

APPENDIX A

SAVANNAH RIVER BASIN MAP

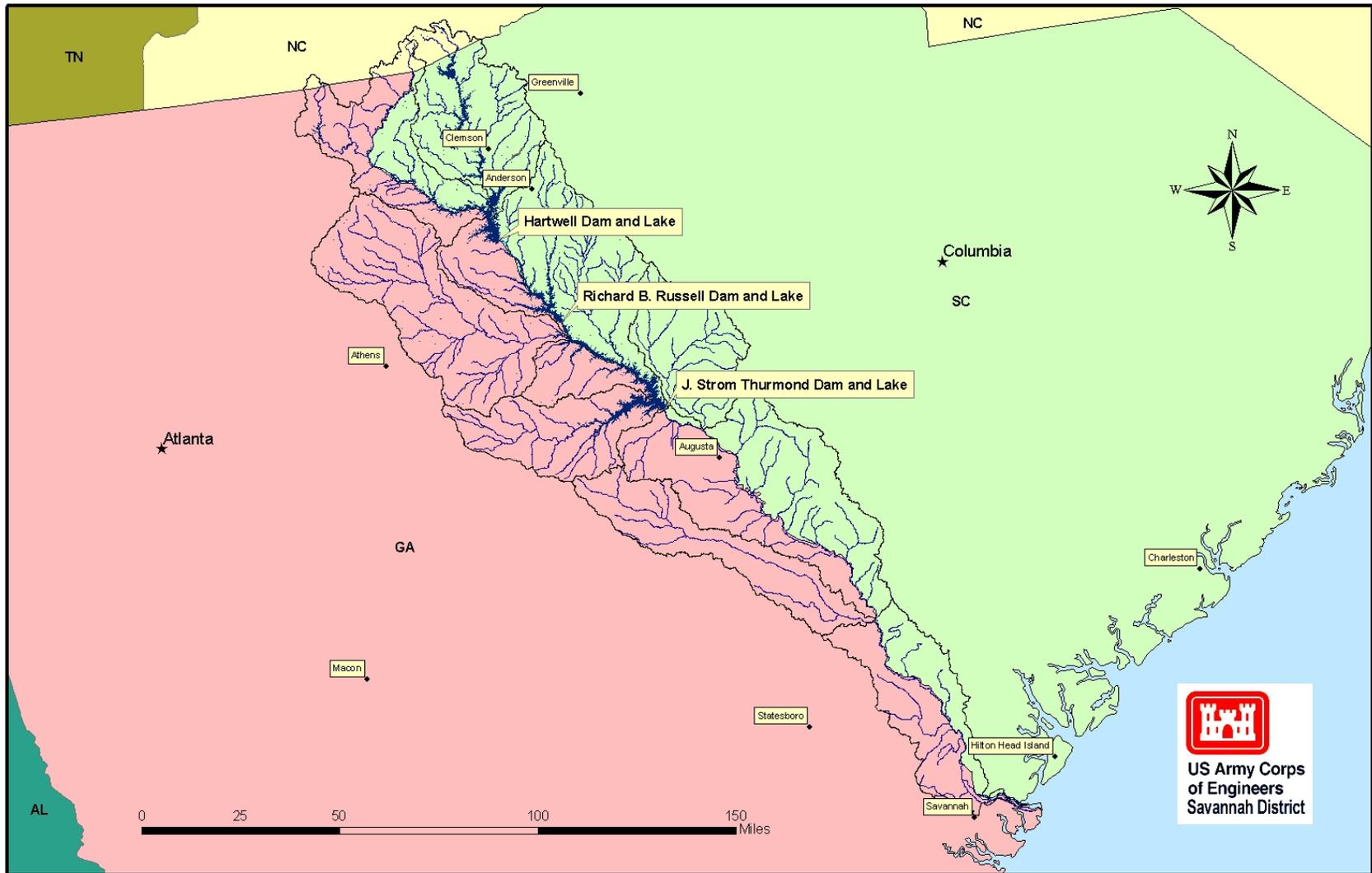


Figure A-1: Dam and Lake Locations

APPENDIX B

CLEARANCE FROM CULTURAL RESOURCES MANAGEMENT

Georgia Department of Natural Resources

Noel Holcomb, Commissioner

Historic Preservation Division

W. Ray Luce, Division Director and Deputy State Historic Preservation Officer
34 Peachtree Street, Suite 1600, Atlanta, Georgia, 30303
Telephone (404) 656-2840 Fax (404) 657-1040 <http://www.gashpo.org>

MEMORANDUM

TO: US Army Corps of Engineers
Savannah District
Mobile/Savannah Planning Center
Attn: Larry Olliff
P.O. Box 889
Savannah, Georgia 31402-0889

FROM: *for* Elizabeth Shirk *WNV*
Environmental Review Coordinator
Historic Preservation Division

RE: Finding of "No Historic Properties Affected"

PROJECT: **Savannah River Basin Drought Contingency Plan Update**
Federal Agency: COE
HP-060613-001

COUNTY: **Statewide, Georgia**

DATE: July 6, 2006

The Historic Preservation Division has reviewed the information received concerning the above-mentioned project. Our comments are offered to assist federal agencies and project applicants in complying with the provisions of Section 106 of the National Historic Preservation Act.

Based on the information submitted, HPD believes that no historic properties or archaeological resources that are listed in or eligible for listing in the National Register of Historic Places will be affected by this undertaking. Please note that historic and/or archaeological resources may be located within the project's area of potential effect (APE), however, at this time it has been determined that they will not be impacted by the above-referenced project. Furthermore, any changes to this project as proposed will require further review by our office for compliance with the Section 106 process.

If we may be of further assistance contact Steven Moffson, Architectural Historian, at (404) 651-5906 or Michelle Volkema, Environmental Review Specialist at (404) 651-6546. Please refer to the project number assigned above in any future correspondence regarding this project.

ES:mcv

cc: Dave Crampton, COE
Historic Preservation Planner, Regional Development Center

APPENDIX C

JOINT PUBLIC NOTICE AND NEWS RELEASE



DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 889
SAVANNAH, GEORGIA 31402-0889

REPLY TO
ATTENTION OF:

May 30, 2006

Mobile/Savannah
Planning Center

JOINT PUBLIC NOTICE
US Army Corps of Engineers, Savannah District,
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

TO WHOM IT MAY CONCERN:

SUBJECT: Notice of Availability of a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for a Savannah River Basin Drought Contingency Plan Update on the Savannah River in Georgia and South Carolina.

Notice of the following is hereby given:

a. Pursuant to the National Environmental Policy Act of 1969, notice is hereby given that the US Army Corps of Engineers, Savannah District proposes an update of the March 1989 Savannah River Basin Drought Contingency Plan (SRBDP).

b. The Savannah District announces the availability of a Draft EA and Draft FONSI to the public concerning the action. Copies of the Draft EA and unsigned FONSI can be obtained either by writing the Savannah District at the following address: US Army Corps of Engineers, Savannah District, Mobile/Savannah Planning Center, Attn: Mr. Larry Olliff, Post Office Box 889, Savannah, Georgia 31402-0889, by calling Mr. Olliff at (912)652-5690, or by emailing to: larry.b.olliff@sas02.usace.army.mil.

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 3, 2006

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

PROJECT DESCRIPTION:

The proposed action consists of retaining major components of the 1989 SRBDP and adding several other features. The discharge restrictions at J. Strom Thurmond Dam would be allowed to transition back to higher flows prior to reaching full pool. Drawdown dates at Hartwell and

Thurmond Lakes would be synchronized. The minimum daily average release at J. Strom Thurmond Dam would be adjusted from 3600cfs to 3800 cfs. The maximum average discharge at J. Strom Thurmond, for the drought levels, would be revised as follows:

Drought Level	Present	Proposed
1	Public safety information	4,200 cfs weekly
2	4,500 cfs weekly	4,000 cfs weekly
3	3,600 cfs daily targeted	3,800 cfs daily targeted
4	Outflow = Inflow	Outflow = inflow

AUTHORIZATION REQUIRED FROM THE STATE OF GEORGIA:

Coastal Zone Consistency: Savannah District has evaluated the proposed project and determined that it is consistent with the Georgia Coastal Zone Management Program to the maximum extent practicable. The District will submit the Environmental Assessment to the Georgia Department of Natural Resources, Coastal Resources Division in Brunswick, Georgia, who administers that program. The State will review the proposed action and determine whether it concurs that the proposed project is consistent with the State's Coastal Zone Management Program to the maximum extent practicable. Any person who desires to comment or object to Georgia Coastal Zone Management Consistency Certification must do so in writing within 30 days of the date of this notice to the Federal Consistency Coordinator, Ecological Services Section, Georgia Department of Natural Resources, Coastal Resources Division, Suite 300, One Conservation Way, Brunswick, Georgia 31520-8687 (telephone (912) 264-7218) and state the reasons or basis for the objections.

AUTHORIZATION REQUIRED FROM THE STATE OF SOUTH CAROLINA:

Coastal Zone Consistency: Savannah District has evaluated the proposed project and determined that it is consistent with the South Carolina Coastal Zone Management Program to the maximum extent practicable. The District will submit the Environmental Assessment to the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management, who administers that program. The State will review the proposed action and determine whether it concurs that the proposed project is consistent with the State's Coastal Zone Management Program to the maximum extent practicable. Any person who desires to comment or object to South Carolina Coastal Zone Management Consistency Certification must do so in writing within 30 days of the date of this notice to the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management, Federal Certification Section, 1362 McMillan Avenue, Suite 400, Charleston, South Carolina, 29405 and state the reasons or basis for the objections.

DEPARTMENT OF THE ARMY EVALUATION:

Environmental Assessment: Savannah District has prepared a Draft EA and a finding has been made that an Environmental Impact Statement will not be required for this action. The Draft EA is being sent concurrently with this Notice to Federal and State natural resource agencies for review and comment.

Threatened and Endangered Species: The District reviewed the most recent information and determined that the proposed action will not affect any federally listed endangered or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. The proposed action is being coordinated with the US Fish and Wildlife Service and the National Marine Fisheries Service under Section 7 of the Endangered Species Act.

Cultural Resources: Savannah District evaluated the proposal's potential effects on Cultural Resources. The District believes the proposed changes will have no additional adverse impacts on cultural resources. The proposed action is being coordinated with the Georgia and South Carolina State Historic Preservation Offices under Section 106 of the National Historic Preservation Act.

Essential Fish Habitat: Savannah District evaluated the proposal's potential effects on Essential Fish Habitat. The District believes the proposed changes will have a beneficial effect on essential fish habitat. The proposed action is being coordinated with the National Marine Fisheries Service under the Magnuson-Stevens Fishery Conservation and Management Act.

Coastal Zone Consistency: Savannah District has evaluated the proposed project and believes it is in compliance with the Georgia and South Carolina Coastal Management Programs (CMP). The District will submit the Environmental Assessment to the Georgia Department of Natural Resources, Coastal Resources Division in Brunswick, Georgia and to the South Carolina Department of Health and Environmental Control Office of Ocean and Coastal Resource Management in Charleston, South Carolina.

Public Interest Review: The decision whether to proceed with the action 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 economics, general environmental concerns, historic properties, fish and wildlife, recreation, water supply, water quality, energy needs, consideration of property ownership, environmental justice, and, in general, the needs and welfare of the people.

Consideration of Public Comments: The US Army Corps of Engineers 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 US Army Corps of Engineers in its deliberations on this action. To make this decision, comments are used to assess impacts to endangered species, 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 US Army Corps of Engineers, Savannah District, Mobile/Savannah Planning Center, Attn: Mr. Larry Olliff, Post Office Box 889, Savannah, Georgia 31402-0889, or by e-mailing the comments to: larry.b.olliff@sas02.usace.army.mil.

Any person who desires to comment or object to Georgia Coastal Zone Management Consistency Certification must do so in writing to the Georgia Department of Natural Resources, Coastal Resources Division, Federal Consistency Coordinator, Suite 300, One Conservation Way, Brunswick, Georgia 31520-8687.

Any person who desires to comment or object to South Carolina Coastal Zone Management Consistency Certification must do so in writing to the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management, Federal Certification Section, 1362 McMillan Avenue, Suite 400, Charleston, South Carolina, 29405.

Point of Contact: If there are any questions concerning this Public Notice, please contact Mr. Larry Olliff, US Army Corps of Engineers, Mobile/Savannah Planning Center, at (912)652-5690.

Sincerely,



Leroy Crosby
Acting Savannah Unit Chief
Mobile/Savannah Planning Center

NEWS RELEASE

The US Army Corps of Engineers has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for a Savannah River Basin Drought Contingency Plan Update for the Savannah River in Georgia and South Carolina. For a copy of the EA, e-mail Larry Olliff at larry.b.olliff@sas02.usace.army.mil or call at (912)652-5690. Comments will be received by the US Army Corps of Engineers, Savannah District, ATTN: Mr. Larry Olliff, PO Box 889, 100 West Oglethorpe Avenue, Savannah, Georgia 31402-0889, or by e-mailing the comments to the following address: larry.b.olliff@sas02.usace.army.mil. The comment period will end 30 days from the date of this announcement.

APPENDIX D

COMMENTS

Olliff, Larry B SAMatSAS

From: Ed_Eudaly@fws.gov
Sent: Monday, June 05, 2006 9:25 AM
To: Olliff, Larry B SAMatSAS; Simpson, Stanley L SAWatSAS; Ward, Jason M SAWatSAS
Cc: Lynch, William G SAS
Subject: Draft EA Savannah Drought

I believe there may be an error in Table 24 for WY 5. Please compare that table to Table 21 and Table 27 for WY 5. Also the text states that Alt. 1 provides increased Spring flows throughout drought of record. If Table 24 is correct the statement is not. Also, could one of you send a figure similar to Figure 5 (downstream hydrograph) but showing Alternative 2 and the no action. Thanks.

Ed EuDaly
U.S. Fish and Wildlife Service
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
843-727-4707 ext. 227
FAX 843-727-4218

Charles W. Belin, Jr., Ph.D.

841 Meriweather Drive
Savannah, GA 31406-3267
(912) 352-0598
Email: chasbel@comcast.net

July 13, 2006

US Army Corps of Engineers, Savannah District
Mobile/Savannah Planning Center
ATTN: Mr. Larry Olliff
P. O. Box 889
Savannah, GA 31402-0889

Dear Mr. Olliff:

This document is prepared in response to the Savannah District Public Notice dated May 30, 2006 concerning a Draft Environmental Assessment for the Savannah River Basin Drought Contingency Plan Update. I am pleased to have the opportunity to review this draft document because it needs significant editing, additions, and corrections, especially with respect to typographical errors, errors of fact, and omissions.

Major Concerns:

1. Instead of preparing a whole new EA or EIS, why not prepare a supplement to the existing EIS. Less time, less effort, and less money.
2. This document only evaluated approximately ½ to 2/3 of the Savannah River Basin. No indication is given either to the impacts south of Augusta or north of the Hartwell Lake. This needs to be corrected for a complete document.
3. Some paragraphs are numbered (e.g., 1.2.2 or 3.4.1). Why are not all paragraphs numbered? Be consistent! Either number them all or number none.
4. There are many typographical and spelling errors. I strongly suggest that the complete document be subjected to a full evaluation by a spell checker.
5. Paragraphs with significant conclusions need citations (see any paragraph on page 10). Certainly the authors did not perform research to yield these conclusions. Thus, if they obtained them from other researchers or from the literature, the research must be referenced. It would appear that the current document is replete with instances of plagiarism.
6. Because of the above items as well as those to follow, I believe the decision maker will have insufficient and incorrect information from which to make a valid conclusion.

Additional Concerns:

1. FONSI: The first paragraph is incoherent. It, as the first paragraph that the reader sees, needs to be straightforward, strong, and tightly written. Perhaps it should be divided into two paragraphs.
2. FONSI: Paragraph 4e; Justification for this conclusion is not provided in the document. If this statement is to be believed, somewhere justification must accompany it.
3. Paragraph 2.3.1: Hartwell Lake, Table 1. In the right column heading, the elevation units must be included, even though it is in the heading. This applies to the other tables, figures and graphs.
4. Paragraph 2.4: Water Supply; What impacts are expected to water supply in Effingham and Chatham Counties, Georgia, and Jasper and Beaufort Counties, South Carolina. These are also in the Savannah River Basin watershed.
5. Table 2 should have in its title that it refers to JST lake.

6. Page 10: First complete paragraph. The sentence beginning, "After the fall 'overtum'..." needs substantiation. Any water column, especially one containing freshwater, does not become isothermal due only to temperature considerations. Winds must be present to initiate the instability. Very often anoxic respiration (i.e., the production of H₂S) is a triggering factor.
7. Paragraph 2.7: Cite your references.
8. Table 3: Remove closing bracket following the species epithet for Kirtland's Warbler. What about including American alligator, West Indian Manatee, all of the marine turtles, and the whales? There are many other protected species that are not included in the table.
9. Paragraph 2.9.4: Striped bass is not an endangered species. This paragraph should be included elsewhere. Please reference your data sources.
10. Figure 5 is confusing and unexplained. The paragraph directly before this figure is confusing, i.e., "The following example is a two year portion of the overall hydrograph that covers approximately five years." HUH??
11. What impacts of all alternatives (i.e., 1 – 4) could be expected on the following criteria from Screven County to Tybee Island?
 - a. Biotic Communities
 - b. Benthic Communities
 - c. Wetlands
 - d. Socio-economic Communities
 - e. Water Quality
 - f. Water Quantity
 - g. Boat Ramps
 - h. Recreation
 - i. Cultural Resources
 - j. Endangered Species
 - k. Cumulative Impacts

Minor Comment:

1. Shouldn't the 1989 Drought Contingency Plan Environmental Impact Statement be included, at the very least, in the Literature Cited Section, Section 8?

