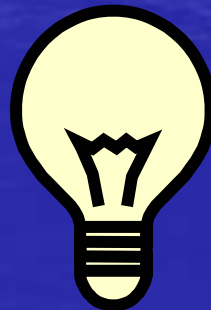


# Things about the USGS that I wish I Knew when I was working at the USEPA



# What I knew about the USGS

- Strong Science Agency
- High Quality Work on a number of complementary areas with USEPA
  - Hazardous Waste Sites
  - DOD Facilities
  - Water-Supply Issues



# What I didn't know about the USGS

- Strong Data Program
  - Databases
  - Real-Time Data Collection

# USGS Databases

- Ground-Water Site Inventory (GWSI)
  - Accessible through the National Water Information System Web Interface (NWISWeb)
- Automated Data Processing System (ADAPS)
- Water-Quality Data (QWDATA)

# What Potential Benefit to USEPA?

- Background Data
- Trends
- Analytical Routine for Processing of Continuous Data



# Near Real-Time Presentation of Water Data

- Streamflow
- Ground-Water Levels
- Water-Quality Parameters

### Who Are We?

The U.S. Geological Survey is the Nation's largest natural-science agency and has the principal responsibility within the Federal government for mapping the Nation, assessing its geologic resources and hazards, understanding its natural biological resources, and providing hydrologic information for appraising the Nation's water resources. The Maryland-Delaware-D.C. Water Science Center is mostly involved with conducting water-resources investigations.

*(more about the Maryland-Delaware-Washington, D.C. Water Science Center)*

Bridge at Rock Creek Park

### RECENT PUBLICATIONS

**WRD-MD-DE-DC-05-1**  
Water Resources Data - Maryland, Delaware, and Washington, D.C. Water Year 2005 Volume 1: Surface-Water Data

**WRD-MD-DE-DC-05-2**  
Water Resources Data - Maryland, Delaware, and Washington, D.C. Water Year 2005 Volume 2: Ground-Water Data

**FS 2006-3119**  
Pesticides in Ground Water of the Maryland Coastal Plain

**SIR 2006-5178**  
Changes in Streamflow and Water Quality in Selected Nontidal Basins in the Chesapeake Bay Watershed, 1985-2004

**SIR 2006-5146**  
Magnitude and Frequency of Floods on Nontidal Streams in Delaware

**SIR 2006-5140**  
Chemical and Ecological Health of

### NEWS & EVENTS

**USGS News**  
The Baltimore office is moving to the UMBC Research Park. Find out more. (88 Kb PDF file)

**Chesapeake Bay**  
Providing integrated science to support effective ecosystem conservation and restoration.

**Cooperators**  
Find out about our partners in local, State and Federal government and academia

**Ground-Water Levels**  
Water table or confined aquifer well levels listed by county with five years of charted data

**Streamflow Statistics**  
Hydrographs based on surface water measurements collected in MD, DE and DC

### WATER DATA

**Maryland**

- Real-Time Streamflow
- Real-Time Ground Water
- Real-Time Water Quality

SW GW QW SI

**Delaware**

- Real-Time Streamflow
- Real-Time Ground Water
- Real-Time Water Quality

SW GW QW SI

**Washington, D.C.**

- Real-Time Streamflow
- Real-Time Ground Water
- Real-Time Water Quality

SW GW QW SI

**United States**

- Real-Time Streamflow
- Real-Time Ground Water
- Real-Time Water Quality

SW GW QW SI

**Weather**

MD.DE.DC WSC Weather Page  
NWS RADAR from Sterling, VA  
NWS Eastern

Your local radar -



## Real-Time Data for Maryland: Ground Water -- 11 site(s) found

### PROVISIONAL DATA SUBJECT TO REVISION

<p>--- Predefined displays ---</p> <p>Maryland Ground-Water Ta</p>	<p>Group table by</p> <p>County</p>	<p>Select sites by number or name</p> <p>go</p>
--	-------------------------------------	---

Customize table to display other  
real-time parameters

Station Number	Station name	Date/Time	Depth to water level, feet below LSD	Elev- ation, feet above NGVD	Precip- itation total, inches	Baro- metric pres- sure, uncorr. inches of Hg
<b>◆ Kent County, Delaware</b>						
<a href="#">385041075395602</a>	Mc51-01a	05/24 06:00	10.90	--	--	--
<b>◆ Allegany County</b>						
<a href="#">393148079010601</a>	AL Ca 20	05/24 04:15	21.78	--	0.00	29.09
<b>◆ Baltimore County</b>						
<a href="#">392045076512501</a>	BA Ea 18	05/24 04:30	19.75	--	0.00	--
<a href="#">392047076512301</a>	BA Ea 19	05/24 04:30	13.85	--	--	--
<b>◆ Calvert County</b>						
<a href="#">381956076275301</a>	3~CA Gd 61	05/24 04:30	--	-133.52	--	--

## USGS 393148079010601 AL Ca 20

### PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site

Time-series: Real-time data

GO



**WELL NUMBER.**--AL Ca 20. **SITE ID.**--393148079010601. **PERMIT NUMBER.**--AL-81-0477.

**LOCATION.**--Lat 39°31'48", long 79°01'06", Hydrologic Unit 02070002, at Barton Municipal Park.

**AQUIFER.**--Conemaugh Group of Upper Pennsylvanian age. Aquifer code: 321CNMG.

**WELL CHARACTERISTICS.**--Drilled, observation, water-table well, depth 71 ft; casing diameter 8 in.,  
to 20 ft; open hole.

