

Northeast Oklahoma Tribal Collaborative Effort

2014 Exchange Network National Meeting
February 26, 2014



Sheraton Society Hill Hotel
Philadelphia, Pennsylvania



Presenters

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Eastern Shawnee Tribe of Oklahoma

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Business Manager
Wind Environmental Services



Background

- Nine tribes in Ottawa County are all collecting water quality data.
- In 2009, the tribes had a meeting to discuss ways to make the data more available to identify water quality concerns.
- A data exchange group was formed between the Eastern Shawnee Tribe, Wyandotte Nation, Peoria Tribe of Indians of Oklahoma, Seneca-Cayuga Tribe, Miami Tribe, and Ottawa Tribe.

Background

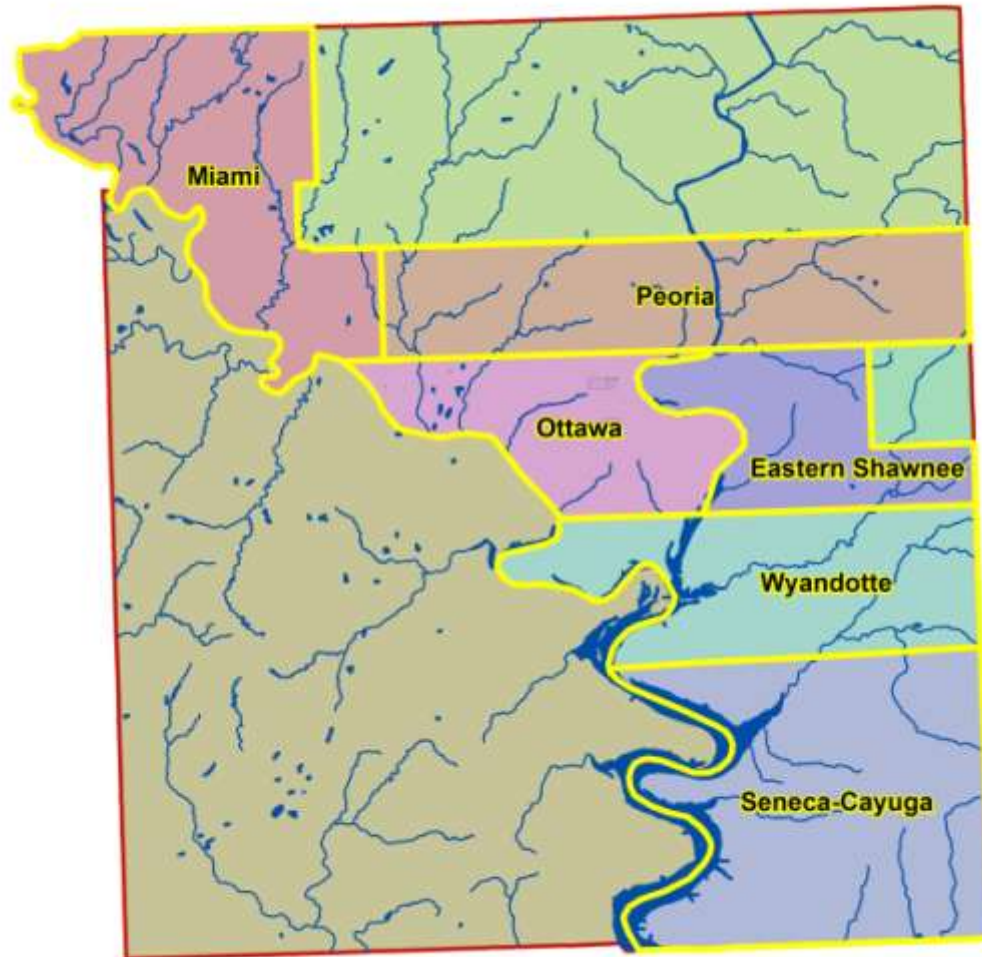
- The Data Exchange group was formed to get a broader view of concerns within the watershed.
- What good is the data we collect if nothing is being done with it?
- We discussed similar sampling methods so the data is not skewed, with limitations because not every Tribe has the ability to sample the same.
- Theoretically, all the Tribes download the water quality data into STORET. With the data exchange, the Tribes can view each others data and create a model to identify pollution points upstream and downstream.
- As a result of the discussions, the group decided to apply for an EPA Data Exchange Grant.

