

**FINAL ENVIRONMENTAL ASSESSMENT  
STATEMENT OF FINDINGS  
AND  
FINDINGS OF NO SIGNIFICANT IMPACT**

**File No. 970011470  
Canebrake Club – Golf Course Community Development**

**PROPOSED DISCHARGE OF FILL MATERIAL  
IN TWO UNNAMED TRIBUTARIES OF PINEY CREEK  
AND ADJACENT WETLANDS  
TO EXPAND EXISTING RESIDENTIAL SUBDIVISION  
IN ATHENS, ALABAMA**

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## **1.0 Proposed Activity**

**1.1 Background.** On 13 November 2006, our office received an application from Canebrake Club for an individual Department of the Army (DA) permit. The application requested authorization under Section 404 of the Clean Water Act (CWA) for proposed filling of 5 separate wetlands totaling 8.67 acres and impacts to two streams including relocation and culverting resulting in the permanent loss of 1,914 linear feet of open water. The 1,914 linear feet of stream loss was incorrectly calculated and was revised after publication of the public notice. The correct total stream loss is 1289 linear feet; 897 linear feet is perennial stream loss and 392 is ephemeral stream loss. The two streams and adjacent wetlands are tributaries of Piney Creek, a tributary to the Tennessee River Mile 310.7R. The proposed impacts would allow the development of additional building lots and streets. The current proposal is an expansion to the existing golf course/residential development that began in 1997. Nationwide Permits have been issued for previous activities at the development.

**1.2 Project Purpose.** As part of the analysis to evaluate practicable alternatives, the project purpose was defined based on two principles: basic project purpose and overall project purpose. Section 404(b)(1) Guidelines make a distinction between basic and overall project purpose (40 CFR 230.10(a)). For this project, the basic project purpose is defined as the development of additional building lots and streets to serve them. This basic project purpose is a fundamental, essential, and discernable purpose of the proposed project that is used in this analysis to determine if the applicant's project is water dependent. The basic project purpose does not consider viability, need, or level of impacts. The overall project purpose serves as the basis for this alternative analysis. The overall project purpose is to provide residential housing for the Athens, AL community.

**1.3 Proposed Mitigation.** All mitigation will be performed at the project site. Mitigation for wetland loss will include wetland creation of 25.33 acres and preservation of an additional 11.23 acres. The wetland creation success is expected to be high due to known groundwater in the creation areas. The permanent loss of ephemeral stream is not required. The impacts to the perennial stream will be mitigated by creating a 20' wide buffer along the relocated portion, including planting a single row of native hardwood trees along the top of each bank. Log drop structures will be constructed every 500' and boulder clusters placed every 200' in the relocated portion of the perennial stream. To further mitigate the permanent loss of perennial stream, a 350' segment of the Piney Creek by-pass channel on the property will be enhanced. The enhancement involves planting two alternating rows of shrubs and low growing trees on 15-foot centers on both banks of the channel. Also, 425 linear feet of two eroded banks of the Piney Creek by-pass channel will be stabilized with the placement of riprap. Also, Canebrake will establish a formal 50' riparian conservation buffer along 3,705 linear feet of the by pass channel and 5,500' of the right descending bank of Piney Creek channel on Canebrake's property. Both Piney Creek and the by-pass channel are likely habitat for two species of federally endangered aquatic snails. Therefore, protection and enhancement of these stream reaches should benefit these species. More details on the snails are given in the Endangered and Threatened Species section of this report.

**1.4 Decision Required.** Section 301 of the CWA prohibits the discharge of dredged or fill material into waters of the U.S. unless authorized by the DA pursuant to Section 404 of the same Act. The two unnamed tributaries of Piney Creek and their adjacent wetlands proposed to be impacted are waters of the U.S. as defined by 33 CFR 328. A DA permit under Section 404 is required for the work; therefore, the U.S. Army Corps of Engineers must decide on one of the following:

- issuance of a permit for the proposal
- issuance of a permit with modifications or conditions; or
- denial of the permit.

**1.5 Other Approvals Required.** Other federal, state and local approvals would be required for this proposal. Water quality certification from the Alabama Department of Environmental Management (ADEM) is necessary in accordance with Section 401(a)(1) of the Clean Water Act (CWA). Approval pursuant to Section 26a of the Tennessee Valley Authority (TVA) must also be obtained.

**1.6 Scope of Analysis.** The Corps determines its action area under 33 CFR 325 Appendix B and C. Normally the action area includes all waters of the U.S., as well as any additional area of non-waters where the Corps concludes there is adequate federal control and responsibility. The action area would include the upland areas in the immediate vicinity of the waters of the U.S. where the regulated activity occurs.

Appendix B, National Environmental Policy Act (NEPA) Implementation Procedures for the Regulatory Program, states that typical factors to be considered in determining whether sufficient "control and responsibility" exists include: 1) whether or not the regulated activity comprises "merely a link" in a corridor type project, 2) whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity, 3) the extent to which the entire project will be within Corps jurisdiction, and 4) the extent of cumulative Federal control and responsibility.

Appendix C, Procedures for the Protection of Historic Properties, sets forth three tests, and requires that all must be met, for activities outside of waters of the U.S. to be included within the permit area and thus considered under the Corps scope of analysis. These are: 1) the activity would not occur but for the authorization of the work or structures within the waters of the U.S.; 2) the activity must be integrally related to the work or structures to be authorized within waters of the U.S., or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program; and 3) the activity must be directly associated (first order impact) with the work or structures to be authorized.

The expansion of the residential subdivision requiring Section 404 approval is an example where the specific activity requiring a permit (wetland fill, stream relocation and culverting for the development of building lots and streets) is a component of a larger project. The golf course, numerous houses, and streets already exist in the development. The proposed fill in the streams and wetlands is only a portion of the proposed expansion of building lots and streets. Several of the proposed building lots and streets could be constructed without a DA permit. For this reason and based upon criteria set forth in Appendices B and C of the Corps' regulations, we have

determined that the permit area for this DA permit application should include the five wetlands proposed to be filled, the two tributaries of Piney Creek proposed for relocation and culverting, and the mitigation sites proposed to offset the water resource losses. The mitigation sites include 4 created wetlands, 1 preserved wetland, the new stream channels resulting from the relocation and both Piney Creek and the Piney Creek by pass channel on Canebrake property as well as the proposed buffers along these streams.

**1.7 Site Inspections.** Several site inspections have been made at the Canebrake Development over the years by USACE employees beginning with a jurisdictional determination (JD) in June 1997.

Another JD site inspection was conducted by Mark Carnes of the district office and Eric Sinclair of the Western Regulatory Field Office in association with the preparation for the current Department of the Army (DA) permit application. This inspection was made with consultant, Joe Cathey, on June 8, 2006. The inspection verified the submitted waters of the U.S. report.

On December 11, 2006, Eric Sinclair conducted a site inspection to assist the processing of the current DA permit application. Joe Cathey and Bruce Cole of Great Southern Engineering were present for the inspection. I determined stream S-6 to be perennial and stream S-8 to be ephemeral due to it having no flow on this visit even with a recent rain. We also inspected the wetlands proposed for filling and the proposed wetland mitigation sites. We discussed developing a tree planting plan for the wetland mitigation sites.

In response to multiple concerns regarding the proposed stream and wetland impacts, a January 16, 2007, site meeting was held with several concerned parties. The meeting included Eric Sinclair, Joe Cathey, Bruce Cole as well as Randy McCann and Heather McGee of TVA and Rob Hurt of USFWS, Wheeler office. We inspected the proposed stream relocations, the largest proposed wetland fill, the proposed wetland mitigation sites and the by-pass channel of Piney Creek. The main topics discussed were TVA's jurisdiction, endangered species issues, wetland creation, stream mitigation, impact avoidance, cultural resources and floodplain issues.

## **2.0 Public Involvement Process**

**2.1 Public Notice.** On 20 November 2006, the Corps issued Joint Public Notice (PN) 06-131 to advertise the proposed work (Appendix A). The PN was distributed to a wide list of interested parties that included federal, state, and local agencies, elected officials, private and public organizations, news agencies, individuals, and adjacent property owners.

**2.2 Public Notice Comments.** The U.S. Fish and Wildlife Service (USFWS), Alabama Department of Conservation and Natural Resources (ADCNR), Alabama Historical Commission (AHC), and 25 individuals from the general public submitted comments.

Copies of the comments are included in Appendix B. The comments have been summarized below. Where appropriate, a response follows the comment. All responses to the PN are included in Appendix C. A summary of the responses is as follows:

**USFWS** - The USFWS responded to the public notice with three letters dated 20 and 21 December 2006 and 20 September 2007.

The 20 December letter states “there are no known sites of T&E species or critical habitat in the proposed project site. However, two federally endangered aquatic snail species, the armored marstonia *Pyrgulopsis pachyta* and slender campeloma *Campeloma decampi*, are located in Piney Creek, within 1.5 miles downstream of the proposed action.” The letter goes on to say the relocation of the two tributaries of Piney Creek could potentially have negative impacts to aquatic habitat and water quality conditions in Piney Creek. Their conclusion is “through appropriate use and application of best management practices (BMPs), these impacts would likely be negligible and result in no adverse impacts on the two snail species. The letter also says “we believe that requirements of Section 7 of the Endangered Species Act(ESA) of 1973, as amended, are fulfilled. They further stated that no significant adverse impacts to fish and wildlife or their habitats are expected to result from the proposed work.

The 20 December letter discussed several concerns with the proposed permit actions and recommendations to mitigate them. The letter states “We recommend that the wetlands and stream mitigation plans be enhanced and encourage the Corps to negotiate for more wetland and stream mitigation prior to the issuance of this permit.” They recommend a ratio of 3:1 for wetland mitigation instead of the applicant’s proposed 2:1, a conservation easement or restrictive covenant be placed on the mitigation sites in perpetuity, requiring additional stream mitigation including in-stream habitat structures and that BMPs be properly implemented onsite.

The 21 December letter requests “the Corps hold this project in abeyance until we can confirm and/or determine the extent of the proposed project’s impact on these endangered species.” The request was made due to new endangered species survey information made known to USFWS shortly after sending the 20 December letter. The survey did not include the applicant’s property but close enough downstream to be a concern for USFWS. They also requested an on-site meeting “to observe current site conditions and discuss how the proposed development project would alter site conditions.”

The 20 September letter was written in response to the applicant’s revised stream mitigation plan, submitted to the USFWS on 5 September 2007. In the USFWS letter, they “believe that the applicant has provided adequate information on their proposed onsite compensatory stream and wetlands mitigation” and “that the requirements under Section 7 of the Endangered Species Act (ESA) of 1973, as amended, are fulfilled.” The USFWS letter also offered recommendations and comments for the COE to consider and include as permit conditions to avoid impacts to T&E species, other fish and wildlife resources, and their habitats. (Appendix G)

Response: An on-site meeting was held with USFWS on 16 January 2007, as mentioned in section 1.7. USFWS’s concerns with the stream relocations’ impacts to Piney Creek were resolved due to the streams flowing into an existing pond before discharging into Piney Creek. The wetland and stream mitigation plan has been revised since the on-site meeting, responding to USFWS’s requests and recommendations listed above. Regular discussions occurred with USFWS during revision of the mitigation plan including supplying them a copy of the final plan.

**ADCNR** - ADCNR responded to the PN by letter dated 19 December 2006. ADCNR listed four recommendations/requirements. ADCNR stated “If the proposed project will impact habitat types known to support protected species, the applicant should have a professional survey completed to determine if such species currently inhabit the project site.” They recommend a 3:1 ratio for wetland creation mitigation instead of the applicant’s proposed 2:1. They requested in-stream components be added to the stream relocation channels and state water quality standards be strictly adhered to. They also requested the opportunity to review and comment on any revisions to the proposed mitigation plan. Additionally, they referenced a protected species record of the Slackwater Darter occurring approximately 3.2 miles from the subject site.

Response: The project will not impact habitat types known to support protected species as determined by USFWS. The wetland mitigation ratio was increased to 3:1 and in-stream structures have been added to the stream mitigation plan. ADEM water quality standards will be added to the permit conditions when issued. The Slackwater Darter was determined by USFWS to not be present on this project as per discussions with Rob Hurt. A copy of the revised mitigation plan was sent to ADCNR

**AHC** - AHC responded to the public notice by letter dated 4 January 2007, stating “upon review of the above referenced project, we have determined that the project activities will have **no effect** on any know cultural resources listed on or eligible for the National Register of Historic Places. Therefore, we can concur with the proposed project activities.” On 27 December 2006, Ms. Amanda Hill of AHC forwarded me an electronic copy of the original archaeological report conducted by Office of Archaeological Research, University of Alabama in 1997. (Appendix D)

Response: Comments added to file

**General Public** – There were letters and emails sent from 25 individuals, 10 of which were “form” letters saying virtually the same things. Most of the letters stated opposition to the proposed project and two requested public hearings. Most of the letters seem to have been in response to a letter to the editor sent by Ms. Doris Gabel Welch to the Athens, AL, newspaper, The News Courier. Unfortunately, Ms. Welch’s letter contained errors in describing the proposed work. Her letter stated Canebrake wished “to fill in 8.67 acres of wetlands and 4,500 linear feet of Piney Creek.” She also states the work would “include 17 acres of wetlands”, mentions the “Indian mound on Piney Creek” and two endangered snail species. The form letters basically restated information contained in Ms. Welch’s incorrect letter. The “non-form” letters list several concerns including filling parts of Piney Creek, damage to habitat for Endangered Species via silt-load increase into Piney Creek, a Native American earth mound and flooding. The Robinsong Ecological Resources, Inc., letter emphasized wetland restoration as preferable to creation. The letter also had questions about the soil type in the creation sites versus in the wetlands to be filled and questions about wetland hydrology and monitoring. Regarding the stream mitigation, they felt the stream length should be replaced, in-stream structures should be included and the proposed riparian zone was too thin.

Response: Comments added to file. The applicant’s response below addresses these concerns.

**2.3 Applicant's Response/Rebuttal.** The responses to the PN were sent to the applicant on 26 December 2006, for resolution or rebuttal. In response to USFWS's and ADCNR's letters, Mr. Joe Cathey of Great Southern Engineering (GSE) agreed to change the wetland creation credit to a 3:1 ratio. GSE also agreed to construct log drop structures and boulder clusters in stream S-6. GSE describes the nature of the two streams proposed for relocation and determines they do not contain slackwater darter habitat. GSE states these streams are also not suitable habitat for the endangered snail species and the ponds the streams flow into will buffer any potential effects working on them will have on Piney Creek. GSE explains how the general public comments were based on false information obtained in the letter to the editor published in The News Courier. Robinsong's concerns are also addressed in GSE's letter as shown in (Appendix C).

**3.0 Environmental and Public Interest Factor Considered.** In accordance with 33 CFR 320.4 (a), the decision whether to issue a permit is based on an evaluation of the probable impacts including cumulative impacts of the proposed activity and its intended use on the public interest. All factors that may be relevant to the proposal must be considered. The following sections provide a concise description of these factors and the effect this project would have on them.

**3.1 Introduction.** In my evaluation of the environmental effects of the work proposed in this permit application, the following items have been considered:

- information provided in the applicant's permit application.
- Comments received in response to the Public Notice.
- information gathered during site inspections
- endangered snail survey results
- applicant's responses to comments
- AHC's and USFWS's approval of addressed concerns
- mitigation proposed to offset wetland and stream impacts.
- ADEM's issuance of Section 401 WQC.

**3.2 Physical/Chemical Characteristics and Anticipated Changes.**

**Substrate.** Substrate in streams S-6 and S-8 proposed for relocation is a mixture of clay, silt and gravel. Fill dirt will be used to fill them to facilitate the housing development. The new stream segments will contain substrate similar to the original due to similar terrain and soils. The exception would be at the culvert locations. Substrate at the Piney Creek by-pass channel is mostly gravel, underlain with bedrock. This should remain the same except where riprap will be at the toe of the stream bank slope to stabilize the banks. The riprap should reduce future stream bank erosion and thereby reduce sedimentation which will improve substrate conditions by reducing imbedded voids. The wetlands proposed for fill will be covered as the filled streams, with fill dirt. The open water ponds proposed for conversion to wetland creation currently have soil and gravel substrates. The wetland creation work will use soil found on adjacent land to raise the bottom elevation to create shallow water and thereby facilitate wetland plant growth. This soil should eventually become hydric due to the reduction process caused by regular saturation.