While this document does evaluate a great deal of data (but I have no idea where the data originated), it does not come close to fully evaluating how the agencies would cope with various droughts levels and, more importantly, how the Savannah River Basin would be impacted by those measures. This draft document is nowhere near being ready for public consideration.

The above criticisms are only those that I feel are the most important. Should you wish additional information and comments, please contact me either at my email address, my mailing address, or via telephone ([912] 352-0598 – residence or [912] 921-2136 – office).

Sincerely,

Charles W. Belin, Jr., Ph.D.

Olliff, Larry B SAMatSAS

From: hbshelley [hbshelley@wctel.net]
Sent: Wednesday, June 28, 2006 6:34 PM
To: Olliff, Larry B SAMatSAS
Cc: Morris, Jeffrey S SAMatSAS
Subject: RE: Savannah River Basin Drought Contingency Plan Update Draft EA

The Friends of the Savannah River Basin (FSRB) appreciates the opportunity to respond to the *Draft Environmental Assessment and Finding of no Significant Impact for the Drought Contingency Plan Update Savannah River Basin*. In general, we believe the ACOE PDT has done a good job of incorporating both the results of the stakeholder working sessions and balancing the various users of the basin water assets.

The FSRB is a fact-gathering group with members in South Carolina and Georgia. Our membership is a diverse group of boaters, vacationers, educators, merchants, anglers, lot owners and full time residents. Our common vision is to have a lake system and river basin with recreation, water quality/quantity and wildlife as its primary purpose. We recognize that flood control and power generation were, and are, key elements of the project purposes. However, the economic value of higher lake levels has increased as both states started developing the lands around the lakes. Since the last Drought Plan, many developments, such as Savannah Lakes Village in South Carolina and Stillwater Cove in GA, have been started. These communities have just begun to bring much needed monies to those areas. Lots are still being sold and advertised in national publications to attract recreation and retirement monies to SC and GA. The prices of lots and homes have been shown to drop as the lake levels drop, and vice versa. This can be shown by the number of houses being built, the number of real estate offices added since the last drought and the present price of homes and lots compared to the time period during the drought. As facilitators of FSRB, we are constantly being asked by builders, marinas and residents about the lake levels, because it directly impacts sales.

We recognize that the update does include some economic mention, but it failed to look at tax bases, the impact of silting on coves, and the enormous impact on the basic economic structure of SC and GA lake-side communities. It does mention the impact on recreation and its subsequent loss of income, but not on the real estate market in the areas. Many of the stakeholders were realtors from the Hartwell Lake area and they mentioned it over and over in the past years (including pleas at the last meeting). We came to Mr. Crosby five years ago in Savannah and asked that economic impact be added to the Comprehensive Study. We have brought evidence of growing communities and large homes being built in GA and SC, many with access and views of the lake, to every meeting we attended. We understand that economic impact is a difficult variable to add to a scientific simulation, but we feel it should take a larger part in the final decision. The recent Bass Pro tournament at JST is an excellent example of the type of event that can have a major economic effect on the region.

As we mentioned at the June 14 meeting, we thought the intake level at Savannah Lakes Village Monticello Golf Course and Tara Golf Course and Hickory Knob Golf Course was incorrect and the finding of no significant impact was also incorrect. Jeffrey Morris did contact the superintendent of Tara Golf Course, Bob McIntosh, who informed him that intakes are at 324 feet msl, not 307 feet msl as reported in the original drought plan and the EA. Bob shared that there would be a 50% increase in the watering budget if they had to go to the "lakeside pump" option (which has happened in the past at around 324). The increase in cost is a result of having to use an extra electric pump plus, because the lakeside pump can't keep up with the demand of their main pump, they would have to run their system

at a lower capacity for a much longer period of time. This increases the electrical use, therefore cost. Bob has had personal experience at all three courses and contacted present employees at all three courses to verify. The two Savannah Lakes Courses are listed as two of the eight water users on Lake Thurmond. We have been in contact with Mr. Morris a few times since the June 14 meeting. As it turns out, the city of Lincolnton has three intakes and one is at 321. None are lower than 310 feet msl. He has also been in contact with other users and we assume that he has shared the findings. Since the finding of No Significant Impact was reached on erroneous data, we encourage you to look at page 51 and make corrections. We understand that this might mean redoing some of the simulations. Each user should have been contacted and consulted prior to assuming no significant impact. Again, economic impact is an important variable.

After considering the four options, we feel that draft EA's recommendation of Alternative 2 is a sensible compromise. Alternative 2 meets the stated objective of the process to make changes to the SRBDCP that focused on conservation of water resources during severe droughts. Under the recommended Alternative 2, the gain in reduced flows at trigger levels 1 & 2 should significantly extend the period it will take to get to Level 3. At this point, all inputs show that the economic effects have already been felt and it is important to try to maintain water quality. We believe that at Level 3, a 200 cfs increase in the flow won't delay getting to Level/Trigger 4 very long.

There are five specific comments that we would like you to consider:

1. In item "1. Description of the Proposed Action" of the FONSI, and item "3.2.2 Alternative 1" of the Draft EA the statement "The discharge restrictions at Thurmond were allowed to transition back to higher flows prior to reaching full pool. A two-foot buffer was used to simulate engineering judgment to distinguish a lasting drought recovery from a temporary increase in inflows." We're not sure whether this is something that was done just for modeling, or something that is part of future operating procedures under the alternatives. We don't understand or see how this is reflected in the Action Level charts but believe it is the correct action to avoid premature increases in flow.
2. We understand from the discussion at the 14 June presentation that the continuing winter draw downs (needed by regulation for 100 year storm storage) at Trigger levels 1 and 2 are done to ensure that normal operation doesn't conflict with flood control. While this is certainly a valid reason, we continue to feel that it is inconsistent with the conservation of water resources during the early phases of a drought. This approach would seem to advance the onset of level 2 and ensure less flow downstream. We recommend reexamining the approach to eliminate further winter draw down when the lakes have not refilled the previous summer.
3. While the Draft EA talks about measured flow rates at monitoring points below the JST Dam in the Water Quality Section 4.1 and again in the Water Supply Section 4.8, it does not suggest controlling JST releases based on those flow rates. The release rates seem to be based strictly on lake levels. A good example of this was the recent tropical storm Alberto, where there was considerable rain below the dams but very little in the upper basin. The adjustment of outflow based on this factor, coupled with the reduced flows in alternative 2, would further help to conserve water quantity in the lakes during a drought.
4. We appreciate the ACOE's proactive use of available monies to complete the drought plan update. The timely completion of the entire Comprehensive Study is critical to support the long-term successful management of the basin. We believe that continued aggressive pursuit of funding to accomplish this must be done. We recommend that the ACOE reexamine the Study schedule and ensure that it is milestone and product driven. This should help to ensure federal

and state and representative support. The ACOE should ensure that all parties have a clear understanding of the amount of funding actually required by both federal and state governments.

5. The 2007-2009 completion of the Dissolved Oxygen system at JST is critical to ensure that the water discharges from JST Dam meet the GA and SC water quality requirements during the entire year. It is our understanding that this completion also affects the maximum use of the RJR pumping capability. We request the ACOE to immediately communicate to the basin stakeholders if this funding should become at risk.

FSRB agrees with Dr. Bud Badr, in that all of the stakeholders need to "feel the pain" during a drought. After the years we've spent at stakeholder meetings, we've learned the needs of other users and are ready for compromise. Alternative two is the best option and represents the results of many hours of individual and joint stakeholder working meetings in conjunction with the ACOE. Given the current long term low rainfall projections for the basin, we urge the updating of the Drought Contingency Plan with Alternative 2 at the earliest possible time.

We asked a few of the users from the Lake Thurmond area to send us their comments. Below please find the comments from a few homeowners, Clarks Hill Lake Association, Public Works from Savannah Lakes Village, an owner of a marina and a store owner. We feel their comments are good sampling of how the economics of the area are strongly affected by lake level changes.

Friends of the Savannah River Basin
Harry and Barb Shelley
Facilitators

Barb & Harry,

Not sure this will help. But I would like the opportunity to state what low lake level means to me as a lake front owner living in SLV. And how that may filter down as a economic impact to local providers of food, gas fish bait etc...

Sue and I are not just casual boaters. During the summer months Sue and I tend to go out on the lake most every day, for short periods during the week bit extended cruises on the weekend. So what does that really mean in economic terms? Let me try to enumerate while taking liberties with rounding numbers.

Owning and operating and enjoying boating is not without cost. Should low lake levels prohibit boating, then the following cost would be lost to local merchants.

- Daily gas cost: (5 gals @ \$2.60 = 13\$/per) if someone has a power boat or jet ski this factor is easily a multiple of 10 or more.
- Beverages: 6 pack of coke \$3/ 6 pack of beer \$5 per outing, mix drinks even more.
- Food: \$10 per outing
- Fish bait: Easily \$10 per trip (very conservative)
- Other annual cost such as annual tune ups, dock expensive, etc.....

To use the verbiage of a current ad:
Daily cost of a boat outing is: \$41/day.

A day out on the lake is: PRICELESS.

Also if I take some liberties and factor in that Lake Thurmond has a million visitors a year, that is \$41 million dollars lost to local communities if the lake is at unusable levels.

I hope this may help in some small way for the folks at the COE to understand not only the economic impact but also the quality of life should the lake fall below usable levels. There is no way to input the cost of the sheer enjoyment that Sue and I and countless other folks get from lake activities.

Thanks
Larry & Sue

Mr. and Mrs. Shelley- Friends of the Savannah River Basin

Our organization would like to comment on the Economic Impact on the property owners on the Georgia side of Clarks Hill Lake. We are Incorporated in the State of Georgia as The Clarks Hill Lake Association/Leah, Inc. We have been very active since 1982 with a present active membership of 200 people. We are property owners around the lake in the Keg Creek and Chigoe Creek area. We are very concerned about the economic impact of the low lake levels which we are now experiencing and it appears that the lake will be much lower this summer. These low lake levels certainly have a horrific affect on our property. Our boats, boat docks and property will become damaged and cost us lots of money for repairs. If we have plans of selling our property, we will be unable to do so, or take a very drastic reduction because our property will be drastically devalued. Our county has big plans for developing Wildwood Park. We have many bass fishing tournaments there and this will surely affect our economy for recreation in this area. This will certainly hinder our plans for future development and the economic affect on our community and county. We hope that the Corp of Engineers can control our water levels by beginning early enough to put the Drought Contingency Plan in effect. Please relay our concerns to the Corp of Engineers.

Thanks you!!!!

Roy Giles, President
6240 Winfield Circle
Appling, Georgia 30802
Ph. 706 541 0538

Susan Defoor - V-President
6399 Ridge Road
Appling, Georgia 30802
Ph. 706 541 2461

Linda Nobles- Secretary/Treasurer
4051 White Oak Drive
Appling, Georgia 30802
Ph. 706 541-9506

Barb,

I will try to give you some hard numbers based on SLV dock operations, but the economic impact in investment (dollar value) lost each month is tremendous. I have talked with numerous people (prospective buyers) who toured through Savannah Lakes three or four years ago during the last low water dilemma. In their words..."They didn't even stop". One look out across the lake with docks sitting on the ground and empty coves leaves a long lasting and very bad impression. I found out that many of these people traveled all summer

7/13/2006

and looked at many prospective retirement or second homes. So, if the one visit a prospective homeowner makes to Savannah Lakes is disappointing due to low lake levels, they may not visit again for a number of years ...if at all. The sell of one lot, construction of a home, a boat dock, boat, vehicles, etc, easily adds (or removes if not built) \$300,000 to \$500,000 to/from the tax base for McCormick County. There is no other opportunity for this county to expand the tax base by 60 to 80 upscale homes per year. Last year 45 new homes were started in SLV at an average construction cost of \$285,500 for a total investment of approximately \$13,000,000. Water level management of Lake Thurmond has a direct and dramatic impact on the future development and growth of Savannah Lakes Village and McCormick County.

We entered the last low water period with 76 Community Slips and no vacancies. The annual lease cost for each slip during this period was \$1,300 per year. By the time the lake returned to a normal pool level we had over 20 vacancies, a net loss of over \$26,000 per year. We did not get annual leases back to full capacity for about two years. This is a good example of how a low water situation can have a prolonged economic impact to area businesses. Lakefront property sales which are normally in the forefront were very slow and everything else followed. Naturally the sale of lakefront docks was terrible. The overriding issue for us as a growing lakefront development is aside from the immediate lost business income associated with drought and a low water situation, there is a negative long-term economic impact that does not necessarily end when the lake level returns to normal pool.

Savannah Lakes currently operates and maintains approx 275 individual dock slips at 80 locations primarily on the Little River and Baker Creek reaches of the lake. The shoreline condition in the majority of these locations is a mild to medium slope. Our docks are constructed to provide safe access and electrical power in normal lake level ranges. This requires repositioning docks in mildly sloped areas when water levels decrease to about 327.5. At 326 about 50% of the lake front dock and all of the larger community docks must be relocated to prevent grounding and ensure safe access. As lake levels recede from 326' repositioning of these docks to maintain the dock in the water and the ramp on the shoreline is constant. Slight changes in water levels can mean several feet of shoreline exposure. The impact on our maintenance staff is that our primary emphasis has to shift from construction and routine repairs, sealing, washing, etc, to three men working 8 hours per day constantly moving docks. At 325 and below docks in some coves are moved as far as possible and begin to be grounded. As docks are grounded stress and structural damage can and does occur depending on the condition of the lake floor. In some situations shoring and blocking are required to maintain docks in a supported position to minimize damage. Primary damage that occurs during grounding is twisted or bent roof joists and roof panels.

Phillip Gates
Community Services Director
SLVPOA, Inc.
350 Country Club Drive
McCormick, SC 29835
864.391.4126

Date: June 27, 2006

From: Tommy A. Lee, Owner

7/13/2006

Savannah Lakes Marina & Ship's Store

To Whom It May Concern:

My business on Lake Thurmond has been affected by lower lake levels in the following ways:

1. I have noticed that each 5 foot drop in lake levels equals a 50% drop in gas usage. At 320 approximately 4-5 years ago, use of the lake was virtually nonexistent.
2. At 325 our marina becomes very user Unfriendly to slip renters—especially the larger boats. They have to be EXTREMELY careful at 325 or lower.
3. Boaters use our marina to dock while patronizing the restaurant on the adjacent property. I have noticed a decline in usage during low levels.
4. Dredging permits (when needed) are very slow in being issued resulting in no corrective action being taken in time to be of any help during the time of greatest need. Often the lake level is back up by the time the permits are granted.
5. The exposed trees North of the 378 bridge (on the state line) cause this end of the lake to be used very little and usually then only by individuals who feel they are very familiar with that particular end of the lake. Knowing this, people often do not come up the lake as far as my marina knowing the bridge is as far as they feel comfortable going by boat.
6. Boat rentals are down drastically when lake levels are low.

Harry & Barb,

First of all, thanks for all you two do.

I don't have any hard facts to back this up,

but we do know that lake levels have an impact on our state parks.

Campers from the three SC state parks do rent videos from us when they are visiting. When camping is down, as it is during low lake levels, our rentals go down. So low levels have an impact on us.

Mitch & Sue Mitchell, Owners
The Video Palace, McCormick
SLV Residents

Barb/Harry,

One other thought that I struggle with (and I have mixed emotions as I fish and believe we should consider the migration/spawning runs). This year, as well as last and most likely many more to come, we had two significant "migration" releases where the entire lake system (all three) was impacted. Since the Corps has a "dynamic" system and capabilities of changing releases, one would wonder why we do not consider paralleling "Mother Nature" i.e. when we have an extremely wet winter/spring, release a bit more than "average" just like Mother Nature would have done had she still been in control and when we have less than normal rainfall release "less than normal" migration waters JUST LIKE MOTHER NATURE would have had to do. The fish weathered those periods for hundreds of years and one would think we should mimic Nature where we can, as we all know once a drop goes over the Thurmond dam it is forever gone.

7/13/2006

Joe Gaffney

7/13/2006

June 28, 2006

U.S. Army Corps of Engineers, Savannah District
Mobile/Savannah Planning Center
P.O. Box 889
Savannah, GA 31402-0889

Attn: Mr. Larry Olliff

Below are comments of the Lake Hartwell Association, representing our 2000+ members, pursuant to the USACE Draft Environmental Assessment for the Savannah River Basin Drought Contingency Plan Update. Some comments are specific to the revised plan and process, and some address the need for a more comprehensive assessment.

