

Rider to Public Comment by Lake Hartwell Association on December 1st, 2025 to Draft Integrated Water Supply Storage Reallocation Report/ Environmental Assessment (IWSSRR/EA) and Draft Finding of No Significant Impact (FONSI) for Hartwell Lake

1. Request that the 2012 Drought Management Plan be revised and the triggers for Drought stages 1, 2, 3 and 4 be set to “kick in” earlier

- a. USACE acknowledges that looking to the future, “there is anticipated to be an increase in drought severity. (see Appendix C).” See Report Section 4.8.2 Environmental Consequences of Alternative 1 (NAA) at page 57.
- b. Appendix C, Changing Conditions, provides ample support not only for the likelihood of an increase in drought severity, but also for the accelerating likelihood of huge losses of water due to evaporation attributable to high temperatures.
 - i. Among other things, since 1970 the number of days above 95 degrees Fahrenheit and nights above 75 degrees Fahrenheit have been increasing. See Appendix C at page 4. Going forward, we can expect “significant increases in the number of hot days, 95 Degrees F and above”, with the projected increase of “approximately 45-60 days.” See id at 5.
 - a. Harmful Algal blooms are expected to increase as are “several disease-causing agents in inland waters, not previously problems in the region.” See id at 5.
 - ii. “Even if average annual precipitation remains constant, higher temperatures will increase evaporation rates and decrease soil moisture during dry spells, leading to greater drought intensity. This could increase competition for limited water resources, which currently support large population centers like the City of Augusta, and others that are contracted to pull water from the reservoirs”. See id at 6.
 - iii. “Soil moisture, critical for vegetation and agriculture, is determined in part by precipitation and temperature, which drives evapotranspiration (ET). Soil Moisture fluctuates seasonally and has been observed to be decreasing over time in the Southeast.” See Id at 7. Water demands to support agriculture in the six counties immediately around Lake Hartwell can be expected to grow.
 - iv. In Georgia, “there has been an increase in the number of moderate to severe droughts between 2000 and present.” See Id

at 10. Interestingly, Georgia has also “been experiencing more flood events in recent decades.” See id at 10.

- v. The Ogeechee-Savannah watershed is vulnerable to the impacts of changing conditions on water supply from extremes of dryness and wetness, because of sediment load, “runoff elasticity”, and drought severity. See id at 20.
- c. If Lake Hartwell is analogized to a bowl, once water has left the bowl it is not replenished until equivalent rain falls on its tributaries. As conditions become more unpredictable, it is less likely that we can count on that equivalent rainfall occurring soon after depletion of the bowl. USACE cannot affect the rate of water lost to evaporation, but it can control the maintenance of waterflows from the dam. Going forward, USACE needs to consider reductions in waterflows sooner to reduce the likelihood that lake levels will diminish severely in a drought.
- d. Because of the risk of severe drought, when revising the 2012 Drought Management Plan USACE should also consider whether the size of the reduction in water flow at Drought Trigger levels should be increased.
- e. Current conditions are illustrative. Full pool in the summer at Lake Hartwell is 660. Pursuant to the “guide curve,” USACE drops the lake to winter pool (656), October through about December and holds it at 656 for a couple of weeks. Then, assuming rains come in February and March (traditionally times of maximum rainfall, see Report at page 57), the lake level starts to rise to bring it back to 660. Currently, the lake should be at 657 per the guide curve. However, as of Saturday, November 15 lake level was at 655.1, which is below the guide curve and below the planned winter pool. By Saturday November 29, the lake level had dropped to 654.3. As of November 15, the latest forecast on the USACE website going out 10 weeks projects Lake Hartwell to be almost another foot lower than it is now, projecting the level to be at 654.2. This would be 1.8 below planned winter pool, and below current Drought Trigger Level 1, which is currently 654.5. That means that as of November 29, 2025 Lake Hartwell is at Drought Level 1, even though we have not seen an announcement of this. In the interests of boating safety, fishing and other recreation, and Regional Economic Development (RED), it is important that Lake Hartwell be at full pool by April. At USACE’s periodic teleconference on October 16, 2025 at 2:00 p.m. EDT about weather forecasts for the three lakes, the representative from the National Weather Service said that if current La Nina conditions continue, the winter will be warmer and drier than usual. That would mean that the lake probably would not be at full pool in April.

