

WQX Web Tutorial 1
Getting started with WQX Web V.2.0
[\(First time users start here\)](#)



United States Environmental Protection Agency
Office of Water
1200 Pennsylvania Avenue, NW
Washington, DC 20460

WQX Web Tutorial 1: Getting Started with WQX Web

Overview

This tutorial provides guidance in navigating WQX Web, working with lookup values and updating an organization's information via WQX Web.

Water Quality Exchange (WQX) and STORET

The Water Quality Exchange (WQX) is a mechanism for transferring data to, and extracting data from the U.S. Environmental Protection Agency's (EPA's) STOrage and RETrieval (STORET) Data Warehouse. WQX uses computers as connection points or *nodes* to communicate through EPA's National Environmental Information Exchange Network (NEIEN). Monitoring data files must be formatted in Extensible Markup Language (XML), to be submitted through WQX. XML encompasses a flexible text format for organizing and creating structured computer documents. Prior to import to the WQX/ STORET Data Warehouse, data files must pass through the Central Data exchange (CDX), a doorway which authorizes submissions. Setting up an NEIEN node to submit XML files can be financially unfeasible and technically challenging for smaller groups. Organizations that are unable to generate XML script on their own can still submit data to CDX with the assistance of WQX Web, a tool that converts formatted text files into XML script (**Figure 1**).

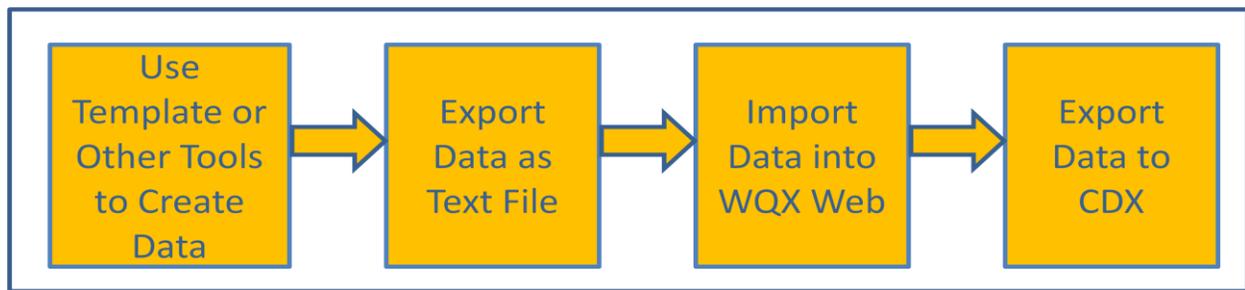


Figure 1. Flow chart outlining the general process for using WQX Web to submit data to the STORET Data Warehouse

WQX Web performs the following functions:

- Converts text files created by an organization's in-house water quality monitoring data storage system, into XML script.
- Submits generated XML file to the WQX Database via the Central Data Exchange (CDX), EPA's electronic reporting system.

Open up your web browser and enter in the URL

http://www.epa.gov/storet/wqx/wqxweb_downloads.html. Download the WQX Web Excel (.xls) data template, and provided data files by selecting the link labeled **WQX Web Tutorials and Example Data Files**. When using Microsoft Excel 2007, or a later version of Microsoft Excel, files will need to be saved in a macro enabled workbook format (.xlsm). The downloaded materials are for users to start with in importing actual monitoring data into WQX Web.

Tutorial System Requirements

- Internet access and a Web browser, such as Microsoft Internet Explorer 7 (IE7), or Firefox
- Pop-up blockers turned off for this site
- CDX account

It is important to note that WQX Web will only work with the IE7, IE8, Safari or Firefox web browser. WQX Web is not compatible with IE6.

Getting Started With WQX Web

This tutorial provides an overview of navigating WQX Web, using the lookup values function and guidance on updating an organization's information. Monitoring data submitted through WQX Web to the STORET Warehouse requires specific fields and formatting for parameters such as Monitoring Locations, methods and project identification (for a brief overview of using WQX Web, view the WQX Web cheat sheet accessible at the following URL:

http://www.epa.gov/storet/wqx/products/WQX%20Web%20Cheat%20Sheet_030210.pdf).

The WQX Web tool may be used in a 'Demo' mode, which allows users to practice submitting data to an assigned test organization. The WQX Web Demo environment is purely for training, and any data submitted within this environment is not placed in the STORET Warehouse. New users to WQX Web can contact the STORET Helpdesk (Storet@epa.gov) to obtain a username and password for the WQX Web Demo environment. Users also contact the STORET Helpdesk to obtain a real username and password for submitting data all the way to the STORET Warehouse.

1. To access the WQX Web, open your web browser and enter in the URL <https://cdx.epa.gov/SSL/cdx/login.asp> . Enter your training user name (e.g. wxqwebtraining1) and password into the "User Name" and "Password" fields (for information on registering for CDX/ WQX Web enter the following URL into your web browser <http://www.epa.gov/storet/wqx/wqxweb.html>).

U.S. Environmental Protection Agency

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[CDX Home - Login](#)

If you have forgotten your password, or if your password doesn't work, you may re-establish your password by clicking [here](#).

Central Data Exchange Login

Warning Notice

EPA's Central Data Exchange Registration procedure is part of a United States Environmental Protection Agency (EPA) computer system, which is for authorized use only. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms.

Privacy Statement

EPA will use the personal identifying information which you provide for the expressed purpose of registration to the Central Data Exchange site and for updating and correcting information in internal EPA databases as necessary. The Agency will not make this information available for other purposes unless required by law. EPA does not sell or otherwise transfer personal information to an outside third party. ([Federal Register March 18, 2002 \(Volume 67, Number 52\)\(Page 12010-12011\)](#))

IMPORTANT:

CDX web will begin enforcing upgraded web encryption to TLS-only starting July 10th, 2010.

