



NATIONAL WATER QUALITY MONITORING COUNCIL

Working Together for Clean Water

Collaboration and Outreach Workgroup

Cathy Tate (USGS) and
Barb Horn (Colorado Parks and Wildlife)
Co-chairs



NATIONAL WATER QUALITY MONITORING COUNCIL

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8th National Monitoring Conference

Water: One Resource – Shared Effort – Common Future

Portland Oregon, April 30 – May 4, 2012



Webinars (Web Seminars)

- ▶ Oct: "The Chicago Area Waterway System, Asian Carp, and the Great Lakes" by Jim Duncker, USGS-Illinois Water Science Center.
- ▶ Nov: "A multi-disciplinary list of data elements for environmental monitoring: can we all speak the same language?" by Dr. Revital Katznelson, Berkeley, CA.
- ▶ Dec: "Collaborative Monitoring in the Great Lakes: Sharing Monitoring Activities Around the Lake Michigan Basin" by John Hummer, Great Lakes Commission.
- ▶ June: "Better Access to Water Quality Statistical and Assessment Methods: Developing a New Component of the National Environmental Methods Index (NEMI)" by Dr. Doug McLaughlin, National Council for Air & Stream Improvement.
- ▶ July: "Social Water: A Tool for Harnessing the Power of Crowdsourcing to Involve Citizen Scientists in Hydrologic Data Acquisition" by Mike Fienen, USGS Wisconsin Water Science Center.
- ▶ More to come: Water Quality Portal, Rapid methods for recreational criteria as related to the new EPA criteria, and others

"National Water Monitoring News"

An Online Newsletter for the Water Monitoring Community
Produced 4rd (Spring) & 5th (Fall) Editions

NATIONAL WATER QUALITY MONITORING COUNCIL
Working Together for Clean Water
NWQMC

National Council Highlights Collaboration through Partnerships Council Workgroup Updates National Monitoring Network

National Water Monitoring News

Highlights

- 2012 Conference
- Webinars
- Member News
- Forest Service's Inventory Monitoring & Assessments
- National Wetland Condition Assessment
- National Lakes Assessment
- Urban Water Federal Partnership
- World Water Monitoring Day
- Bivalve Monitoring in Great Lakes
- Spotlight on State Councils
- Volunteer Monitoring
- Chesapeake Bay Monitoring Storm Effects
- New Tools
- National Reference Site Network

A satellite photo taken as Hurricane Irene makes landfall on the east coast of the U.S. in late August 2011, shows drenched heavy rains on the eastern shore of the Chesapeake Bay and provides the larger Bay region with high winds. Just days later, Tropical Depression Lee dropped record amounts of rain on the western shore of the Bay. The long history of water quality monitoring by the Chesapeake Bay Program Partnership provides an excellent foundation to evaluate the effects of these storms. (Photo courtesy of NADAP/NOAA OIGES Project)

The National Water Quality Monitoring Council provides a voice for monitoring practitioners across the Nation and fosters increased understanding and stewardship of our water resources.

The National Water Quality Monitoring Council
Editor: Cathy Tate
(303) 236-6927 (phone) • email: cmate@usgs.gov
<http://acwi.gov/monitoring/> Fall 2011

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National Water Monitoring News

Highlights

- 2012 Conference
- Water Quality Portal
- Statistical NEMI
- Volunteer Monitoring Web page
- Forest Service's Inventory, Monitoring, & Assessments
- National Aquatic Surveys
- Spotlight on States
- Volunteer Monitoring News
- Tribal Water Quality Monitoring
- Monitoring Around the U.S.
 - California's San Gabriel Watershed
 - North Carolina's Coastal Waters
 - Lake Michigan near Chicago
- Tools and Technology
- National Monitoring Network

The San Gabriel River Watershed supports a population of more than 2.3 million people. Protection and management ensuring sustainability of this resource requires an understanding of the watershed's overall health. (Photo courtesy of Council for Watershed Health)

National Wetland Condition Assessment field crew identifying wetland vegetation as a part of the National Aquatic Resource Surveys. (Photo by Joanna Lemly)

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Editorial Board

Cathy Tate, John Hummer, Alice Mayo,
Dan Sullivan, and Wendy Norton
<http://acwi.gov/monitoring/newsletter/index.html>





*Building, Empowering & Sustaining State,
Regional and Tribal Water Monitoring Councils
and Water Monitoring Partnerships and
Alliances*

- ▶ **Workshop organized by:**
 - Barb Horn, Colorado Parks and Wildlife
 - Cathy Tate, U.S. Geological Survey
 - John Hummer, Great Lakes Commission
 - Leslie McGeorge and Alena Baldwin–Brown, New Jersey Department of Environmental Protection

Water Monitoring Councils Inventory

▶ Purpose:

- To characterize key structural and functional aspects of existing regional, state and/or tribal council/networks.
- To assist forward progress of newly forming council/networks or the evolution of existing groups.



New Volunteer Monitoring Webpage

Connecting volunteer monitoring groups to existing and new resources as well as to each other and other monitoring efforts.

NATIONAL WATER QUALITY MONITORING COUNCIL

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Advisory Committee on Water Information
Workgroups
Collaboration and Outreach
Methods and Data Comparability Board
National Monitoring Network
Water Information Strategies
Products
Framework
National Monitoring Conference

