

EPA Region 10
STORET Mapping Applications
STORET GIS Layer Creation
STORET and Site Specific Applications

This talk will focus on three topics.

- Automated Creation of a National STORET GIS Layer of Station Locations
- Region 10 STORET Web Based GIS Applications – Features and Tools
- Migration of Historical Superfund Site Sample Data into STORET and Creation of a Site Specific Mapping Application

Creation of a National STORET GIS Layer

We have automated the creation of a STORET station GIS layer for the U.S. consisting of over 180,000 stations. The process starts with the download of a station file from EPA National STORET. The file contains station locations and numerous station attributes. Datum corrections are applied to the stations where necessary for mapping purposes. Then standardized fields are created that contain geographically processed information, such as subbasin and county fields. Suggestions will be made to STORET data submitters on the fields that are necessary in STORET to create accurate location data for mapping.

Region 10 STORET Web Based GIS Applications – Features and Tools

EPA Region 10 uses GIS to display and analyze environmental data at a wide range of scales from multi-state views to site-specific views. STORET station locations, along with other water quality data, are incorporated into Region 10 web based GIS applications. These web-based applications have standardized tools, a common appearance, and are easily transportable. They provide users with an opportunity to see the location of water quality samples from STORET and other data repositories such as the USGS (NWIS data), then directly link to and download raw analytical data from EPA and other external web sites. Three mapping applications will be discussed: Region 10 (includes WA, OR, and ID); Region 8 (which includes MN, ND, SD, UT, CO, WY); and a site-specific application (Coeur d'Alene Basin Superfund Site in Idaho).

Migration of Historical Superfund Site Sample Data into STORET and Creation of a Site Specific Mapping Application

The Coeur d'Alene Basin (CDA) covers a large geographically diverse area in Northern Idaho. Contamination includes heavy metals and cleanup activities will be conducted over the next thirty years. STORET was chosen to house historic data and all data from future collection efforts conducted under the 'Coeur d'Alene Basin Environmental Monitoring Plan'. During 2004 the historic data (5000 sample stations and over 600,000 analytical results) were migrated to STORET by URS, the CDA superfund site contractor. With the help of National STORET and Region 8 plans are underway to establish a STORET data entry system for the capture of analytical results from future sampling. In addition, Region 10 is developing mapping tools that will allow the display of contaminant concentrations within a GIS mapping application.

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