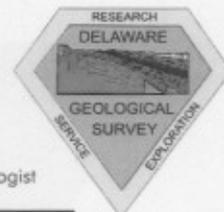


# Delaware Geological Survey

State of Delaware  
University of Delaware • Delaware Geological Survey Building  
Newark, Delaware 19716-7501

John H. Talley  
Director and State Geologist



## *Analysis of Northern Delaware Drought Advisory Guidelines for August 2008*

### WATER CONDITIONS INDEX

August 2008: **4.70**

Drought Watch: 4.0 – 5.0  
Drought Warning: 3.00 – 3.99  
Drought Emergency: <3.00

### PRECIPITATION: 12-month running deficit

12-month: **-4.18"**      6-month: **-3.39"**      5-month: **-3.95"**      2-month:  
Drought Watch: -6.00 to -8.99"  
Drought Warning: -9.00 to -11.99"  
Drought Emergency: >-12.00"

### STREAMFLOWS: 30-day moving average

Brandywine at Wilmington: Aug. 11 – Sept. 8: **129.4 MGD**

Drought Watch: 85 MGD  
Drought Warning: 70 MGD  
Drought Emergency: 48 MGD

White Clay Creek at Stanton: [(RCC at Stanton) + (WCC near Newark \* 1.1)]: Aug. 11 – Sept. 8: **61.3 MGD**

Drought Watch: 42 MGD  
Drought Warning: 37 MGD  
Drought Emergency: 31 MGD

White Clay Creek at Newark: Aug. 11 – Sept. 8: **26.3 MGD**

Drought Watch: 19 MGD  
Drought Warning: 16 MGD  
Drought Emergency: 13 MGD

### CHLORIDES

#### UWD Monitoring

Drought Watch: Streamflows  $\leq 37$  mgd for 5 consecutive days on WCC at Stanton Intake

Chlorides monitored from  
8/22/08 through 9/6/08.

Drought Warning: >250 ppm/3 consecutive days/Christina River at Newport

Drought Emergency: >250ppm/3 consecutive days/Stanton Intake

Delaware River Salt Front (DRBC): September 5, 2008

Current Location: River Mile 84

Normal Location: River Mile 79

(The Delaware Memorial Bridge is located at River Mile 69, and the DE-PA state line is located at River Mile 78)

### GROUND-WATER LEVELS

DGS Well Db24-10: Aug 15, 2008: **12.94** (below normal)

Drought Watch: 14.00 to 14.99 ft below land surface  
Drought Warning: 15.00 to 15.99 ft below land surface  
Drought Emergency: >16.00 ft below land surface

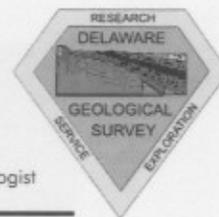
#### Aquifer Storage and Recovery

Remaining water volume: Sept. 2, 2008

# Delaware Geological Survey

State of Delaware  
University of Delaware • Delaware Geological Survey Building  
Newark, Delaware 19716-7501

John H. Talley  
Director and State Geologist



## RESERVOIR LEVELS

Hoopes (City of Wilmington) September 2, 2008: -3.5 ft (90% of capacity). The reservoir was lowered for construction purposes and is currently being refilled at a rate of 20 MGD.

Drought Watch: -5 feet (elev. 215 feet; 85% capacity)  
Drought Warning: -7 feet (elev. 213 feet; 79% capacity)  
Drought Emergency: -9 feet (elev. 211 feet; 72% capacity)

Newark (City of Newark) September 2, 2008: -8.0 feet (240 mg in storage – 75% of capacity).

Drought Watch: -10 feet (70% capacity)  
Drought Warning: -17 feet (52% capacity)  
Drought Emergency: -27 feet (28% capacity)

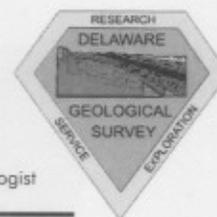
Octoraro (Chester Water Authority) September 2, 2008: 83% full (Storage was drawn down for ongoing construction work on dam gates.)

New York City Reservoirs (DRBC) August 28, 2008: 219.714 BG in storage (approx. 79% capacity)

# Delaware Geological Survey

State of Delaware  
University of Delaware • Delaware Geological Survey Building  
Newark, Delaware 19716-7501

John H. Talley  
Director and State Geologist



## ANALYSIS OF WATER CONDITONS FOR AUGUST 2008

### KENT COUNTY

#### PRECIPITATION – Dover – Running surplus/deficit

2008

12-month: **-5.89"**                      6-month: **-4.14"**                      5-month: **-2.53"**

2002

12-month: -14.75"                      6-month: -2.48"                      5-month: -2.48"

.....  
**STREAMFLOW – St. Jones at Dover – 30-day moving average for Aug. 11 – Sept. 8**

2008

**1.94 MGD            Status: Below Normal**

2002

8.78 MGD            Status: Normal

.....  
**GROUND WATER – Mc51-01 – August 19**

2008

**14.56 ft below land surface                      Status: Below normal**

2002

15.10 ft below land surface                      Status: Below normal

### SUSSEX COUNTY

#### PRECIPITATION – Lewes – Running surplus/deficit

2008

12-month: **-4.79"**                      6-month: **-3.90"**                      5-month: **-1.89"**

