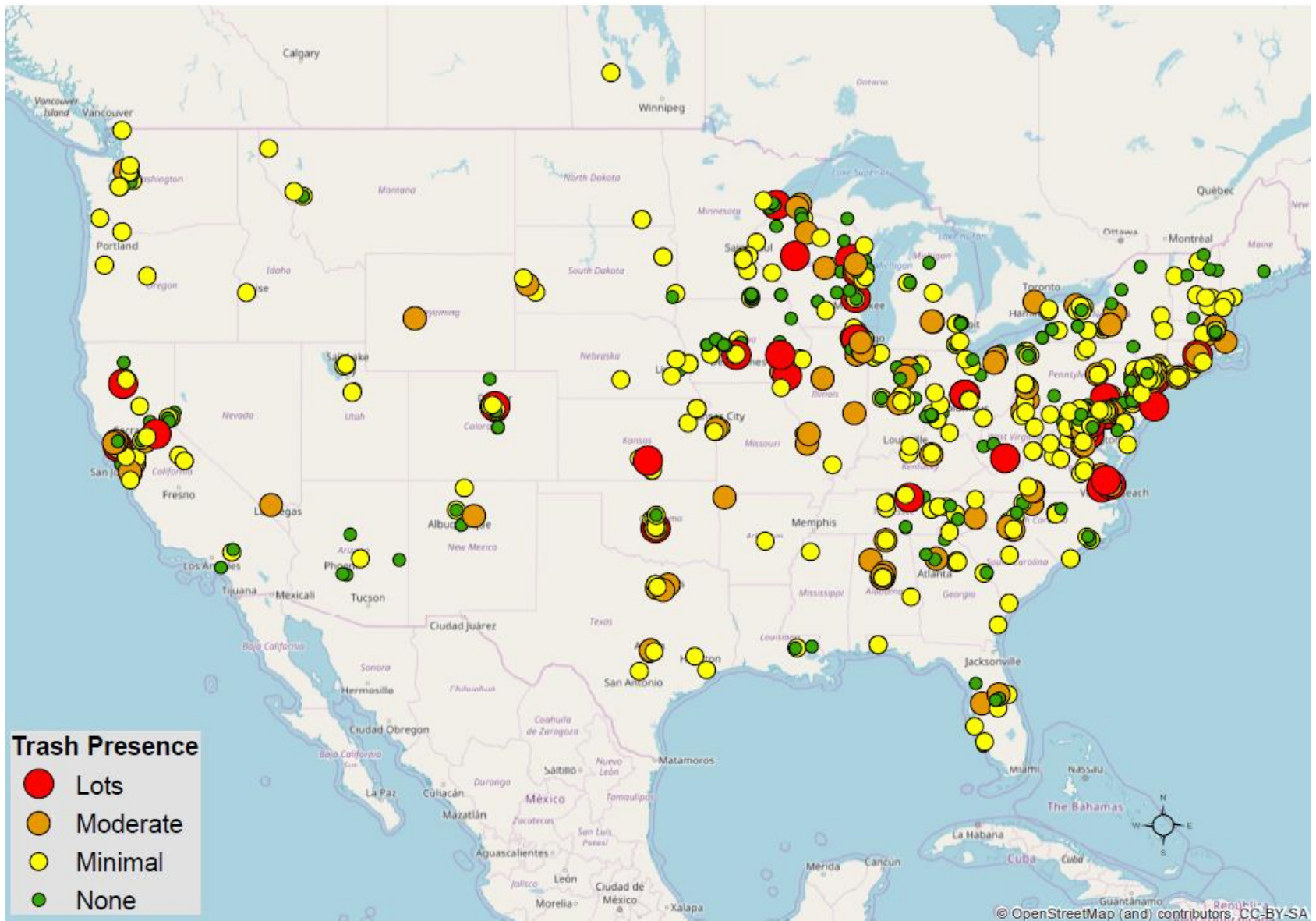


**Hunting for a
#StreamSelfie**

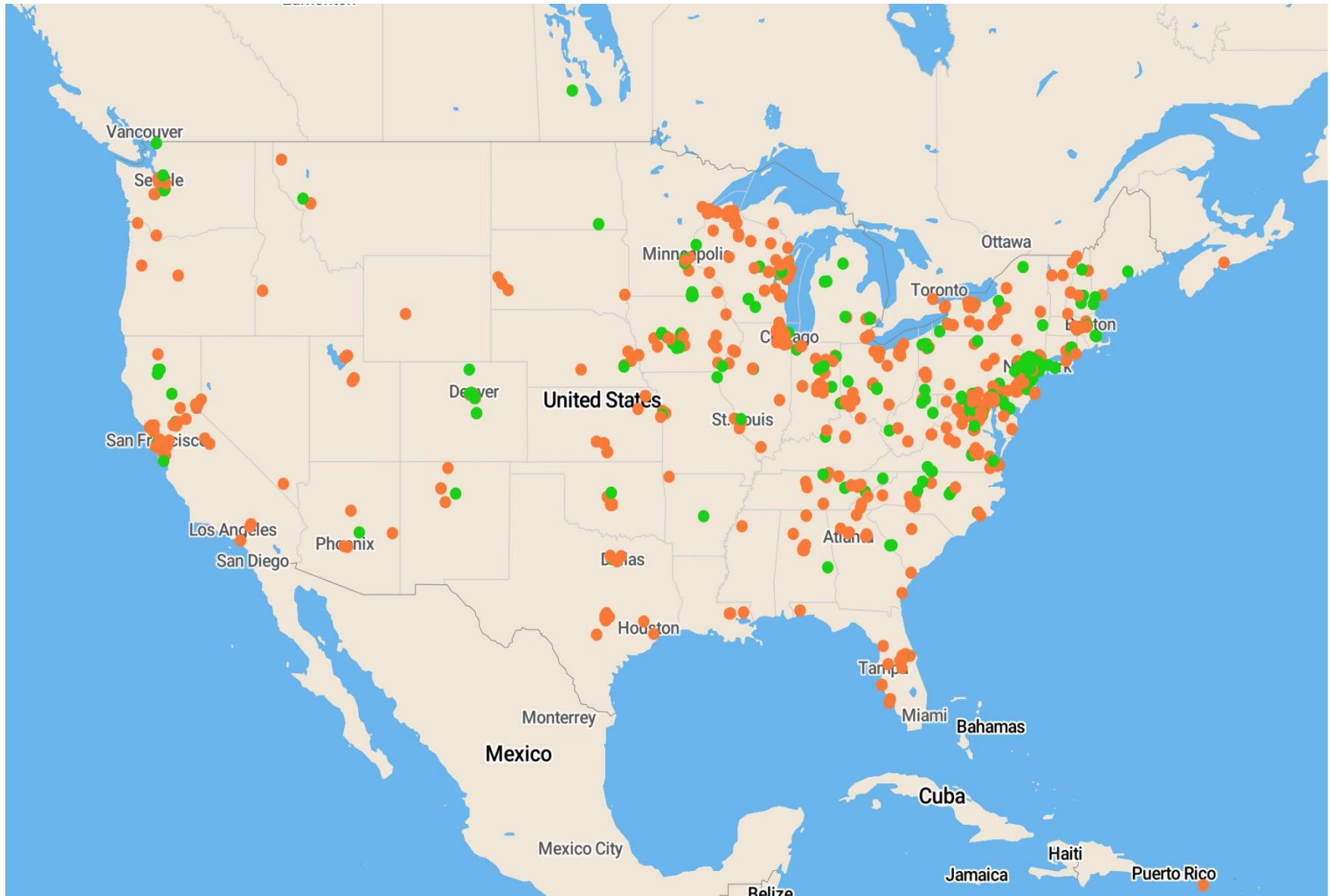


George on Flume Creek Wisconsin doing base flow measurement. *"All streams matter. This creek is relatively healthy but threatened."*

Stream Clean Up locations (Trash Presence)