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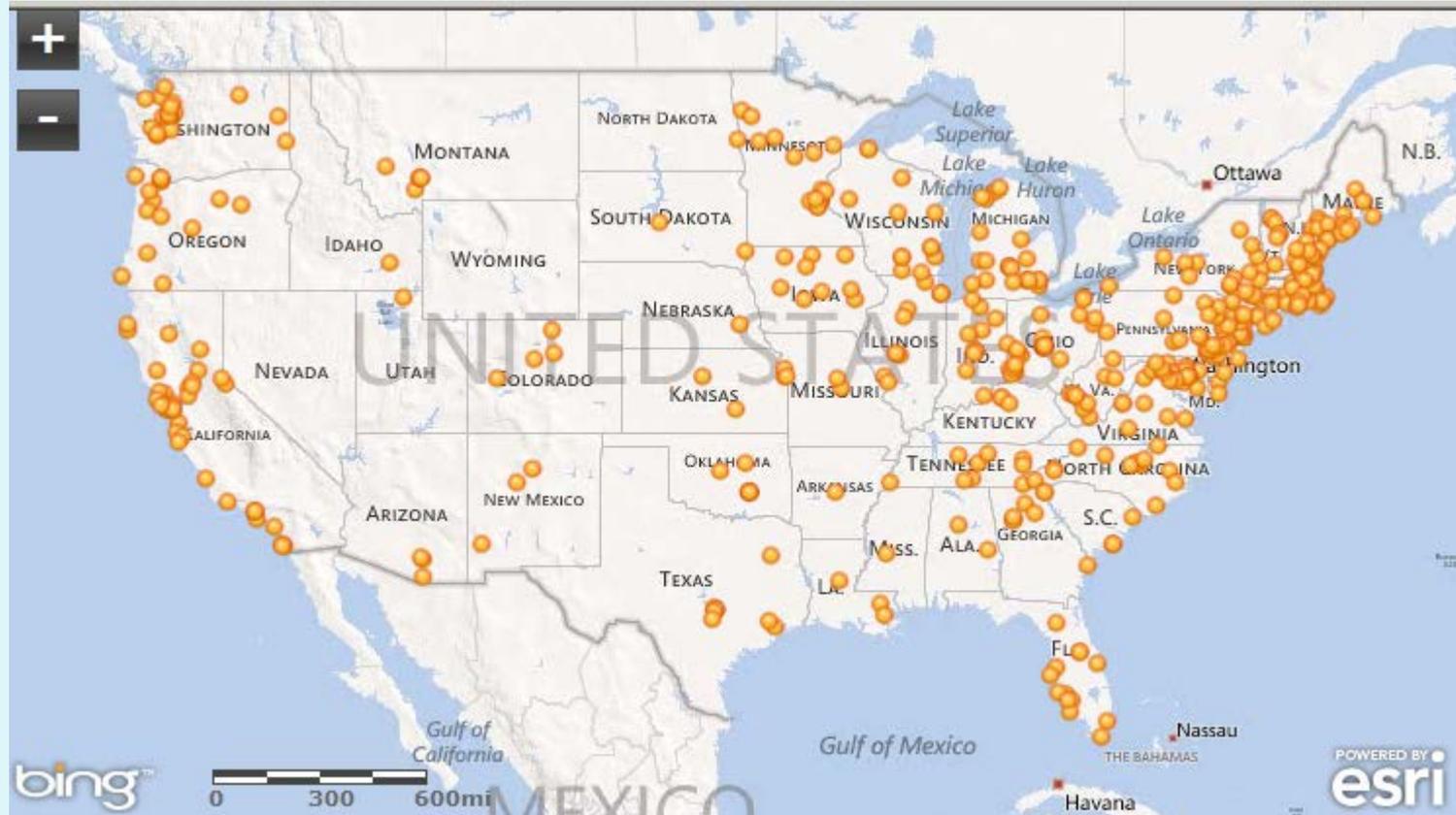
Volunteer Monitoring

Across the country, trained volunteers are monitoring the condition of their local streams, lakes, estuaries and wetlands. EPA encourages all citizens to learn about their water resources and supports volunteer monitoring because of its many benefits. Volunteer water monitors build community awareness of pollution problems, help identify and restore problem sites, become advocates for their watersheds and increase the amount of needed water quality information available on our waters.

Volunteer Water Quality Monitoring of lakes, reservoirs, rivers, streams, estuaries, bays, groundwater, wetlands and other water body types is an active movement and essential aspect in protecting and restoring America's water bodies. Hundreds of programs exist nationwide, all unique, creating a community through our collective efforts. Volunteer Monitoring (VM) is not free, however it can be made more cost effective to obtain data and information through a strategy involving collaboration among interested parties, including academia, federal, state, local and tribal governments, private industry, citizens, and others.

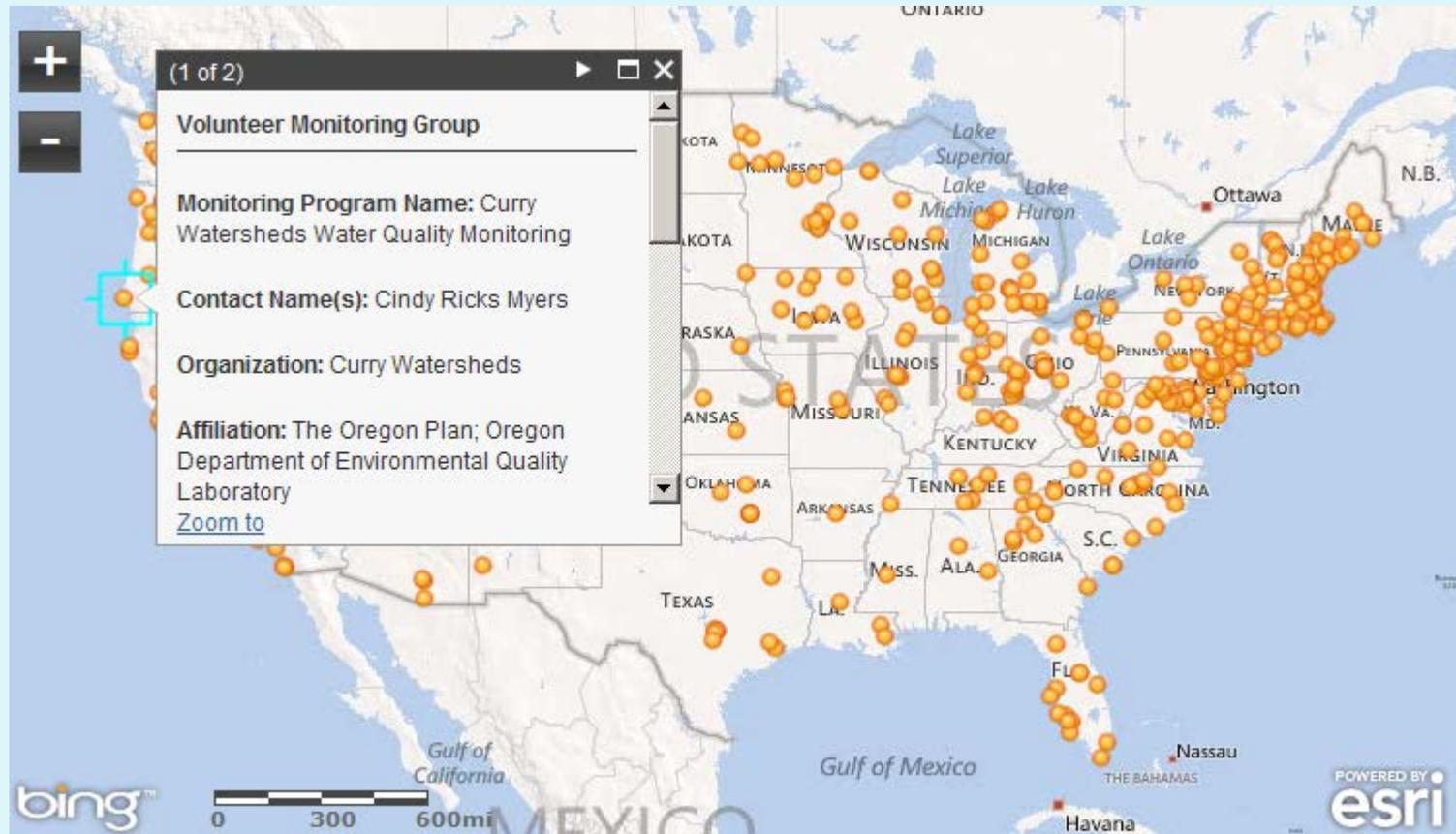
Volunteer Water-Quality Monitoring Program Directory

