

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE STATE OF COLORADO NATURAL RESOURCES CONSERVATION SERVICE

Water Quality Technical Note No. 6

September 7, 2010

To: All Colorado Area, Field and SCD Offices

From: Jason W. Peel
Irrigation Water Management Specialist

USEFUL WATER QUALITY RELATED WEB SITES

Purpose and Scope

This technical note provides information that is available from state and federal agencies and organizations for use by NRCS personnel to assist in determining the general quality of surface waters in their area. These tools and data are intended to assist landowners in conservation planning by providing knowledge of past or current conditions for surface waters and to help provide data to recommend a conservation practice or a system of practices.

Information gathered from these sources can be used to provide very general, qualitative information to estimate water quality, so its use must still be combined with professional judgment, field experience, and common sense. Knowing the past and existing condition of surface waters can help ensure current and planned conservation practices are and will contribute towards the correction and prevention of water quality problems. Collecting existing water quality information, analyzing the results and applying this knowledge to conservation planning will allow landowners and planners to achieve the water quality criteria for resource management systems.

More and more, landowners are being expected by regulatory agencies to understand and, if possible, correct the impacts their operations have on the quality of water bodies on or near their land. In some cases, such as with the Irrigated Lands Conditional Waiver, monitoring and solutions are being handled on a regional basis as opposed to being the responsibility of an individual landowner only. Either way, it is crucial that landowners have a good grasp on what is happening in their area with respect to individual and regional water quality. The first step to having this knowledge is to know where to find this information. This technical note highlights some of the online sites that can provide information either in a map or data format.

Remember not to over-interpret data. The user may find that some data only shows a snapshot of what is happening at that particular time frame when the sample was taken. Information found online is usually best used to obtain a general reference of what is happening in a stream or on the landscape and may help indicate what should be done to resolve any problems.

USEFUL ENVIRONMENTAL PROTECTION AGENCY (EPA) WEB SITES

EPA's Surf Your Watershed website provides access to some good information and links to many other useful sites online.

SURF YOUR WATERSHED

EPA's Surf Your Watershed site can help people locate environmental information about their local regions and watersheds including links to other sites and local groups' sites.

For example, if the user follows the link [Surf Your Watershed](#), the user is taken to a page where they can enter an identifying factor such as zip code, state, stream name, HUC number or other items that will link you to an HUC code related to that factor. If the user enters the zip code for Lakewood, CO (80225), a page is displayed that shows the links related to that zip code. In this case, the only water body listed is the HUC number 10190002 for the Upper South Platte River in Colorado. The page will look something like this:

The screenshot shows a web browser window displaying the EPA's Surf Your Watershed page for the Upper South Platte Watershed (HUC 10190002). The page features the EPA logo and navigation links. The main content area includes the watershed name, USGS Cataloging Unit, and a list of congressional districts. There are also links for citizen-based groups, water quality monitoring data, environmental websites, and the National Watershed Network. A map of Colorado highlights the watershed location, and a detailed map shows the watershed boundary with labels for Lakewood, Evergreen, Englewood, and Littleton.

Upper South Platte Watershed -- 10190002 | Surf Your Watershed | US EPA - Windows Internet Explorer

U.S. ENVIRONMENTAL PROTECTION AGENCY

Surf Your Watershed

Contact Us Search: All EPA This Area Go

You are here: [EPA Home](#) » [Water](#) » [Wetlands, Oceans, & Watersheds](#) » [Watersheds](#) » [Adopt Your Watershed](#) » [Surf Your Watershed](#) » [Upper South Platte Watershed -- 10190002](#)

Upper South Platte Watershed -- 10190002

Upper South Platte Watershed Profile

Watershed Name: Upper South Platte
USGS Cataloging Unit: 10190002
CO 1st Congressional District
CO 2nd Congressional District
CO 5th Congressional District
CO 6th Congressional District
CO 7th Congressional District

[Citizen-based Groups at work in this watershed](#) (Provided by [Adopt your Watershed](#))

[Water quality monitoring data from this watershed](#) (Provided by STORET)

[Environmental Websites Involving this Watershed](#)

