

## **Division of Water Resources' Web-Based Drought Assessment Tools**

Presenter: Tom Fransen

Co-authors: Charles Theobald, Wenli Chen

River Basin Management Section Chief, Division of Water Resources, NC Dept. of Environment & Natural Resources, 1611 Mail Service Center, Raleigh, North Carolina 27699-1611;  
Tel: 919-715-0381; Email: Tom.Fransen@ncmail.net

Quick and easy access to water resources information is essential for both planning and drought management of the State's water resources. Internet has been both a blessing and curse for water resources information. There is more historical and real-time information available than ever before, but all the information providers have different methods of access and storage formats. A data storage and analysis system is needed for model development and maintenance and management during critical periods, such as drought as required in § 143-355.1 - Drought Management Advisory Council.

After the 1998 – 2002 drought the Division and Corps in collaboration with the State Climate Office (SCO) started with the SCO's Climate Retrieval and Observations Network Of the Southeast (CRONOS) database as the basis for a Water Resources Information Storage, Analysis, and Retrieval System (WRISARS) or CRONOS<sub>H2O</sub>.

In addition to the basic climatic data in CRONOS, additional data from various data providers such as the Corps, USGS, DENR, the power companies, and public water supply systems was included to provide a more complete water resources dataset. Initial access of the system has been available since 2005.

This presentation will focus on the drought assessment tools that the Division was developed using the WRISARS database. With this integrated dataset a wide range of new tools have been developed and implemented during the current drought. We have the abilities with our map server to combine both current and historical data together in new combinations. Also, we have a variety new specialty reports that include county/basin summaries for the State Emergency Response Team, TVA, Catawba Low Inflow Protocol, and others. The reports vary from on-line web pages to data sources for spreadsheets and GIS applications.

NC DENR-DWR Drought information - Mozilla Firefox

File Edit View History Bookmarks Tools Help

**Division of Water Resources**  Search

## NC Drought information

[DWR Home](#)

**7-Day Average Streamflow**

**Ground Water Drought Wells**

**NC Drought Monitoring Advisory Council**  
(Drought classification is the highest drought designation that applies to at least 25% of the land area of the county)

[Historical drought monitor data](#)

**Public Water Systems under restriction**

**Legend**

	D4 Exceptional	D3 Extreme	D2 Severe	D1 Moderate	D0 Abnormally Dry	Normal	Wet
<b>Drought Intensity</b>							
<b>Percentile Classes</b>	<2	2-5	5-10	10-20	20-30	30-70	>70
<b>7-Day Average Streamflow</b>	●	●	●	●	●	●	●
<b>Ground Water Level</b>	▲	▲	▲	▲	▲	▲	▲
<b>Water Conservation Status</b>	■ Emergency		■ Mandatory		■ Voluntary		
	(As a result of low-flow or drought)						

Done