This interactive map depicts the location of the known volunteer monitoring groups around the nation.



Volunteer Water-Quality Monitoring Program Directory

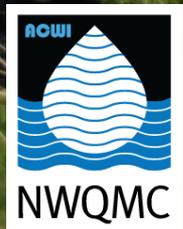
This interactive map provides basic information for specific volunteer monitoring groups.



Establishing a Collaborative National Network of Reference Watersheds for Freshwater Streams

National Water Quality Monitoring Council

Executive Committee –
Rick Haeuber, USEPA
Neil Kamman, VT
Doug McLaughlin, NCASI
Bill Wilber, USGS
Mark Nilles (ex-officio)



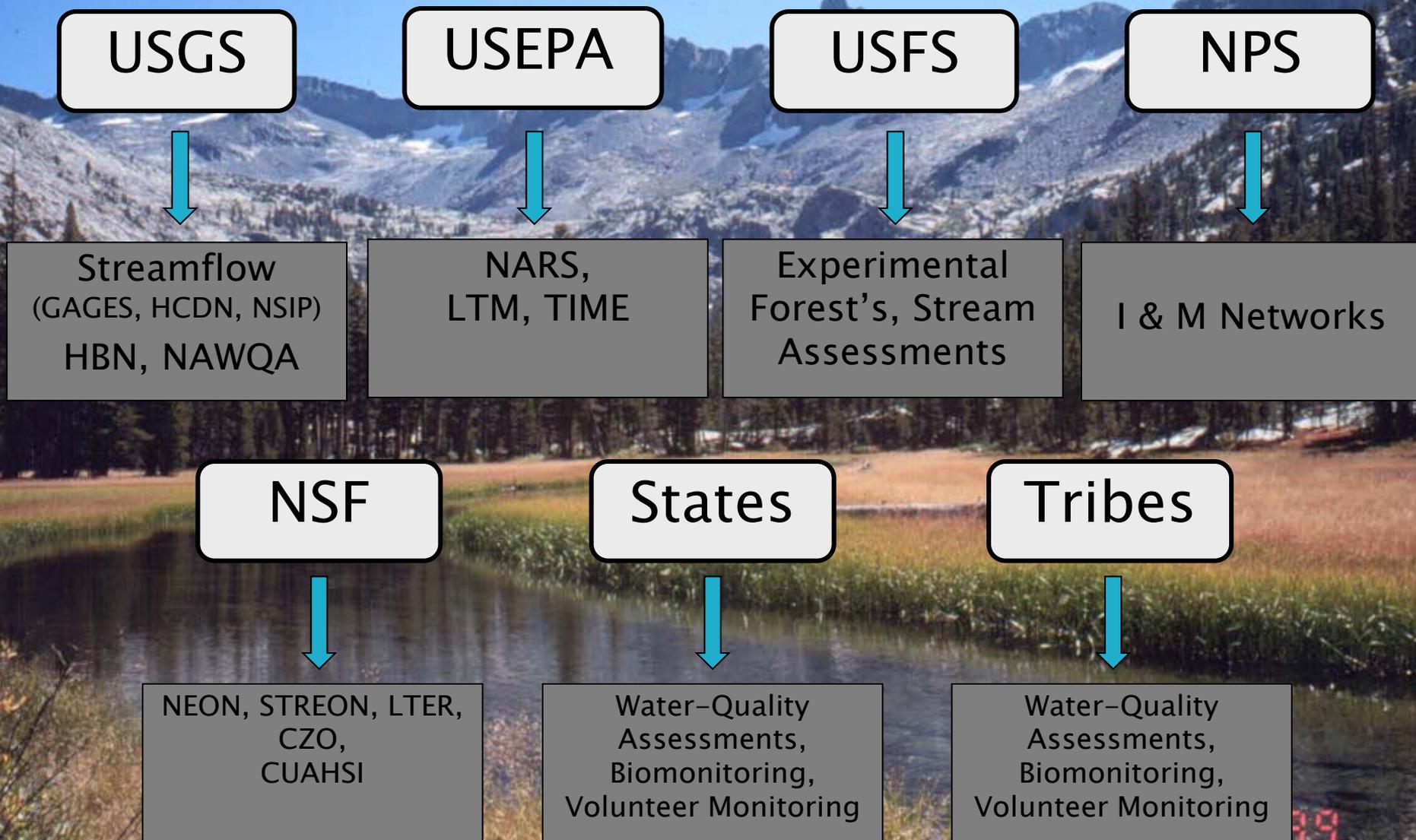
Big Thompson River
Rocky Mountain National Park