1. Following years of work on the Phase I SRB Comprehensive Water Resources Study, the proposed update is merely a fine-tuning of the 1989 Drought Plan, rather than a comprehensive ground up approach. This assumes that the 1989 plan had a sound basis; and there is no evidence that a full environmental assessment has ever been done of the original drought plan.
2. USACE must be committed to Phase II of the SRB Comprehensive Study, and to a broad operational review in a timely manner.
3. The Plan Revisions should encumber SEPA to use operational approaches to help mitigate drought effects on lake levels. These would include maximizing Lake Russell pump-back, and purchase of outside power at specific drought triggers.
4. The Hartwell and Thurmond pool levels should be reduced simultaneously until level 4 is reached at Thurmond. At that point, both lakes should be managed by inflow equals outflow. To reduce Hartwell's level 35 FT prior to a level 4 trigger is irresponsible. There is absolutely no scientific basis for this approach. This would result in catastrophic environmental, ecological and economic consequences. Once the water is lost, it will just create a much lengthier recovery time. We propose limiting Hartwell's level reduction, in phase with Thurmond to 18FT; then inflow equals outflow.
5. The winter rule curve levels for drought conditions 2 and 3 at Hartwell should be increased by one foot each to 655MSL and 653MSL respectively. A 2FT "gap" between drought triggers is larger than operationally required, and will result in pulling levels down faster during months when the flow is not required. This would be an opportune time to rebuild levels.

We appreciate the USACE effort to update the SRB Drought Plan. However, we are disappointed that with all the effort spent on the SRB Study to date, a more comprehensive approach was not taken. The proposed solution offers modest improvement in early drought conditions, but does not address fundamental conceptual flaws in Basin management.

Sincerely,
Joseph F. Brenner
President, Lake Hartwell Assoc.

**Southern Nuclear
Operating Company, Inc.**
42 Inverness Center Parkway
Birmingham, Alabama 35242



Energy to Serve Your World™

File: E.03.50
Log: EV-06-1393

June 27, 2006

Mr. Larry Olliff
Savannah District, Corps of Engineers
P.O. Box 889
Savannah, Georgia 34102-0889

RE: Environmental Assessment Finding of No Significant Impact – Drought
Contingency Plan Update Savannah River Basin

Dear Mr. Olliff,

Southern Nuclear Operating Company (SNC) would like to thank the Corps for allowing us to comment on the Draft Environmental Assessment Finding of No Significant Impact (FONSI).

Plant Vogtle is a major electric generating plant, situated on the Savannah River at approximately River Mile 150, in Burke County, Georgia. Currently Plant Vogtle has an average withdrawal of 65 MGD for the purpose of cooling water and other in-plant uses.

SNC is very troubled that Plant Vogtle was not recognized in the Draft Drought Contingency Plan Update. Plant Vogtle is one of the largest water users in the Savannah River Basin (SRB) and as such is vulnerable to low flow conditions regardless of the cause. SNC is also concerned with the Corps' method to determine the maximum flows allowed during the drought stages, as the plan specifically states that the flows do not protect water quality. SNC strongly advocates that the reduction of drought levels 1 & 2 minimum flows from 4500 cfs to as low as 3800 cfs produces a major disproportionate impact on downstream users.

For informational purposes, please note that Southern Nuclear will file an Early Site Permit (ESP) application for Plant Vogtle to the Nuclear Regulatory Commission (NRC) in August 2006. Issuance of an ESP by the NRC determines that the site is suitable for two new nuclear reactors, but does not authorize construction. The construction of two new reactors at Plant Vogtle could potentially increase Savannah River withdrawals by an additional 60 MGD.

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EV-06-1393
Mr. Larry Olliff

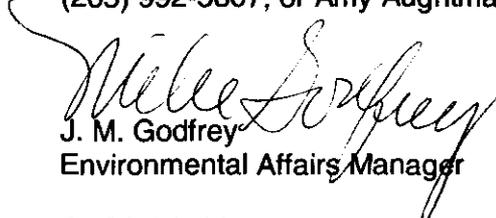
Southern Nuclear offers the following comments to the Savannah District, Corps of Engineers in regard to the Environmental Assessment Finding of No Significant Impact:

- Include Plant Vogtle as a water user in Section **2.4 Water Supply, Downstream of JST Lake**
- Include Plant Vogtle as a water user in Section **4.8 Water Supply, Downstream of JST Lake**
- Section **2.2 Projects on the Savannah River** should include other hydro projects/dams and their release requirements to better explain fluctuating inflows into the Savannah River. For instance:
 - **2.2 Projects on the Savannah River**
 - **2.2.1 Description of Corps Hydro Projects**
 - **2.2.2 Description of other Hydro Projects**

Southern Nuclear insists the following questions be addressed in either the SRB EA FONSI or the SRB Drought Contingency Plan Update:

- Section **4.8 Water Supply, Downstream of JST Lake** specifies that downstream users only require 3,600 cfs at this time. What method was used to reach this number, can it be verified and what allowances are being made for future users?

Thank you for taking our comments into consideration. If you have any further questions please feel free to call - Jessica Joyner at (205) 992-7693, Tom Moorer at (205) 992-5807, or Amy Aughtman at (205) 992-5805.


J. M. Godfrey
Environmental Affairs Manager

JMG/JAJ:ahl

bcc: R. D. Just
C. R. Pierce
T. V. Greene
T. C. Moorer
A. G. Aughtman

Southeastern Federal Power Customers, Inc.



July 3, 2006

VIA EMAIL

Colonel Mark S. Held
Commander
Savannah District
U.S. Army Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402-0889

Re: Environmental Assessment for Savannah River Basin Drought Contingency Plan

Dear Colonel Held:

On behalf of the Southeastern Federal Power Customers Inc. ("SeFPC" or "Customers"), I am offering the following comments in response to the 2006 Draft Environmental Assessment ("EA") and Finding of No Significant Impact ("FONSI") for the Savannah River Basin Drought Contingency Plan ("Drought Plan"). The SeFPC represents the interests of hydropower customers throughout the Southeast, many of whom rely on the hydropower resources provided by the U.S. Army Corps of Engineers ("Corps") projects on the Savannah River.

The SeFPC believes the Corps has taken responsible steps to address the potential drought conditions and appreciate the efforts by the Corps to include recovery triggers. Nonetheless, we have concerns that the EA and related FONSI suffer from significant procedural infirmities and rely on assumptions which lack a sufficient legal foundation. The good faith efforts of the SeFPC to note these problems through meetings with your staff and as set forth in the attached correspondence sent to your attention last fall have not been addressed. The comments in that letter continue to be germane to the EA and Drought Mitigation Plan. Our disappointment with the EA is largely caused by substantive concerns with the proposal. However, as representatives of the most significant revenue producing stakeholders in the Savannah River basin, we expected greater consideration from the Savannah District in the final EA.

As discussed in the attached letter, the SeFPC believes that any drought mitigation plan must abide by the directives of Congress as explicitly set forth in the authorized project purposes for the Hartwell, Richard B. Russell, and J. Strom Thurmond projects. The EA appears to deviate from this obligation and plainly ignores the financial responsibilities for each project purpose, i.e., the capital and Operations & Maintenance ("O&M") cost allocations. This is a fundamental

Alabama Electric Cooperative, Inc.
Anniston, AL 36420-0500

Alabama Municipal Electric Authority
Montgomery, AL 36103-0220

Blue Ridge Electric Cooperative
Fayetteville, NC 27418-4000

Blue Ridge Power Agency
Dunwoody, VA 24041-3000

Central Electric
Rural Cooperative, Inc.
Columbia, SC 29202-1400

Central Virginia
Electric Cooperative
Lynchburg, VA 22400

East Tennessee Power Cooperative
Knoxville, TN 37921-0100

East Tennessee Electric
Power Cooperative
Knoxville, TN 37921-0100

Electricity of North Carolina, Inc.
Raleigh, NC 27602-0000

Florida Rural Electric
Cooperatives, Inc.
Tallahassee, FL 32301-0000

Florida Rural Electric
Cooperatives, Inc.
Tallahassee, FL 32301-0000

Florida Rural Electric
Cooperatives, Inc.
Tallahassee, FL 32301-0000

North Carolina Electric
Municipal Corporation
Raleigh, NC 27602-0000

Oakridge Power Cooperative
Tallahassee, FL 32301-0000

Oregonian Department of
Public Utilities
Oregon, OR 97101-1000

Piedmont Municipal Power Agency
Greer, SC 29615-1200

Southwest Electric
Cooperatives, Inc.
Tallahassee, FL 32301-0000

Southwest Electric
Cooperatives, Inc.
Tallahassee, FL 32301-0000

Southwest Electric
Cooperatives, Inc.
Tallahassee, FL 32301-0000

Virginia Cooperative Enterprise
Power Customers
Henricburg, VA 22401-1000

Virginia Municipal Electric
Cooperatives, Inc.
Richmond, VA 22001-3000

Colonel Mark S. Held
July 3, 2006
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concern for the SeFPC because in the event of a drought, the Corps makes no provision to adjust the cost responsibilities borne by hydropower customers. And yet, as described in the EA, the authorized project purpose of hydropower production is curtailed most significantly in the event of a drought.

In more specific terms, deviation from the Water Control Plan to the Drought Plan at the onset of a drought will create a significant impact to the hydropower component. The No Action Alternative of the 2006 Plan which, in and of itself, is the operating rule from the "preferred alternative" in the 1989 Drought Plan, creates a loss or shortage of approximately 750,000 MWh of energy during the drought of record. This amounts to a de facto reallocation of storage that we believe did not comply with the Water Supply Act of 1958 and other authorizing legislation, a concern that the SeFPC raised in comments on the draft Drought Plan to the Savannah District back in 1989.

Nonetheless, the 2006 Drought Plan uses the 1989 Plan as the Baseline for measuring change or impacts. The 750,000 MWh loss identified in the 1989 Plan becomes an embedded loss in the 2006 Plan that has never been addressed nor is it mitigated. In addition, the beneficiaries of the change that precipitates this loss are given higher priority without proper evaluation of project purposes, which amounts to a de facto reallocation of storage. Consequently, the loss of 750,000 MWh of energy does constitute an adverse impact to Congressionally authorized purpose and, therefore, does not support Conclusion 4.f. of the FONSI.

While the 2006 Plan recognizes the adverse impact of the drought and the Drought Plan on hydropower, and suggests that Southeastern Power Administration ("SEPA") may "purchase replacement energy for system generation when the Corps does not generate enough power to meet the requirements¹..." it does not address who will pay for this additional off system power. By avoiding discussion of responsibility, it must be assumed that the hydropower customers will be financially responsible to SEPA for these increased costs due to changes in operations predicated by the Corps in order to support other uses. While the Customers do not object to SEPA purchasing replacement energy per se if funded by Congress, we have grave concerns that replacement energy may be needed to maintain storage for uses that were not expressly authorized by Congress.

The EA assumes, however, that hydropower purposes can be met by relying on additional pumping operations at the Russell Project. In this instance, the EA appears to rely on additional pumped storage operations to maintain lake levels that increase the cost responsibilities for the hydropower customers. In this regard, the Corps' proposal is not the benign solution that the Corps suggests that it is. Rather, it is a strategy to maintain lake levels while adding another cost responsibility for hydropower customers.

¹ 2006 Draft Drought Contingency Plan, Page 9, Section 2.5.

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In this regard, the "solution" set forth in the EA adds burdens the Customers with added cost responsibilities in the face of a diminishing resource.

A specific "objective" identified in the 2006 Plan identified water supply as a primary justification for revising the Drought Plan. Water supply can be a beneficial use of the storage in these reservoirs as long as the Corps executes and maintains water supply contracts to track the use and ensure appropriate compensation for the use of the storage. However, the EA evaluates water supply impacts by assessing intake pipe elevations and does not discuss acre-feet storage under contract and how storage would be affected when the Drought Plan is in effect.² In this regard, the EA fails to consider alternatives and thus is substantively and procedurally deficient. Until Congress reauthorizes storage for water supply and/or contracts are executed for storage in accordance with the Water Supply Act of 1958, water supply use should not "trump" hydropower or any other of the authorized purposes.

The EA also incorporates a new dimension from the prior draft EA by listing a laundry list of endangered species in Section 2.9.4. The intent and purpose of this listing is not immediately obvious. The Corps makes no reference to ongoing consultations required by the Endangered Species Act ("ESA"), designations of critical habitat, incidental take permits, or any ongoing developments of biological opinions for said species.³ As the SeFPC has seen the Corps Mobile District office sacrifice discretion to operate the projects in the Apalachicola-Chattahoochee-Flint ("ACF") river basin in recent weeks, the cursory treatment of ESA obligations portends dire operational consequences for the Corps and all affected stakeholders.

Ultimately, undermining hydropower production in the Drought Plan not only undermines the Congressional authorization process but also places in jeopardy the balance of cost responsibility that hydropower customers now provide to the Federal Treasury through hydropower rates. The Customers believe several specific steps must be taken to cure the defects in the EA and the Drought Plan. Specifically, the SeFPC urges the Savannah District to reformulate the EA and prepare an EIS by taking the following explicit steps:

Evaluate the Drought Plan with the recognition that the 1989 FONSI was defective and cannot provide a legally defensible baseline for the Corps proposed actions;

² This evaluation may be sufficient, however, if the intake pipes reviewed in the EA belong to riparian water users that had intake pipes installed prior to the construction of the Hartwell, Russell, or Thurmond projects, respectively.

³ As a related observation, the Drought Plan does not appear to address contingencies such as the potential for ESA related litigation that may be commenced in the event that appropriate environmental monitoring is not maintained at the Russell Pumped Storage Project.

Colonel Mark S. Held
July 3, 2006
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Adopt appropriate changes to recognize in the event that the Corps implements the Drought Plan the true beneficiaries of higher lake levels created by increased pumped storage operations or reduction in hydropower generation should pay for that pumping energy or replacement energy, respectively;

Reevaluate all water supply agreements on the basis of storage utilized rather than the elevation level of the intake pipes; and

Perform a more robust evaluation of ESA obligations including such steps as necessary to abide by those responsibilities in the face of declining inflows.

These steps represent the bare minimum that the Savannah District should undertake before formally adopting the Drought Plan. We fully understand that a Drought Plan requires the careful balancing of interests and making adjustments to mitigate the impact on all affected stakeholders. However, the current EA combined with the failure of the Savannah District to address our prior concerns demonstrates that hydropower stakeholders will bear the brunt of a drought in the Savannah River. As Congress directed the Corps to provide hydropower from the Hartwell, Russell, and Thurmond multi-projects, the electric power beneficiaries of the Corps projects deserve more equitable treatment.

Sincerely,



Marc Tye
Co-Chair
Water Storage Reallocation Committee
Southeastern Federal Power Customers, Inc.

cc: Southeastern Federal Power Customers Inc. Board of Directors

Attachments ()

Georgia Department of Natural Resources

2 Martin Luther King Jr., Drive, Suite 1152 East Tower, Atlanta, Georgia 30334
Noel Holcomb, Commissioner
Carol A. Couch, Ph.D., Director
Environmental Protection Division
(404) 656-4713

Memorandum

To: Carol Couch

Through: Linda MacGregor

From: Wei Zeng

Date: June 28, 2006

Re: Comments on Draft Environmental Assessment Finding of No Significant Impact Drought Contingency Plan Update Savannah River Basin (Draft EA)

Background Information

After the historical and then record-setting drought of 1986 to 1989, the Army Corps of Engineer (Corps) Savannah District recorded lowest inflows to its projects on the Savannah River, Hartwell, Richard Russell, and Strom Thurmond. The severe drought and competing water needs prompted the Corps to develop a Short-Range Drought Water Management Strategy to address water shortage conditions. This Short-Range Strategy served as the basis for the later developed Savannah River Basin Drought Contingency Plan (SRBDP) of March 1989.

The prolonged drought period of 1998 through 2002 set new record in its length and extent. Reservoir levels declined so much that it was obvious that conservation measures beyond those specified in the SRBDP were necessary. This is the reason an update on the SRBDP is sought.

Proposed Changes

The SRBDP of March 1989 served as the No Action Alternative (NAA), which was used as the baseline condition in evaluating all other alternatives. The chosen alternative to replace the SRBDP is Alternative 2, among other choices. Alternative 2 retains most major components of the 1989 SRBDP, with changes to reservoir action levels, and specific actions when those levels are reached.

Figs. 1 and 2 show the original action levels at Lake Hartwell and Lake Strom Thurmond, as well as the proposed changes to these levels. The most notable changes are the

synchronization of drawdown dates of the two projects and the slight lowering of Level 1 in both reservoirs in late winter and early spring.

The minimum daily average release at Thurmond would be adjusted from 3600 cfs to 3800 cfs. A daily average release of 3800 cfs would be included in drought Level 3. The maximum weekly average discharge at Thurmond would be 4200 cfs for drought Level 1 and 4000 cfs for drought Level 2. The Draft EA states, presumably as a change from the original SRBDCP, that “discharge restrictions at Thurmond would be allowed to transition back to higher values before Thurmond reaches full pool.” The Draft EA also states, presumably as a change from the original SRBDCP as well, that “a two-foot buffer was used to simulate engineering judgment to distinguish a lasting drought recovery from a temporary increase in inflows.” These statements are not clear in their meaning, and I would like to seek further clarification from the Corps.

Table 1 lists the differences in actions corresponding to various drought levels.

