



THE COMMONS

Volunteer Monitoring

Consensus Based Views of Watershed Improvement

Volunteer Monitoring:Consensus Based Views of Watershed Improvement

Theoretical

Ideas and philosophies that can help build new or bolster existing monitoring programs



01

Defining the Why

Exploration of new ways to think about study design and building support for an outcome driven monitoring program.

02

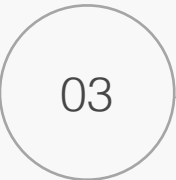
Monitoring 2.0

Meeting your volunteers where they are. Integrating modern technologies into volunteer monitoring programs

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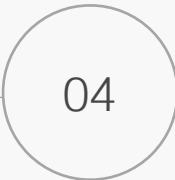
Applied

Tools and approaches that
you can use today to support
your work



Case Studies

Data-driven approaches to tell the story of your watershed and program. The importance of machine readable data.



Live Demonstration

With the right programs and technologies, we will be able to establish a ground-up, real-time view of the health of our rivers and estuaries.



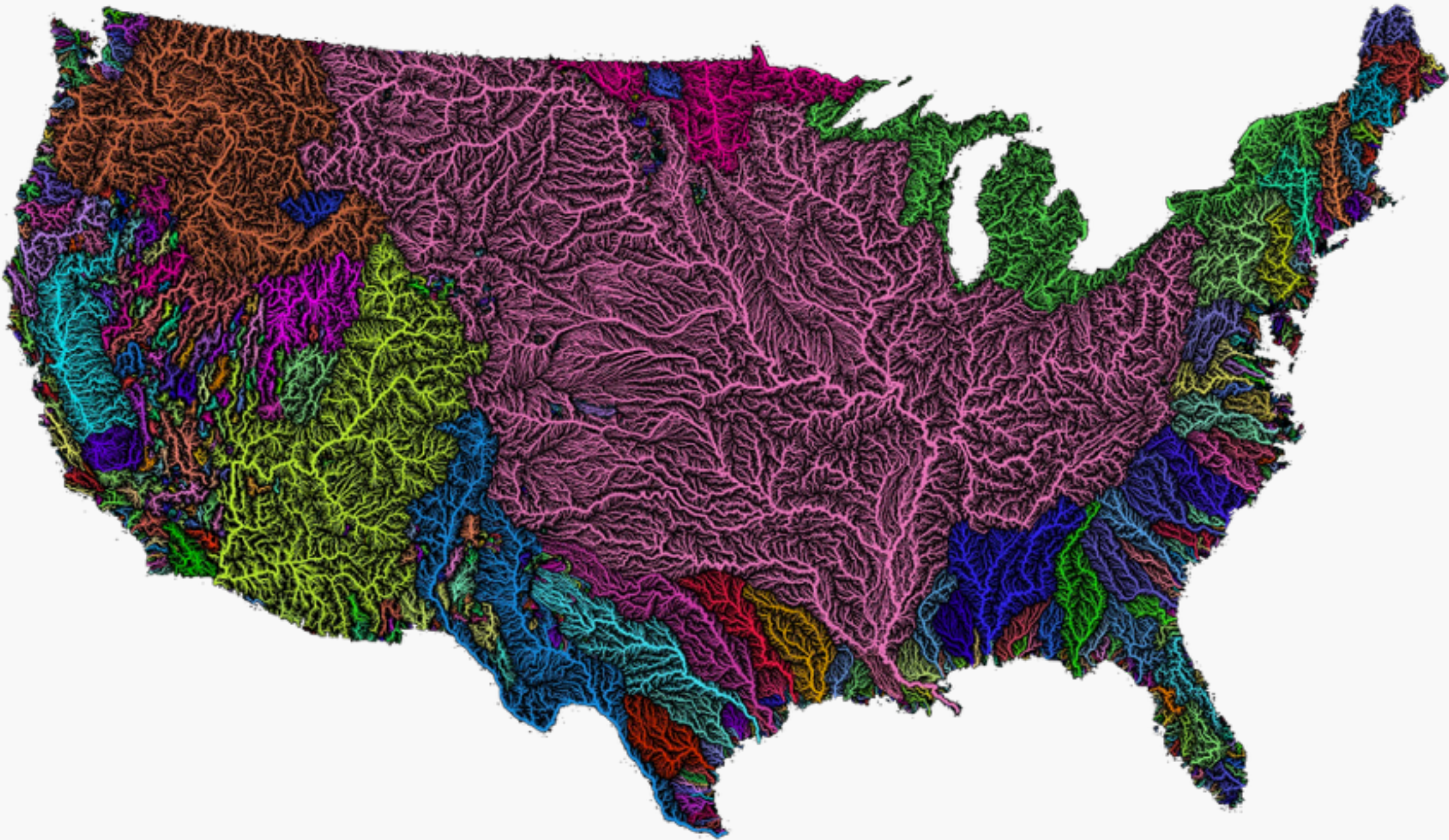
Q&A

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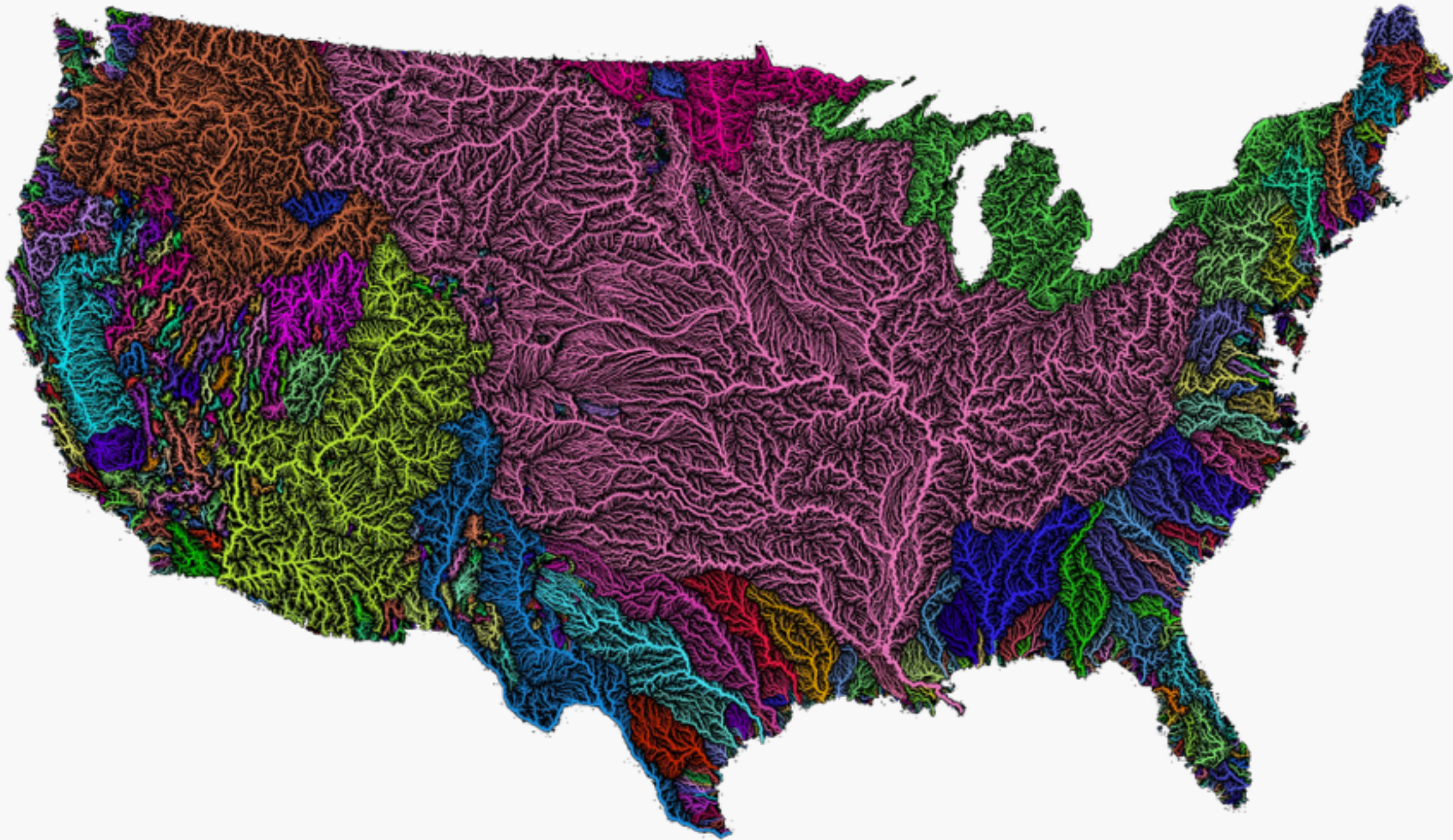
01 Defining the Why

