



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
SAVANNAH DISTRICT, CORPS OF ENGINEERS  
100 W. OGLETHORPE AVENUE  
SAVANNAH, GEORGIA 31401-3640

June 27, 2014

Planning Division

**JOINT PUBLIC NOTICE**  
**U.S. Army Corps of Engineers, Savannah District**  
**and**  
**Southeastern Power Administration**

**TO WHOM IT MAY CONCERN:**

**SUBJECT:** Notice of Availability of a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for New Operating Agreement between U.S. Army Corps of Engineers, Southeastern Power Administration, and Duke Energy Carolinas, LLC (Duke Energy).

Notice of the following is hereby given:

a. Pursuant to the National Environmental Policy Act of 1969, notice is hereby given that the Savannah District, U.S. Army Corps of Engineers and the Southeastern Power Administration intend to enter into a New Operating Agreement with Duke Energy that describes how Duke Energy will release water from its reservoirs in the upper Savannah River Basin to the Federal reservoirs located downstream.

b. The Savannah District announces the availability to the public of a Draft EA and Draft FONSI concerning the proposed New Operating Agreement with Duke Energy. The new Operating Agreement would equalize the percent of remaining usable storage capacity at Duke Energy's Lake Jocassee and Lake Keowee during droughts with the remaining usable storage at the Corps of Engineers' Hartwell, Richard B. Russell, and J. Strom Thurmond Reservoirs. The proposed new Operating Agreement would go into effect when it is signed. Copies of the Draft EA and unsigned FONSI can be obtained through email request to the following address: [CESAS-PD@usace.army.mil](mailto:CESAS-PD@usace.army.mil) or downloaded from the Savannah District website: <http://1.usa.gov/1bSJsQ2>

c. Written statements regarding the Draft EA and FONSI for the proposed action will be received at the Savannah District Office until

**12 O'CLOCK NOON, July 28, 2014**

from those interested in the activity and whose interests may be affected by the proposed action.

**PROJECT DESCRIPTION:** The U.S. Army Corps of Engineers, Southeastern Power Administration, and Duke Energy entered into an Operating Agreement in 1968 that described how Duke Energy would operate its Keowee-Toxaway Project (Lakes Jocassee and Keowee) so that the Corps and SEPA would be able to meet their hydropower generating requirements. Since that time, there have been many changes in both the Corps and Duke Energy systems, but the 1968 Agreement has not been modified. Both the Corps and Duke Energy have constructed an additional reservoir and pumped storage facilities in the Savannah River Basin that affect operation of their system. The Corps constructed the Richard B. Russell Pumped Storage Project, and Duke constructed the Bad Creek Pumped Storage Project and the Oconee Nuclear Station. The Corps also modified its reservoir operations through implementation of a Drought Plan (DP), with the latest update occurring in July 2012.

Alternatives to the Proposed Action were developed as part of the planning process. The alternatives that were considered were as follows:

- a. No Action Alternative/Without Project Condition - The No Action Alternative (NAA) represents operating in accordance with the 1968 Operating Agreement. The 1968 Agreement is based on the concept of equalizing the percent of combined remaining usable storage capacity at the Corps' Hartwell and Thurmond Reservoirs during droughts with the percent of combined remaining usable storage capacity at Duke Energy's Lake Jocassee and Lake Keowee. Since the Corps' Richard B. Russell Project and Duke Energy's Bad Creek Project were not constructed at the time of the 1968 Agreement, they are not included in the operating rules for determining flow release requirements from Lake Keowee. The NAA assumes Duke Energy would draw down the Lake Keowee reservoir elevation below 793 feet AMSL when required. Such an action would require Duke to temporarily cease generation at the Oconee Nuclear Station, as specified in their license for that facility from the Nuclear Regulatory Commission. The NAA incorporates the most recent version (July 2012) of the Corps' Drought Plan operating protocols.
- b. Alternative 1: Duke Energy would modify its Oconee Nuclear Station (ONS) to allow that facility to meet the flow requirements of the 1968 Agreement (i.e., ONS could continue to operate down to a Lake Keowee elevation of 778 feet AMSL). As with the NAA, A1 incorporates the Corps' July 2012 Drought Plan. This means that the Corps would release the same volume of water from the Thurmond Reservoir to the downstream river during a drought as in the NAA. A1 equalizes the percent of combined remaining usable storage capacity at the Corps's Hartwell and Thurmond Reservoirs with the percent of combined remaining usable storage capacity at Duke Energy's Lakes Jocassee and Keowee. A1 also includes provisions to enhance drought tolerance in the Upper Savannah River Basin.
- c. Alternative 2: This alternative represents the manner in which Duke Energy has operated the Keowee-Toxaway Project since the mid- to late-1990s during extreme drought conditions. The methodology used to determine required weekly water