Table 1. Changes to actions under Alternative 2

Level	Action under NAA	Action under Alternative 2
1	Public safety information	Reduce discharge at Thurmond to 4200 cfs
2	<ul style="list-style-type: none"> ▪ Reduce discharge at Thurmond to 4500 cfs ▪ Reduce Hartwell discharge as appropriate to maintain balanced pools 	Reduce discharge at Thurmond to 4000 cfs
3	<ul style="list-style-type: none"> ▪ Reduce discharge at Thurmond to 3600 cfs ▪ Reduce Hartwell discharge as appropriate to maintain balanced pools 	Daily discharge at Thurmond to be 3800 cfs
4	Outflow= inflow	Outflow = Inflow

The information listed in Table 1 has been provided by the Draft EA. The Draft EA did not provide adequate narrative clarifying what time intervals these flow requirements correspond to. Clarification on these flow requirements should be sought from the Corps.

Effect on Water Supply

It is unlikely that water supply diversions directly from the reservoirs would be impacted by the proposed changes. The reduction in flow requirement when the projects are at higher elevations is likely to result in higher project elevations going into and through a drought. The HEC-ResSim model simulation of the alternatives indicates that would be the case. The lowest elevation at Hartwell would be about 646 feet MSL, and the lowest elevation at Thurmond would be about 316 feet MSL. Both these elevations under Alternative 2 are higher than those under NAA. Also, these elevations are higher than the elevations of the highest intakes in the two lakes respectively.

Since the minimum flow requirement downstream of Strom Thurmond has been increased by 200 cfs, it is also unlikely that downstream water supply needs would be negatively affected.

Effect on Water Quality

The Draft EA did not directly and adequately address potential effects of the changes to lake water quality. Paragraphs were devoted to limnology of deep lakes in the southeastern United States, and of the reservoirs in the Savannah River Basin (Section 2.6). No assessment was given on water quality issues with NAA and how Alternative 2 would affect those issues. Even though the effects may be minor, given the small magnitude of changes, and the similarity between simulated lake elevations of the NAA and of Alternative 2, I believe this needs to be stated in the Draft EA.

On water quality in the reaches of the Savannah River downstream of Strom Thurmond, narratives were given as to how simulated flow rates of Alternative 2 compare to those of NAA. These narratives state that under Alternative 2, flow rates would be higher than those under NAA for periods of time, and lower at other times. General conclusions were then given stating that this alternative would have minor positive impacts on water quality in the reaches of the Savannah River downstream of Strom Thurmond.

Even though these conclusions of “minor positive impacts” are consistent with one’s intuition, the assessment appears to be less than convincing, given that the narratives were not accompanied by any figures showing hydrographs or exceedance curves of in-stream flow. There might be reasons to say that there would be a minor positive impact of the proposed changes, but it is hard to determine if this is true without more quantitative information. Also, a water quality model may be needed to determine quantitatively if the proposed changes will result in improved water quality in the Savannah River downstream of Strom Thurmond.

Remaining Question about Water Use Data

The Draft EA did not provide an estimate on how much water has been withdrawn from and discharged into the three reservoirs and the reaches of the Savannah River downstream of Strom Thurmond. As I understand it, Georgia EPD was concerned about data collected for facilities on the South Carolina side, because such data were collected on a voluntary basis by a contractor, instead of being collected by a regulating government agency. This issue is important, because the magnitude of withdrawal, return, and possible inter-basin transfer affects the validity and accuracy of the HEC-ResSim models on which this Draft EA is based.

Suggestions

Based on review of the Draft EA, I make the following suggestions on how the Draft EA may be revised and what additional issues need to be addressed.

1. The Draft EA should include information about water uses (amount of withdrawals, returns, and inter-basin transfers). A detailed list of all the water users and their permitted withdrawal/return amounts would be very helpful.
2. Water quality assessment on the reaches downstream of Strom Thurmond needs to incorporate more detailed information. Figures showing hydrograph and exceedance levels may be helpful. Also, water quality models may be considered in order to quantify the effects of the proposed actions.
3. If water quality in the lakes is not a concern under the proposed actions, this needs to be stated, and the reasons provided. The justifications can be in the form of lake elevation comparisons of the NAA and Alternative 2. If longer-term simulations are available, exceedance levels of the lake elevations can be provided.
4. Some clarifications need to be made in describing the alternatives, especially the chosen alternative. The flow requirements need to be specified more clearly as to whether they are maximum, minimum, daily, or weekly. An additional table comparing the actions in NAA and Alternative 2 will be helpful.
5. Clarifications need to be made regarding discharge transition back to certain levels before full pool is reached (see Section Proposed Changes of this memorandum).
6. Clarifications need to be made regarding a two-foot buffer to simulation engineering judgment (see Section Proposed Changes of this memorandum). I believe Points 5 and 6 are linked. These suggestions are for a more clear description of the process so people without prior exposure to the development of the alternatives can easily understand it.

SRBDCP Hartwell Action Levels

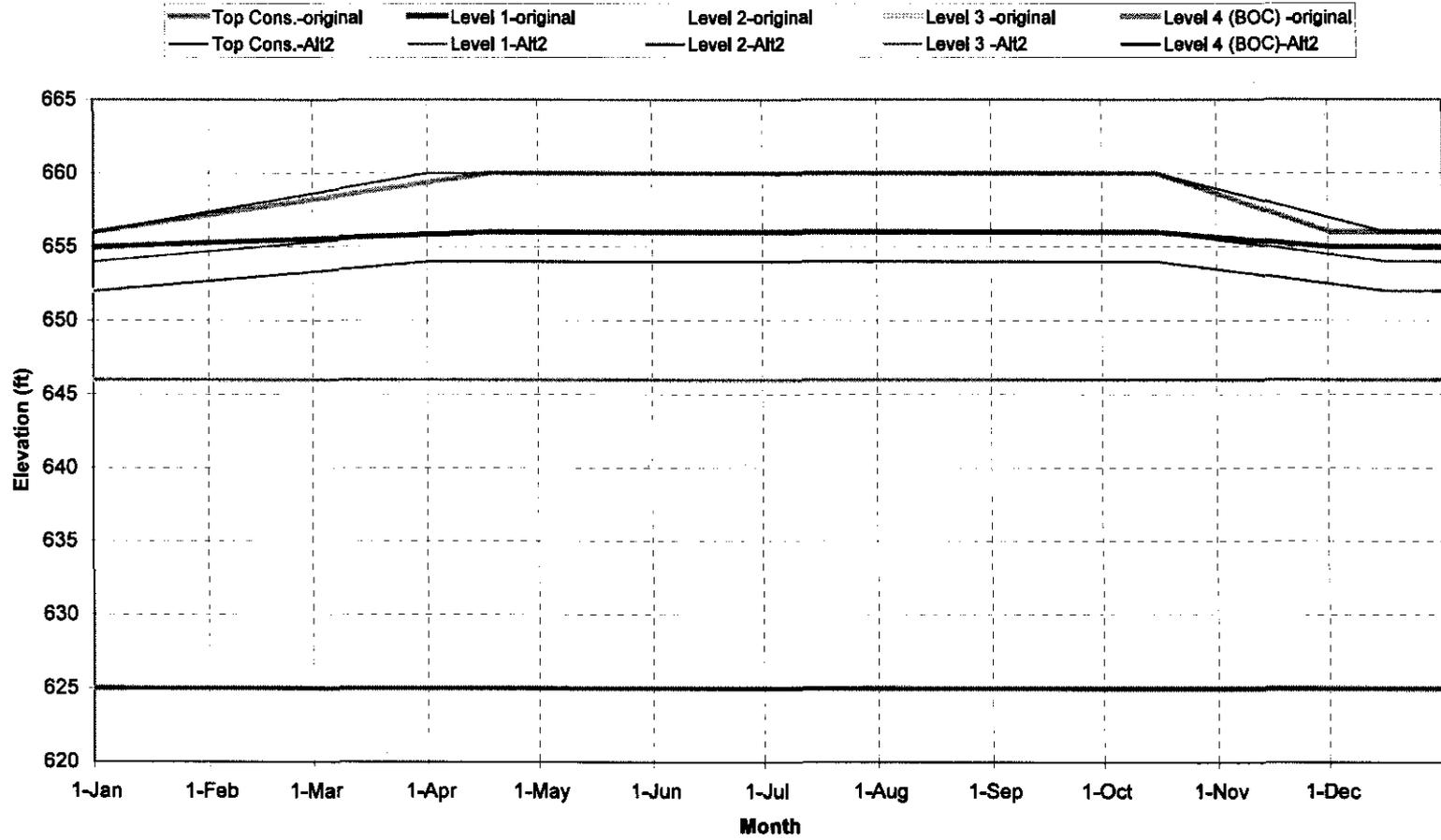


Fig. 1 Proposed changes to action levels at Lake Hartwell

SRBDCP Thurmond Action Levels

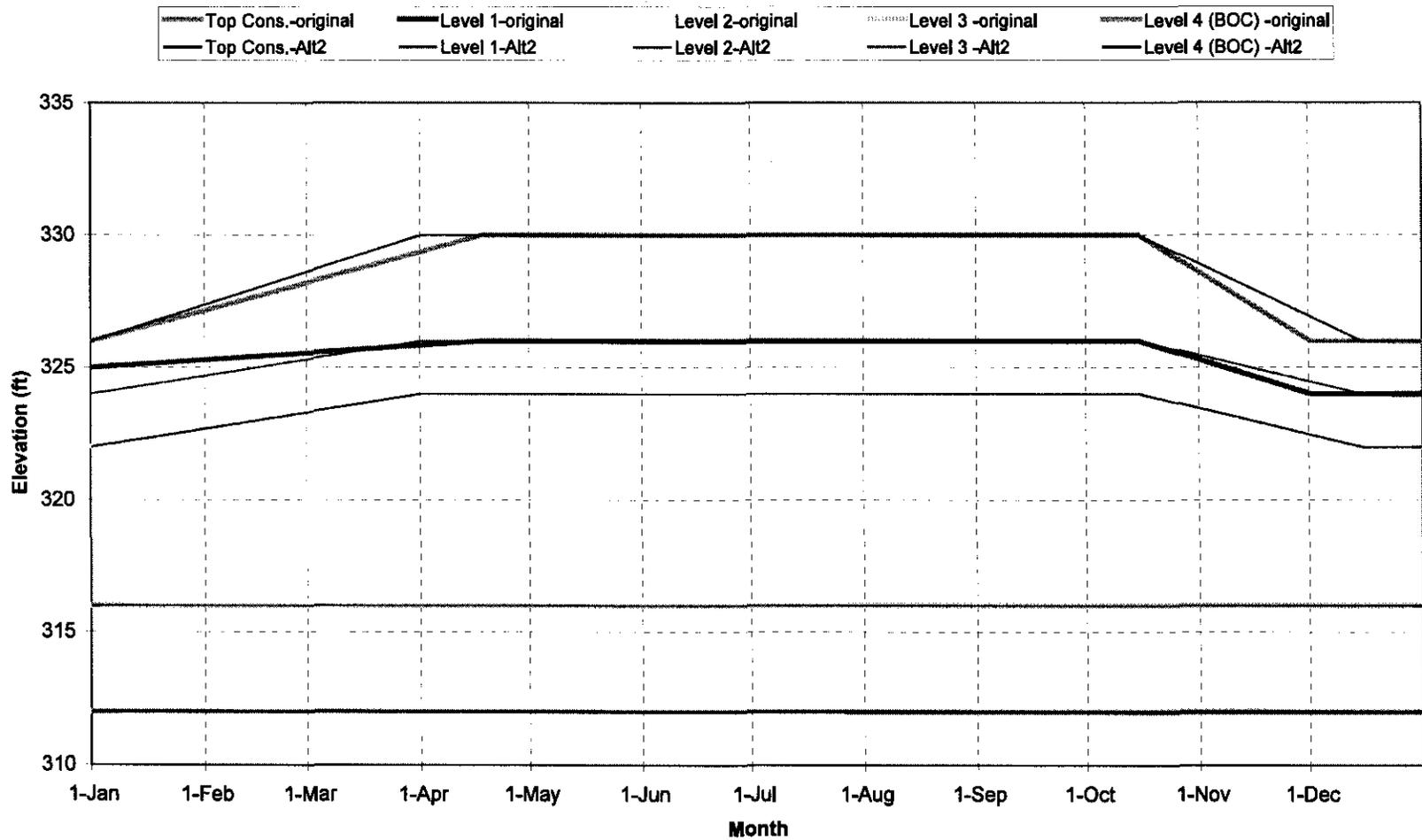


Fig. 2 Proposed changes to action levels at Lake Strom Thurmond



UTILITIES DEPARTMENT

N. Max Hicks, PE
Director

June 30, 2006

Mr. Larry Olliff
U.S. Army Corps of Engineers – Savannah District
P.O. Box 889
Savannah, Georgia 31402-0889

Subject: Savannah River Basin Comprehensive Plan
Environmental Draft Assessment Comments

Dear Mr. Olliff:

By letter of April 22, 2005 Augusta submitted substantial comments to the Corps in regard to the Savannah River Basin Comprehensive Plan project (Comprehensive Plan), following the March 4, 2005 Stakeholders meeting in Evans, Georgia. There have been no further consultations with Augusta regarding the Comprehensive Plan. We have reviewed the Draft Environmental Assessment and we do have some serious reservations about the Corps' position that many of its conclusions that the changes are insignificant.

Augusta has issued a Letter of Intent with both Georgia and South Carolina's Departments of Natural Resources and with the US Departments of Commerce and Interior, which identifies an agreement in the sharing of the resource (flow of the Savannah River) between the Augusta shoals and the Augusta Canal. This Letter of Intent is being molded into a Settlement Agreement in regards to Augusta's Application for a new license for the Augusta Canal from the Federal Energy Regulatory Commission. The agreement set forth in the Letter of Intent was reached in January, 2006 after long considerations of the historic record of flows and the needs of the shoals and Augusta Canal.

The Draft EA summarizes the analysis done by the Corps in regard to Water Supply (Section 4.8, page 50). In the analysis, the Corps used the information Augusta provided for the water needs of the Augusta Canal. This analysis did not include the water needs of the Augusta shoals, which are substantial under the terms of the Letter of Intent (1500 cfs in the summer and winter, 2000 cfs in the spring as minimums during droughts). In Augusta's analysis of these subjects as it progressed to the Letter of Intent with the state and federal agencies, certain times of the year (spring) were identified as more critical to the Augusta shoals and other times (summer) were more critical to the Augusta Canal. The agreed upon Aquatic Base Flows are set forth in the table below:

FEB/MAR APR MAY 1-15 MAY 16-31 JUNE- JAN

Augusta Utilities Administration
360 Bay Street – Suite 180 - Augusta, GA 30901
(706) 312-4154 – Fax (706) 312-4123
WWW.AUGUSTAGA.GOV

Tier 1 ≥ 5400	3300	3300	2500	1900	1900
Tier 2 4500-5399	2300	2200	1800	1800	1500
Tier 3 3600-4499	2000	2000	1500	1500	1500
Tier 4 < 3600	1800	1800	1500	1500	1500

The difference between the Augusta Declaration¹ and the agreed Aquatic Base Flow for each day will be the amount that may be diverted to the Augusta Canal, as needed.

In general, we find that a reduction of flow as listed in Tables 19 through 30 would result in a negative impact to the Augusta Canal for the chosen Alternative (Alt.2) in the summer and also would result in a positive impact to the Augusta shoals in the spring. Augusta and the regulatory agencies have determined a balance, based on the historic record, that all parties to the Letter of Intent support. The consequence of the proposed Alternative 2 is that the agreed balance arrived at through the Letter of Intent will be skewed.

Augusta does not agree that the implementation of Alternative 2 will not have a significant impact on the needs of the Augusta Canal in the summer. Augusta does not object to the improvements in the spring. However, on the basis of the Draft EA's reported analysis, it is obvious that the impact on canal users will be substantial compared to the impact on the shoals because a balance has been agreed upon that will be changed by implementation of Alternative 2..

The changes set out for each Alternative have been applied year around. Since the impact is seasonal, Augusta suggests the Corps evaluate the impacts using Alternate 1 for the summer months and Alternate 2 for the spring and winter months. Please consider our suggestion and let us know if a suitable compromise can be achieved by considering

¹ The Augusta Declaration will be calculated as follows:

- (1) Acquire daily SEPA Declaration for the Thurmond Dam.
- (2) Determine additional inflow between the Thurmond Dam and the ADD for same date as SEPA Declaration.
- (3) The sum of the daily SEPA Declaration and additional inflow from Step (2) equals the daily Augusta Declaration.

the different needs during the different seasons of the year, just as the state and federal agencies have done in developing the Letter of Intent.

If you have any questions, please let us know.

A handwritten signature in black ink that reads "N. Max Hicks". The signature is written in a cursive style with a large initial "N" and "H".

N. Max Hicks, P.E., Director
Augusta Utilities Department

To: Mr. Larry Olliff
US Army Corps of Engineers
Savannah District
From: George A. Galleher, PE
Duke Energy
Hydro Generation
Re: Comments on Draft Environmental Assessment for the Savannah River Basin
Drought Contingency Plan (SRBDCP):

Date: June 30, 2006

Duke Energy provides the following comments on the draft Savannah River Basin Drought Contingency Plan (SRBDCP):

- Alternative 2 is the strategy that best conserves water resources over the widest range of drought conditions.

