UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 6, 2008

Colonel Edward J. Kertis
District Engineer
U.S. Army Corps of Engineers - Savannah District
ATTN: Mr. Jason O'Kane
P.O. Box 889
Savannah, Georgia 31406

Subject: Newton County Board of Commissioners - Bear Creek Reservoir - 200003600

Dear Colonel Kertis:

This letter is in response to your request for comments on the above referenced joint public notice (JPN). The Newton County Board of Commissioners (applicant) proposes to impact 126,720 linear feet (lf) (approximately 24 miles) of Bear Creek and its associated perennial and intermittent tributaries, 136 acres of wetlands and 12 acres of open waters to construct a new 1,242-acre pump storage water supply reservoir. Bear Creek is a tributary of the Alcovy River, in southeastern Newton County, Georgia. The project also involves construction of a new water intake and a 6,000-foot force main from the Alcovy River to the reservoir. The reservoir is designed to produce a maximum 28 million gallons per day (MGD) yield for the County to help meet the total projected demand of 47 MGD for a projected 2050 population of 361,517.

The Environmental Protection Agency (EPA) has reviewed the JPN and additional information that accompanied the November 19, 2007, permit application. We appreciate the 30-day extension of the comment period your office granted to all commenting agencies. However, we submit that additional time is needed to fully evaluate this project which, according to information provided by your office, will have the largest extent of stream impacts of any water supply reservoir ever permitted by the Savannah District.

EPA's history with this project dates back to at least 1999. In response to a previous JPN, in a letter dated July 7, 2000, EPA provided detailed comments on the proposed reservoir. Since most of those comments are relevant to the currently proposed project, we have recently resent a copy of that letter to your office. Although the location and size of the current project is essentially the same as in 2000, the project as proposed in 2000, anticipated fewer impacts to aquatic resources (121 acres of wetlands and 73,000 lf of streams). On May 9, 2000, an EPA representative visited portions of the project site. While, unfortunately an EPA representative was not available for the February 6, 2008, site visit, we subsequently tried to arrange a site visit for another date but were unsuccessful. Additional time to evaluate the proposal would provide opportunities to revisit the reservoir site, verify the jurisdiction and to visit and evaluate the 29 proposed mitigation sites.

As noted in the applicant's November 2007 Section 404 Permit Application and Supporting Documentation, existing water quality in Bear Creek is "already quite good." Bear Creek is a third order tributary to the Alcovy River with gravelly sand and some boulder substrates. Numerous second and first order stream tributaries enter the proposed reservoir. East and West Bear Creeks generally consist of shallow, run-pool habitats with sandy silt substrates. The 136 acres of on-site wetlands that would be directly impacted include 80 acres of palustrine forested, broad-leaved deciduous wetlands; 50 acres of palustrine scrub-shrub, broad leaved deciduous wetlands; and 5 acres of palustrine, emergent, persistent wetlands. The 24 miles of stream and 136 acres of wetlands that comprise the aquatic resources complex on the site of the proposed reservoir provide significant functions that are important in the landscape and to the downstream resources of the Alcovy River. Impacts to these types of aquatic resources may reduce the aeration, infiltration and filtration capabilities at the discharge site and downstream, reduce overall stream habitat diversity, retard repopulation of the disposal site (inundation site) and its downstream waters through sedimentation and ultimately create unsuitable habitat. EPA considers these on-site aquatic resources to be resources of national importance (ARNI) and "special aquatic sites" which are defined as geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of the region.

Based on our review of the information provided and considering the scope of the project; the potential direct, secondary and cumulative impacts to the streams and wetlands on the project site and in the watershed, this project may have substantial and unacceptable impacts on aquatic resources of national importance. Additionally, given the significance of the potential impacts of the proposed project, it may be appropriate for you to prepare an Environmental Impact Statement (EIS) to address the project's impacts. In making the determination regarding the need to prepare an EIS, we recommend that you consider the extent to which the applicant has proposed any appropriate mitigation measures. More detailed comments and the rationale for this recommendation are provided below.

**Project Purpose**

The basic purpose of the project is to provide adequate water to meet the growing needs of the Newton County water supply service area. In the 2000 application, Newton County projected a population of 257,510 by 2045. In this application, Newton County predicts a population of 361,517 by 2050. The current application does not, in our opinion, clearly explain this large change and much higher population projection. To determine the water needs of the county and to develop various alternatives that meet the project purpose, the projected population growth for the service area needs to be demonstrated.

