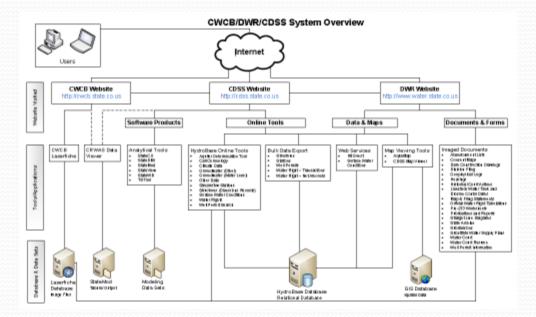
HydroBase Web Tools

Provided by the Colorado Division of Water Resources and Colorado Water Conservation Board

System Overview

- HydroBase Online Tools
- HydroBase Bulk Data Export
- Map Viewing Tools
- Imaged Documents
- Web Services



- Call Chronology
 - Provides data related to active and historical administrative calls for rivers/streams.
- Climate Stations
 - Contains climate data from the National Oceanic & Atmospheric Administration (NOAA) and the Colorado Agricultural Meteorological Network (COAGMET) for the State of Colorado.
 - Evaporation
 - Temperature
 - Maximum
 - Minimum
 - Precipitation
 - Snow
 - Solar Radiation
 - Vapor Pressure
 - Wind Velocity

- Groundwater Other Data
 - Physical characteristic information collected about wells (where available).
 - Driller log information (Saturated Thickness)
 - Geophysical log readings (Aquifer Top/Bottom/Saturated Thickness)
 - Pumping tests (Transmissivity)
 - Volcanic material information
- Groundwater Water Levels
 - Well Water Levels

- Other Data
 - Colorado and national agricultural statistics
 - Colorado livestock statistics.
- Streamflow Stations
 - Historic published streamflows and Provisional Administrative gage data from the Division of Water Resources and the USGS.
 - Published Period of Record
- Surface Water Conditions
 - Real-time satellite streamflow monitoring data from gaging stations maintained by DWR, USGS, and our cooperators. Includes graphing ability and station information.

- Structures (Diversion Records)
 - Decreed structures such as Ditches, Reservoirs, and Wells. Available information includes irrigated lands, diversion records, and water rights.
 - Irrigated Lands
 - New studies done every 5 years (at minimum).
 - Diversion Records
 - 1975 Current (Complete)
 - Pre-1975 may also be available.

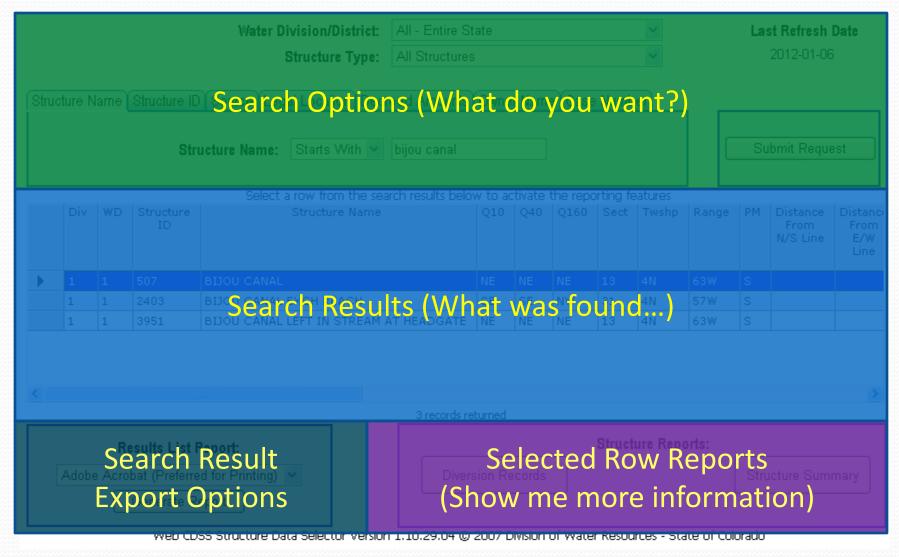
Water Rights

- Transactional and Net Amount water rights
 - Includes links to imaged Water Court documents.

Well Permit Search

- Provides detailed reports about well applications and issued permits.
 - Includes links to imaged Well Permitting documents.

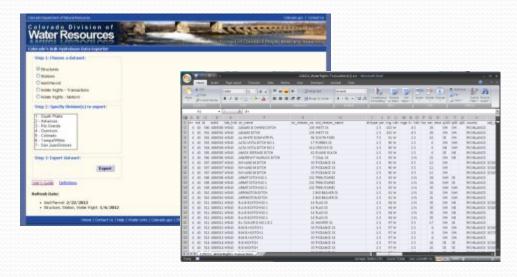
HydroBase Online Tools



HydroBase Bulk Data Export

Allows users to export all structures, stations (climate or streamflow), well permits, and/or water rights (transactions or net amounts) for one or more divisions.

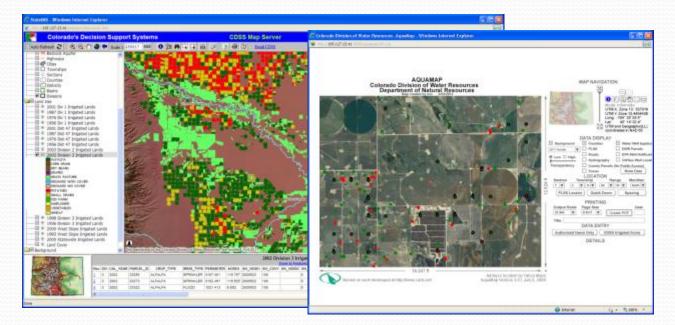
Can use tools like MS Excel or MS Access to manipulate.



Mapping Viewing Tools

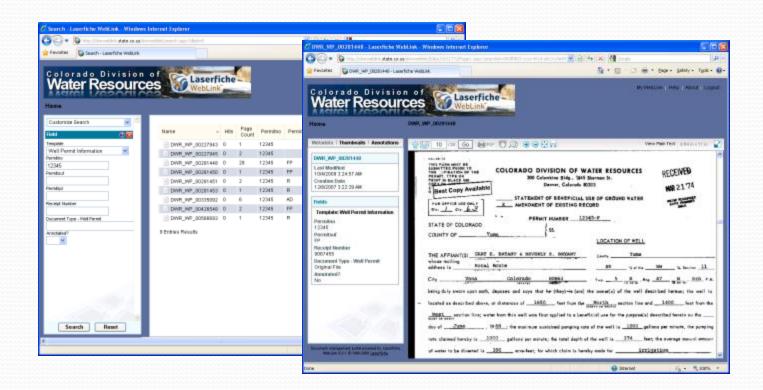
• Interactive mapping tools for viewing stream, structure, aquifer, well data, DWR scanned maps, and other layers. Includes section/township/range to UTM and latitude/longitude convertor and *Quick Zoom*

locator.



Imaged Documents

- 20 Document classes
- Over 1.6 million documents



Imaged Documents (Examples)

Abandonment Lists

• Abandonment lists are lists organized in each Water Division containing those water rights that the Division Engineer, in consultation with the State Engineer, has determined to have been abandoned in whole or in part. The abandonment list, when concluded by judgments and decree, shall be conclusive as to the water rights determined to have been abandoned.

Official Water Rights Tabulations

• Official tabulations show the current status of decreed water rights in order of seniority by major drainage.

Water Court

• Water Court documents are copies of documents filed with Water Courts in the seven major drainage basins. Documents may include applications for water rights, statements of opposition, consultations, referee rulings, decrees, and others.

• Well Permit Information

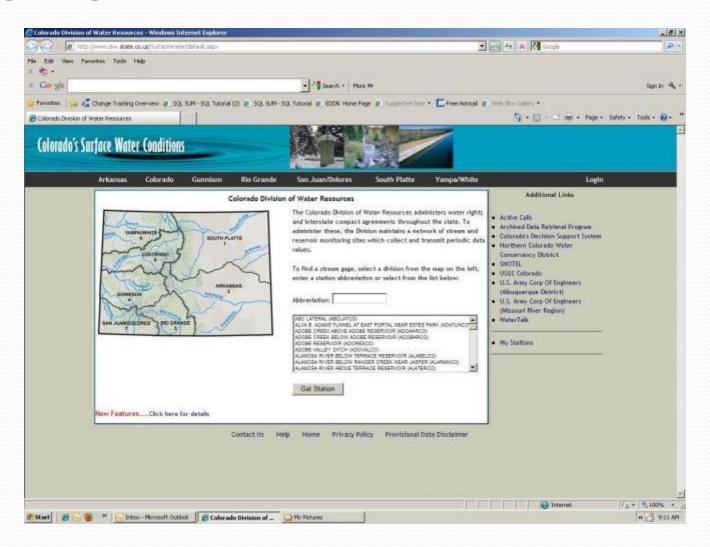
• Well Permit Information is a compilation of documents including well applications, well permits for various uses, well construction reports, pump installation reports, ownership changes, maps/legal descriptions, etc.

Web Services

- What is a web service?
 - Web services refer to a set of programming standards used to make different types of software talk to each other over the Internet, without human intervention.
- How does this benefit you?
 - Can pull data directly from HydroBase into your system

Navigating the Surface Water Monitoring System

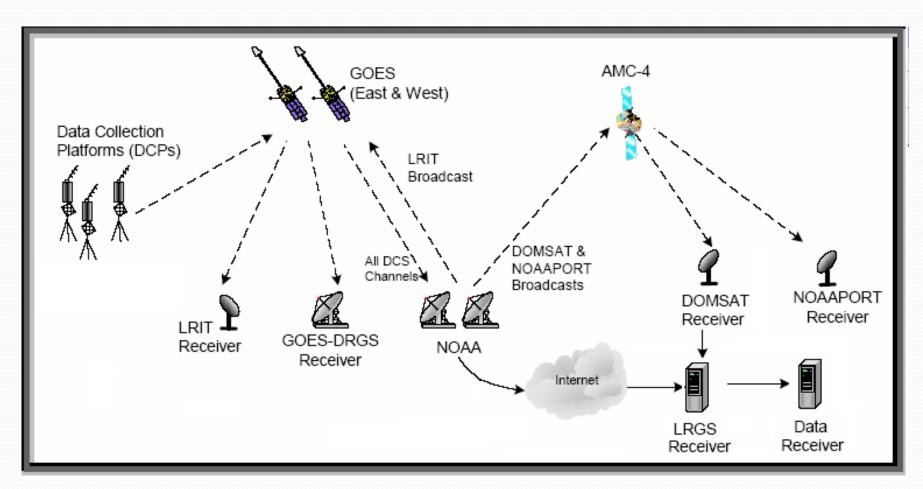
Navigating the Surface Water Conditions Web

