Exchange Network Forum

Partnerships with EPA, States & Tribes

Thursday, February 8, 2024

Format

- **This Forum is an open meeting.** We want to encourage open dialogue. Please be respectful.

- **You will hear from Tribes, States, and EPA.** Calls are divided into thirds, with time for each group to push updates and request feedback.

- **We will send polls, surveys to gauge interests.** This is a call run by Exchange Network partners for Exchange Network partners.
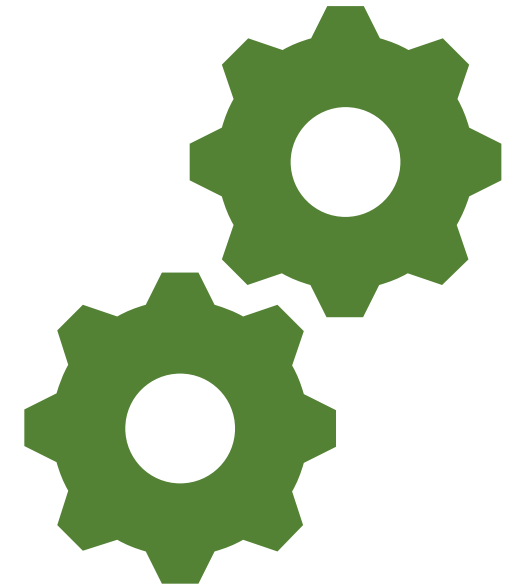
Logistics

- **Introduce yourself!** If or when you speak, please tell us your name the organization you represent.

- **Submit questions using Zoom Q/A Feature.** We will do our best to answer questions during the call.
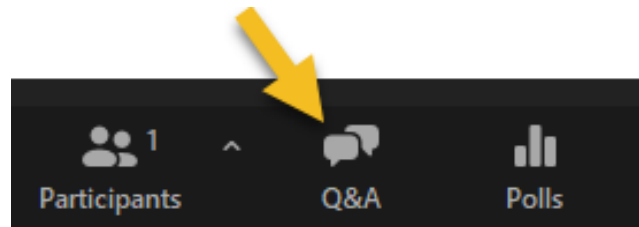
- **Use the chat to share ideas.** You can message the (co)hosts and participants directly.

Meeting Guidelines

- Choose to be present and participate

- Engage actively, raise your hand to speak

- Maintain a respectful, open space to share and discuss ideas

- Assume positive intent

- Be curious and open to new ideas

- Listen and question with a desire to understand

- Stay on topic

- Turn on your camera when speaking

- Meetings will be recorded
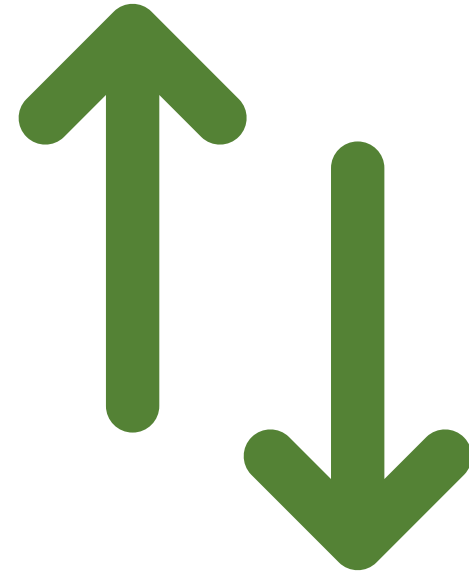
Agenda

- **Welcome**
- **Setting the Stage**
- **Environmental Information & Innovation National Meeting (E2i)**
- **Water Quality Exchange**
- **Questions & Answers**
- **Open Forum**

Setting the Stage

- **March Forum Call:** We'll be joined by the EPA's Office of Air & Radiation to learn more about CAERS. CAERS is Combined Air Emissions Reporting System, an application that allows industry from subscribed State, Local, or Tribal authorities (SLTs) to report their air emissions data.

- **Future Forum Calls.** We'll discuss approach the upcoming grant cycle and approaches to data reporting through other Exchange Network data flows.

National Meeting

- **Exchange Network Reinvigoration.** After several quiet years, punctuated by the pandemic and staff transitions, Exchange Network partners are working to reinvigorate their relationships.

- **The Exchange Network is a *partnership* that requires direct interaction to be successful.** Improving environmental information sharing requires strong ties and communication.