National Network of Reference Watersheds for Freshwater Streams

- National network of pristine and minimally disturbed watersheds
- Reliable long-term data and information from watersheds that are minimally disturbed by human activities
- Collaborative, multipurpose design will emphasize chemical, physical, and biological aspects of water quality and integrate, to the extent possible, with existing networks
- Membership in the network would be voluntary and open to interested individuals and institutions

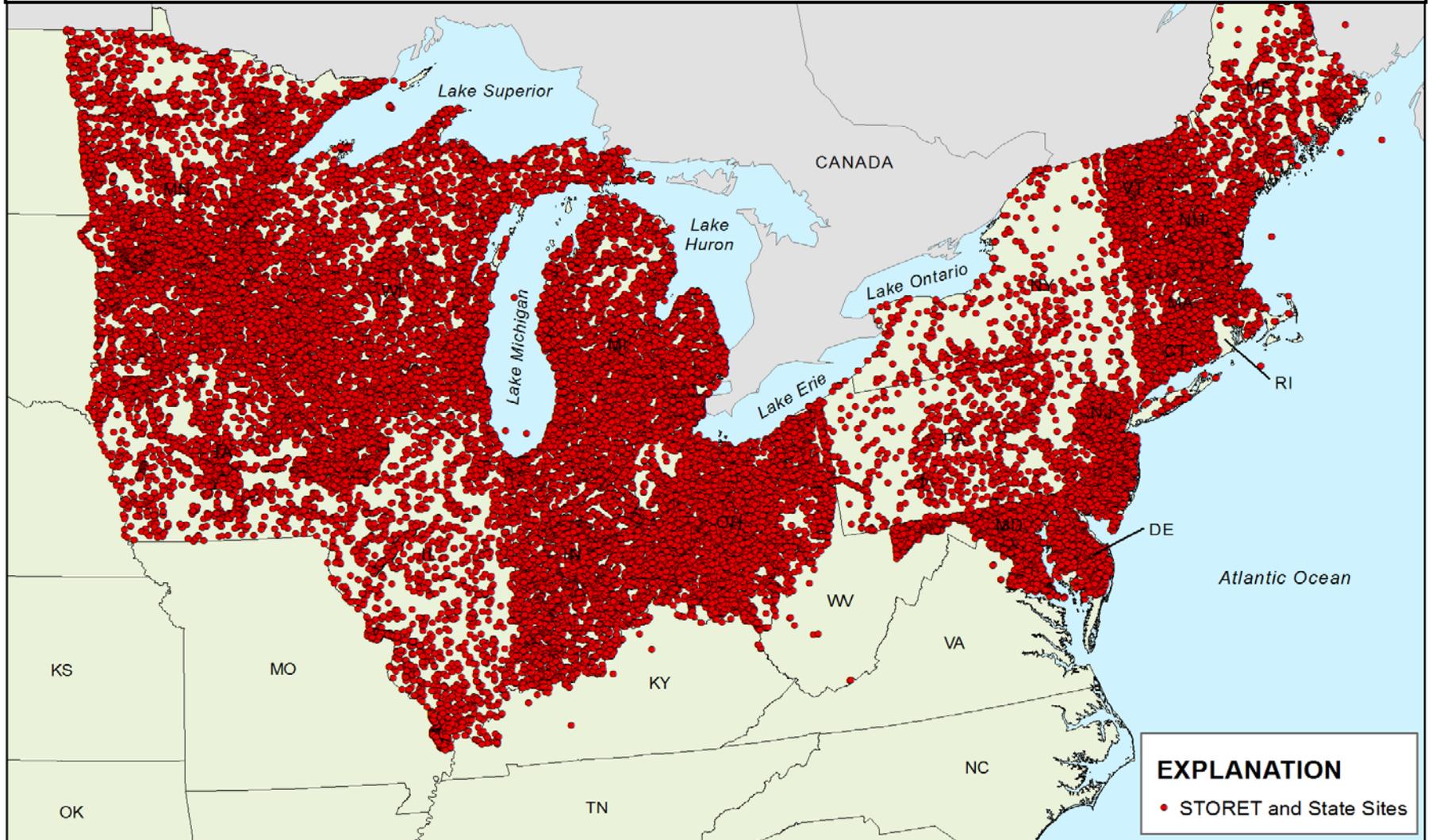


Example of Monitoring Networks



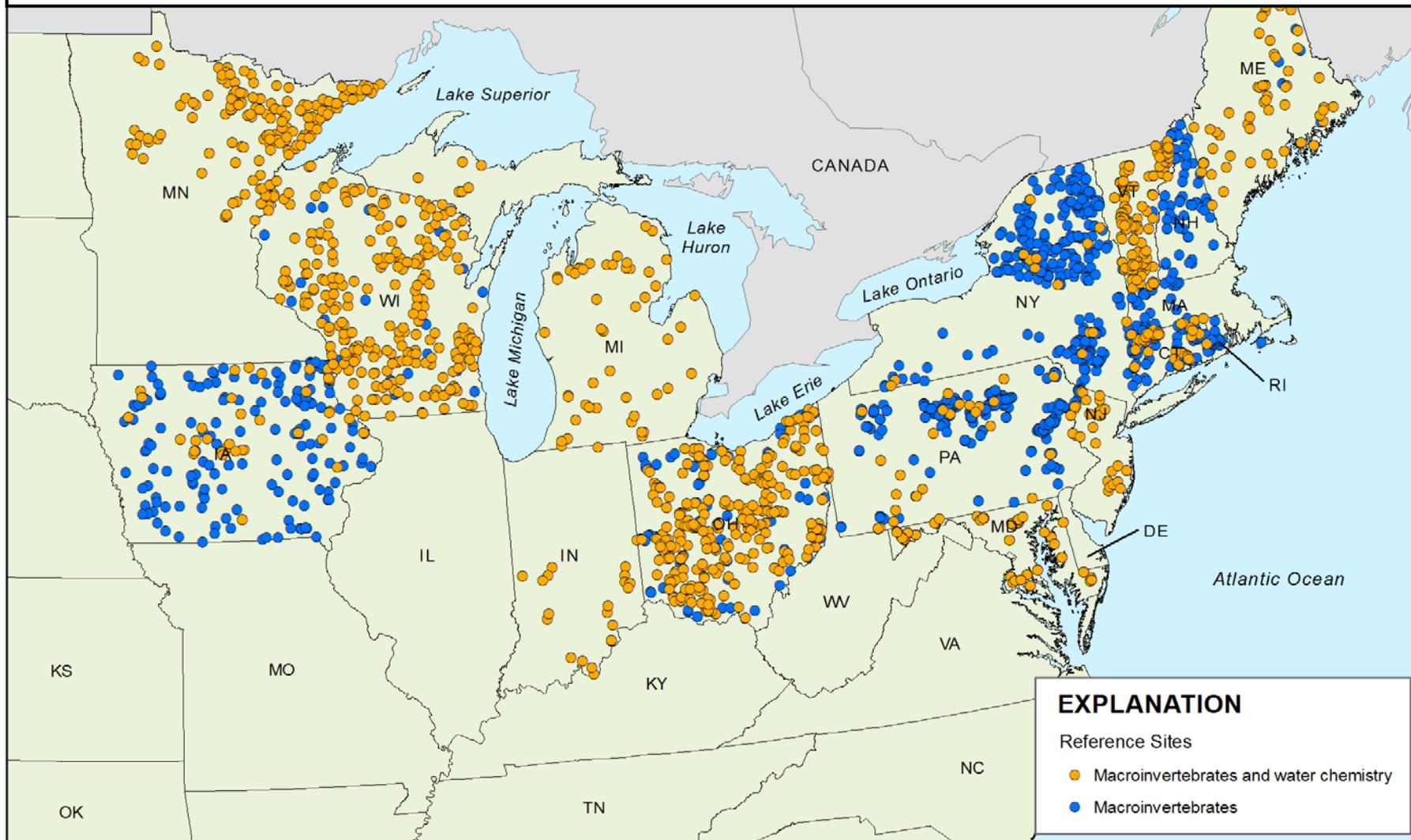
Historic and Current Water-Quality sites in the Northeast-Midwest Region for Streams / Rivers

Data Source: Modern STORET and States

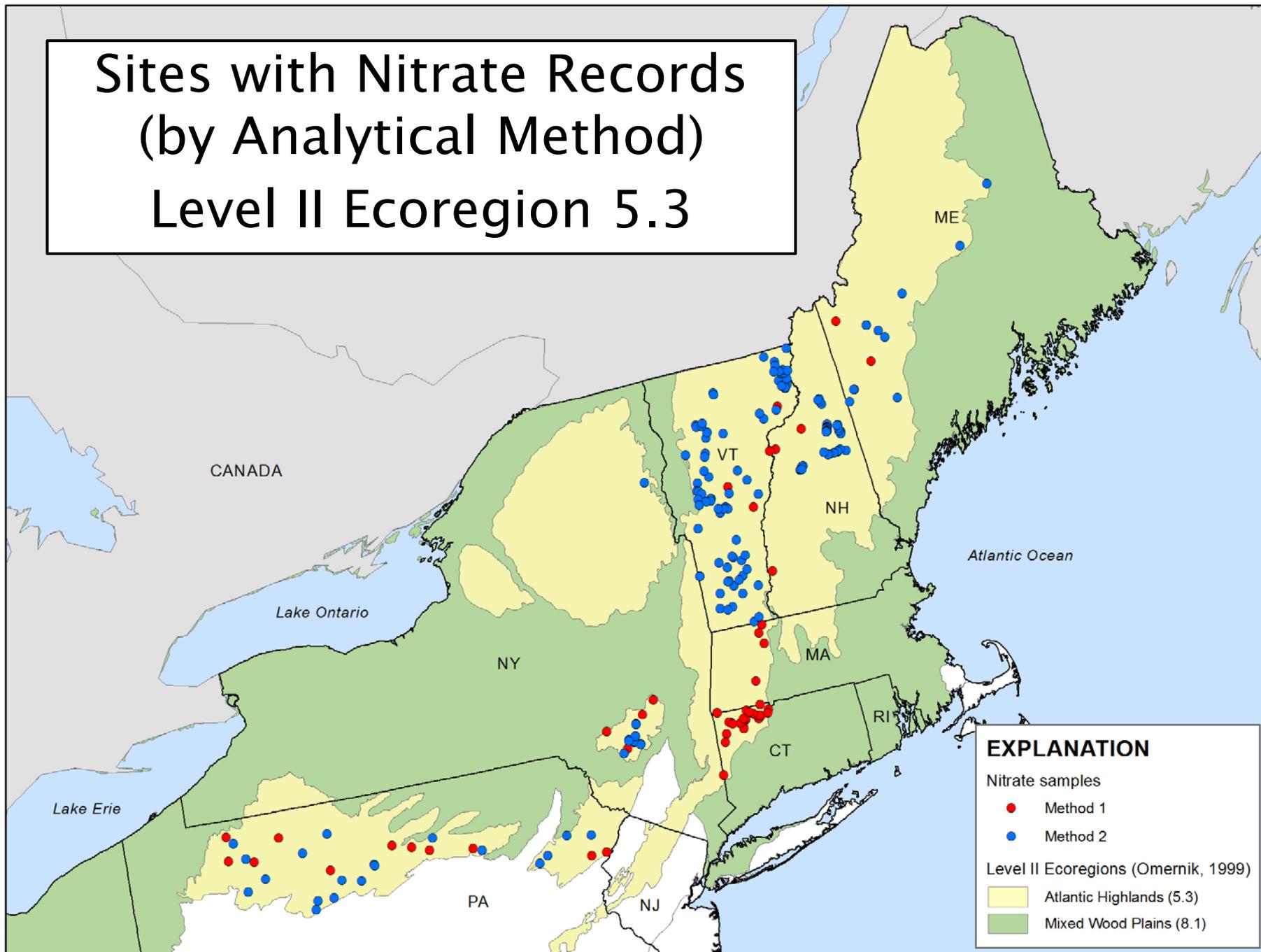


Historic and Current Reference Sites in the Northeast-Midwest Region for Streams / Rivers