If you are using IE or Firefox, please validate TLS support is enabled in your browser by clicking [HERE](#).

User Name:

Password: [Forgot Password?](#)

- Click on the “WQX: WQX Web” link.



- The WQX Web Welcome page serves as the starting point for all tasks that your agency will complete using this tool. The main part of the screen provides links for the four most commonly used functions in WQX Web (*Create or Edit an Import Configuration, Create a New Dataset, Continue with an Existing Dataset, Review Lookup Tables*). The left side of the screen provides all of the following functions needed in WQX Web, including the four in the main screen.



Unlike WQX Web, the WQX Web Demo environment contains a reset button. Selecting the reset button clears existing datasets, the Event Log, and modifications made to user preferences and the provided Import Configuration. If this is your first time using WQX Web Demo, or to reset WQX Web Demo to its initial conditions, select the reset button.

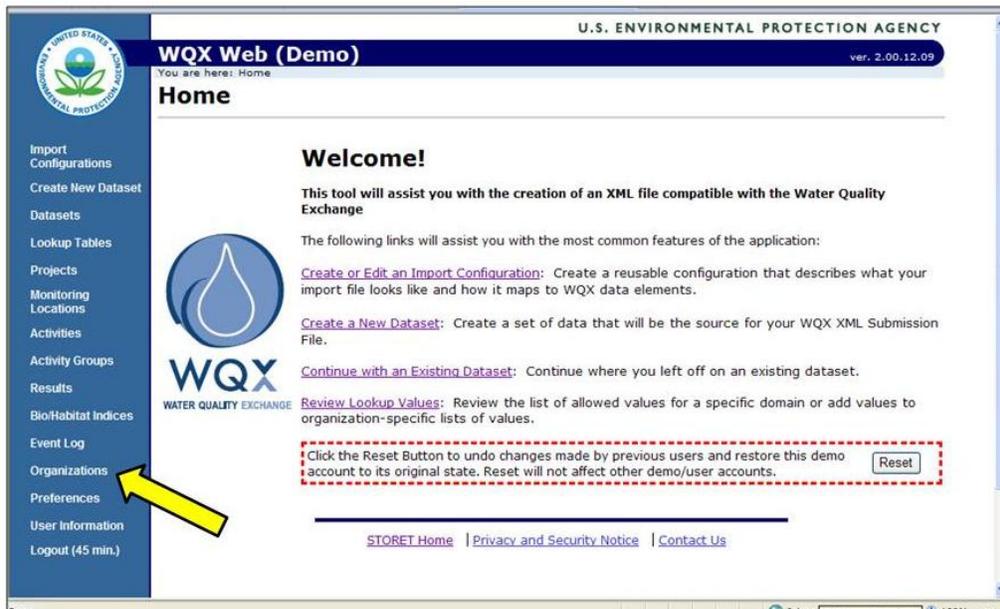
Functions provided in WQX Web

- 1. Import Configuration** - Provides a blueprint for WQX and determines the order of Data Elements in the file to be imported. (i.e. Activity Start Date data is in column 3).
- 2. Create New Dataset** - Allows users to submit Projects, Monitoring Locations, Results and Indices via importing data files into WQX Web and subsequently sending them to the STORET Data Warehouse. Previously submitted data files can also be deleted under this category.
- 3. Datasets** - Allows a user to continue working with datasets that have been imported into the WQX Web, prior to submission to the STORET Data Warehouse. Datasets imported into WQX Web are only temporary. Users have 15 days to export and submit datasets to CDX before they are deleted from the system.
- 4. Lookup Tables** - Allows a user to view and download certain lists of existing parameters, categories, and metrics characterizing Data Elements (i.e. measurement units #/ha; #/km²; #/ft²; or #/in²). Additional values not in the table characterizing user data can be added to the list for future use.
- 5. Projects** – Allows a user to view existing Projects associated with a user’s organization(s), after submission to CDX.
- 6. Monitoring Locations** - Allows a user to view existing Monitoring Locations associated with a user’s organization(s), after submission to CDX .
- 7. Activities** - Allows a user to view existing Activities associated with a user’s organization(s), after submission to CDX.
- 8. Activity Groups** - Allows a user to view existing Activity Groups associated with a user’s organization(s), after submission to CDX.
- 9. Results** - Allows a user to view existing Results associated with a user’s organization(s), after submission to CDX.
- 10. Bio/ Habitat Indices** - Allows a user to view existing Bio/ Habitat Indices associated with a users organization(s), after submission to CDX.
- 11. Event Log** - Provides a listing of a user’s previous activities in WQX Web, along with the ability to see some types of errors.
- 12. Organizations** - Allows users to update their organization information.
- 13. Preferences** - Allows users to set defaults for import configurations, or other preferences for WQXWeb.
- 14. User Information** - Allows a user to change personal information.

Updating Organization Information Details

WQX Web allows a user to update information about their organization(s) in the STORET Data Warehouse. This information is sent in an updated form with your data submission.