Exploration of new ways to think about study design and building support for an outcome driven monitoring program.

Bloodlines
of our
nation

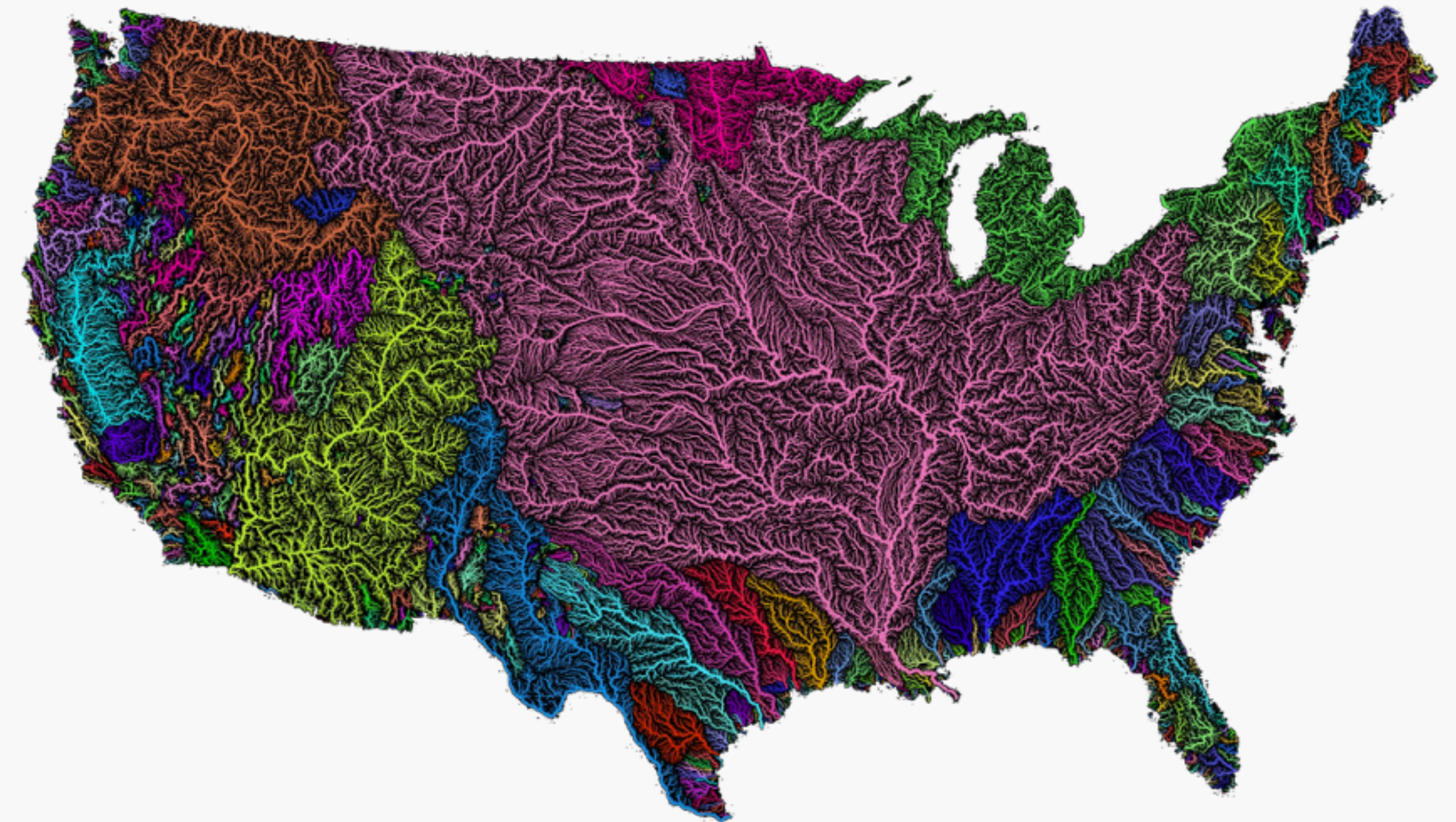


3.5 million
miles of
streams
across the
U.S.