Project Location

Located In NE Oklahoma



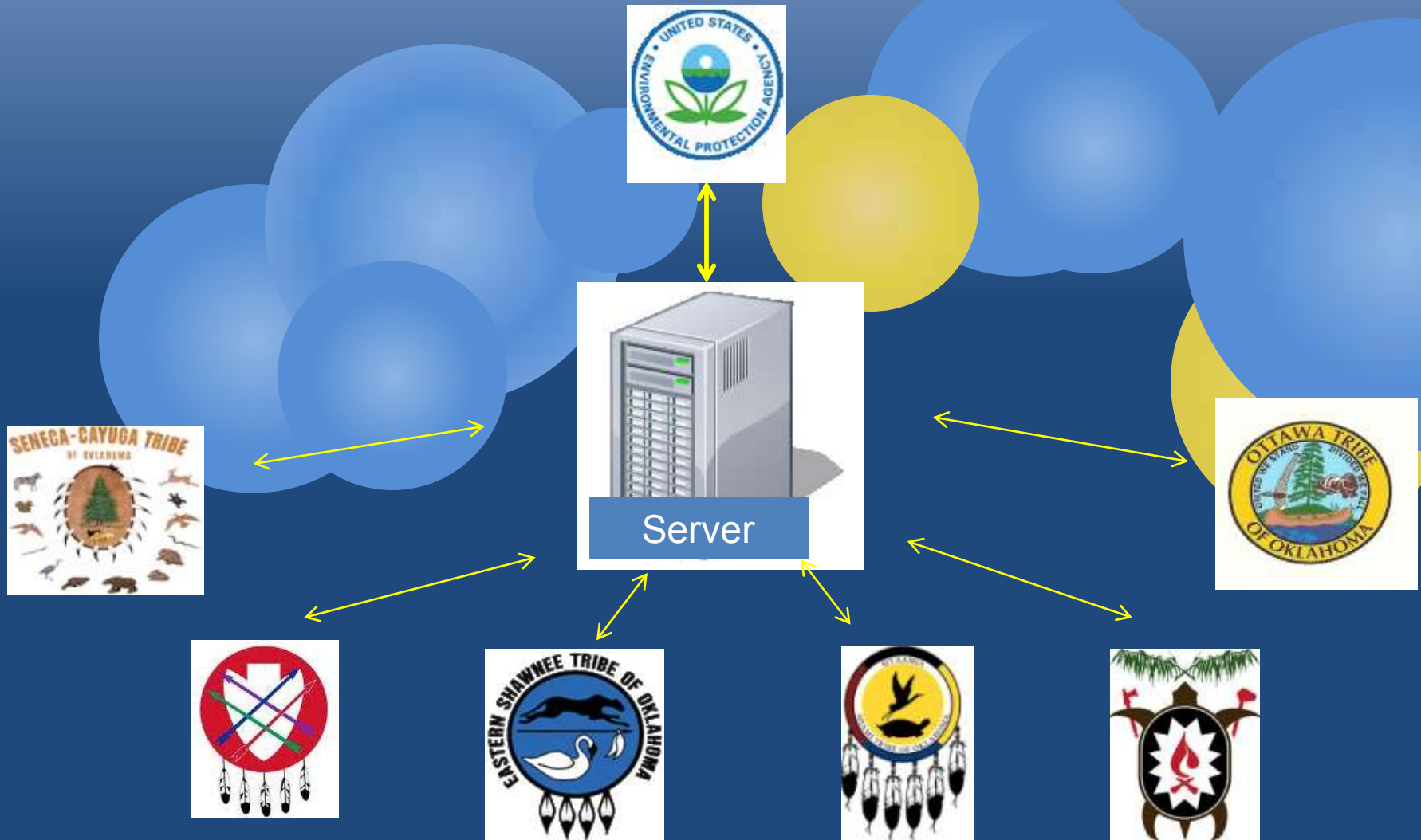
Project Location



Exchange Network Grant

- The Eastern Shawnee Tribe acted as the lead Tribe and applied for a Data Exchange grant through the EPA in 2010.
- This grant was written to acquire funds to set up the node for information sharing and modeling of water quality data.
- The initial grant was awarded in 2011 and the initial web application was developed and is now in production allowing partner Tribes to more effectively share information amongst partners but also to more effectively submit information to Storet.
- Based on the initial success of the project a second grant has been applied for to expand the capabilities of the Tribal collaborative project. Adding additional capabilities as well as additional parameters to the initial web & mobile applications.