- **Forums providing space for Network partners to hear from, learn about, and engage** each other, early and often, are a key to this effort.

National Meeting

- **Environmental Information & Innovation (E2i).** National meeting for the environmental protection community that builds on a long-standing meeting series.

- **E2i will be an in-person event**, likely with some virtual components.

- **EPA, states, and tribes are cooperatively planning the meeting program** and soliciting content proposals from across the community of environmental regulators.
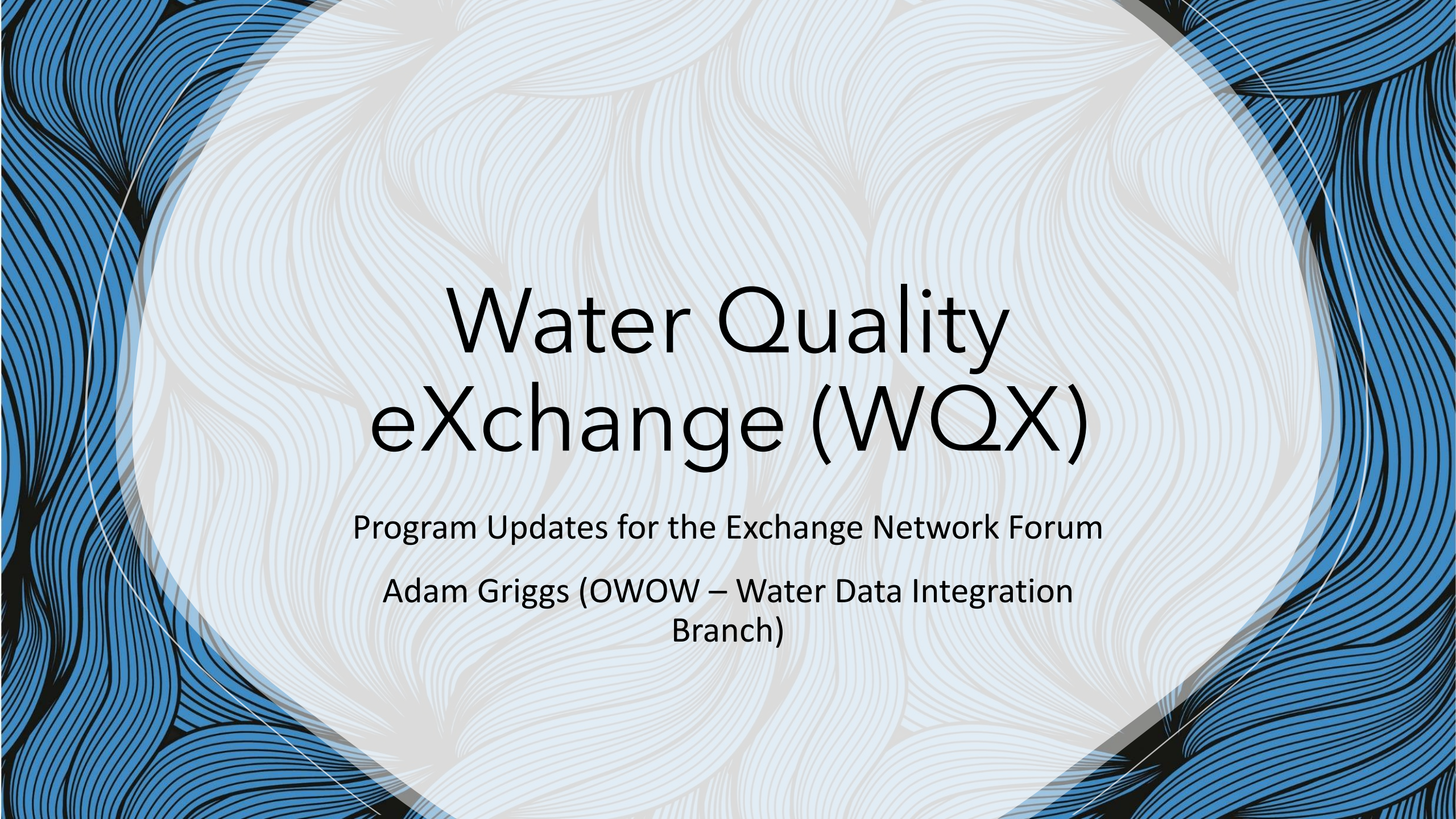
National Meeting