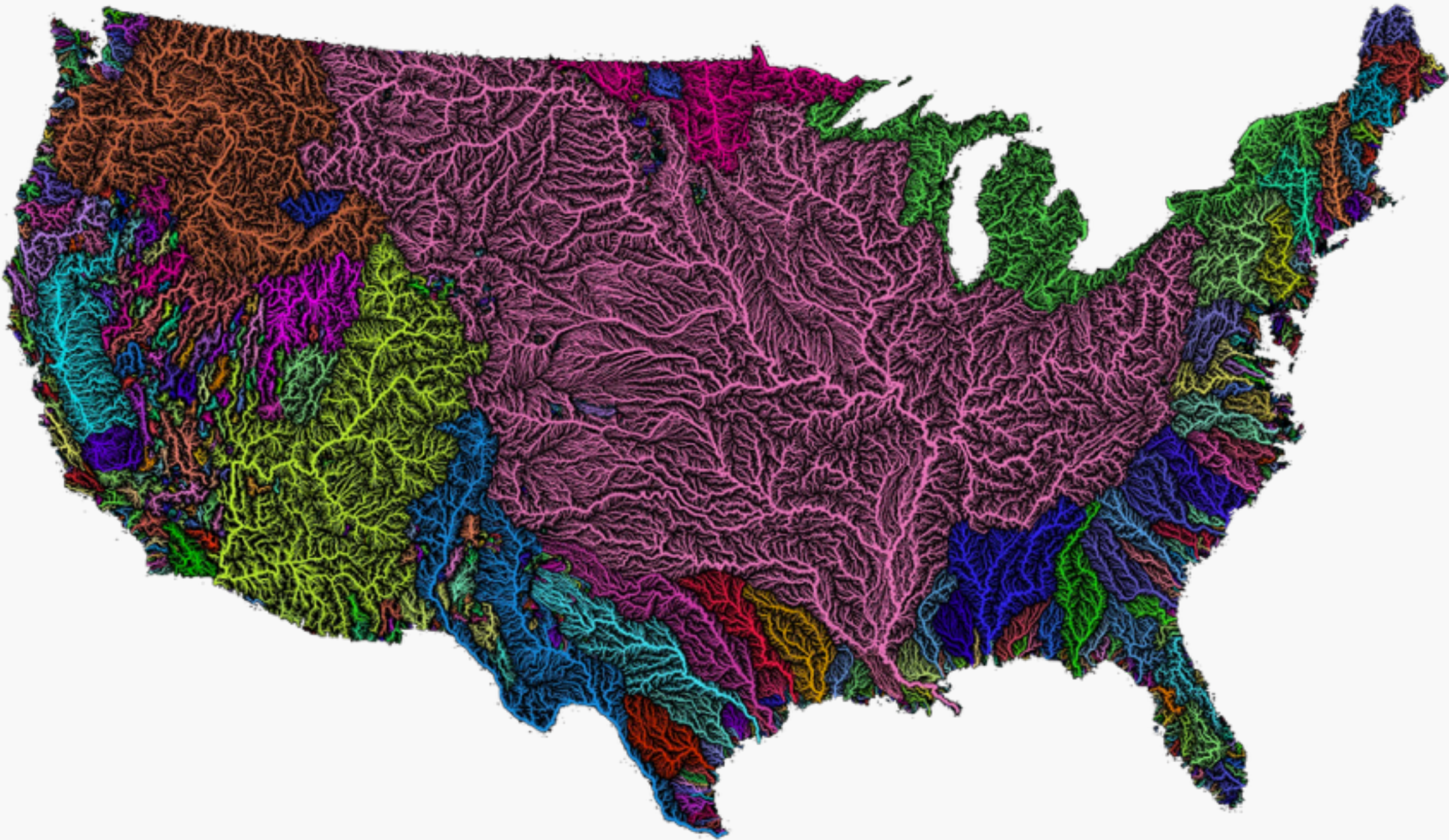
1 in 3

of us get
drinking
water from
streams
affected
by the
Clean
Water Rule



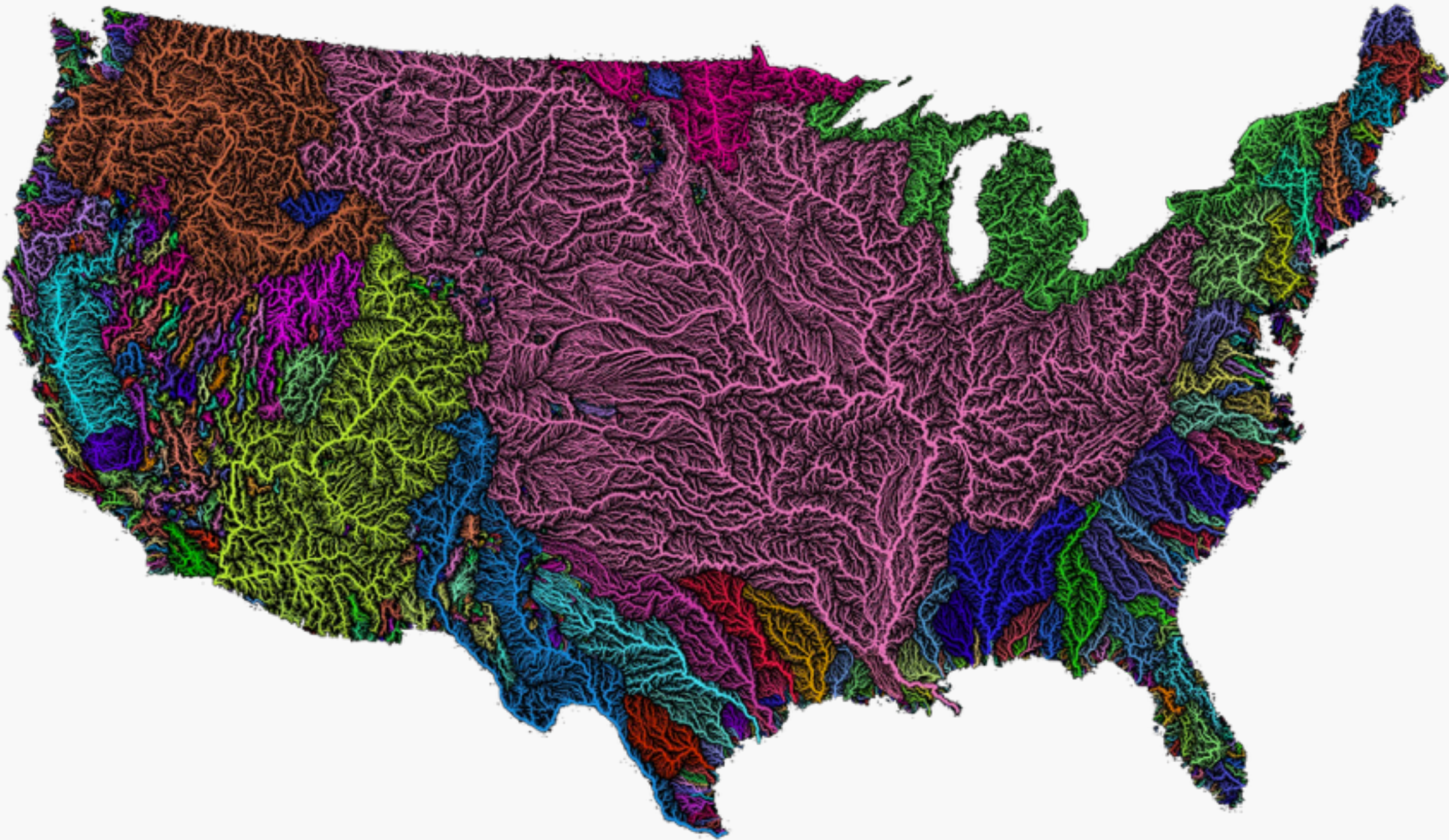