Northeast Oklahoma Tribal Data Exchange Application



The Exchange Node Technical Details

- The node is based on the node 2.1
- Currently is capable of exchanging WQX data flows
- Application is built on the Microsoft .NET platform
- Database is Microsoft SQL Server 2008
- GIS capabilities are built on Esri ArcGIS Server 10.2.1
- Public side web site is build using php and joomla CMS

Public Information Site

The public side of the site is designed as a landing page for the node and is open to the public for viewing. This allows for outreach to the community and for member Tribes to post information and up coming meeting information.

Northeast Oklahoma

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Welcome



THIS SITE IS A COLLABORATIVE EFFORT OF SIX TRIBES LOCATED WITHIN OTTAWA COUNTY IN NORTHEAST OKLAHOMA

Current Intertribal Projects

- EPA Data Exchange Network Project
- National Tar Creek Conference

■ ■ *Working together as neighbors allows us to more effectively protect our communities from environmental hazards...*

PARTICIPATING TRIBES

- › Eastern Shawnee Tribe
- › Wyandotte Nation
- › Ottawa Tribe
- › Seneca Cayuga Tribe
- › Peoria Tribe
- › Miami Nation

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EPA Environmental Exchange Network



The Exchange Network is a partnership among States, Territories, Tribal Governments, and the U.S. Environmental Protection Agency that is revolutionizing the exchange of environmental information.

The Exchange Network is a partnership first envisioned in 1998.

We are representatives from States, Tribes, Territories, and EPA, high-quality environmental data. Through our primary decision-making Council and the Network Operations Board, all administration of the Network, having decisions on collaborative.

As environmental decision makers, we recognize that today's decisions and the environment by improving the way we share and use environmental information. We are revolutionizing the exchange of that information by providing access to a wide range of environmental data.

With higher-quality, more accessible data, we're able to make better decisions and better decisions lead to better outcomes.

Together, we are reimagining the way our agencies exchange environmental information. This way that benefits both our nation and our environment.

The Water Quality Exchange (WQE) allows Network Partners to share data at the national level. At the primary framework for sharing data at the national level, WQE replaces the distributed STORET databases, distributed STORET database in September 2000.

For information on the Northeast Oklahoma Tribal Exchange Network presentation. This was presented the past August 2012 at the ITT.

[NEOK Exchange Network Presentation](#)

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NEOK Tribal Environmental Events Calendar

Calendar view for March 2013. The calendar shows dates from Sunday to Saturday. The 1st of March is highlighted in yellow. The 2nd of March is highlighted in yellow. The 3rd of March is highlighted in yellow. The 4th of March is highlighted in yellow. The 5th of March is highlighted in yellow. The 6th of March is highlighted in yellow. The 7th of March is highlighted in yellow. The 8th of March is highlighted in yellow. The 9th of March is highlighted in yellow. The 10th of March is highlighted in yellow. The 11th of March is highlighted in yellow. The 12th of March is highlighted in yellow. The 13th of March is highlighted in yellow. The 14th of March is highlighted in yellow. The 15th of March is highlighted in yellow. The 16th of March is highlighted in yellow. The 17th of March is highlighted in yellow. The 18th of March is highlighted in yellow. The 19th of March is highlighted in yellow. The 20th of March is highlighted in yellow. The 21st of March is highlighted in yellow. The 22nd of March is highlighted in yellow. The 23rd of March is highlighted in yellow. The 24th of March is highlighted in yellow. The 25th of March is highlighted in yellow. The 26th of March is highlighted in yellow. The 27th of March is highlighted in yellow. The 28th of March is highlighted in yellow. The 29th of March is highlighted in yellow. The 30th of March is highlighted in yellow. The 31st of March is highlighted in yellow.