- **Theme:**   Reinvigorate, Collaborate, Innovate

- **Location:**   Kansas City, Missouri *

- **Dates:**   September 17 to 19, 2024 *

* Dates and location are contingent upon venue negotiations.
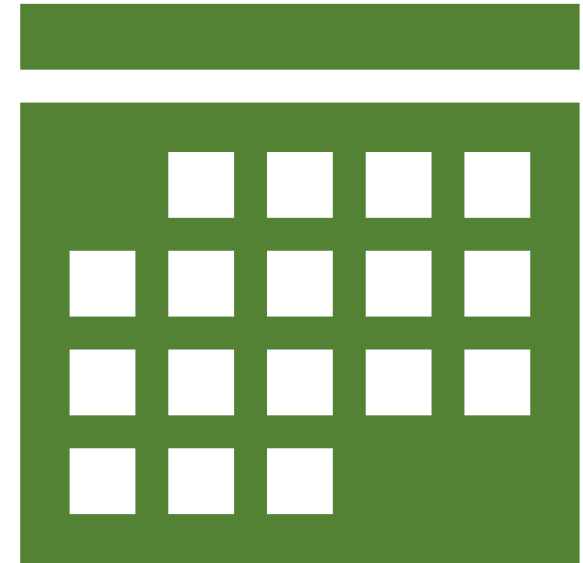
Call for Content

- Innovations related to the Exchange Network and its data flows;

- Telling environmental stories through data visualization;

- Improving data management processes and procedures;

- Leveraging geospatial data for environmental management;

- Improving user experience in web applications;

- Using Open Data, APIs and analytics to improve decision-making;

- Applying Artificial Intelligence in environmental protection;

- Adopting cloud technologies and shared platforms to drive efficiencies;

- Improving mobile data entry and fieldwork through technology;

- Building partnerships within and among environmental agencies;

- Examples of cross-agency and cross-partner collaboration; and,

- Finding intersections between data, science, and policy.

Water Quality eXchange (WQX)

Program Updates for the Exchange Network Forum

Adam Griggs (OWOW – Water Data Integration Branch)

WQX Background

1960
Legacy STORET

1998
Distributed STORET

2007
WQX Introduced

Modernized WQX 3.0
2024

What is WQX today?

It is a standardized data format and submission database

WQX is a 'standardized' approach for <u>sharing</u> water quality monitoring sample data

WQX defines a common data model for communicating water quality data of different types (chem, phys, bio, etc.)

Tools are available to help automate flows from existing datasets and formats, QA

The structure of datasets and data systems don't matter, as long as existing data can be mapped to WQX standards

Many ways to prepare and submit data to WQX: including direct XML submissions, WQXWeb, and 3rd party apps

Lifecycle of Data and WDIB Data Systems
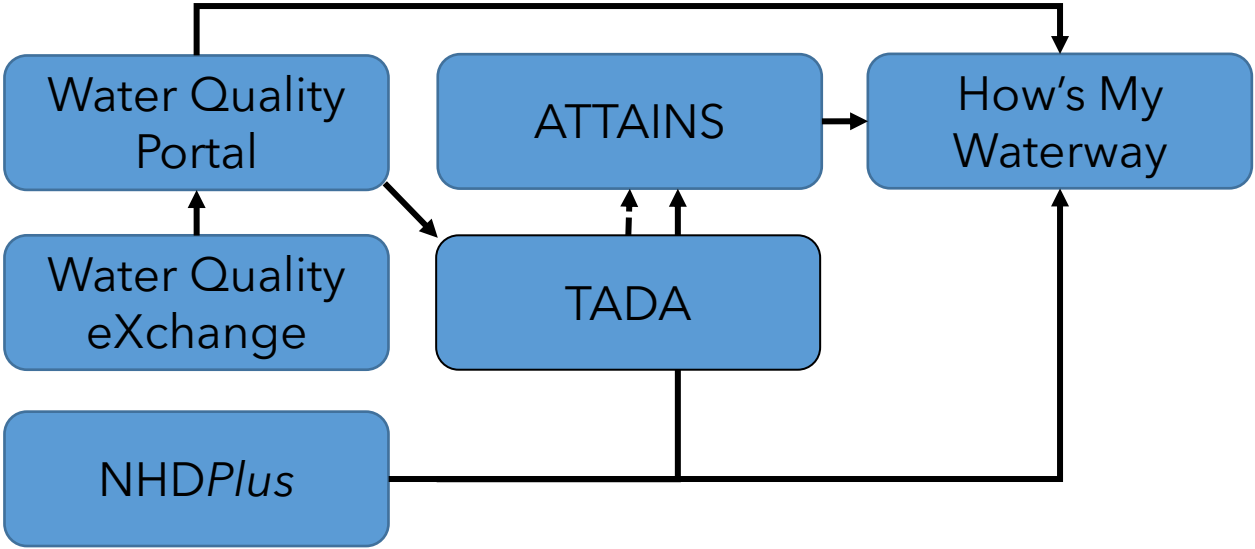
Water Quality Portal