releases from Lake Keowee is the same as in the NAA. However, no water release would be made from Lake Keowee if that release would result in a Lake Keowee elevation below 794.6 feet AMSL. As with the NAA, A2 incorporates the Corps' July 2012 Drought Plan operating protocols. This means that the Corps would release the same volume of water from the JST Reservoir to the downstream river during a drought as in the NAA. A2 is also based on the concept of equalizing the percent of combined remaining usable storage capacity at the Corps' Hartwell and Thurmond Reservoirs with the percent of combined remaining usable storage capacity at Duke Energy's Lakes Jocassee and Keowee, subject to the Nuclear Regulatory Commission license requirements for the ONS. A2 includes the same provisions to enhance drought tolerance in the Upper Savannah River Basin as A1.

- d. Alternative 3: This alternative incorporates additional storage facilities, updated storage volumes, coordinated drought response, measures to protect Upper Savannah River Basin water supply, and provisions expected to be included in Duke Energy's 2016 Keowee-Toxaway Relicensing Agreement.

Duke Energy would modify the ONS to allow normal operations to continue when Lake Keowee elevations drop below the current Nuclear Regulatory Commission limitation of 794.6 feet AMSL. The Lake Keowee minimum elevation for calculation of usable storage would be revised to elevation 790 feet AMSL, which allows a 10-foot drawdown of Lake Keowee during droughts. The Lake Jocassee minimum reservoir elevation would be lowered six feet (from 1086 feet AMSL to 1080 feet AMSL). A3 incorporates additional storage capacity created by the Corps and Duke Energy since the 1968 Agreement was executed, with the addition of Bad Creek Reservoir and RBR Reservoir. These reservoirs increase the total storage volumes in the systems and A3 includes them in the calculation of usable storage and weekly water release requirements from Lake Keowee. A3 uses the concept of equalizing the percent of combined remaining usable storage capacity at the Corps' Hartwell, RBR, and Thurmond Reservoirs with the percent of combined remaining usable storage capacity at Duke Energy's Bad Creek Reservoir and Lakes Jocassee and Keowee.

A3 incorporates the Corps' July 2012 Drought Plan. This means that the Corps would release the same volume of water from the JST Reservoir to the downstream river during a drought as in the NAA. A3 includes the same provisions to enhance drought tolerance in the Upper Savannah River Basin as A1. Duke Energy would implement the Keowee-Toxaway Low Inflow Protocol (LIP) which provides rules for how the Duke Energy Reservoirs are operated during periods of drought, including minimum reservoir elevations and water withdrawal reductions for varying levels of drought severity (and closely follows the Corps' 2012 Drought Plan).

- e. Alternative 4: This alternative was included to evaluate how the Low Inflow Protocol operations in A3 affect reservoir levels and flow releases from the Corps Projects. Accordingly, A4 includes the same reservoir usable storage updates as A3, but A4

does not include the Low Inflow Protocol provisions contained in A3. A4 uses the concept of equalizing the percent of combined remaining usable storage capacity at the Corps' Hartwell, RBR, and Thurmond Reservoirs with that in Duke Energy's Bad Creek Reservoir and Lakes Jocassee and Keowee. A4 incorporates the Corps' July 2012 Drought Plan operating protocols. This means that the Corps would release the same volume of water from the Thurmond Reservoir to the downstream river during a drought as in the NAA. A4 also includes the same provisions to enhance drought tolerance in the Upper Savannah River Basin as A1.