2. The Report does not address the full extent of water supply issues on the Georgia side of Lake Hartwell

- a. The second paragraph of the Executive Summary of the Report implies that the Report addresses all the immediate and future water demands for counties adjacent to Lake Hartwell on the Georgia side as well as on the South Carolina side. (“The purpose of this report is to prepare an analysis to evaluate Hartwell Lake water supply storage reallocation requests to meet immediate and future water demands for counties in South Carolina (SC) and Georgia (GA) adjacent to Hartwell Lake”). Similarly, the scope of the study documented by the Report is described as “to evaluate and compare alternative non-Federal and Federal water supply sources to address future water deficits...” (see Report, Section 2.3 at page 10).
- b. Because of the broad geographic reach of ARJWS as supplemented by Pioneer Rural Water District, the Report probably does address the immediate and projected water demands for the three counties (Anderson, Pickens and Oconee) adjacent to the South Carolina side of the lake.
- c. By contrast, on the Georgia side of Lake Hartwell the Report only addresses the immediate and projected water demands of one of six cities (Lavonia) in one of three counties (Franklin) adjacent to Lake Hartwell and the landscaping needs of a private club in one of the other two counties (Stephens) adjacent to the lake. Nothing in the Report addresses the needs of Franklin County’s other five cities (Royston, Franklin Springs, Carnesville, Martin, and Canon), or the unincorporated portions of Franklin County, or the needs of the towns, cities, and unincorporated portions of Hart and Stephens Counties in Georgia.
- d. LHA understands that the City of Hartwell (Hartwell) has contacted USACE to express Hartwell’s interest in supplementing its riparian rights withdrawals from Lake Hartwell by obtaining a storage allocation. However, the consequences of that request are not mentioned in the report.
- e. HCWSA on August 4, 2025 formally requested an increase in its water storage allocation sufficient to increase HCWSA’s water yield to 4.5 mgd from the current 2.2mgd that it is allowed. This past summer, HCWSA hit record highs in water use and anticipates the trend will continue next summer.
 - i. Poultry operators are very large customers of HCWSA. A single poultry operation may use hundreds of thousands of gallons of water. The water is used not only to provide hydration to the poultry but also to cool the poultry houses. HCWSA recently authorized

extending its lines to another poultry operation and it is anticipated that more poultry houses will seek to be connected to HCWSA's distribution lines. Hart and Franklin Counties in recent years have ranked #1 and 2 (with the order varying between them) in poultry production in Georgia.

- ii. More generally, HCWSA has been expanding the geographic scope of its footprint within Hart County in areas not served by the cities and towns in Hart County and is about to begin a major expansion made possible by a loan from Georgia Environmental Finance Authority (GEFA). Currently, much of Hart County depends for water supply on individual wells, community wells, or private water systems which use wells (groundwater). The monthly meetings of the Board of Directors of HCWSA are marked by residents and groups of residents whose properties are not currently within the distribution network for HCWSA seeking to have the distribution lines extended to them because the performance of wells is no longer satisfactory.
- f. Because of lack of sufficient water supply, Franklin County has had a moratorium for several months on adding new customers. The Franklin County Board of Commissioners recently voted to allow those who had been granted construction permits without water to tap into the County system. Because Franklin County, like Hart County, is one of the top two poultry producing counties in Georgia, Franklin County can anticipate increased water demands in the summer months, and the hotter the temperatures the higher the demand for water to cool poultry houses.
- g. The City of Toccoa (Toccoa) in Stephens County Georgia obtains water from Lake Toccoa, Davidson Creek, and Lake Yonah. See <https://www.cityoftoccoa.com/utilities/page/water>. The Report states that if the water storage request by Lavonia were not granted, Lavonia most likely would purchase treated wholesale water from the City of Toccoa and contends (without proof) that this "system has adequate capacity to supply the City of Lavonia's future water needs...." See Report. Section 3.8.2 Wholesale Purchases Requiring Construction of a Pump Station and Transmission Mains at page 24. The Report does not address the sufficiency of the Toccoa water supply in periods when the primary water supplies of both Lavonia and Toccoa would be experiencing drought. Nor does the Report address more broadly the water supply of Stephens County, which LHA understands is supplied by Toccoa.
- h. According to a draft memorandum of Understanding prepared by Peoples Quigley (consulting engineers for Lavonia), Lavonia is in the process of

renovating its water treatment plant so that it can treat the 3.0 mgd withdrawals from Lake Hartwell for which it has a permit from Georgia's EPD, which is also the yield Lavonia is seeking from USACE. Per Peoples Quigley, Lavonia may pursue high rating this facility to 4.0 mgd. The treatment plant currently serves both retail and wholesale customers of Lavonia. The wholesale customers include Franklin County Georgia and HCWSA in Hart County Georgia.