Participating Tribes

- Eastern Shawnee Tribe
- Wyandotte Nation
- Ottawa Tribe
- Seneca-Cayuga Tribe
- Peoria Tribe
- Miami Nation

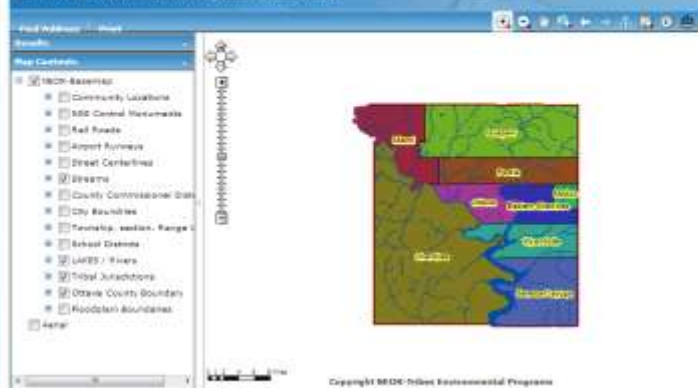
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NEOK Tribal Environmental Programs GIS BaseMap

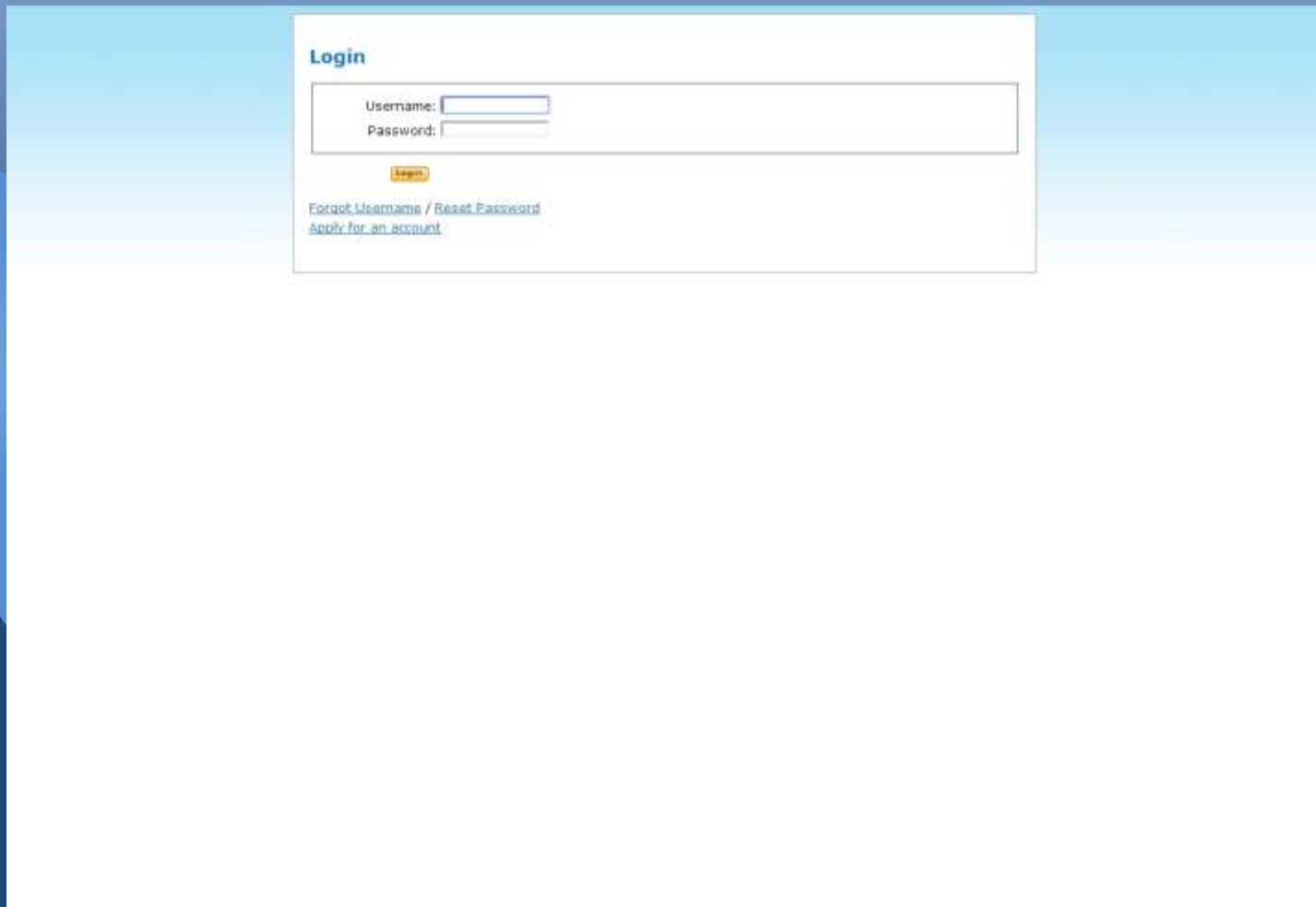


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Members Section of the Site (aka the node)

This section of the site is where member tribes can enter data view data, submit information to EPA Storet, run reports, and ultimately run analytical processes on the data.

Member tribes login screen

A screenshot of a web application's login screen. The background is a light blue gradient with large, semi-transparent blue and yellow circular shapes on the left and right sides. In the center, there is a white rectangular box with a thin grey border. Inside this box, the word "Login" is written in a bold, dark blue font at the top left. Below it, there are two input fields: "Username:" followed by a text box, and "Password:" followed by a text box. Below the password field is a small, yellow rectangular button with the word "Login" in black. At the bottom of the box, there are three links in a smaller, dark blue font: "Forgot Username / Reset Password" and "Apply for an account".

Login

Username:

Password:

Login

[Forgot Username / Reset Password](#)

[Apply for an account](#)

Each staff member has their own unique login and privileges

Sample site selection menu / map

Let: 37.1181687087203 Lat: -94.64842584670826

Welcome [couchtow](#) [Submit Results](#) [Reports](#) [Logout](#)

To pan or edit map data, set Mode to Edit.
To Add new data, set Mode to Add and click on the map where you would like to add your data point.