Another critical element of the water supply equation is the gallons per capita per day (gcpd) use rate. Currently Newton County has a gcpd rate of approximately 120. However the applicant used a gcpd of 130 (after conservation measures) to project future water requirements. This seems inconsistent with recent State of Georgia requirements to reduce water usage. It is also inconsistent with gpcd rates for other, urbanized Metro Atlanta counties which now have, and project into the future, lower gpcd rates.

One way Newton County may reduce its gcpd rate, and thus minimize project impacts, is better reuse of wastewater. It is our understanding that Newton County currently land applies treated wastewater. One of the proposed compensatory mitigation sites is at a land application facility. Other counties have utilized treated wastewater as a resource, providing or selling it for golf course and landscape use. This has proven effective at reducing their gpcd rates.

We find that the applicant has not provided information demonstrating the projected population or gpcd use rate and thus the total water supply needs for the year 2050. Based on this, the project purpose is not adequately supported and thus does not provide for an evaluation of a full suite of alternatives.

**Alternatives Analysis**

In order to comply with the Guidelines, the applicant must comprehensively evaluate a range of alternatives to ensure that the "preferred" alternative is the Least Environmentally Damaging Practicable Alternative (LEDPA). Identification of the LEDPA is achieved by performing an alternatives analysis that estimates the direct, indirect, and cumulative impacts to jurisdictional waters resulting from a set of on- and off-site project alternatives. Project alternatives that are not practicable and do not meet the project purpose are eliminated. The LEDPA is the remaining alternative with the fewest impacts to aquatic resources, so long as it does not have other significant adverse environmental consequences. Only when this analysis has been performed can the applicant or the permitting authority be assured that no discharge other than the practicable alternative with the least impact on the aquatic ecosystem has been selected.

We find that the applicant has not fully evaluated all alternatives to meet future water supply needs and, therefore, has not demonstrated that the proposal is the LEDPA. We recommend that additional alternatives be evaluated. For example, the recent drought has produced innovative responses and has made what once seemed to be impracticable alternatives now feasible, including groundwater withdrawal, expanding existing surface water options, and converting existing lakes for hydropower to water supply. In addition, this proposal should be assessed in the context of nearby proposed/permitted water supply actions and opportunities.

While the usability of groundwater has been dismissed, we note that other water suppliers are reopening formerly closed wells and pursing new wells as a supplement or backup to their surface water sources. While groundwater may not be able to meet the entire project purpose, it could reduce the need for surface water and thus make other, smaller surface water alternatives feasible. Thus, we recommend that the role of groundwater in the overall water supply plan should be considered and reassessed.

We also find that existing surface water options, other than a construction of a new water supply reservoir, have not been fully evaluated. Newton County has one large existing water supply reservoir, the Cornish Creek reservoir (Lake Varner), which was permitted in 1989. A number of other local water suppliers have raised the levels of their existing dams on their water supply reservoirs to increase the yield. This alternative has not yet been fully evaluated. In addition, while it is referred to in the application, we are unclear as to why the yield of Lake

Varner could not be increased with additional withdrawal from the Alcovy River, even at the reservoir's current pool level. An increased withdrawal at a higher pool would further increase the yield. We recommend that the alternatives analysis fully document the options for increasing the yield of Lake Varner to meet part or all of the future water supply needs.

Approximately 25 percent of the yield of Lake Varner is owned by Walton County. However, since that arrangement was made, Walton County has received a permit to construct a new, large reservoir on Hard Labor Creek. The Hard Labor Creek reservoir was promoted as a regional reservoir and permitted under those conditions. However, following permitting, many of the local partners dropped out. Walton County has now reached an agreement with Oconee County for some of the reservoir yield. It is possible that the Hard Labor Creek reservoir can supply all of Walton County's needs. Thus, Newton County may be able to purchase Walton County's portion of the Lake Varner yield. This will significantly reduce the need for, or size of, a new source. As such, we recommend that this opportunity also be evaluated further.