357

thousand
miles of
streams
are public
water
systems

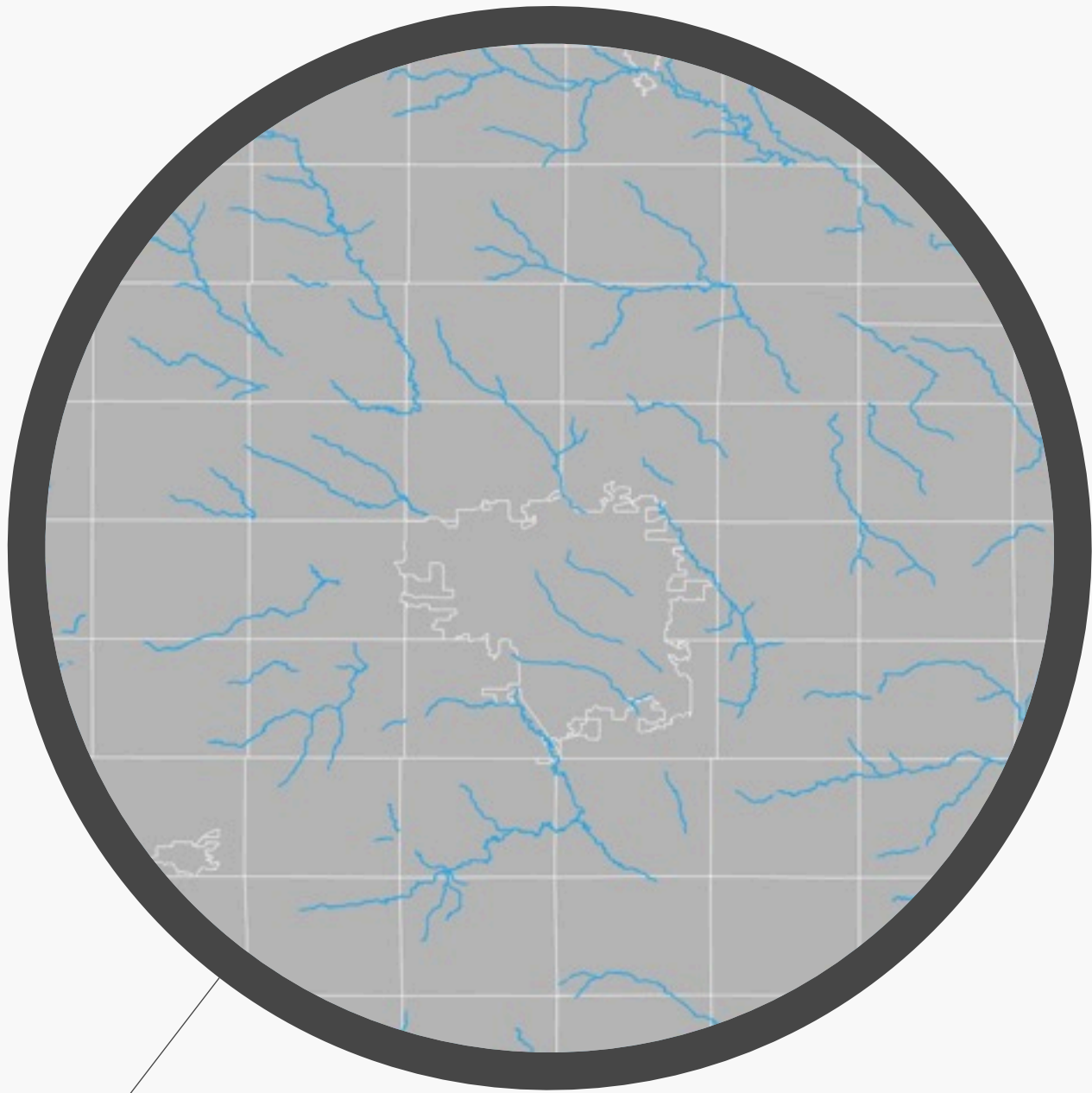
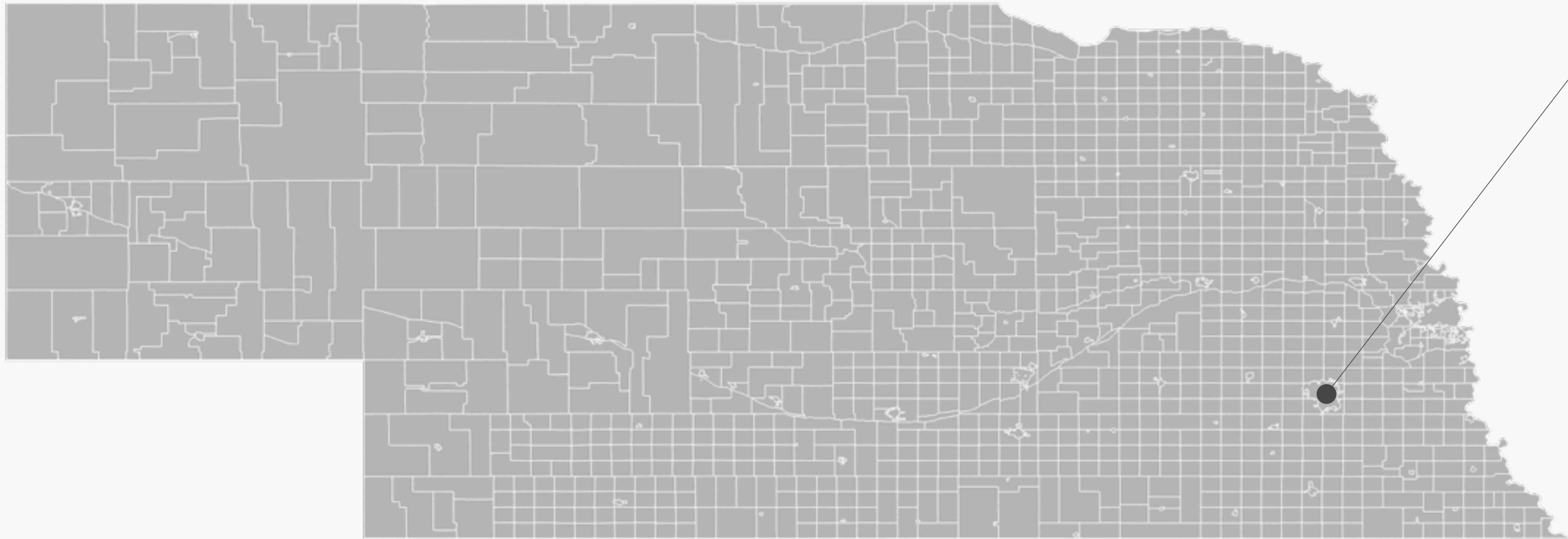


