

# Summary of September 2012 NWQMC Teleconference

1. Water Quality Portal
2. NEMI-SAMS
3. National Reference Network
4. Water Quality Indices Questionnaire

**<http://acwi.gov/monitoring/>**

Leslie McGeorge, NJDEP  
EPA Region 2 State  
NWQMC Representative



Working Together for Clean Water

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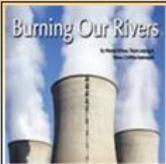
**Understand, Restore, and Protect our Waters:** The National Water Quality Monitoring Council (Council) provides a forum to improve the Nation's water quality through partnerships that foster increased understanding and stewardship of our water resources.

COMMUNICATE >>> COLLABORATE >>> COORDINATE



### "SMART" Monitoring: Strategic Monitoring and Assessment for River Basin Teams

Warren Kimball, Watershed Program Manager, Massachusetts Department of Environmental Protection, will discuss [a proposal to coordinate federal, state and local monitoring programs](#) in Massachusetts. Join us online on Oct. 10th at 11 a.m. ET.



### Webinar: "Burning Our Rivers: The Water Footprint of Electricity"

A new report by River Network provides an important accounting of how much water is used to generate electricity on an average per-kilowatt basis. The Burning Our Rivers report summarizes current research on the water use and consumption of all power production in the U.S., including both non-renewable and renewable energy sources. [View the presentation](#) || [Read the report](#)



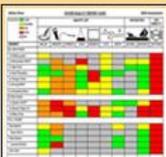
### Comparability of Biological Assessments

Biological assessment comparability is the subject of 4 articles that are written based on the concept that quality control provides the single most important building block of comparability analysis. [Read more...](#)



### Presentations now online!

Presentations from the 8th National Monitoring Conference, held in Portland, OR, in April, 2012, are [now available online](#). This national forum provides an opportunity for water stakeholders to exchange information and technology related to water monitoring, assessment, research, protection, restoration, and management. Check out [past conferences here](#).



### Web Seminar: "Water Quality Report Cards - Assessments made accessible, the Massachusetts experience"

Warren Kimball, Watershed Program Manager, Massachusetts Department of Environmental Protection, Worcester, MA, talked about this exciting program his state is involved with. [View the presentation here](#).





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## Power Point Presentations of the National Water Quality Monitoring Council

### Presentations from the September 13, 2012 Teleconference Meeting

#### Draft Meeting Minutes

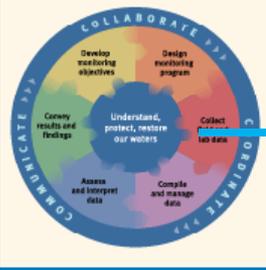
1. [Report on 2012 National Monitoring Conference](#), Philip Forsberg, NALMS
2. [Water Quality Portal Update](#), Nate Booth, USGS
3. [National Network of Reference Watersheds](#), Jeff Deacon, USGS
4. [Volunteer Monitoring Committee Update](#), Barb Horn, Colorado Parks and Wildlife
5. [Methods and Data Comparability Board/Sensors](#), Dan Sullivan, USGS
6. [Water Information Strategies Workgroup](#), Mary Skopec, Iowa Department of Natural Resources
7. [Water Quality Statistical and Assessment - online "NEMI-SAMS" update](#), Doug McLaughlin, National Council for Air and Stream Improvement, Inc.
8. [Collaboration & Outreach Workgroup](#), Cathy Tate, USGS and Barb Horn
9. [2014 National Monitoring Conference](#), Cathy Tate, USGS

#### All NWQMC Presentations

[Download PowerPoint Viewer](#)

U.S. Department of the Interior, U.S. Geological Survey  
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[http://acwi.gov/monitoring/ppt/telecon\\_091312/index.html](http://acwi.gov/monitoring/ppt/telecon_091312/index.html)  
 Wednesday, 19-Sep-2012 12:38:08 EDT





[presentation here...](#)