On analysis Duke would recommend that further water resource conservation could be gained by changing the Level 1 response. As the drought progresses into a Level 1 (see graph below) and a level of 656 is reached the pond would not be drawn down to 654 beginning in October. Rather a level of 656 would be maintained for as long as possible. There is no need during a drought to follow a drawdown (rule curve for the conservation pool) pattern designed for normal conditions. By holding 656 and not lowering the pool you will be in a much improved position going into the next winter under persistent drought conditions with the same risk of flooding as found under the normal pool guidelines. The same strategy would be recommended for Level 2, once a level of 654 is reached a drawdown beginning October would not happen.

Thank you for providing the opportunity for Duke Energy to participate in this very important area of lake and hydro generation management.

LEVEL	1 APR - 15 OCT (ft-msl)	15 DEC - 1 JAN (ft-msl)	ACTION
1	656 and 326	654 and 324	Public safety information
2	654 and 324	652 and 322	Reduce Thurmond discharge to 4500 cfs.
3	646 and 316	646 and 316	Reduce Thurmond discharge to 3800 cfs.
4	625 and 312	625 and 312	Outflow = Inflow

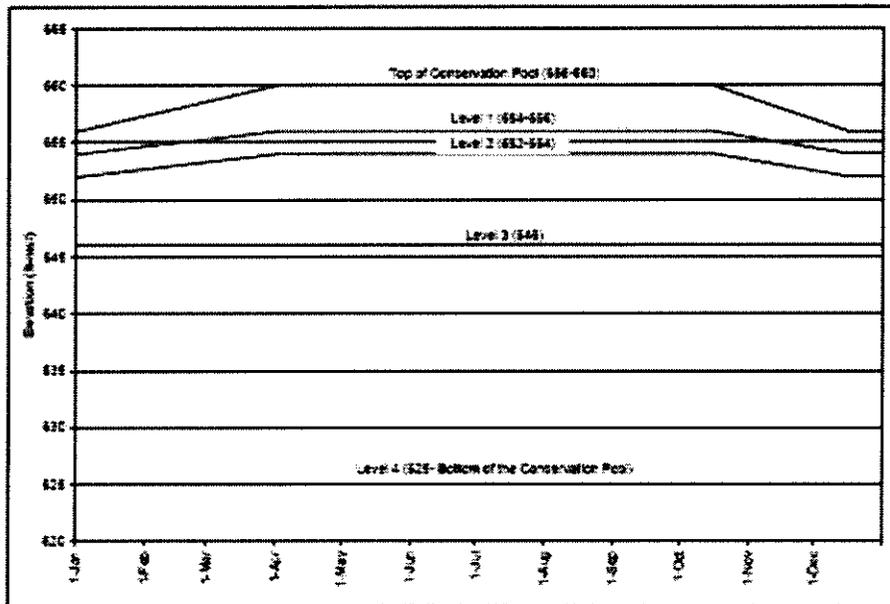
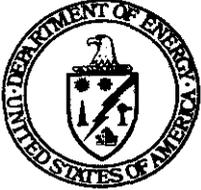


Figure 3: Hartwell Action Levels for Alternatives 1, 2 and 3



Department of Energy
Southeastern Power Administration
1166 Athens Tech Road
Elberton, Georgia 30635-6711

June 27, 2006

Colonel Mark S. Held
District Commander
U.S. Army Corps of Engineers
Savannah District
P.O. Box 889
Savannah, GA 31402-0889

Dear Colonel Held:

Southeastern Power Administration (SEPA) has reviewed the Draft Drought Contingency Plan Update for the Savannah River Basin dated May 2006. We appreciate the District's efforts in developing this plan. Any attempt to incorporate changes into the proposed document, which tries to accommodate the concerns of river basin stakeholders, while balancing the needs and demands of competing water interests at the Federal projects in the Savannah River Basin, is a difficult task at best.

On the surface, the Drought Contingency Plan Update gives the perception of no impacts to hydropower; however, that is misleading. The fundamental problem is that the 1989 Savannah River Basin Drought Contingency Plan (SRBDGP) is used as the basis for comparison. This 1989 plan has already imposed numerous restrictions on the hydropower purpose, and they remain in place. These restrictions have resulted in significant impacts. These impacts were not appropriately addressed in 1989 when the SRBDGP was adopted, nor are the lost benefits being considered presently during this revision process.

Operating the projects in accordance with the drought plan fundamentally alters the level of benefits available to the hydropower purpose when compared to the benefits which were contemplated under the initial project authorizations and upon which cost allocations were assigned. The percentage of costs allocated to the hydropower purpose represents a major portion of the project costs for Hartwell (89.48%), Richard B. Russell (99.40%), and J. Strom Thurmond (84.35%). Operating under the drought plan has significantly degraded the level of benefits available and, to date, there has been no corresponding reduction in cost assignments or other compensation.

During the drought period of 1998 to 2003, Southeastern purchased in excess of \$43 million in replacement generation to fulfill contractual requirements which could not be satisfied by project operations under the 1989 drought plan. It is not equitable to expect an authorized purpose to continue to pay the percentage of costs which was originally allocated when the

original level of benefits is no longer available from the projects. The District should conduct an analysis to determine which stakeholders are benefiting from the drought plan, and appropriate action should be taken to assign costs to those parties so that purposes being impacted can be properly compensated for lost benefits.

Southeastern understands the complex task undertaken by the Corps to balance the interests of the basin stakeholders, and desires to continue working closely with the Corps to arrive at a plan that achieves the overall objectives of both Federal agencies. Southeastern is confident that through continued joint efforts a solution can be developed that is not partial to any Federally-authorized purpose.

Sincerely,

(Sgd.) Charles A. Borchardt

Charles A. Borchardt
Administrator

~~cc:~~

Larry Olliff, COE/Savannah

William G. Lynch, COE/Savannah

Supon, Gabriele SAMatSAS

From: Olliff, Larry B SAMatSAS
Sent: August 21, 2006 13:34
To: Supon, Gabriele SAMatSAS
Subject: FW: Lake levels
Signed By: larry.b.olliff@us.army.mil

From: James Leatherwood [mailto:jamesleatherwood@alltel.net]
Sent: Tuesday, June 20, 2006 9:05 PM
To: Ward, Jason M SAWatSAS
Subject: Lake levels

Jason, I spoke with a hydrologist last year and was told we were going to adjust the drought response levels of the lake (Hartwell) and looking at the web site it appears I was misinformed.

Why doesn't the 4500cfs trigger earlier like I was told. I am not asking why I was lied to just why don't we trigger earlier.

Please do not take offence but if that lake level falls much further I will not be able to enjoy the lake and forced to include in my summer lake fun complaining to everyone in Washington that I can find on how the ACOE can squander the water resources of the area, I find no humor in what appears to be a "look at me I did so good adding XXX dollars to the central fund from the ACOE" it looks more like the ACOE need a lot more regulations on what it can do in managing a resource that belongs to the TAX PAYERS

"Guess what" I am a long time TAX PAYER and have a lot of ignorance but cannot understand why the lake is dropping, if it wasn't there the river would be dealing with the flow so what flows in equals what flows out or is the Savannah river group trying to out do the group controlling Lanier in screwing over the public?

Face it the ACOE needs good PR for a while its not the right time to be screwing the public, I'm sorry but the track record isn't that great.

We need to slow down the river will be fine at 4500cfs and 6924 doesn't equal 4500

BOARD:
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Secretary



C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment

BOARD:
Henry C. Scott
Paul C. Aughtry, III
Glenn A. McCall

Coleman F. Buckhouse, MD

July 18, 2006

US Army Corps of Engineers, Savannah District
Mobile/Savannah Planning Center
Attn: Mr. Larry Olliff
Post Office Box 889
Savannah, Georgia 31402-0889

RE: Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI):
Drought Contingency Plan Update Savannah River Basin

Dear Mr. Olliff:

Thank you for the opportunity to comment on the draft EA and FONSI for the Savannah drought plan update. We have reviewed the draft EA and offer the following comments.

The Department of Health and Environmental Control is vitally interested in water resources issues in the Savannah Basin as evidenced by our participation in the modeling effort associated with the Savannah Harbor total maximum daily load (TMDL) project and the Georgia Ports Authority proposed Savannah port expansion. Of particular interest is the potential impact of harbor deepening on salinity levels in the Savannah National Wildlife Refuge. Any change in flow during the critical, low flow periods associated with prolonged drought could impact salinity levels, either in a positive or negative way.

It is our understanding from information provided in the Draft EA that Alternative 2 would reduce flows from the Savannah Reservoirs during the earlier stages of a drought while increasing flows slightly during the later stage of a drought. Information is provided in the Draft EA on impacts that might have occurred during the 1999-2002 drought of record. While intuitively higher flow during the most severe stages of the drought would have mitigated to some unknown degree the increased salinity levels seen in the refuge during the period December 2000 through February 2003, the Draft EA does not quantify the impact of reduced flows during the Aug-Oct 1999 and July-Nov 2000 periods where reduced river flows would have had a negative impact on salinities. At a minimum, the Draft EA should include no action alternative (NAA) and alternative 2 flow time series at Clyo so that the timing of the flow reductions is clearly shown.

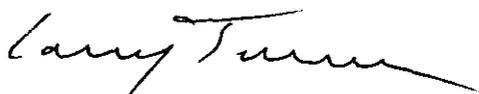
On page 12, the Draft EA states "The State of South Carolina uses a minimum of 3600 cfs at the Savannah River Augusta gage for permitting of point source discharges on the River..." This is not exactly correct. The department uses the current drought plan Level 3 flow of 3600 cfs as a basis for determining discharge limits for discharges in the Augusta area. However, this flow is not used for all discharges for the length of the river. This flow is adjusted upward to account for tributary input as one moves down the river. This is consistent with a position taken by the states of Georgia and South Carolina in a May 4, 2000 letter to Beverly Banister of US EPA Region 4 that for future TMDL modeling purposes, the critical minimum low flow from Thurmond Dam of 3600 cfs would be used as a starting point for determining critical low flows in the Savannah River. While South Carolina is slightly more conservative in how it currently increases flow as

one moves downstream, the processes are essentially the same. As TMDL modeling proceeds, consistent flow values will be utilized to determine permit limits for all discharges to the river.

While additional information could be provided in the Draft EA on the impact of modified flows in the estuarine areas, we concur with the conclusion that implementation of the proposed alternative would have little or no impact on the Savannah River below Thurmond Dam. The proposed action will save water during the initial stages of a drought, thus protecting critical water supplies, while allowing a slight increase in flows during the later stages of a drought thus mitigating decreased inflows to the river from other sources.

Thank you for the opportunity to comment on this project. If you have any questions, please contact me at 803.898.4005.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Turner". The signature is fluid and cursive, with a long horizontal stroke at the end.

Larry Turner, Manager
Water Quality Modeling Section



Alabama-Quassarte Tribal Town
Department of Community & Economic Development
Edwin Marshall, Director - Anita Sands, Secretary
Cultural Pres. - Augustine Asbury Natural Resources - Belinda Coley
Environ. Svc's - Barbara Parker Housing - Sam Whitlow

June 5, 2006

To Whom It May Concern:

Alabama-Quassarte Tribal Town has no religious, cultural or historic interest in the attached referenced project. Thank you for your good faith effort in consulting us about any project that may have potential impact in any of those areas.

Sincerely,

Edwin Marshall, Director
for Alabama-Quassarte Tribal Town

STATE OF SOUTH CAROLINA
State Budget and Control Board
OFFICE OF STATE BUDGET

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CHAIRMAN, WAYS AND MEANS COMMITTEE

FRANK W. FUSCO
EXECUTIVE DIRECTOR

1201 Main Street, Suite 870
COLUMBIA, SOUTH CAROLINA 29201
(803) 734-2280

LES BOLES
DIRECTOR

June 26, 2006

Leroy Crosby
Department of the Army
Savannah District, Corps of Engineers
100 W. Oglethorpe Avenue
Savannah, GA 31402-3640

Project Name: 1989 Savannah River Basin Drought Contingency Plan

State Application Identifier: SC060601-851

Dear Mr. Crosby:

The State Clearinghouse, Office of State Budget, has conducted an intergovernmental review of the project referenced above as provided by Presidential Executive Order 12372. All comments received, if any, as a result of the review are enclosed for your information.

The Clearinghouse does not have information on the Federal agency's review status. Please contact your Federal grantor agency with any questions concerning the status of your application.

The State Application Identifier indicated above should be used in any future correspondence with this office.

Sincerely,

A handwritten signature in cursive script that reads "Jean Ricard".

Jean Ricard
Fiscal Manager, Grant Services

Georgia Department of Natural Resources

Noel Holcomb, Commissioner

Historic Preservation Division

W. Ray Luce, Division Director and Deputy State Historic Preservation Officer
34 Peachtree Street, Suite 1600, Atlanta, Georgia, 30303
Telephone (404) 656-2840 Fax (404) 657-1040 <http://www.gashpo.org>

MEMORANDUM

TO: US Army Corps of Engineers
Savannah District
Mobile/Savannah Planning Center
Attn: Larry Olliff
P.O. Box 889
Savannah, Georgia 31402-0889

FROM: *for* Elizabeth Shirk *WNV*
Environmental Review Coordinator
Historic Preservation Division

RE: Finding of "No Historic Properties Affected"

PROJECT: **Savannah River Basin Drought Contingency Plan Update**
Federal Agency: COE
HP-060613-001

COUNTY: **Statewide, Georgia**

DATE: July 6, 2006

The Historic Preservation Division has reviewed the information received concerning the above-mentioned project. Our comments are offered to assist federal agencies and project applicants in complying with the provisions of Section 106 of the National Historic Preservation Act.

Based on the information submitted, HPD believes that no historic properties or archaeological resources that are listed in or eligible for listing in the National Register of Historic Places will be affected by this undertaking. Please note that historic and/or archaeological resources may be located within the project's area of potential effect (APE), however, at this time it has been determined that they will not be impacted by the above-referenced project. Furthermore, any changes to this project as proposed will require further review by our office for compliance with the Section 106 process.

If we may be of further assistance contact Steven Moffson, Architectural Historian, at (404) 651-5906 or Michelle Volkema, Environmental Review Specialist at (404) 651-6546. Please refer to the project number assigned above in any future correspondence regarding this project.

ES:mcv

cc: Dave Crampton, COE
Historic Preservation Planner, Regional Development Center

**GEORGIA STATE CLEARINGHOUSE MEMORANDUM
EXECUTIVE ORDER 12372 REVIEW PROCESS**

TO: Larry Olliff
U.S. Army COE
Mobile/Savannah Png Ctr
P.O. Box 889
Savannah, GA 31402-0889

FROM: Georgia State Clearinghouse

DATE: 6/2/2006

SUBJECT: Executive Order 12372 Review

APPLICANT: Savannah District COE and GA Dept. of Natural Resources Coastal Resources Div.

PROJECT: JPN: Draft EA/FONSI: Drought Contingency Plan Update - Savannah River Basin

CFDA #:

STATE ID: GA060602005

FEDERAL ID:

Correspondence related to the above project was received by the Georgia State Clearinghouse on 6/2/2006. The review has been initiated and every effort is being made to ensure prompt action. The proposal will be reviewed for its consistency with goals, policies, plans, objectives, programs, environmental impact, criteria for Developments of Regional Impact (DRI) or inconsistencies with federal executive orders, acts and/or rules and regulations, and if applicable, with budgetary restraints.

The initial review process should be completed by 6/30/2006 (*approximately*). If the Clearinghouse has not contacted you by that date, please call (404) 656-3855, and we will check into the delay. We appreciate your cooperation on this matter.

In future correspondence regarding this project, please include the State Application Identifier number shown above. If you have any questions regarding this project, please contact us at the above number.

**GEORGIA STATE CLEARINGHOUSE MEMORANDUM
EXECUTIVE ORDER 12372 REVIEW PROCESS**

TO: Barbara Jackson
Georgia State Clearinghouse
270 Washington Street, SW, Eighth Floor
Atlanta, Georgia 30334

FROM: Teresa Concannon 
Coastal Georgia RDC

SUBJECT: Executive Order 12372 Review

APPLICANT: Savannah District COE and GA Dept. of Natural Resources
Coastal Resources Division

PROJECT: JPN: Draft EA/FONSI: Drought contingency plan update –
Savannah River Basin

STATE ID: GA060602005

DATE: May 25, 2006

X This notice is considered to be consistent with those state or regional goals, policies, plans, fiscal resources, criteria for developments of regional impact, environmental impacts, federal executive orders, acts and/or rules and regulations with which this organization is concerned.

This notice is not consistent with:

- The goals, plans, policies, or fiscal resources with which this organization is concerned. (Line through inappropriate word or words and prepare a statement that explains the rationale for the inconsistency. Additional pages may be used for outlining the inconsistencies).
- The criteria for developments of regional impact, federal executive orders, acts and/or rules and regulations administered by this agency. Negative environmental impacts or provision for protection of the environment should be pointed out. (Additional pages may be used for outlining the inconsistencies).
- This notice does not impact upon the activities of the organization.