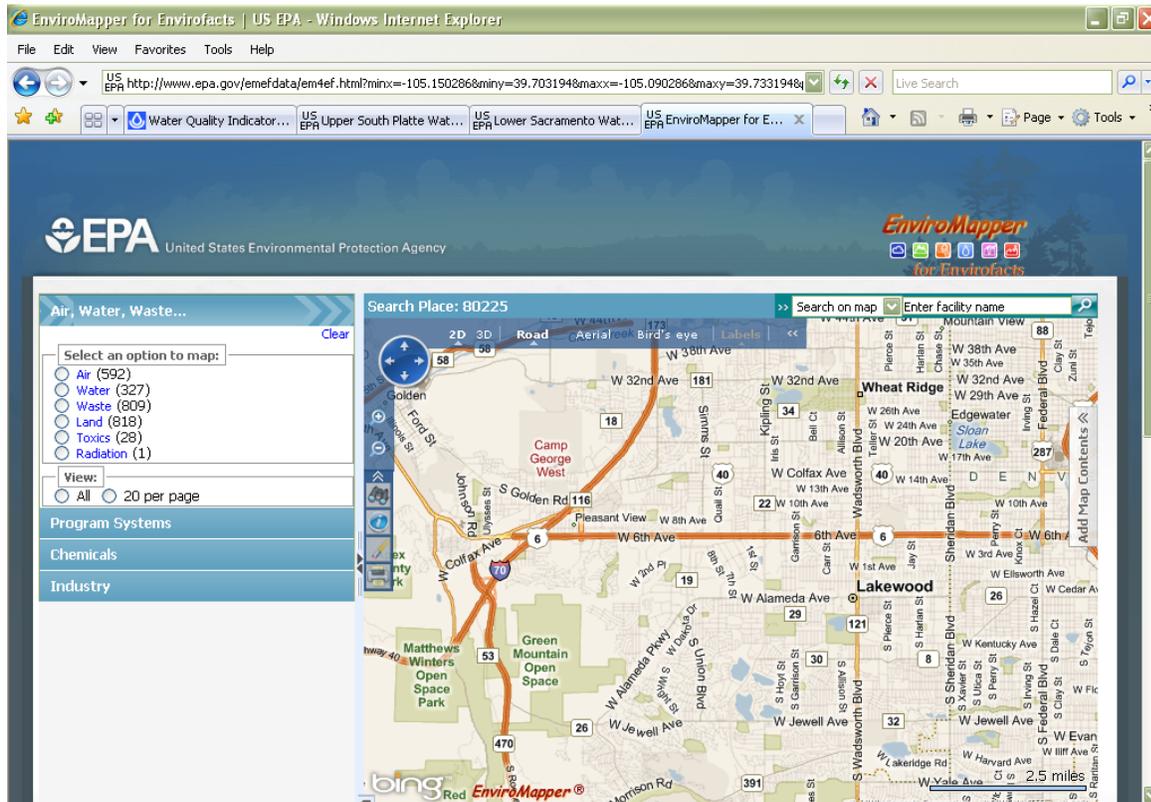
[National Watershed Network](#) (provided by [Conservation Technology Information Center](#)) [EXIT Disclaimer](#)

Assessments of Watershed Health

- [Impaired Water for this watershed](#)

As shown, this page shows maps of the watershed and its location and can link you to many other sites that can provide even more information about this watershed. Examples are: groups having projects in the watershed, other environmental websites involving the watershed, a link to the National Watershed Network, the Envirofacts Warehouse, impaired water body links, information from the U.S. Geologic Survey (USGS), the Know Your Watershed website, and links to county information for all the counties crossing the watershed boundaries.

Clicking the [Enviromapper](#) interactive link at the bottom of the page produces a map where you can pick and choose the features you want to display.



The interactive map allows the user to view the locations of superfund sites, registered water dischargers, impaired water bodies including streams, and many other points of interest. The user can also pick different backgrounds such as aerial photos, atlas maps, or topographic maps. EnviroMapper for Envirofacts can provide a helpful visual of impaired waters locations in your watershed. Move the mouse over the symbols on the map and a box will appear to inform the user what site is represented.