Operated under An Interagency Cooperative agreement (USGS & EPA)

- Serves data from USGS, EPA, USDA, NPS in a standard WQX format

- # WQP: Data from >1,600 organizations

- # WQP: >425m records from >1m sites

- Serves data of All Water Types

- Includes a Graphical User Interface (GUI) & Web Services

- One of Our Integrated Systems (IOW HUB)

- DATA ServiceS can directly power analytics like those in HMW

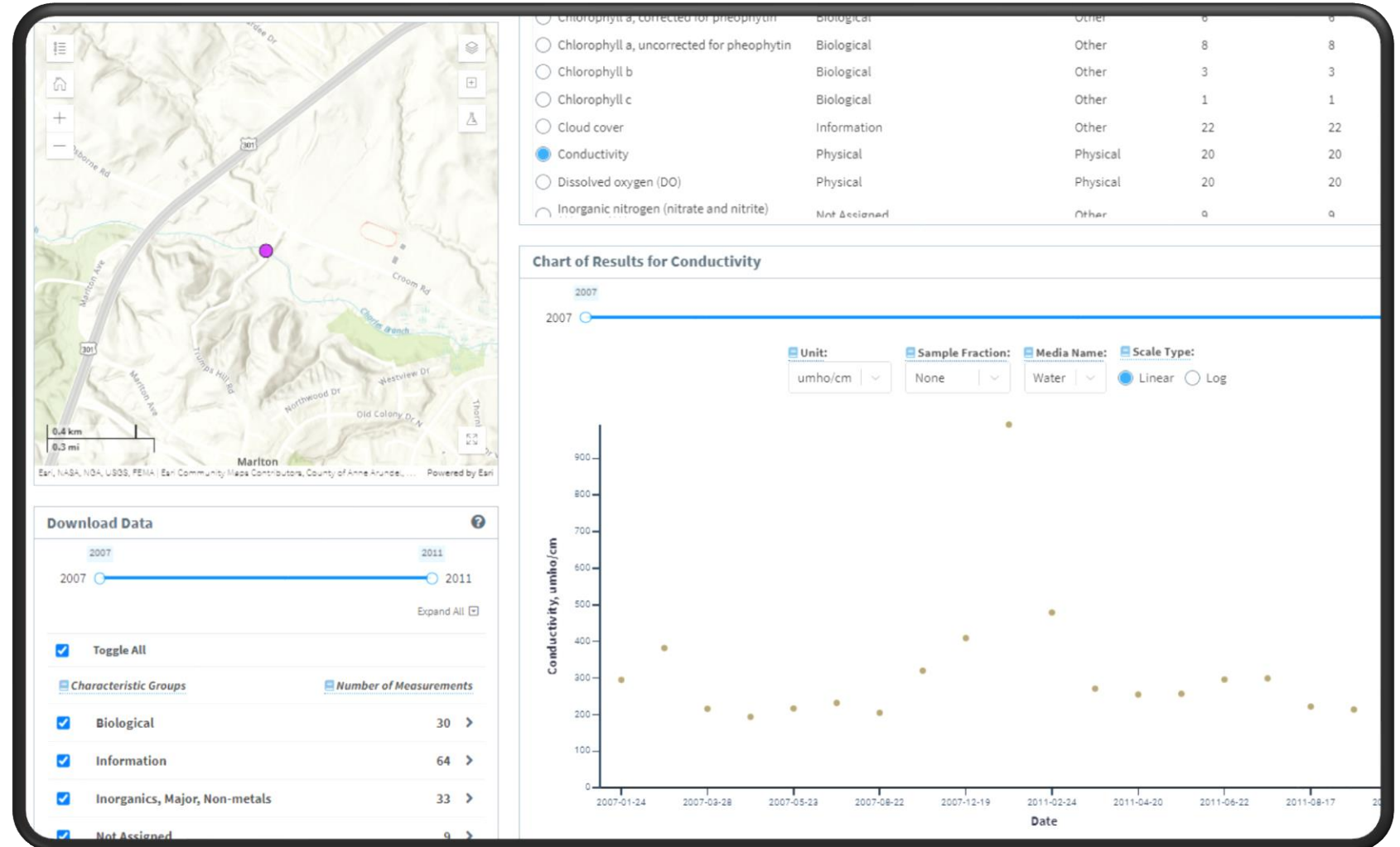- Growing Number of internal/external Tools built on top of this Primary data source

