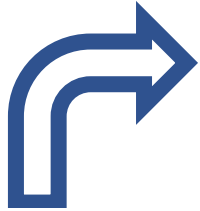


WQX QAQC Dataflow Diagram:

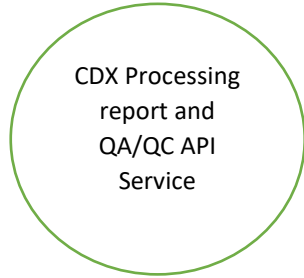
I have an XML file (Phase#1)



Node submission using XML

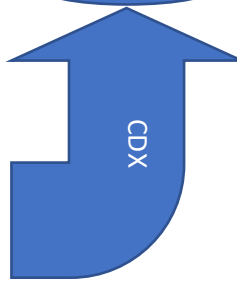


- CDX Download Reports:
- Validation.xml
 - ProcessingReport.xml (ZIP)
 - Submission.xml (ZIP)
 - **QAQClocations.csv (ZIP)**
 - **QAQCresults.csv (ZIP)**



EPA Node (WQX data flow)

XML



XML

EPA Node (WQX data flow)

Post Processing Zone

QA/QC API web service call (Phase#1)



Water Quality Portal (WQP)
www.waterqualitydata.us



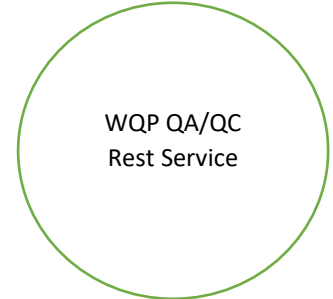
I have a URL (Phase#3)



I have a CSV File (Phase#1)

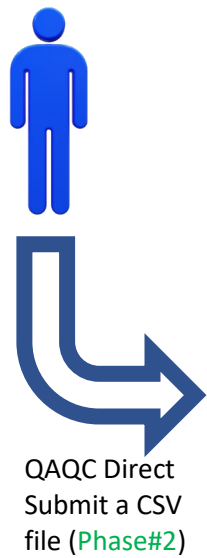


WQX Web submission using .csv, xls, etc.



WQP QA/QC Rest Service

WQX QAQC Dataflow Diagram: continued



Mandatory Columns

Locations:
Latitude, longitude

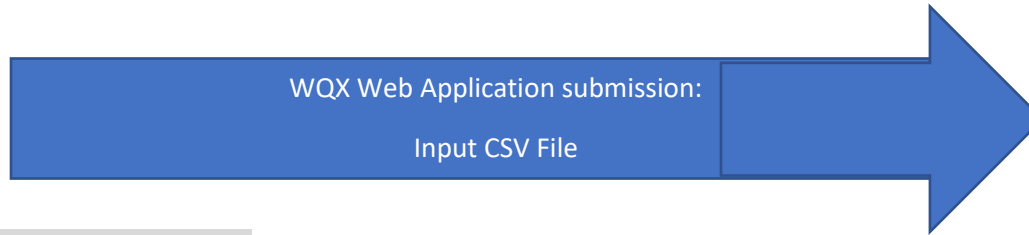
Results:
Characteristic

QAQC Download Reports:
1. QAQClocations.csv
2. QAQCresults.csv

QAQC COLUMNS:

Locations: Duplicate, and Precision
Country, State, County, HUC8, HUC12

Results: Notes_Recommendation,
VALID_DETECTION_CONDITION,
VALID_UNIT_STATUS,
RangeLowerMeasureValue,
RangeUpperMeasureValue,
RangeMeasureUnitCode,
VALID_FRACTION_STATUS,
VALID_SPECIATION_STATUS,
VALID_METHOD_STATUS,
ConvertedResultMeasureValue,
ConvertedResultMeasureUnitCode,



Post Processing Zone

QA/QC API web
service call

User Authentication:

- NAAS_ID, CDX
Username
(Phase#1 and
Phase#2)

NO Authentication:

- Develop Java
Rest API form
(Phase#4)
- Web page
- WQP(Phase#3)
download

WQX QAQC Dataflow Diagram: continued

Summary of Service Requirements:

QAQC REQUIREMENTS SUMMARY	MonitoringLocation	ActivityResults	Projects
<p>Goals</p>	<ul style="list-style-type: none"> • Geospatial checks on monitoring locations to ensure that the location is accurate • Provide Country, State, County based on lat/long • Provide NHD reachcode and/or HUC8, HUC12 for a location • Validate 3-digit decimal precision for lat/long • Identify duplicate monitoring locations based on 3-digit decimal lat/long 	<ul style="list-style-type: none"> • Flag special characters in Result Value (i.e. not using '<' or '&lt;' or less than, '>' or '&gt;' or less than, 'Non Detect', etc.). • Water Quality Portal (WQP) URL validation for QAQC schema elements • Dataflow QAQC checks for XML submission and direct CSV files. • Characteristic metadata combination checks on results to ensure data is accurate • Flag data outside of range • Units conversion to Targeted Unit • Notify user of incorrect metadata and characteristic combinations • Provide metadata best practices 	<ul style="list-style-type: none"> • QAPP (DocumentGraphic Upload): documentation for organizational method(s) • QAPP Approved Element = Yes/No • Report attachment (out-of-date documents)