Additional links to water quality sites can be found by returning to the [Envirofacts](#) page and scrolling down to find access to information about air, toxics, waste and water. In two places on the site, in the middle and all the way at the bottom of the page, are links to the Window to My Environment website.

The screenshot shows a web browser window titled "Envirofacts Warehouse | Quick Start - Windows Internet Explorer". The address bar displays the URL: http://oaspub.epa.gov/enviro/ef_home3.html?p_zipcode=80225&p_type=zip&x=11&y=6. The page content is titled "Envirofacts information about ZIP Code 80225" and lists the following categories and counts:

- AIR**
 - Facilities that produce and release air pollutants: **0**
- TOXICS**
 - Facilities that have reported toxic releases: **0**
- WASTE**
 - Facilities that have reported hazardous waste activities: **24**
 - Number of Large Quantity Generators: **3**
 - Number of Small Quantity Generators: **3**
 - Potential hazardous waste sites that are part of Superfund that exist: **0**
 - Facilities that generate hazardous waste from large quantity generators: **0**
- WATER**
 - Facilities issued permits to discharge to waters of the United States: **2**
 - Transient Non-Community Water Systems that do not consistently serve the same people (e.g. rest stops, campgrounds, gas stations): **47**
 - Community Water Systems that serve the same people year-round (e.g. in homes or businesses): **41**
 - Non-Transient Non-Community Water Systems that serve the same people, but not year-round (e.g. schools that have their own water system): **22**

Below this list, there is a section titled "Additional information about ZIP Code 80225, click [MyEnvironment](#)". Under this section, it lists "Watershed(s) in your area:" with a link to [Upper South Platte, Colorado](#). At the bottom of the page, there is a link to [Return to more topical information](#).

Window to My Environment

After using the QuickStart feature and looking at the information provided for the watershed, the bottom of the page accesses a link to the Window to My Environment (WME) website. The user may also access Window to My Environment through this link: <http://www.epa.gov/enviro/wme/>. WME is a web-based tool that provides a wide range of environmental information and conditions in the area requested. Once again, the user can specify an area by zip code, city, or state and WME will provide you with an interactive map that shows the location of regulated facilities, monitoring sites, water bodies, population density, and perspective topographic views. The user will also see a section called Your Window that provides selected geographic statistics about the area of interest, including estimated population, county/urban area designations, local watersheds/water bodies, etc. Finally, a section called Your Environment links to information from federal, state, and local partners on environmental issues like air and water quality, watershed health, Superfund sites, fish advisories, impaired waters, as well as local services working to protect the environment in your area.

The screenshot shows the EPA MyEnvironment website interface. At the top, the EPA logo and 'MyEnvironment environmental information for my area' are visible. The main content area is titled 'Sites Reporting to EPA near 80225, CO'. It features a map with several orange location markers. To the right of the map is a search bar and a list of 'Sites and facilities by:' categories, including 'All Facilities and Sites(19)', 'Air Emissions (AIRS/AFS)(6)', 'Superfund Sites (CERCLIS)(0)', 'Toxic Releases (TRI)(0)', 'Hazardous Waste (RCRAInfo)(13)', 'Water Dischargers (PCS)(0)', 'Brownfields (ACRES)(0)', 'Biennial Reporting (BR)(0)', and 'RADInfo(0)'. Below the map, there are three main sections: 'MyAir' showing 'Air Quality Index in my area' for Denver, CO with a 'Good' current quality and 'Moderate' forecast; 'MyHealth' with buttons for 'Cancer Risk', 'Mortality', 'LEW', and 'TOXMAP'; and 'MyCollaboration' with links for 'SERVE.GOV', 'MyEnvironment Contact Us', 'Give a Shout out!', 'Volunteer', and 'Cleanup Your Neighborhood'.

USGS Links Available from the Surf Your Watershed Site

Users may also link to several USGS sites that can provide water quality data. The link labeled Science in Your Watershed can direct the user to USGS data bases with real time and legacy water quality data. Access is also available through <http://water.usgs.gov/>.