How's My Waterway

Serving Public Information

Powered by open data and web services

*Accesses, interprets, and displays data from over a dozen sources*

Including ATTAINS, and the WQP among many others

Who are the WQX Users?

- Federal and State Agencies and Programs
- Tribes, Pueblos, First Nations
- Local Government
- Research/Academia
- Private Industry
- Non-Governmental Organizations
- Volunteer Monitoring

1,589 WQX 'Organizations' with data

Water Programs' Last WQX Submission Dates
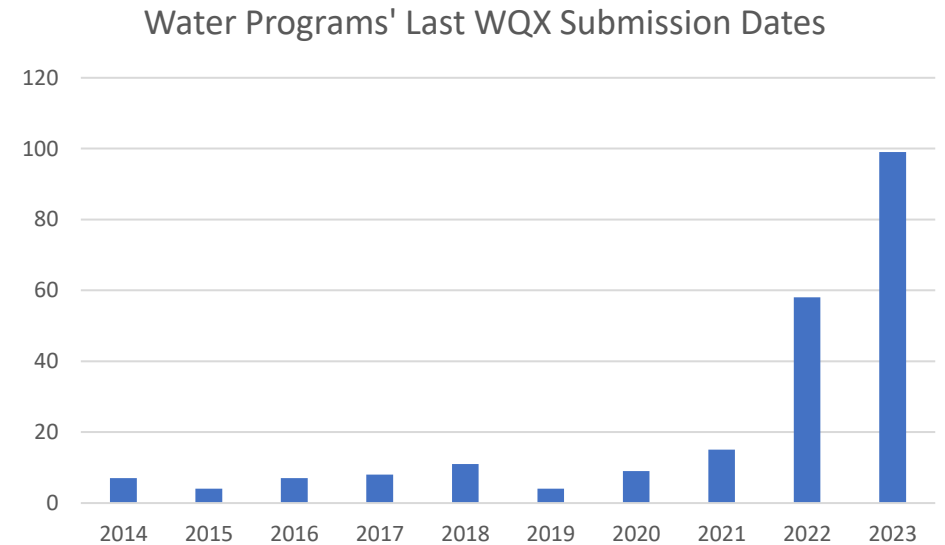
Who are the WQX Users?

What are they coming with?

Documents   Spreadsheets   Lab Reports   Relational Databases   Enterprise Databases