60

percent of
stream
miles only
flow
seasonally
after storms



Lincoln Nebraska



No Clean
Water
Rule

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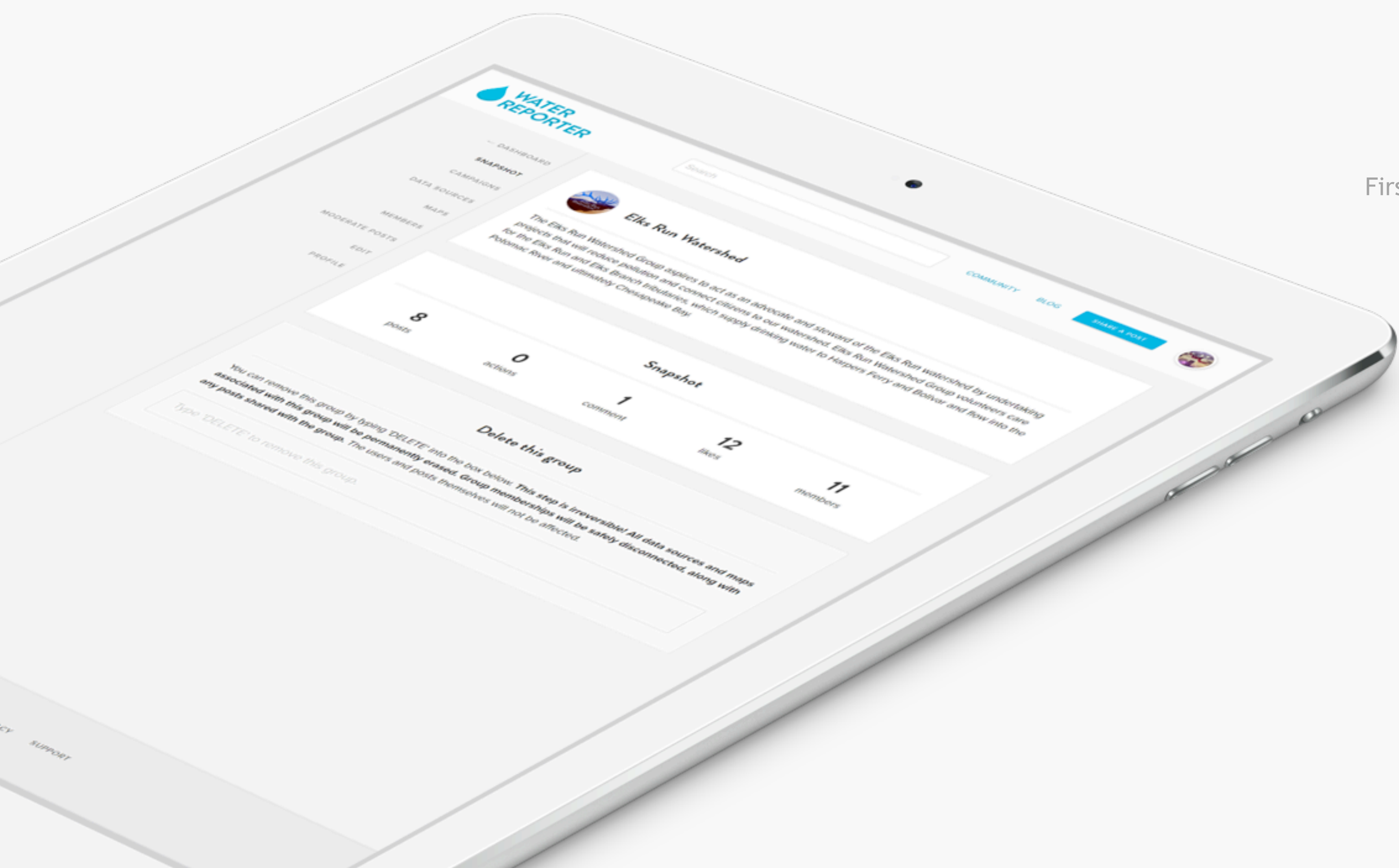
02 Monitoring 2.0

Meeting your volunteers where they are. Integrating modern technologies into volunteer monitoring programs

Engagement strategies must modernize

First exposure is now through a screen or device

In order to retain existing and convert new monitors, our tools must emulate the user experiences they interact with on a daily basis.



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Engagement

Programs structured for those who only have a few minutes or hours to contribute



01

First Exposure

Geo-referenced photos of people and their favorite stream: Stream Selfie, Water Reporter Posts

02

First Taste

Pushing volunteers to begin collecting more structured data: SaltWatch and Water Reporter Campaigns

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Monitoring

Programs structured for those
who are already converted
and want to move your goals
forward



Change of Heart

Mobilizing volunteers to commit to more involved monitoring programs. Routine sampling at fixed monitoring locations, some training required.



Big Contributions

In depth monitoring to influence policy outcomes. Requires significant training and time, for example: VA SOS



Simple and Interoperable

Modern software supporting these efforts should be built to enhance specific use cases and have a clear value proposition



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03

Case Studies

Data-driven approaches to tell the story of your watershed and program. The importance of machine readable data.



Matt Pluta

Choptank Riverkeeper @ Shore Rivers

Vigilance

Volunteer monitoring is the gateway to building watershed vigilance into our culture as a societal norm



Jason Pim
Water Ranger @ Caloosa Riverkeeper

Awareness

Volunteer monitoring initiatives
are critical in daylighting
catastrophic water quality
events and driving public
awareness



Abby Braman

Pearl Riverkeeper

Outfall screening blitz

Using Water Reporter, Abby and her volunteer network captured what a state permitted discharges look like in the state of MS.

Per.
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?



Excess Road Salt Application



Winter Salt Watch

#01

What is the calcium chloride doing to our stream?

Excess Road Salt Application

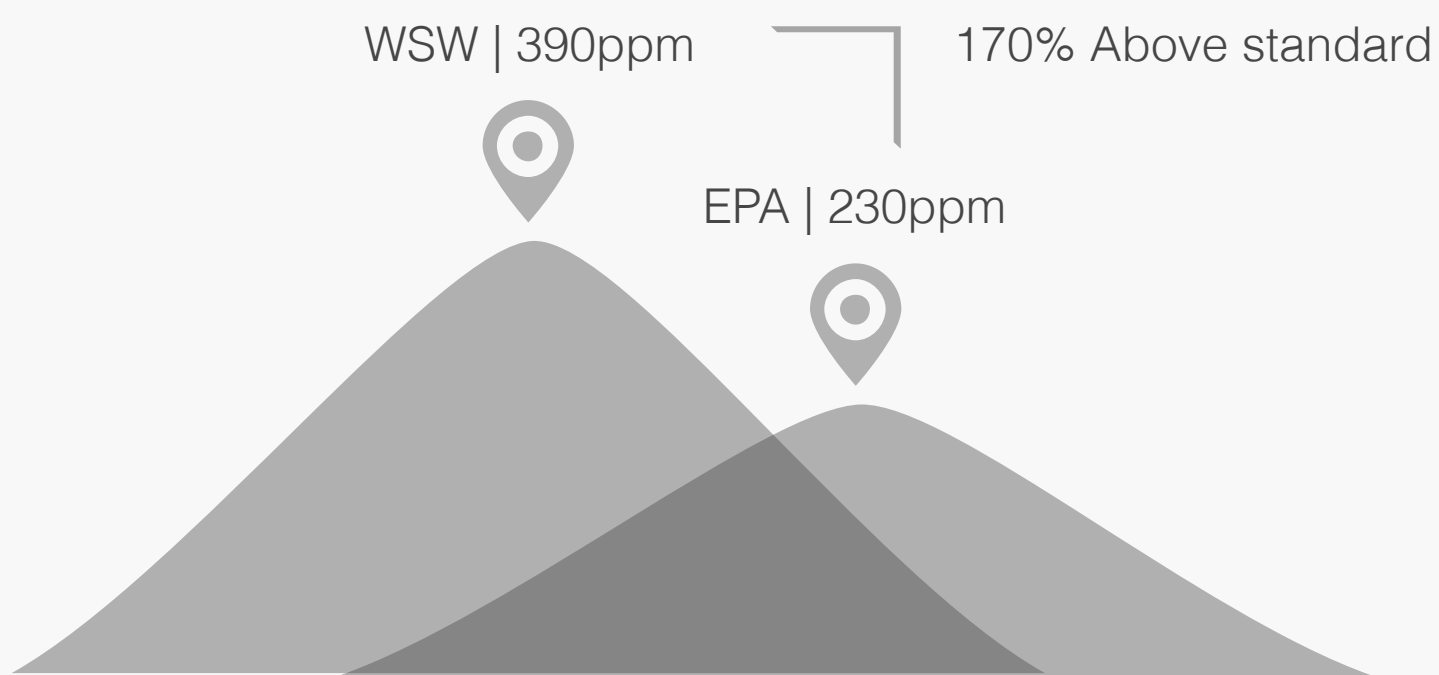


Winter Salt Watch

#02

Can we document
chloride levels nation
wide?