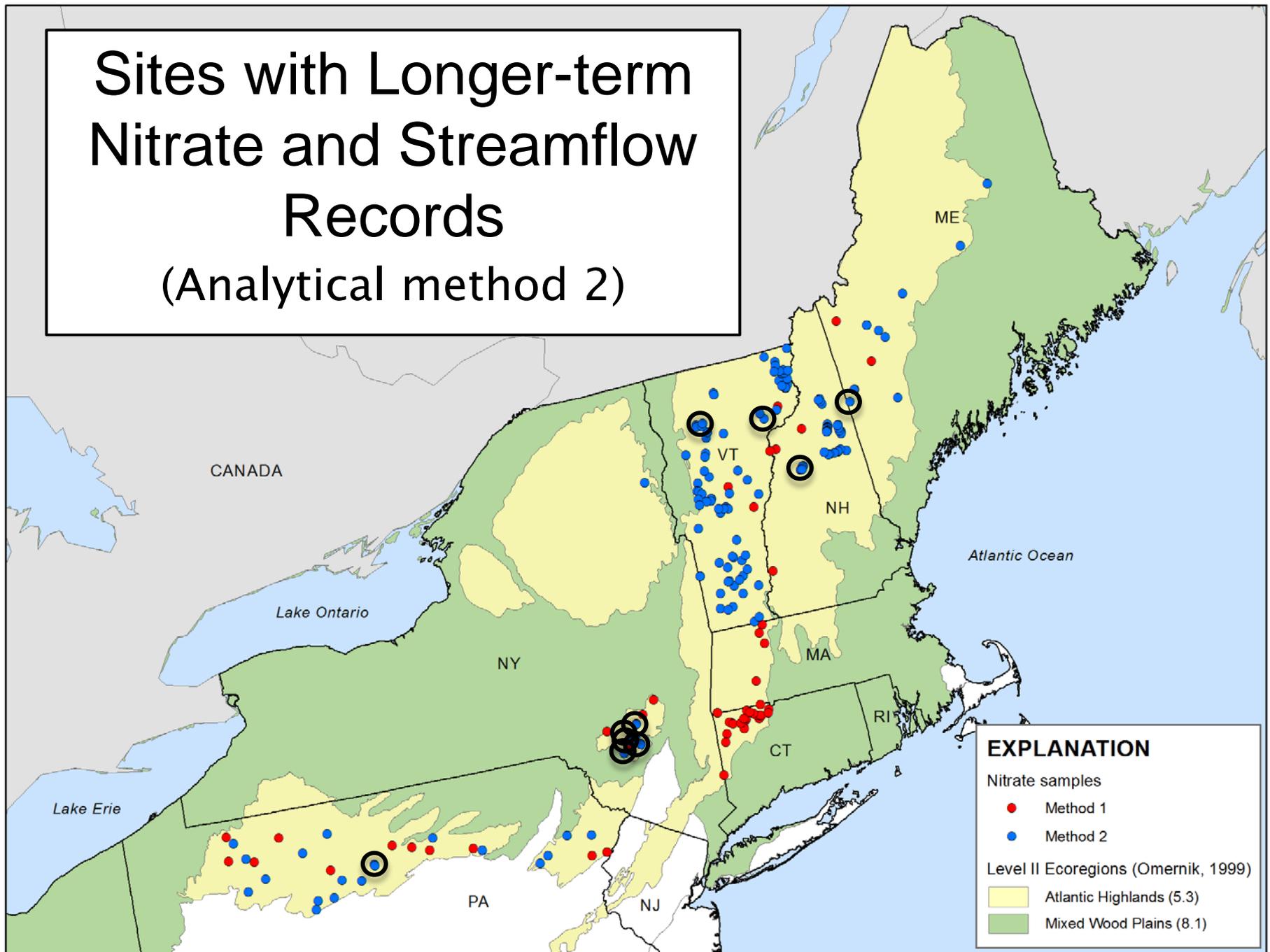
Data Source: State Agencies



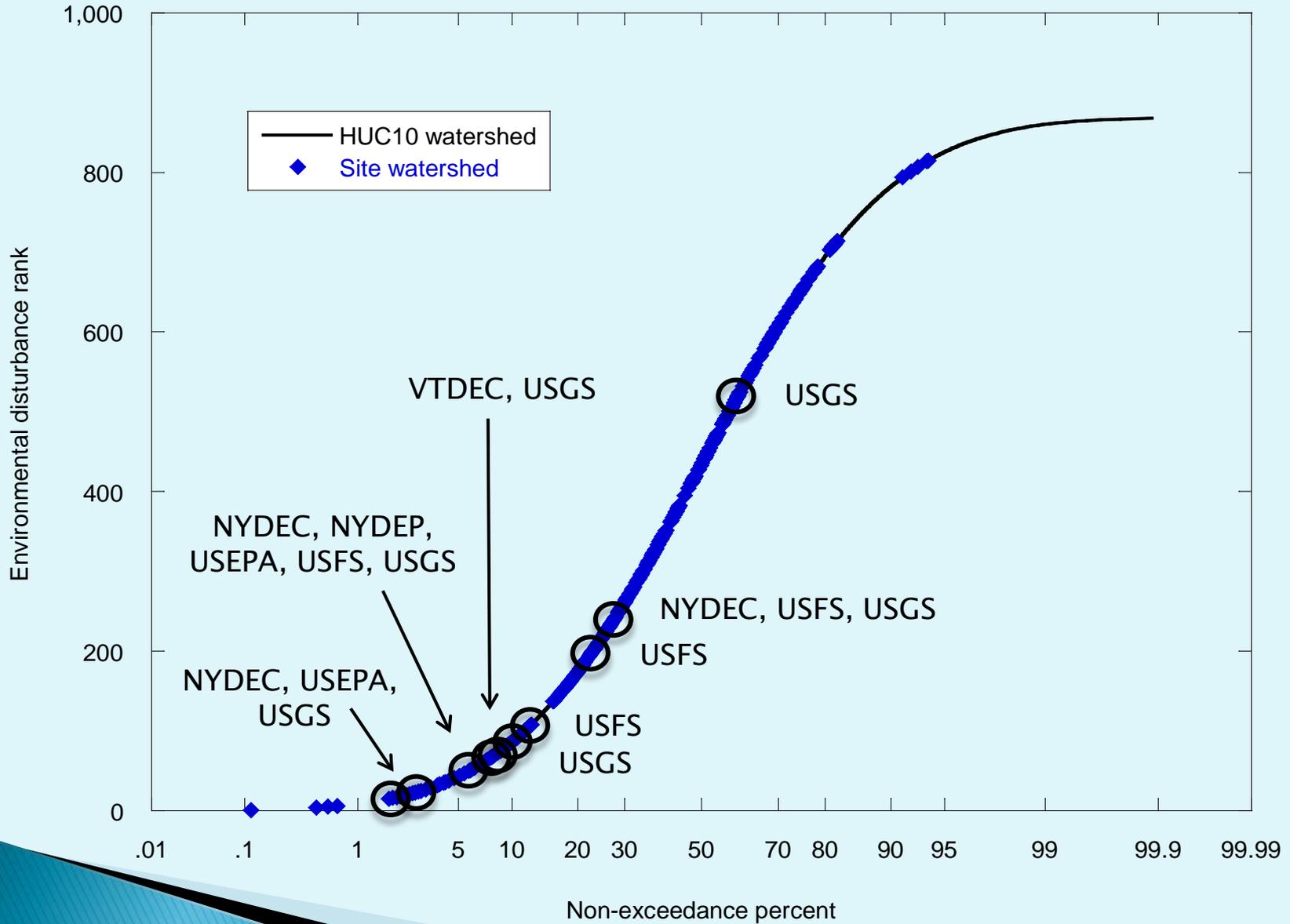
Sites with Nitrate Records (by Analytical Method) Level II Ecoregion 5.3



Sites with Longer-term Nitrate and Streamflow Records (Analytical method 2)



Eco-region 5.3



Next Steps for Reference Workgroup

- Continue developing collaborative support
- Continue developing the inventory and catalog
- Acknowledge and address the challenges
- Build off new Water Quality Data portal
- Retain flexibility–strive for inclusion–local knowledge



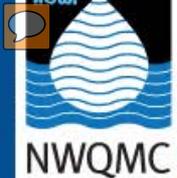
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Water Quality Portal