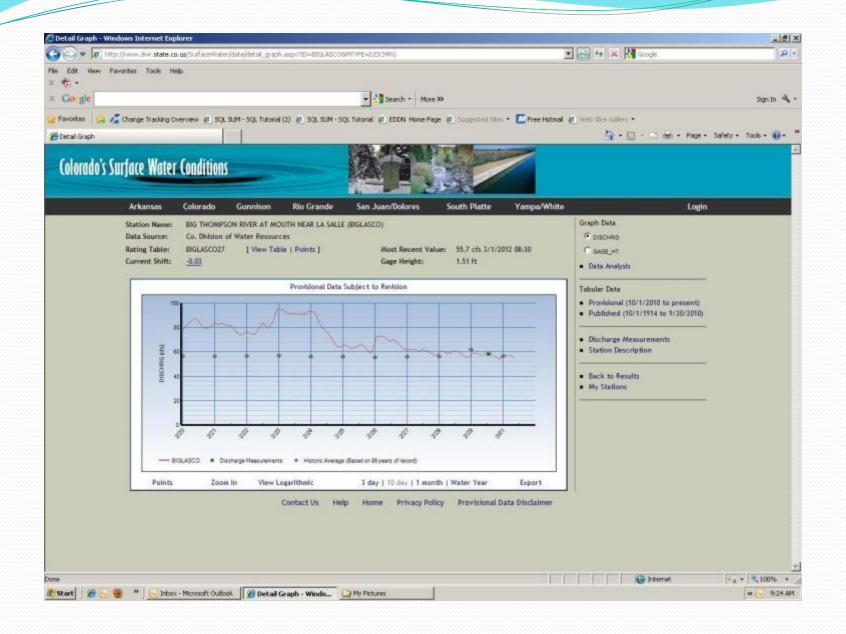


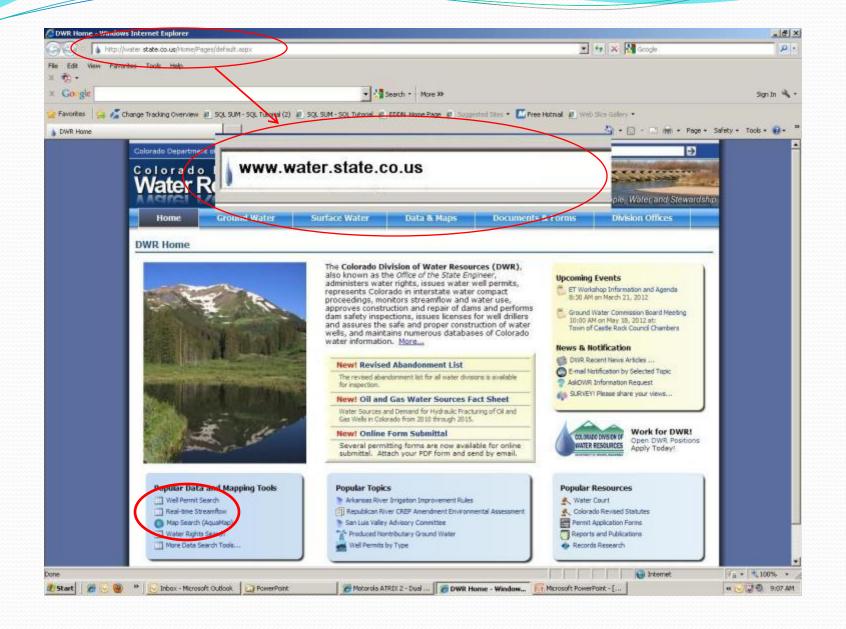
DWR Surface Water Monitoring System

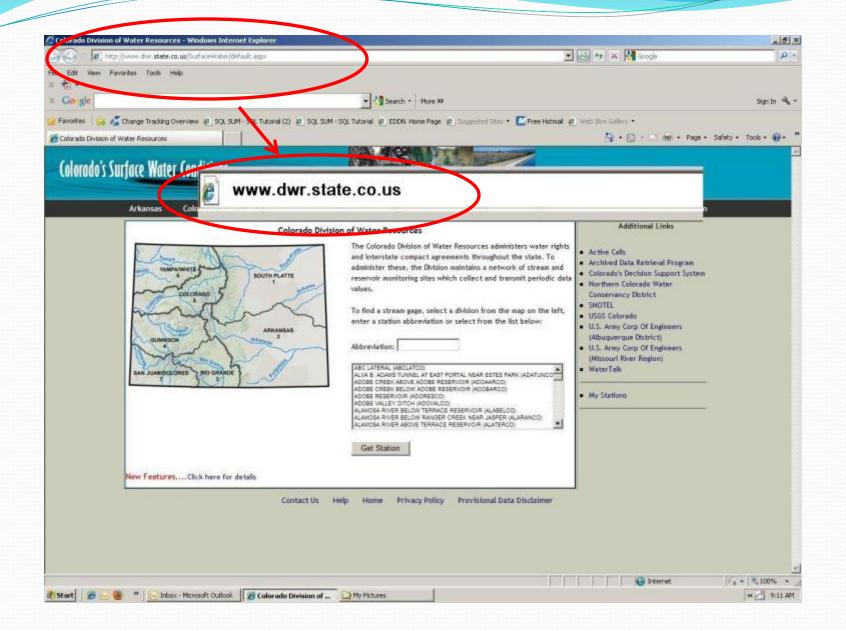
- DWR Data Collection
 - 462 gaging stations on satellite telemetry
 - 64 cooperator gages
 - Federal agencies (USBR, USACE, NWS)
 - Local entities (Colorado Springs, Aurora, etc.)
- Data from external providers
 - 375+ external stations
 - Retrieved through web services
 - U.S. Geological Survey
 - Conservancy Districts (NCWCD, LSPWCD, SVLHWCD)