Excess Road Salt Application

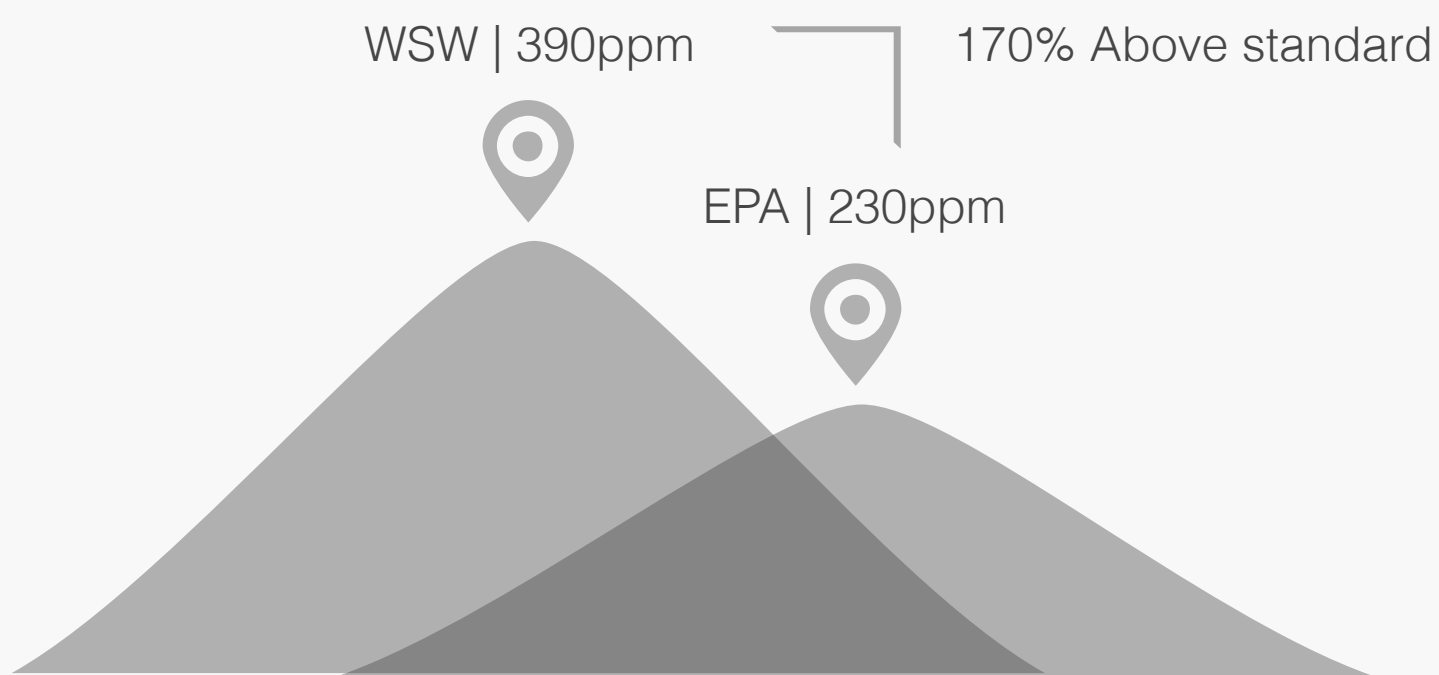


Winter Salt Watch

#03

Can we run a
national campaign
on crowdsourced
data?

Excess Road Salt Application



Winter Salt Watch

#04

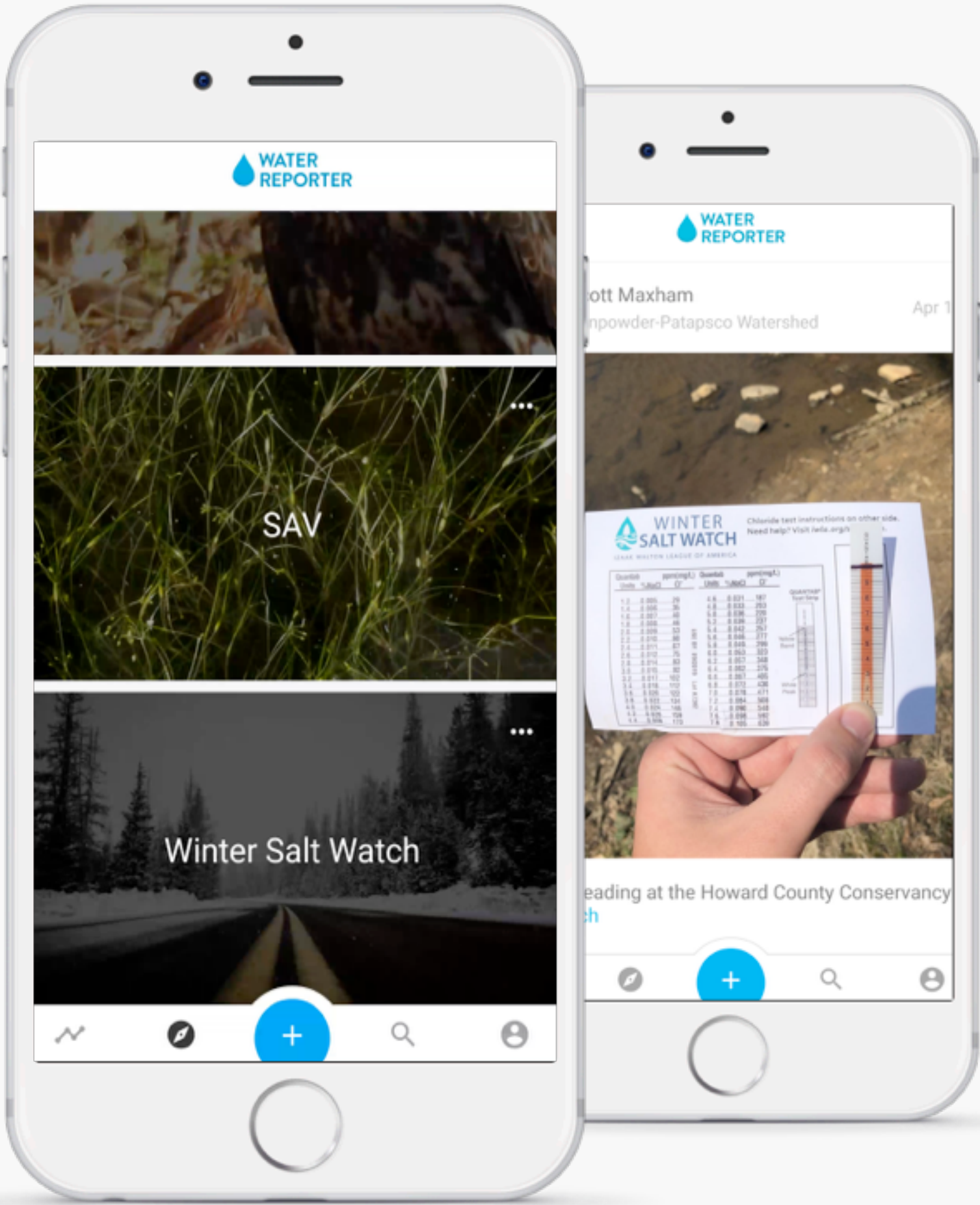
Can the data be used to effectively communicate with local communities