## Water Quality Portal

Chemical, physical, and biological data from both NWIS (USGS) and STORET (EPA) are readily accessible online from the [Water Quality Portal](#)



## "NEMI-SAMS" -- Statistical and Assessments Methods Search: Beta version

An introduction to a new tool produced by the Water Quality Statistics and Assessments workgroup - currently soliciting comments and feedback. [View an introductory Powerpoint here...](#) - - - See the [NEMI-SAMS website here...](#)



## Online Newsletter: *The National Water Monitoring News*, Spring 2012 Issue

Apr. 25, 2012: The [Spring 2012 edition](#) is here now! The Council [newsletter](#) provides a voice for monitoring practitioners across the Nation and fosters increased understanding and stewardship of our water resources. Read it [here...](#)



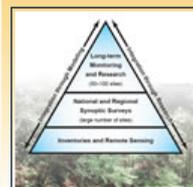
## Working Together for Clean Water: 2011-12 Council Highlights

Mar. 30, 2012: Council efforts to improve communication, collaboration, and coordination are highlighted in this [4-page summary](#).



## Volunteer Monitoring News, Issue 1

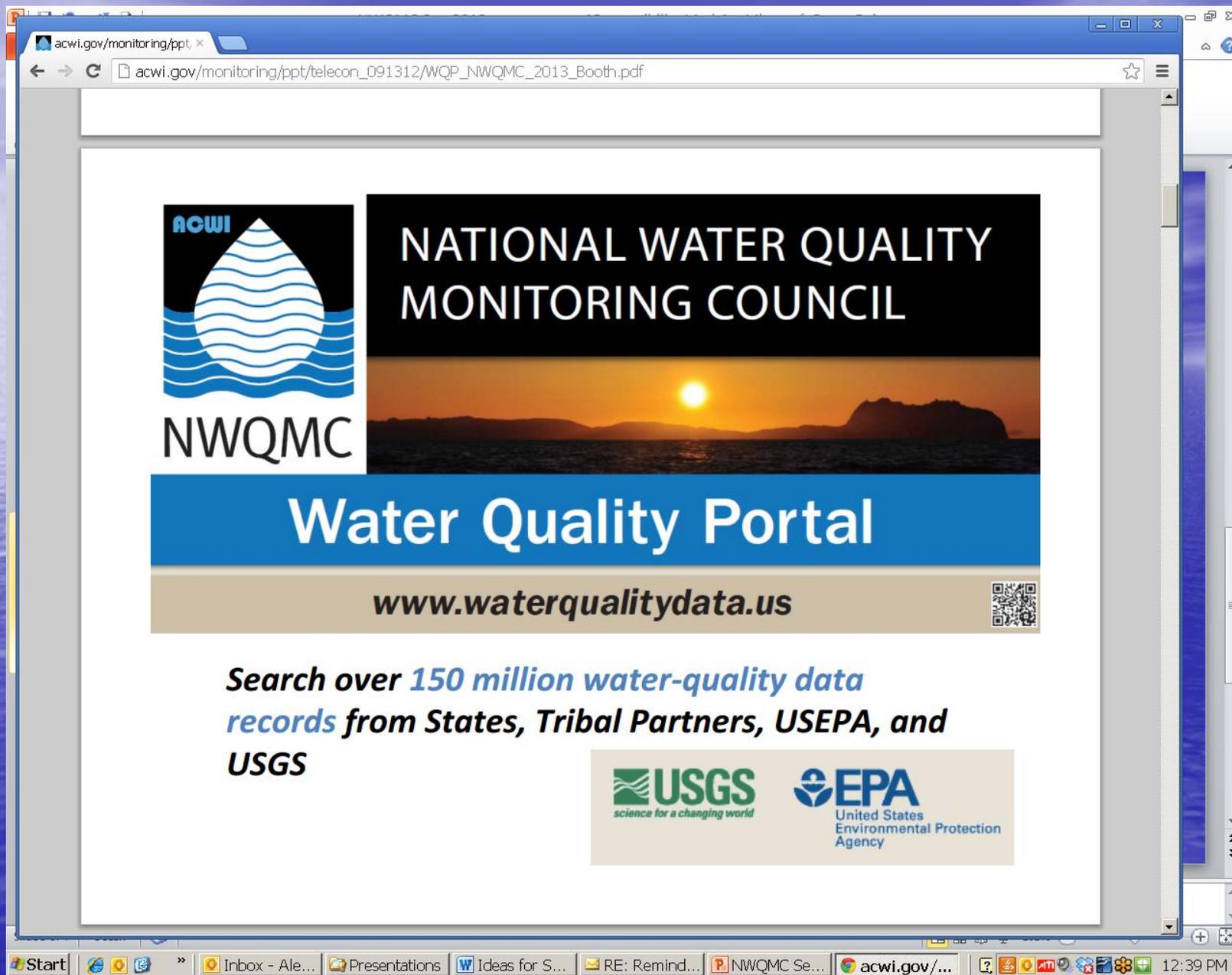
Mar. 1, 2012: There is a new electronic newsletter written for – and by – the volunteer water-quality monitoring community. This new national newsletter is about your program and your efforts. Several topics will be discussed, such as monitoring successes, new lab or field methods, new partnerships, improved approaches to sustaining your program, or tips on improving data quality assurance. Click [here](#) for more information or [here](#) to start reading!