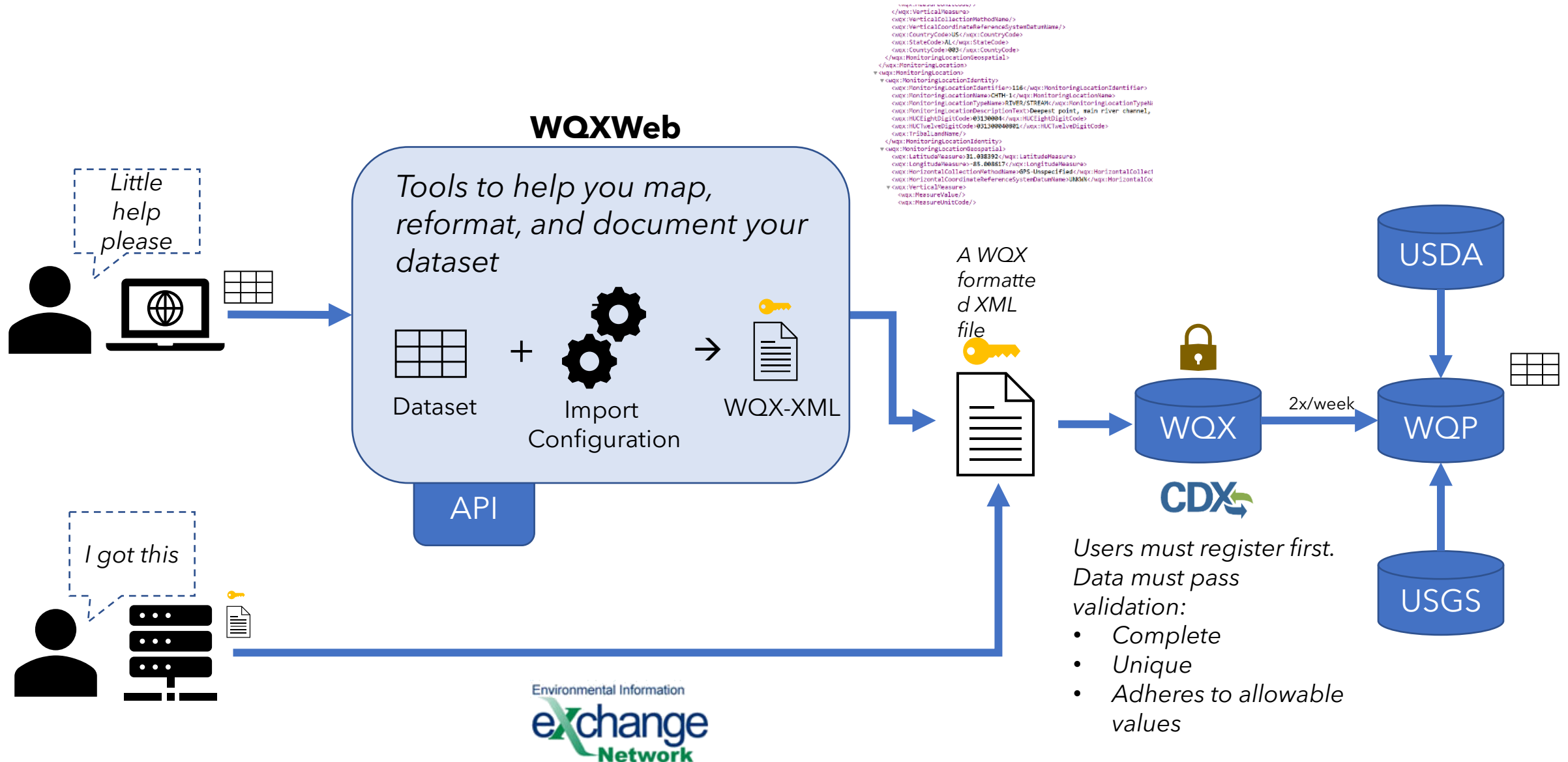**Less Technical**   **More Technical**

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How do we support these different users?

