

STORET/WQX Conference Call – September 26<sup>th</sup>, 2013 12:00- 1:00 P.M. Eastern Time

### **Introduction (Charles Kovatch)**

- The minutes from all previous conference calls are available over the web:  
<http://www.epa.gov/storet/confcalls.html>
- The next scheduled call will be October 31 2013. The exact date will be emailed via the list server when the call gets closer.
- Please email [STORET@epa.gov](mailto:STORET@epa.gov) and let EPA know you attended the call so that meeting rosters may be kept.
- If you have a special topic you would like to lead for an upcoming call, please email [Kovatch.Charles@epamail.epa.gov](mailto:Kovatch.Charles@epamail.epa.gov).
- EPA would like to hear comments you have on the quality of these conference calls. Please send them to [STORET@epa.gov](mailto:STORET@epa.gov)
- Please subscribe to the STORET automated server for announcements regarding conference calls: <http://www.epa.gov/storet/listserv.html>

### **Agenda ( Charles Kovatch )**

Today's discussion will focus on

- Water Quality Framework
- Increasing State data holdings
- Taxon Lists
- Data speciation and validation

### **Water Quality Framework (Duane Young)**

The Water Quality Framework is a new way for the EPA office of water to better integrate our IT systems – specifically ATTAINS, WQX/STORET, NHDPLUS and GRITS. The vision of the Water Quality Framework is to integrate these IT systems so they are of more assistance to water quality managers and to help people better understand what is going on with their water.

ATTAINS will be the first system that the EPA will be focusing on, thus changes to the ATTAINS system will be on a faster timeline than changes to STORET/WQX.

The Water Quality Framework is supported by some basic building blocks.

- Water Quality Monitoring that exists in STORET WQX
- Assessment and restoration plans that are held in ATTAINS
- Actions on the ground to restore water quality, 319 projects, upgrades to water treatment plants, USDA environmental improvements funds to reduce nonpoint sources.

The Water Quality Framework leverages a services based approach to support interactions between EPA water quality monitoring IT systems. Integrating these IT systems will not be a large obstacle, however including the underlying programs will be a challenge. The ideal scenario would enable water quality monitoring staff, TMDL personnel and permitting staff to seamlessly interact together.

#### ATTAINS redesign

The ATTAINS redesign is focusing on existing measures used to report on changes in water quality and identify where waters are being restored. Looking at two aspects of the existing monitoring system

1. How can we better leverage the monitoring data we have to improve the assessment process.
2. Focus on continuous monitoring data.

ATTAINS redesign has involved a retrospective review of the 305B and 303D program, resulting in the following recommendations

- Identify tools to automate processing and interpretation of water quality monitoring quality data against water quality criteria.
- Transition to a fully electronic reporting process
- Find ways to better align systems with programmatic processes that are going into water quality assessments.

The EPA has put together four workgroups to assist us through this process. The work groups are going to work on aspects such as redefining data elements, redefining the schema, defining data flows and also how programmatic program measures work. Below is a summarized timeline of the planned workflow

*Fiscal year 2014* - evaluating new approaches for measuring progress

*Fiscal year 2015* - redesign of the ATTAINS system

*Fiscal year 2016* - release of redesigned ATTAINS system

*Fiscal year 2016-2017* - release version II of the redesigned ATTAINS system.

Have everything completely transitioned by 2018.

The next step involves engaging state partners in redesigning the ATTAINS system in 2014.

#### *Fiscal year 2014*

Evaluating new approaches for evaluating water quality progress. Currently it's difficult to track changes from reporting cycle to reporting cycle. States have different methods for assessing water quality, a number of measures are currently used

- Individual impaired waters that can be restored
- Incremental water quality improvements
- Watershed scale looking for incremental progress within those areas.

TE EPA is moving towards using NHDPLUS – National Hydrography Dataset Plus to utilize catchments as the core reporting unit for determining progress. Linking STORET and the ATTAINS database with GIS applications will enable the EPA to develop an automated methodology, aggregating water quality data in order to achieve catchment scale water quality assessments.