**Currents, Circulation or Drainage Patterns.** The current path of the two streams proposed for relocation will change. Even though stream S-6 will be shortened, it should remain stable due to the flat terrain. Both streams originate on Canebrake Club property, combine and then flow into an existing pond on the property. Therefore, no effects downstream of the pond are expected.

**Suspended Particulates; Turbidity.** During construction, there would be a short-term increase of suspended particulates and turbidity, mostly during large rain events that BMPs may not control. However, the DA permit will require BMPs be utilized during construction and maintained until the site is permanently stabilized. The new channel for stream S-6 relocation already exists and is vegetated with grass. The vegetation in the new channel would reduce erosion when the stream is re-directed. Stream S-8 is ephemeral and only has flow during and immediately following rain events. As stated above, both streams flow into an existing pond that should serve as an effective sediment pond should BMPs fail. The riprap bank stabilization would be installed on the Piney Creek by-pass channel during low flow conditions causing limited turbidity and providing long term turbidity reduction due to stable stream banks.

**Water Quality.** As mentioned above there will be a short-term decrease in water quality during construction. Water quality long term should improve due to mitigation activities, including an increase in wetlands on the property, the stabilization of eroded stream banks, planting of woody vegetation along the relocated streams and the Piney Creek by-pass channel. ADEM issued a 401 water quality certification for the permitted activities on July 10, 2007. (Appendix F)

**Flood Control Functions.** The proposed project involves the placement of fill within the 100-year floodplain for the construction of houses. Therefore the project is subject to the requirements of Executive Order 11988. Based on information provided by the developer, Canebrake Club purchased the property with the intention of expanding an existing residential subdivision. The entire development area is located within the Piney Creek 100-year floodplain. The proposed development will be undertaken on private land. No request has been made for the use of any TVA land or land rights. TVA's only action is the issuance of a Section 26a permit for the placement of fill within the 100-year floodplain of Piney Creek. Accordingly, TVA has very limited control on the selection of alternative sites for locating such a development. Discussions with the developer have confirmed that the current land is the only one available to the developer for undertaking a development of this kind in the area, especially considering the fact that this is an expansion of an existing development. TVA also considered the prospect of having the developer limit the footprint of the development such that the placement of fill in the 100-year floodplain could be avoided. However, this prospect proved impracticable because the entire area is in the floodplain. USACE and TVA therefore concludes that there is no practicable alternative to locating the development in the floodplain.

In order to minimize adverse floodplain impacts, the lowest floor of the habitable structures in the 100-year floodplain would be elevated to at least 1 foot above the 100-year flood elevation. This is consistent with local floodplain regulations. In addition, the developer provided the necessary analysis to the local floodplain officials and Federal Emergency Management Agency (FEMA) to support a Letter of Map Revision for fill in the floodplain (LOMR-F). The LOMR-F is necessary because of potential increases in flood elevations resulting from the fill. Limestone County, Alabama participates in the National Flood Insurance Program (NFIP). Consistent with TVA conditions to minimize floodplain impacts, this residential development would be

consistent with local floodplain regulations as documented by the December 20, 2006 FEMA Community Acknowledgment Form signed by James Rich, City of Athens Public Works Director. Anticipated impacts on local flooding and floodplain values would be insignificant. All future development would also be required to comply with local floodplain regulations, so USACE and TVA do not anticipate adverse cumulative effects on floodplains in the area.

**Erosion and Accretion Patterns.** There will be localized changes in erosion at the bank stabilization mitigation site.

### **3.3 Biological Characteristics and Anticipated Changes.**

**Habitat for Fish and Other Aquatic Organisms.** The project would have both positive and negative effects to aquatic habitat. The filling of existing wetlands and stream segments will cause an immediate loss of habitat. Some existing open water/pond habitat on the property will be lost by converting them to wetland mitigation sites. However, the created wetlands will provide a net increase of wetland aquatic habitat on the property. The relocated streams will have natural substrates similar to what is lost and stream S-6 will have log drop structures and boulder clusters constructed in them, creating larger pools than exist in the current channel. The Piney Creek by-pass mitigation should improve habitat by stabilizing two eroded banks and by establishing woody vegetation along the banks where only herbaceous currently exists. The woody vegetation should provide shading, structure and detrital matter near the waters edge. This may provide habitat for the two endangered aquatic snails found nearby in Piney Creek. Riparian buffers along Piney Creek, the by-pass channel, the relocated portion of stream S-6 and the wetland mitigation sites will have restrictive covenants placed on them to prevent future impacts and thereby provide protection to the aquatic habitats.

**Endangered or Threatened Species.** Two federally endangered aquatic snail species, the armored marstonia *Pyrgulopsis pachyta* and slender campeloma *Campeloma decampi*, are known to occur in Piney Creek, approximately 1.5 miles downstream of Canebrake Club property. Rob Hurt of USFWS in a letter dated 21 December 2006, requested “the Corps hold this project in abeyance until we can confirm and/or determine the extent of the proposed project’s impact on these endangered species.” Since that time, coordination with Rob Hurt has occurred on a regular basis, including the January 16, 2007, on-site meeting. During this on-site meeting, Mr. Hurt concluded the project should not affect these species due to the lack of work in Piney Creek and the by-pass channel and that the proposed stream relocations flow through a pond before discharging into Piney Creek. During the January 16, 2007, on-site meeting all parties agreed that stabilizing a segment of eroding bank on the Piney Creek by-pass channel could serve as additional mitigation for the stream impacts resulting from the applicant’s development. However, there were concerns this stabilization work may affect the two listed snail species. On February 16, 2007, Jeff Garner of USFWS conducted a survey to determine the presence/absence of these species at the upstream portion of the Piney Creek by-pass channel. This was done to determine if the applicant’s proposed bank stabilization activities at this location would result in a “take” of the endangered snails. Mr. Garner did not find the species in this reach of stream and determined there should be no take for this work. Based upon the information from our review and the coordination with USFWS, we have determined the proposal would have no adverse impacts to these species.

**Wetlands.** Fifteen jurisdictional wetlands totaling 21.05 acres were identified on or adjacent to the Canebrake Golf Course. Two additional wetlands were identified that did not meet jurisdictional criteria (W-5 and W-8). A summary of these wetlands is presented in Table XX.

Wetland ID	Size (acres)	Wetland Type	Dominant Vegetation
W-1	~1.0	emergent	soft Rush
W-2	0.03	emergent	soft rush
W-3	0.60	emergent/scrub shrub	woolgrass, cattail, black willow
W-4	1.25	emergent/scrub shrub	soft rush, black willow, cottonwood
W-5	NA - nonjurisdictional		
W-6	0.60	emergent/scrub-shrub	woolgrass, black willow
W-7	0.10	emergent	soft rush, butterweed
W-8	NA- nonjurisdictional		
W-9	0.23	emergent/scrub shrub	soft rush, sweetgum
W-10	0.26	emergent/scrub-shrub	woolgrass, soft rush, sweetgum, soft rush, broomsedge
W-11	7.0	emergent/scrub-shrub	green ash, woolgrass, soft rush, alders, red maple, sweetgum
W-12	0.50	emergent/scrub-shrub	soft rush, green ash, willow oak
W-13	6.38	emergent/scrub-shrub	river birch, parrot feather, cottonwood, boxelder, soft rush
W-14	0.50	emergent	soft rush
W-15	0.20	emergent/scrub-shrub	black willow, woolgrass, soft rush, sweetgum
W-16	1.80	emergent/scrub-shrub	black willow, boxelder, sweetgum, soft rush
W-17	0.60	emergent	soft rush
TOTAL	21.05		

In the early stages of developing the Canebrake Club, the development's designers were urged to avoid and minimize impacts to wetlands. As a result, wetland impacts were minimized to the extent practicable and 8.67 acres of jurisdictional wetlands are proposed for filling. This includes W-4, W-10, W-11, W-15, and W-16.

As discussed in Section 1.3 (Proposed Mitigation), mitigation for wetland loss would include wetland creation of 25.33 acres and preservation of an additional 11.23 acres. This mitigation is sufficient to offset the immediate loss of wetland habitat and other wetland functions provided by these wetlands.

### **3.4 Human Use Characteristics and Anticipated Impacts.**

**Existing and Potential Water Supplies; Water Conservation.** We do not have knowledge of any municipal water supply intakes or private wells in the vicinity of the work that would be affected by the project. The golf course does pump from Piney Creek to maintain water levels of Anderson Pond which is then used to irrigate the golf course. The proposed work should have no effects to this practice.

**Water Related Recreation.** The small streams, ponds and wetlands on the property may be used for recreation by the residents of the subdivision and golfers who play there. Their recreation would be limited mostly to scenic values, however some children could play in the streams and possibly fish in the ponds. Piney Creek and the by-pass channel may be used for canoeing and fishing by the general public. However, the proposed project should not prohibit these uses and potential negative effects would be minimal.

**Aesthetics.** NEPA Section 101(b) requires that measures be taken to insure that aesthetically pleasing surroundings be retained for all Americans. The proposed work is located in an existing residential golf course community. The existing geography and vegetation at the project would prevent the operation from being readily visible to the local community. The effects on the aesthetics of surrounding area would be minimal.

**Traffic/Transportation Patterns.** The proposed action would temporarily increase traffic slightly during construction activities by a few vehicles daily but these should have minimal effect. Long-term traffic should increase in proportion with the increase in houses, however the effects should be minimal due to good streets within the development.

**Energy Consumption or Generation.** The project would not result in a substantial increase or decrease in energy consumption nor generation of energy.

**Safety.** The activity is not anticipated to affect public safety.

**Air Quality.** Air quality would change only slightly due to the operation of mechanized equipment such as dump trucks and back hoes that might generate some level of dust and exhaust. Equipment utilized to perform the proposed work and mitigation would only result in minimal direct emissions. These impacts would be limited to the construction period.

**Noise.** Machinery utilized for the construction activities would result in a slight unavoidable increase in ambient noise levels. The transmission absorption effect of topography and natural vegetation would lessen this impact. The proposed project will not conflict with any applicable noise restrictions imposed by regulatory agencies.

**Historic Properties.** Amanda Hill of AHC provided the Corps a copy of the 1997 archaeological survey that determined no sites on the property are eligible for the National Register. The January 4, 2007 letter from AHC states “the project activities will have no effect on any known cultural resources listed on or eligible for the National Register of Historic Places. Therefore, we can concur with the proposed project activities.”

Pursuant to 36 CFR 800.8, TVA consulted with 18 federally recognized tribes including the Absentee Shawnee Tribe of Oklahoma, Alabama Coushatta Tribe of Texas, Alabama-Quassarte Tribal Town, Cherokee Nation of Oklahoma, Chickasaw Nation, Choctaw Nation of Oklahoma, Eastern Band of Cherokee Indians, Eastern Shawnee Tribe of Oklahoma, Kialegee Tribal Town, Jena Band of Choctaw Indians, Muscogee (Creek) Nation of Oklahoma, Seminole Tribe of Florida, Seminole Nation of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Thlopthlocco Tribal Town, and the United Keetoowah Band of Cherokee Indians in Oklahoma for the Canebreak Club Environmental Assessment. In the consultation letter dated May 2, 2007, TVA defined the area of potential effect, presented the findings and recommendations of the 1997 archaeological survey report (Appendix D), and sought comments regarding historic properties that may possess religious and cultural significance to them. TVA received comments from the Choctaw Nation of Oklahoma and the United Keetowah Band of Cherokee Indians in Oklahoma stating that they have no objection to the project proceeding.

**Land Use Classification.** The project site is residential and recreational and will continue to be. Restrictive covenants will be placed on the wetland mitigation sites and the stream riparian buffer mitigation sites, preventing future development in these areas.

**Economics.** The jobs supplied by this project would be beneficial to the local, state, and national economy.

**Consideration of Private Property.** Corps regulations at 33 CFR 320.4(g) state that authorization of work by the DA does not convey any property rights, either in real estate or material of any exclusive privileges. Furthermore, a DA permit does not authorize any injury to property or invasion of right or any infringement of federal, state, or local laws or regulation. We are satisfied that private property rights have been adequately considered and are not an issue. Property proposed to be impacted by the project is owned by the applicant.

**3.5 Cumulative and Secondary Impacts.** Cumulative effects are broadly defined by the Council on Environmental Quality (CEQ) guidelines for implementing NEPA as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). An additional component of cumulative effect, are the underlying adverse effects that may compound one another, creating net negative effects of a different and potentially more intense nature referred to as synergism. Cumulative effects

within or among watersheds can cause unacceptable changes to downstream aquatic, terrestrial, and human resources.

It is also necessary to consider the secondary effects of activities associated with the construction of a proposed project. Secondary effects are actions which, in this case, are conducted in support of establishing or operating a facility, and are defined by CEQ as those that are “caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable” (40 CFR 1508.80).

The current proposal is an expansion of housing within the existing golf course residential development, a part of the initial master plan for the development. The applicant owns additional acreage adjacent to this property that may be used in the future for additional housing if the current proposal is successful and the need for additional housing exists. Some future actions that may result from the reasonably foreseeable future includes:

- Growth in population and residential development
- Growth in commercial and industrial development
- Increase in city services, such as police, fire and garbage services
- Expansion in the needs of schools and teachers
- Increase in sewerage system needs
- Increased traffic generated from increased development due to the action
- Maintenance and/or improvement to area roads
- Possible rise in property taxes
- Change of existing land use patterns in the area
- Future utility line infrastructure to gain access to individual homes
- Implementation of various programs to deal with non-point sources of water pollution caused by the construction and continued application of environmental requirements such as those under NPDES and/or NEPA.

Future associated work that may be proposed in the vicinity of the site can be identified as cumulative or secondary impacts; however, determining the magnitude and significance of cumulative effects; modifying to avoid, minimize or mitigate significant cumulative effects, and planning for monitoring and adaptive management would have to be addressed on a case-by-case basis. Overall, while there would be permanent impacts on the tract; given the relatively small area of impact, the proposal is not anticipated to have a substantial cumulative or secondary effect upon the existing environment and the sustainability of important resources would not be adversely affected.

## **4.0 ALTERNATIVES**

**4.1 Introduction.** This section discusses alternatives as required by 33 CFR 320.4(a)(2) and 40 CFR 230.10. The alternatives that were given consideration are listed in the following section. Under Section 404(b)(1) Guidelines, the applicant's proposed design was determined to be the least environmentally damaging reasonable and practicable alternative and is being chosen. All practicable alternatives that are available and capable of being completed after taking into consideration cost, existing technology, environmental consequences, and logistics in

light of overall project purposes have been examined in accordance with 40 CFR 230.3(q).

**4.2 No Action Alternative.** The No Action Alternative would result from a permit denial or withdrawal. This option would result in no direct impact to the aquatic resources as a result of the proposed residential development work but also would significantly reduce the number of additional homes built at Canebrake. Stream and wetland mitigation measures may not take place that would increase the acreage of wetlands on the property, enhance a degraded reach of the Piney Creek by-pass channel and protect the wetland and stream mitigation areas and riparian areas along Piney Creek and the by-pass channel by adding restrictive covenants to protect these areas. This alternative is not considered a viable alternative because it does not meet the applicant's need or the need to provide additional housing in the Athens, AL, area.

**4.3 Location Alternative.** This is an existing development owned by the applicant. Moving the development to another property would be unreasonable and would require the construction of another golf course in order to have a comparable development.

**4.4 Reconfiguration Alternative.** Reconfiguring the proposal is limited due to existing layout of the golf course, roadways and houses. In order to reconfigure the proposal, the number of building lots would have to be reduced. This would negatively affect the applicant's and public's need.

**4.5 Proposed action.** The applicant's proposal would permanently impact the two stream channels proposed for relocation and piping and five wetlands proposed for filling but would offset these impacts through appropriate on-site mitigation. No properties listed or eligible for the National Register of Historic Places would be affected. No federally-protected species would be adversely impacted. Most of the public's concern for the project was based on a misunderstanding of the proposed impacts. The applicant would benefit from the development by meeting his need for additional building lots and the public will have additional needed housing for this fast growing area.

**4.6 Conclusion.** An analysis of alternatives has been conducted. The no action alternative did not meet the present or future needs of the applicant and public. Relocation of the work is not reasonable due to the existing investment in this property by the applicant. Reconfiguration of the design was eliminated from consideration because the existing development restricts most other configurations other than lessening building lots which does not meet the applicant's and public's need. Also, on-site mitigation offered by the applicant should offset negative impacts resulting from the proposed action. We have determined that the least environmentally damaging practicable alternative is the applicant's preferred alternative which satisfies the overall project purpose and minimizes adverse environmental effects to the extent possible.