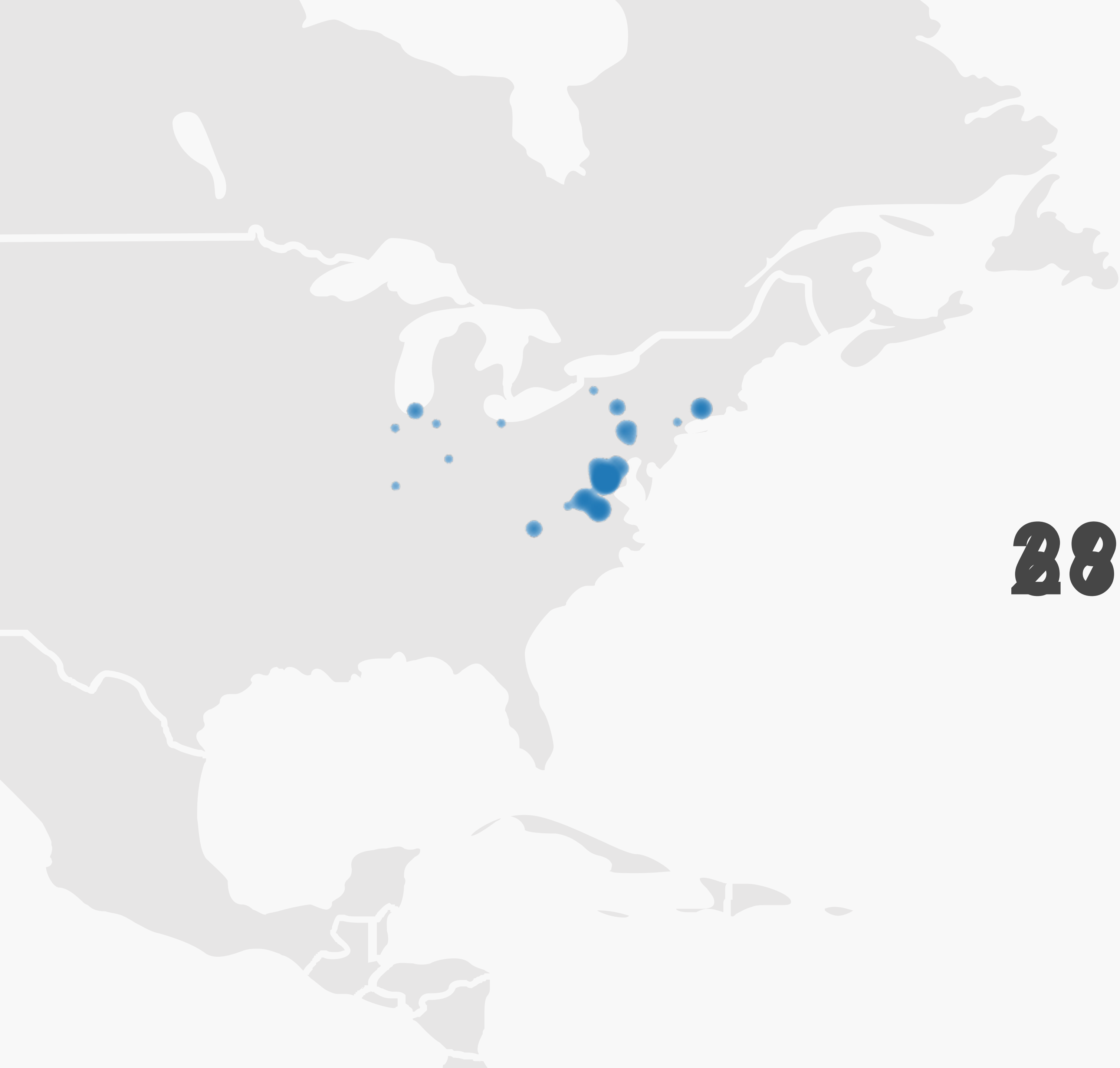
#03

Water Beyond the Traditional Boundaries

SaltWatch on Water Reporter

Call to the local water providers for help in data collection and monitoring activities