## National Network of Reference Watersheds and Monitoring Sites for U.S. Freshwater Streams

The Council has proposed the development of a collaborative and multipurpose national network of reference watersheds and monitoring sites that would provide quality-assured data and information for use in understanding the effects of land use change, water use, atmospheric deposition, and climate change. Read [more here...](#)

# Water Quality Portal (Nate Booth, USGS)



The screenshot shows a web browser window with the address bar containing the URL `acwi.gov/monitoring/ppt/telecon_091312/WQP_NWQMC_2013_Booth.pdf`. The main content area displays the following information:

- ACWI NWQMC Logo:** A logo featuring a stylized water drop with horizontal lines, labeled "ACWI" and "NWQMC".
- NATIONAL WATER QUALITY MONITORING COUNCIL:** Text in white on a black background.
- Water Quality Portal:** Text in white on a blue background.
- www.waterqualitydata.us:** Text in black on a tan background.
- QR Code:** A small QR code located to the right of the URL.
- Search over 150 million water-quality data records from States, Tribal Partners, USEPA, and USGS:** Text in blue and black.
- USGS and EPA Logos:** Logos for the United States Geological Survey (USGS) and the United States Environmental Protection Agency (EPA).

The Windows taskbar at the bottom shows the Start button, several open applications (Inbox, Presentations, Ideas for S..., RE: Remind..., NWQMC Se...), and the current browser window (acwi.gov/...). The system clock indicates the time is 12:39 PM.