2002

12-month: -14.77"                      6-month: -4.09"                      5-month: -4.50"

.....  
**STREAMFLOW – Nanticoke River at Bridgeville - 30-day moving average for Aug. 11 – Sept. 8**

2008

**11.7 MGD            Status: Below Normal**

2002

45 MGD            Status: Normal

.....  
**GROUND WATER – Qe44-01 – August 19**

2008

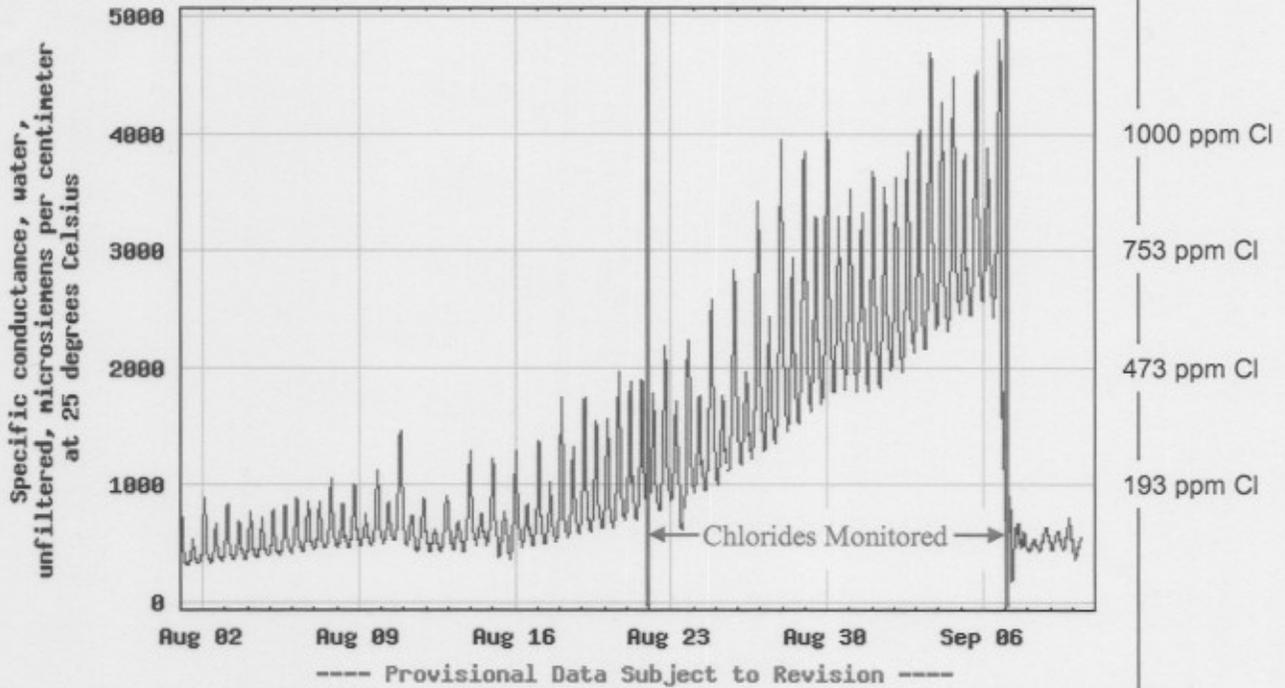
**11.53 ft below land surface                      Status: Below Normal**

2002

13.11 ft below land surface                      Status: Below Normal



### USGS 01480065 CHRISTINA RIVER AT NEWPORT, DE



http://www.dgs.udel.edu



# Delaware Geological Survey



**Geology**  
Geologic Mapping  
Geologic Units  
Mineralogy  
Earthquakes  
GeoAdventures  
Paleontology  
Resources  
Related Links

**Hydrology**  
Hydrologic Mapping  
Hydrologic Stratigraphy  
Ground Water  
Surface Water  
Resources  
Related Links

**Publications**  
First State Geology  
Reports  
Maps  
Digital Data

**About**  
Staff Directory  
Cooperative Programs  
Contact Information

Site Search



Delaware 1787

Delaware Geological Survey © 2007

### Popular Links

- Delaware Water Conditions
- Recent and Historical Ground Water Level Data
- Delaware State Mineral
- Delaware State Fossil

### Latest Additions

- First State Geology Vol. 26 No.2, Summer 2008
- Analysis of Northern Delaware Drought Advisory Guidelines for July, 2008
- Analysis of Water Conditions for Kent and Sussex Counties for June, 2008

The Delaware Geological Survey's mission is, by statute, geologic and hydrologic research and exploration, and dissemination of information through publication and public service.

The goal of the Delaware Geological Survey is to provide objective scientific geologic and hydrologic information, advice, and service to our stakeholders. This goal is accomplished by conducting geologic, hydrologic, and geologic hazard investigations and services and by continuing development of our infrastructure through basic data collection and computer-based data management and dissemination programs. The scientific information is used to advise, inform, and educate our stakeholders about the important roles that the earth sciences play in issues regarding water resources, public health, agriculture, economic development, land-use planning, environmental protection, geologic hazards, energy and mineral resources, and recreation.