Linking these IT systems together will allow the EPA to focus on outcomes

- Solves a lot of issues being able to track changes cycle to cycle
- Automate the reporting process
- Allows us to facilitate more cross program integration

#### STORET/WQX

Automated assessments not an easy thing to do, but we want to start the discussion

- The STORET TEAM wants to hear your input on how do we make some of these processes more automated, what type of services do we need to facilitate discovery of water quality data.
- We want to begin this discussion on automated assessments, and what's currently being done by states, and who's doing automated assessments, how are they doing it, what are some lessons learned, what could we do to make it easier.
- Other types of water quality monitoring data – continuous monitoring data.
  1. Currently we request data submitters only submit summary data describing continuous monitoring data i.e. daily average, daily mean, daily maximum, and submit the actual raw continuous monitoring data as an attachment with the data.
  2. We are moving towards creating the ability to accept all continuous monitoring data ( i.e. temperature data recorded in 15 minute intervals) and would be interested in hearing input from users on how we should go about storing continuous water quality data.

3. In the latest EN grant solicitation there is a section on continuous monitoring data,

### Water Quality Framework Phase II

Looking at Nonpoint source grant activities actions on the ground targeting improved water quality.

### Public Web presence

Finally we plan to look at the our public web presence, and identify how we can pull all of this data together at one central location . The ATTAINS interface is the proposed hub that pulls all of this info together. We would want to make exploring water quality data an easier exercise for the public. The first layer available to the public would be a national map, providing an overall assessment of water quality at the national level . A user would then have the option to drill down into a state layer and see what an individual state says about an area due to a state scale survey. Finally a user would have the opportunity to zoom into a local level and see what other information there is about their area of interest. This public interface will ultimately provide a clear linkage between assessment information and monitoring data that supports it.

**Question from Caller #1** Resolutions for NHD catchments can be highly variable regionally, how is EPA dealing with the patchwork of scales that may exist in a catchment?

**Duane Young USEPA** If a state submits data at a higher resolution than the catchment, the state's data will be rolled up to the respective resolution of the entire catchment. i.e. if a state submits data for a particular area within a catchment at a resolution of 1:2500 and the catchment as a whole is at a resolution of 1:5000, the state's data will be available at a layer of 1:5000.

**Question from Caller #2** Automated assessments - Is the EPA going to develop a service for the public to generate automatic assessments on a state's water body? Will developing such a service introduce controversy with state designed assessments that may not align with the EPA's methodology?

**Duane Young USEPA** The EPA is not planning to implement this type of service. The EPA is planning to develop automated services that would support state methodologies. However the EPA is planning on being more transparent by detailing variables such as the exact monitoring locations that were used in generating an assessment.

**Question from Revital (California)** How do you recruit work group members, and can the be volunteers?

**Duane Young USEPA** Work Group Members are comprised of members of the Association of Clean Water Administrators. At the moment we are targeting state personnel that are involved in the 305B and 303D reporting process. We would be happy to have input from anyone on improving the assessment methodology (4<sup>th</sup> work group). If you are interested in joining the 4<sup>th</sup> workgroup, please send an email to [storet@epa.gov](mailto:storet@epa.gov) and let us know you are interested in joining the workgroup.

#### **Increasing State data holdings (Charles Kovatch)**

- One of the STORET teams' 2013 priorities is increasing state data holdings in the STORET Warehouse. We currently have identified six states that still do not have a presence in WQX , and we are focused on working with these states through 2014.

#### **Taxon lists (Charles Kovatch)**

- The Taxon domain values are biological names primarily stewarded by the [Integrated Taxonomic Information System \(ITIS\)](#) and the [ITIS Catalogue of Life](#). Taxonomic names from academic journals or accredited sources may also be added if reference information is provided (i.e. a URL or citation).
- The STORET team is constantly working to keep up with taxon name changes published by ITIS and other taxon lists. We want to hear from the user community the best way to keep you informed of name changes, currently, an updated list of taxon name changes is available at the following URL [http://www.epa.gov/storet/wqx/products/Updated\\_Taxon.xlsx](http://www.epa.gov/storet/wqx/products/Updated_Taxon.xlsx)

**Question Bill Kramer (USEPA)** Allow folks to subscribe to a notification they can get it when they want it, otherwise can do it quarterly or monthly.

**Question from Caller #3** How to we get EPA to add new taxon?

**Charles Kovatch USEPA** Send an email to [storet@epa.gov](mailto:storet@epa.gov) with the taxon that you wish added along with a reference for that taxon i.e. ITIS URL or journal citation.