Water Quality Portal Home  
http://www.waterqualitydata.us/ Google



**NATIONAL WATER QUALITY MONITORING COUNCIL**

*Working Together for Clean Water*

# WQP

## 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

### NATIONAL RESULTS COVERAGE

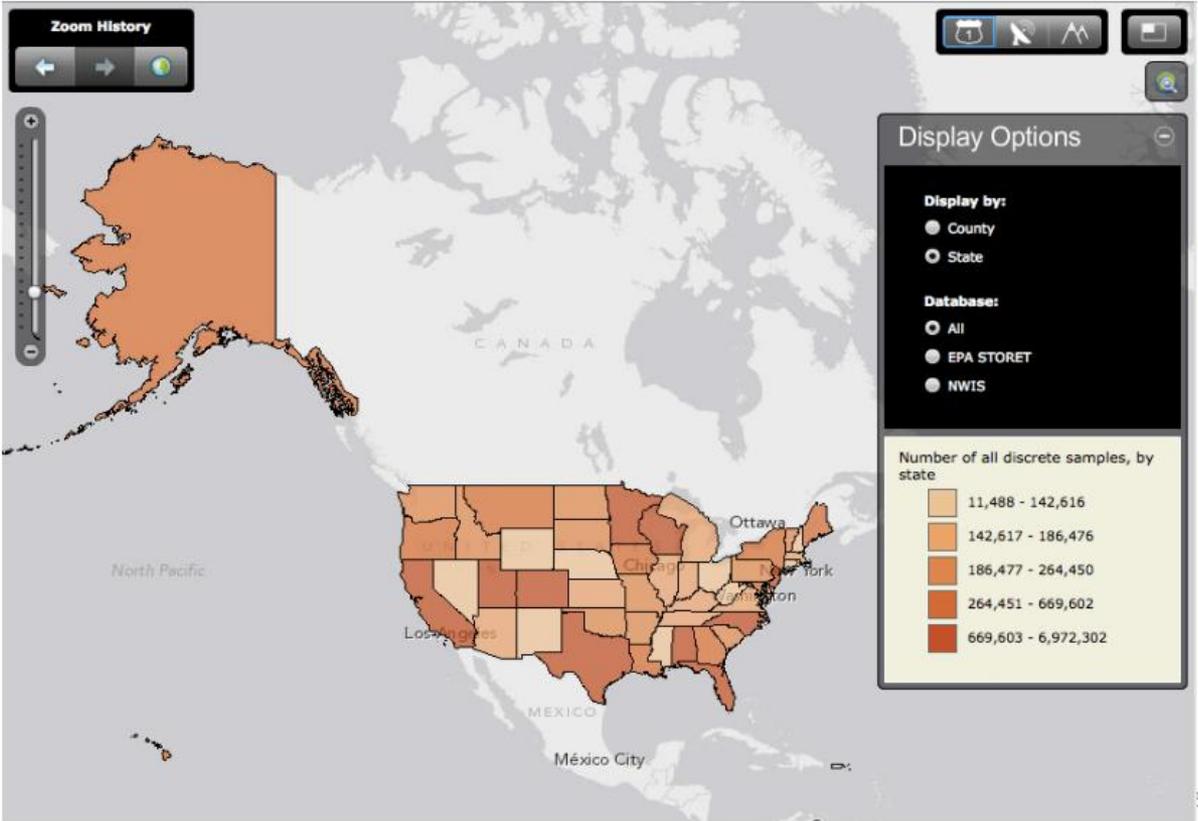
Water-quality data in your state.

### ABOUT THE WQP

- What is the WQP?
- Contributing organizations
- Comments



# Water Quality Portal National Results Coverage STORET & NWIS



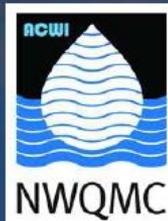
## Status – Portal Website

- Usage: 4000 visits since Conference
- ~50-200+ visitors / day
- ~75 “contacts”

# FY 13 Draft Plans for Portal Include:

- **Operations and Maintenance**
  - User support, database & web service operations, software updates/bug fixes, collecting usage statistics, coordinating with source systems
- **Map Display**
  - Display monitoring locations based on portal search criteria, improved site & sampling metadata
- **Data QA/QC Analysis and Checks**
  - Analyze various data quality issues
- **Additional Data Providers**
  - Analyze steps for adding providers, encourage additional WQX flows, USDA
- **Integration with NEMI**
  - Pilot in FY13, search for wq data by analysis performance metrics & methods, download performance & methods metadata with wq data
- **Communications**
  - Develop ongoing communication strategy

# NEMI-SAMS Update (Doug McLaughlin, NCASI)



NATIONAL WATER QUALITY MONITORING COUNCIL

*Working Together for Clean Water*

## Better Access to Water Quality Statistical and Assessment Methods: Developing a New Component of the National Environmental Methods Index (NEMI)

Douglas McLaughlin, National Council for Air & Stream Improvement

Daniel Sullivan, US Geological Survey

Leslie McGeorge, NJ Dept. of Environmental Protection

Presentation to ACWI, July 11, 2012

# Existing NEMI

Searchable database of the Methods and Data Comparability Board of the NWQMC

- Currently contains chemical, microbiological, biological, toxicity, and physical methods.