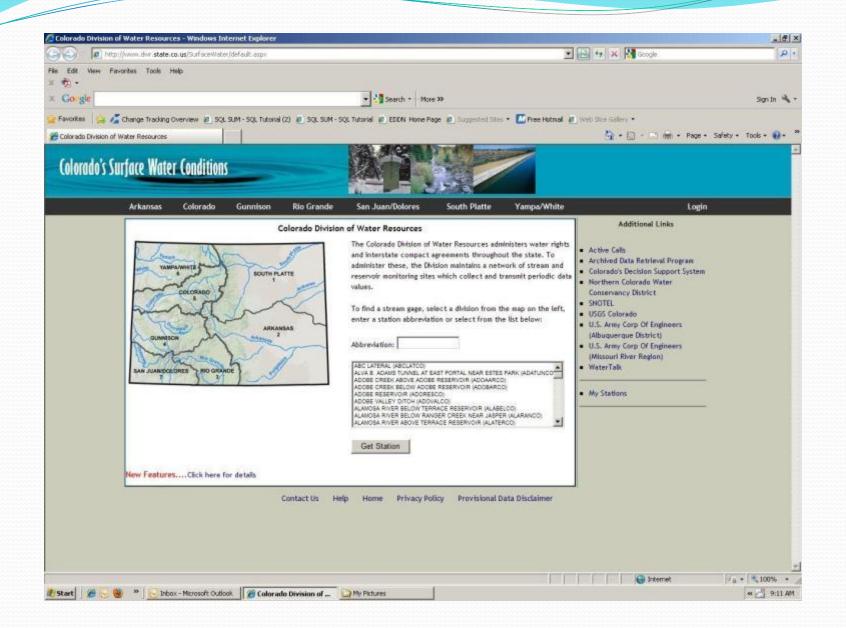
System Overview

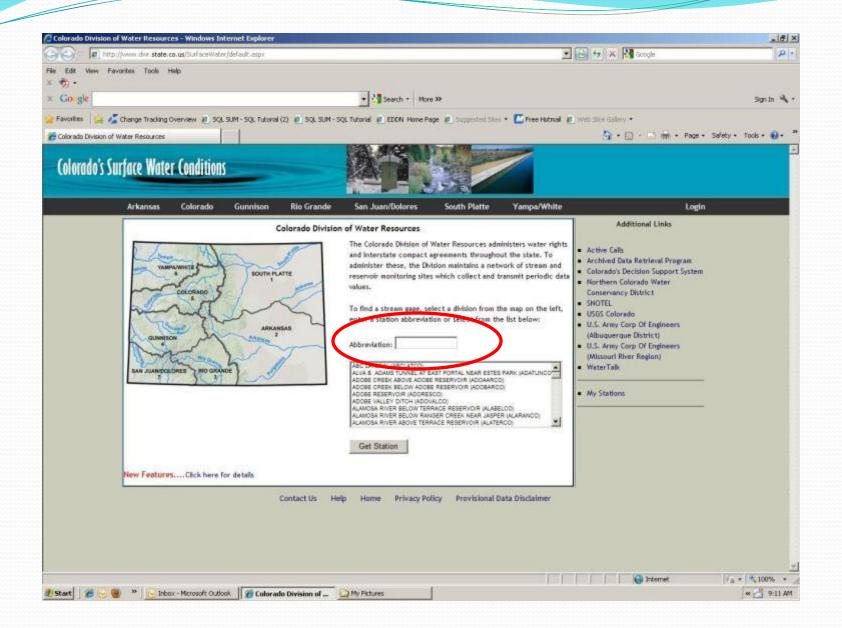


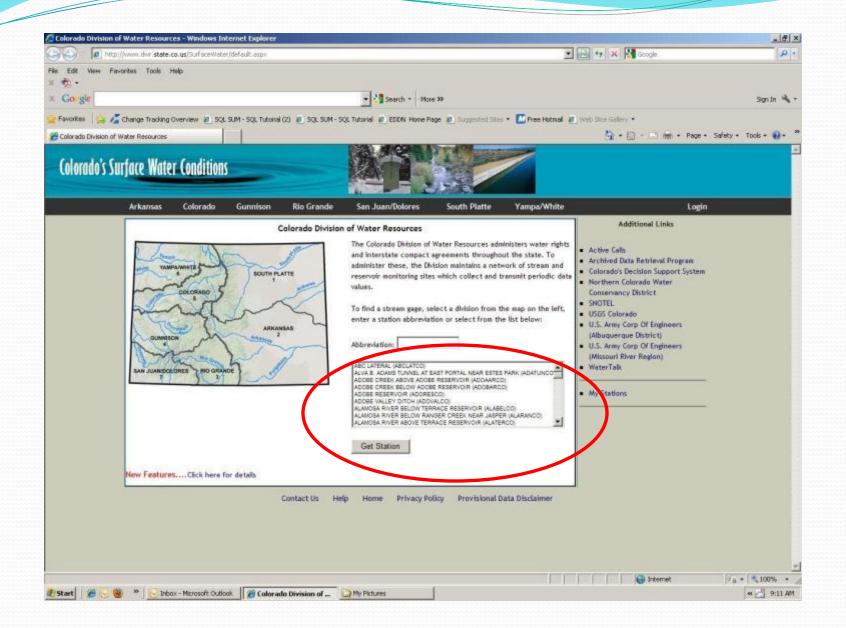


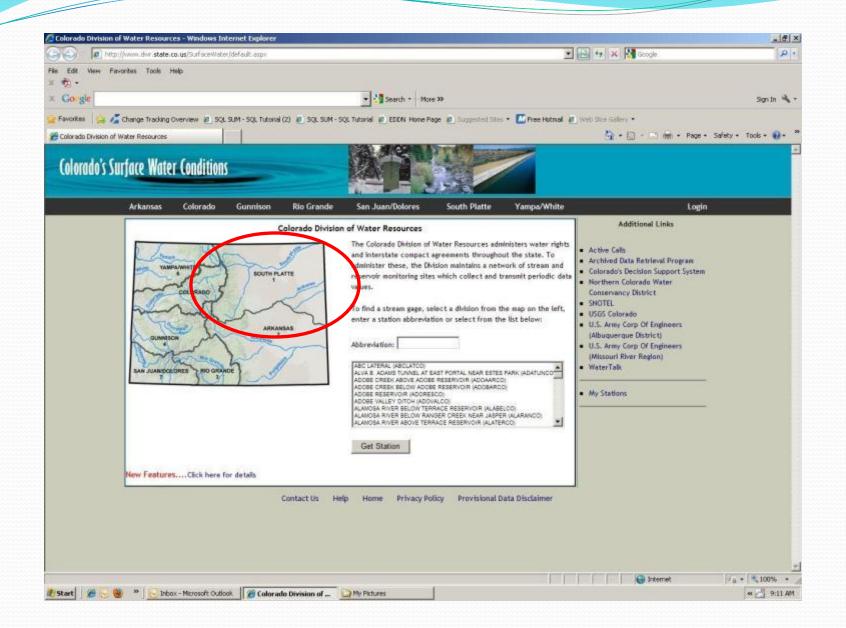


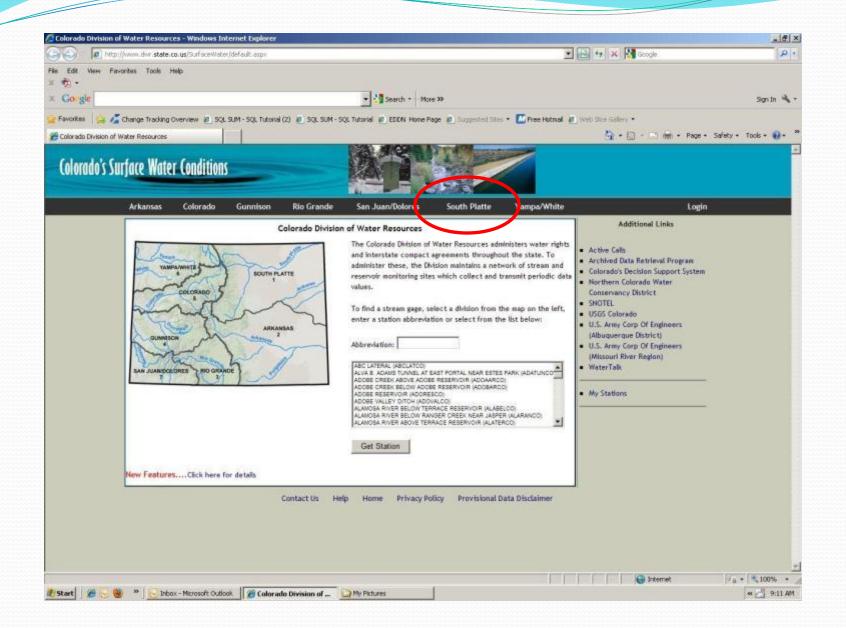


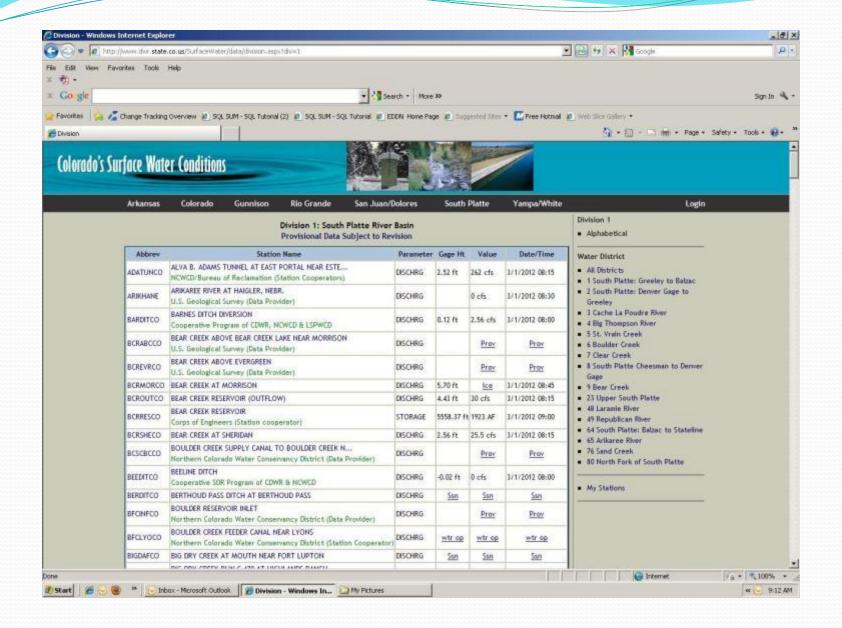


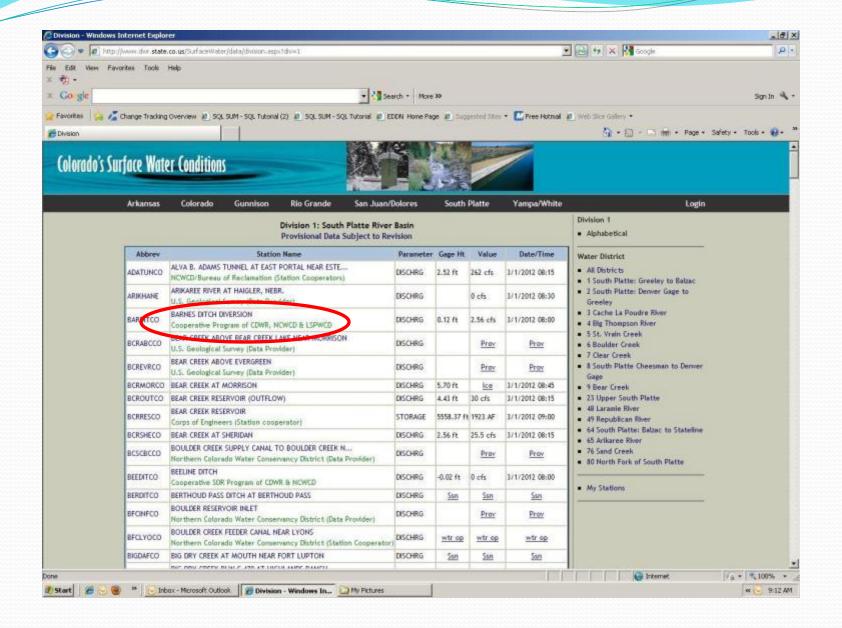


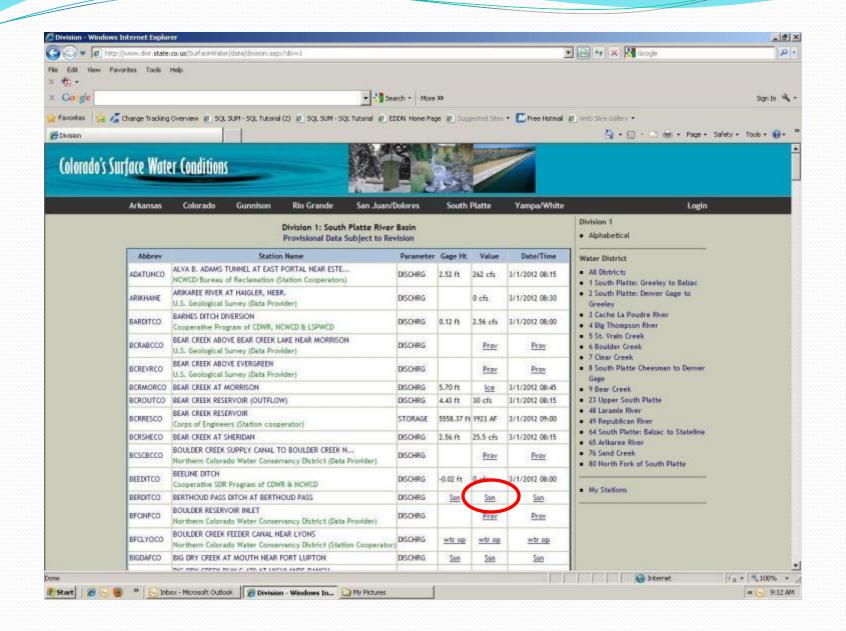


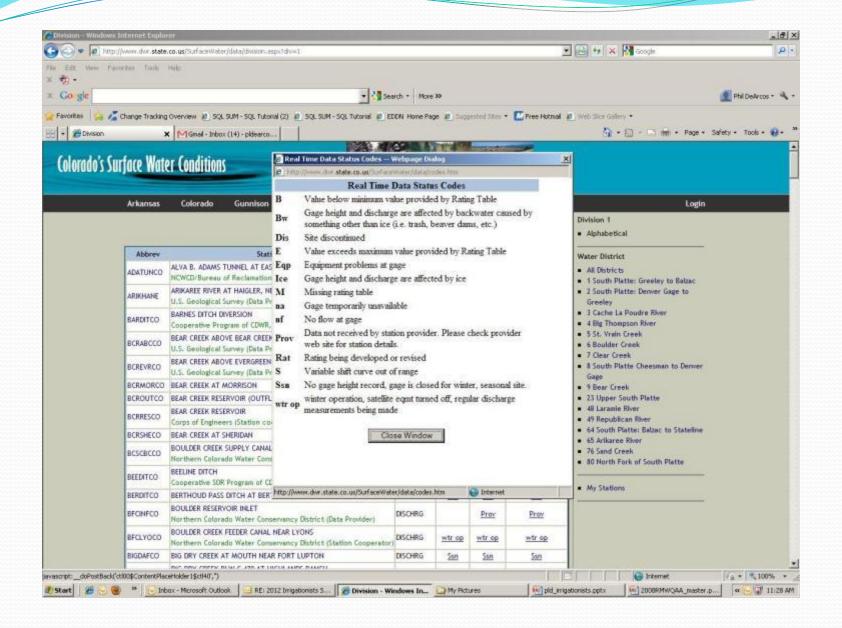


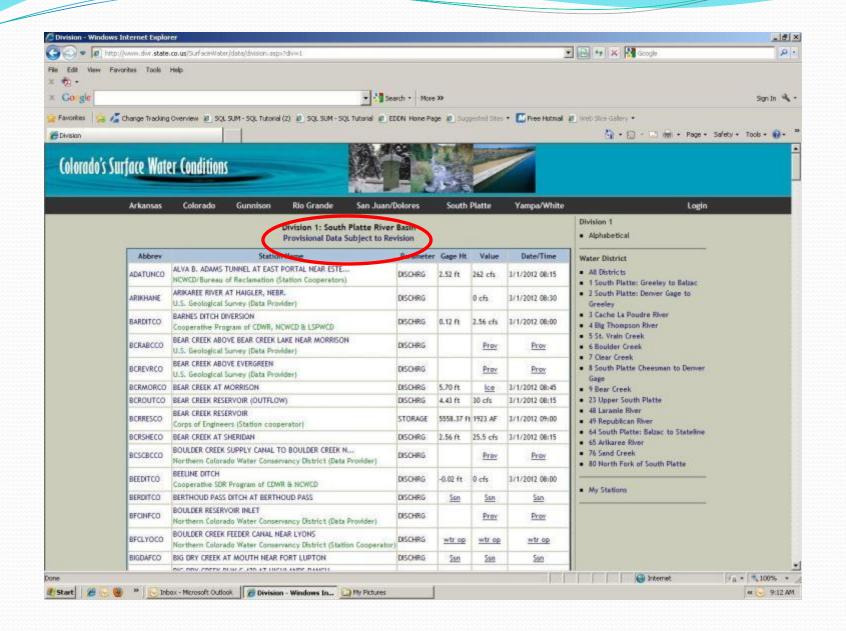