**INSTRUMENTATION.**--Equipped with digital water-level recorder--60-minute recorder interval from

October 2, 2003 to present. Monthly water level measurements with electronic tape by U.S.

Geological Survey personnel.

**DATUM.**--Elevation of land surface is 1,250 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.70 ft above land surface.

Environment (MDE), the Maryland Geological Survey, and the U. S. Geological Survey.

This station managed by the MD-DE-DC Water Science Center, Frostburg office.

Available Parameters		Output format	Days	
<input type="checkbox"/>	All 3 Available Parameters for this site	<input checked="" type="radio"/> Graph	<input type="text" value="7"/>	<input type="button" value="GO"/>
<input checked="" type="checkbox"/>	72019 WaterLevel, BelowLSD	<input type="radio"/> Graph w/ stats	(1-31)	
<input checked="" type="checkbox"/>	00045 Precipitation	<input type="radio"/> Graph w/o stats		
<input checked="" type="checkbox"/>	62603 Atmos. press., uncor	<input type="radio"/> Table		
		<input type="radio"/> Tab-separated		

[Summary of additional data for this site](#)

Depth to water level, feet below land surface

Most recent instantaneous value: 21.78 05-24-2007 04:15



[Create presentation-quality graph](#)

Parameter 72019; DD 01



[Create presentation-quality graph](#)

Parameter 00045; DD 02

### Barometric pressure, uncorrected, inches of mercury

Most recent instantaneous value: 29.09 05-24-2007 04:15

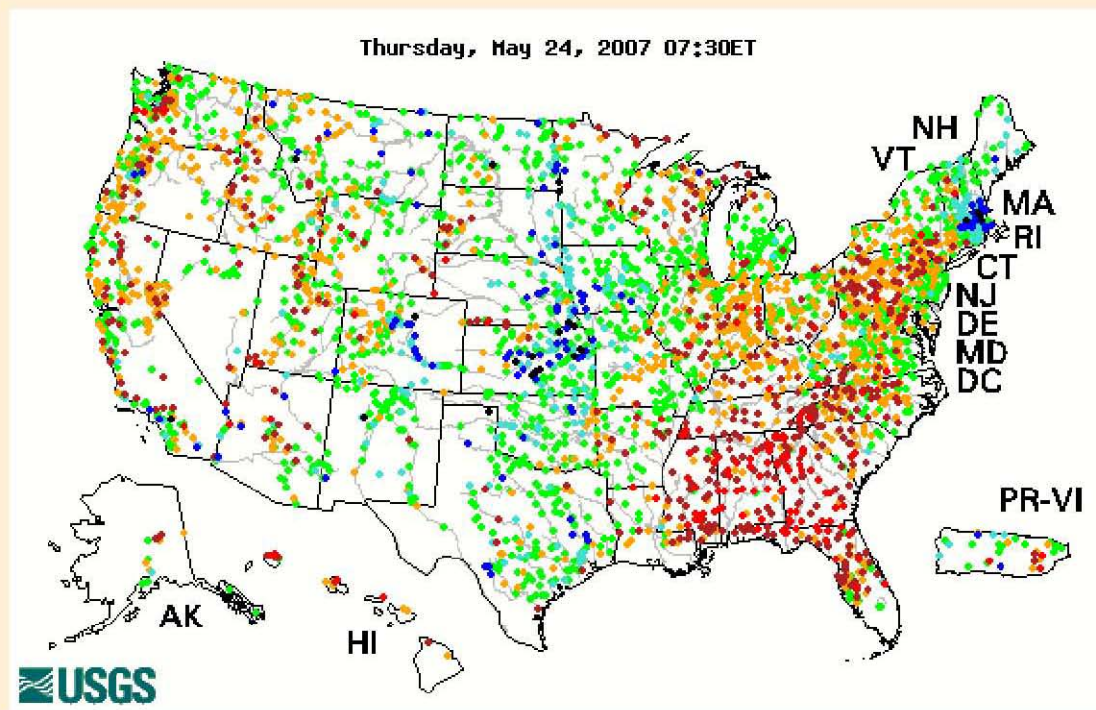


[Create presentation-quality graph](#)