<http://www.nemi.gov>

**NEMI**  
National Environmental Methods Index

Beta Welcome Chemical Microbiological Biological Toxicity Physical Regulatory

Keyword Search  Go

Browse all Methods in NEMI

**Milestones** Go

**MyNEMI**

Go to MyNEMI (Requires Login)

**General Information**

- Links of Interest
- Green Chemistry
- Background
- Disclaimer
- Send us Feedback

**Quick Links**

- ACWM
- NWQMC
- MDCB
- How to Submit a Method

**Search for a method in NEMI:**

Use the links below to search all chemical, microbiological, biological, toxicity, and physical methods in NEMI, or follow the tabs to the right to narrow your search

- Analyte Search
- General Search
- Multi-Analyte Search
- Find a Sample Collection, Preparation or Processing Method
- Browse all Methods in NEMI

**Statistics and Assessments (beta)**

The Council's **Water Quality and Assessments (WQSA)** workgroup announces the beta release of an **online database of statistical methods**. Please take a look at the beta test version and provide feedback.

**NEMO: Methods for Environmental Measurements and Observations (beta)**

NEMO is a portal that links sensor technologies in NOAA's **Alliance for Coastal Technologies (ACT)** database to NEMI. Additional information that links sensor technologies with applications, QA guidance, and more will be added. >> More on NEMO...

NEMI is maintained under the direction of the **Methods and Data Comparability Board**, a partnership of water-quality experts from Federal agencies, States, municipalities, industry, and private organizations. The Methods Board is chartered under the **National Water Quality Monitoring Council**, whose mission since its charter in May 1997 is to coordinate and provide guidance on implementation of a voluntary, integrated, nationwide monitoring strategy.

**Questions?**

FAQs  
Contact Us  
Help for EB Users

**USGS**  
Water Resources Discipline

**EPA**  
EPA Office of Water

**CIDA**

# The Prototype – SAMS Main Page



## NEMI

National Environmental Methods Index

Provisional - Site in review



[Home](#) | [Statistical Methods](#)

## Statistical And Assessment Methods Search

Note: Query results are intended to help users discover and obtain statistical and assessment methods information that MAY be useful. Whether a method is appropriate for a specific use requires careful review of the items that the query returns. Please see the [Water Quality Statistics and Assessment Workgroup white paper](#) for more information about this database tool.

### Select Search Criteria

-

Select criteria from the drop down menus below and press 'Search NEMI' to perform a search.

What are you interested in:	<input type="text" value="Any"/>
Item type:	<input type="text" value="Any"/>
Complexity:	<input type="text" value="Any"/>
Analysis type:	<input type="text" value="Any"/>
Publication source type:	<input type="text" value="Any"/>
Media emphasized:	<input type="text" value="Any"/>
Special topic:	<input type="text" value="Any"/>
<input type="button" value="Search NEMI"/>	



# The Prototype – Results

Total records found: 5

## Criteria summary:

- What you are interested in is Temporal trends
- Analysis type is Data analysis
- Media emphasized is Surface Water
- Special topic is Handling nondetects

	Author	Title	Source Organization	Link	Country
<a href="#">View</a>	Helsel, D.R. and Hirsch, R.M.	Statistical Methods in Water Resources	USGS	<a href="http://pubs.usgs.gov/twri/twri4a3/">http://pubs.usgs.gov/twri/twri4a3/</a>	USA
	Helsel, Dennis R.	Nondetects and Data Analysis: Statistics for Censored Environmental Data	USGS	<a href="http://www.amazon.com/Nondetects-Data-Analysis-Statistics-Environmental/dp/0471671738">http://www.amazon.com/Nondetects-Data-Analysis-Statistics-Environmental/dp/0471671738</a>	USA
<a href="#">View</a>	Helsel, Dennis R.	Statistics for Censored Environmental Data Using Minitab and R	None	<a href="http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470479884.html">http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470479884.html</a>	USA
<a href="#">View</a>	Manly, Bryan F.J.	Statistics for Environmental Science and Management	WEST Inc	<a href="http://www.amazon.com/Statistics-Environmental-Science-Management-Edition/dp/142006147X/">http://www.amazon.com/Statistics-Environmental-Science-Management-Edition/dp/142006147X/</a>	USA
<a href="#">View</a>	McBride, Graham B.	Using Statistical Methods for Water Quality Management	NWA	<a href="http://www.amazon.com/Using-Statistical-Methods-Quality-Management/dp/0471470163/">http://www.amazon.com/Using-Statistical-Methods-Quality-Management/dp/0471470163/</a>	New Zealand

