

# WQX User Call

## September 22, 2022

There were approximately 31 participants on the call.

### Agenda:

1. WQX Project Status Report (15 mins)
  - WQX/WQXWeb performance/updates
  - WQX Monthly User Tip – Deeper dive on WQX domain updates.
  - WQX questions/comments
2. WQP Status Report (10 mins)
  - WQP General Status Report
  - WQP questions/comments
3. Open Discussion
  - Other topics/questions

### Notes:

#### 1. WQX Project Status Report (15 mins)

The Helpdesk support has been operating at normal status. Contact Us: Weekday hours of 8am to 6pm EST. Email ([wxq@epa.gov](mailto:wqx@epa.gov)) Call [800-424-9067](tel:800-424-9067).

Developers successfully rolled out WQXWeb to the an Azure cloud environment, and have since been working on tackling bugs and performance tuning. They have also successfully upgraded WQX to Oracle 19c, and upgraded the Oracle provider. The roll out to Oracle 19c was completed last week 9/17.

Developers are working on removing the threshold limit of 30k rows that WQX can process. This has been coded, tested, in debug, but thinks it should be ready for next WQX rollout. Also: Batch import bugs, updating GLENDA data in WQX, and performance tuning.

Recently reported bugs: WQXWeb allows import as sample collection equipment w/o method, does not validate.

Questions?

WQX Tip of the Month: Deeper dive on WQX Domain Value Updates (See attached PDF slides)

Questions from Domain Update Presentation:

Q1: If a characteristic is marked retired, does that record import?

A: For a time, it will. When a Characteristic is first marked as **\*\*\*retired\*\*\***, it will validate via the Characteristic Alias table. Eventually, a retired Characteristic will be fully deprecated and throw an error on import. At that time, the user should have adopted the accepted name.

Q2: Confirming my understanding here, and may be more on the WQP side: Old, previously reported results under retired characteristics will still appear and be query-able under the retired name and will not appear under the new?

A: Correct. Once submitted as valid, data will remain in the originally submitted condition. WQX will not edit any existing data.

## **2. WQP Status Report (10 mins)**

There has not been much dev on WQP due to contract developer turnover. The WQP Team will be meeting and training new staff.

Please do report any new bugs as we're moving to a new ticket manager. The WQP repository is also moving to a new USGS held code repository.

It is the 10 year anniversary of Data Retrieval – there is going to be some outreach and celebration of DR and updates sent out to its user community. We are looking for success stories of your use of Data Retrieval. Please send them to Candice Hopkins chopkins(at)usgs.gov./

The new WQP Development team is beginning to on-board. Once up and running, they will be continuing to develop the new data export profiles.

The WQP Team is also working on setting priorities for the new fiscal year. EPA and USGS teams recently got together in-person for a WQP strategy session to identify new directions and priorities for the portal. Some of the topics included sensor solutions and decreasing the time between WQP refreshes from the WQX system.

## **3. Adjournment**

The meeting was adjourned at 12:33 PM.

The next meeting will be October 27th at 12:00 PM EST.