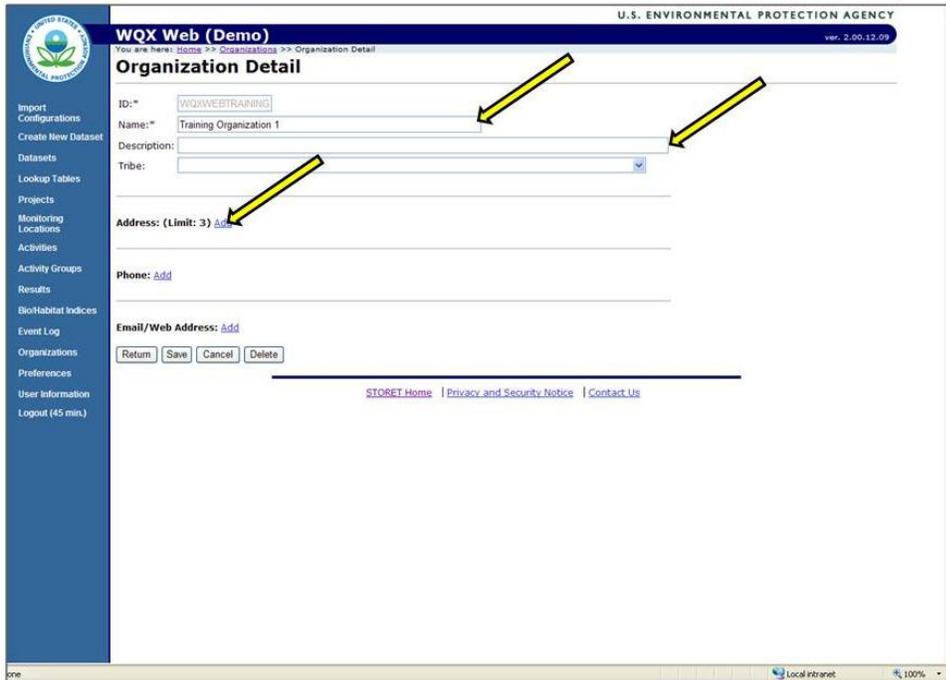
1. To view current information on your organization, click on the “Organizations” link on the left side of your screen.



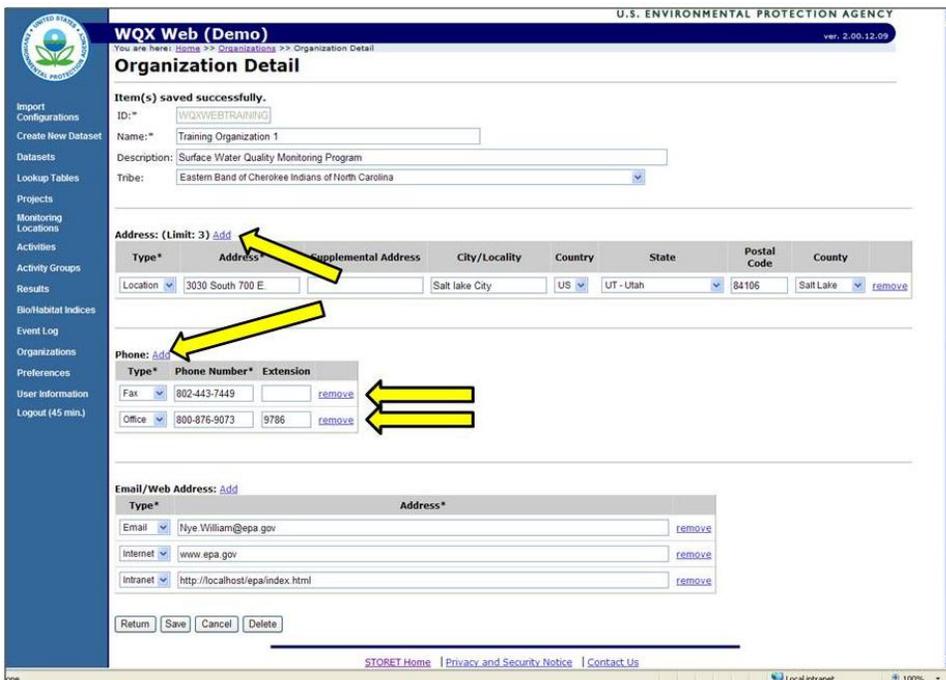
2. Choose your Organization Identifier by clicking on the appropriate link provided. Users should select the specific training organization assigned to them for the training environment i.e. WQXWEBTRAINING1. This tutorial uses “WQXWEBTRAINING1” as the Organization Identifier.



- Fields that have an asterisk (*) next to them, such as Name, and ID signify required information. Users are able to update organization descriptions, associated tribes or addresses as needed.



- Additional lines can be added to categories by clicking on the appropriate “Add” link. You may remove lines by clicking on the appropriate “Remove” Link. Fill in the “Description”, “Address”, “Phone” and “Email“ fields with your own organization’s information and select “Save”.



- After all of the Organization Details are updated, click the “Save” button on the bottom left side of the screen.

WQX Web (Demo) U.S. ENVIRONMENTAL PROTECTION AGENCY
You are here: [Home](#) >> [Organizations](#) >> Organization Detail ver. 2.00.12.09

Organization Detail

Item(s) saved successfully.

ID:*

Name:*

Description:

Tribe:

Address: (Limit: 3) [Add](#)

Type*	Address*	Supplemental Address	City/Locality	Country	State	Postal Code	County	
Location	3030 South 700 E.		Salt lake City	US	UT - Utah	84106	Salt Lake	remove

Phone: [Add](#)

Type*	Phone Number*	Extension	
Fax	802-443-7449		remove
Office	800-876-9073	9786	remove

Email/Web Address: [Add](#)

Type*	Address*	
Email	Nye William@epa.gov	remove
Internet	www.epa.gov	remove
Intranet	http://localhost/epa/index.html	remove

[Return](#) [Save](#) [Cancel](#) [Delete](#)

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- Click the “Return” button twice to go back to the main WQX Web screen.