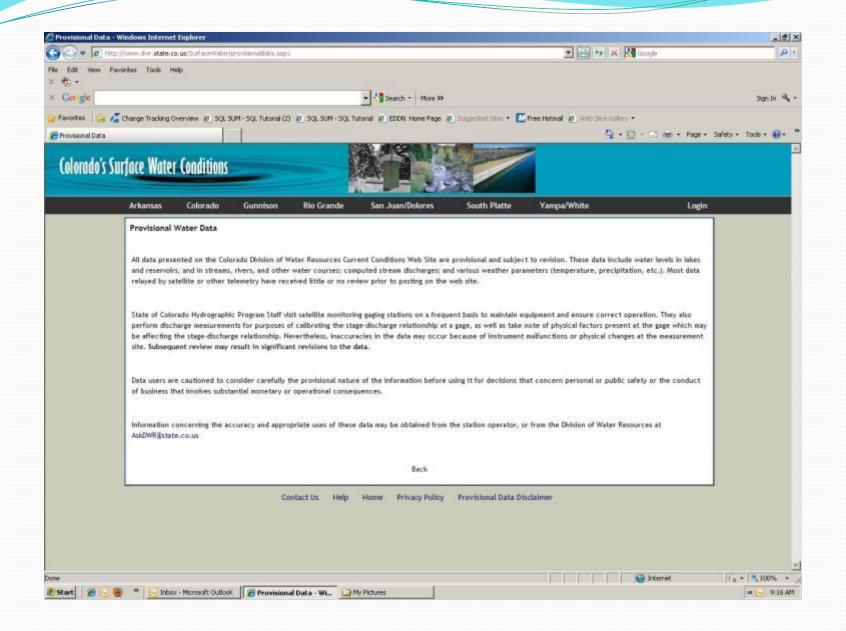


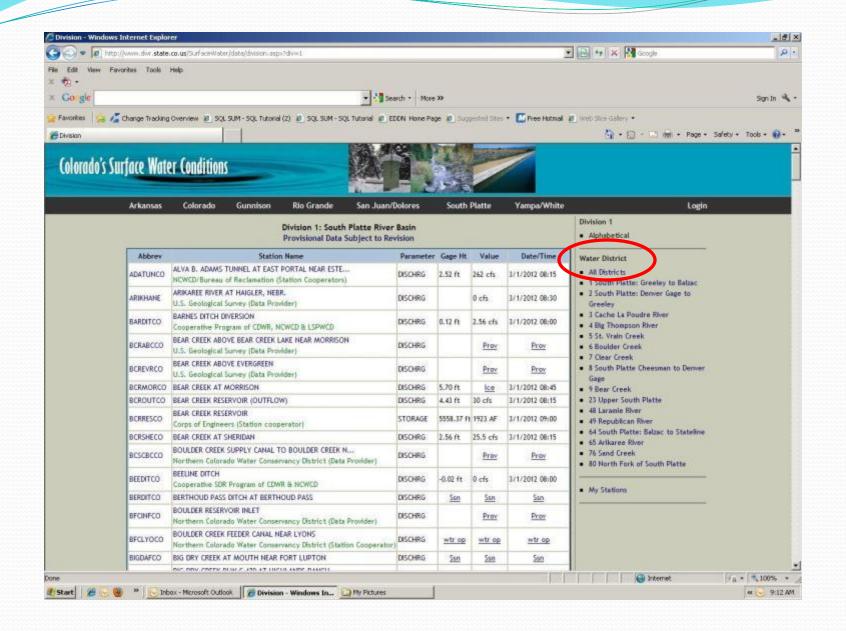


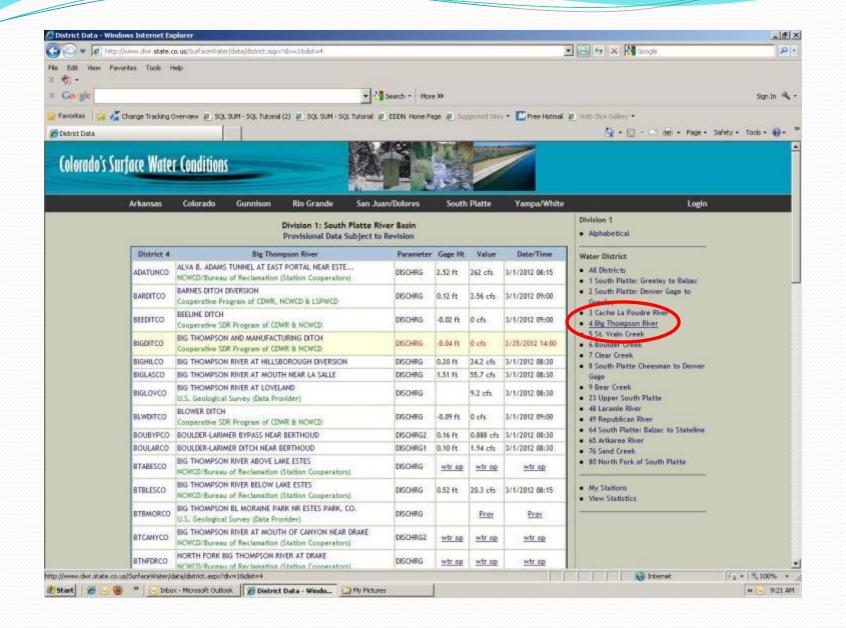


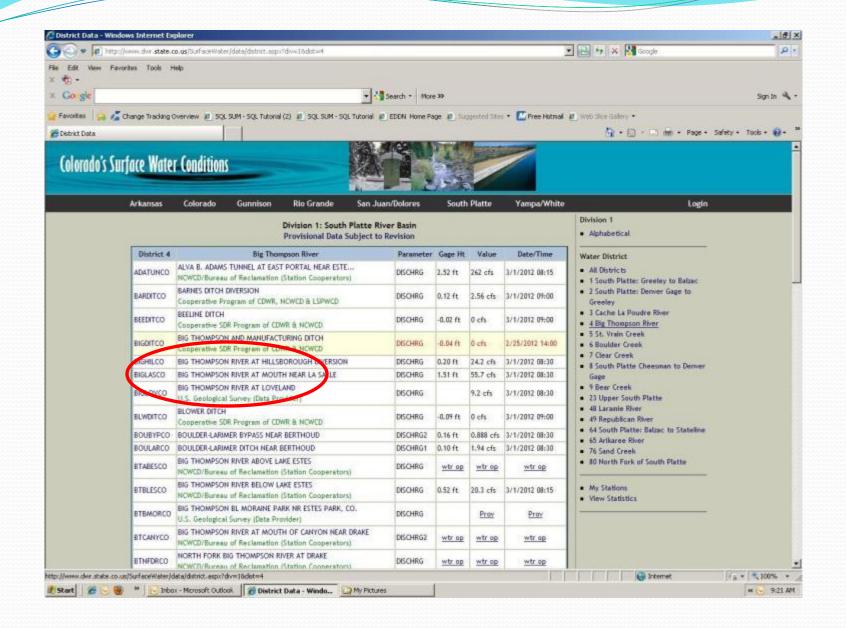


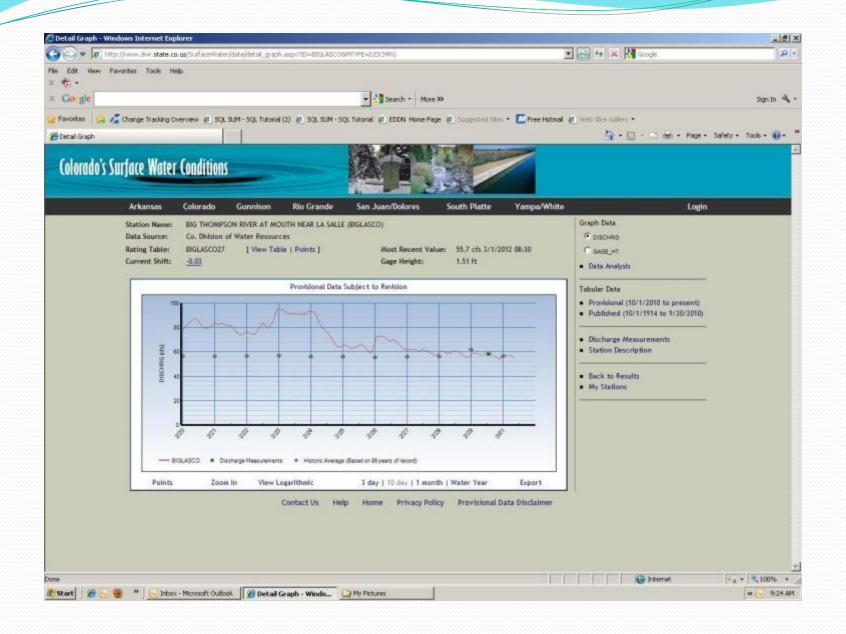


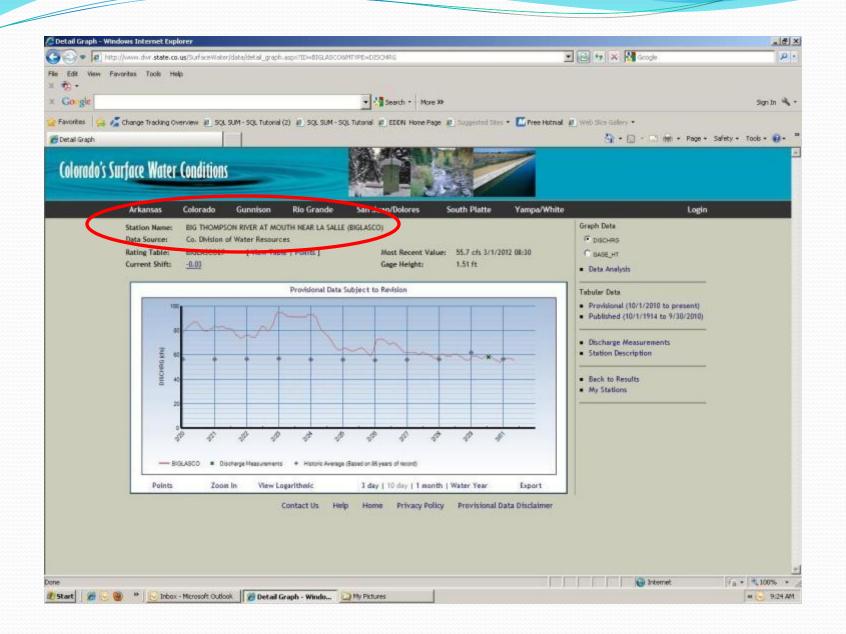


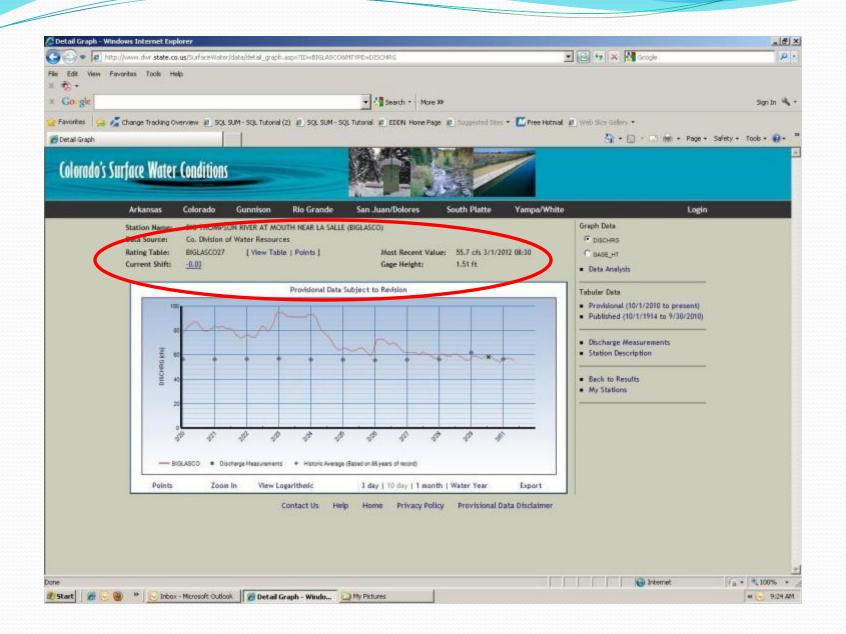


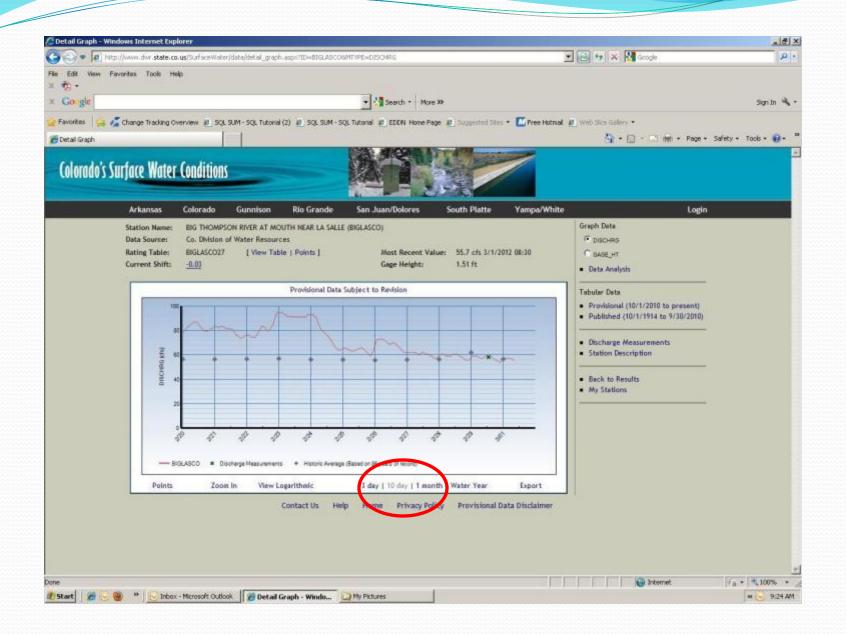


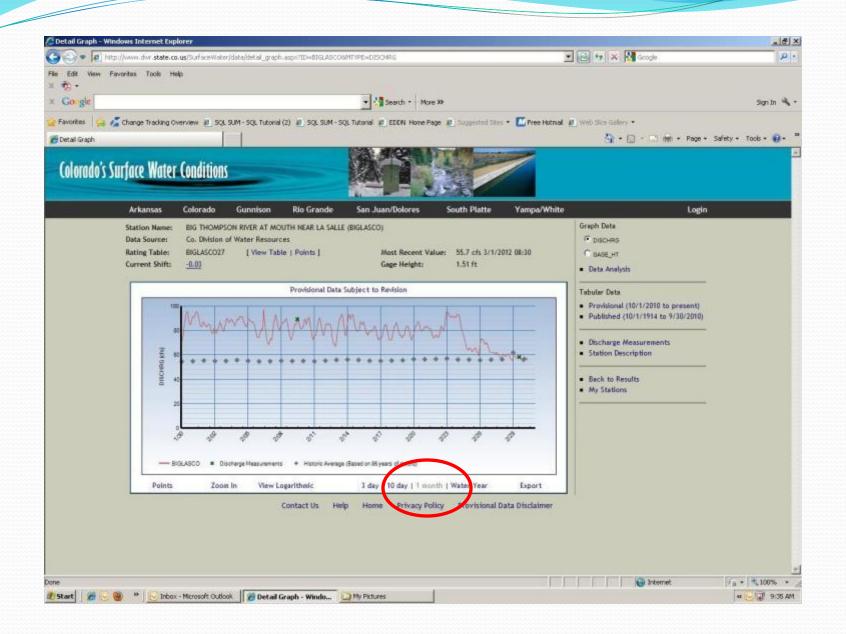


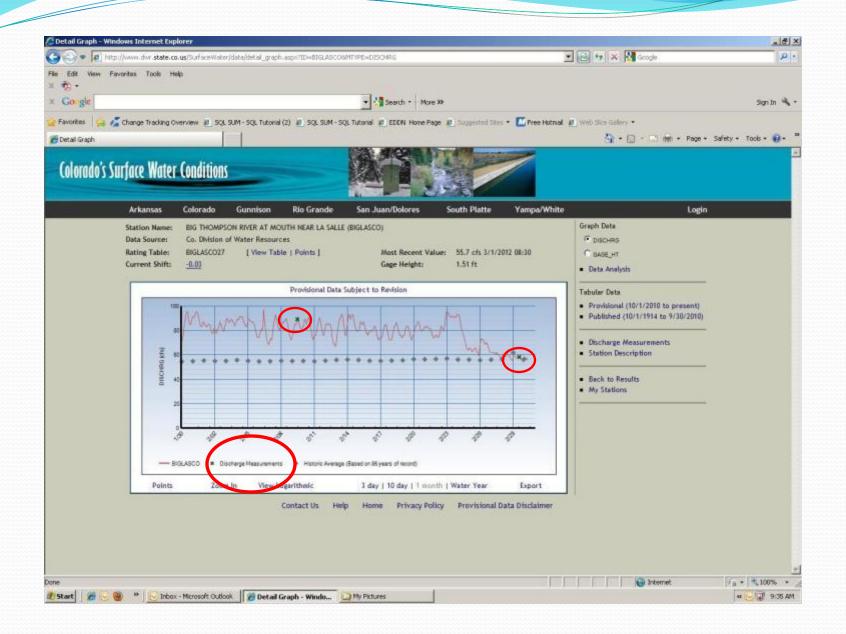


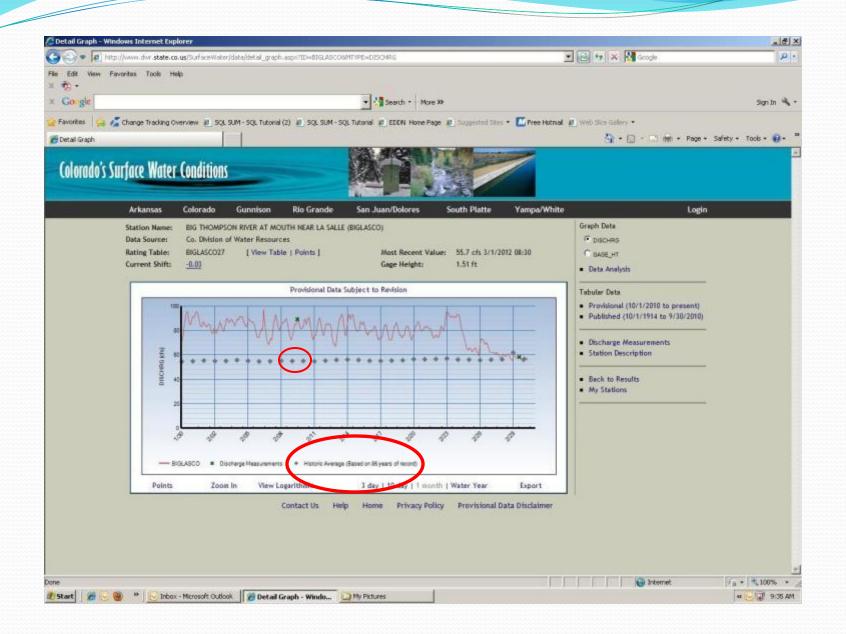