You can use your mouse scroll wheel to zoom in/out or use the slider on the top left of the map.
To pan the map make sure you are in Edit Mode (not Add), press in your left mouse button while the cursor is over the map and drag the map.

Search Results:
Location: [All None](#)

- ☐ 4-MILE CREEK SITE 2
- ☐ Buffalo Confluence
- ☐ Buffalo Creek
- ☐ Elk River
- ☐ ELM CREEK SITE 1
- ☐ ELM CREEK SITE 2
- ☐ Flint Branch
- ☐ Grand Lake Site 11
- ☐ Grand Lake Site 12
- ☐ Grand Lake Site 13
- ☐ Grand Lake Site 14
- ☐ Grand Lake Site 15
- ☐ LC-ES
- ☐ LC-WC
- ☐ LC-WELCH
- ☐ Little Elm Creek
- ☐ Lost Creek at Hwy 60 property
- ☐ Lost Creek at Welch Property
- ☐ Lost Creek at Welch Property - Wyandotte National
- ☐ Lost Creek at Welch Property - Wyandotte National
- ☐ NEOSHO RIVER
- ☐ NEOSHO RIVER
- ☐ Neosho River 1
- ☐ Neosho River 2
- ☐ Neosho River Site 1
- ☐ Neosho River Site 2
- ☐ NR-TB
- ☐ Powwow
- ☐ SC-HWY-10
- ☐ SC-PW
- ☐ Spring River 1
- ☐ Spring River 2
- ☐ Spring River Below Shawnee Branch
- ☐ Spring River Highway 10
- ☐ Spring River Site 1
- ☐ Spring River Site 2
- ☐ SR-TB
- ☐ Sycamore Confluence
- ☐ Sycamore Creek
- ☐ Tar Creek
- ☐ Tar Creek 1
- ☐ Tar Creek 2

1/1/2014 - 12/31/2014

[Search](#)

Name Activity ID Media Date TransactionID

Tribal staff can select sites by clicking the map or selecting the site in the locations list
Member tribes can view information submitted by other member tribes (if allowed)
but can only edit & submit their respective Tribes data

Sample result entry screen

Lat: 36.672531867469 Lon: -91.009148201728

• Switch Basemap
Map: Sat
Print
Notifications
Monitoring Locations

Welcome [couchaw](#) [Submit Results](#) [Reports](#) [Logout](#)