## **5.0 Findings.**

**5.1 Consideration of Public Comments.** Comments were received from the ADCNR, the AHC, the USFWS and 25 individuals from the general public. The comments were evaluated for consideration of the permit decision and addition of permit conditions. The comments resulted in additional correspondence, on-site meetings, clarifications of impacts to waters of the U.S. and additional mitigation. All comments were satisfactorily addressed.

**5.2 Public Hearing Determination.** Requests for a public hearing were denied due to the lack of new, pertinent information likely to be obtained by holding a hearing.

**5.3 Clean Air Act General Conformity Rule Review.** The proposed project has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. We have determined that the activities proposed under this permit will not exceed de minimus levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility, and cannot be practicably controlled by the Corps, and, for these reasons, a conformity determination is not required for a permit.

**5.4 Appropriate Mitigation** The applicant developed a mitigation plan to provide compensatory mitigation for the impacted stream reaches and wetlands, including stream relocations with in-stream habitat structures and woody vegetation planted along the banks. Protected riparian buffers will also be created along the perennial stream relocation, Piney Creek and the Piney Creek by-pass channel. Bank stabilization activities will occur along an eroded stretch of the Piney Creek by-pass channel. Wetlands will be created on-site at a 3:1 ratio of those lost and protected with deed restrictions along with 11.23 acres of existing wetlands on the property.

The mitigation measures as well as the permit conditions identified in Section 5.8 are necessary to afford appropriate and practicable environmental protection. Implementation of the mitigation measures in conjunction with conditioning of the permit would minimize impacts to acceptable levels. The permit would be conditioned to require the mitigation identified for the project.

**5.5 Section 404(b)(1) Determination.** Section 230.10 requires that the discharge meet certain restrictions in order to be authorized. The project is to be evaluated and comply with the following restrictions: (a) there would be no other practicable alternatives to the proposal that would have less adverse impacts on the aquatic environment; (b) that the discharge would not adversely impact water quality, violate State water quality standards, toxic effluent standards, or jeopardize the continued existence of a threatened or endangered species as identified under the Endangered Species Act; (c) the discharge would not cause or contribute to the significant degradation of waters of the U.S.; and (d) the project would be designed in such a manner as to minimize to the extent possible the adverse impacts on the aquatic environment. Evaluation of the guidelines is attached to this document as Appendix E. Based on the probable impacts addressed above, compliance with the restrictions, and all other information concerning the fill materials to be used, the proposed work complies with the Guidelines and the intent of Section 404(b)(1) of the CWA.

**5.6 Water Quality Certification.** ADEM issued water quality certification for this project on 10 July 2007. The certification is attached as Appendix F.

**5.7 Environmental Justice.** Executive Order 12898, Environmental Justice requires federal projects to not disproportionately impact low-income or minority populations. The project will not result in changes in neighborhood or community cohesion or split neighborhoods. It will not impact special groups such as handicapped, minorities, or elderly. No one identifying as a low-income person indicated any objection to the proposal. Therefore, the requirements and

provisions of EO 12898 have been met.

**5.8 Permit Condition Consideration.** The following permit conditions, when applicable, are typically included in most DA permits, and are necessary to comply with federal law, while affording appropriate and practicable environmental protection:

- a. The work must be performed in accordance with the site plans and mitigation plans attached to the permit and the information submitted in support of the DA permit application. A copy of the permit must be available at the site and all contractors must abide by the permit conditions. The applicant must certify that the work authorized under the permit and the required mitigation was done in accordance with the DA authorization upon completion of the permitted and mitigation work. Justification: To minimize permit noncompliance [33 CFR 326.4(d)].
- b. Erosion and sediment control measures (including but not limited to straw bales or silt fencing) must be implemented and maintained for the life of the project. Disturbance to surrounding surface areas shall be minimized to the extent practicable. Disturbed areas shall be properly seeded or otherwise stabilized as soon as practicable to minimize sedimentation into waters of the U.S.
- c. Excess materials associated with the project or mitigation shall be disposed of in an upland area. No material shall be disposed of in waters of the U.S. except for the filling authorized by the permit.
- d. All mechanized equipment used to complete this project will be monitored regularly to ensure all hydraulic, fuel and oil lines are in proper working condition and there are no leaks of any hazardous fluids on the work site. All efforts must be taken to prevent such fluids from entering waters on or off the property.
- e. All in-stream work should occur during low, base flow conditions (typically July through October), including stream bank stabilization activities within the Piney Creek by-pass channel. Stream flow must not be interrupted during construction activities.
- f. The Piney Creek by-pass channel stream banks proposed for stabilization must be contoured between a 2:1 and 3:1 slope. The placement of riprap into the active, flowing stream channel is not permitted. Instead, riprap must be placed at the toe of the newly contoured bank slope with equipment capable of individually placing the stone.
- g. The permittee must contact Mr. Rob Hurt (256-353-7243) or other appropriate USFWS representative at least 48 hours prior to any work that will directly affect the Piney Creek by-pass channel to enable a USFWS representative to be on site during stream work. If during the proposed construction of this project a federally-proposed or federally-listed threatened or endangered species is encountered, onsite work will cease and a USFWS biologist contacted immediately.
- h. To minimize adverse impacts to State waters, the attached ADEM special conditions must be adhered to.

i. The permittee must mitigate impacted stream reaches and wetlands, concurrent with the permitted activity or as designated in information submitted in support of the DA permit application. Tree and shrub plantings associated with the mitigation work shall be accomplished no later than during the first dormant period(Nov-Mar) following stream relocation completion and upon achieving final grade within the wetland mitigation areas.

j. As described in the approved mitigation plan, all mitigation areas proposed for permanent protection shall be indentured into a restrictive covenant that will become an attachment to the deed and run with the property. The restriction shall contain covenants prohibiting certain uses such as, but not limited to: any removal, alteration, or destruction of any native vegetation or natural habitat, any agricultural, commercial, or industrial activity, any draining, filling, excavating, or dredging, any construction of buildings, any disruption or alterations of the stream. The restrictive covenant shall protect in perpetuity the ecological values of the mitigation sites. The restrictive covenant does not prohibit stream and wetland work required to comply with stream and wetland compensatory mitigation.

k. Within 90 days of issuance of this permit, the restrictive covenant shall be recorded in the Miscellaneous Document Book with the Register of Deeds or other appropriate official charged with the responsibility for maintaining records of title and interest in real property. A certified copy of the record shall be furnished to this office within 30 days of recording.

l. The permittee must provide annual monitoring and assessment reports to the U. S. Army Corps of Engineers, Nashville District, Regulatory Branch, for review. Mitigation efforts shall be monitored for a minimum of five years immediately following the completion of the mitigation work to ensure that proper hydrologic conditions, hydric soils and sufficient hydrophytic vegetation have established. The reports shall provide the status of the mitigation work and include photo documentation of the stream segments and wetlands. Success criteria requires that a) the mitigation be performed in accordance with the plans and the information submitted in support of the permit application, b) the wetland creation sites meet performance standards for the three parameters defined in the 1987 Corps of Engineers Wetland Delineation Manual(i.e., hydrophytic vegetation, hydric soils, and the appropriate hydrology), c) a minimum survival rate of 75% for trees and shrubs planted in the wetland and stream mitigation areas., and d) the in-stream habitat structures are installed in the relocated stream as proposed and functioning properly. Corrective measures shall be suggested and submitted with the monitoring reports if the mitigation fails to meet success criteria. After coordination with the Corps, corrective measures shall be implemented to eliminate deficiencies.

**5.9 Findings of No Significant Impact.** Based on a full consideration of the EA and information obtained from cooperating federal and state agencies, I have concluded that issuance or denial of the requested permit would not constitute a major federal action that would significantly affect the quality of the human environment. This constitutes a Findings of No Significant Impact (FONSI); therefore, the preparation of an Environmental Impact Statement is not required. This FONSI was prepared in accordance with paragraph 7a of Appendix B, 33 CFR 325 dated 3 February 1988 (effective 4 March 1988).

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**5.10 Public Interest Considerations.**

a. **The relative extent of the public and private need for the proposed work.** The public's need rests with the additional housing in an area where the population continues to increase. The private need rests with the applicant's need to produce income from his investment in the property. Both the public and private need would be served by the proposed work.

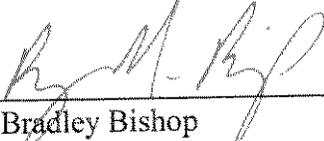
b. **The practicability of using reasonable alternative locations to accomplish the objective of the proposed action.** The proposed action must be performed at this location to achieve the project purpose.

c. **The extent and permanence of the beneficial and/or detrimental effects the proposed work may have on the public and private uses to which the area is suited.** The project is a part of an existing golf course and residential development. Beneficial effects of the project include additional housing, creation of additional wetlands that will be permanently protected along with three streams on the property including Piney Creek and the by-pass channel. Also, a segment of the by-pass channel will be stabilized and vegetated to improve habitat. The streams and wetlands are waters of the U.S. that provide "goods and services" to the public through ecological functions and recreational use. There may be temporary negative impacts during construction of the development, including the permitted filling of wetlands and streams. However, the longterm ecological functions would be improved upon completion of the mitigation.

**5.11 Public Interest Determination.** I have reviewed and evaluated, in light of the overall public interest, the documents and factors concerning this permit application as well as the stated views of other interested agencies and the concerned public. In doing so, I have considered the possible consequences of this proposed work in accordance with regulations published in 33 CFR Parts 320 to 330 and 40 CFR Part 230. All comments were considered during the review process. Subsequent information, mitigation modifications, and the addition of permit conditions were developed to address the identified concerns. The applicant has proposed adequate mitigation to compensate for the project's impact to water of the U.S. The work, performed in combination with the final mitigation plan and the permit conditions developed, would benefit the public by providing needed housing in the Athens, AL area and environmental features such as the improved Piney Creek by-pass channel reach, a net increase in wetland acres and permanent protection of a considerable reach of Piney Creek, it's by-pass channel, the wetland mitigation areas and the stream relocation segment. Having weighed these potential benefits that may be accrued against the reasonably foreseeable detrimental effects, I conclude that permit issuance would not be contrary to the public interest.

FOR THE COMMANDER:

24 October 2007

  
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Bradley Bishop  
Chief, Eastern Regulatory Section  
Operations Division

**Appendix A**  
**Public Notice**



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
3701 Bell Road  
NASHVILLE, TENNESSEE 37214

November 20, 2006

REPLY TO  
ATTENTION OF:

Regulatory Branch

SUBJECT: File No. 970011470, Proposed Deposit of Fill Material into Streams and Wetlands Adjacent to Piney Creek and Limestone Creek, Limestone, AL (Canebrake Club Subdivision)

Mr. David Wright, Manager  
Canebrake Club  
23015 Founders Circle  
Athens, AL 35613

Dear Mr. Wright:

We received your application for a Department of the Army (DA) permit for the subject work and are issuing a 30-day public notice describing the proposed work, copy enclosed.

If we receive any valid objections, we will forward them to you for opportunity to resolve or rebut. In addition, before we can issue you a DA Permit, the state of Alabama must issue water quality certification as required by Section 401(a)(1) of the Clean Water Act.

If your proposed work is determined to not be contrary to the public interest, you will be required to submit a \$ 100 fee, payable to the Nashville District Corps of Engineers, to help cover administrative costs in processing your permit. **We will advise you in writing of when to submit the fee.**

We will make a decision on your permit request as soon as possible after expiration of the public notice, receipt of the water quality certification, and any other approvals, if required. We will contact you if additional information is needed to process your application, or if objections are received.

No work should be performed in the wetlands or stream channels below ordinary high water before you receive a validated permit. Your work may also require authorization from the Tennessee Valley Authority.

If you have any questions, please contact me at the above address or telephone (615) 369-7511.

Sincerely,

ES

Eric Sinclair  
Project Manager  
Operations Division

Enclosure

Copy Furnished:

✓ Mr. Randy McCann  
Tennessee Valley Authority  
PO Box 1010  
Muscle Shoals, AL 35662

Ms. Tonya Mayberry  
Alabama Department of Environmental Management  
P.O. Box 301463  
Montgomery, AL 36130

Great Southern Engineering, Inc.  
Attn: Mr. Joe Cathey  
3795 Gordon Terry Parkway  
Trinity, AL 35673

Mr. H. Joe Cathey, CFP  
212 Graeme Drive  
Nashville, TN 37214



## DEPARTMENT OF THE ARMY

NASHVILLE DISTRICT, CORPS OF ENGINEERS  
3701 Bell Road  
NASHVILLE, TENNESSEE 37214

REPLY TO:

November 17, 2006

Regulatory Branch

SUBJECT: File No. 970011470, Proposed Deposit of Fill Material into Streams and Wetlands Adjacent to Piney Creek and Limestone Creek, Limestone, AL (Canebrake Club Subdivision)

Ms. Tonya Mayberry  
Alabama Department of Environmental Management  
P.O. Box 301463  
Montgomery, Alabama 36130

Dear Ms. Mayberry:

Enclosed is Public Notice 06-131 dated November 20, 2006, for the subject work. Please make a water quality determination for the activity described in the notice and provide me with a copy. Thank you.

After the public notice expires on December 20, 2006, I will forward you copies of all letters received during the public comment period.

If you have any questions regarding this proposal, please contact me at the above address or telephone (615) 369-7511.

Sincerely,

A handwritten signature in black ink, appearing to be "ES".

Eric Sinclair  
Project Manager  
Operations Division

Enclosure

Copy Furnished:

Mr. David Wright, Manager  
Canebrake Club  
23015 Founders Circle  
Athens, AL 35613

Mr. Randy McCann  
Tennessee Valley Authority  
PO Box 1010



**US Army Corps  
of Engineers.**

# Public Notice

Public Notice No. 06-131      Date: November 20, 2006

Nashville District      Application No. 970011470      Expires: December 20, 2006

Please address all comments to: Nashville District  
Corps of Engineers, Regulatory Branch (Attn: Eric  
Sinclair), 3701 Bell Road, Nashville, TN 37214

## JOINT PUBLIC NOTICE

US ARMY CORPS OF ENGINEERS  
TENNESSEE VALLEY AUTHORITY  
STATE OF ALABAMA

**SUBJECT:** Proposed Deposit of Fill Material into Streams and Wetlands Adjacent to Unnamed Tributaries of Piney Creek and Limestone Creek, Athens, Limestone County, AL

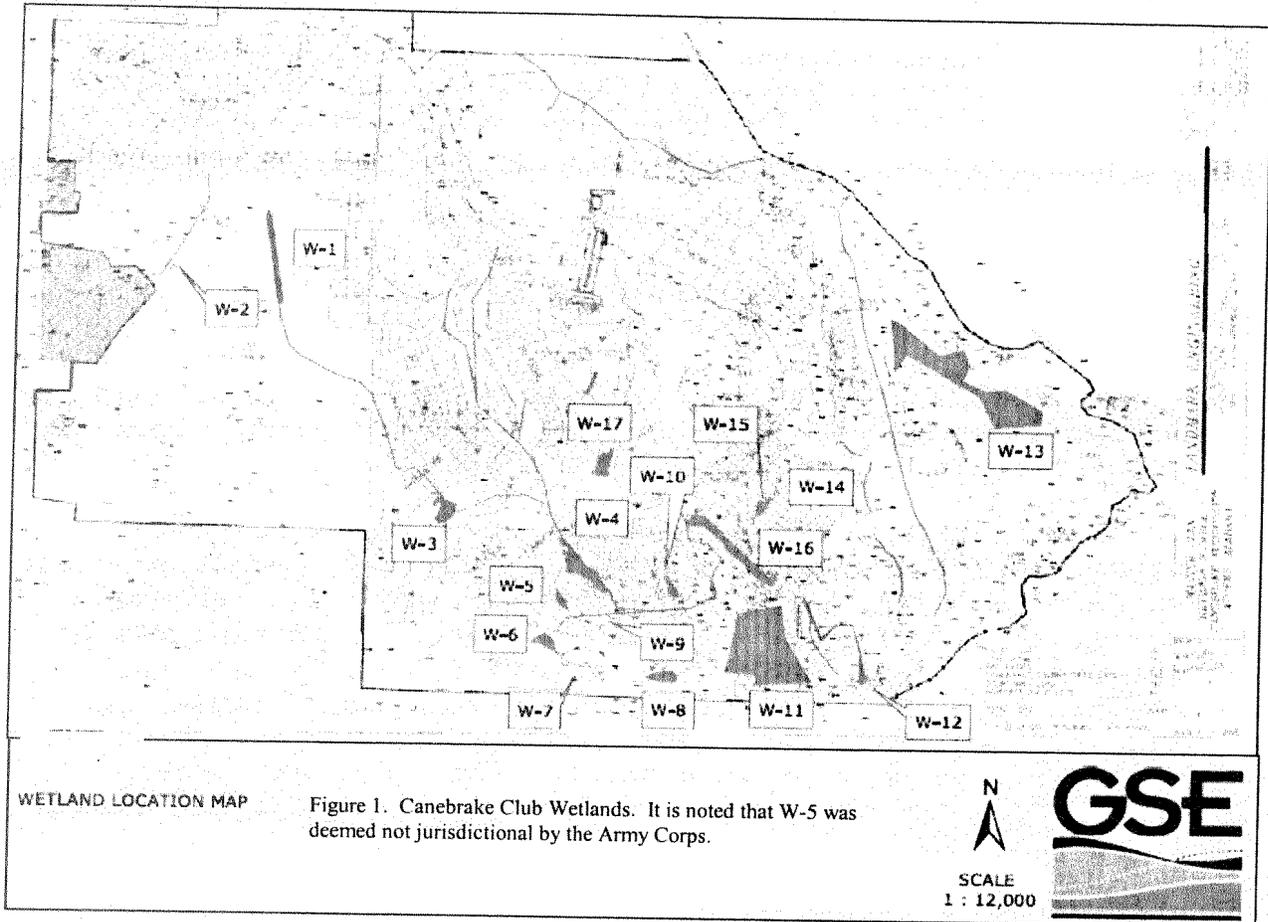
**TO ALL CONCERNED:** The project described below has been submitted for a Department of the Army (DA) permit pursuant to Section 404 of the Clean Water Act (CWA) and Tennessee Valley Authority (TVA) approval pursuant to **Section 26a of the TVA Act**. Before federal permits can be issued, the Alabama Department of Environmental Management (ADEM) must certify that applicable water quality standards will not be violated. By copy of this notice, the applicant hereby applies for the required certification, pursuant to Section 401 of the CWA.