The purpose of the Science in Your Watershed site is to help you find scientific information organized on a watershed basis. This information, coupled with observations and measurements made by the watershed groups, provides a foundation for characterizing, assessing, analyzing, and maintaining the status and health of a watershed. This web site provides a decision-support process by making accessible recent case studies of projects that have occurred, publications that have been produced, developing databases, information assembled, and provides access to free and nearly free software and tools for manipulating spatial information.

USGS Water Data for Colorado - Windows Internet Explorer

File Edit View Favorites Tools Help

http://waterdata.usgs.gov/co/nwis/

USGS Water Data for Colorado

USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Home Geographic Area: Colorado GO

News - updated July 20, 2010

USGS Water Data for Colorado

Data Category

Real-time data **Current-conditions** data transmitted from selected surface-water, groundwater, and water-quality sites.

Site information Descriptive site information for all sites with links to all available water data for individual sites.

Surface water Water flow and levels in streams, lakes, and springs.

Groundwater Water levels in wells.

Water quality Chemical and physical data for streams, lakes, springs, and wells.

Manner Map of all sites with links to all available

Introduction

The U.S. Geological Survey's (USGS) National Water Information System (NWIS) is a comprehensive and distributed application that supports the acquisition, processing, and long-term storage of water data. NWISWeb serves as the publicly available portal to a geographically seamless set of much of the water data maintained within NWIS ([additional background](#)).

NWISWeb pages provide access to water data from over 1.5 million sites in all 50 States and additional border and territorial sites. The data are organized within the categories listed to the left.

The water data available via NWISWeb have been acquired as part of the USGS investigations of the

EPA's STORET

STORET is a repository for water quality, biological, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens, and many others. STORET is divided into two sets of data: modern and legacy. In the past, anyone who sampled or monitored water bodies could enter their data into STORET, creating a situation where the STORET user had no way of verifying how accurate the data may be. Data obtained would therefore need to be used with caution since the submitters were unknown. However, there has always been much useable data from sources such as USGA. In recent years EPA has been trying to confirm the validity of the supplied data.

WATERS

WATERS (Watershed Assessment, Tracking & Environmental ResultS) combines water quality information from several independent and unconnected databases. WATERS connects these databases and displays the information through maps and reports. This program allows queries of the database by picking the view of interest, the data elements or fields you wish to see, and to specify your search criteria. The advantage of using this website is that the user can query and pinpoint one specific water body and see what impairments are listed.

Access WATERS at the following website: <http://www.epa.gov/waters>.

SITES OTHER THAN EPA

World Water Monitoring Day

World Water Monitoring Day™ is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by helping citizens come together to conduct basic monitoring of their local water bodies.

In 2006, 3,900 sites were monitored in 39 countries. Many communities around the world are unaware of the condition of their water quality and the impact of their behaviors on the quality of their water resources. Conducting simple monitoring tests teaches participants about some of the most common indicators of water health and encourages further participation in more formal citizen monitoring efforts. Participants are then able to submit their data, resulting in a worldwide data base of basic water quality conditions around the world.

To see some of the Colorado data follow the link: <http://www.worldwatermonitoringday.org/>.

USGS National Water Quality Assessment NAWQA

The USGS began its NAWQA (National Water Quality Assessment) program in 1991, systematically collecting chemical, biological, and physical water quality data from 42 study basins across the nation. The NAWQA Mapper allows you to view chemical concentrations found in streams, lakes, wells, and other sampling sites in the US. The data points presented on the map are generated directly from the 15 million water quality results stored in the NAWQA data warehouse.

For information about the NAWQA program use the following link: [USGS National Water Quality Assessment Data Warehouse](#)

To go directly to the NAWQA mapper: <http://web1.er.usgs.gov/NAWQAMapTheme/>.

Colorado Department of Public Health and Environment – Water Quality Control Division

The Colorado Department of Public Health and Environment, Water Quality Control Division, maintains a website at <http://www.cdphe.state.co.us/op/wqcc/index.html>, that provides information and reports on statutes, regulations, and policies that apply to water quality in Colorado. This site also provides a link to the [Colorado Water Quality Management and Drinking Water Protection Handbook](#) and the [State 303\(d\) list](#) of impaired waters.