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ANDERSON, SOUTH CAROLINA

Upstate residents should brace for a new round of droughts, Duke hydrologist says

Ray Chandler/Special to Independent Mail

Saturday, December 11, 2010

SENECA — If current weather trends hold, a Duke Energy hydrologist says, residents should brace for another round of falling lake levels in the Upstate.

The mechanics of the Duke Energy lake system, however, mean the weather patterns will likely have more effect on Lake Jocassee than any other lake in that system, the hydrologist said.

George Galleher, manager of Duke Energy's hydro fleet operations, told an audience of mainly Lake Keowee residents Thursday at the Duke Energy World of Energy complex that the weather patterns have led to predictions that a dry winter will turn into a dry spring.

So the current 5-inch rain deficit for the Upstate, he said, will likely increase.

"We're in another La Nina pattern," he said. "It's expected to last through the spring of 2011."

La Nina, according to the National Oceanic and Atmospheric Administration, is an ocean-atmosphere phenomenon that involves cooling across the middle central Pacific Ocean with resulting effects on weather. For the southeastern United States, it typically means a drier, warmer winter. The El Nino effect, which sees a warming across the middle central Pacific, produces the opposite effect.

For the lakes of the Keowee-Toxaway River system, Galleher said, the greatest effect is likely to be on Lake Jocassee, north of Lake Keowee, because the use of Lake Keowee to cool the Oconee Nuclear Station means that lake can't be allowed to fall more than 15 feet below full pond.

To keep Lake Keowee full, he said, there is only one solution — "Jocassee would be sacrificed."

As of Thursday, Lake Jocassee was 13 feet below full pond, and 10 feet below Duke Energy's target level for the lake.

The ultimate effect of the current weather trends on the level of Hartwell Lake is difficult to project, Galleher said, because the Keowee-Toxaway watershed contributes only 7 percent of Hartwell Lake's flow.

Galleher said the state's drought response committee is due to meet next in January to consider the developing problems.

The committee voted on Nov. 23 to maintain the lowest drought level designation - incipient — for 37 of the state's counties, including Oconee, Anderson and Pickens.

"Most of South Carolina has experienced below-normal rainfall since early September," said Hope Mizzell, South Carolina state climatologist.

Mizzell added that the growing rain deficit led the South Carolina Department of Natural Resources to convene the November drought response committee meeting to prepare for projected worsening conditions.

The U.S. Army Corps of Engineers is already taking steps to deal with the first stages of the projected drought by lowering the outflow from the Savannah River basin lakes, said Stan Simpson of the Corps.

"We tripped our first level of drought in August of this year and dropped to 4,200 (cubic feet per second) of daily outflow and to 4,000 in mid-October," Simpson said. "We expect that number to drop further still to 3,800 in mid-January."


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