**APPLICANT:** Canebrake Club  
23015 Founders Circle  
Athens, AL 35613

**LOCATION:** Streams and Wetlands Adjacent to Unnamed Tributaries of Piney Creek Mile 14.0 and Limestone Creek Mile 1.7, tributaries of the Tennessee River Mile 310.7R, Limestone County, AL. USGS Quad - Athens, AL; lat: 34-45-30, long: 86-55-00.

**DESCRIPTION:** The proposed action is the deposit of fill material associated with filling a total of 8.67 acres of wetland and the relocation of 4,500 linear feet of stream channel with culverts for the development of single-family residential lots around a golf course. A wetland and stream delineation, dated May 16, 2006, prepared by Great Southern Engineering, Inc., Trinity, AL, was submitted with the permit application. The Corps of Engineers verified the findings of the delineation by letter dated June 1, 2006.

The following is a description of the proposal, as stated in the application: Seventeen wetlands and 16 streams are located within the 288 acres of the Canebrake Development. Of these two streams and five wetlands were judged unavoidable (Figure 1).



### Wetlands

In all 8.67 acres of jurisdictional wetlands are proposed for filling.

W-4 is enhanced by beaver activity that had flooded or partially saturated the 1.22-acre area. It is proposed that this area be filled with 1,969 cubic yards of clean soil and rock to allow construction of Cherry Hills Drive and five building lots (please see attached drawings).

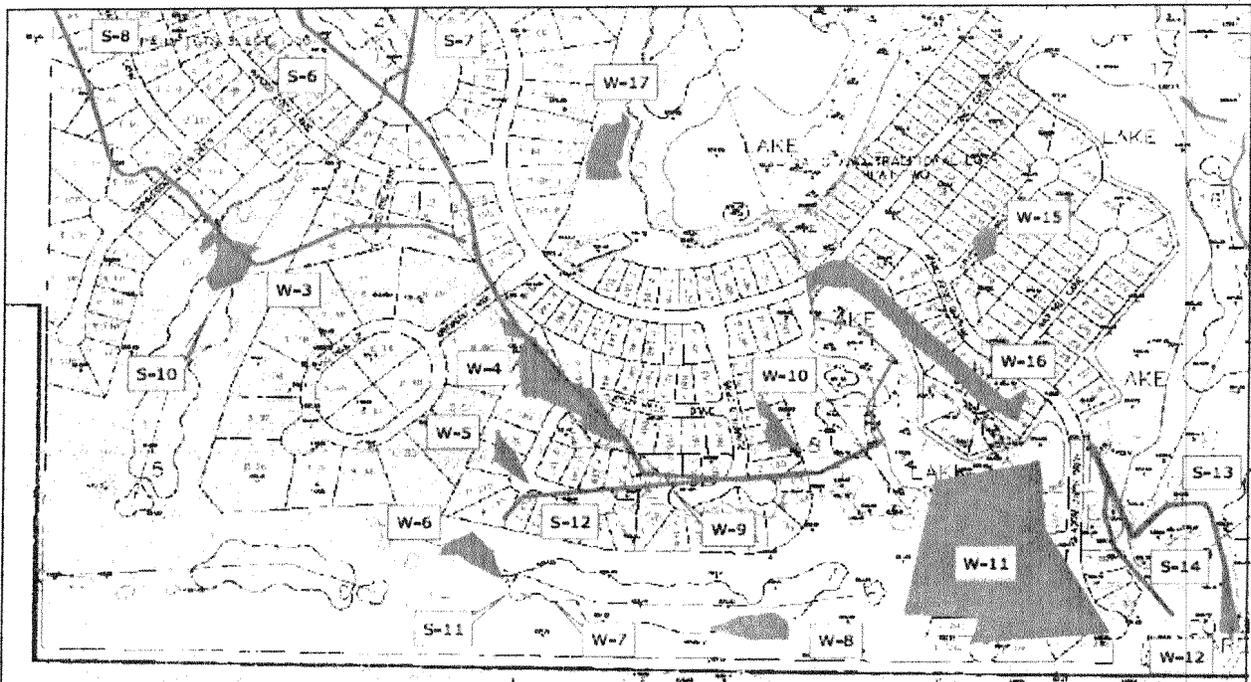
W-10 is dominated by woolgrass, sweetgum saplings, soft rush and broomsedge covering 0.25-acre. It is proposed to fill this area with 409 cubic yards with clean fill material to allow construction of portions of three lots.

W-11 is vegetated with green ash, woolgrass, soft rush, alders, red maple, and sweetgum saplings. The 6.77-acre wetland is a result of beaver activity from dams constructed

off the Canebrake Club property. Canebrake proposes to fill this area with 10,928 cubic yards of clean earth and rock to construct Olympia Fields Drive and 17 building lots.

W-15 is 0.18-acre and is dominated by black willow with woolgrass, soft rush and sweetgum saplings present. Filling with 292 cubic yards of clean rock and dirt is proposed to allow construction of Crystal Downs Lane and portions of four lots.

W-16 is primarily a wetland shelf adjacent to a manmade pond. It is dominated with FAC or wetter vegetation, i.e. boxelder, sweetgum, soft rush, black willow, curly dock, and blackberry. The shelf composes 1.76-acre of this manmade wetland. Filling would allow construction of lots R-108, R-109, and R-110 resulting in filling 0.25-acre of jurisdictional wetlands with 409 cubic yards of clean soil.



STUDY AREA 3

Streams & Wetlands Canebrake Club--Athens, Alabama



SCALE  
1 : 5,000



### Streams

As previously stated, within the boundaries of Canebrake Club some 16 streams were identified by GSE with three being ephemeral. Again, GSE has assisted Canebrake Club in avoiding impacts to jurisdictional streams, but two streams (S-6 & S-8) were unavoidable (Figure 2).

S-6 originates in the center of Canebrake Club and becomes perennial after being joined by S-7. As shown on the attached drawings, S-6 original channel is 2,350 feet in length and would be placed in a relocated channel 1,600 feet in length, thus resulting in 750 feet of lost channel. In addition, a 73' and 74' long 8' x 4' concrete box culvert would be constructed to allow crossing of Plainfield Drive and Medinah Lane, respectively. Total losses of jurisdictional waters of S-6 would be 897 feet.

S-8 begins within the northwest quadrant of the Canebrake property from discharges from W-1. Two stretches of S-8 are proposed for relocation. Near the confluence with S-6, 620 feet of original channel would be relocated in a 400 foot channel. In the upstream portion of S-8, 1,530 feet of natural channel would be placed into 1,000 feet of relocated waterway. S-8 would also be impacted by lot development and a road crossing at Shinnecock Hills Drive where a 31' long and 48" diameter reinforced concrete pipe (RCP) would carry the flow. In order to develop lots T-89 & T-90, a 155-foot long 48-inch RCP would be installed to carry S-8's flow, while at lots T-102 & 103 a 31-foot long 48-inch RCP would be provided. In total, 716 feet of original channel length would be lost as a result of development.

### **Mitigation**

#### Wetlands

Creating wetlands would be used to mitigate impacts to 8.67 acres of jurisdictional wetlands. In the early stages of developing the Canebrake Club (1997), the Nashville Engineer District was consulted and emphasis placed on strong environmental planning for the project. The development's designers were told to take every opportunity to avoid, minimize, and when this was not possible to come up with mitigation on-site, if possible. When there was an opportunity to create wetlands they pursued the challenge.

**Wetland Creation No. 1** is an existing wetland created as part of the Canebrake Club Golf Course. Canebrake was successful in creating wetland W-13 (Creation No.1 on

attached drawing), which is located between Holes 12 & 13, but not two other sites close by, i.e. Creation Nos. 2 & 3 depicted on the attached drawing. Canebrake requests it be given credit at 2:1 for creating this 6.25-acre emergent wetland or 3.125 acres of mitigation credit.

**Wetland Creation No. 2** is located at Hole No. 14 and in the southeast portion of the property. This 7.31-acre site would receive credit at 2:1 or 3.65 acres of mitigation credit. To convert this borrow pit to a functioning wetland, clean soils would be used to raise the bottom elevation enough to support wetland vegetation classified as FACW and OBL. To accomplish this goal, GSE would plant bald cypress (*Taxodium distichum*) and water Tupelo (*Nyssa aquatica*). Plantings of wetland herbaceous vegetation would not be necessary, because readily available parent species of woolgrass, soft rush, and other sedges and rushes are flourishing nearby and will provide an ample seed source to populate Wetland Creation No.2.

**Wetland Creation No. 3** is located just north of Hole No. 14 fairway, and like Wetland Creation No. 2, is a borrow pit that would be modified to create 2.97 acres of wetlands as defined in the Army Corps' 1987 Manual. As such, GSE is requesting creation credit at a 2:1 ratio, or 1.49-acre of credit. To convert this borrow pit to a functioning wetland, clean soils would be used to raise the bottom elevation enough to support wetland vegetation classified as FACW and OBL. To achieve this goal, GSE would plant bald cypress and water Tupelo. As with site No.2, plantings of wetland herbaceous vegetation would not be necessary, because readily available parent species of woolgrass, soft rush, and other sedges and rushes are flourishing nearby and they will provide an ample seed source to populate Wetland Creation No. 3.

**Wetland Creation No. 4** is located just west of the Piney Creek diversion canal and north of Castle Pines Lane. A portion of this mitigation site would convert an abandoned gravel pit into a functioning wetland. The remainder of the 8.80-acre wetland would be formed by excavation to an elevation that would allow FACW and OBL wetland vegetation to flourish. In order to create a jurisdictional wetland, GSE proposes to add growth media to the gravel pit during the excavation phase of Creation Area No.4. As with the other three sites, bald cypress and water Tupelo would be the tree species of choice and planted randomly throughout the wetland and herbaceous wetland plants expected to colonize soon after conditions are right. This 8.80-acre

site would receive credit at 2:1 or 4.4 acres of mitigation credit.

Creation Area	Acres	Credit @ 2:1	8.67 Acres Mitigation Required
No. 1	6.25	3.13 Acres	
No. 2	7.31	3.65 Acres	
No. 3	2.97	1.49 Acres	
No. 4	8.80	4.40 Acres	
<b>Total</b>	<b>25.33 Acres</b>	<b>12.67 Acres</b>	<b>4 Acres of surplus - "No Net Loss"</b>

### Streams

Mitigation to impacts to perennial S-6 and intermittent stream S-8 would be mitigated by establishing a 25-foot riparian buffer on either side of the stream throughout its relocated channel and plant this buffer with arborescent vegetation. Containerized willow, pin and water oaks, and red maple would be planted on 15-foot centers in two alternating rows beginning at top of bank. Because beavers are active in the area and no fish were observed in these channels during GSE's studies, log drop structures or other habitat enhancing features are not proposed.

### Monitoring

The wetland and stream mitigation sites would be monitored until the mitigation activities are demonstrated to be successful to the Army Corps for five consecutive years. Annual reports (with photo documentation) of less than 10 pages would be submitted to the Nashville Engineer District beginning the first year after completion of the mitigation. Monitoring protocol and performance criteria would be defined as follows:

- (1) Trees planted for wetland and stream mitigation shall be guaranteed at a 75% survival rate.
- (2) The three primary factors identified in the Corps of Engineers 1987 *Wetland Delineation Manual* as hydrophytic vegetation, hydric soils, and hydrologic conditions of the mitigation sites shall be met.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the work, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the work, will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by Administrator Environmental Protection Agency under authority of Section 404(b)(1) of the CWA (40 CFR Part 230). A permit will be granted unless the District Engineer determines it to be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historical properties, water quality, and general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and determine the overall public interest of the proposed activity.

An EA will be prepared by this office prior to a final decision concerning issuance or denial of the requested DA Permit.

The National Register of Historic Places has been consulted and no properties listed in or eligible for the National Register are known which would be affected by the proposed work. This review constitutes the full extent of cultural resources investigations unless comment to this notice is received documenting that significant sites or properties

File No. 970011470

PN 06-131

exist which may be affected by this work, or that adequately documents that a potential exists for the location of significant sites or properties within the permit area. Copies of this notice are being sent to the office of the State Historic Preservation Officer.