WQX Web (Demo) U.S. ENVIRONMENTAL PROTECTION AGENCY
You are here: [Home](#) >> [Organizations](#) >> Organization Detail ver. 2.00.12.09

Organization Detail

Item(s) saved successfully.

ID:*

Name:*

Description:

Tribe:

Address: (Limit: 3) [Add](#)

Type*	Address*	Supplemental Address	City/Locality	Country	State	Postal Code	County	
Location	3030 South 700 E.		Salt lake City	US	UT - Utah	84106	Salt Lake	remove

Phone: [Add](#)

Type*	Phone Number*	Extension	
Fax	802-443-7449		remove
Office	800-876-9073	9786	remove

Email/Web Address: [Add](#)

Type*	Address*	
Email	Nye William@epa.gov	remove
Internet	www.epa.gov	remove
Intranet	http://localhost/epa/index.html	remove

[Return](#) [Save](#) [Cancel](#) [Delete](#)

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Identifying Documented Methods/ Standards/ Units Using the Lookup Tables

The Lookup Table function allows users to access allowable values in WQX. Lists of domain values can be downloaded, or viewed in a web browser. Some allowable values can be modified, where users can add unique organization values into WQX. These user-defined entries will remain in WQX Web for an organization's future use.

1. Click on the "Lookup Tables" link on the left side of your screen to display a list of Data Elements that have allowable values.

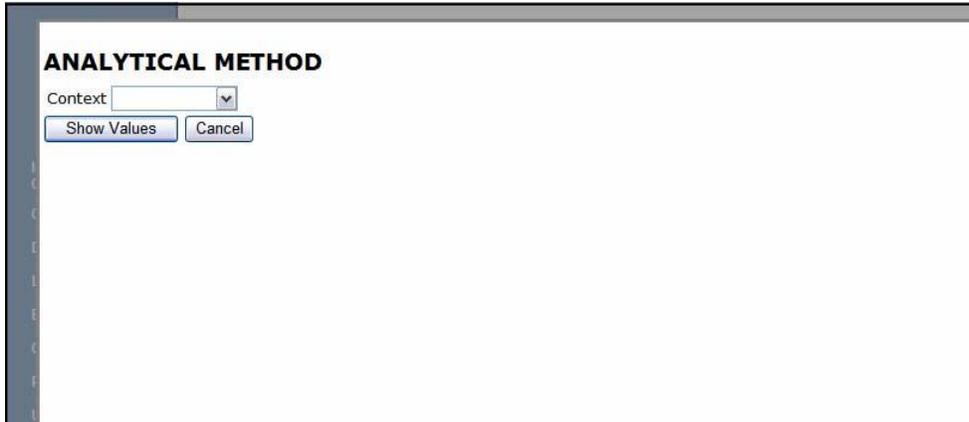


2. Click on the link for a data element to view the allowable values list. Lists of allowable values can be downloaded or viewed on the webpage. In this case, choose the "ANALYTICAL METHOD" link.

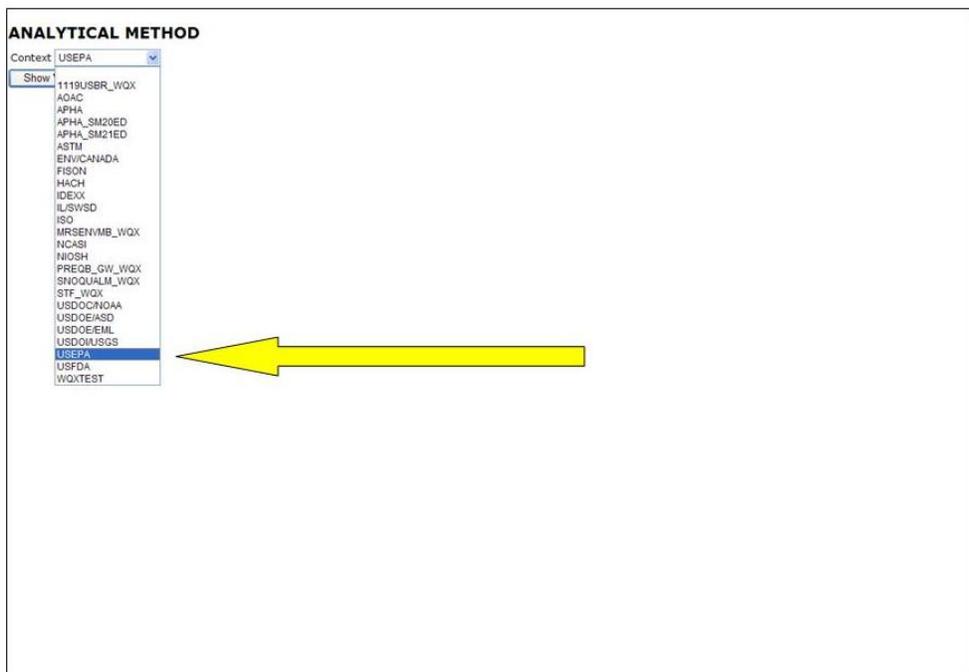


Note: lists that are manually downloaded to a user's hard drive will become out of date after a period of time since Lookup Tables are subject to change due to additions to WQX.

3. Some allowable values, like Analytical Methods, require selection of an additional filter. Analytical Methods are additionally filtered by “Context”, which refers to the organization that owns or has developed the method. You must choose a *Context* from the dropdown menu to view the allowable values for an Analytical Method.