## **Data speciation and validation (Charles Kovatch)**

Data submitters take a variety of measures to ensure that submitted data is of a certain quality. QUAPPS are provided with data and data submitted to EPA has to be validated by the WQX schema. However a substantial amount of fields are frequently missing or mislabeled when submitted to WQX, specifically Measurement units, sample fraction and / or method speciation. We ask that users please check their WQX data submissions.

**Kevin Christian USEPA** - WQX Data submittal and correcting mislabeled or missing fields is the responsibility of the data owner. Records that are not submitted correctly, i.e. lacking fields are with mislabeled information, may affect the use/ confidence of others in your organizations data. The STORET team is looking into ways to automate checks on certain fields during data submittal, mainly unit, method speciation and sample fraction.

**Question from caller #4** I am not involved in the data submittal process, however wasn't method speciation and characteristic concatenated into one field in the old STORET system?

**Duane Young USEPA** Yes, with the adoption of WQX, the EPA seperated characteristics and method speciation into two fields. So if a water sample was measured for nitrogen, the measurement would be subsequently entered into STORET as characteristic name nitrogen along with the type of nitrogen entered as the method speciation, whether "NO3", "NH4", "Organic" etc.

Participants on the call (based on who emailed [STORET@epa.gov](mailto:STORET@epa.gov))

Jennifer Filbert	Wisconsin Department of Natural Resources
Rachel Gibeault	TerraGraphics Environmental Engineering, Inc.
Caitlyn Nichols	NEIWPC
Sue McCarthy	USEPA Region 10
<i>Scottie Wallace</i>	<i>Mississippi Band Of Choctaw Indians</i>
<i>Lara Panayotoff</i>	<i>Kentucky Department for Environmental Protection</i>
<i>Michael J. Whitman</i>	<i>West Virginia Department of Environmental Protection</i>
<i>Lowell Carty</i>	<i>Arizona Department of Environmental Quality</i>
<i>Jolene McQuillan</i>	<i>Montana Department of Environmental Quality</i>
<i>Chris Nuemiller</i>	<i>Washington Department of Ecology</i>
<i>Arne Sjodin</i>	<i>Colorado Dept. of Public Health &amp; Environment</i>
<i>Margaret Novak</i>	<i>New York State Department of Environmental Conservation</i>
<i>Jonathan Burian</i>	<i>EPA Region 5</i>
<i>Shawn Henderson</i>	<i>EPA region 7</i>
<i>Andrea Thomas</i>	<i>North Carolina Department of Water Quality</i>
<i>Bruce Tuttle</i>	<i>Idaho Dept of Water Resources</i>
<i>Lemonteh' Horne</i>	<i>Florida Department of Environmental Protection</i>
Thomas R. Dallaire	Massachusetts Department of Environmental Protection
Jon Becker	US EPA Region 4
Deb Soule	New Hampshire Department of Environmental Services
Diane Stevenson	Cherokee Nation Environmental Programs
Susanne Meidel	ME Department of Environmental Protection
Melanie Titus	New Hampshire department of Environmental Protection

<b>Bill Kramer</b>	<b>US EPA</b>
<b>Arlene Garcia</b>	<b>Pueblo of Acoma</b>
<b>Micah Isaacs</b>	<b>Citizen Potawatomi Nation</b>
<b>Mike Kusmiesz</b>	<b>New Jersey Department of Environmental Protection</b>
<b>Anthony Williams</b>	<b>USEPA region 10</b>
<b>Ben Cole</b>	<b>Maryland Department of Natural Resources</b>
<b>Kayren Pittman</b>	<b>Alabama Department of Environmental Management</b>
<b>Bob Simpson</b>	<b>USEPA region 2</b>
<b>James F. Hudson</b>	<b>Wisconsin Department of Natural Resources</b>
<b>Michael Basmajian</b>	<b>Georgia DNR</b>
<b>Andrea Thomas</b>	<b>North Carolina Department of Water Quality</b>
<b>Nancy Ragland</b>	<b>Texas Department of Environmental Quality</b>
<b>Michael J Whitman</b>	<b>West Virginia Department of Environmental Protection</b>