3. Request for a new USACE Savannah River Basin Comprehensive Study.

- a. Appendix C "Changing Conditions" to the Report addresses only issues related to climate.
- b. The Changing Conditions Appendix C does not address the substantial increases in residential, industrial, and agricultural development in the six counties adjacent to Lake Hartwell since publication of the 2012 Drought Management Plan and publication of the Comprehensive Study. Nor does the Changing Conditions appendix address the substantial changes in residential, industrial and agricultural development in the counties in South Carolina and Georgia adjacent to Lakes Russell and Thurmond and to the free-flowing river south of Lake Thurmond. Nor does the Report address how the game-changing surge of proposed data centers in rural areas nationwide might affect the demand for water. Recently Trammel Crow has announced plans to build a large data center in Appling Georgia, in Columbia County. See e.g. <https://www.wrdw.com/2025/11/17/columbia-county-leaders-hold-hearing-proposed-data-center/>. Columbia County draws water from both Lake Thurmond and the free-flowing Savannah River for its drinking water and other municipal water. See <https://columbiacountyga.gov/FAQ.aspx?QID=472>. If state and/or federal governments conclude that operating data centers at peak capacity is important to national security those demands might potentially outweigh the needs of households for water. All of these changes affect future demand for the water of Lake Hartwell and need to be factored into the models used to assess the impact of the proposed increases in water supply storage, particularly during periods of drought.
- c. There have been and continue to be many changes potentially affecting water consumption and water levels in Lake Hartwell and Lakes Russell and Thurmond and more changes are projected or considered.
- d. The requirement that the USACE maintain a minimum flow of 3600 cfs out of Lake Thurmond, (plus an additional 200 cfs August 20-August 30 if Drought Trigger Level 1 has been reached), reflects the reality that conditions downstream of Lake Thurmond affect lake levels in Thurmond,

Russell and Hartwell. For that reason, a new Comprehensive Study needs to tally the current and projected water demands not only on the Upper Savannah Basin but also indirectly on the Upper Savannah because of demands from the Lower Savannah Basin. The tally needs to include demands from both sides of the lakes and the free-flowing river.

- e. It is the states of Georgia and South Carolina that issue permits to withdraw water from the Savannah River and the three lakes in the Upper Basin. The States need to be an important part of the Comprehensive Study.
- f. The Savannah Riverkeeper, LHA, and other not-for-profits should be invited to participate to the extent their resources allow.

4. Population Projections in Economic Analysis Appendix at pages c-10-11 are significantly understated and out of date at least as pertaining to Georgia.

- a. Population growth is a significant driver in increasing demand for water. As the report puts it, “[d]ue to local and regional population growth in Northeast Georgia and Northwest South Carolina, water demand is swiftly outpacing water supply.” See Report section 3.5 Problems and Opportunities at page 20.
- b. “[T]he basic theme of the planning process is to evaluate the feasibility of reallocating water storage in Hartwell Lake to water supply storage for four requestors to meet increased demand due to population growth.” See Report Section 3.1 Planning Framework at page 17.
- c. Population projections, in turn, were key to projecting water demands. (“To identify potential actions to meet future water demands for the project area, the USACE first needed to **accurately** inventory current water supply and demands and project future water demand based on population increases through 2075.” Report, Section 3.2 Planning for Future Water Demand, at page 17 (emphasis added).
- d. USACE used out-of-date population projections for the Georgia counties, thereby significantly understating the projected population.
- e. The population projections obtained from South Carolina’s Revenues and Fiscal Affairs Office (see Economic Analysis Table 3 at page c-11) show an increase in the three counties from 437,838 in 2025 to 485,197 in 2035. USACE then extrapolated from this at a 1% increase per year to come up with 722, 292 as the projected population in 2075 (almost a 65% increase over 2025).

By contrast, in using out-of-date information from Georgia’s Governor’s Office of Planning and Budget (OPB) for projections

through 2060, USACE extrapolated a 1% growth and significantly understated the projected populations of Hart, Stephens, and Franklin counties in 2075. See Economic Analysis Appendix Table 2 at page C-10. These inaccurate projections showed a population increase of only about 30 % projected from a starting population of 77,706 in 2025 to a projected population for the three counties of 101,167 in 2075. That 30% increase is a rate less than half that suggested by South Carolina as extrapolated by USACE. These widely differing projections for South Carolina and Georgia sides of Lake Hartwell should have caused USACE to review its data before publishing this report.