Current and Potential Monitoring





WINTER SALT WATCH

IZAACK WALTON LEAGUE OF AMERICA





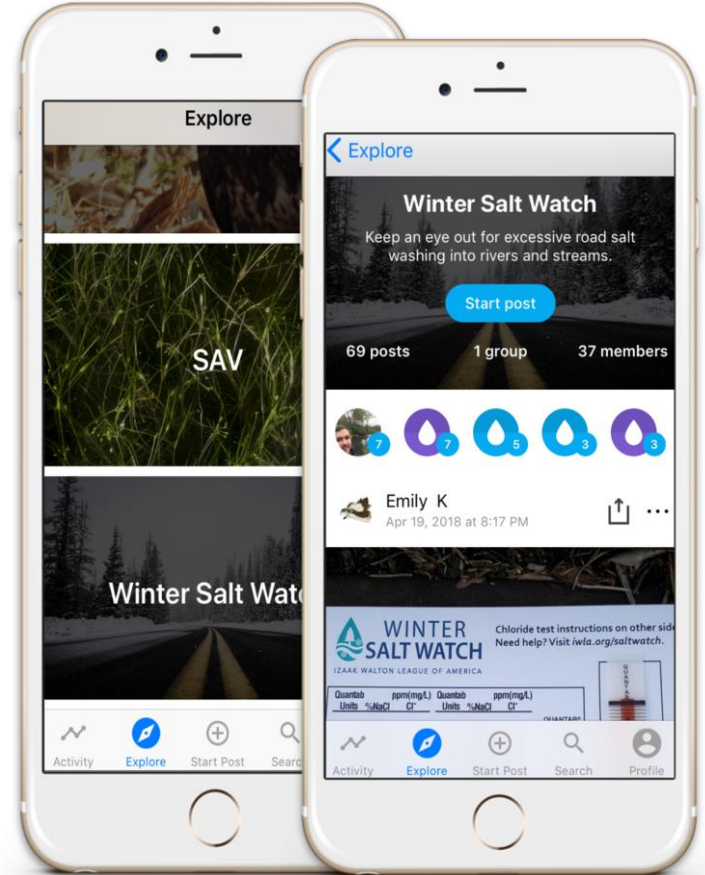
The Campaigns on Water Reporter

Watershed observation for everyone

Aggregate the data that you need
through forms that are
approachable

View top contributors and access
the structured data that they
share

Engage and recruit volunteers
beyond the “citizen science”
demographic



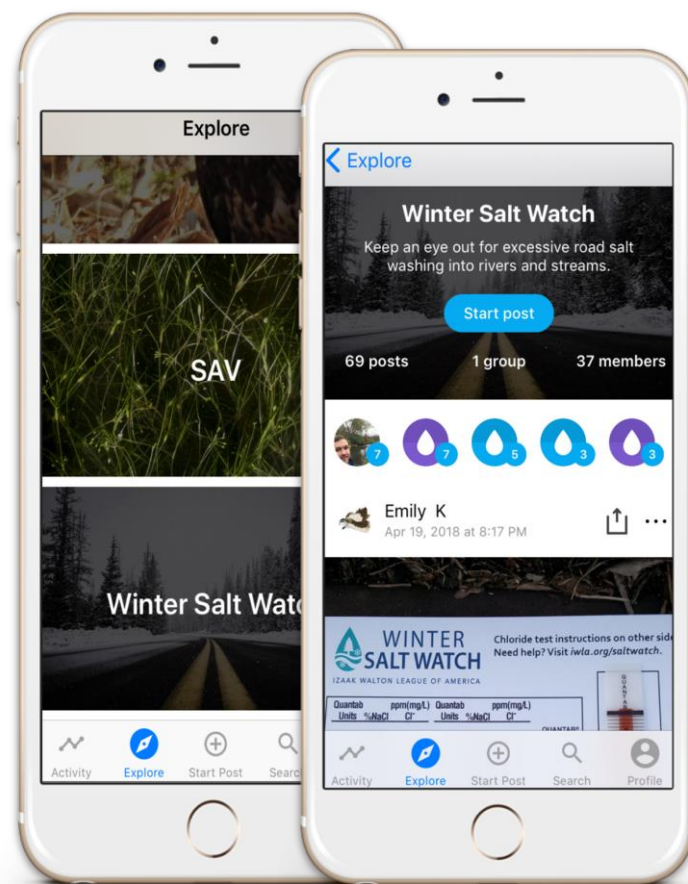
The Saltwatch Campaign on Water Reporter

- ✓ What is the calcium chloride doing to our stream?
- ✓ Can we document chloride levels nationwide?
- ✓ Can we run a national campaign on crowdsourced data?
- ✓ Can we use the raw data for sharing the communicating to local communities?