www.waterqualitydata.us





Search over 150 million water-quality records from States, Tribes, USEPA, and USGS

Water Quality Portal

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC).

DOWNLOAD DATA

Download water-quality data in Excel, CSV, TSV, and KML formats.

HOW TO USE THE WQP

- User Guide
- Web Services Guide
- FAQs
- Upload Data

NATIONAL RESULTS COVERAGE

Water-quality data in your state.

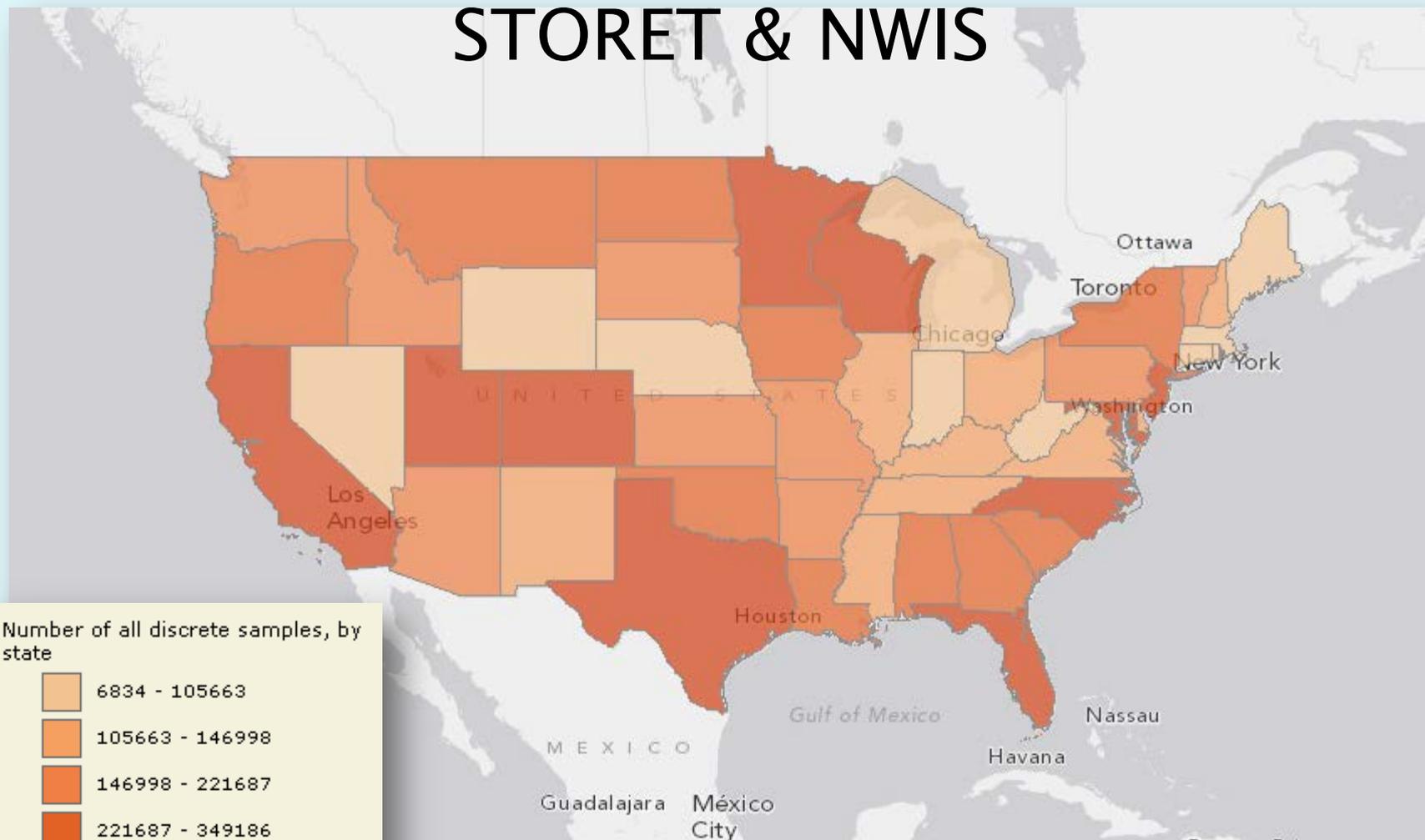
ABOUT THE WQP

- What is the WQP?
- Contributing organizations
- Contact us



Water Quality Portal National Results Coverage

STORET & NWIS



WQP

Provisional - site in review

Water Quality Portal National Results Coverage

[WQP Home](#)