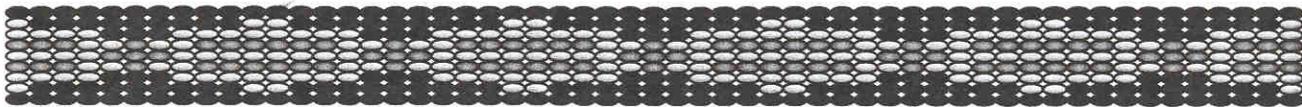
RECEIVED

JUN 1 3 2006

GEORGIA
STATE CLEARINGHOUSE

Form SC-3
January 2005

Catawba Indian Nation
Tribal Historic Preservation Office
P. O. Box 750
Rock Hill, South Carolina 29731
803-328-2427 Fax 803-328-5791



8 July 2006

Department of the Army
Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
P. O. Box 889
Savannah, Georgia 31402-3640

Re: THPO #	Project #	Project description and location
2006-46-6	Not Available	Letter re. EA and Draft FONSI for Savannah River Basin Drought Contingency Plan

Dear Sir or Madam:

The Catawba Indian Nation is a primary consulting party. Our Tribal Historic Preservation Office should have been consulted along with the Georgia and South Carolina State Historic Preservation Offices. If your action drops water levels, you should monitor archaeological sites and call us if any sites are revealed. You must not allow "pot hunters" to probe near the banks during low water levels. We expect anyone apprehended in illegal artifact hunting to be prosecuted.

If you have questions, please contact Sandra Reinhardt at 803-328-2427, ext. 233 or e-mail sandrar@ccppcrafts.com.

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer



OFFICE OF PLANNING AND BUDGET

Sonny Perdue
Governor

Shelley C. Nickel
Director

GEORGIA STATE CLEARINGHOUSE MEMORANDUM EXECUTIVE ORDER 12372 REVIEW PROCESS

TO: Larry Olliff
U.S. Army COE
Mobile/Savannah Plng Ctr
P.O. Box 889
Savannah, GA 31402-0889

FROM: Barbara Jackson *BJ*
Georgia State Clearinghouse

DATE: 7/6/2006

SUBJECT: Executive Order 12372 Review

APPLICANT: Savannah District COE and GA Dept. of Natural Resources Coastal Resources Div.

PROJECT: JPN: Draft EA/FONSI: Drought Contingency Plan Update - Savannah River Basin

STATE ID: GA060602005

The applicant is advised that the Chatham-Savannah Metro Planning Commission was included in this review but did not comment within the review period. Should they later submit comments, we will forward to you.

/bj

Enc.: Coastal Georgia RDC, June 13, 2006

Form NCC
January 2004

Olliff, Larry B SAMatSAS

From: Karen's email [mucket@myacc.net]

Sent: Sunday, June 04, 2006 7:27 AM

To: Olliff, Larry B SAMatSAS

I along with LHA agree with the Savannah River Drought Contingency Plan.

Don Mock
117 Sunset Hills Dr
Anderson, SC

Olliff, Larry B SAMatSAS

From: Gayle Kimbrough [pezsis@hotmail.com]
Sent: Sunday, June 04, 2006 12:27 PM
To: Olliff, Larry B SAMatSAS
Subject: Drought relief proposal - Lake Hartwell

As a homeowner on Lake Hartwell, I just wanted you to know that we are in favor of the drought relief program being considered. Thank you.

8/1/2006

Olliff, Larry B SAMatSAS

From: Dick or Carole Bergman [bergyo1@yahoo.com]
Sent: Tuesday, June 06, 2006 8:04 PM
To: Olliff, Larry B SAMatSAS
Subject: New drought plan

Larry, I think the plan is super. I'm particularly pleased that you have put it in BEFORE the actual event.

For us older retirees it really helps by not making us move our dock so often, AND it keeps the lake looking good.

Again, thanks for planning ahead.

Dick & Carole Bergman
Carter Rd
Anderson

Do You Yahoo!?

Tired of spam? Yahoo! Mail has the best spam protection around <http://mail.yahoo.com>

Olliff, Larry B SAMatSAS

From: Dennis Worden [dlworden@mindspring.com]
Sent: Thursday, June 08, 2006 10:00 AM
To: Olliff, Larry B SAMatSAS
Cc: Feedback2LHA@lakehartwellassociation.org; gaylew@mindspring.com
Subject: Notice to LHA Members Regarding Corps Drought Plan

Larry, as a property owner with a home on Lake Hartwell and a member of LHA I want to thank you for the work you do and let you know I am supportive of the revised plan calling for earlier triggers for reduced flows through the basin in drought conditions. It is my understanding that the new triggers should have the effect of slowing the loss of lake level, and give a better chance of recovery during shorter drought periods. Seems we're in one right now!

I'm very supportive of this change.

Thanks,

Make it a great day!
Dennis Worden
120 Delta Way
Lavonia, GA
404-247-0216

8/1/2006

Olliff, Larry B SAMatSAS

From: doris crutchfield [crutch_b@earthlink.net]
Sent: Tuesday, June 13, 2006 11:03 AM
To: Olliff, Larry B SAMatSAS
Subject: Lake Hartwell

We would like to express our opinion about the lake levels. We would like to see the lake at much higher levels. Reduce the flow at higher water levels. It makes perfect sense to protect the high water levels in Hartwell during a drought. Since it is on top of the chain of three lakes, it seems that keeping the water level high would insure the other two lakes of having water when the need is there. Once the water is gone from Hartwell you can't retrieve it so it makes sense to hold what you can in that lake for as long as you can.

Thank You for the chance to express our opinion.

Robert and Doris Crutchfield
41 Peninsula Court
Martin, Ga. 30557
706 779 7812

doris crutchfield
crutch_b@earthlink.net
EarthLink Revolves Around You.

Olliff, Larry B SAMatSAS

From: LCBCO@aol.com
Sent: Tuesday, June 13, 2006 2:18 PM
To: Olliff, Larry B SAMatSAS
Subject: Comment on Corps Drought Plan

Thank you for the opportunity to comment on the Corps Drought Plan of the Savannah River Basin especially as it affects Lake Hartwell. As a property owner since 2000 I can assure I have a deep personal and financial interest in your activities.

Much of your report is technical and I cannot fully understand it. However, I do fully support the earlier triggers for reduced flows through the basin in drought conditions. Hopefully, the flows will be reduced at higher water levels than before. I would hope that would have the effect of slowing the loss of lake level and give a better chance of recovery during shorter drought periods.

It appears that we are in the midst of a drought period just now and the recent draw downs for Lake Russell, if true, are exacerbating the problem. I would urge you to accept the plan and quickly implement to allow some relief this summer.

Thank you,

Luther C. Boliek
PO Box 17064
Greenville, SC 29606

864-298-0156
lcaco@aol.com

Supon, Gabriele SAMatSAS

From: Olliff, Larry B SAMatSAS
Sent: August 21, 2006 14:06
To: Supon, Gabriele SAMatSAS
Subject: FW: Shoreline management plans
Signed By: larry.b.olliff@us.army.mil

-----Original Message-----

From: Ron Smith [mailto:drdents@charter.net]
Sent: July 05, 2006 11:09 PM
To: Dotson, Mark A SAS
Cc: Lake Hartwell Association
Subject: Shoreline management plans

Dear Sir : I strongly support a 5 year full pool management study researching flood control and erosion effects at full pool. I also support changing the trigger points at which effluent water is released during the various stage levels of drought...if predicted paths of tropical rains come over the drainage basin, then flood gates could be used only at those times, certainly not tested during a stage level one or two drought situation....Respectfully Yours, Dr. J Ron Smith, 334 Carter Road, Anderson S.C.29626

EA for the Savannah River Basin Drought Contingency Plan Update

(August 2006)

Comment and Resolution Matrix

No	Page No	Line	Reviewer	Comment	Response By	Response Clarification and Location in Document
1			Ed Eudaly	I believe there may be an error in Table 24 for WY 5. Please compare that table to Table 21 and Table 27 for WY 5.	Jeff Morris	The data in Table 24 is correct.
2			Ed Eudaly	The text states that Alt. 1 provides increased Spring flows throughout drought of record. If Table 24 is correct the statement is not.	Jeff Morris	The statement was changed to explain that alternative one JST average annual flows for WY 5 for the spring period significantly dropped relative to the NAA.
3			Charles W. Belin, Jr., Ph. D.	Instead of preparing a whole new EA or EIS, why not prepare a supplement to the existing EIS. Less time, less effort, and less money.	Warren Swartz, Leroy Crosby	It is appropriate under CEQ and US Army Corps of Engineers guidelines to do an EA in this case and not a supplement. The Drought Plan Update would not meet the conditions requiring a supplement to the EIS. The Savannah River Basin Drought Contingency Plan of March 1989 is referenced in Section 8. An Environmental Assessment was integrated in the 1989 Plan and a Finding of No Significant Impact was included as Appendix K.
4			Charles W. Belin, Jr., Ph. D.	This document only evaluated approximately ½ to 2/3 of the Savannah River Basin. No indication is given either to the impacts south of Augusta or north of the Hartwell Lake. This needs to be corrected for a complete document.	Larry Olliff	All of the Sections contained in "4.0 Environmental and Socioeconomic Consequences" give indications of the impacts south of Augusta, except 4.2, 4.7, 4.9 and 4.10. The 1989 Savannah River Basin Drought Contingency Plan, on Page 1, states that it was developed to address the operation of the three principal Corps impoundments. It did not list effects above Hartwell as being part of the Plan of 1989.
5			Charles W. Belin, Jr., Ph. D.	Some paragraphs are numbered (e.g., 1.2.2 or 3.4.1). Why are not all paragraphs numbered? Be consistent! Either number them all or number none.	Larry Olliff, Jeff Morris, Jason Ward	The sections in the question are not in the document. Each section corresponds to a heading, not a paragraph.
6			Charles W. Belin, Jr., Ph. D.	There are many typographical and spelling errors. I strongly suggest that the complete document be subjected to a full evaluation by a spell checker.	Larry Olliff	Completed.

EA for the Savannah River Basin Drought Contingency Plan Update

(August 2006)

Comment and Resolution Matrix

No	Page No	Line	Reviewer	Comment	Response By	Response Clarification and Location in Document
7			Charles W. Belin, Jr., Ph. D.	Paragraphs with significant conclusions need citations (see any paragraph on page 10). Certainly the authors did not perform research to yield these conclusions. Thus, if they obtained them from other researchers or from the literature, the research must be referenced. It would appear that the current document is replete with instances of plagiarism.	Larry Olliff, Jeff Morris	Additional references added.
8	FON SI		Charles W. Belin, Jr., Ph. D.	The first paragraph is incoherent. It, as the first paragraph that the reader sees, needs to be straightforward, strong, and tightly written. Perhaps it should be divided into two paragraphs.	Jason Ward, Larry Olliff	Two paragraphs were added.
9	FON SI		Charles W. Belin, Jr., Ph. D.	Paragraph 4e; Justification for this conclusion is not provided in the document. It this statement is to be believed, somewhere justification must accompany it.	Larry Olliff	Added sentences to 4.0.
10			Charles W. Belin, Jr., Ph. D.	Paragraph 2.3.1: Hartwell Lake, Table 1. In the right column heading, the elevation units must be included, even though it is in the heading. This applies to the other tables, figures and graphs.	Jeff Morris	Elevation units are now included in the right column heading.
11			Charles W. Belin, Jr., Ph. D.	Paragraph 2.4: Water Supply; What impacts are expected to water supply in Effingham and Chatham Counties, Georgia, and Jasper and Beaufort Counties, South Carolina. These are also in the Savannah River Basin watershed.	Jeff Morris	Discussion of existing consumptive and projected demands for withdrawals from the reservoirs and downstream of JST would require an effort beyond the scope of this drought contingency plan (DCP). It is more appropriate for the SRB Comprehensive Study (Phase II). At the present time, there are not significant surface water withdrawals below Augusta. Most water consumption demands are met with groundwater. The present and proposed DCP releases are ample for meeting current withdrawals. Efforts of this DCP focused on intakes in the

**EA for the Savannah River Basin Drought Contingency Plan Update
(August 2006)
Comment and Resolution Matrix**

No	Page No	Line	Reviewer	Comment	Response By	Response Clarification and Location in Document
						lakes and existing and future projection information that was readily available for the Augusta Canal.
12	13		Charles W. Belin, Jr., Ph. D.	Table 2 should have in its title that it refers to JST lake.	Larry Olliff	Added "Hartwell Lake" and "JST" to titles of Tables 1 and 2.
14			Charles W. Belin, Jr., Ph. D.	First complete paragraph. The sentence beginning, "After the fall 'overturn'..." needs substantiation. Any water column, especially one containing freshwater, does not become isothermal due only to temperature considerations. Winds must be present to initiate the instability. Very often anoxic respiration (i.e., the production of H ₂ S) is a triggering factor.	Jamie Sykes	Comment noted.
15			Charles W. Belin, Jr., Ph. D.	Paragraph 2.7: Cite your references.	Larry Olliff	Additional references added.
16			Charles W. Belin, Jr., Ph. D.	Table 3: Remove closing bracket following the species epithet for Kirtland's Warbler. What about including American alligator, West Indian Manatee, all of the marine turtles, and the whales? There are many other protected species that are not included in the table.	Larry Olliff	Georgia and South Carolina lists added.
17			Charles W. Belin, Jr., Ph. D.	Paragraph 2.9.4: Striped bass is not an endangered species. This paragraph should be included elsewhere. Please reference your data sources.	Larry Olliff	Added Section 2.9.5 "Special Biological Features" for two paragraphs.
18			Charles W. Belin, Jr., Ph. D.	Figure 5 is confusing and unexplained. The paragraph directly before this figure is confusing, i.e., "The following example is a two year portion of the overall hydrograph that covers approximately five years." HUH??	Larry Olliff	Comment noted, no similar comment from any other reviewers.
19			Charles W. Belin,	What impacts of all alternatives (i.e., 1 – 4) could be expected on the following criteria from Screven County	Larry Olliff	Impacts to Biotic Communities, Benthic Communities, Wetlands, Water Quality and

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			Jr., Ph. D.	to Tybee Island? Biotic Communities Benthic Communities Wetlands Socio-economic Communities Water Quality Water Quantity Boat Ramps Recreation Cultural Resources Endangered Species Cumulative Impacts		Endangered Species from Screven County to Tybee Island have been discussed in Section 4.0. Impacts to other resources are outside the scope of this EA and can best be considered for inclusion in a Savannah River Basin Comprehensive Study.
20			Charles W. Belin, Jr., Ph. D.	Shouldn't the 1989 Drought Contingency Plan Environmental Impact Statement be included, at the very least, in the Literature Cited Section, Section 8?	Leroy Crosby	The Savannah River Basin Drought Contingency Plan of March 1989 is referenced in Section 8. An Environmental Assessment was integrated in the 1989 Plan and a Finding of No Significant Impact was included as Appendix K.
21			Harry and Barb Shelley/ Friends of the Savannah River Basin	We recognize that the update does include some economic mention, but it failed to look at tax bases, the impact of silting on coves, and the enormous impact on the basic economic structure of SC and GA lake-side communities. It does mention the impact on recreation and its subsequent loss of income, but not on the real estate market in the areas. Many of the stakeholders were realtors from the Hartwell Lake area and they mentioned it over and over in the past years (including pleas at the last meeting). We came to Mr. Crosby five years ago in Savannah and asked that economic impact be added to the Comprehensive Study. We have brought evidence of growing communities and large homes being built in GA and SC, many with access and views of the lake, to every meeting we attended. We understand that economic impact is a difficult variable to add to a scientific simulation, but we	Jeff Morris	Economic impact analysis may be conducted in the Comprehensive Study, but it is beyond the scope of this Drought Contingency Plan.