4. Select “USEPA” from the “Context” dropdown menu.



5. Click on the “Show Values” button.

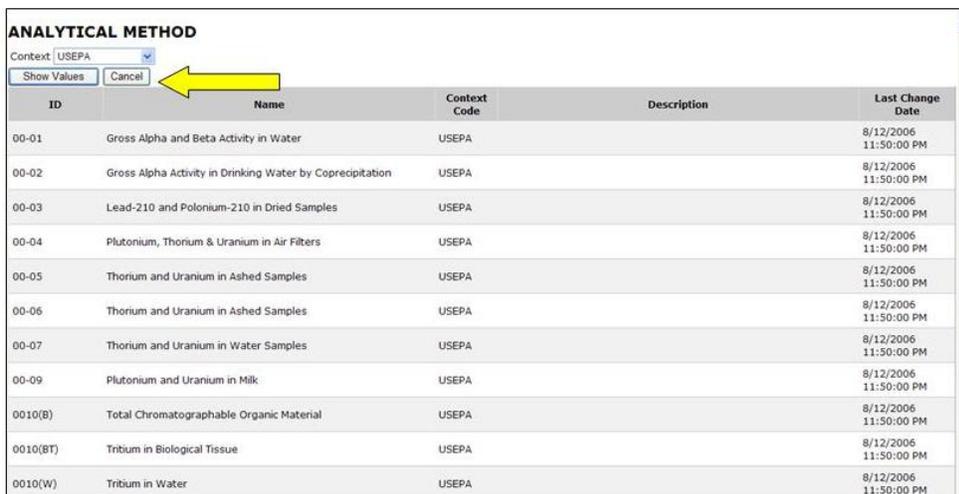


6. Scroll through the resulting list of Analytical Methods. Each method will have a unique “ID”, “Name”, and “Context Code”. The Context is the owner, or originator, of the method.

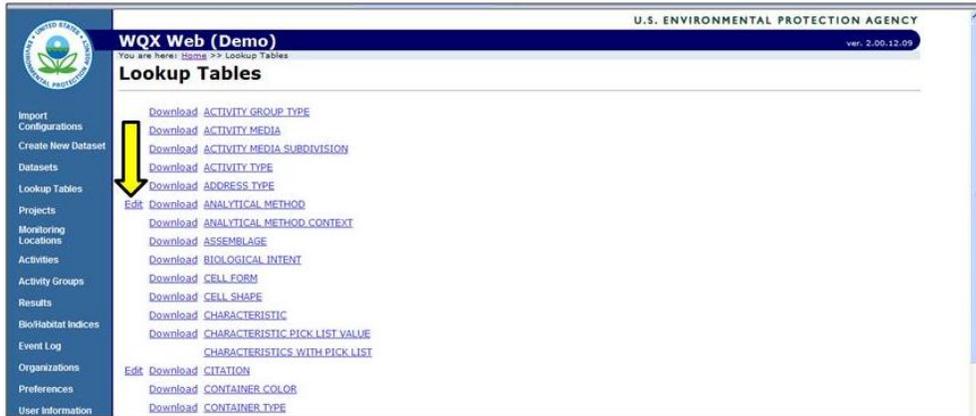
The screenshot shows the "ANALYTICAL METHOD" form with a list of methods. The "Context" dropdown is set to "USEPA". The "Show Values" button is highlighted. The table below lists the methods:

ID	Name	Context Code	Description	Last Change Date
00-01	Gross Alpha and Beta Activity in Water	USEPA		8/12/2006 11:50:00 PM
00-02	Gross Alpha Activity in Drinking Water by Coprecipitation	USEPA		8/12/2006 11:50:00 PM
00-03	Lead-210 and Polonium-210 in Dried Samples	USEPA		8/12/2006 11:50:00 PM
00-04	Plutonium, Thorium & Uranium in Air Filters	USEPA		8/12/2006 11:50:00 PM
00-05	Thorium and Uranium in Ashed Samples	USEPA		8/12/2006 11:50:00 PM
00-06	Thorium and Uranium in Ashed Samples	USEPA		8/12/2006 11:50:00 PM
00-07	Thorium and Uranium in Water Samples	USEPA		8/12/2006 11:50:00 PM
00-09	Plutonium and Uranium in Milk	USEPA		8/12/2006 11:50:00 PM
0010(B)	Total Chromatographable Organic Material	USEPA		8/12/2006 11:50:00 PM
0010(BT)	Tritium in Biological Tissue	USEPA		8/12/2006 11:50:00 PM
0010(W)	Tritium in Water	USEPA		8/12/2006 11:50:00 PM

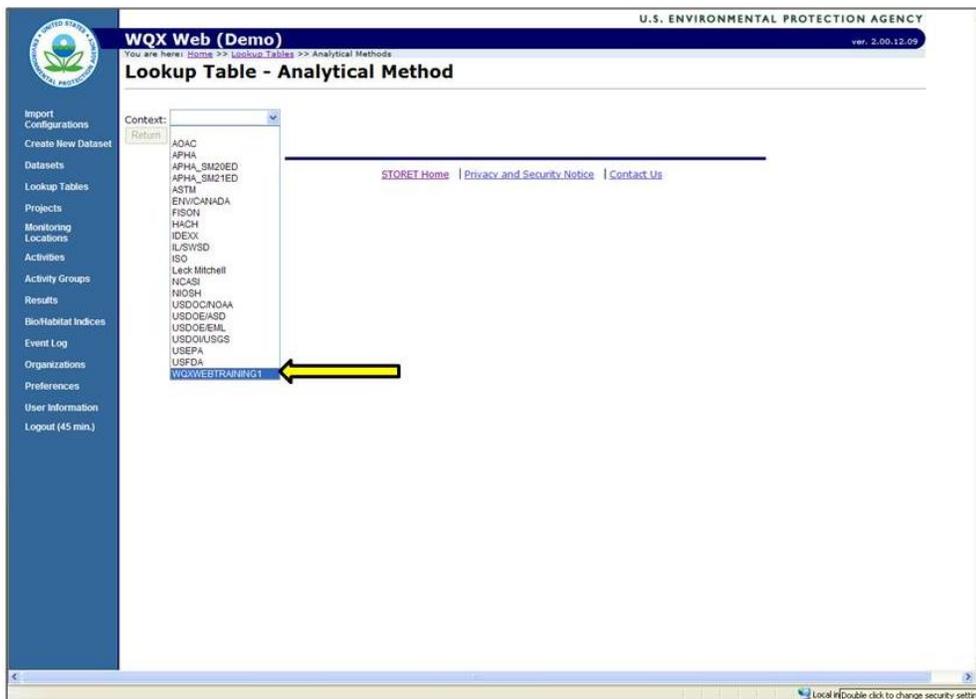
7. Click the “Cancel” button when you are through viewing the list of Analytical Methods to return to the list of Lookup Tables.