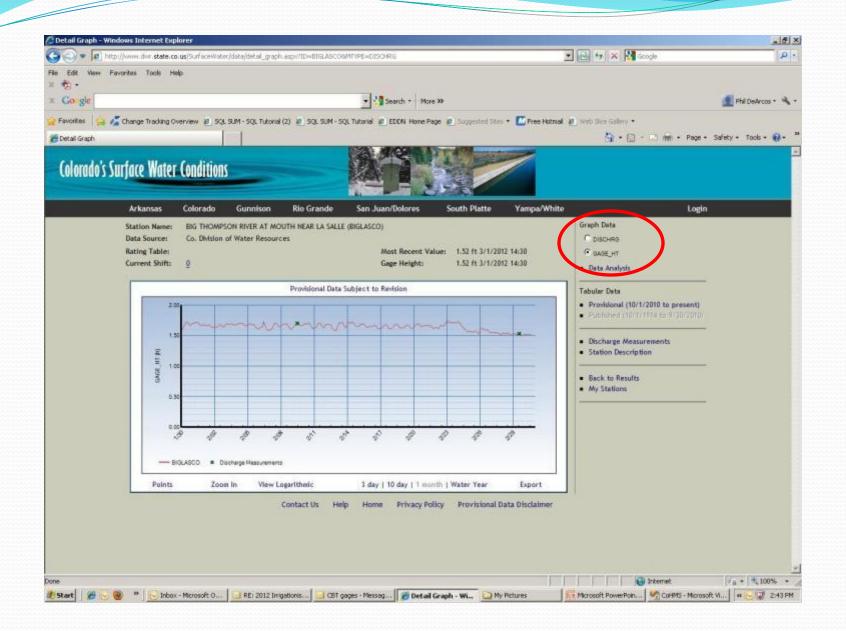


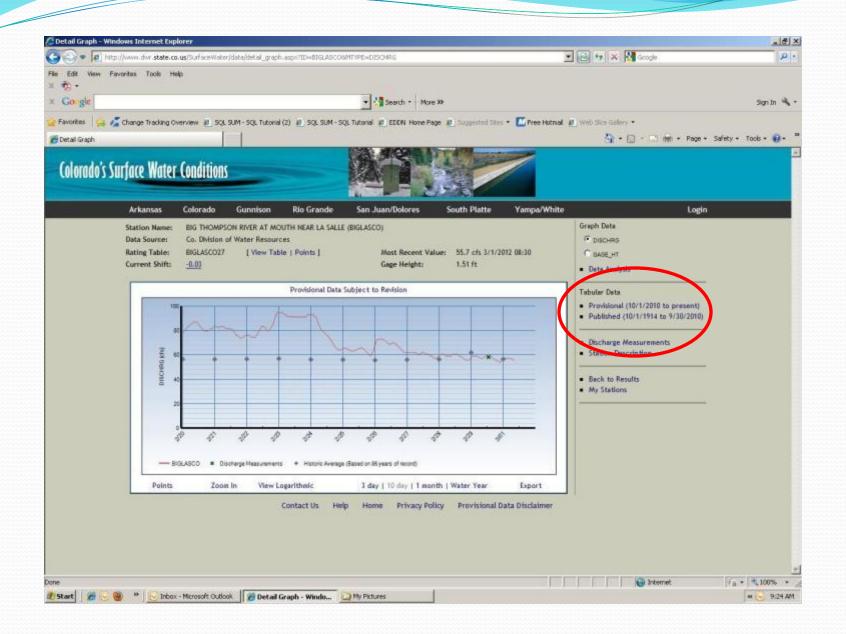


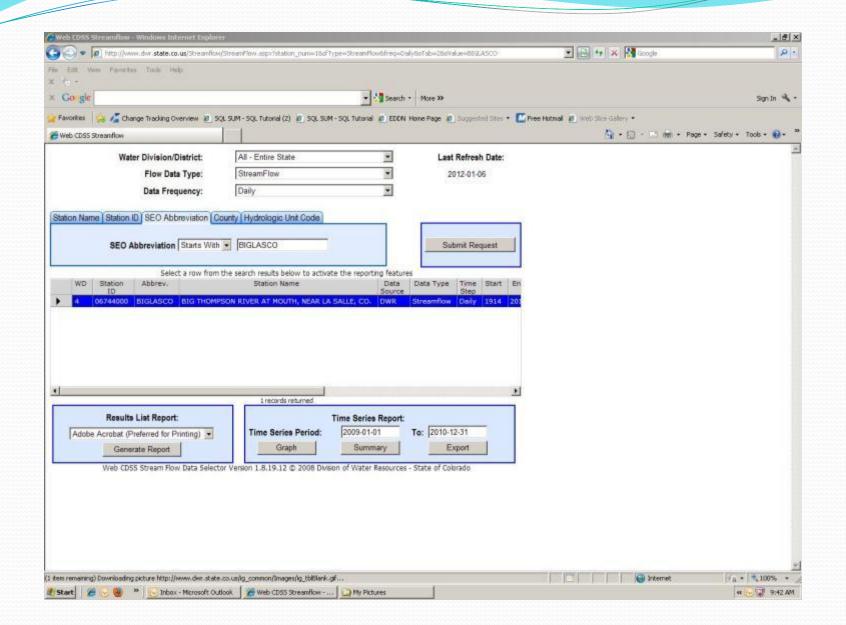


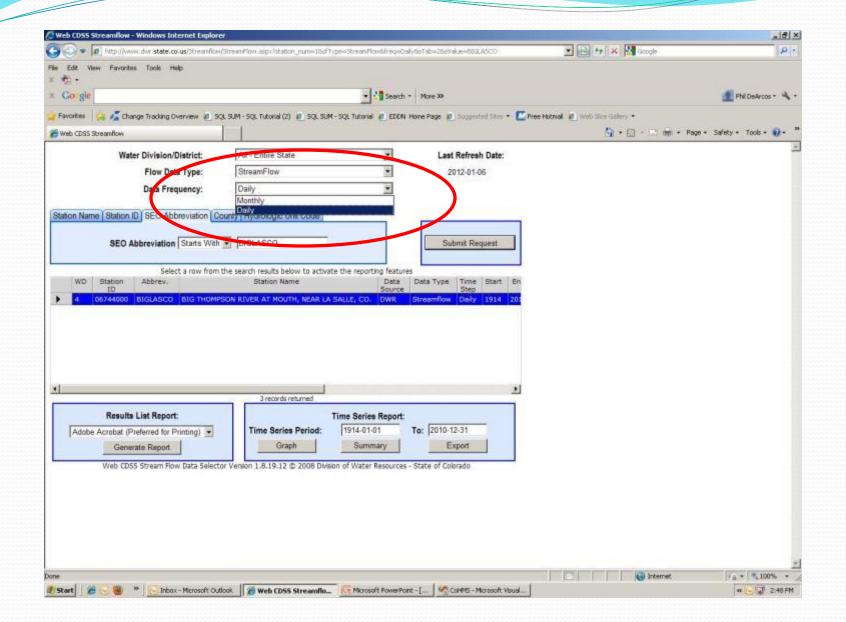


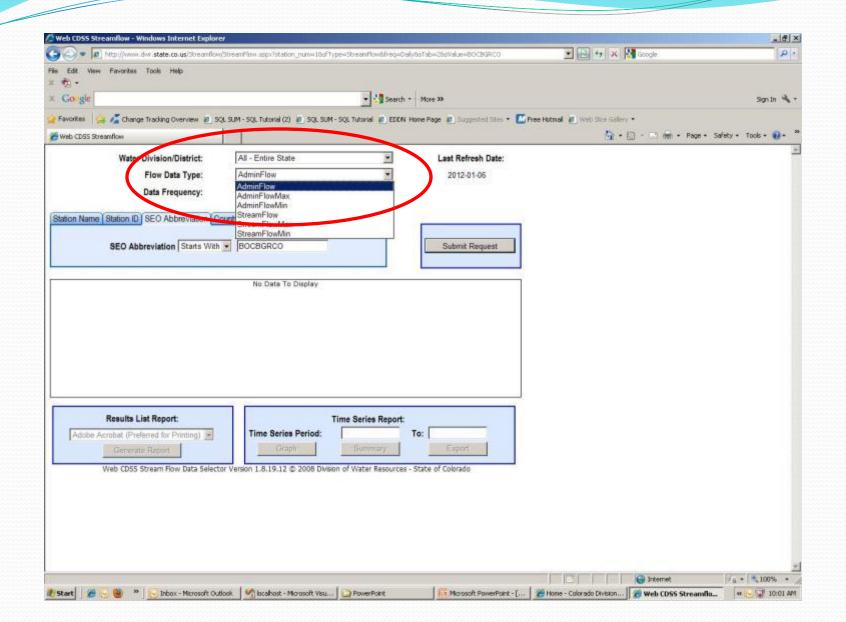


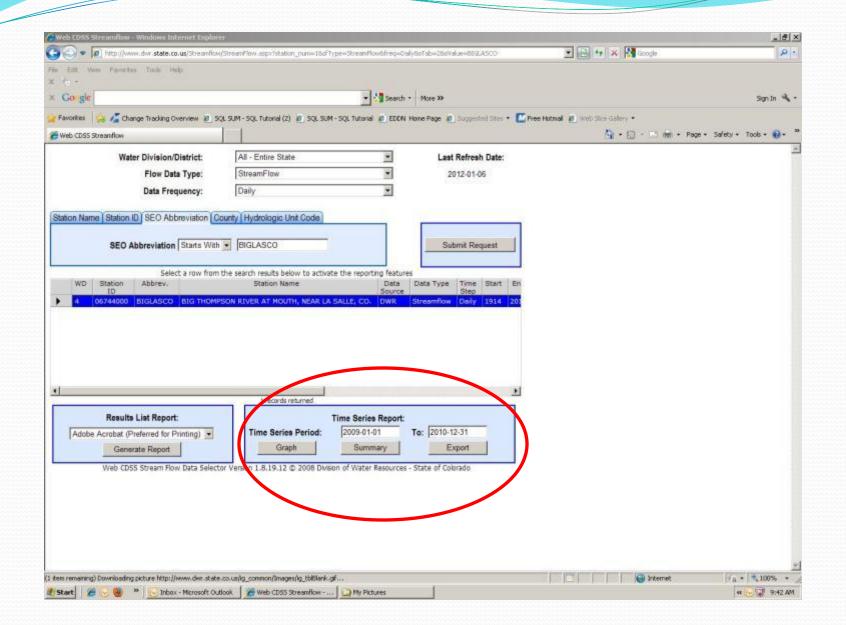


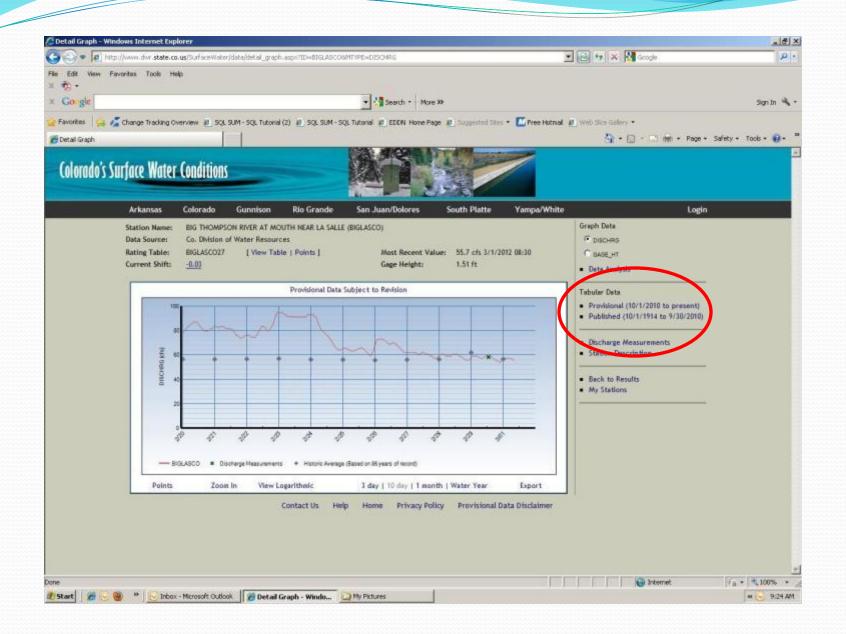


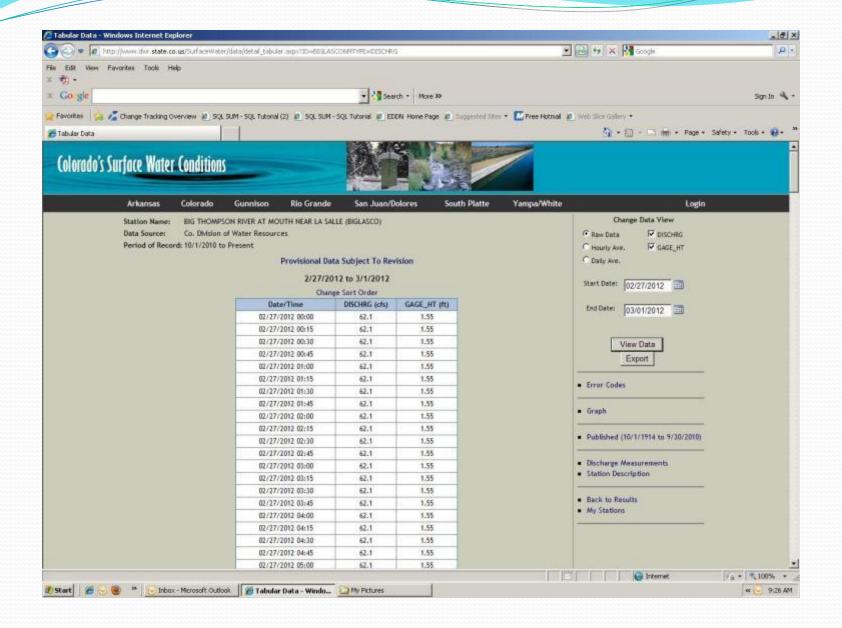


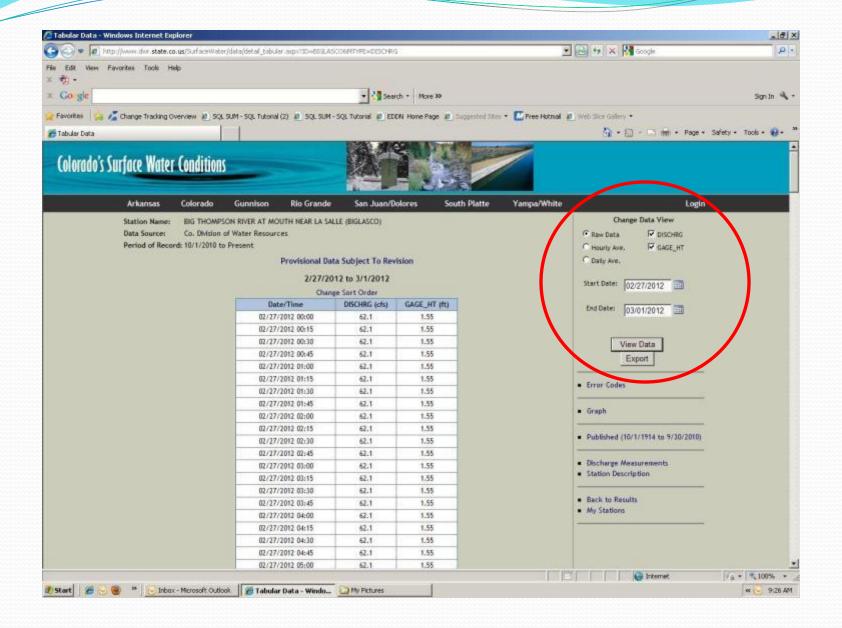


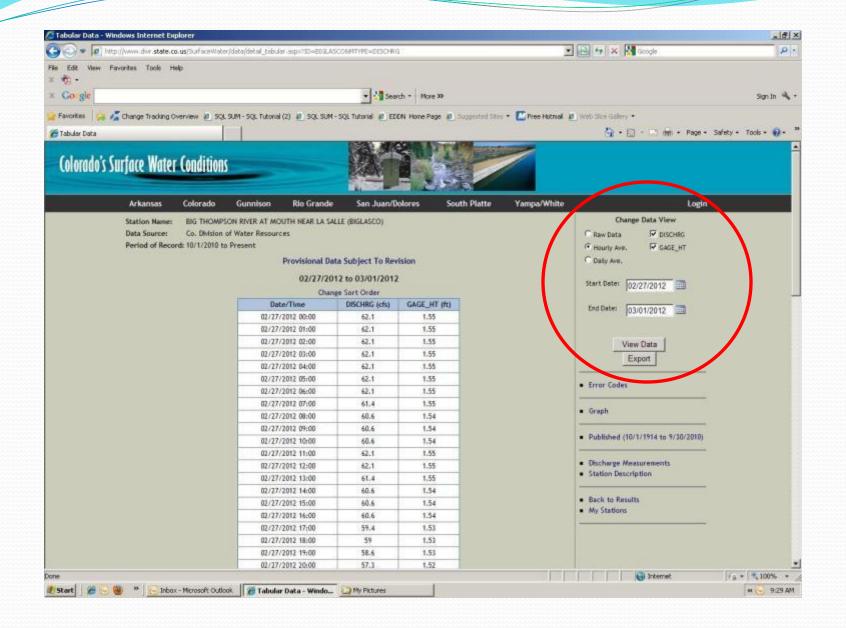


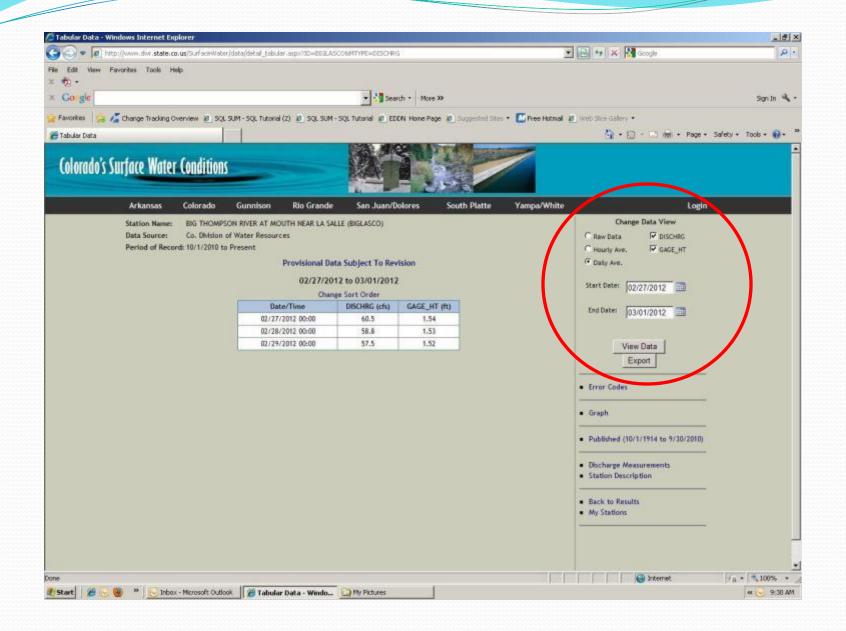


