

# COMMONWEALTH DROUGHT SITUATION REPORT

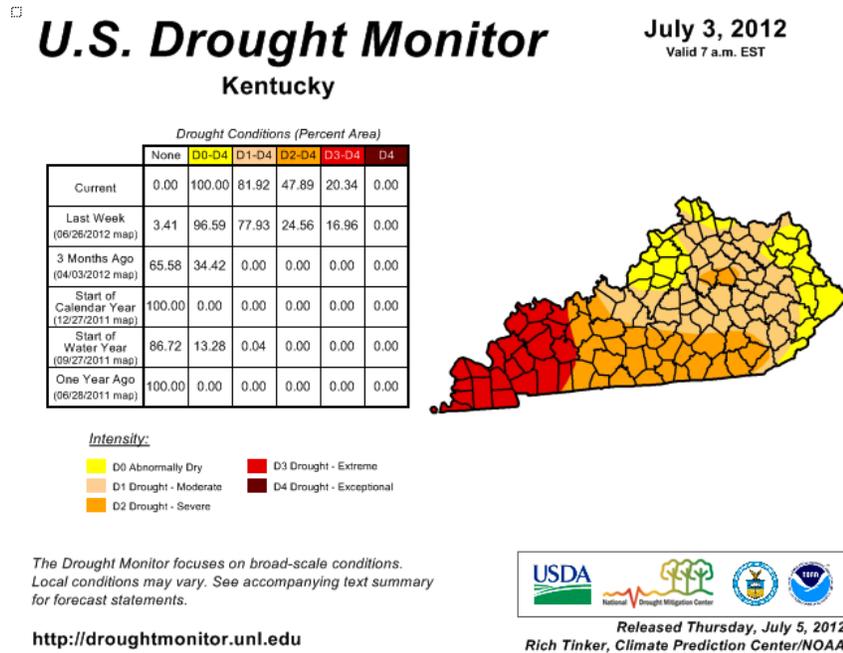
Drought Report # 1	Incident #:2012-2878	Date: 7 July 2012
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**Drought Executive Overview:**

Kentucky is currently classified as being in moderate to extreme drought by the U.S. Drought Monitor. As is typical with spring drought development, agricultural interests are the hardest hit. Corn and soybean crops in western Kentucky have been decimated and livestock pasture and watering are increasingly stressed. While the early onset of this drought began in western Kentucky (precipitation deficit of over 12 inches for the calendar year), impacts of the dry conditions are being felt towards the east. Approximately 19 public water systems have issued some level of water conservation request for their customers and many others have reported infrastructure issues related to elevated consumer demand. June wildfire reports were more typical of later in the fire season and due to drought stress of pasture and woodlands, the number of incidents can be expected to remain high. Short term forecasts call for more heat and chances for normal summertime thunderstorm activity. Long term forecasts are inconclusive.

In accordance with the State Drought Mitigation and Response Plan, Level 1 and Level 2 drought declarations have been issued. A Level 2 Drought Declaration is in place for 24 counties in western Kentucky (see map below). A Level 1 Drought has been declared for 66 other counties from south-central Kentucky to a line that stretches between Lewis and Letcher counties. A Water Shortage Watch is being prepared for release by the Division of Water. The watch will indicate counties that contain public water suppliers who are currently at greatest risk for developing water supply issues.

**Insert the current drought status map, by county, here:**



**ESF 1 Missions (Transportation):**

SEE ESF 3 for the Kentucky River Authority Report.

**ESF 2 Missions (Communications):**

N/A

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## ESF 3 Missions (Public Works and Engineering)

**Kentucky River Authority:** The River Authority will state the status of pool and water control measures on those rivers under its control.

### US Army Corps of Engineers:

USACE Louisville District:

Licking River Basin- Cave Run Lake within 0.5 ft of normal pool releasing minimum desired outflow.

Kentucky River Basin- Buckhorn Lake and Carr Creek lake at normal pool releasing minimum desired outflow.

Salt River Basin- Taylorsville Lake at normal pool releasing minimum desired outflow.

Green River Basin- Green River Lake within 0.5 ft of normal pool; Nolin Lake about 2 feet low; Barren and Rough about 4 ft low; all releasing minimum desired outflow.

USACE Nashville District:

Martins Fork Lake- lake level is being managed according to the seasonal guide curve - making minimum release

Laurel River lake: at normal operating level - releases are all through the hydropower turbine; we have expressed our concern to hydropower interests on the rate the lake is being lowered

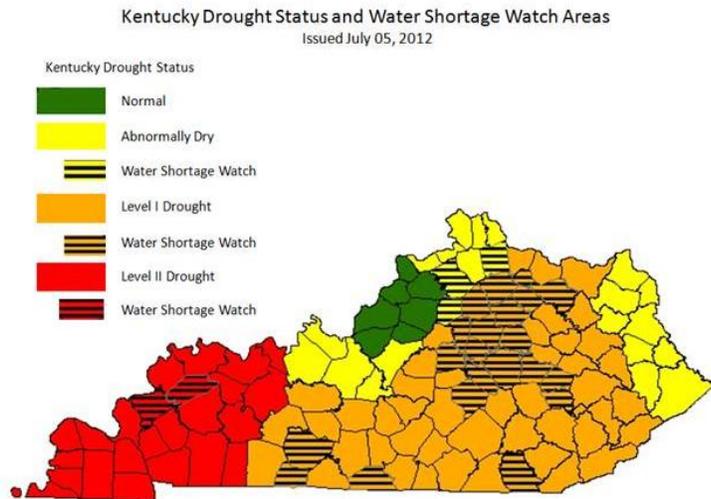
Lake Cumberland (Wolf Creek Dam)- lake level is within the Interim Risk Reduction Measure operating range - releases are being made through the hydropower units to meet downstream requirements