One-on-one support   WQXWeb Templates   Custom Data Mapping   Submission API   User Community/Agile
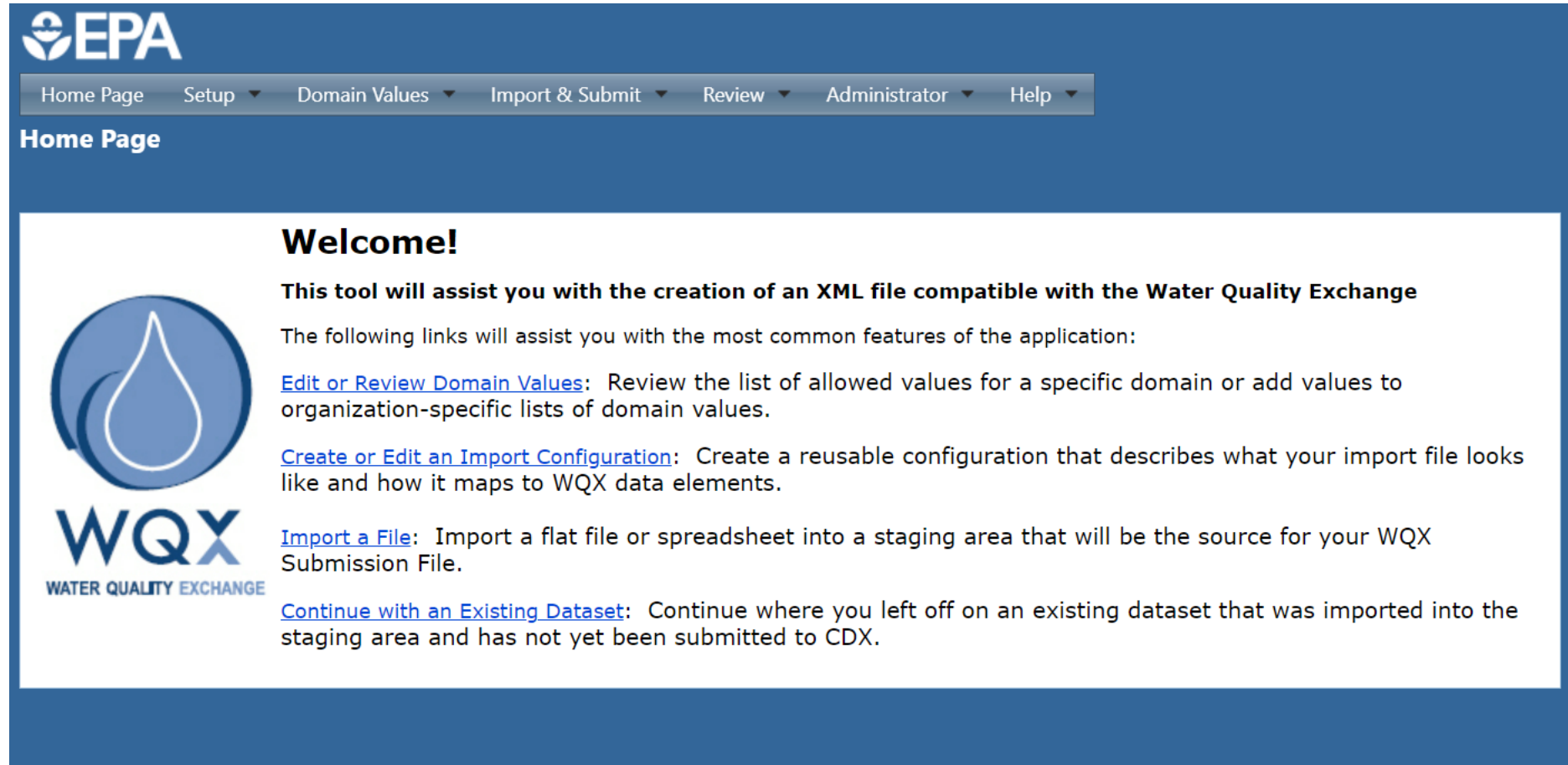
Pathways to WQX and the Portal

What is WQXWeb?

WQXWeb is the web application that allows users to <u>import</u>, <u>manipulate</u>, <u>validate</u>, and <u>upload</u> their datasets to WQX.

WQX Outreach / Support / Training

- We can be reached at WQX@epa.gov M-F 8am-5pm
- We also have a 1-800 number where you can leave a voicemail
- Monthly User Call – Program Updates, tips, open time
- Several user guides
- Best-practice manuals for certain data types
- Instructional videos on Youtube
- Access one-on-one support from Staff/WQX contractors
- Focused Tribal Assistance
- Building a Community of Practice/Network of Support

WQX/WQP Recent Developments

- WQP Data Now Explorable in HMW
- WQX 3.0 Outbound schema (trickling out now)
- WQX Submission QAQC Review
- WQXWeb Full data report now available
- Transaction documents now available off-application
- WQXWeb API – Two state agencies, several developers now using
- Continuous time-series summary submissions

Questions?

Adam Griggs

Open Forum

- **Submit questions using Zoom Q/A Feature.** We will do our best to answer questions during the call. If not, we will follow up with you directly or during the next Forum.

Contact

Moderator:	Alex O'Neill (US EPA)
Panelists:	Jennie Campbell (US EPA), Dwane Young (US EPA), Adam Griggs (US EPA), Cristina Mullin (US EPA)
Hosts:	Beth Jackson (US EPA), Matt Kelly (US EPA), Kate Sijthoff (US EPA, Contractor)

Thank you!

Questions?