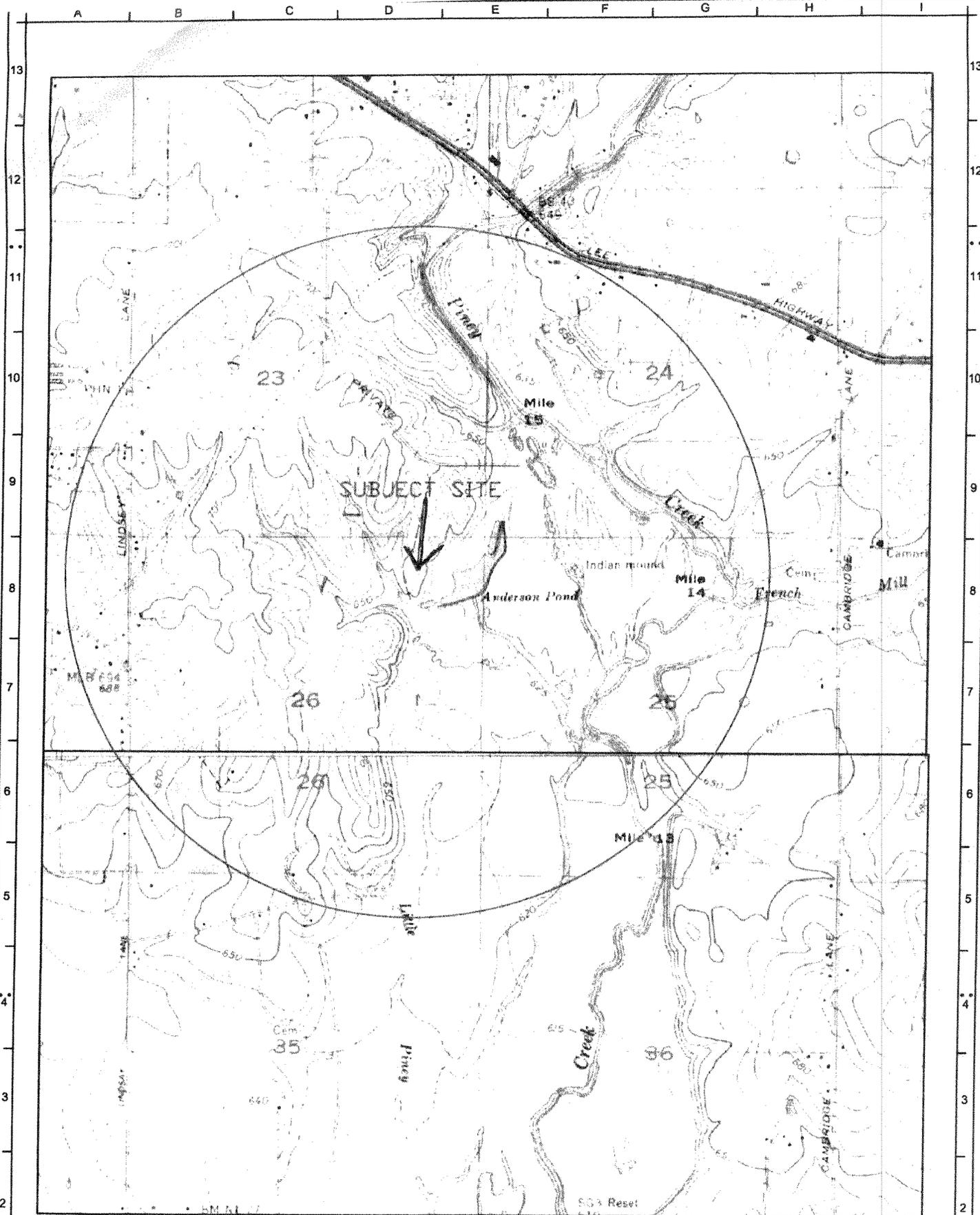
Based on available information, the proposed work will not destroy or endanger any federally-listed threatened or endangered species or their critical habitats, as identified under the Endangered Species Act, and, therefore, initiation of formal consultation procedures with the U.S. Fish and Wildlife Service is not planned at this time.

Other federal, state, and/or local approvals may be required for the proposed work. In addition to other provisions of its approval, TVA would require the applicant to employ best management practices to control erosion and sedimentation, as necessary, to prevent adverse aquatic impacts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for hearings shall state, with particularity, the reasons for holding a hearing. Written statements received in this office on or before December 20, 2006, will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Regulatory Branch, Attn: Eric Sinclair, at the above address, or telephone (615) 369-7511.

It is not necessary to comment separately to TVA or to the state since copies of all comments will be sent to them and will become part of their record on the proposal. Point of contact with ADEM is Tonya Mayberry, (334) 394-4307. Point of contact at TVA is Randy McCann, telephone (256) 386-2568.

If you received this notice by mail and wish to view all of the Exhibits, please visit our web site at: <http://www.lrn.usace.army.mil/cof/notices.htm>, or contact Mr. Sinclair at telephone (615) 369-7511 or at the address above.



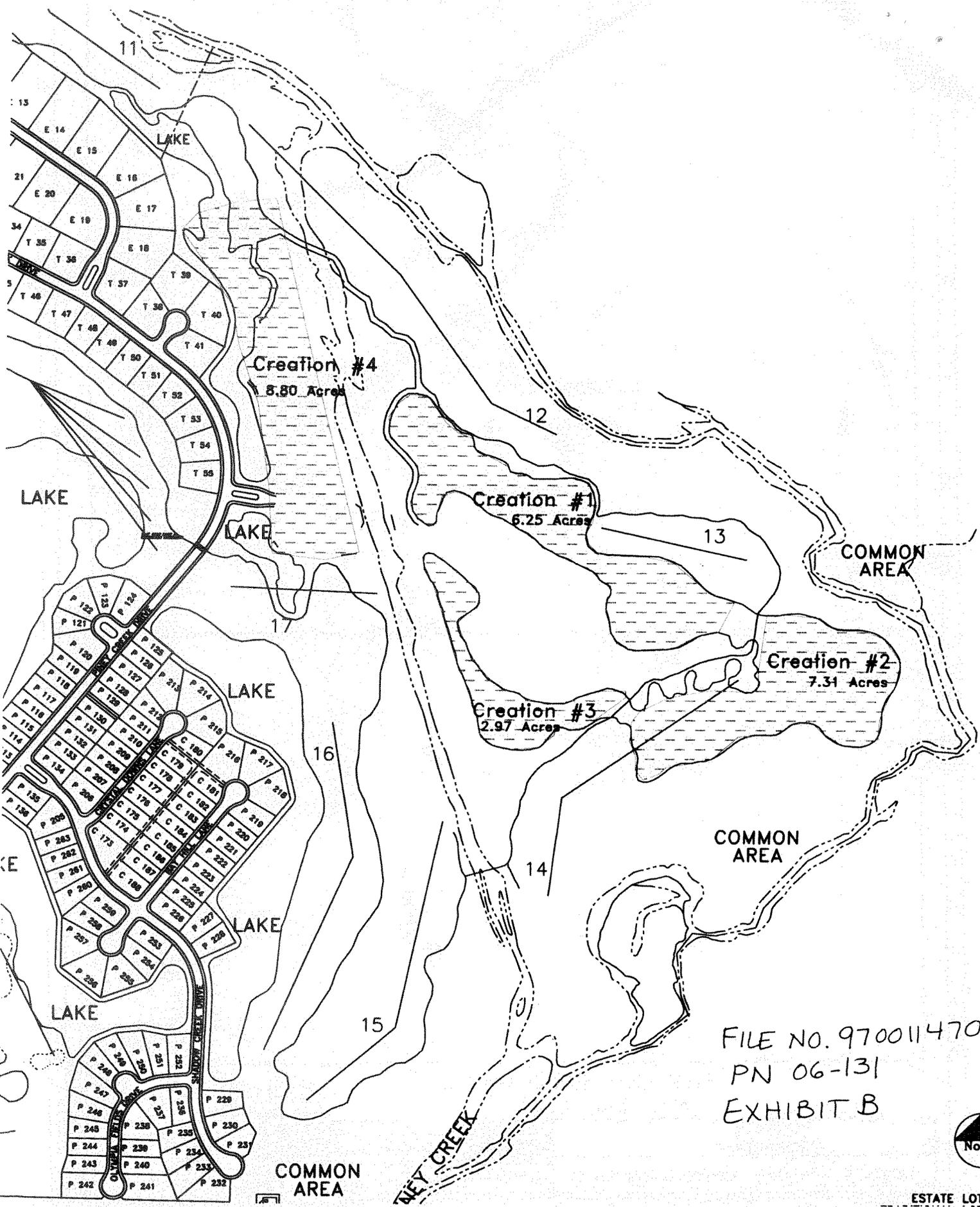
FILE NO. 970011470  
 PN 06-131

EXHIBIT A

**FIGURE 1**  
 CANEBAKE CLUB  
 USGS 7.5' TOPO MAP - ATHENS & TANNER, AL

Scale: 1:2000  
 Job No: 04-161  
 Date: 12/21/05  
 Drawn by: KRR

**GSE** Great Southern Engineering, Inc.  
 3795 Gordon Temy Parkway  
 Trinity, AL 35673  
 Phone: (256) 350-9754  
 Fax: (256) 350-9768



FILE NO. 970011470  
 PN 06-131  
 EXHIBIT B



----- ESTATE LOT



**Appendix B**  
**Public Comments**

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and it's stream channels. Piney Creek is well known to have two Federally Endangered Species (the **Armored Snail** and the **Slender Campeloma**). The culvert construction and the relocation of the creek and it's ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You,

*Joc and Linda Berry*

Sincerely,

*500 A. Smith Road  
Huntsville, Alabama 35811*

DEC 18 2006

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

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Thank You,

*Tricia Harper*

Sincerely,

*2021 Rodgers Dr. N.E.  
Huntsville, Alabama 35801*

DEC 18 2006

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and its stream channels. Piney Creek is well known to have two Federally Endangered Species (the **Armored Snail** and the **Slender Campeloma**). The culvert construction and the relocation of the creek and its ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You,

Sincerely,

Bonnie Roberts  
1307 Wells Avenue  
Huntsville, Alabama 35801

DEC 18 2005

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and its stream channels. Piney Creek is well known to have two Federally Endangered Species (the **Armored Snail** and the **Slender Campeloma**). The culvert construction and the relocation of the creek and its ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You,

Sincerely,

*June William Green* 1472 Main St.  
Lynnville,  
TN 38472  
*Jim Green*

DEC 18 1983

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and its stream channels. Piney Creek is well known to have two Federally Endangered Species (the **Armored Snail** and the **Slender Campeloma**). The culvert construction and the relocation of the creek and its ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You,

Sincerely,

Debra Simpson  
3415 Highland Plaza S.E.  
Huntsville, Alabama 35801

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and its stream channels. Piney Creek is well known to have two Federally Endangered Species (the **Armored Snail** and the **Slender Campeloma**). The culvert construction and the relocation of the creek and its ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You,



Sincerely,

1208 Dale Lane  
Athens, Al 35611

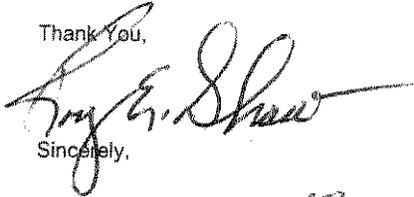
19 DEC 2006

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and its stream channels. Piney Creek is well known to have two Federally Endangered Species (the **Armored Snail** and the **Slender Campeloma**). The culvert construction and the relocation of the creek and its ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You,



Sincerely,

1208 Dale Ln  
Athens, AL 35611

19 DEC 2008

*Ann Priddy  
12572 Lucas Ferry Rd.  
Athens, Alabama 35611*

*U. S. Corps of Engineers  
Nashville District Corps of Engineers  
U. S. Regulatory Branch  
3701 Bell Rd.  
Nashville, Tn 37214*

19 DEC 2006

*ATTENTION: Eric Sinclair*

*Mr. Sinclair:*

*I agree, with the lady, who wrote the letter to the News Courier; that appeared in the December 17, 2006-edition, concerning filling parts of Piney Creek 100%. God is not making any more land.*

*In January 1911 my grandparents came from Tennessee and bought the farm where my husband and I presently reside. My uncle and his son were born in the original family house, as were my mother and I.*

*My family has always been lovers of nature. The men hunted and fished to provide food for the table. They fed the family and men who lived with the Malones, to help my grandfather with farming butchering.*

*Mud Creek runs near our house. I have many fond memories of the creek. My father, mother, sister and I were baptized in Mud Creek, plus anyone else, no matter the color, who wished to be baptized there.*

*Because of my love for the creek, my mother refused to make my sister's lot line nearer than 100' to the creek. She sold a couple of acres but, the 100' restriction was also stated in that deed.*

*My husband and I moved to the farm after mothers' died in 2002. My Mother had given us land fronting Lucas Ferry Rd. I paid twice what the land was worth, on the east side of the creek. My husband and I are doing all we can to attract as many birds and wild life, as possible. We have a Blue Heron living in the gravel pits, West the creek. She eats the snails, etc., from the creek. Deer and other animals drink from the creek. We hope to attract as many animals and wild life as possible that will not endanger the other wild life and ourselves. We cannot provide the water and food for the wildlife that live here without the food and water the need to sustain their diets.*

*I realize the Summer of 2006 was extremely dry. The water was also low. We have been advised that a pond (one or 2 acres), has been dug and Mud Creek routed to fill the pond. That's not only selfish, and immoral but, the fact has been confirmed by operators who dig ponds it is illegal. My Mother allowed our neighbor to use a pump to pump water from the creek, to water his vegetable garden. This year his garden died, as did other plants that would feed wildlife.*

*We are attempting to establish a small wild life preserve on our thirty-seven-acre West of the creek. We hope with providing food and water more wild life will come to nest, etc. here.*

*Stopping the filling of Piney Creek, allowing creeks, like Mud Creek, routed back to its original route, will be a great boost to saving our environment and the creatures, we are responsible for protecting. God created creatures for food for humans beings and we are responsible for their care.*

*Thank you for your immediate attention to this matter.*

*Ann Priddy  
(Mrs. Kenneth Priddy)*

**Robert G. Cox**  
701 Timberlinks Drive  
Signal Mountain, TN 37377  
423-886-7022  
Robert-Cox@utc.edu

Mr. Eric Sinclair  
U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

December 12, 2006

Dear Mr. Sinclair:

This letter is written in absolute **opposition** to the permit now being reviewed for the Canebrake Subdivision in Limestone County, Alabama. This permit would require the filling in of approximately 8.67 acres of wetlands in Limestone County along Piney Creek, and also allow the relocation (with culverts) of 4,500 linear feet of stream channels. My opposition to this project is based on science and cultural heritage issues outlined below.

Piney Creek is home to at least two Federally protected species under the **Endangered Species Act (ESA)**. These species, the *Armored Snail* and the *Slender Campeloma*, are known to exist only in Piney Creek and portions of nearby Limestone Creek. These species were listed by the U.S. Fish and Wildlife Service in early 2000. I am certain the Environmental Impact Statement noted the presence of these species in the project area. The construction of culverts, and the relocation of the creek and its ephemeral streams, would do significant damage to the habitat of the endangered species, causing silt-loads to increase in the creek and **degrading the habitat for the snails and the other species**, including those located where Limestone and Piney Creeks enter the **Wheeler National Wildlife Refuge**. These species are in danger of extinction or they would not be listed under the ESA. Piney Creek is also part of a documentation study by Jacksonville State University (led by Professor David Whetstone and Tim Hoffman) to document the flora in the highlands of North Alabama.

The proposed permit, if approved, would also degrade sites of Cultural and Historical interest. There is a Native American earth mound located along the banks of Piney Creek in the immediate area. The mound is clearly visible on topographic maps. Native Americans hold these sites sacred, and until a proper archaeological survey has been completed of the area, no ground-disturbing activities should be approved.

On a personal note, I would like to say Piney Creek is an area of great beauty in an area being rapidly developed with no end in site. Piney Creek is used for local recreation (including canoeing when the water is up), and provides much needed habitat for local flora and fauna. I grew up in the area and have seen the Tennessee Valley of Alabama absolutely transformed by development in my lifetime. I urge you to deny this permit in the best interest of the public. Private organizations should not be allowed to impact or destroy areas of outstanding natural beauty and cultural heritage for the benefit of the few.

Sincerely,



**Robert Cox**  
*Assistant Professor*  
University of Tennessee at Chattanooga  
Chattanooga, TN

DEC 18 2006

## Sinclair, William E LRN

---

**From:** Caroline Lopez [practicepatience@gmail.com]  
**Sent:** Thursday, December 21, 2006 12:00 PM  
**To:** Sinclair, William E LRN  
**Subject:** My Opposition to the Destruction of Piney Creek

Mr. Eric Sinclair

U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and it's stream channels. Piney Creek is well known to have two Federally Endangered Species (the Armored Snail and the Slender Campeloma). The culvert construction and the relocation of the creek and it's ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You.

Sincerely,

Caroline Lopez  
301 Bradford Street  
Florence, AL 35633

--  
May everyone be happy  
May everyone be free from misery  
May no one ever be separated from their happiness  
May everyone have equanimity, free from  
hatred and attachment  
-Venerable Geshe Kelsang Gyatso

## Sinclair, William E LRN

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From: j hester [jchpp@yahoo.com]  
Sent: Wednesday, December 20, 2006 3:05 PM  
To: Sinclair, William E LRN  
Subject: Piney Creek

Dear Mr. Sinclair:

This letter is written in absolute opposition to the permit now being reviewed for the Canebrake Subdivision in Limestone County, Alabama. This permit would require the filling in of approximately 8.67 acres of wetlands in Limestone County along Piney Creek, and also allow the relocation (with culverts) of 4,500 linear feet of stream channels. My opposition to this project is based on science and cultural heritage issues outlined below.

Piney Creek is home to at least two Federally protected species under the Endangered Species Act (ESA). These species, the Armored Snail and the Slender Campeloma, are known to exist only in Piney Creek and portions of nearby Limestone Creek. These species were listed by the U.S. Fish and Wildlife Service in early 2000. I am certain the Environmental Impact Statement noted the presence of these species in the project area. The construction of culverts, and the relocation of the creek and it's ephemeral streams, would do significant damage to the habitat of the endangered species, causing silt-loads to increase in the creek and degrading the habitat for the snails and the other species, including those located where Limestone and Piney Creeks enter the Wheeler National Wildlife Refuge. These species are in danger of extinction or they would not be listed under the ESA.