# WQX Domain Updates

Nuts and Bolts

# What are the WQX Domain Values?

- [ActivityGroupType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ActivityMedia \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ActivityMediaSubdivision \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ActivityRelativeDepth \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ActivityType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [AddressType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [AliasType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [AnalyticalMethod \(ZIP\) | \(XML\)](#)
- [AnalyticalMethodContext \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Assemblage \(ZIP\) | \(XML\) | \(CSV\)](#)
- [BiologicalIntent \(ZIP\) | \(XML\) | \(CSV\)](#)
- [CellForm \(ZIP\) | \(XML\) | \(CSV\)](#)
- [CellShape \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Characteristic \(ZIP\) | \(XML\) | \(CSV\)](#)
- [CharacteristicAlias \(ZIP\) | \(XML\)](#)
- [CharacteristicGroup \(ZIP\) | \(XML\) | \(CSV\)](#)
- [CharacteristicWithPickList\\* \(ZIP\) | \(XML\)](#)
- [Country \(ZIP\) | \(XML\) | \(CSV\)](#)
- [County \(ZIP\) | \(XML\) | \(CSV\)](#)
- [DetectionQuantitationLimitType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ElectronicAddressType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [FrequencyClassDescriptor \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Gear Procedure Unit \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Habit \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Habitat Selection Method \(ZIP\) | \(XML\) | \(CSV\)](#)
- [HorizontalCollectionMethod \(ZIP\) | \(XML\) | \(CSV\)](#)
- [HorizontalCoordinateReferenceSystemDatum \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Hydrologic Condition \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Hydrologic Event \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Local Aquifer \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Local Aquifer Context \(ZIP\) | \(XML\) | \(CSV\)](#)
- [MeasureUnit \(ZIP\) | \(XML\) | \(CSV\)](#)
- [MethodSpeciation \(ZIP\) | \(XML\) | \(CSV\)](#)
- [MetricTypeContext \(ZIP\) | \(XML\) | \(CSV\)](#)
- [MonitoringLocationType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [National Aquifer \(ZIP\) | \(XML\) | \(CSV\)](#)
- [NetType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Organization \(ZIP\) | \(XML\) | \(CSV\)](#)
- [QAQCCharacteristicValidation \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ReferenceLocationType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultDetectionCondition \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultMeasureQualifier \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultMeasureQualifierDEPRECATED \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultMeasureValuePickList\\* \(ZIP\) | \(XML\)](#)
- [ResultSampleFraction \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultSamplingPointType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultStatus \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultTemperatureBasis \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultTimeBasis \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultValueType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ResultWeightBasis \(ZIP\) | \(XML\) | \(CSV\)](#)
- [SampleCollectionEquipment \(ZIP\) | \(XML\) | \(CSV\)](#)
- [SampleCollectionMethod \(ZIP\) | \(XML\) | \(CSV\)](#)
- [SampleCollectionMethodContext \(ZIP\) | \(XML\) | \(CSV\)](#)
- [SampleContainerColor \(ZIP\) | \(XML\) | \(CSV\)](#)
- [SampleContainerType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [SampleTissueAnatomy \(ZIP\) | \(XML\) | \(CSV\)](#)
- [SamplingDesignType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [State \(ZIP\) | \(XML\) | \(CSV\)](#)
- [StatisticalBase \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Target Count \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Taxon \(ZIP\) | \(XML\)](#)
- [TaxonAlias \(ZIP\) | \(XML\)](#)
- [TaxonGroup \(ZIP\) | \(XML\) | \(CSV\)](#)
- [TaxonRank \(ZIP\) | \(XML\) | \(CSV\)](#)
- [TelephoneNumberType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [TimeZone \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ThermalPreservativeUsed \(ZIP\) | \(XML\) | \(CSV\)](#)
- [ToxicityTestType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Tribe \(ZIP\) | \(XML\) | \(CSV\)](#)
- [VerticalCollectionMethod \(ZIP\) | \(XML\) | \(CSV\)](#)
- [VerticalCoordinateReferenceSystemDatum \(ZIP\) | \(XML\) | \(CSV\)](#)
- [Voltinism \(ZIP\) | \(XML\) | \(CSV\)](#)
- [WellFormationType \(ZIP\) | \(XML\) | \(CSV\)](#)
- [WellType \(ZIP\) | \(XML\) | \(CSV\)](#)

# Who Performs the Updates?

- Most of the domain updates are handled manually by the WQX Team
  - Users send a request to [WQX@epa.gov](mailto:WQX@epa.gov) with the following information:
    - Description
    - Definitions
    - Reference
    - Identifiers: ITIS, SRS, CAS, etc.
- “Domain values” maintained by the submitter:
  - Locations
  - Projects
  - SampleCollectionMethod

# How are updates performed?

- EPA WQX staff update the domain tables within WQXWeb directly
- Domain values are immediately published to the domain service on the EPA website
- Requirements (schema validation, Characteristic requirements, etc.) are updated immediately. A submission made one day can be invalid the next.
- EPA regularly consumes updated information to update our domain tables (NEMI, SRS, ITIS)

# Syncing with USGS

- We are actively registering USGS domain values
- We are also correcting domain values based on their advice – such as Characteristic Group assignments
- Registering their list as aliases to assist in submission

# Why did my submission fail?

- Any update made to the domain tables will take effect immediately
- If we map an incorrect submission to an alias, then the submitter never corrects their submission
- Updates may also be made to schema validation requirements for the Characteristics:

- [Copy of CHARACTERISTIC CSV](#)

Sample Fraction Required	Analytical Method Required	Method Speciation Required	Pick List
N	N	N	Y

Characteristic	15609	Hydrolyzable phosphorus plus orthophosphate***retired***use Phosphorus, hydrolyzable plus orthophosphate
Characteristic	1420	Nitrogen-15/14 ratio ***retired*** use Nitrogen-15/Nitrogen-14 ratio
Characteristic	3715	Nitrogen Delta 15 ***retired*** use Nitrogen-15/Nitrogen-14 ratio
Characteristic	3691	Dissolved Inorganic Nitrogen/Total Phosphorus ratio
Characteristic	2267	Dissolved inorganic nitrogen/soluble reactive phosphorus ratio
Characteristic	4702	Nitrogen/Phosphorus molar ratio
Characteristic	2962	Phosphate-phosphorus ***retired*** use Total Phosphorus, mixed forms
Characteristic	1415	Inorganic nitrogen (nitrate and nitrite) ***retired***use Nitrate + Nitrite
Characteristic	4703	Inorganic nitrogen (ammonia, nitrate and nitrite)***retired***use Inorganic nitrogen (NO2, NO3, & NH3)
Characteristic	15585	Inorganic nitrogen (nitrate and nitrite and ammonia)***retired***use Inorganic nitrogen (NO2, NO3, & NH3)
Characteristic	15586	Inorganic nitrogen***retired***use Inorganic nitrogen (NO2, NO3, & NH3)



# Characteristics: Standard, Synonym, Retired

- As we register or maintain Characteristics, we assign them a validation status in the Characteristic table (Accepted or Deprecated)
- We also update the Characteristic\_Alias table where we register acceptable Synonyms (that validate), the harmonized WQX standard, retired Characteristics, and other synonym values – SRS, TSN, CAS, etc.

• [CharacteristicAlias \(ZIP\)](#) | [\(XML\)](#)