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[How to use the WQP](#)

[User Guide](#)

[Web Services Guide](#)

[FAQs](#)

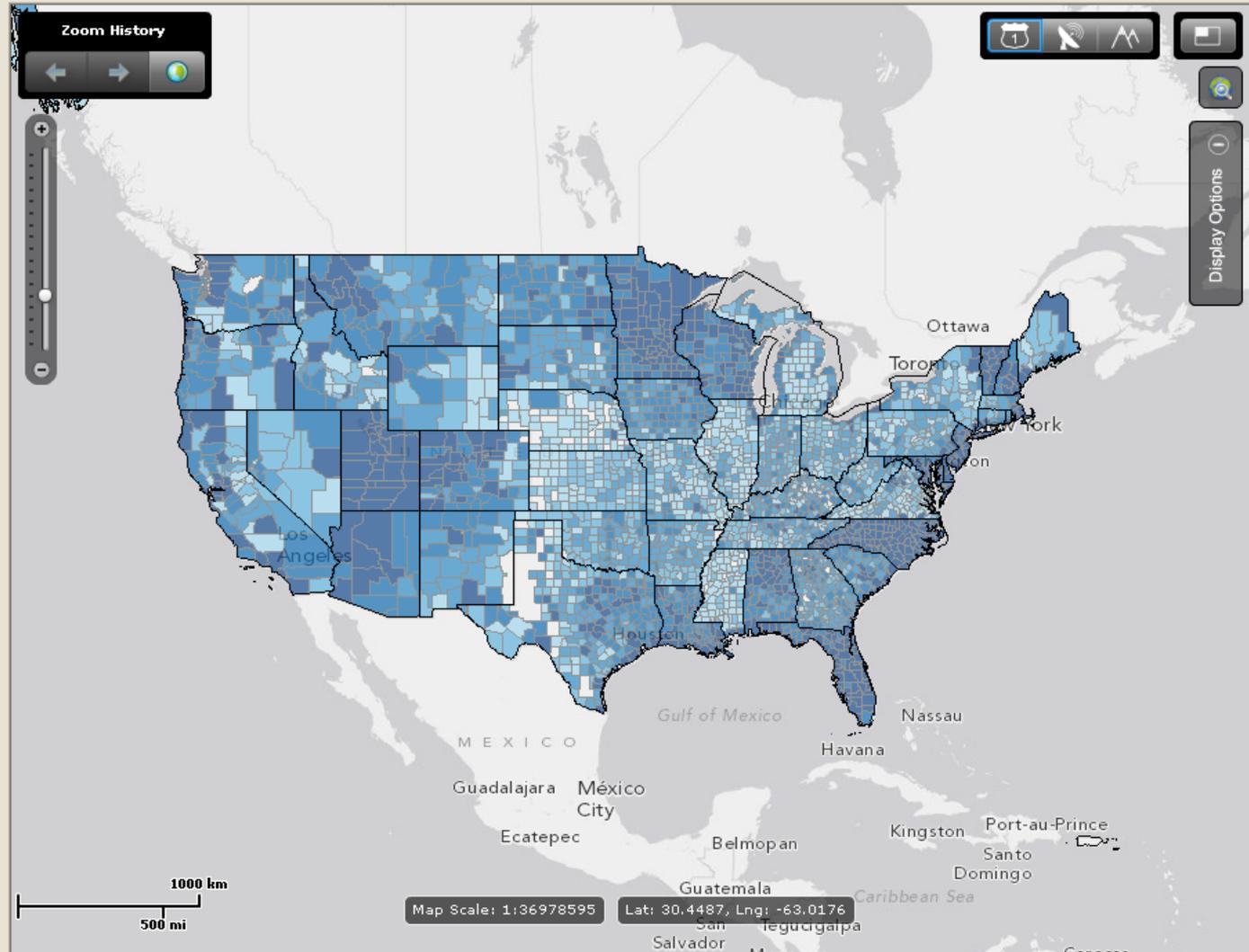
National Results Coverage

About the WQP

[What is the WQP?](#)

[Contributing organizations](#)

[Comments](#)



Water Quality Portal

Query data

LOCATION

Country: [select](#)
State: [select](#)
County: [select](#)

Point location: ?

Within: miles from:
Lat: Long:
[my location](#)

Bounding box: ?

North:
West: East:
South:

SITE PARAMETERS

Site Type: [select](#)
Organization ID: [select](#)
Site ID: ?
HUC: ?

SAMPLING PARAMETERS

Sample Media: [select](#)
Characteristic Group: [select](#)
Characteristics: [select](#)
Date range: from to (mm-dd-yyyy)

DOWNLOAD

Select database: All databases USGS NWIS only EPA STORET only
Select data: Sites only Sample results only

Download tabular data:

File format:

- Comma-separated
 Tab-separated
 MS Excel (Excel 2003 and earlier versions have a limit of 65,536 rows. If your download exceeds this limit, only the first 65,536 rows will open.)

Download map data:

File format:

- KML (Keyhole Markup Language - this is available for Sites only)

[Show data on Google Maps](#) Google Maps limits the number of sites shown to a maximum of 1000. It will also time out if the query is slow.

DOWNLOAD

Show RESTlike queries ?

Download Into Single Spreadsheet and Display Merged Datasets