Piney Creek is also part of a documentation study by Jacksonville State University (led by Professor David Whetstone and Tim Hoffman) to document the flora in the highlands of North Alabama.

The proposed permit, if approved, would also degrade sites of Cultural and Historical interest. There is a Native American earth mound located along the banks of Piney Creek in the immediate area. The mound is clearly visible on topographic maps. Native Americans hold these sites sacred, and until a proper archaeological survey has been completed of the area, no ground-disturbing activities should be approved.

On a personal note, I would like to say Piney Creek is an area of great beauty in an area being rapidly developed with no end in site. Piney Creek is used for local recreation (including canoeing when the water is up), and provides much needed habitat for local flora and fauna. I grew up in the area and have seen the Tennessee Valley of Alabama absolutely transformed by development in my lifetime. I urge you to deny this permit in the best interest of the public. Private organizations should not be allowed to impact or destroy areas of outstanding natural beauty and cultural heritage for the benefit of the few.

Mr. Sinclair, if this letter seems familiar, it is because I copied the one sent to you by Dr. Robert Cox. He said everything that I would have liked to have said, only in a much clearer fashion.

Sincerely,  
JC Hester  
1018 Ridge Ave.  
Tuscumbia, AL 35674

"A bird does not sing because it has an answer. It sings because it has a song." Chinese proverb "(What's so Funny 'bout) peace, love and understanding?" Nick Lowe "Never doubt that a small, group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." Margaret Mead "If you must be candid, be candid beautifully." Kahlil Gibran "Worry is interest paid on a loan that never comes due." David

**Sinclair, William E LRN**

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**From:** jackandirene@comcast.net  
**Sent:** Wednesday, December 20, 2006 2:32 PM  
**To:** Sinclair, William E LRN  
**Subject:** Piney Creek @ Athens Alabama

Dear Mr. Sinclair,

I cannot believe that you would even consider covering over wetlands adjacent to Piney Creek and dumping dirt into its' tributaries. Wetlands are so important in the grand scheme of nature and streams that drain some areas while feeding others should never be touched. Apparently someone wants to make a profit on destruction.

Did you know that 70% of the irraplaceable Amazon Rain Forest has been lost in the name of profit. Crescent shaped sand dunes now cover the area that was first cut. The Lybian and Sahara deserts were once great forests that were cut to build ships. The Amazon Hardwood Forests were cut so the fortunate few could have nice homes along the river. That river is now full of silt and is dead.

Please don't let this project go forth, there isn't much left to save.

Sincerely,

John Peck

Florence, Al. 35634

## Sinclair, William E LRN

---

**From:** tmhaggerty@una.edu  
**Sent:** Wednesday, December 20, 2006 4:54 PM  
**To:** Sinclair, William E LRN  
**Cc:** Bleufer@aol.com; Jeff Powell; Robert-Cox@utc.edu  
**Subject:** Piney Creek development

Mr. Sinclair:

Please be advised that survey work conducted this summer on Piney Creek, Limestone County, AL, by Jeff Garner (AL malacologist) and myself, located *Marstonia pachyta* and *Campeloma decampi*, two federally listed endangered species of gastropods. I find it difficult to believe that the "relocation of 4,500 linear feet of stream channel with culverts" associated with the development of the "canebrake club" as stated in the "Public Notice 06-131" will not "destroy or endanger" these two federally listed species that possibly live in the stream next to the proposed development site and definitely live downstream of the site.

Please initiate formal consultation procedures with the U.S. Fish and Wildlife Service who is currently funding research on Piney Creek before proceeding further with this development.

PLEASE do not go forward with this development until a thorough understanding of the impact this development will have on these two FEDERALLY LISTED endangered species.

Thank you for the opportunity to submit my comments.

Thomas M. Haggerty, Ph.D.  
Professor of Biology  
Department of Biology  
University of North Alabama  
Florence, AL 35632  
ph 256-765-4432  
fax 256-765-4430  
tmhaggerty@una.edu

**Sinclair, William E LRN**

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**From:** George Rose [roseg@fitzmail.com]  
**Sent:** Thursday, December 21, 2006 10:17 AM  
**To:** Sinclair, William E LRN  
**Subject:** Oppose permit for Piney Creek in Limestone County, Alabama

Dear Mr. Sinclair,

I am sending this email in opposition to the issuance of the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am a native of Colbert County and my wife, who also opposes this permit, is a native of Limestone County. We still have family in the area and return to Alabama every year to enjoy the natural habitat that has just about disappeared from the Washington, DC area where we live.

I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and it's stream channels. Piney Creek is known to have two Federally Endangered Species (the Armored Snail and the Slender Campelona). The culvert construction and the relocation of the creek and it's ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

North Alabama has plenty of land to develop where there are no species or historical sites. It makes no sense to allow housing and development in such a sensitive area. Please do not issue this permit.

Sincerely yours,

George B. Rose

22712 Robin Court

Gaithersburg, Maryland 20882

## Sinclair, William E LRN

---

**From:** LGBEASLEY@aol.com  
**Sent:** Wednesday, December 20, 2006 7:03 PM  
**To:** Sinclair, William E LRN  
**Subject:** (no subject)

Dear Mr. Sinclair-

I have reviewed the proposal by Canebrake to fill in wetlands in order to proceed with residential and other development of this site. I am opposed to such action. This development has already destroyed several natural wetlands and streams in the area. This proposed development would alter even more wetlands and streams affecting a great deal of plant life and documented wildlife. I think that this development has already destroyed enough habitat areas. In addition losing so much continuous wetlands and replacing it with lawns, and houses will create a large amount of non-point source pollution. Adding more wetlands to the golf course will not help this in the least. Alabama has one of the worst water qualities in the country instead of making it even worse lets make an effort to make it better and leave these wetlands in place and say no to development.

Thank you for your time.

Laura Beasley  
760-0197

## Sinclair, William E LRN

---

**From:** LGBEASLEY@aol.com  
**Sent:** Wednesday, December 20, 2006 7:09 PM  
**To:** Sinclair, William E LRN  
**Subject:** (no subject)

Mr. Sinclair:

I realize I may not have given you enough information on my letter of opposition. It was in opposition of the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and it's stream channels. Piney Creek is well known to have two Federally Endangered Species (the Armored Snail and the Slender Campeloma). The culvert construction and the relocation of the creek and it's ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Thank You, Laura Beasley

## Sinclair, William E LRN

---

**From:** thecatfishwrapper@comcast.net  
**Sent:** Thursday, December 21, 2006 11:15 AM  
**To:** Sinclair, William E LRN  
**Subject:** Piney Creek proposed subdivision

Please do not allow the Piney Creek area of Limestone County, Alabama be used for any sort of residential, commercial, or industrial development. I fear that the ancient Indian mound would be jeopardized as well as the viability of two endangered species of snail, *Marstonia pachyta* (armored marstonia) and *Campeloma decampi* (slender campeloma). Both species were found in the creek this summer in a number of locations. This work is federally funded by the Fish and Wildlife Service should continue for the next three years.

Sincerely,

Steve Wiggins  
705 N. Nashville Ave.  
Sheffield, Alabama 35660

## Sinclair, William E LRN

---

**From:** VernaGates@aol.com  
**Sent:** Thursday, December 21, 2006 12:26 PM  
**To:** Sinclair, William E LRN  
**Subject:** snails on Piney Creek

Dear Mr. Sinclair,

Please do not destroy the snails on Piney Creek, or the Indian Mound. I object to the subdivision proposed to do so. The environment is like a brick house, the more bricks you take out of the wall, the more likely it will fall.

Regards,

Verna Gates

Verna Gates  
205-595-4346

www.vernagates.com <<http://www.vernagates.com/>> Reporter for Reuters International News Service and TIME Magazine

## Sinclair, William E LRN

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**From:** Diane Butler [dbutler@hawaii.edu]  
**Sent:** Thursday, December 21, 2006 12:06 PM  
**To:** Sinclair, William E LRN  
**Subject:** Canebrake Subdivision in Limestone County, Alabama - comment

**Importance:** High

Dear Sir:

No to the permit being reviewed for filling in the wetlands along Piney Creek and relocating the stream channels. I'm sure you have the scientific and cultural reasons at hand for not approving this permit; I have them as well. Please heed what both common and uncommon sense tells you and do not grant this permit. I understand there is also a Native American earth mound in that area in addition to the impact this crazy "filling wetlands and stream diversion" will have on several endangered species and increasing silt going into the Wheeler National Wildlife Refuge. This would be destruction, not development. I grew up in Alabama the Beautiful and it makes me sick when I go home to see the mismanagement that is trashing this wonderfully ecologically diverse land.

With sincere aloha,

Diane Butler  
PO Box 85  
Hawaii National Park, HI 96718

(808) 967-8204

## Sinclair, William E LRN

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**From:** moosejones@comcast.net  
**Sent:** Thursday, December 21, 2006 11:33 AM  
**To:** charles rose; charles rose; Sinclair, William E LRN  
**Subject:** Pine snails and Native Mounds

Please do not lose either of these, the snails or the Native Mounds located along Piney Creek in Limestone County Alabama...I am Native American and I ask you please No more injustice.

Thank you,

--

Sheri Wiggins  
705 North Nashville Ave  
Sheffield, Al. 35660

## Sinclair, William E LRN

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**From:** chuckdrivers@comcast.net  
**Sent:** Thursday, December 21, 2006 12:06 PM  
**To:** Sinclair, William E LRN  
**Subject:** Comments from Charles Rose, RE: Piney Creek permit application

TO: Nashville District Corps of Engineers Regulatory Branch (Attn: Eric Sinclair)  
3701 Bell Road  
Nashville, TN 37214

FROM: Charles L. Rose  
President , Shoals Environmental Alliance  
1206 N. Montgomery Ave.  
Sheffield, AL 35660  
H. (256) 381-2826  
C. (256) 366-1937  
FAX: (256) 381-0806  
chuckdrivers@comcast.net <mailto:chuckdrivers@comcast.net>

December 21, 2006

Dear Mr. Sinclair,

After our phone conversation yesterday, I realized that you were the same gentleman I talked with several times earlier this year about the silting going on in Spring Creek at Tuscumbia, Alabama, due to the work being done on the pipeline crossing the creek there.

I appreciate you considering my comments about the proposed Canebreak Club development in Limestone County, Alabama.

I was forwarded an email from Robert Cox of the University of Tennessee at Chattanooga, concerning this application, and I must say that I agree completely with his conclusions regarding the negative effects this development will have on Piney Creek. I would urge the Corps to not approve this permit.

After our conversation yesterday I sent all an email to members of Shoals Environmental Alliance and got a reply from Dr. Tom Haggerty, Dept. of Biology, University of North Alabama, who I believe has also now made comment to you in this regard.

Dr. Haggerty told me that he and Jeff Garner, State Malacologist with Alabama Department of Conservation and Natural Resources are currently conducting a study of the two federally listed endangered species of snail, *Marstonia pachyta* (armored marstonia) and *Campeloma decampi* (slender campeloma) in Piney and Limestone Creeks. He said that they found both species this summer in Piney Creek, in a number of locations. He told me that their study is funded by US Fish and Wildlife and that it should continue for the next three years. I hope to accompany Tom and Jeff on their next trip to this site.

In a later phone conversation, Tom confirmed Robert Cox's statement that these species are ONLY known to exist in the locality of Piney and Limestone Creeks.

In light of all of this, how in the world can the rerouting of 4,500 ft. of Piney Creek into a culvert and the other associated loss of wetlands, etc., not result in the degradation of habitat for these extremely rare species? These snails have very specific habitat requirements and the protection of that habitat should be of the utmost importance.

And considering that Haggerty and Garner's study of these species will be ongoing for the next three years, would it not be better to wait for its completion before making any decisions regarding this permit application, other than rejecting it outright?

I also agree with Robert Cox's assertion that the Native American mound site should be fully surveyed.

If this permit is approved, I feel that a full Environmental Impact Statement would be warranted.

I can assure you that folks here in Northwest Alabama and beyond place a lot of importance on our natural areas, the preservation of species and Native American sites.

The recent 92%, of the 5,000 comments received, in support of the new TVA Land Policy, prohibiting retail, commercial and residential development of TVA's reservoir properties is indicative of the huge amount of public support here for the preservation and conservation of our natural resources.

Please do the right thing and deny this permit; loss of, or degradation of habitat IS the number one cause of the decline and extinction of species.

Housing developments can be located any number of places; there is no compelling reason why this development has to encroach on and degrade Piney Creek, the home of these extremely rare, endangered species.

Thanks again for allowing me to comment,

Charles L Rose  
President  
Shoals Environmental Alliance  
1206 N. Montgomery Ave.  
Sheffield, AL 35660  
H. (256) 381-2826  
C. (256) 366-1937  
FAX: (256) 381-0806  
chuckrivers@comcast.net <mailto:chuckrivers@comcast.net>

## Sinclair, William E LRN

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**From:** Liz P. [hiker@knology.net]  
**Sent:** Friday, December 22, 2006 5:05 PM  
**To:** Sinclair, William E LRN  
**Subject:** PN 06-131

Mr. Sinclair:

The North Alabama Sierra Club opposes the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama.

Two federally listed species of snails and a Native American mound site will be threatened by this proposed development. Also, many people of Limestone County and North Alabama use Piney Creek for fishing, bird watching, and as a nature retreat.

This area needs to be protected. We can not let the "wants" of a few people create a situation that is not in the best interest of our environment or the common good.

For these reasons, we request that you do not approve this permit.

Sincerely,

Elisabeth Poleretzky  
Chair, North Alabama Group, Sierra Club

December 3rd, 2006

Dear Editor,

I was very upset when I read the article about *Canebrake* wishing to fill in 8.67 acres of wetlands and 4,500 linear feet of Piney Creek.

According to the article this would include 17 wetlands and two streams.

Every day in our country we loose wild natural places to development and this is such a loss for the birds and animals who depend on these areas as well as future generations of grand children who could enjoy the beauty of a wetland.

I was also surprised that the National register of Historic places knew of no properties listed because on any topographical map of Limestone County one can clearly see an Indian mound on Piney Creek. Even if the proposed site does not include the Indian mound, anything you do to any part of the creek affects all of the creek and surrounding areas.

This wetland is in some of the same area that citizens of Limestone county helped to preserve when a proposed rock quarry wanted this land. At that time an environmental study found two endangered species of snails in Piney Creek. One of them is found no where else in the world. This article was published in the February 27, 2000 issue of the *Courier* in an article by Sonny Turner listing these two snails as the Armored Snail and the Slender Campeloma.

Everyday in Limestone county our open spaces and land are being built over by houses, businesses and streets and even though our cotton fields are vanishing, I would rather see this proposed development in one of them than a natural Wetland.

If anyone reading this letter feels as I do, Please send a comment expressing your opposition and ask for a public hearing on this matter to:

U.S. Corps of Engineers  
Nashville District Corp of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, Tn. 37214  
Attention: Eric Sinclair

These comments much be received before December 20th.

Please join me in helping to preserving our wild natural wetlands.

Thank you,

Doris Gabel Welch  
13330 Bradford Road  
Madison, Al. 3756

Phone 232-6055

DEC 08 2006

Dec 18 2006

Dear Mr. Enclair -

I have property in the Janner Quad  
known as Dogwood Flats I have owned it  
since 1993.

In that time I have come to know the  
power of the Piney Creek and its tributaries  
It is a powerful destructive force.  
I have seen the water cover Huntsville  
Brown Ferry Road three times since 1993 for a  
long period.

It is my understanding the permit  
now being requested by developer concern  
wetlands and stream north of this area  
which has flood water flowing north and  
flowing south at 2nd day stage.

19 DEC 2006

See attached drawing.