#### **DEPARTMENT OF THE ARMY EVALUATION:**

**Environmental Assessment:** Savannah District has prepared a Draft Environmental Assessment (EA) and found that an Environmental Impact Statement will not be required for this action. The Draft EA is being coordinated concurrently with this Notice to Federal and State natural resource agencies for review and comment. No wetlands would be impacted by the proposed action.

**Threatened and Endangered Species:** No Federally-listed threatened or endangered species occur in the Duke or Corps reservoirs. All the action alternatives would follow the Corps' 2012 Drought Plan, resulting in the Corps releasing the same volume of water from the JST Reservoir to the downstream river during a drought as in the NAA. The District reviewed the most recent information on Federally-listed threatened or endangered species and determined that the proposed action may affect, but is not likely to adversely affect Wood storks, Atlantic sturgeon, and Shortnose sturgeon. This proposed action is being coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under Section 7 of the Endangered Species Act.

**Cultural Resources:** In accordance with the National Historic Preservation Act (P.L. 89-655, as amended) and 36 CFR, Part 800, Savannah District evaluated the proposed action's potential effect upon historic properties. The District has determined the proposed action will have no adverse effect upon historic properties and has initiated consultation with the Georgia and South Carolina State Historic Preservation Officers and eighteen Native American Tribes.

**Essential Fish Habitat:** Savannah District evaluated the proposal's potential effects on Essential Fish Habitat (EFH) and expects no significant impacts to those habitats. This determination is being coordinated with the National Marine Fisheries Service under the Magnuson-Stevens Fishery Conservation and Management Act.

**Water Quality Certification:** The proposed action would not involve any dredging or filling of wetlands or waters of the U.S.; therefore, water quality certification is not required. Savannah District is coordinating the proposed action with the Georgia Department of Natural Resources, Environmental Protection Division, and the South Carolina Department of Health and Environmental Control, Bureau of Water.

**Coastal Zone Consistency:** The proposed action would occur well upriver of the coastal zone. All the action alternatives would follow the Corps' 2012 Drought Plan, resulting in the Corps releasing the same volume of water from the JST Reservoir to the downstream river and estuary during a drought as in the NAA. Savannah District evaluated the proposed project and found it is consistent with both the Georgia and South Carolina Coastal Zone Management Programs to the maximum extent practicable. The District is coordinating its consistency determination with the Georgia Department of Natural Resources, Coastal Resources Division, and the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management.

**Clean Air Act:** No violations of air quality standards are expected. The proposed action is being coordinated with the U.S. Environmental Protection Agency.

**Application of the Section 404(b)(1) Guidelines:** No discharge of dredged or fill material would occur as a result of the proposed new Operating Agreement. Savannah District evaluated the proposed action in accordance with Section 404(b)(1) of the Clean Water Act and determined that the proposed new Operating Agreement complies with the Section 404(b)(1) Guidelines.

**Public Interest Review:** The decision whether to proceed with the project as proposed will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both the protection and use of important resources. The benefits which reasonably may be expected to accrue from the proposal will be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including the cumulative effects thereof. Among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife, flood hazards, flood plains, land use, navigation, shoreline erosion/accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, environmental justice, and, in general, the needs and welfare of the people.

**Consideration of Public Comments:** Savannah District is soliciting comments from the public; Federal, State, and local agencies and officials; Native American Tribes; and other interested parties in order to consider and evaluate the impacts of the proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers in its deliberations on this action. To make this decision, comments are used to assess impacts to endangered species, wetlands, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of the Environmental Assessment pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

**Comment Period:** Anyone wishing to comment to the Corps on this proposed action should submit comments no later than the end of the comment period shown in this notice, in writing, to the Savannah District, U.S. Army Corps of Engineers, Planning Division, 100 West Oglethorpe Avenue, Savannah, Georgia 31401, by FAX to 912-652-5787, or by emailing the comments to the following address: [CESAS-PD.SAS@usace.army.mil](mailto:CESAS-PD.SAS@usace.army.mil).

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