Monitoring Location: **Grand Lake Site 13**
Monitoring Location ID: **DL15**
Name: **Grand Lake Site 13**
Type: **Lake**
HUC 8 Digit Code: **11570208**
State: **Oklahoma**
County: **Ottawa**
[Save](#) [Cancel](#)

Result: **4/25/2013 - Field MonObs**
Submitted:
Activity ID: **13 04252013PT**
Activity Type: **Field MonObs**
Activity Media: **Water**
Month: **04** Day: **25** Year: **2013** Time: **01:00 PM**
[Save](#) [Delete](#)

Characteristic	Method Specification	Detection Condition	Sign	Measure
Ammonia-nitrogen		Not Reported	✓ = ✓	
Arsenic		Not Reported	✓ = ✓	
Cadmium		Not Reported	✓ = ✓	
Conductivity		Not Reported	✓ = ✓	770 000000
Depth		Not Reported	✓ = ✓	1.27800000
Dissolved Oxygen (DO)		Not Reported	✓ = ✓	7.97000000
Enterococcus		Not Reported	✓ = ✓	
Escherichia coli		Not Reported	✓ = ✓	
Flow		Not Reported	✓ = ✓	
Hardness, carbonate		Not Reported	✓ = ✓	
Hardness, magnesium		Not Reported	✓ = ✓	
Lead		Not Reported	✓ = ✓	
Manganese		Not Reported	✓ = ✓	
Mercury		Not Reported	✓ = ✓	
Nitrate		Not Reported	✓ = ✓	
Nitrogen		Not Reported	✓ = ✓	
Oxidation reduction potential (ORP)		Not Reported	✓ = ✓	212 000000

Tribal staff enter and store sample results into the system through this interface

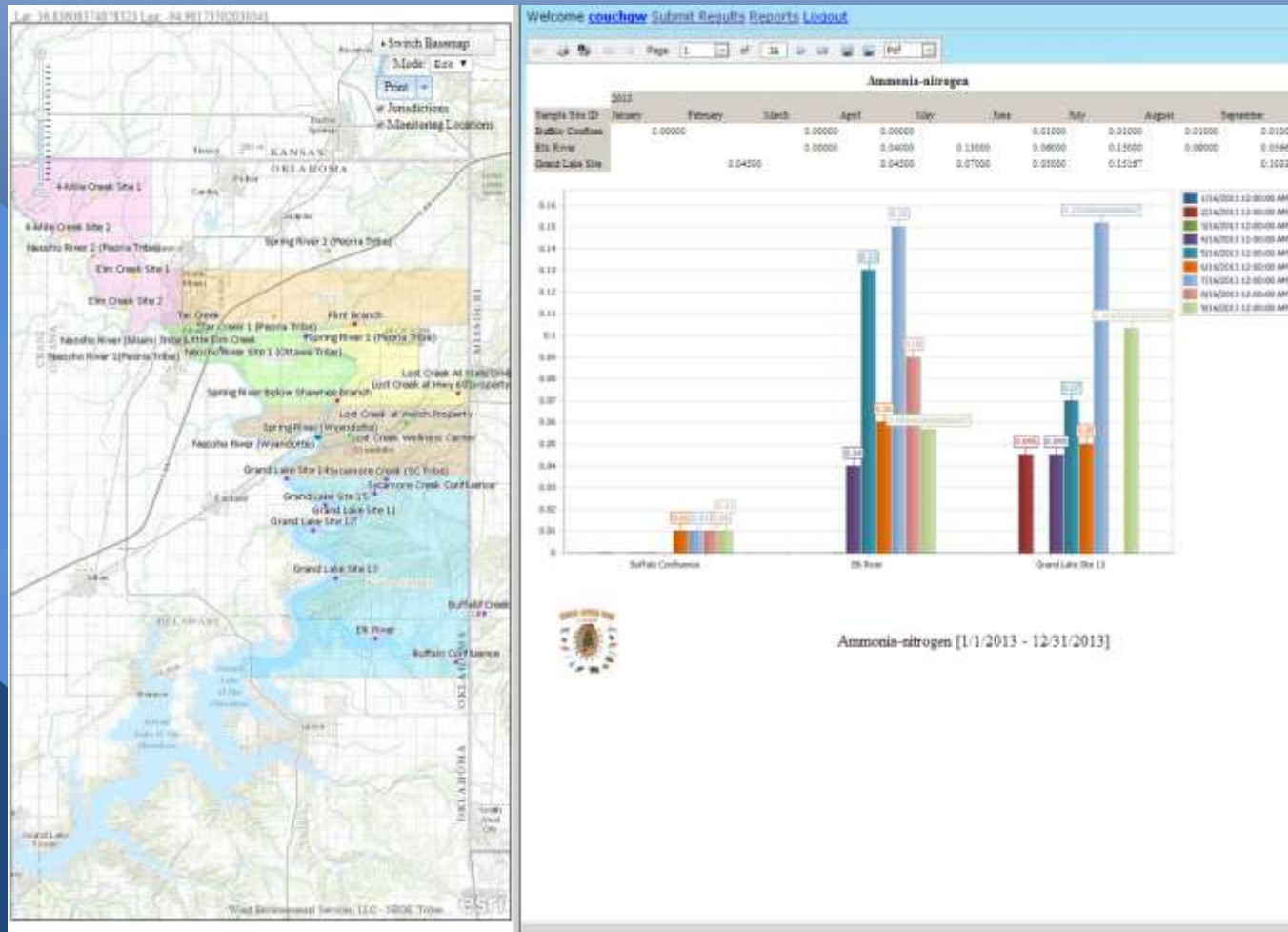
Sample result submittal / Tribal Admin page