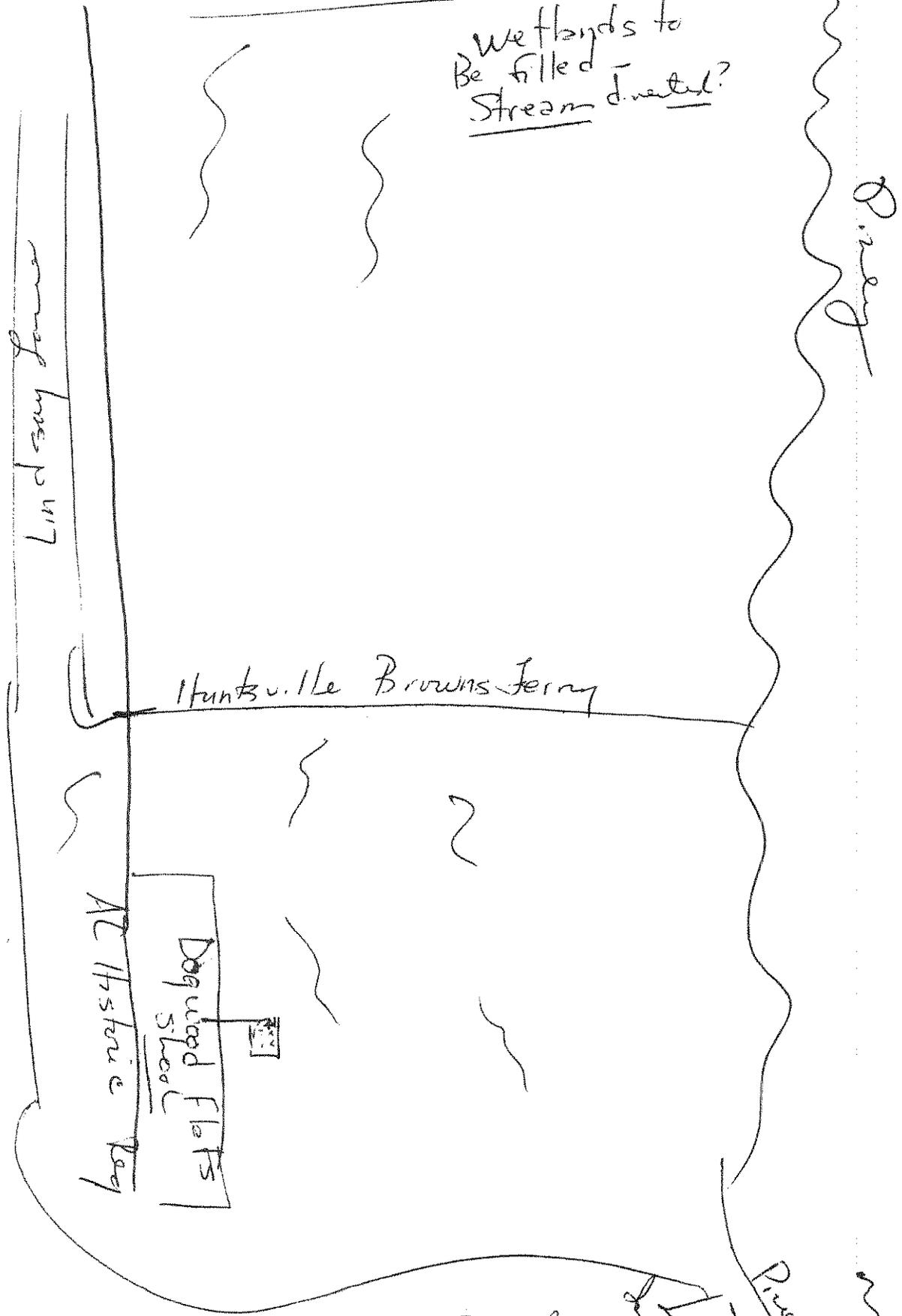
I have been involved with USDA meetings  
regarding the Piney And I believe it was in  
1996 we hosted one in our town.

Awesome photographs taken by Roy Crossfield  
have been used by USDA in Congressional meetings.  
This is a mammoth problem and the watershed  
doesn't need anyone filling wetlands or moving  
Streams Horrors.

# Cane Lake

Wetlands to  
Be filled -  
Stream dewatered?

+ Proposed Janner Interchange



Not to Scale

In butaries

In butaries

This is the Christmas season and my time is limited

But I will continue to look for helpful data I have & forward it

In the meantime I would support a public hearing on this matter.

If you need to call me - my cell phone seems best - 256 - 278 - 6273

Best regards..

Steve McFerrin Johnson Crossfield

No fill in of wetlands

No No No

No moving of streams

No

300 Wellington Rd  
Athens, AL 35613

(256) 278-6273

26401 Capshaw Road  
Athens GA 30611  
December 17, 2006

Dear Sir:

I noticed recently where Conebrake subdivision has plans to fill in 8.67 acres of wetland and quite a number of feet of Piney Creek. This should never be allowed and I'm not just a casual observer. My dad and I farmed some 60 years on the banks of Piney creek. I strongly oppose this action and would request a public hearing on this matter.

Sincerely,

Ronald A. Bowers

16 DEC 2006

DEC 21 2006

Tanner, Al.

December 18, 2006

U. S. Corps of Engineers  
Attention: Mr. Eric Sinclair

Dear Sir,

Being unable to secure any facts from any local agencies or offices of S.C.S., F.S.A., A.D.E.M., or the Corps, I feel compelled to write in response to a request for letters by an article from Doris Welch printed in the Athens, Al. News Courier on Dec. 17. This "letter to the editor" states that the Canebrake Corporation plans to fill in 8.67 acres of wetlands and 4500 linear feet of Piney Creek. She says this would include 17 acres of wetlands and two streams.

I own 750 acres of farmland due south of the Canebrake subdivision and golf course and had farmed it myself until renting it to others in recent years. Also, I plan to keep all this land in crops for many years. We have been alarmed at reports that Canebrake would close two branches of the creek to create only one channel.

I am very much in favor of any plan that a proper government agency such as the Corp would approve for them. However, if no agency is surveying the situation I

Am alarmed that more wetlands will be destroyed to create building lots. The Little Piney Creek branch flows through my property and we irrigate from it. My late father was the first cotton farmer to irrigate in North Alabama in the late 1950's. We very much appreciate this privilege.

The awaited interchange to I65 in Limestone County is only one-half mile from this property. I am really worried that Canebrake might alter the creek so badly that we could have more disastrous floods than occasionally. Furthermore, my family enjoys the water fowls, fish, raccoons, and etc. Rumors are that geese interfere with golf courses, driveways, and patios.

Could the Corps address this issue with a news release here? Your attention is greatly appreciated.

11865 US HWY 31  
Tanner, AL 35671

Sincerely,  
Mr. Jack W. Leonard  
256-232-6501  
jackiewleonard@yahoo.com

P.S. ~~12-19~~ 12-19 A.M.

Thanks a lot Mr. Sinclair for your phone call to me this morning to answer questions. I guess I can only wish my friend Al Hare had been elected and maybe more of our wetlands would be saved and, more importantly, we wouldn't be in Iraq!! I appreciate your work and efforts in the future. J. Leonard

Athens  
The News Courier

# LETTERS TO THE EDITOR

## Athens becomes regular stop

Dear Editor:

We are RV (recreational vehicle) travelers. We were traveling north on I-65 from Gulf Shores and decided to stop for the night, when we discovered a sign directing us to Exit 354. Within one minute of the exit we were pulling into Northgate RV Travel Park in Athens. We travel extensively, and nowhere have we found a more receptive and friendly travel park. The owner, Wes Calvin, represents your community well. He directed us to many local restaurants and shops where folks were equally friendly. I was quite surprised that none of the folks Mr. Calvin directed us to seem to know about Northgate RV Travel Park. I'm sure it would be nice if the merchants of Athens and The News Courier would reciprocate. Get to know those who are helping your community to grow in such a positive and friendly manner. Because of the hometown experience in Athens, we will make it a regular stop on our way north.

Sincerely,  
Jonnie and Butch Bradley  
Gulf Shores

## Help save Limestone's wetlands

Dear Editor:

I was very upset when I read the article about Canebrake wishing to fill in 8.67 acres of wetlands and 4,500 linear feet of Piney Creek.

According to the article this would include 17 acres of wetlands and two streams.

Every day in our country we lose wild natural places to development. This is such a loss for the birds and animals that depend on these areas as well as for the future generations of grandchildren who could enjoy the beauty of wetlands. I was also surprised that the National Register of Historic Places knew of no properties listed, because on any topographical map of Limestone County one can clearly see an Indian mound on Piney Creek. Even if the proposed site does not include the Indian mound, anything you do to any part of the creek affects all of the creek and surrounding areas.

This wetland is in some of the same area that citizens of Limestone County helped preserve when a proposed rock quarry wanted this land. At that time, an environmental study found two endangered species of snails in Piney Creek. One of them is found nowhere else in the world. This article was published in the Feb. 27, 2000, issue of The Courier in an article by Sonny Turner. It listed these two snails as the Armored Snail and the Slender Campeloma.

Everyday in Limestone County, our open spaces and land

are being built over by houses, businesses and streets. Even though our cotton fields are vanishing, I would rather see this proposed development in one of them than in a natural wetland.

If anyone reading this letter feels as I do, please send a comment expressing your opposition and ask for a public hearing on this matter to:

U.S. Corps of Engineers  
Nashville District Corp of Engineers  
U.S. Regulator Branch  
3701 Bell Road  
Nashville, TN 37214  
Attention: Eric Sinclair

These comments must be received before Dec. 20.  
Please join me in helping to preserve our wild natural wetlands. Thank you.

Sincerely,  
Doris Gabel Welch  
Madison

*David Maxwell*  
~~256-330-  
[scribble]~~

## Local immigration reform socialist

Dear Editor:

A Dec. 6 article in The News Courier entitled "Mass unions taking up 'English only' proposals" exposed a rift between the anti-immigration movement and the Nashville Chamber of Commerce. Indeed, local immigration reform is socialist. The intent is to shut down businesses, inflate wages, and intimidate potential replacement workers. Notice that the UAW voted to strike the day after Roy Moore came to Athens. A healthy capitalist economy with a low birth rate requires immigration. Notice how close the election was in Mexico. If we persist with brutal, repressive policies, in six years we will have another Cuba on our doorstep.

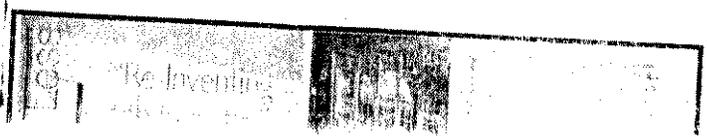
The fear that immigration is a threat to national security came from France and Holland, where most immigrants are Muslim. Here it is unconstitutional for municipalities to enforce foreign policy. Attempts to preserve white privilege may cede American sovereignty to European bureaucrats.

Defaming Hispanics as not cost-effective is neither true nor valid, but follows the Sandinista logic of the pro-abortion media. Every unborn baby is not yet a citizen, will cause health care, and is a potential crime problem. Since when is the sanctity of human life measured in dollar and cents?

Let's be vigilant against pernicious foreign influences that threaten our national unity.

Sincerely,  
Ryan Amptmeyer  
Elkmont

*congratulations*



**Victor P. Dura**

P.O. Box 509  
Rogersville, AL 35652  
256-247-1431 vpdura@Hiwaay.net

December 20, 2006

Mr. Eric Sinclair, U.S. Army Corps of Engineers  
Nashville District Corps of Engineers  
U.S. Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Mr. Sinclair:

I write this letter to oppose the permit now being considered for the Canebrake Subdivision in Limestone County, Alabama. I am against the destruction of 8.67 acres of wetlands in Limestone County along Piney Creek and I oppose the relocation of 4,500 linear feet of Piney Creek and it's stream channels. Piney Creek is well known to have two Federally Endangered Species (the Armored Snail and the Slender Campeloma). The culvert construction and the relocation of the creek and it's ephemeral streams would do damage to the habitat of these endangered species, which are in danger of extinction. It is also well known that a Native American mound is also located in this area on Piney Creek. In addition, many people of Limestone County and North Alabama use Piney Creek for fishing, plant observation, bird watching, and as a nature retreat. I request that you do not approve this permit to damage Piney Creek in any way.

Sincerely,



DEC 26 2006



Robinsong Ecological Resources, Inc.  
107 Kauffman Circle Madison AL 35758  
256-325-5325 fax 256-325-1325  
[cynthia@robinsong.com](mailto:cynthia@robinsong.com)  
<http://www.Robinsong.com>

To: Mr. Eric Sinclair

Date: December 19, 2006

Company: USACE  
Nashville District

No. Pages with cover: 2

Fax Number: (615) 369-7501

From: Cynthia Robinson/  
Andy Somers

Subject: Canebrake Club Wetland/Stream Impact  
Limestone County, AL

Fax: 256-325-1325

#### COMMENTS TO PUBLIC NOTICE 06-131

These comments concern the proposed impact of wetlands and stream in Limestone County, AL for the construction of the Canebrake golf course/residential development. The permit applicant has indicated that there will be approximately 8.67 acres of permanent wetland impacts and 4,500 linear feet of streams. The permit applicant has proposed to mitigate the adverse impacts of 8.67 acres of jurisdictional wetlands with creation of 12.67 acres of wetlands. The applicant proposes to mitigate 4,500 linear feet of streams by relocating 2,887 feet of stream into channels, waterways, and reinforced concrete pipe with a vegetated 25 feet buffer.

As per the *Mitigation Guidelines for the Nashville District Regulatory Program*, dated August 2004, the Basic Requirements for Success section A.1 states "whenever possible, choose wetland restoration over creation." Creation is typically strongly discouraged as a means of mitigating for wetland impacts. Restoration is generally the preferred method for mitigating for wetland impacts. If creation is chosen as the preferred alternative for this site, Robinsong would offer the following questions:

- What soil types will be used for fill and cut in these created wetland areas? How will hydric soils be duplicated?
- How will hydrology be provided, and will monitoring wells be established to determine that the site is inundated for the proper amount of time during the growing season?

Moreover, throughout the public notice, a 2:1 ratio is mentioned; however it is not achieved in the proposed mitigation plan. If 8.67 acres of wetlands are impacted, than 17.34 should be restored/created. Therefore, if the 2:1 ratio is to be maintained, 4.67 additional acres should be created/ restored. This 2:1 ratio will better account for temporal loss of wetland function and more importantly account for the uncertainty and risk of "creating" wetlands.

We have a stronger comment on the stream impacts. As far back as the Regulatory Guidance Letter, December 24, 2002, the Corps Districts have been urged to require compensatory mitigation projects for streams to replace functions and at a minimum all mitigation projects for streams should generally replace linear feet of stream; per RGL 2002, page 3, section 5, "mitigation projects for streams should generally replace linear feet of stream on a one-to-one basis". RER notes that this proposed application will result in a 1,613 feet "net loss" of stream (S-6: 897' loss, S-8: 716' loss).

Although 4,500 feet of in-stream impacts are to occur, the applicant has proposed no in-stream mitigation work, only the creation of a very thin riparian zone along the relocated stream. All onsite stream relocation projects are required to offset environmental losses resulting from authorized activities. Compensatory mitigation plans should discuss environmental goals and objectives including a hydrogeomorphic subclass or Rosgen stream type. The mitigation plan should describe the amount of linear feet and functional changes of aquatic habitat that the authorized work will impact and the amount of compensatory mitigation needed to offset those impacts. Moreover, using an approved stream restoration methodology such as Rosgen natural channel design, as outlined in the Mobile District Standard Operation Procedure (SOP) Compensatory Stream Mitigation Guidelines (2005), will restore the stream based on channel calculations and data, riffle pool sequences, etc. Is the stream in stable condition? Has a Bioassessment of Baseline conditions been completed to even know what is proposed for impact? Will the proposed channel carry the sediment load currently carried by the stream? Will the proposed sinuosity of the new channel slow the velocity of the flow to prevent erosion and scour? We find the stream mitigation component of this project to be highly objectionable, in that the proposed mitigation restores nowhere near the aquatic function that will be impacted. Adequate stream mitigation should be required.

Thank you for the opportunity to respond and comment on this public notice, I look forward to your response. Please contact me if you have any questions or need additional information.

Sincerely,



Cynthia Robinson  
 President  
 Robinson Ecological Resources, Inc.

**Appendix C**  
**Applicant's Response**



January 10, 2007

Mr. William E. Sinclair, Biologist  
Western Regulatory Section  
Nashville Engineer District  
3701 Bell Road  
Nashville, Tennessee 37214

***Re: File No. 970011470; Canebrake Club Department of the Army (DA),  
Unnamed Tributaries to Piney Creek Mile 14, Limestone Creek Mile  
1.7, Tennessee Rive Mile 310.7R, Athens, Limestone County, Alabama***

Dear Mr. Sinclair:

This letter responds to your 26 December 2006 letter to Mr. Bruce Cole of Great Southern Engineering (GSE) who was contracted to assist Canebrake Club in meeting its Clean Water Act compliance, including providing the Nashville Engineer District with a response to the Public and agencies' comments regarding Joint Public Notice (No. 06-131).