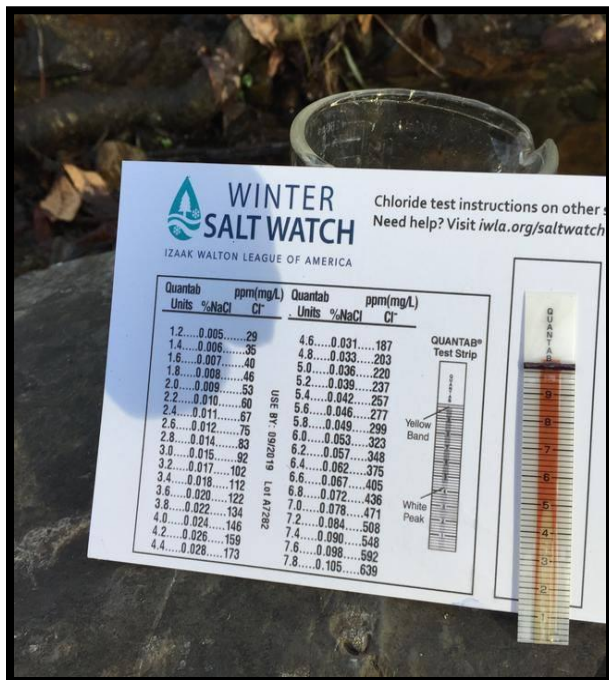


The Saltwatch Campaign on Water Reporter

- ✓ 260 signed up in 27 states and DC
- ✓ 68+ Winter Salt Watch Programs



Example of how we use our data



The Washington Post

Letters to the Editor • Opinion

Road salt is hurting the environment

January 14

Regarding the Jan. 9 Politics & the Nation article "Nation's rivers are getting dangerously saltier, researchers say":

Year after year, snow after snow, I am dismayed by the amount of salt spewed on roads in this area. After a Jan. 4 snow, barely half an inch, way too much salt was dumped on the streets. More than a week later, piles of salt remained on the side roads. Much of this salt will find its way to our streams and rivers.

What a waste of resources and municipal dollars.

Mary C. Massey, Silver Spring

Finding alternatives to salt is something I hope to see in my lifetime. Meanwhile, I hope road crews can spread salt more sensibly.

After the "bomb cyclone" storm, there was a speed-bump-size pile of salt near my office. The pile was next to a storm drain that leads to Muddy Branch Creek. I have been monitoring the creek's chloride levels for six months. Sure enough, chloride levels jumped four to five times from what they had been two months prior.

I don't advocate eliminating road salt (Interstate 270 is bad enough without accidents), but common sense can be used moving forward. I was told by both Gaithersburg and Montgomery County that the salt was spread by the other. A call to the Maryland Department of the Environment seemed to speed the cleanup efforts. Wouldn't it be nice if government acted on problems without arm-twisting?

Scott Maxham, Gaithersburg

The writer is a clean water fellow at the Izaak Walton League of America.

Salt Management Strategy: Environmental Impacts and Potential Economic Costs and Benefits of Improved Management Practices in Northern Virginia

Prepared for
Virginia Department of Environmental Quality (DEQ)

in partial fulfillment of the requirements of
Contract No. 16577

Prepared by
Karin Bencala, Jim Palmer, and Heidi Moltz
Interstate Commission on the Potomac River Basin (ICPRB)
30 W. Gude Drive, Suite 450
Rockville, MD 20850