Additionally, the availability of water from Jackson Lake, has been dismissed as a viable opportunity, partially based on correspondence from the State of Georgia that it is 19 years old. We suggest that the circumstances may have changed and recent actions by the State seem to indicate that water supply may be a higher priority than hydropower generation. We believe there is little difference in a direct withdrawal of water from Jackson Lake, something the applicant says is not possible, and the proposed withdrawal from the Alcovy River less than 4 miles upstream of the lake, therefore, making it a viable alternative as well. As such, we recommend that the alternatives analysis fully evaluate the ability of Jackson Lake to meet all or part of the County's future water supply needs.

In addition, we understand that the applicant has raised concerns with some alternative reservoir sites given that these locations lie outside of Newton County. Recent reservoir permits show that this is not a limiting factor in the alternatives analysis and locations outside of the sponsoring county are practicable.

Finally, we have concerns about the comparative analysis of the impacts of the four new surface water reservoir alternatives. The comparison uses impacts of 121 acres of wetlands and 72,864 lf of streams for the Bear Creek alternative. These figures are approximately what were applied for in the 2000 permit request but are far lower than the current figures. The applicant has expressed their view that the figures are adequate for comparison purposes and that if the other alternatives were accurately assessed, it would show similar increases in their impacts. We disagree and recommend that a comparison, using more accurate impact data, be documented.

We find that it is essential to evaluate all alternatives using the most current and accurate data available. Absent verified wetland and stream delineations, it is not clear whether the current figures for the Bear Creek reservoir impacts are accurate. Furthermore, it has not been documented why the stream impacts have increased by 74 percent from the first application. Thus, all alternatives need to be assessed using current guidance and methods to adequately determine which is the least environmentally damaging practicable alternative that meets the project purpose.

## Impacts of Preferred Alternative

We are concerned that all of the direct, indirect and cumulative impacts of the preferred alternative have not yet been fully assessed. As noted above, it is not clear whether the impacts stated in the application are the true extent of the wetland and stream impacts. Likewise, other direct water quality and biological impacts of the proposed project within the footprint of the dam/reservoir have not yet been fully evaluated.

In addition, an assessment of the indirect impacts of the project has not yet been provided (though some of these could be classified as direct impacts). A reservoir has considerable impacts that extend upstream and downstream that need to be assessed and mitigated. The reservoir interrupts sediment transport and changes water chemistry, interrupts aquatic life movement, and reduces overall habitat diversity. A reservoir also changes the downstream flow. The applicant asserts that this project is "grandfathered" to allow 7Q10 level flow (or less depending on inflow). We expressed concern about this proposal in our 2000 comments, and reiterate it here. Allowing continuous 7Q10 flow can have significant water quality and biological impacts downstream. Thus we find this to be an outdated approach to managing this limited resource. Current circumstances, and the requirement that applies to many new reservoirs, are to follow the more protective instream flow guidelines that have been established in Georgia. These must be considered in the evaluation of project impacts.

The application provides little information on the Alcovy River intake other than its "general location." Since this intake and the 6,000 foot force main could have considerable impacts, we recommend that additional information be provided.

Finally, the cumulative impacts assessment looked only at flow impacts. Considering the scope of this project's impacts, a detailed assessment of all potential cumulative impacts of the project is needed.

## Compensatory Mitigation Plan

Compensatory mitigation is intended only for unavoidable impacts to waters after the LEDPA has been determined. While the project has not yet met the sequencing requirements of the Section 404(b)(1) Guidelines, we are providing preliminary comments on the proposed compensatory mitigation plan. Despite raising concerns in previous comments on reservoir permits, a method to assess the adequacy of mitigation plans for large projects has not been developed or agreed upon. The interim proposal of using the Savannah District Standard Operating Procedure (SOP) without any scaling factors as a screening tool has made limited progress and includes proposed divergences from the SOP. Nevertheless, we submit that by nearly any evaluation method, the mitigation plan for this project is inadequate and will result in a significant net loss of stream and wetland functions.

The applicant asserts that the plan provides of 642.5 acres of wetland and 168,470 lf of stream mitigation actions. Of this, 82 percent of the stream mitigation is in the form of riparian zone preservation and 85 percent of the wetland mitigation is either preservation or some undocumented level of wetland enhancement. Two of the mitigation areas are adjacent to the proposed reservoir. The plan is highly conceptual with little technical detail. The lack of

information on both the project impacts and the proposed mitigation actions makes it difficult to determine the plan's adequacy using the SOP screening approach.

