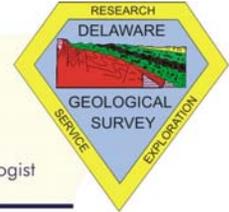


Delaware Geological Survey

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 September 21, 2010

WATER CONDITIONS INDEX

September 21, 2010: **3.61**

Drought Watch: 4.0 – 5.0

Drought Warning: 3.00 – 3.99

Drought Emergency: <3.00

.....
PRECIPITATION (current running total through Sept. 21): 12-month: **+5.24"** 6-month: **-7.08"** 5-month: **-6.16"**

Drought Advisory Guidelines: 12-month running deficit

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: August 22 – September 20: **85.1 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)]: August 22 – September 20: **35.4 MGD**

Drought Watch: 42 MGD

Drought Warning: 37 MGD

Drought Emergency: 31 MGD

White Clay Creek at Newark: August 22 – September 20: **15.3 MGD**

Drought Watch: 19 MGD

Drought Warning: 16 MGD

Drought Emergency: 13 MGD

..... CHLORIDES

UWD Monitoring

Drought Watch: Streamflows ≤ 37 mgd for 5 consecutive days on WCC at Stanton Intake

Implemented 9/2/2010

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 17, 2010

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: September: **13.0** (Normal)

Drought Watch: 14.00 to 14.99 ft below land surface

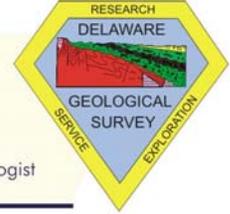
Drought Warning: 15.00 to 15.99 ft below land surface

Drought Emergency: >16.00 ft below land surface

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RESERVOIR LEVELS

Hoopers (City of Wilmington) September 21, 2010: Pool Elevation = approximately 221 feet, which is approximately -1.0 feet below top of spillway (~96% of capacity).

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) Newark began releasing 2.1 mgd on Aug 29: On September 21 at 80% capacity

Drought Watch: -10 feet (70% capacity)

Drought Warning: -17 feet (52% capacity)

Drought Emergency: -27 feet (28% capacity)

Octoraro (Chester Water Authority) September 20, 2010: 88% capacity, augmenting with 16 MGD from Susquehanna

New York City Reservoirs (DRBC) September 17, 2010: 164.901 BG in storage (61% capacity)