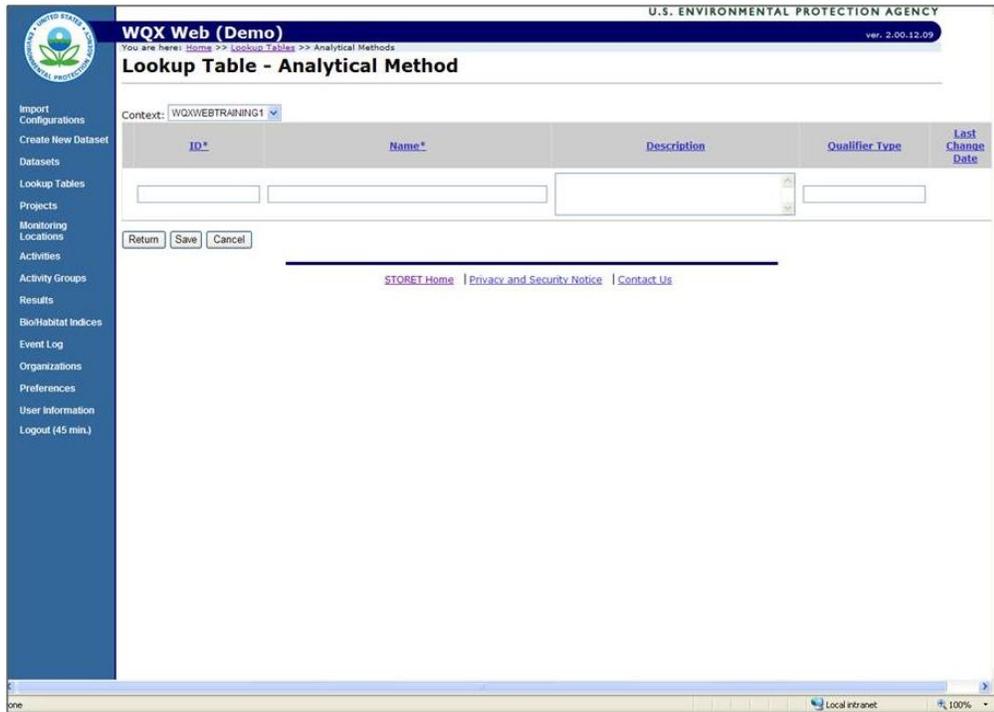
8. Returning to the Lookup Tables page, select the “Edit” link next to “ANALYTICAL METHOD” to add your organization’s unique Analytical Method.



9. Select your associated organization from the “Context” list. This tutorial will continue to use WQXWEBTRAINING1.



10. Notice that the “Return”, “Save” and “Cancel” functions at the bottom of the screen are clickable. If a user was not associated with an organization, the “Save” and “Cancel” functions would be grayed out. Users that are not authorized by an organization to make changes are not permitted to do so. This screen allows a user to fill in a unique Analytical Method. Notice that “ID” and “Name” categories have asterisks, indicating that they are required fields.

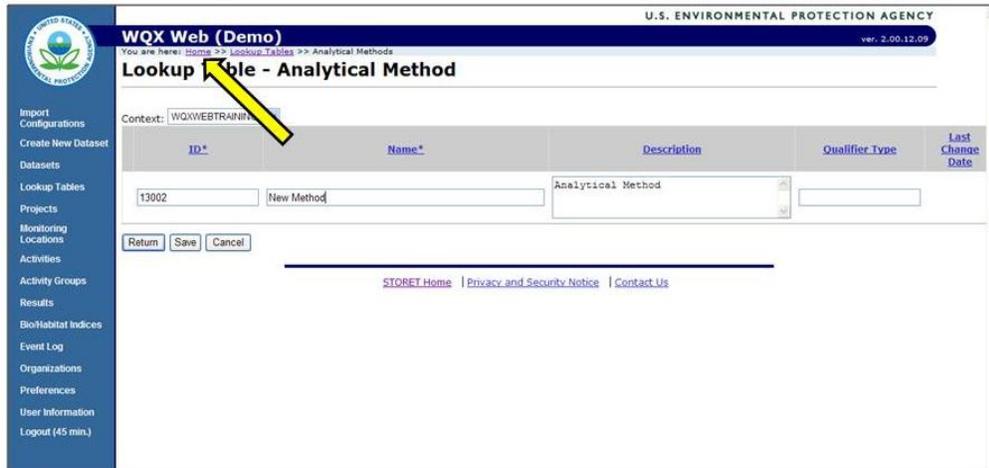


11. Enter in a unique “ID”, “Name”, and “Description” for an Analytical Method, just like the screen below, and then click the “Save” button on the left of the screen.