January 2018

We are Stronger Together



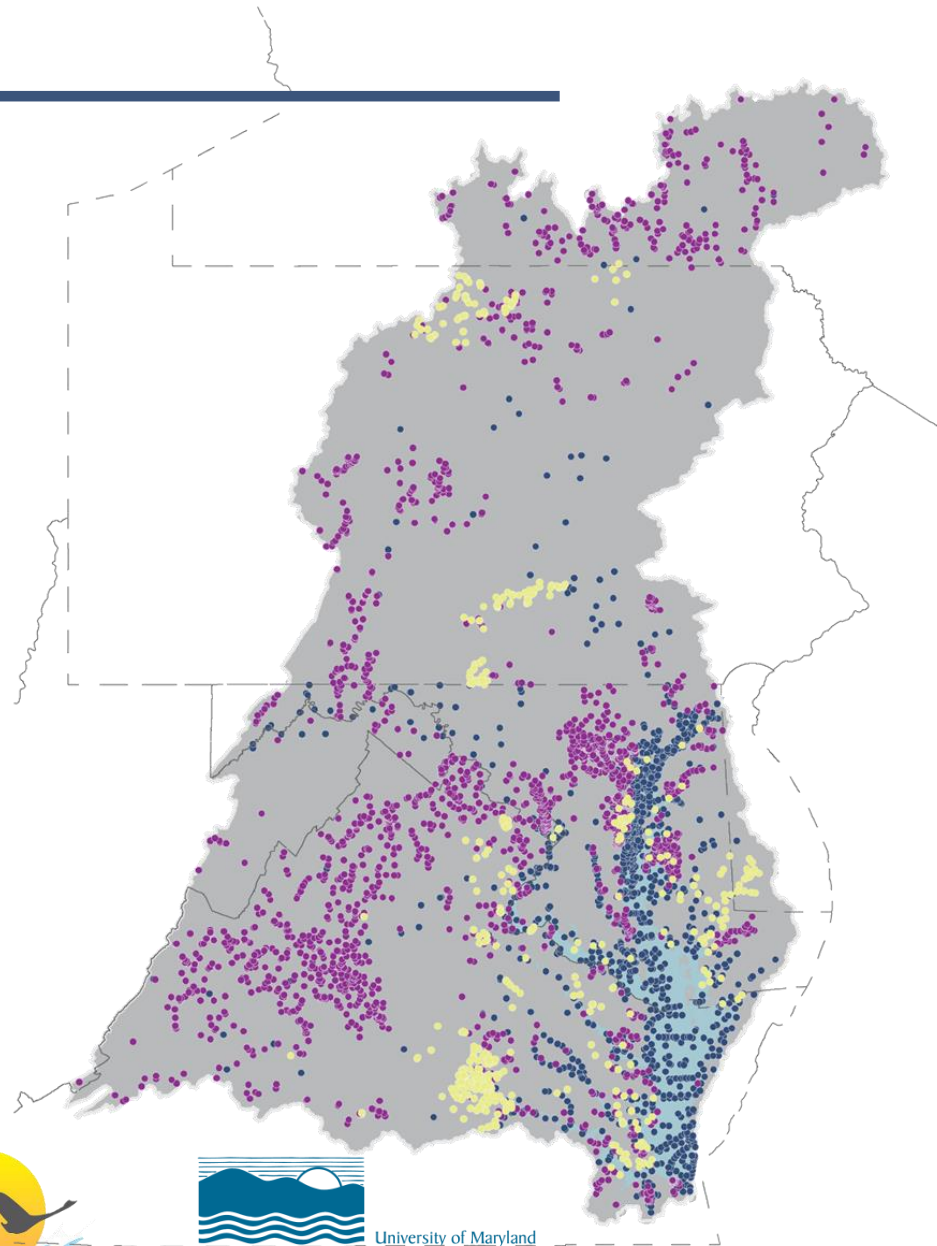
Data of a Known Quality

Exchange & Publish Data

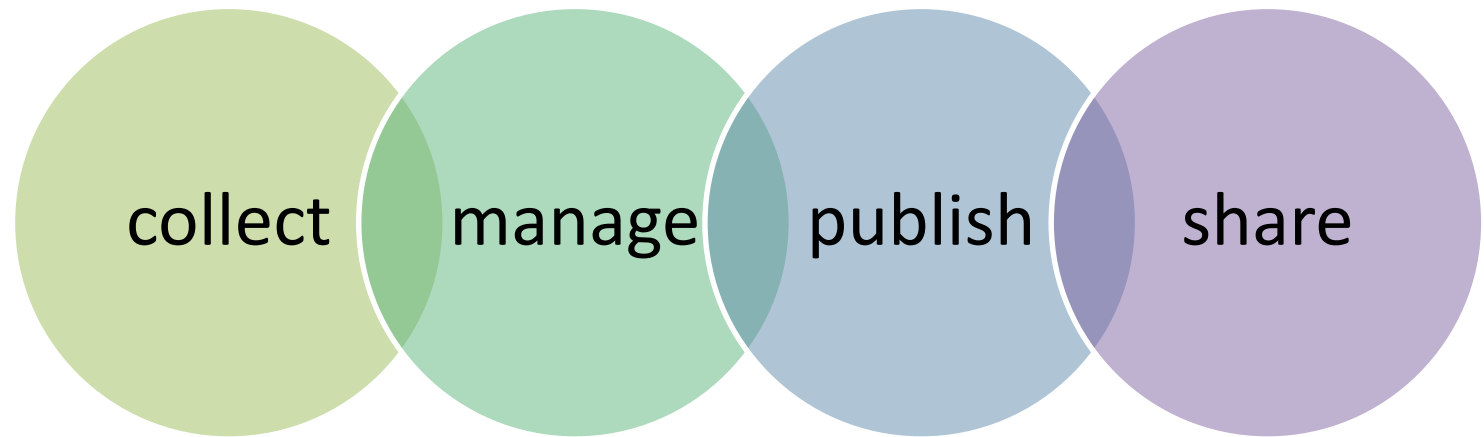
Civic Ecology

Regional Partnerships

Chesapeake Monitoring Memorandum of understandings between CBP & state regulatory agencies



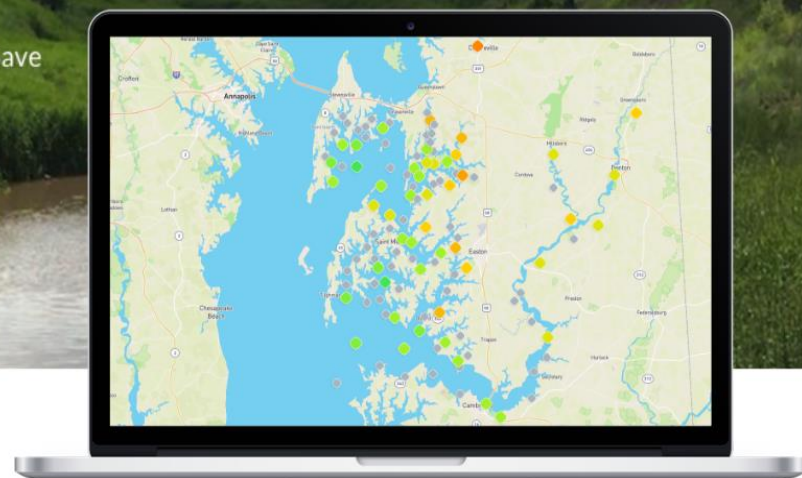




[DASHBOARD](#)[ORGANIZATION](#)[PROFILE](#)[SIGN UP](#)[SIGN IN](#)

The Clean Water Hub

Clean Water Hub is your community for collecting, managing, and sharing Save Our Streams Data.

[SIGNUP FOR A FREE ACCOUNT](#)[LOGIN TO YOUR ACCOUNT](#)

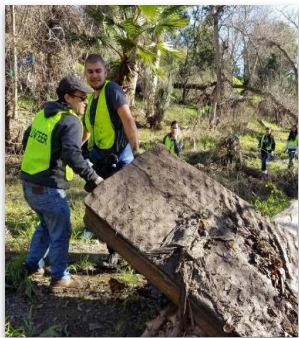
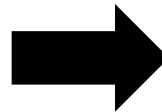
Challenge: Structured data available instantly



**MONITORING
PROGRAMS**



**PROGRAM
PROMOTION**



**VOLUNTEER
EFFORTS**



**POLLUTION
REPORTING**

```
"relevance": 0.8789999999999999,  
"center": [  
  -76.982024,  
  38.878977  
],  
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  "coordinates": [  
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    38.878977  
  ],  
  "interpolated": true  
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  {  
    "id": "place.10719",  
    "text": "Washington"
```

Your Dashboard



[COMMUNITY](#) [DASHBOARD](#) [ABOUT](#)



Dashboard

Search Sites (15,890)