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				<p>feel it should take a larger part in the final decision. The recent Bass Pro tournament at JST is an excellent example of the type of event that can have a major economic effect on the region.</p>		
22	51	Sec 4.8	Harry and Barb Shelley/ Friends of the Savannah River Basin	<p>As we mentioned at the June 14 meeting, we thought the intake level at Savannah Lakes Village Monticello Golf Course and Tara Golf Course and Hickory Knob Golf Course was incorrect and the finding of no significant impact was also incorrect. Jeffrey Morris did contact the superintendent of Tara Golf Course, Bob McIntosh, who informed him that intakes are at 324 feet msl, not 307 feet msl as reported in the original drought plan and the EA. Bob shared that there would be a 50% increase in the watering budget if they had to go to the "lakeside pump" option (which has happened in the past at around 324). The increase in cost is a result of having to use an extra electric pump plus, because the lakeside pump can't keep up with the demand of their main pump, they would have to run their system at a lower capacity for a much longer period of time. This increases the electrical use, therefore cost. Bob has had personal experience at all three courses and contacted present employees at all three courses to verify. The two Savannah Lakes Courses are listed as two of the eight water users on Lake Thurmond. We have been in contact with Mr. Morris a few times since the June 14 meeting. As it turns out, the city of Lincoln has three intakes and one is at 321. None are lower than 310 feet msl. He has also been in contact with other users and we assume that he has shared the findings. Since the finding of No Significant Impact was reached on erroneous data, we encourage you to look at page 51 and make corrections. We understand that this might mean redoing some of the simulations. Each user</p>	Jeff Morris	<p>Information from the March 1989 SRB DCP was updated by contacting the intake users and/or Corps personnel at all three lakes.</p>

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				should have been contacted and consulted prior to assuming no significant impact. Again, economic impact is an important variable.		
23			Harry and Barb Shelley/ Friends of the Savannah River Basin	In item "1. Description of the Proposed Action" of the FONSI, and item "3.2.2 Alternative 1" of the Draft EA the statement "The discharge restrictions at Thurmond were allowed to transition back to higher flows prior to reaching full pool. A two-foot buffer was used to simulate engineering judgment to distinguish a lasting drought recovery from a temporary increase in inflows." We're not sure whether this is something that was done just for modeling, or something that is part of future operating procedures under the alternatives. We don't understand or see how this is reflected in the Action Level charts but believe it is the correct action to avoid premature increases in flow.	Jason Ward, Stan Simpson	The 2 foot buffer used in the model in association with levels 2 and 3 will also be used in the day to day operation. On the falling pool the trigger level sets the reduced flow restriction. However, on a rising pool, the reduced flow reduction continues until the pool has risen approximately 2 feet above the setting trigger level.
24			Harry and Barb Shelley/ Friends of the Savannah River Basin	We understand from the discussion at the 14 June presentation that the continuing winter draw downs (needed by regulation for 100 year storm storage) at Trigger levels 1 and 2 are done to ensure that normal operation doesn't conflict with flood control. While this is certainly a valid reason, we continue to feel that it is inconsistent with the conservation of water resources during the early phases of a drought. This approach would seem to advance the onset of level 2 and ensure less flow downstream. We recommend reexamining the approach to eliminate further winter draw down when the lakes have not refilled the previous summer.	Jason Ward, Stan Simpson	There may be some misunderstanding of the trigger levels and the associated actions. There is no forced winter drawdown associated with any of the trigger levels. The only level that forces any drawdown is the Guide Curve or top of conservation. The trigger levels are used to adjust the maximum flow restrictions at various pool elevations. However, if your comment was to suggest an adaptive approach to managing the winter drawdown, we feel that could best be addressed during Phase 2 of the comprehensive basin study.
25			Harry and Barb Shelley/ Friends of	While the Draft EA talks about measured flow rates at monitoring points below the JST Dam in the Water Quality Section 4.1 and again in the Water Supply Section 4.8, it does not suggest controlling JST	Larry Olliff, Jason Ward	Thurmond releases are controlled (reduced) by flow at Augusta in flood control mode when local tributary inflows downstream of Thurmond Dam are predicted by the National

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			the Savannah River Basin	releases based on those flow rates. The release rates seem to be based strictly on lake levels. A good example of this was the recent tropical storm Alberto, where there was considerable rain below the dams but very little in the upper basin. The adjustment of outflow based on this factor, coupled with the reduced flows in alternative 2, would further help to conserve water quantity in the lakes during a drought.		Weather Service River Forecast Center to cause flood damages at Augusta, releases at Thurmond are reduced to not add to these flood damages. During tropical storm Alberto, downstream flow from unregulated tributaries downstream of Thurmond was not close to causing flood damages so discharge from Thurmond during that period was not reduced. The discharge at Thurmond was only that which was necessary for minimum hydropower production and pool balancing with Lake Harwell. Water quality and water supply thresholds were met during TS Alberto period but hydropower contractual requirements were causing releases at Thurmond to be higher than the minimum requirement of 3600 cfs.
26			Joseph F. Brenner/ Lake Hartwell Association	The Plan Revisions should encumber SEPA to use operational approaches to help mitigate drought effects on lake levels. These would include maximizing Lake Russell pump-back, and purchase of outside power at specific drought triggers.	Jason Ward, Stan Simpson	SEPA purchases replacement energy and in turn helps minimize effects on lake levels and on their hydropower customers. The current drought management plan and the proposed alternative impact SEPA's ability to meet their contractual obligations during a drought. SEPA is the marketer of all Federal hydropower generated at our projects. On behalf of the government, they manage the customer contracts while attempting to meet the drought plan restrictions.
27			Joseph F. Brenner/ Lake Hartwell Association	The Hartwell and Thurmond pool levels should be reduced simultaneously until level 4 is reached at Thurmond. At that point, both lakes should be managed by inflow equals outflow. To reduce Hartwell's level 35 FT prior to a level 4 trigger is irresponsible. There is absolutely no scientific basis for this approach. This	Jason Ward, Stan Simpson	Limiting Hartwell's bottom of conservation to an 18 foot maximum drawdown would require a change in authorization and would incur a cost to reallocate the portion of the conservation pool from 642-MSL to 625-MSL away from water supply and hydropower to

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				would result in catastrophic environmental, ecological and economic consequences. Once the water is lost, it will just create a much lengthier recovery time. We propose limiting Hartwell's level reduction, in phase with Thurmond to 18FT; then inflow equals outflow.		another use. This could be addressed best during phase 2 of the Comp Study.
28			Joseph F. Brenner/ Lake Hartwell Association	The winter rule curve levels for drought conditions 2 and 3 at Hartwell should be increased by one foot each to 655MSL and 653MSL respectively. A 2FT "gap" between drought triggers is larger than operationally required, and will result in pulling levels down faster during months when the flow is not required. This would be an opportune time to rebuild levels.	Jason Ward, Stan Simpson	This suggestion and others were brought up earlier in the alternative development phase. Holding the pools higher may help the upstream interests, however it hurts the downstream interests. It is our role to balance impact to all users in the basin.
29			J. M. Godfrey, Southern Company	Include Plant Vogtle as a water user in Sections "2.4 Water Supply" and "4.8 Water Supply".	Jeff Morris	Concur, Plant Vogtle is now included as a water user in Sections 2.4 and 4.8.
30			J. M. Godfrey, Southern Company	Section "2.2 Projects on the Savannah River" should include other hydro projects/dams and their release requirements to better explain fluctuating inflows into the Savannah River.	Stan Simpson	Concur, will include the release requirements for the upstream projects in the Drought Contingency Plan.
31			J. M. Godfrey, Southern Company	Section "4.8 Water Supply, Downstream of JST Lake" specifies that downstream users only require 3,600 cfs at this time. What method was used to reach this number, can it be verified and what allowances are being made for future users?	Jason Ward, Jeff Morris	The 3600 cfs minimum flow target was determined in the development of the 1989 Drought contingency plan as the minimum flow that downstream users required for their water supply needs to maintain adequate stage for their intakes. It was derived through surveys of water needs at that time. It is understood that 3600 cfs falls well below the 7Q10 flow upon which most downstream users are permitted. The proposed alternative actually increases this minimum flow target from 3600 cfs to

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						<p>3800 cfs which is an increase of 200 cfs or 129 MGD.</p> <p>Currently, the minimum daily flow from Thurmond is 3600 cfs which is often typical of weekend releases even during normal operations.</p> <p>However, Southern Nuclear needs to contact Georgia EPD to determine how much additional consumptive use is available in the river at your site.</p>
32			Marc Tye, Southeastern Federal Power Customers, Inc.	SEFP continues to assert that in the Drought Contingency Plan and Update we are operating for purposes not authorized for the three Federal Projects.	Leroy Crosby	While purposes for water quality, water supply, fish & wildlife and recreation were all not included in the original authorizations of the Federal projects, they were authorized in subsequent generic acts of Congress – for example the Water Supply Act and the Outdoor Recreation Act. The Corps maintains that the Chief of Engineers has discretionary authority to operate the projects within certain needs and priorities. This is needed from many aspects. If we were to operate “by the books” we would have to release between 5800 cfs and 6400 cfs for downstream navigation needs. Due to absence of commercial navigation on the Lower Savannah River we stopped operating for this Authorized Purpose many years ago.
33			Marc Tye, Southeastern Federal Power	Power customers only ones made to suffer.	Leroy Crosby	While it may appear that the power customers are the only ones made to pay through purchased power and/or pumping energy, other uses are experiencing costs to them as well. Water supply customers are not

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			Customers, Inc.			guaranteed full use of their storage, and are regulated by the states on their withdrawals during droughts; some may need to buy temporary pumps to supplement their intakes. Recreation users are denied use of facilities such as boat ramps and marinas due to unsafe conditions. Fish and wildlife suffer from harsh conditions. Personal boat dock owners are denied use of their docks and recreation crafts, or have to incur expenses to relocate them.
34			Marc Tye, Southeastern Federal Power Customers, Inc.	"True beneficiaries" should pay costs for increased pumping.	Leroy Crosby	<p>We have long believed that full use of the pump-back turbines is a win-win for all users during drought. The low cost for nighttime pumping is less costly than purchases during peak hours. Other users incur less costs and damages as well. The Savannah River Comprehensive Water Resources Study was intended to address re-allocations of storages and costs among all users. Unfortunately this study was not funded in FY 06, nor is it in the President's Budget for FY 07. Until the study is funded these questions will remain unanswered.</p> <p>Should funding become available, such a reevaluation of users and storage would be conducted over a full period of analyses to include conditions reflecting drought, normal operations, and floods. Over a full period of analysis the adversities of drought could be offset by times of excess flows providing increase energy production and ecological advantages from large releases. The analysis could also reflect the options of extra pumping</p>

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						or purchases of energy and determine if they would be offset by extra energy sales.
35			Wei Zeng, Georgia Department of Natural Resources	The Draft Ea should include information about water uses (amount of withdrawals, returns, and inter-basin transfers). A detailed list of all the water users and their permitted withdrawal/return amounts would be very helpful.	Jeff Morris	A detailed list of all the water users and their permitted withdrawal/return amounts may be available as an appendix in the Drought Contingency Plan, but it is beyond the scope of this EA. This data will be obtained from the states and will require updating in the Savannah River Basin Comprehensive Study.
36			Wei Zeng, Georgia Department of Natural Resources	Water quality assessment on the reaches downstream of Strom Thurmond needs to incorporate more detailed information. Figures showing hydrograph and exceedance levels may be helpful. Also, water quality models may be considered in order to quantify the effects of the proposed actions.	Jason Ward, Larry Olliff	Hydrographs showing effects on downstream flow are included in Appendix G and referenced in Section 4.1. Water Quality models would be considered as part of a Comprehensive Study.
37			Wei Zeng, Georgia Department of Natural Resources	If water quality in the lakes is not a concern under the proposed actions, this needs to be stated, and the reasons provided. The justifications can be in the form of lake elevation comparisons of the NAA and Alternative 2. If longer term simulations are available, exceedance levels of the lake elevations can be provided.	Jamie Sykes Larry Olliff	The change produced by implementing Alternative 2 compared to the No Action Alternative will not produce a change in lake Water Quality. Added "no substantial effects to lake Water Quality anticipated" to paragraph in Section 4.0.
38			Wei Zeng, Georgia Department of Natural Resources	Some clarifications need to be made in describing the alternatives, especially the chosen alternative. The flow requirements need to be specified more clearly as to whether they are maximum, minimum, daily, or weekly. An additional table comparing the actions in NAA and Alternative 2 will be helpful.	Jason Ward, Stan Simpson	Concur, changes made to Tables.
39			Wei Zeng, Georgia Department of	Clarifications need to be made regarding discharge transition back to certain levels before full pool is reached (see Section <u>Proposed Changes</u> of this memorandum).	Jason Ward, Stan Simpson	On a falling pool, the flow reduction associated with the trigger level is initiated as either the Hartwell or Thurmond pools cross a trigger level elevation. On a rising pool, flow

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			Natural Resources			restrictions are lifted once both Hartwell and Thurmond pools have risen approximately 2 feet above the associated trigger level. Following this 2 foot buffer approach will allow time to ensure that the pool recovery is enduring and not just a short term event. The rewording of the proposed action (see comment 39) reflects this change.
40			Wei Zeng, Georgia Department of Natural Resources	Clarifications need to be made regarding a two-foot buffer to simulate engineering judgement (see Section <u>Proposed Changes</u> of this memorandum). I believe Point 5 and 6 are linked. These suggestions are for a more clear description of the process so people without prior exposure to the development of the alternatives can easily understand it.	Jason Ward, Stan Simpson	See above comment response.
41			N. Max Hicks, P. E., Director, Augusta Utilities Department	This analysis did not include the water needs of the Augusta shoals.	Jeff Morris	Concur. Water needs for the Augusta shoals is now included in the water supply analysis.
42			N. Max Hicks, P. E., Director, Augusta Utilities Department	The Drought Plan does not address/meet the flow agreement developed in the FERC re-licensing process.	Jason Ward	Thank You for your comment. Your proposed alternative to retain the old trigger flows during the summer months and transition to the reduced maximum flows during the winter months is worthy of additional study. Regrettably, this proposal should have been brought up during the alternative development phase. Intuitively, it may provide downstream

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						benefits during mild droughts. However additional downstream benefits typically cause negative upstream impacts on the pools. The proposal for increased flows during the summer months would likely result in a greater amount of time at level 3 flows. This alternative as well as reallocation of storage for increasing water supply needs, both in-pool and downstream, will be further addressed in phase 2 of the comp study.
43			George A. Galleher, PE, Duke Energy Hydro Generation	On analysis Duke would recommend that further water resource conservation could be gained by changing the Level 1 response. As the drought progresses into a Level 1 (see graph below) and a level of 656 is reached the pond would not be drawn down to 654 beginning in October. Rather a level of 656 would be maintained for as long as possible. There is no need during a drought to follow a drawdown (rule curve for the conservation pool) pattern designed for normal conditions. By holding 656 and not lowering the pool you will be in a much improved position going into the next winter under persistent drought conditions with the same risk of flooding as found under the normal pool guidelines. The same strategy would be recommended for Level 2, once a level of 654 is reached a drawdown beginning October would not happen.	Jason Ward, Stan Simpson	Thank you for your comment. There may be some misunderstanding of the trigger levels and the associated actions. The only level that forces any drawdown is the Guide Curve or top of conservation. There is no forced winter drawdown associated with any of the trigger levels. However, if your comment was to suggest an adaptive approach to managing the winter drawdown, we feel that could best be addressed during Phase 2 of the comp study.
44			Charles A. Borchardt, Administrator, Department of Energy/ Southeastern Power	SEPA continues to assert that in the Drought Contingency Plan and Update we are operating for purposes not authorized for the three Federal Projects.	Leroy Crosby	While purposes for water quality, water supply, fish & wildlife and recreation were all not included in the original authorizations of the Federal projects, they were authorized in subsequent generic acts of Congress – for example the Water Supply Act and the Outdoor Recreation Act. The Corps maintains that the Chief of Engineers has discretionary authority to operate the projects within certain

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			Administration			needs and priorities. This is needed from many aspects. If we were to operate "by the books" we would have to release between 5800 cfs and 6400 cfs for downstream navigation needs. Due to absence of commercial navigation on the Lower Savannah River we stopped operating for this Authorized Purpose many years ago.
45			Charles A. Borchardt, Administrator, Department of Energy/Southeastern Power Administration	Power customers only ones made to suffer.	Leroy Crosby	While it may appear that the power customers are the only ones made to pay through purchased power and/or pumping energy, other uses are experiencing costs to them as well. Water supply customers are not guaranteed full use of their storage, and are regulated by the states on their withdrawals during droughts; some may need to buy temporary pumps to supplement their intakes. Recreation users are denied use of facilities such as boat ramps and marinas due to unsafe conditions. Fish and wildlife suffer from harsh conditions. Personal boat dock owners are denied use of their docks and recreation crafts, or have to incur expenses to relocate them.
46			Charles A. Borchardt, Administrator, Department	"True beneficiaries" should pay costs for increased pumping.	Leroy Crosby	We have long believed that full use of the pump-back turbines is a win-win for all users during drought. The low cost for nighttime pumping is less costly than purchases during peak hours. Other users incur less costs and

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			nt of Energy/ Southeastern Power Administration			<p>damages as well. The Savannah River Comprehensive Water Resources Study was intended to address re-allocations of storages and costs among all users. Unfortunately this study was not funded in FY 06, nor is it in the President's Budget for FY 07. Until the study is funded these questions will remain unanswered.</p> <p>Should funding become available, such a reevaluation of users and storage would be conducted over a full period of analyses to include conditions reflecting drought, normal operations, and floods. Over a full period of analysis the adversities of drought could be offset by times of excess flows providing increase energy production and ecological advantages from large releases. The analysis could also reflect the options of extra pumping or purchases of energy and determine if they would be offset by extra energy sales.</p>
47			James Leatherwood	Jason, I spoke with a hydrologist last year and was told we were going to adjust the drought response levels of the lake (Hartwell) and looking at the web site it appears I was misinformed.	Jason Ward	<p>We are currently in the 30 day comment period for the Environmental Assessment of our drought contingency plan update required by the National Environmental Policy Act (NEPA). The update contains the trigger you mentioned including a maximum weekly average flow restriction at Thurmond Dam of 4200cfs and 4000cfs for drought trigger levels 1 and 2, respectively. The comment period is set to conclude in the first week of July.</p> <p>Until this plan is approved, we are operating under the current drought contingency plan. In the current plan, the maximum 4500 weekly</p>

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						average release at Thurmond Dam is initiated at drought trigger level 2. Currently, we are not yet projected to reach this level in the next 10 weeks. Other Congressionally authorized project purposes including water supply and hydropower are important users of the conservation pool as well. In response to inflows that are half of normal and dry long term weather forecasts, the federal hydropower marketer is helping to slow the rate of the falling pools by maximizing pump-back operations at Russell Dam within existing environmental constraints.
48			Larry Turner, Manager, Water Quality Modeling Section, South Carolina Department of Health and Environmental Control	While intuitively higher flow during the most severe stages of the drought would have mitigated to some unknown degree the increased salinity levels seen in the refuge during the period December 2000 through February 2003, the Draft EA does not quantify the impact of reduced flows during the Aug-Oct 1999 and July-Nov 2000 periods where reduced river flows would have had a negative impact on salinities. At a minimum, the Draft EA should include no action alternative (NAA) and alternative 2 flow time series at Clyo so that the timing of the flow reductions is clearly shown.	Jason Ward, Larry Olliff	Periods described in the text for Alternative 2 are depicted in Appendix G.
49			Larry Turner, Manager, Water Quality Modeling	On page 12, the Draft EA states "The State of South Carolina uses a minimum of 3600 cfs at the Savannah River Augusta gage for permitting of point source discharges on the River..." This is not exactly correct. The department uses the current drought plan Level 3 flow of 3600 cfs as a basis for determining discharge	Larry Olliff	Edited sentences in Sections 2.7 and 4.1.