The screenshot displays the Tribal Admin interface. At the top, there are navigation tabs: [Approve Users](#), [Users](#), [Tribes](#), [Results](#), [Map](#), and [Logout](#). Below the tabs, a dropdown menu shows 'Not Submitted' and a 'Select: All None' option. The main content is a table with the following columns: ☐ (checkbox), [Submits](#), [Location](#), [Activity](#), [Activity Type](#), [Data](#), and [TransactionID](#). The table contains 15 rows of data, each with a checkbox, a link, an ID, an activity name, an activity type, a date, and a transaction ID. A 'Submit' button is located below the table. The background of the page is a topographic map showing a river and surrounding terrain.

<input type="checkbox"/>	Submits	Location	Activity	Activity Type	Data	TransactionID
<input type="checkbox"/>	80		76 01212004F	Field Mon/Obs	1/21/2004	
<input type="checkbox"/>	80		76 01212004L	Sample-Routine	1/21/2004	
<input type="checkbox"/>	80		77 01212004F	Field Mon/Obs	1/21/2004	
<input type="checkbox"/>	80		77 01212004L	Sample-Routine	1/21/2004	
<input type="checkbox"/>	80		79 01212004F	Field Mon/Obs	1/21/2004	
<input type="checkbox"/>	80		79 01212004L	Sample-Routine	1/21/2004	
<input type="checkbox"/>	80		12 01212004FT	Field Mon/Obs	1/21/2004	
<input type="checkbox"/>	80		12 01212004FB	Field Mon/Obs	1/21/2004	
<input type="checkbox"/>	80		12 01212004LT	Sample-Routine	1/21/2004	
<input type="checkbox"/>	80		12 01212004LT	Sample-Routine	1/21/2004	
<input type="checkbox"/>	80		12 01212004FT	Field Mon/Obs	1/21/2004	
<input type="checkbox"/>	80		12 01212004FB	Field Mon/Obs	1/21/2004	
<input type="checkbox"/>	80		12 01212004LT	Sample-Routine	1/21/2004	
<input type="checkbox"/>	80		12 01212004LB	Sample-Routine	1/21/2004	

Tribal admin staff can submit results to EPA Storet, approve new users (within their Tribe), set which member Tribes can view their data, and Update Tribal information

Generating reports, graphs, and trend analysis



Tribal admin staff can generate reports off of their tribes data or a combination of participating members data. Additionally Tribal admin staff can run trending reports and create data exports from this area of the application.

Working together to benefit the community



Questions



www.neok-tribes.org

The background is a solid dark blue. In the center, the words "Thank You" are written in a large, white, sans-serif font. The text is partially overlaid by several overlapping circles of varying sizes. Most of these circles are a medium blue color, but one circle, which serves as the letter 'o' in "You", is a bright yellow. The circles are arranged in a horizontal line, with some overlapping the text and others behind it.

Thank You

www.neok-tribes.org