Link to item or more info

To see full record

# Online Entry Form



# NEMI

National Environmental Methods Index

Provisional - Site in review



Home | Statistical Methods

Statistical Methods Search

Search by criteria

Add methods

**Note:** Query [Update methods](#) help users discover and obtain statistical and assessment methods information that MAY be useful. Whether a method is appropriate for a specific use requires careful review of the items that the query returns. Please see the [Water Quality Statistics and Assessment Workgroup white paper](#) for more information about this database tool.

Select Search Criteria



# Things ACWI Member Organizations Can Do

- Try the Prototype
  - To Conduct a Query:
    - Go to [www.nemi.gov](http://www.nemi.gov) and click the link under “Statistics and Assessments (beta)” or click:  
[http://cida.usgs.gov/nemi/search/statistic\\_search/](http://cida.usgs.gov/nemi/search/statistic_search/)
  - To **Add a Method**:
    - Contact Doug, Dan, or Leslie
- Become Involved in Developing/Implementing NEMI-SAMS
  - Contact Doug, Dan, or Leslie



# Objectives and Approach

- Frame of reference for stream assessments
- Collaborative effort across multiple agencies
- Determine current picture of monitoring
- Inventory and catalog of sites and data
- Systematic review of existing sites and data
- Tiered framework – long term and synoptic

# 2012-2013 Workplan Tasks

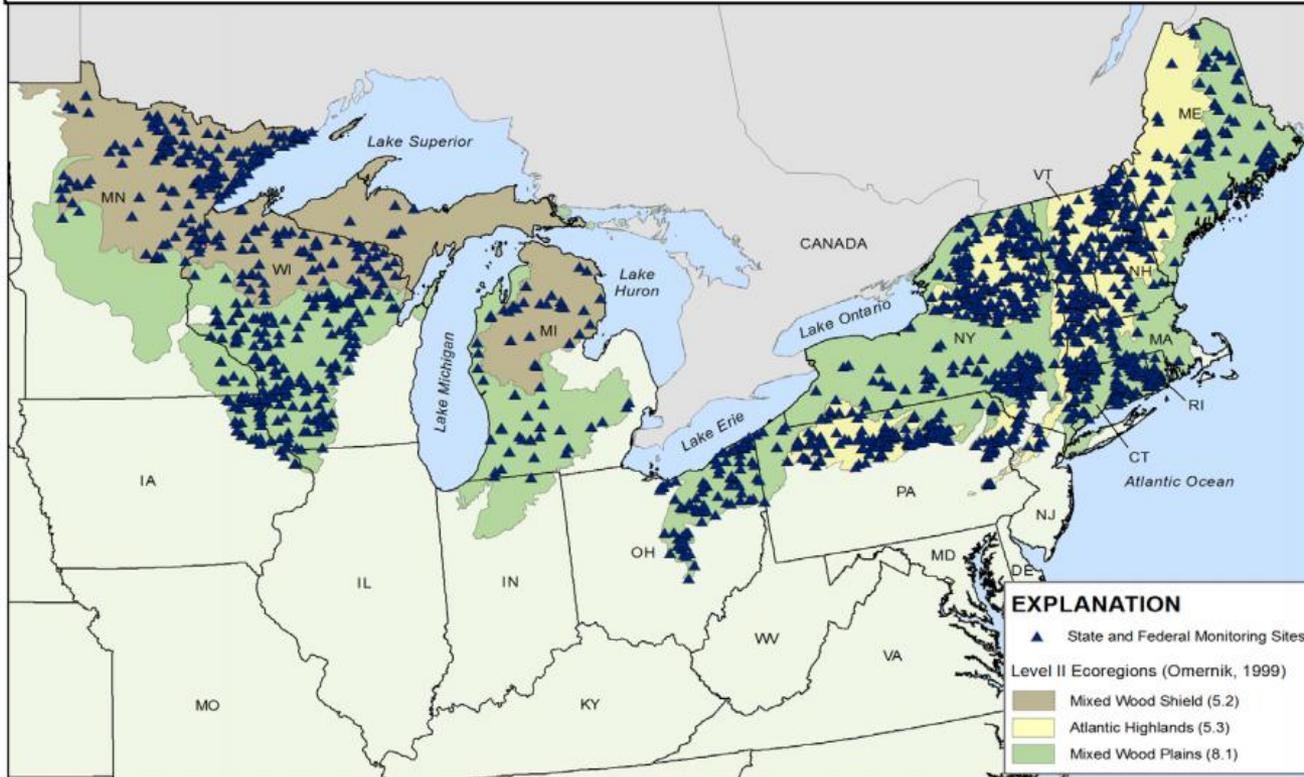
Task 1: Inventory of historic and current reference site monitoring

