



April 27, 2007

Office of Water Quality Water-Quality Information Note 2007.08

Subject: National Water Information System (NWIS)—announcement of availability of QW-data Transfer System (QWDX)

Summary

A new web-based system called the QW-data Transfer System (QWDX) is available for use by personnel from internal USGS laboratories and Water Science Centers (WSCs). This system was developed to improve the delivery of water-quality data from source laboratories to local National Water Information System (NWIS) installations. The system is also designed to upload field data for input into the NWIS database. The data will be uploaded and downloaded in the NWIS tab-delimited batch file format.

All USGS employees can access the system and verify the format of NWIS tab-delimited water-quality batch files and view some basic reports. A user must be granted additional access to the system to upload and download data from the QWDX.

Training and online documentation are available for both laboratory users and WSC employees who will use the QWDX.

Introduction

Various approaches have been used by internal USGS laboratories to disseminate water-quality data within the USGS-WRD. Disparate data-formatting and data-dissemination mechanisms have caused difficulties for WSC personnel who load the data into the NWIS database. Laboratories serve a variety of customer needs, including data dissemination to multiple customers, re-release of analytical results to correct errors, and transmittal of data for analysis rerun requests. Laboratory resources are not used in the most efficient manner with the current processes to accomplish these tasks.

The development of a variety of field-data entry computer software (e.g. PCFF) has facilitated the advancement of one-time data entry of water-quality field results. This has created a need to easily enter data into NWIS from a field location. WSC personnel have met this need by deferring field data entry into NWIS until they return from the field location. This time delay could be avoided with a web-based system accessible to personnel in locations separate from the local NWIS installation.

A centralized system was needed to improve the transmission of laboratory-analytical data from internal USGS laboratories to local NWIS installations. This system will (1) facilitate the transmission and storage of water-quality data in the NWIS database, which should help store more data in the NWIS database, (2) create a smoother workflow for laboratories and WSCs, (3) avoid the need to request and fill custom data retransmissions, (4) reduce expenses for training and maintenance of duplicative processes, and (5) increase the quantity of data

available in NWIS for national synthesis, external data requests, and future projects based on the legacy of archived water-quality data.

What is the QWDX?

The QWDX is a secure, web-based system available to internal USGS laboratories and WSCs; this system will allow uploads and downloads of water-quality data that are formatted in tab-delimited NWIS batch files. This centralized data-distribution system will facilitate the movement of data from multiple USGS laboratories and WSC field locations to multiple NWIS installations. The system provides a method to track data to the source, store the upload and download status of results, verify the input file format, and allow data base administrators to register users.

The expectation is that the QWDX will be used primarily by USGS laboratories to distribute analytical data to WSC locations. The participating laboratory will upload NWIS tab-delimited batch files to the QWDX. These files can contain data for multiple WSCs, because the QWDX will be able to determine the destination WSC from the file content. At a later time, determined by WSC personnel, the analytical data from any laboratory can be downloaded in the NWIS tab-delimited batch files. The WSC personnel will continue to be responsible for loading the data into the local NWIS database.

This new system can also be used by WSC personnel to transfer field data for water-quality samples from a non-office location so that other WSC personnel in the office can download it. This could expedite the input of water-quality field data into the local NWIS database while away from the office. The field personnel would need to be able to access the internal USGS website to upload files that are in the NWIS tab-delimited batch format. The office personnel would download the data in the same file format for loading the data into the local NWIS database.

How does the QWDX relate to the NAWQA File Depot?

The QWDX replaces the NAWQA File Depot, which was developed as an interim solution for distributing analytical laboratory data. The QWDX has additional features that increase the efficiency of the laboratory processes. These features include queries and reports, batch loading, file-format verification, and enhanced security. In particular, the QWDX will allow laboratories to upload a single batch of analytical data that is not segregated into separate files for each customer.

The NAWQA File Depot was discontinued on December 31, 2006 for laboratory data uploads and user downloads. The laboratories and WSC personnel that used the NAWQA File Depot began using the QWDX around January 1, 2007. The files present in the depot on December 31, 2006 were moved to a temporary directory at http://infotrek.er.usgs.gov/usgs/NAWQA/labdepot_archive/. This archive will be maintained until June 30, 2007. WSC users should retrieve their NAWQA File-depot data prior to this date.

Who should use the QWDX?

The QWDX is available to any USGS laboratory or user that has a need to transfer laboratory or field water-quality data. Use of the system will not be required at this time, although usage

is encouraged. The system is designed to increase the efficiency of data distribution by providing a single web-based source for laboratory and field data.

When the laboratory has begun to use the QWDX, the laboratory should inform its customers that the data are now in the QWDX system so that the WSC personnel can begin to download the data from the QWDX. Field personnel that wish to use the QWDX to transfer field data can do so after they have been assigned user ids on the system.

Where is the QWDX and How are Accounts Established?

The QWDX will be hosted and maintained by the National Water Quality Laboratory (NWQL) and is located at: <https://qwdx.cr.usgs.gov>.

To use the QWDX a userid will need to be registered with the system. NWIS QW-database administrators (DBA) and laboratory users will register by sending an e-mail request to the QWDX Administrator (GS-W QWDX Admin). After the NWIS QW DBA has been registered, field users can be registered by their local NWIS QW DBA. The QWDX will authenticate users' identities with Lotus Internet userids and passwords. If you don't know your Lotus internet userid or password, contact your local System Administrator.

Is there support for the QWDX?

Cyber seminar training will be offered to any interested individuals. There will be two different seminars that will focus on the tools for (1) laboratory personnel and (2) WSC personnel. Instructions for the seminars can be found at <http://water.usgs.gov/usgs/owq/training.html>.

Online documentation is available for the QWDX. This documentation should help a user with most problems encountered during use of the QWDX. A link to the NWIS QWDATA User documentation is also available from the QWDX web page (<https://qwdx.cr.usgs.gov/>).

If additional help is required or questions arise, they can be sent to **GS-W Help QWDX**. A group of individuals will be able to answer questions and provide help with the QWDX.

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