280 Design Signs Established

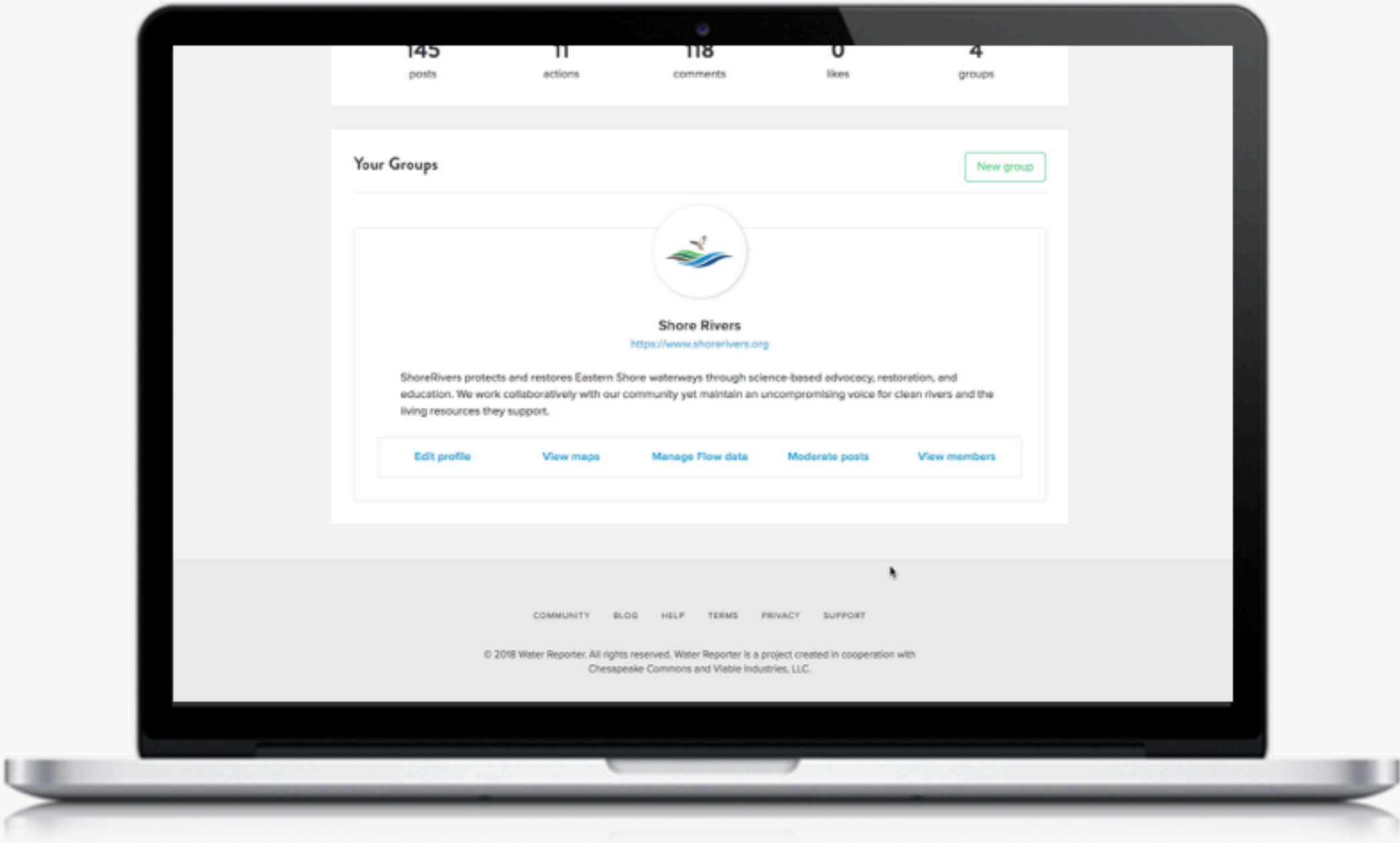
Over the course of 3 months
data from these programs
catalyzed 25 states in helping the
District of Columbia
inform its Reduction Strategy

#03

Water Reporter Data Sources

Add live water quality data from existing water quality monitoring stations

Data sources provide information on water quality for a specific water body or watershed. Data is collected and analyzed for a specific purpose, such as monitoring water quality, assessing water resources, or managing water use. Data is often used to inform policy and management decisions.





Data Sources Applied

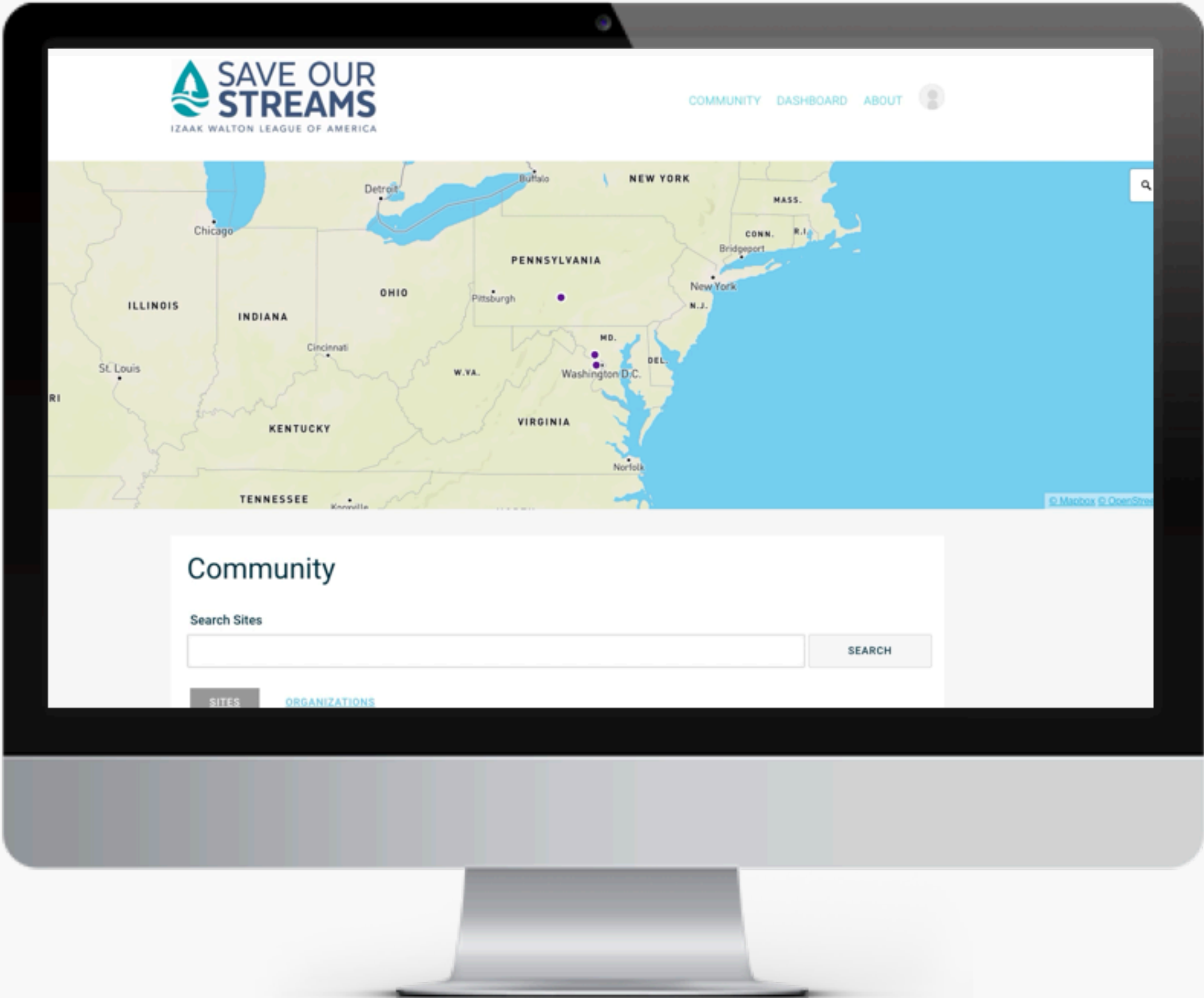
Utilizing the full Water Reporter suite, Shore Rivers can efficiently manage, publish, and share their digital River Watch



Clean Water Hub

Stonefly nymphs are a good indicator of water quality. They are found in clean water and are sensitive to pollution. They are also used in water quality monitoring programs.





Community based WQM

Developed by a coalition of
environmental organizations,
including the National
Audubon Society, the
National Wildlife Federation,
the National Water Quality
Institute, and the
National Water Research
Institute.

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04 Live Demonstration

With the right programs and technologies, we will be able to establish a ground-up, real-time view of the health of our rivers and estuaries

Thank You

Water Reporter: <https://waterreporter.org>

Clean Water Hub: <https://cleanwaterhub.org>

The Commons: info@chesapeakecommons.org

**Discussion +
Q&A**