As noted above, most of the plan consists of wetland and stream preservation at 10 to possibly 29 sites scattered around Newton County. Many of the stand alone preservation areas, such as those in the land application area or in the middle of subdivisions, do not meet the fundamental stand alone preservation criterion set forth in the U.S. Army Corps of Engineers' (Corps) Regulatory Guidance letter (RGL) 02-2, the Mitigation Action Plan Guidance or the draft Mitigation Rule. While some sites may have merit, there is no baseline data on any of the proposed sites on which to perform even a cursory assessment. We also note that some sites already have a high degree of protection as they are in regional parks.

An additional concern with the mitigation plan is the proposal to include riparian preservation areas located in 19 "conservation subdivisions." While the 46,134 lf of streams in this portion of the plan account for 27 percent of the total stream mitigation linear feet, the mitigation plan provides little information on this proposal and does not give the location of any of the conservation subdivisions.

In order to assess the likelihood of success of the proposed mitigation plan, EPA requested a copy of the permit and mitigation plan for Lake Varner and any compliance information. We believe the mitigation plan for Lake Varner can be used as an indication of the potential for success for the proposed Bear Creek reservoir mitigation plan. As of this writing we have not received this information. We believe this further underscores the need for additional time to evaluate this proposed permit and the mitigation plan.

As noted above, this project, as proposed, may have substantial wetland impacts and will have the largest level of stream impacts of any water supply reservoir proposed for a permit by the Savannah District. The decision reached on this proposal is apt to have significant bearing on other projects in the area and proposes greatly increased water usage at a time when there is a critical water shortage and efforts are underway to reduce water usage. Thus we recommend that, consistent with the evaluation conducted on projects of similar or lesser magnitude of impacts in other Corps Districts, your office consider preparing an environmental impact statement.

In conclusion, the proposed project purpose has not been fully supported, the alternatives assessment has not included a number of practicable alternatives, the applicant's alternatives were assessed using inaccurate data, and all of the direct, indirect and cumulative impacts of the preferred alternative were not assessed. Furthermore, the mitigation plan is fragmented, lacks detail, lacks baseline data, and consists primarily of wetland and stream preservation that is likely to result in a net loss of wetland and stream functions. EPA finds that this project, as currently proposed, may not meet the requirements of the Section 404(b)(1) Guidelines and may have substantial and unacceptable impacts on ARNI. Therefore, EPA recommends denial of the project, as currently proposed. This letter follows the field level procedures outlined in the August 1992, Memorandum of Agreement between the EPA and the Department of the Army, Part IV, paragraph 3(a) regarding Section 404(q) of the CWA. We look forward to working collaboratively with the applicant and the Corps to reduce project impacts to a permittable level.

Thank you for the extension of the comment period and for considering these comments in your permit issuance process. Please contact Robert Lord at 404-562-9408 or at lord.bob@epa.gov with any questions.

Sincerely,

James D. Giattina
Director
Water Management Division

cc: See Enclosed List

**CC List: Newton County Board of Commissioners - Bear Creek Reservoir - 200003600**

Mr. Jason O'Kane
U.S. Army Corps of Engineers
P.O. Box 889
Savannah, Georgia 31402

Ms. Deborah Harris
U.S. Fish and Wildlife Service
105 Westpark Drive
West Park Center, Suite D
Athens, Georgia 30606

Ms. Kay Davy
National Marine Fisheries Service
Habitat Conservation Division
219 Fort Johnson Road
Charleston, SC 29412-9110

Mr. Aaron Varner, Chairman
Newton County Board of Commissioners
1124 Clark Street
Covington, Georgia 30014

Mr. Wm. Thomas Craig
1144 College Avenue
P.O. Box 1587
Covington, Georgia 30015

Mr. Keith Parsons
Georgia Department of Natural Resources
Water Protection Branch
4220 International Parkway, Suite 101
Atlanta, Georgia 30354

Mr. Chris Canalos
Georgia Department of Natural Resources
Wildlife Resources Division
2065 U.S. Hwy. 278, S.E.
Social Circle, Georgia 30025