SEARCH

SITES

ORGANIZATIONS

USERS

CREATE A NEW SITE



IC01

Trough Creek
Our team monitors this site twice a week for chemical and benthic criteria



IC02

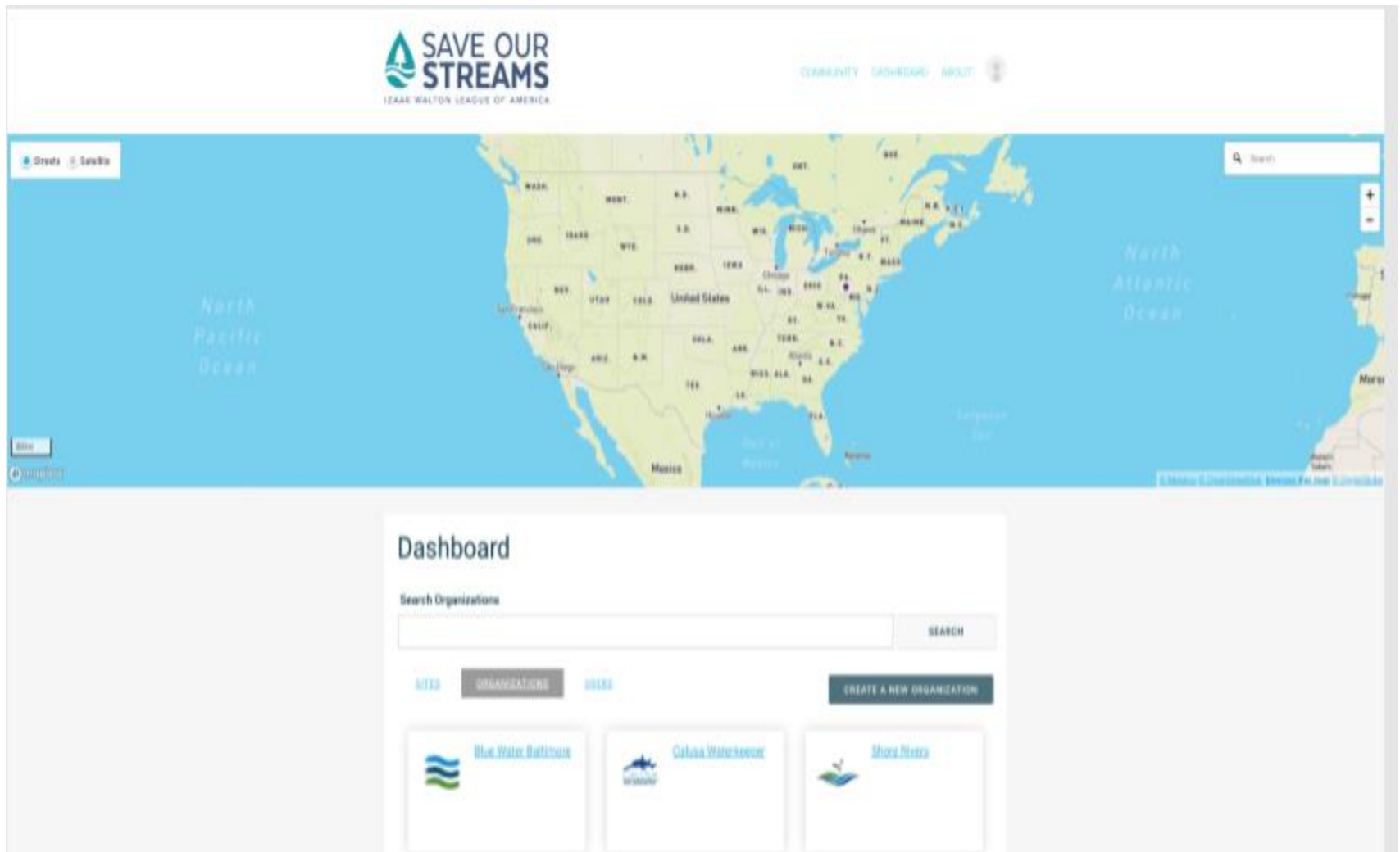
Trough Creek
Located just downstream of the chain bridge



IC03

Trough Creek
Chemical and benthic site located near the dam at Trough Creek state park

Shared Sites between Orgs



Working on
submitting
data to:
WQX
States
Regional Orgs

SAVE CHANGES

DISCARD

Muddy Bottom Sampling

Record the total number scoops taken from each habitat type (20 scoops total) and provide details to best describe the specific habitat on the lines below.