The Analytical Method ID ‘13002’ and Method Name ‘New Method’ have now been added to your training organization’s methods. Additional methods can be added in the subsequent lines. Organizations must add in sample collection methods for any sample data submitted.

12. Click on the “Home” link at the top of the page to return to the main WQX Web page.



Searching For Data Submitted by your Organization.

WQX Web allows users to view data already submitted by their organization, including Projects, Monitoring Locations, Activities, Activity Groups, Results and Bio/ Habitat Indexes. Users are only able to query data submitted by their organization.

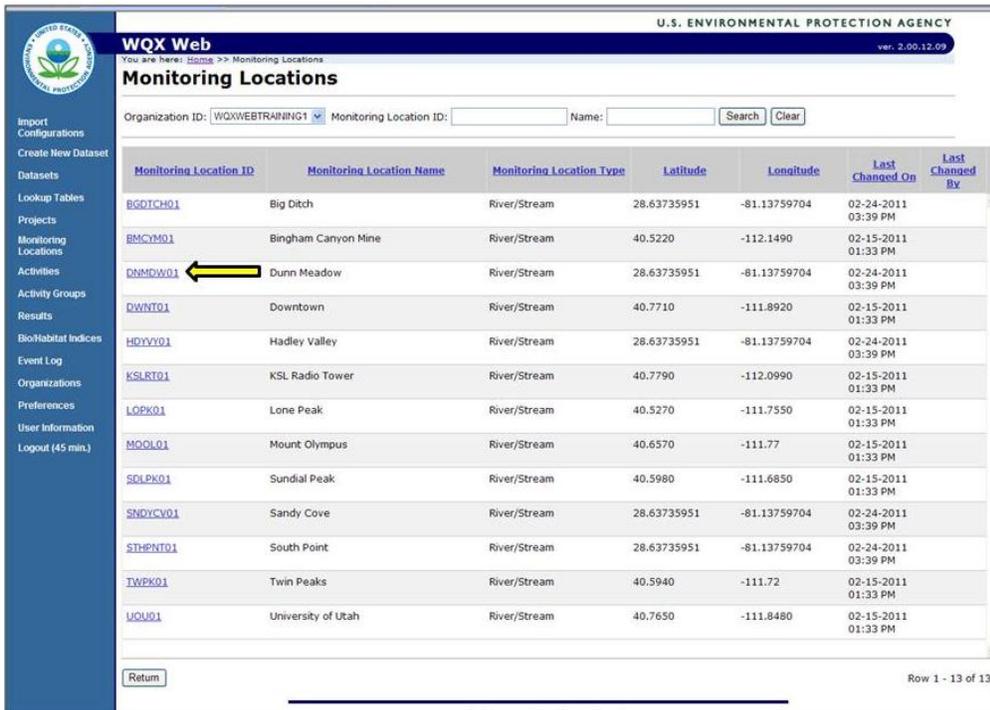
1. Click on the Monitoring Locations link on the left side of the screen.



- Select your test organization ID WQXWEBTRAINING1. Selecting search without entering data into the other boxes returns a complete list of Monitoring Locations associated with your organization. Alternatively Monitoring Locations can be filtered by a Monitoring Location ID, or Name. Leave the Monitoring Location ID and Name fields blank and select search.



- The query returns information on Monitoring Location IDs, Names, Types, Longitude, Latitude, and Last Changed Date. Select the Monitoring Location ID 'DMNDW01' to view associated Activity information.



4. The resulting activity information can be refined by Activity ID, Activity Type and Date.

The screenshot shows the WQX Web (Demo) interface. The header includes the U.S. Environmental Protection Agency logo and the text "WQX Web (Demo)" and "U.S. ENVIRONMENTAL PROTECTION AGENCY". Below the header, there is a navigation menu on the left with options like "Import Configurations", "Create New Dataset", "Datasets", "Lookup Tables", "Projects", "Monitoring Locations", "Activities", "Activity Groups", "Results", "BioHabitat Indices", "Event Log", "Organizations", "Preferences", "User Information", and "Logout (45 min.)". The main content area has search filters for "Organization ID" (set to WQXWEBTRAINING1), "Activity ID", "Activity Type", "Project ID", "Monitoring Location ID" (set to DNMDW01), and "Activity Date Between". A "Search" button is present. Below the filters is a table with the following data:

Activity ID	Date	Activity Type	Monitoring Location ID	Monitoring Location Name	Last Changed On	Last Changed By
QWFD:0069	02-17-2010	Field Msr/Obs	DNMDW01	Dunn Meadow	02-24-2011 03:47 PM	

5. Selecting an Activity ID will return all result data. Select Activity ID 'QWFD:0069'.

This screenshot is similar to the previous one, but with a yellow arrow pointing to the "QWFD:0069" link in the "Activity ID" column of the table. Below the table, there is a "Return" button and a footer with links for "STORET Home", "Privacy and Security Notice", and "Contact Us". The text "Row 1 - 1 of 1" is visible in the bottom right corner.

- Results level data will provide users with specific information stored with an Activity ID including Characteristics, Taxon and Detection Condition.

The screenshot shows the WQX Web interface with the following search criteria: Organization ID: WQXWEBTRAINING1, Activity ID: QWFD 0069, Activity Type: (empty), Project ID: (empty), Monitoring Location ID: (empty), Activity Date Between: (empty) And (empty), Characteristic: {none}, Taxon: {none}, Unit of Measure: (empty), and Sample Fraction: (empty). The search results table contains 14 rows of data.