Task 2: Develop criteria and an approach for evaluating existing reference sites

Task 3: Design of a resource for data access

## State and Federal Agency Predefined Reference Sites and/or Sites with Long-term Records

Data Source: States, EPA, NPS, USFS, and USGS



# Reference Site Network Workgroup Participation

Contact - Jeff Deacon

[jrdeacon@usgs.gov](mailto:jrdeacon@usgs.gov)

(603) 226-7812

DEP Contact – Vic Poretti

[victor.poretti@dep.state.nj.us](mailto:victor.poretti@dep.state.nj.us)

(609) 292-0427

# Water Information Strategies Workgroup

- NJ Water Quality Indices Questionnaire
- Survey of development & use of composite indices/report cards
- Any NJ Council members use water quality indices/report cards?
- Contact Leslie  
([leslie.mcgeorge@dep.state.nj.us](mailto:leslie.mcgeorge@dep.state.nj.us))

## Water Quality Indices Questionnaire

### A. Chemical, Physical, Microbiological Composite Indices

1. Does your organization use any composite water quality indices for chemical, physical and/or microbiological water column parameters?  
  
If so, what parameters comprise the index (e.g. DO, TN, T, fecal coliform), and for what water body types? (e.g. estuarine waters, streams, lakes)
2. What were the primary objective(s) in developing this index?
3. How was the index developed and what entities were involved? Was there a public, stakeholder or scientific peer review process used in its development?
4. How is the index calculated, and what, if any, criteria/standards or thresholds are utilized in the index determination? Is there weighting used in the calculation?
5. Describe the monitoring program design and type of data used for the index (e.g. summer sampling probabilistic design, quarterly sampling fixed station network)
6. What are the primary uses of the index and who are the primary audiences? Is the index used to evaluate progress toward strategic environmental or sustainability goals for your state/region?
7. How and on what frequency is the index reported?
8. What are the primary strengths and limitations of the index? How successful do you believe the use of such an index has been?
9. Please provide website addresses or other references for the index.

### B. Biological or Eutrophic Condition Indices

1. Does your organization use any multimetric, biological indices? If so, for what trophic levels (e.g. benthics, fish, phytoplankton) and what water body types (e.g. estuarine waters, streams, lakes)?
2. If you have more than one trophic level index, does your organization aggregate any of the biological indices (e.g. benthics and fish)? If so, which ones and how?
3. Do you use an index that combines any biological indices with other water quality and/or habitat data for a consolidated indicator? If so, which ones and how?
4. Do you use any indices of eutrophic conditions? If so, what parameters comprise the index and for what water body types?