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			Section, South Carolina Department of Health and Environmental Control	limits for discharges in the Augusta area. However, this flow is not used for all discharges for the length of the river. This flow is adjusted upward to account for tributary input as one moves down the river. This is consistent with a position taken by the states of Georgia and South Carolina in a May 4, 2000 letter to Beverly Banister of US EPA Region 4 that for future TMDL modeling purposes, the critical minimum low flow from Thurmond Dam of 3600 cfs would be used as a starting point for determining critical low flows in the Savannah River. While South Carolina is slightly more conservative in how it currently increases flow as one moves downstream, the processes are essentially the same. As TMDL modeling proceeds, consistent flow values will be utilized to determine permit limits for all discharges to the river.		
50			Edwin Marshall, Director for Alabama-Quassarte Tribal Town	Alabama-Quassarte Tribal Town has no religious, cultural or historic interest in the attached referenced project.		No response necessary.
51			Georgia DNR-Historic Preservation Division	HPD believes that no historic properties or archaeological resources that are listed in or eligible for listing in the National Register of Historic Places will be affected by this undertaking.		No response necessary.
52			Catawba Indian Nation	If your action drops water levels, you should monitor archaeological sites and call us if any sites are revealed. We expect anyone apprehended in illegal artifact hunting to be prosecuted.		No response necessary.
53			Don Mock	I along with LHA agree with the Savannah River		No response necessary.

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				Drought Contingency Plan.		
54			Gayle Kimbrough	As a homeowner on Lake Hartwell, I just wanted you to know that we are in favor of the drought relief program being considered. Thank you.		No response necessary.
55			Dick and Carole Bergman	I think the plan is super. I'm particularly pleased that you have put it in BEFORE the actual event. For us older retirees it really helps by not making us move our dock so often, AND it keeps the lake looking good. Again, thanks for planning ahead.		No response necessary.
56			Dennis Worden	As a property owner with a home on Lake Hartwell and a member of LHA I want to thank you first for the work you do and let you know I am supportive of the revised plan calling for earlier triggers for reduced flows through the basin in drought conditions. It is my understanding that these new triggers should have the effect of slowing the loss of lake level, and give a better chance of recovery during shorter drought periods. Seems we're in one right now! I'm very supportive of this change.		No response necessary.
57			Robert and Doris Crutchfield	We would like to express our opinion about the lake levels. We would like to see the lake at much higher levels. Reduce the flow at higher water levels. It makes perfect sense to protect the high water levels in Hartwell during a drought. Since it is on top of the chain of three lakes, it seems that keeping the water level high would insure the other two lakes of having water when the need is there. Once the water is gone from Hartwell you can't retrieve it so it makes sense to hold what you can in that lake for as long as you can. Thank You for the chance to express our opinion.	Larry Olliff	The Proposed Action calls for lower releases in drought levels 1 and 2 and higher releases in level 3.
58			Luther C. Boliek	Thank you for the opportunity to comment on the Corps Drought Plan of the Savannah River Basin especially as it affects Lake Hartwell. As a property owner since		No response necessary.

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				2000 I can assure I have a deep personal and financial interest in your activities. Much of your report is technical and I cannot fully understand it. However, I do fully support the earlier triggers for reduced flows through the basin in drought conditions. Hopefully, the flows will be reduced at higher water levels than before. I would hope that would have the effect of slowing the loss of lake level and give a better chance of recovery during shorter drought periods. It appears that we are in the midst of a drought period just now and the recent draw downs for Lake Russell, if true, are exacerbating the problem. I would urge you to accept the plan and quickly implement to allow some relief this summer.		
59			Dr. J Ron Smith	I strongly support a 5 year full pool management study researching flood control and erosion effects at full pool. I also support changing the trigger points at which effluent water is released during the various stage levels of drought...if predicted paths of tropical rains come over the drainage basin, then flood gates could be used only at those times, certainly not tested during a stage level one or two drought situation		No response necessary.

APPENDIX E

LIST OF PREPARERS

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Environmental

Larry B. Olliff

BS - Biology, Armstrong Atlantic State University

1980-present: US Army Corps of Engineers, Savannah and Mobile Districts

Present Position: Biologist, Military and Environmental Compliance Support Branch,
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Jeffrey S. Morris

BA - Economics, Westminster College, Pennsylvania

MS – Environmental and Natural Resources Economics, West Virginia University

1993-present: US Army Corps of Engineers, Mobile/Savannah Planning Center

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Stanley L. Simpson

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1979-present: US Army Corps of Engineers, Wilmington Regional Engineering Center,
Savannah District Water Management

1983-1990: Hydraulic Engineer

Present Position: Water Control Manager

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Jason Ward

BS - Forest Resources, University of Georgia, MS – Hydrology, University of Georgia

2002 – present: US Army Corps of Engineers, Wilmington Regional Engineering Center,

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Project Manager

William G. Lynch

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Present Position: Senior Project Manager;

Civil Works - Programs and Project Management Branch

APPENDIX F

HEC-RESSIM POOL PLOTS

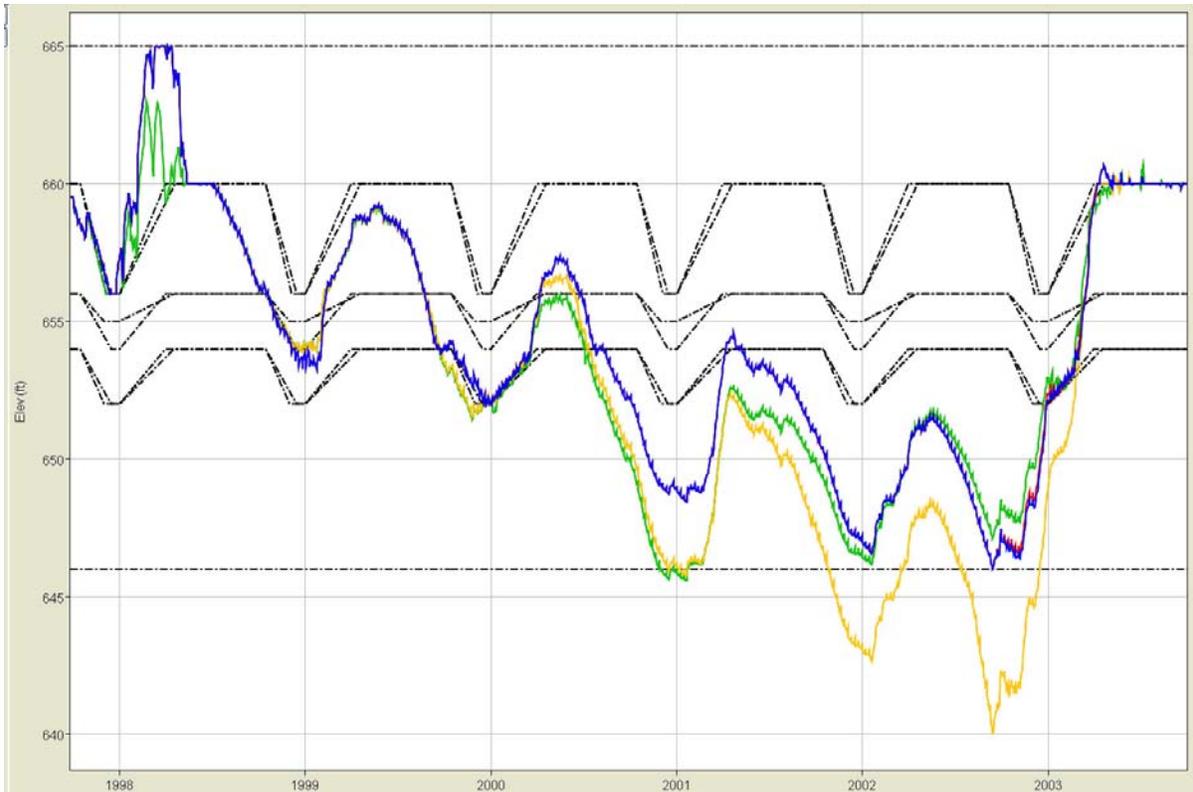


Figure F-1: HEC-ResSim Pool Elevation at Hartwell Lake for NAA, Alt 1, Alt2, and Alt 3

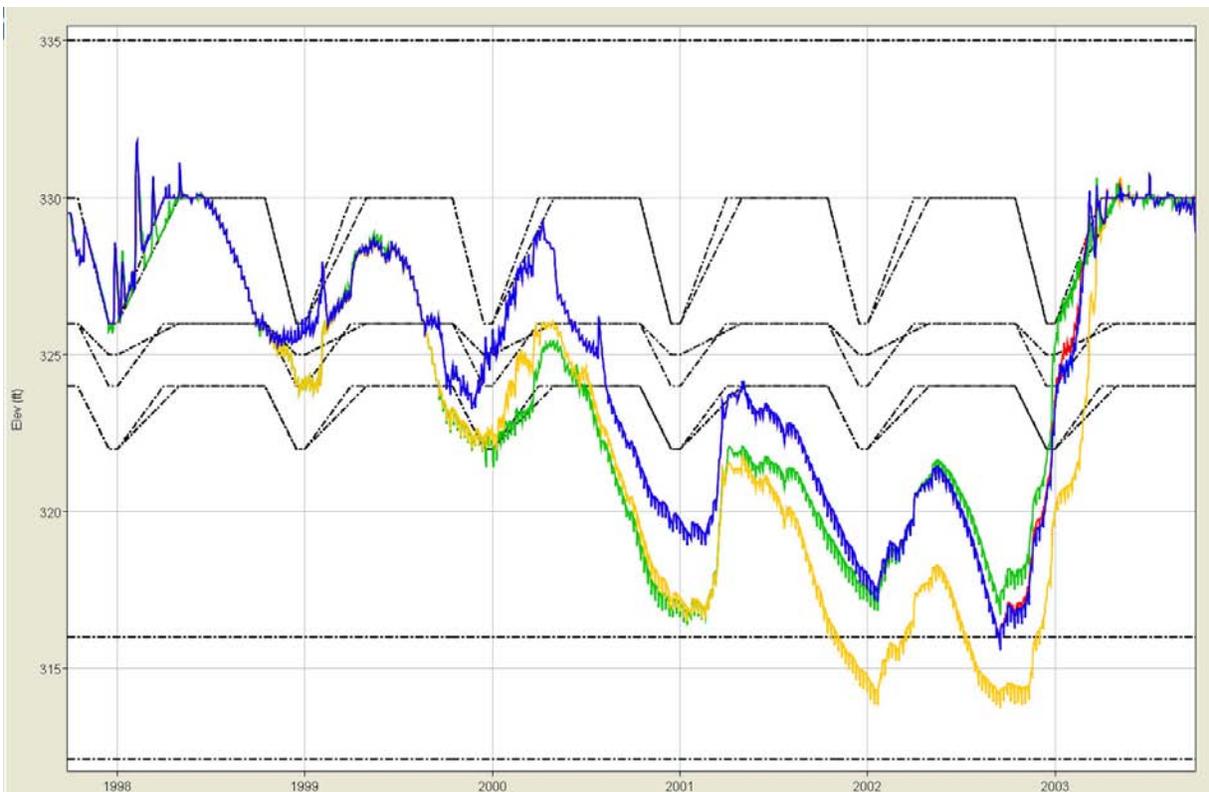


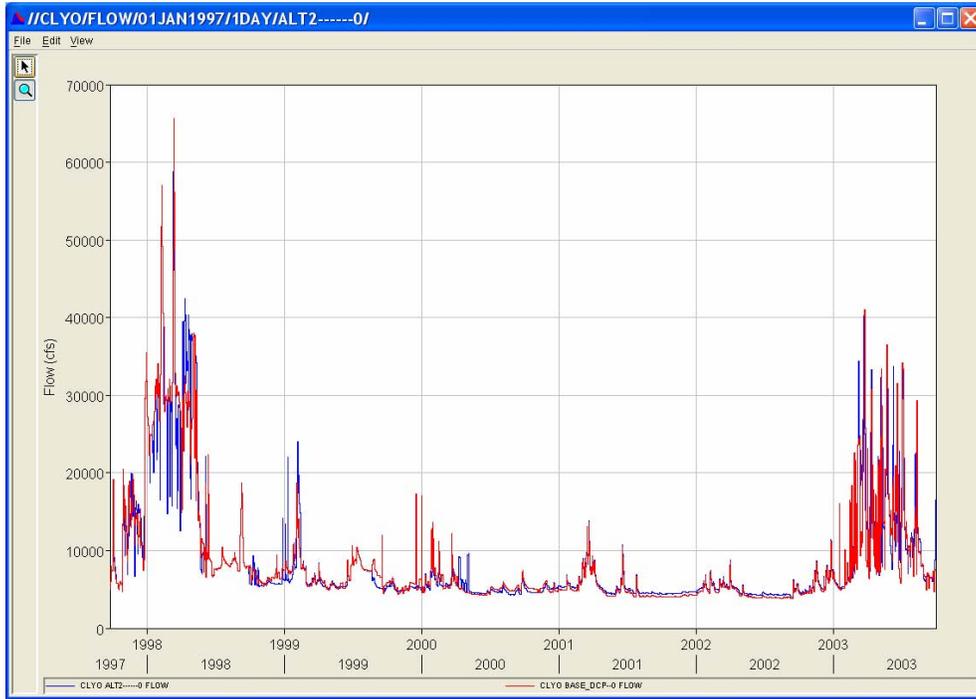
Figure F-2: HEC-ResSim Pool Elevation at Thurmond Lake for NAA, Alt 1, Alt2, and Alt 3

APPENDIX G

HYDROGRAPHS- SAVANNAH RIVER AT CLYO

Simulated Hydrographs- Savannah River at Clyo

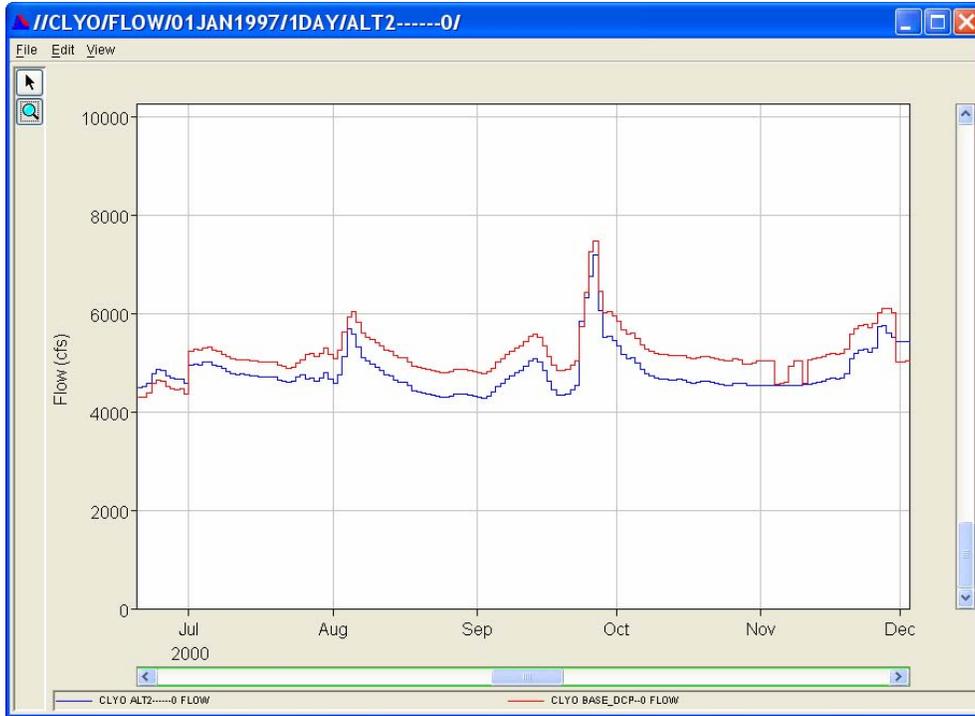
Red - NAA Blue - Alt 2



Drought Simulation Period (October 1997- September 2003)



September - December 1999



July – November 2000

Below shows the period during drought level 3 and the drought recovery period where flow at Clyo was higher in Alternative 2 than in the NAA