Dale Hollow Lake- lake level is within the normal operating range - releases are being made through the hydropower units to meet downstream requirements

Cordell Hull Lake- lake level is being managed according to the seasonal guide curve - releases are being made through the spillway gates (instead of the hydropower turbines) due to poor water quality conditions (low dissolved oxygen levels)

Lake Barkley- lake level has been at historically low levels for much of this spring and summer; current level is ~1 ft below the project guide curve - making minimum release of 6,000 cfs

### Division of Water:



The following is a list of public water suppliers that have or will soon issue some level of water conservation advisory:

- Booneville Water and Sewer
- Bowling Green Municipal Utilities
- Corbin Utilities Commission
- Evarts Municipal Water
- Frankfort Plant Board
- Garrard County Water Association
- Green Taylor Water District
- Greensburg Water Works
- Harrodsburg Municipal Water Department
- Jamestown Municipal Water Works
- Kentucky American Water Company
- Monroe County Water District
- Nicholasville Water Department
- Paris Water Works
- Peaks Mill Water District
- Richmond Utilities
- Somerset Water Service
- Winchester Municipal Utilities
- North Manchester Water District

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### ESF 4 Missions (Fire):

**Kentucky Fire Commission:** The Kentucky Fire Commission shall give a weekly report on any issues related to the lack of water in a community and its impact on the local fire service.

**Division of Forestry:** The Division of Forestry responded to **17** wildfires from July 1-July 4. These fires burned **265** acres. Counties where these fires occurred include Bell, Boyd, Calloway, Clay, Hopkins, Lincoln, Morgan, Muhlenberg, Perry, Powell, Warren, Rowan, Wayne, and Whitley. Fire causes include arson, lightning strikes, fireworks, farm equipment, downed power lines, debris burning, and spontaneous combustion of sawdust pile.

Unofficial 2012 annual totals now stand at **662** fires and **13,755** acres burned.

### ESF 5 Missions ( Emergency Management):

**Division of Emergency Management :** Identify the current alert status of the Commonwealth and how that relates to the drought conditions as reported.

### ESF 6 Missions (Shelters and Mass Care):

N/A

### ESF 7 Missions (Resource Management)

N/A

### ESF 8 Missions (Public Health):

#### Department of Public Health

Public Health will provide information on the reported issues with personal wells/cisterns impacted by the drought.

### ESF 9 Missions – (Search and Rescue)

N/A

### ESF 10 Missions:

N/A

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## ESF 11 Missions (Agriculture)

### Kentucky Cooperative Extension Service:

The State experienced a hot and dry week. Rain for the week totaled 0.04 inches, 0.94 inches below normal. Temperatures for the period averaged 80 degrees, which was 5 degrees warmer than normal and 2 degrees warmer than last week with multiple days exceeding 100 degrees statewide. Topsoil moisture was rated 62 percent very short, 30 percent short and 8 percent adequate. Subsoil moisture was rated 50 percent very short, 38 percent short and 12 percent adequate. Days suitable for fieldwork averaged 6.7 out of a possible seven.

The combined impact of dry conditions and extremely hot temperatures at this time is causing a one-two punch. The timing of the impact on corn has already and will continue to reduce yields significantly. Double-cropped soybeans are having a difficult time with germination. Ponds are running low for irrigation purposes and watering livestock. Western and central locations may be near the point where rain would provide little benefit for corn and soybean growth, development and yield.

**Kentucky Department of Agriculture:** the KDA will provide an executive overview of the current impact of the Drought on Agriculture within the Commonwealth.

### Kentucky Climate Center / State Climate Office for Kentucky:

Drought conditions in western areas persisted throughout spring and into early summer. Paducah's precipitation total for April through June of 1.85" broke a record for the driest such period. Precipitation for June averaged 1.13" statewide with many areas receiving less than one inch (Kentucky Mesonet). A heat wave over the past week contributed to rapid intensification of drought conditions across most of the state. Development of the drought follows a similar pattern as 1988, when a normal precipitation pattern returned in July. Similar late spring droughts of 1930 and 1936 continued with below normal precipitation in July. The outlook to 14 days indicates the likelihood of a return to more normal temperatures and precipitation totals.

## ESF 12 Missions (Energy)

**Department of Energy:** The Department of Energy will provide information on the impact of the Drought Conditions are having on the production and use of energy within the Commonwealth.

## ESF 13 Missions (Law Enforcement)

### Department of Fish and Wildlife:

The Department has not seen any dramatic effects on Fish and Wildlife at this time. Low stream and creek levels in affected areas could lead to dissolved oxygen issues and potential fish kills, but this has been minimal to this point. Trout stockings have had to be diverted from those streams with excessive temperatures or poor flow. The Department has received calls complaining about agricultural water withdrawal from creeks and streams in affected areas and the potential impacts to fish populations as the result of dewatering.

## ESF 14 Missions (Community Recovery)

N/A.

## ESF 15 Missions (Public Information)

**Joint Information Center:** The Division of Water will provide a standard Information Message that can be used by other agencies to describe the status of the drought and its overall impact on the Commonwealth.

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### **Kentucky National Guard**

The Kentucky National Guard will report on any missions performed in support of civil operations directly related to the drought and its effects.

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