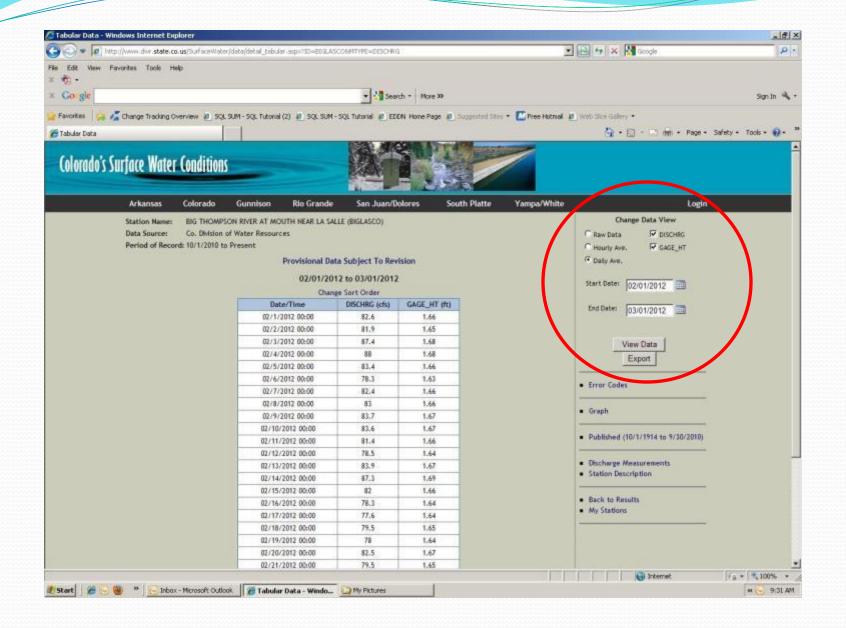


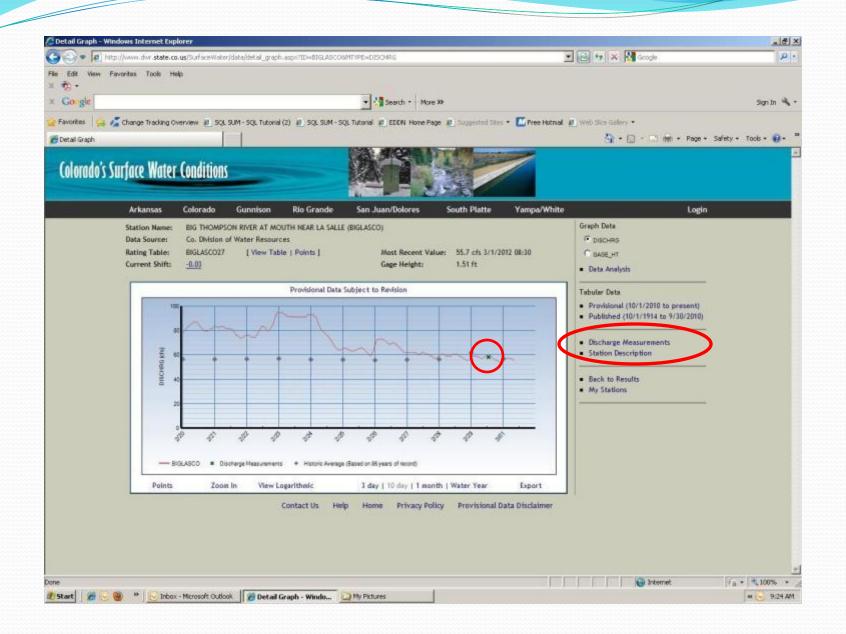


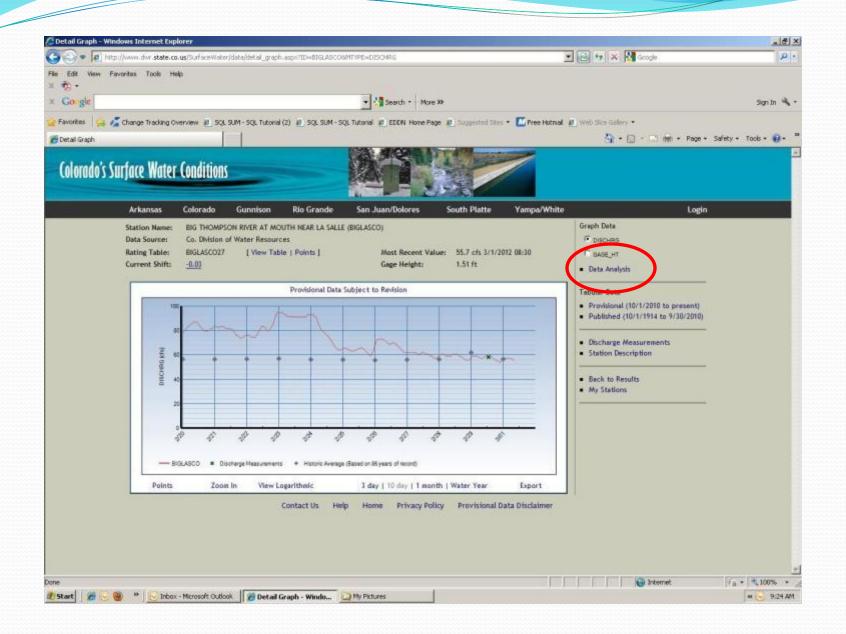


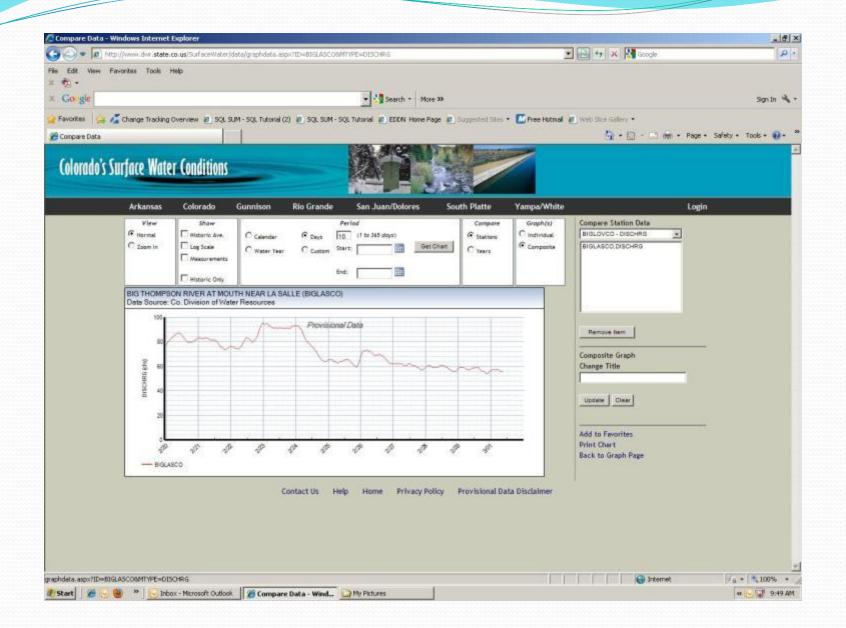


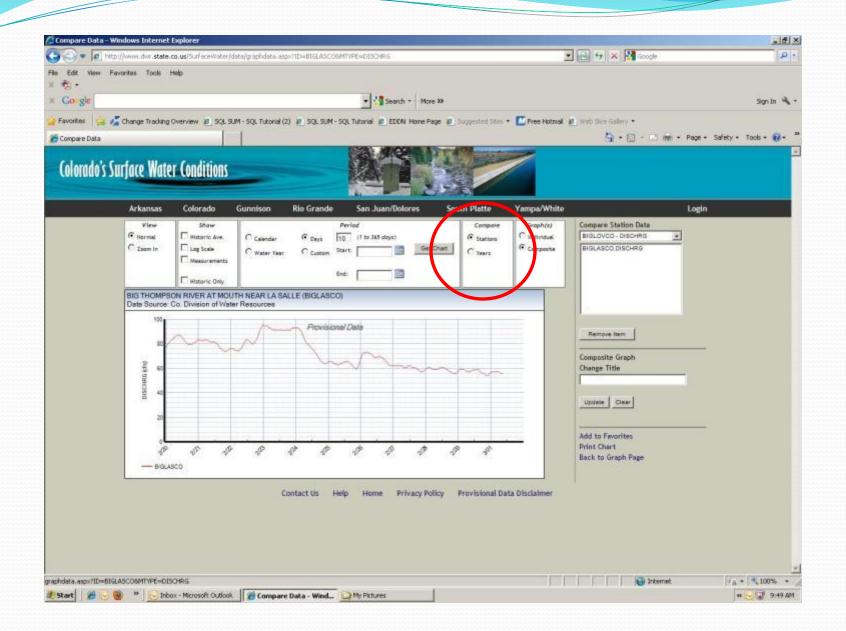


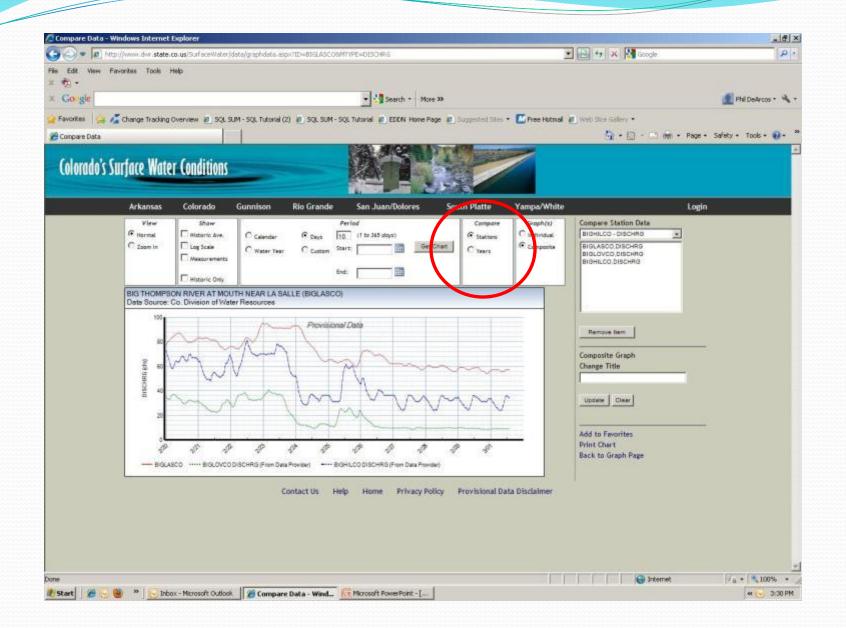


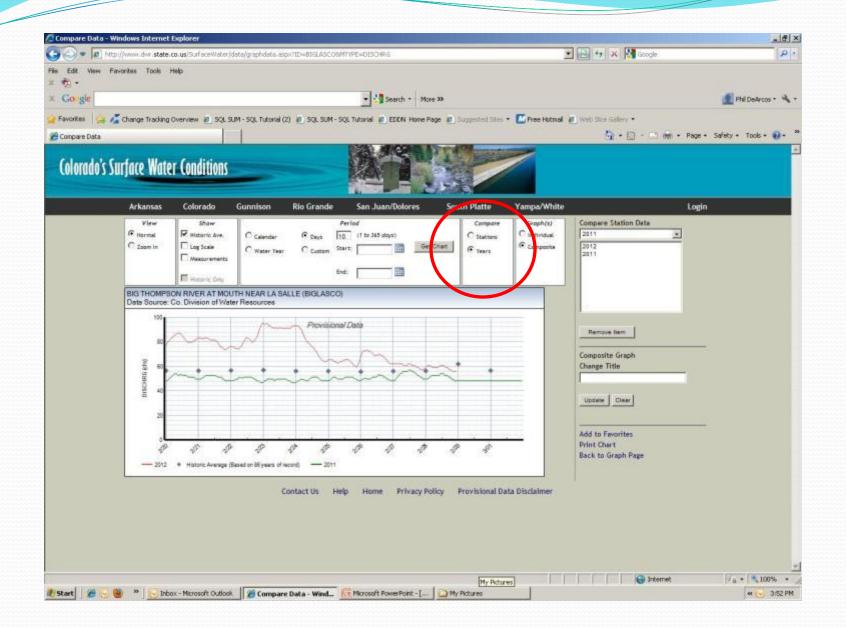


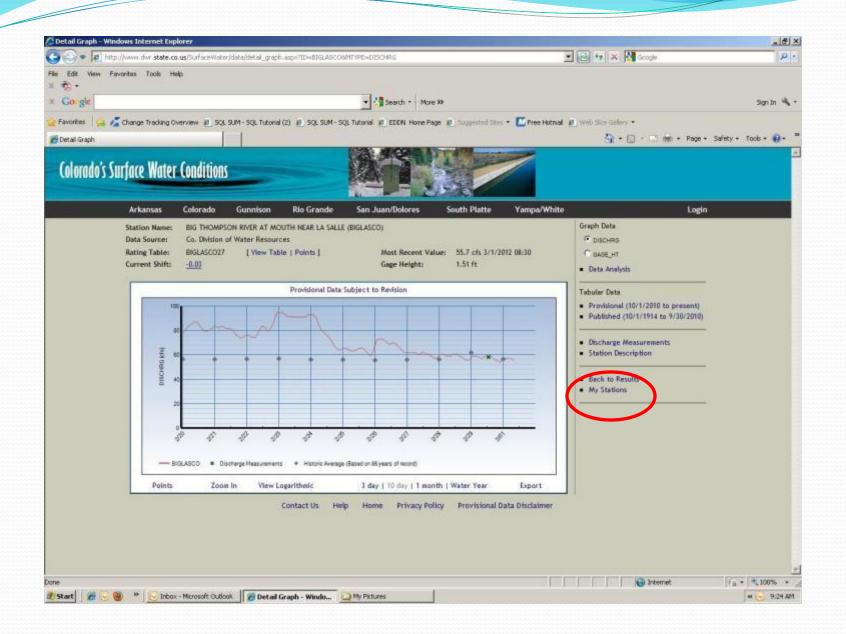


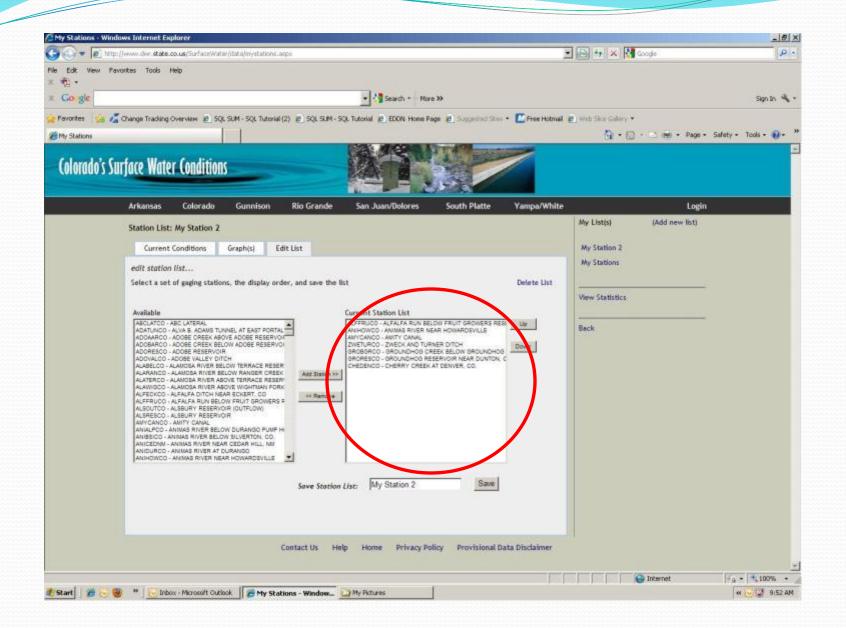


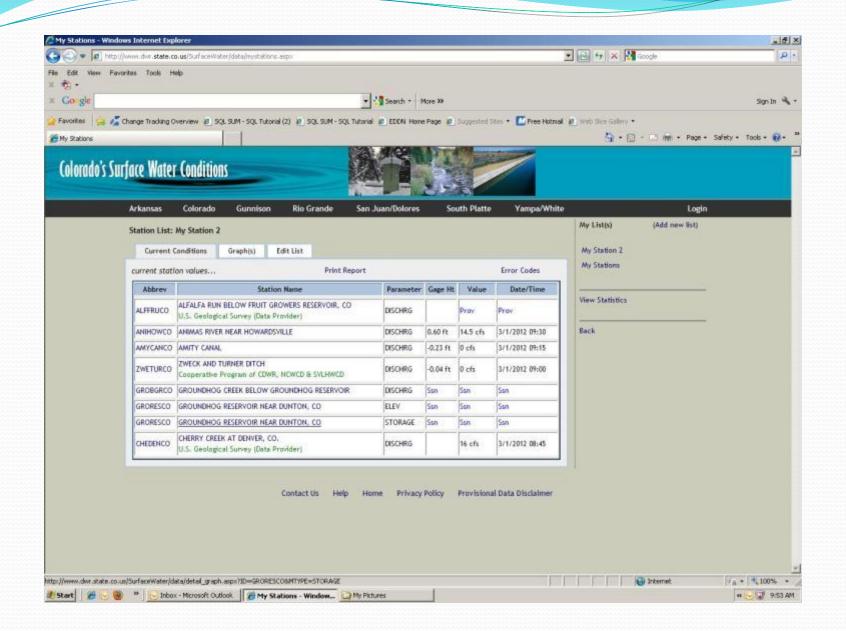