Current Sample Number is 20

Steep Bank Vegetated Margin	Rock Gravel Sand Substrate	Woody Debris With Organic Matter	Silt Bottom With Organic Matter
<input type="text" value="10"/>	<input type="text" value="10"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Sensitive

<input checked="" type="checkbox"/>	<input type="text" value="12"/>	Caddisflies
<input type="checkbox"/>	<input type="text" value="0"/>	Mayflies
<input checked="" type="checkbox"/>	<input type="text" value="10"/>	Stoneflies
<input checked="" type="checkbox"/>	<input type="text" value="17"/>	Watersnipe Flies
<input type="checkbox"/>	<input type="text" value="0"/>	Riffle Beetles
<input checked="" type="checkbox"/>	<input type="text" value="7"/>	Water Pennies
<input type="checkbox"/>	<input type="text" value="0"/>	Gilled Snails

Score: 12

Less Sensitive

<input type="checkbox"/>	<input type="text" value="0"/>	Dobsonflies
<input checked="" type="checkbox"/>	<input type="text" value="4"/>	Fishflies
<input checked="" type="checkbox"/>	<input type="text" value="16"/>	Crane Flies
<input type="checkbox"/>	<input type="text" value="0"/>	Damselflies
<input checked="" type="checkbox"/>	<input type="text" value="1"/>	Dragonflies
<input checked="" type="checkbox"/>	<input type="text" value="7"/>	Alderflies
<input type="checkbox"/>	<input type="text" value="0"/>	Commons Net Spinning Caddisflies
<input checked="" type="checkbox"/>	<input type="text" value="7"/>	Crayfish
<input type="checkbox"/>	<input type="text" value="0"/>	Scuds
<input type="checkbox"/>	<input type="text" value="0"/>	Sowbugs
<input type="checkbox"/>	<input type="text" value="0"/>	Clams
<input type="checkbox"/>	<input type="text" value="0"/>	Mussels

Score: 10

Tolerant

<input type="checkbox"/>	<input type="text" value="0"/>	Aquatic Worms
<input checked="" type="checkbox"/>	<input type="text" value="1"/>	Black Flies
<input checked="" type="checkbox"/>	<input type="text" value="1"/>	Midge Flies
<input type="checkbox"/>	<input type="text" value="0"/>	Leeches
<input type="checkbox"/>	<input type="text" value="0"/>	Lunged Snails

Score: 2



National Water Quality Monitoring Council

Working together for clean water

Goal: Increasing the amount of volunteer and tribal data

- Recommendations for standardization of metadata to allow for easier **Data Exchange**
- Greater understanding of what “Data of a Known Quality Means”



National Water Quality Monitoring Council

Working together for clean water

- NEMI.gov
 - Searchable database that allows scientists and managers to find and compare analytical and field methods for all phases of monitoring
- Water Quality Portal
 - Integrates publicly available data



National Water Quality Monitoring Council

Working together for clean water

Brings together diverse expertise needed to develop collaborative,, comparable, and cost effective approaches for monitoring and assessing our Nation's water quality.

- Conference 2019
- Newsletter
- Webinars
- Fact sheets

FIRST, We approach a stream and bring people to the stream to get them participating in science in ways that are voluntary and meaningful brings awareness and bring change.

Second, citizen science is a rapidly expanding and changing, emerging technologies that allow the public to socialize and check in with their favorite stream, groups, or favorite volunteers. The we can change the way in which we measure, manage, process, share and publish data and information. To promote community-based problem solving.... No one “else” is going to do it for us.

Third, there is magic in the way citizen science connects citizens and science, and EPA can tap that magic more effectively to connect the Agency with the public.

NACEPT, *Information to Action, Strengthening EPA Citizen Science Partnership For Environmental Protection*, April 2018

EPA 220-R-18-001

*“Nature needs no
defense,
it needs more
defenders”*
E. Abbey

Danielle Donkersloot,
Izaak Walton League,
ddonkersloot@iwla.org