- i. The current projections by OPB are found at <https://opb.georgia.gov/census-data/population-projections>. With assistance from Adam Hazell, of Georgia Mountain Regional Commission, we are supplying a table derived from OPB showing the estimated current populations of Hart, Stephens, and Franklin counties and projections of their populations through 2060. This table is the second on the attachment to this rider. Per OPB's current projections, the combined populations of the three counties would be 100,656 by 2060; by contrast, the Report shows their combined 2060 populations as about 13,000 less (87,140). OPB's website shows the estimated 2025 populations of the three counties as totaling 81,803; by contrast the report shows their 2025 total as 77,706.
- ii. The OPB projections are based in part on data reported on the US Census website. See <https://www.census.gov/data/tables/time-series/demo/popest/2020s-total-cities-and-towns.html>. With assistance from Mr. Hazell, we also attach to this document a table showing for Hart County the estimated population county-wide and for each of Hart County's towns and cities drawn from the portion of the Census Bureau website entitled Incorporated Places and Minor Civil Divisions Datasets: Subcounty Resident Population Estimates; April 1, 2020 to July 1, 2024 (SUB-EST2024). (Note that parts of Canon, Lavonia, and Royston are in Hart County, and parts are in other counties. Only the portion in Hart County is shown in the table). These are the numbers that the federal and state government would use if Hart County were applying for assistance with any project. Based on this information, Hart County's 2024 estimated population already was 28,052, which according to the

outdated information shown in the Report, is a level that would not have been reached until sometime between 2065 and 2070!

- f. Because of flaws in the population data, the models should be rerun with current/accurate population data before the final allocations are granted.
 - g. Because it took so many years for USACE to compile its data, it is likely that the population information appearing in the economic analysis was gathered many years ago. However, in-migration to the three Georgia counties from domestic and international sources may well have changed significantly since the data was gathered.
 - h. We urge the USACE to review all the data underlying the models it ran to determine what if any other underlying data is also significantly out-of-date. The models need to be re-run with the correct data.
- 5. New bathymetric studies need to be run in 2028 and again in 2033 in order to determine the current rate of sedimentation and to ascertain if the rate is accelerating, decelerating, or remaining constant.**
- a. The Report notes that “Reservoir storage has decreased over time due to sedimentation.” See Report Section 4.32 Environmental Consequences to Water Supply from Alternative 1 (NAA). This decrease has consequences: “Each water supply contract holder has purchased a percentage of the reservoir storage sized to meet their needs. As the volume goes down over time, so does the volume of each contract. A smaller volume equates to a smaller yield.”
 - b. Appendix A, Engineering Report provides more detail at Section 8.0 Sedimentation Analysis, beginning at page 36. The USACE cautions that “Focus should remain on the conservation pools as the inverts of the water supply intakes being proposed fall within several feet to the bottom of the conservation pools. It is sedimentation in the conservation pools that tends to impact water supply yield.”
 - c. The first time that a complete bathymetric study was done on Lake Hartwell was in 2023, and it took over a year. Compared with what is known of Lake Hartwell when it was flooded, it appears that the pool has “lost roughly 14% of its Conservation storage” while the Thurmond pool has only lost about 4% of its conservation storage even though it was created 10 years before Lake Hartwell. Interestingly, based on soil types, it would have been anticipated that Hartwell’s loss due to sedimentation would be less than at Thurmond. However, USACE points out that “sedimentation is often a reflection of development and land use practices around the reservoirs.”

- d. With only two data points available for Lake Hartwell (storage capacity at creation and storage capacity in 2023-2024) it is not possible to tell whether the rate of sedimentation has increased over the past 10-15 years with increased development on Lake Hartwell. Hence the predictions table 8.0-3: Hartwell Sedimentation Analysis, appearing in Appendix A Engineering at page 38 appear to have been made on a straight- line basis.
- e. Observation by persons who have visited Lake Hartwell over more than 50 years suggests that the rate of development has not been constant but rather has significantly increased in the past 10-15 years.
- f. Interestingly, Lake Russell (which supplies water to the City of Elberton Georgia, and others) has “already lost 17% of its conservation storage” even though it was not created until 1983.
- g. Validation of personal observation can be made by performing full bathymetric studies again, commencing in 2028 (five years since commencement of the recent full bathymetric study of Lake Hartwell) and again five years later in 2033. With these additional points, USACE can identify the rate of change in the Lake Hartwell storage pool due to sedimentation and thus better project the loss over the next 10, 20, 30, etc. years. The data may also provide powerful evidence to support stricter riparian buffer requirements around the tributaries of Lake Hartwell and around Lake Hartwell itself. Because Lakes Russell and Thurmond also provide water supply, we recommend that bathymetric studies of them be done at the same time for the same reasons.