Activity Date	Activity Type	Monitoring Location ID	Characteristic	Value	UoM	Fraction	Detection Condition	Taxon Name	Last Changed On	Last Changed By
02-17-2010	Field Msr/Obs	DNMDW01	Temperature, water	50.1 deg F		Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	Temperature, water	50.2 deg F		Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	pH	7.02	None	Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	pH	7.01	None	Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	pH	6.98	None	Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	pH	6.99	None	Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	Nitrogen	2.12 mg/l		Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	Nitrogen	1.78 mg/l		Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	Nitrogen	2 mg/l		Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	Nitrogen	1.99 mg/l		Dissolved			02-24-2011 03:47 PM	
02-17-2010	Field Msr/Obs	DNMDW01	Nitrogen	2.02 mg/l		Dissolved			02-24-2011 03:47 PM	

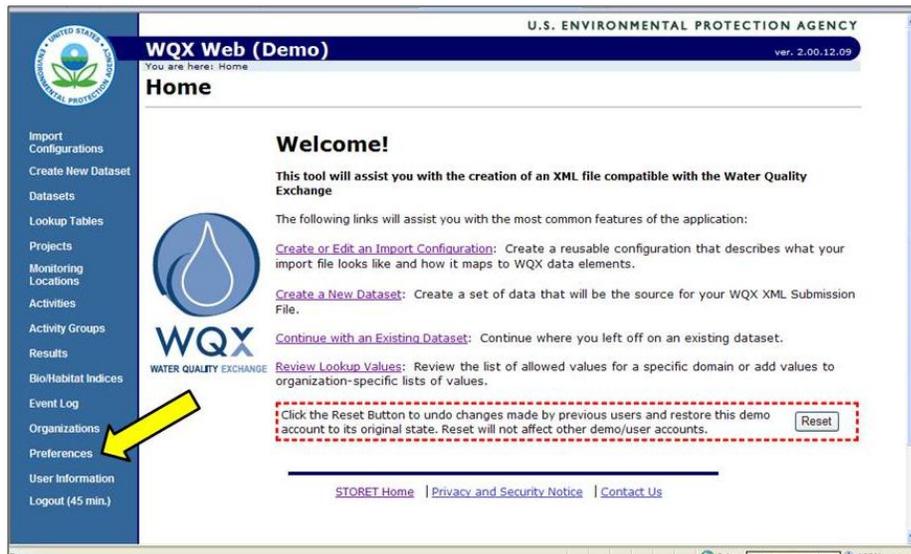
- Click on “Home” to return to the main page.

The screenshot is identical to the previous one, but a yellow arrow points to the 'Home' link in the breadcrumb trail 'You are here: Home >> Results'.

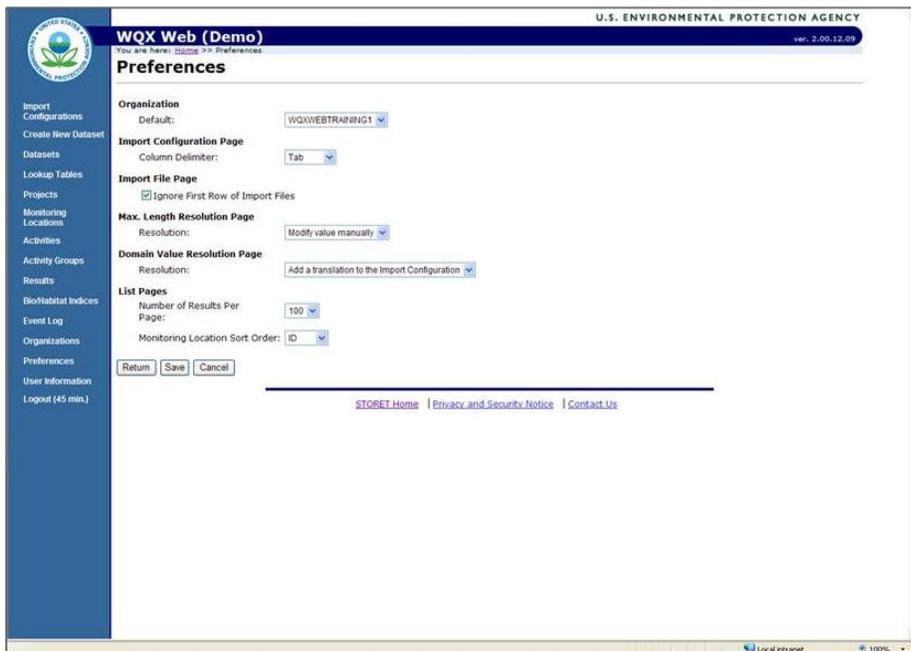
Note: Users can also access data submitted to WQX using the navigation links on the left side of the page (e.g. Projects, Monitoring Locations, and Results) to filter for specific data.

Identify Preferences

1. From the homepage click on “Preferences” on the left side of the page.



2. The “Preferences” tab allows users to identify default settings for their data imports. Users can set their default organizations, “Import Configurations” “Column Delimiter”, “Max. Length Resolution Page”, “Domain Value Resolution Page”, and “List Pages”. Options such as the Max. Length Resolution Page indicates the default way to handle data that exceeds field length in WQX.



Summary

This tutorial provided an overview of the basics of WQX Web, including updating organization information, accessing existing lists of allowable values, and adding Data Elements to certain allowable values. Please refer to the additional tutorials for guidance on Importing Projects, Monitoring Locations or Results data and on working with Import Configurations. For a more detailed description on using WQX Web, please refer to the WQX Web user guide accessible at the following URL:
http://www.epa.gov/storet/wqx/products/WQX_Web_User_Guide_v2.0.pdf.