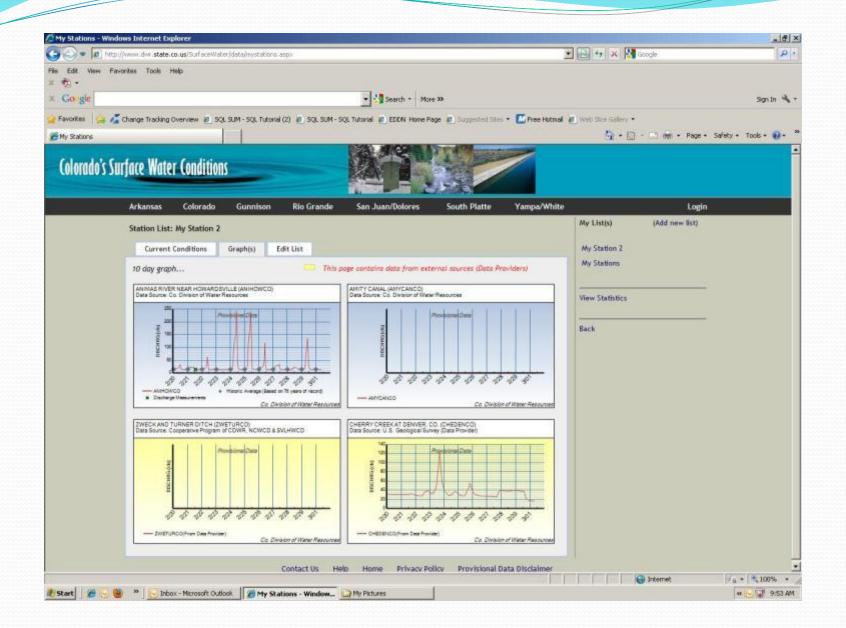


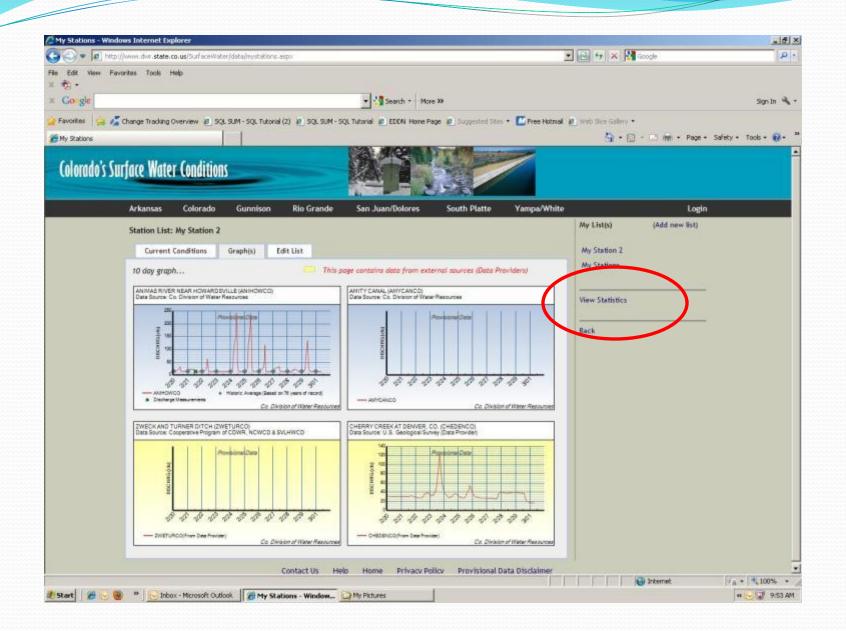


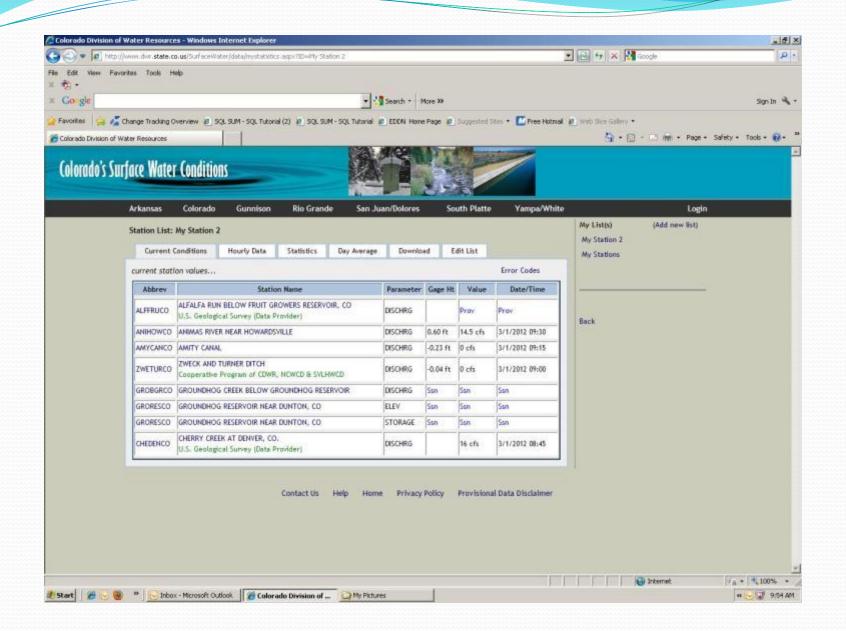


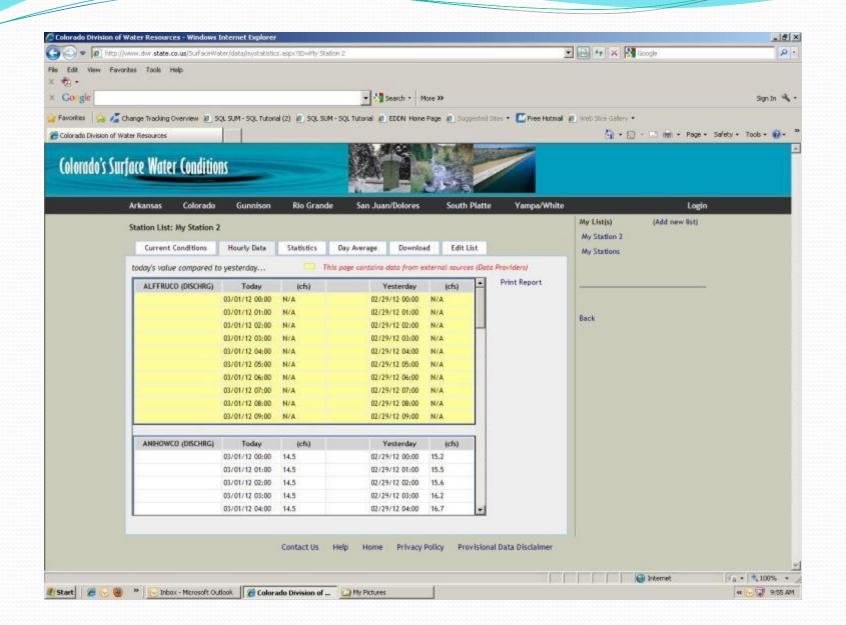


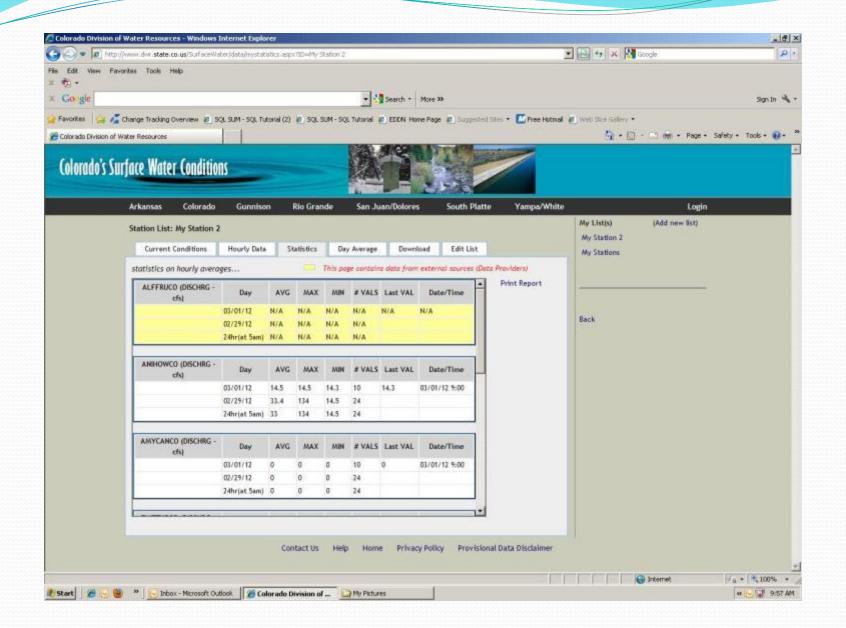


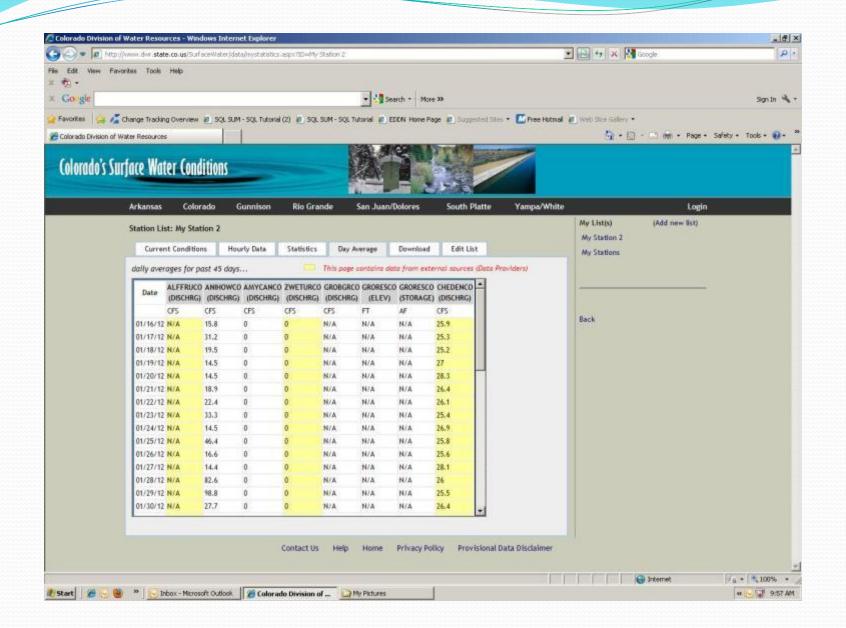


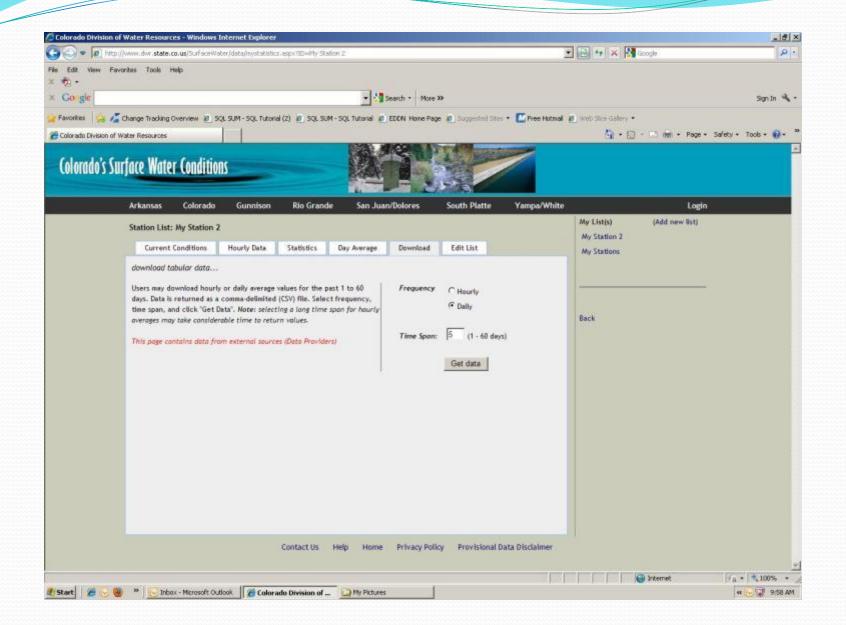


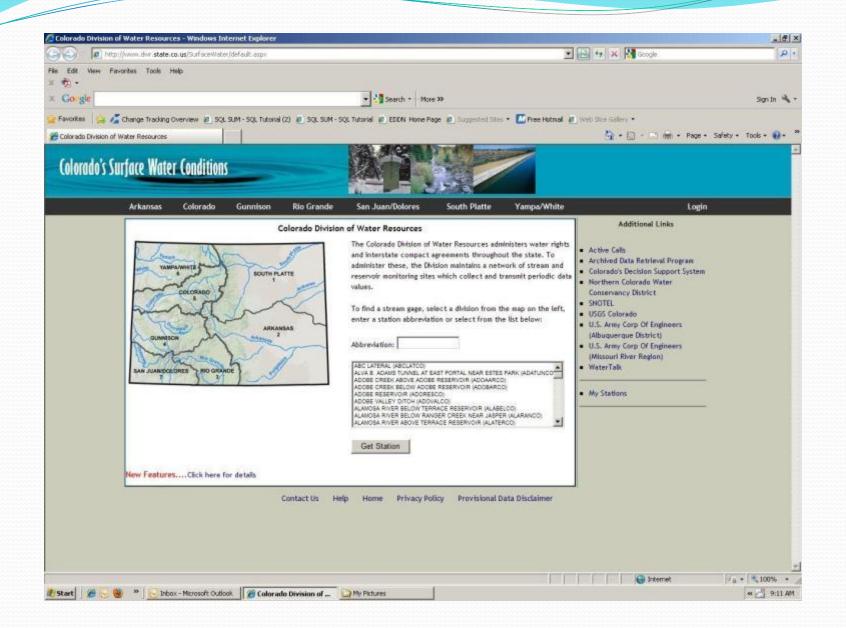


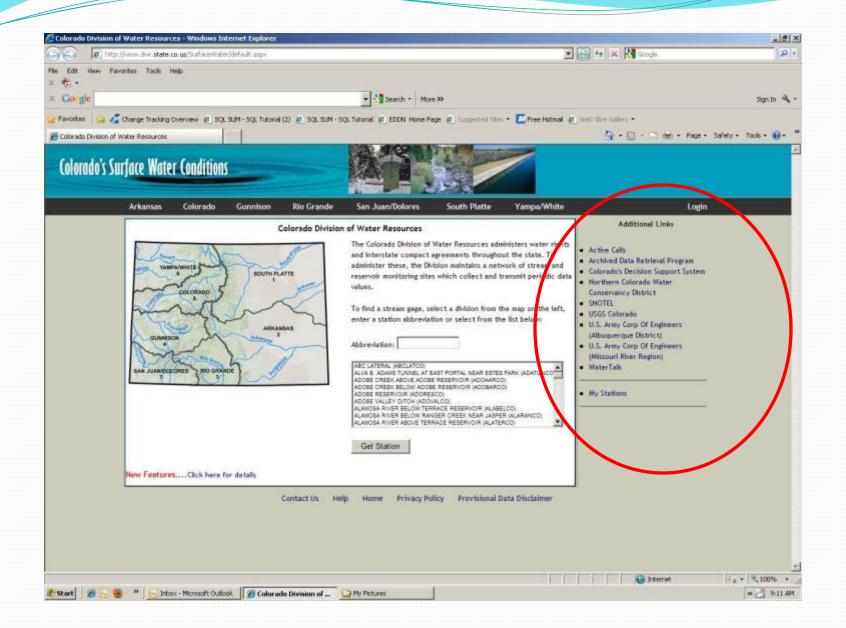


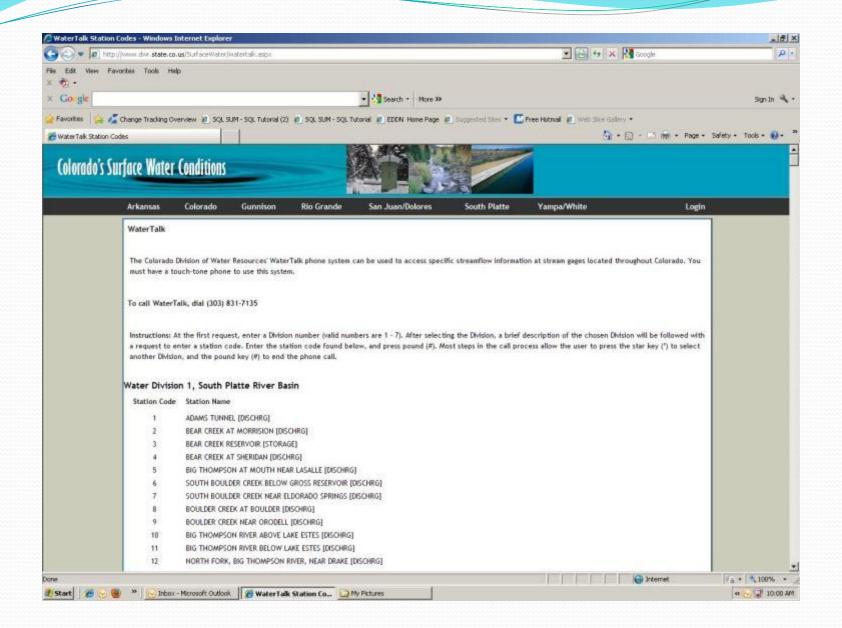












Navigating the Surface Water Conditions Web

QUESTIONS?

Web Addresses

- Colorado's Surface Water Conditions
 - http://www.dwr.state.co.us
- HydroBase Bulk Data Export
 - http://www.dwr.state.co.us/HBGuestExport
- HydroBase Online:
 - http://www.water.state.co.us/DATAMAPS
- Imaged Documents
 - http://water.state.co.us/DWRDocs/ImagedDocs
- Map Viewing Tools
 - http://water.state.co.us/DataMaps/GISandMaps/AquaMap
- Web Services
 - http://water.state.co.us/DataMaps/WebServices