Parameter 62603; DD 03

# WaterWatch -- *Current water resources conditions*

## Map of real-time streamflow compared to historical streamflow for the day of the year (United States)



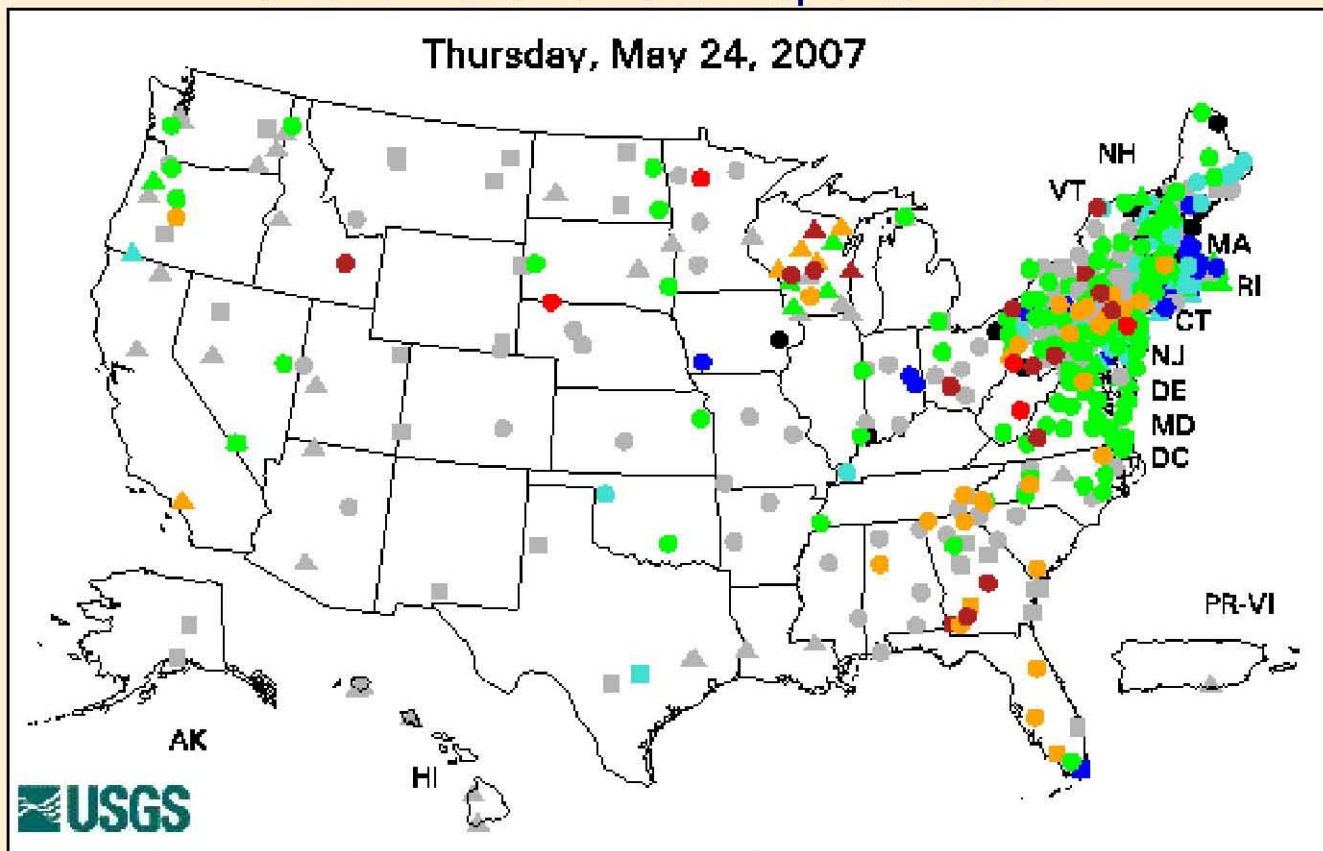
Choose a data retrieval option and select a location on the map  
 List of all stations in state,  State map, or  Nearest stations

Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

The "Real-time streamflow" map tracks short-term changes (over several hours) in rivers and streams. Although the general

# Ground-Water Climate Response Network

Thursday, May 24, 2007



Explanation - Percentile classes							
New Low	<10	10-24	25-75	76-90	>90	New High	Insufficient Data
	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal		

- Real Time
- Continuous
- Periodic Measurements

Map generated 5/24/2007 4:30:36 AM

For a list of network wells, click on a State above or select from the box:

The USGS maintains a network of wells to monitor the effects of droughts and other climate variability on ground-water levels. The network consists of a national network of about 140 wells monitored as part of the Ground-Water Resources Program, supplemented by wells in some States monitored as part of the Cooperative Water Program.

# What Potential Benefit to USEPA?

- Hydrologic Conditions available via the Web
- Expertise on real-time transmission of hydrologic and water-quality data