**Background**— Canebrake Club has tried to avoid, minimize, and when this was not feasible financially, provide mitigation to impacts to Waters of the U.S. Seventeen wetlands and 16 streams were located within the 850 acres of the Canebrake Development. Of these only two streams and five wetlands were judged unavoidable (please see Figure 1).

The Army Corps issued Joint Public Notice 06-131 (Tennessee Valley Authority & State of Alabama) on 20 November 2006. Of the agencies contacted, the US Fish & Wildlife Service and the Alabama Department of Conservation and Natural Resources (ADCNR) provided responses. These agencies expressed concerns for two endangered snails (armored marstonia and slender campeloma) and the endangered slackwater darter. Both agencies recommended a 3:1 wetland mitigation ratio instead of the 2:1 presented in Canebrake's mitigation plan. They also believed the stream mitigation plan should contain an "in-stream" component.

Twenty-eight comments were received from the public by electronic mail, facsimile, and standard mail. Eight e-mails were identical with the exception of the senders' name. One response was from a consultant and the remainder

from academia and interested individuals. The public comments centered on the following issues:

- Filling and Culverting Piney Creek,
- Destruction of native American cultural resources, particularly the Indian Mound identified on the USGS Topo Map,
- Adverse effects to endangered species,
- Flooding from filling two channels of Piney Creek to create one, and
- Filling 17 wetlands adjacent to Piney Creek.

**Agency Comments—**

**Wetlands**

Both the ADCNR and the US Fish & Wildlife Service recommend a 3:1 wetland mitigation ratio. As such, GSE believes 3:1 would be adequate mitigation for the low quality wetlands being impacted resulting in 25.33 acres of created wetlands. In all, five areas totaling 8.67 acres of jurisdictional wetlands are proposed for filling, and when preservation acreage is included 36.56 acres are proposed for mitigation. Because W-1 is located in the future development area, its 0.99-acre was not included as preservation credit. Although W-2 was located in the future development site, it was included because it is located on the property line and easily avoided. This leaves 11.23 acres of wetlands preserved on the Canebrake Club property and a total of 36.56 acres of mitigation for 8.67 acres of wetland impacts. With preservation credit requested at the normal 10:1 ratio, Canebrake would receive 1.12 acres of mitigation credit (please see revised Table 1).

Creation Area	Acres	Credit @ 3:1	8.67 Acres Mitigation Required
No. 1	6.25	2.08 Acres	
No. 2	7.31	2.44 Acres	
No. 3	2.97	0.99 Acre	
No. 4	8.80	2.93 Acres	
Subtotal	25.33	8.44 Acres	
Preservation	Acres	Credit @ 10:1	
Remaining Wetlands	11.23	1.12 Acres	
<b>Total</b>	<b>36.56 Acres</b>	<b>9.56 Acres</b>	<b>0.89 Acre Surplus "No Net Loss"</b>

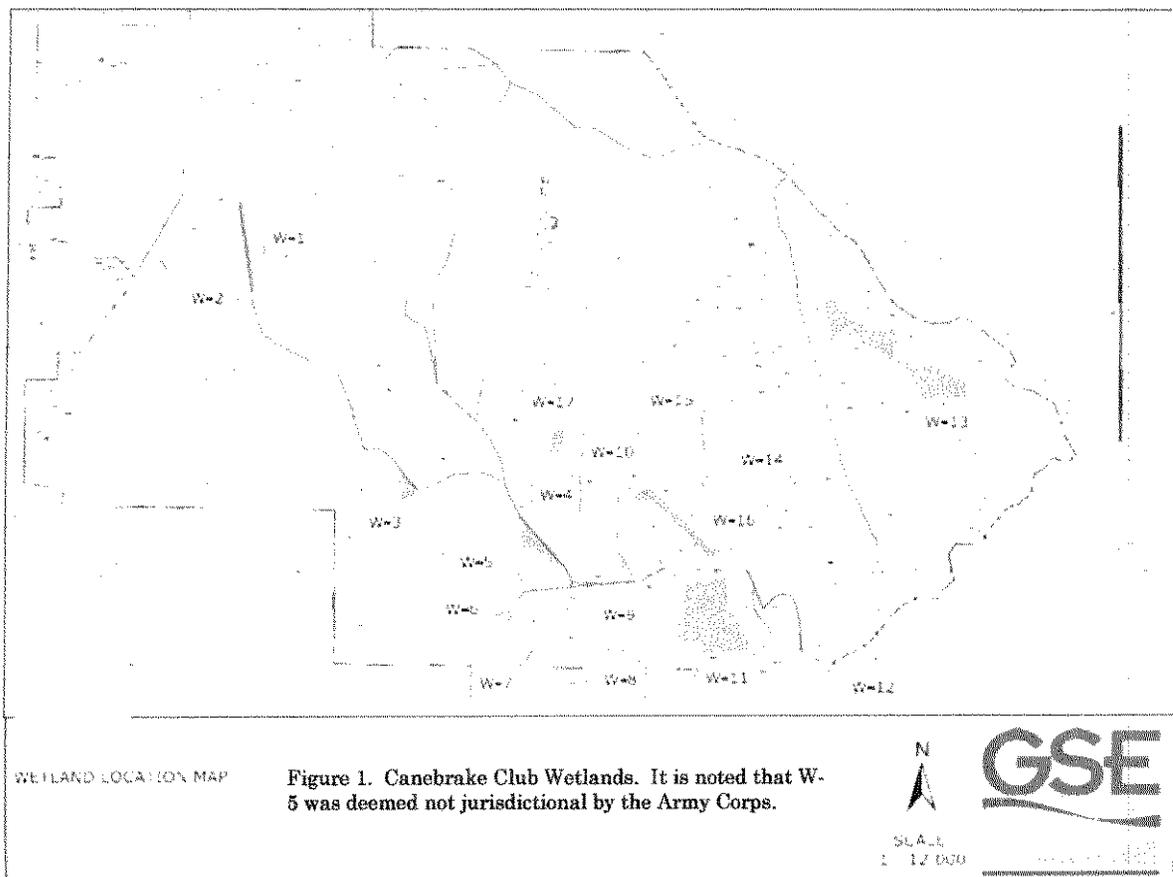
Impacted wetlands are described as follows and depicted in Figure 1:

W-4 is enhanced by beaver activity that had flooded or partially saturated the 1.22-acre area. It is proposed that this area be filled with 1,969 cubic yards of clean soil and rock to allow construction of Cherry Hills Drive and five building lots.

W-10 is dominated by woolgrass, sweetgum saplings, soft rush and broomsedge covering 0.25-acre. It is proposed to fill this area with 409 cubic yards with clean fill material to allow construction of portions of three lots.

W-11 is vegetated with green ash, woolgrass, soft rush, alders, red maple, and sweetgum saplings. The 6.77-acre wetland is a result of beaver activity from dams constructed off the Canebrake Club property. Canebrake proposes to fill this area with 10,928 cubic yards of clean earth and rock to construct Olympia Fields Drive and 17 building lots. This area had not been wet long enough to develop hydric soils.

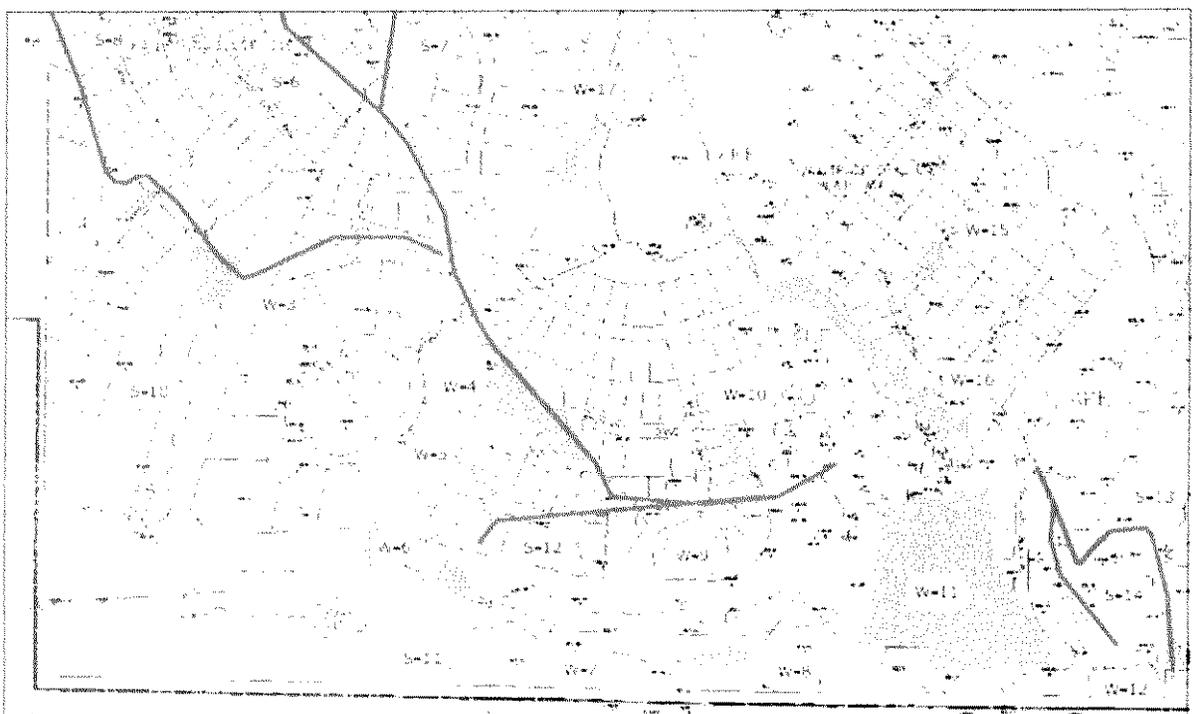
W-15 is 0.18-acre and is dominated by black willow with woolgrass, soft rush and sweetgum saplings present. Filling with 292 cubic yards of clean rock and dirt is proposed to allow construction of Crystal Downs Lane and portions of four lots.



W-16 is primarily a wetland shelf adjacent to a manmade pond. It is dominated with FAC or wetter vegetation, i.e. boxelder, sweetgum, soft rush, black willow, curly dock, and blackberry. The shelf composes 1.76-acre of this manmade wetland. Filling would allow construction of lots R-108, R-109, and R-110 resulting in filling 0.25-acre of jurisdictional wetlands with 409 cubic yards of clean soil.

### Streams

As previously stated, within the boundaries of Canebrake Club some 16 streams were identified by GSE with three being ephemeral. Again, GSE has assisted Canebrake Club in avoiding impacts to jurisdictional streams, but two small headwater streams (S-6 & S-8) were unavoidable (please see Figure 2). Both ADCNR and the US Fish & Wildlife Service believe the stream mitigation proposed by Canebrake Club is inadequate. In-stream structure is recommended by Alabama officials to improve habitat for amphibians and crayfish. With the assistance from GSE, Canebrake is agreeable to installing log drop structures every 500 feet of relocated channel (please see attached drawing).



STUDY AREA 3

Figure 2. Streams & Wetlands Canebrake Club--Athens, Alabama



**GSE**

S-6 originates in the center of Canebrake Club and becomes perennial after being joined by S-7. S-6 original channel is 2,350 feet in length and would be placed in a relocated channel 1,600 feet in length, thus resulting in 750 feet of lost channel. In addition, a 73' and 74' long 8' x 4' concrete box culvert would be constructed to allow crossing of Plainfield Drive and Medinah Lane, respectively. Total losses of jurisdictional waters of S-6 would be 897 feet.

S-8 begins within the northwest quadrant of the Canebrake property from discharges from W-1. Two stretches of S-8 are proposed for relocation. Near the confluence with S-6, 620 feet of original channel would be relocated in a 400 foot channel. In the upstream portion of S-8, 1,530 feet of natural channel would be placed into 1,000 feet of relocated waterway. S-8 would also be impacted by lot development and a road crossing at Shinnecock Hills Drive where a 31' long and 48" diameter reinforced concrete pipe (RCP) would carry the flow. In order to develop lots T-89 & T-90, a 155-foot long 48-inch RCP would be installed to carry S-8's flow, while at lots T-102 & 103 a 31-foot long 48-inch RCP would be provided. In total, 716 feet of original channel length would be lost as a result of development.

### Biological Assessment

Slackwater Darter: The slackwater darter (*Etheostoma boschungii*) uses two different habitats; one for breeding and the other for feeding and lounging (<http://www.fws.gov/endangered/i/e/sae1a.html>). Its preferred habitat is small to moderately large streams with a moderate to slow current. The slackwater darter seems to prefer bottom conditions characterized by an accumulation of leaves and detritus, but in some areas it has been found in association with clean silt, sand, and small gravel substrates. Breeding habitat is seepage water in open fields or woods. The water in the breeding area, about 4 to 8 centimeters deep, flows slowly into an adjacent stream (the nonbreeding habitat). Since the breeding habitat is usually 30 to 45 centimeters above the stream, the stream water must periodically rise (as it does during heavy rains) to give darters access to the breeding grounds.

The two streams proposed for relocation are small headwater streams with mostly sand and clay substrate with some gravel mixed in. The upper portion of S-8 proposed for relocation is intermittent and only a foot or two wide, while the lower portion is perennial. Stream-6 is perennial through the proposed relocated channel, but is about 3 to 4 feet wide with flow about two to three inches deep. Stream-8 coalesces with S-6 near the head of the proposed stream relocation; it then flows for approximately 1,000 feet before entering a small pond (<5 acres). This pond is connected to another pond (<5 acres) before discharging to an unnamed tributary to Piney Creek. Habitat

for the slackwater darter does not exist within the two proposed relocated sections of stream; therefore, there would be no affect on this endangered species.

Armored Marstonia & Slender Campeloma Snails: The armored marstonia (*Pyrgulopsis pachyta*) and the slender campeloma (*Campeloma decampi*) snails' life histories are practically unknown according to the US Fish & Wildlife Service. Colonies have been found in Limestone and Piney Creeks, which were confluent before the lower ends were impounded by Wheeler Reservoir (<http://www.fws.gov/policy/library/00fr10033.pdf>). Snails were found in shallow, still water along the edge of pools on tree roots and detritus.

As stated above, the streams proposed for relocation are headwater streams that were impacted from cotton, soybean and other agricultural production prior to the Canebrake Club purchasing the land. In addition, beaver activity was a severe problem during the Army Corps initial site visit in 1997 and remains an issue today. Although these snails' habitat requirements are not fully known, the fact that they have only been found in large creeks like Piney and Limestone Creeks implies that the two headwater streams are not suitable habitat for these snails. In addition, no snails we found during GSE's site reconnaissance. Importantly, the proposed relocated streams enter two 5-acre ponds before discharging to an unnamed tributary impounded by beavers. These water bodies act as settling ponds and treat discharge water before leaving the Canebrake Club. This being the case, it is unlikely that the stream relocations would affect these two sensitive aquatic gastropods living downstream in Piney Creek. Canebrake Club has no plans to alter Piney Creek or the by-pass channel traversing its property.

#### **Public Comments—**

Filling & Culverting Piney Creek: There is a total misunderstanding by the Public on what is proposed. The confusion can be traced to a letter by Ms. Doris Gabel Welch published by the editor of the local newspaper. The letter states that "...to fill in 8.67 acres of wetlands and 4,500 linear feet of Piney Creek". The Army Corps' PN identifies the streams to be relocated as unnamed tributaries to Piney Creek, not Piney Creek. Canebrake Club sees Piney Creek and its by-pass channel as an environmental amenity that should be protected.

Cultural Resources: Prior to Canebrake Club's present owners purchasing the property, the Army Corps recommended a cultural resource survey be undertaken, because an Indian mound had been identified on the USGS Topo Map. A survey was performed by professional archaeologists and their

findings revealed no significant cultural resources existed on the 800+ acre site and the mound was not associated with indigenous people. The Alabama Historical Preservation Office was provided a copy of the report.

Adverse Affects on Endangered Species: Please see responses to US Fish & Wildlife Service and ADCNR.

Flooding from Filling Two Channels of Piney Creek to Create One: Mr. Jack Leonard writes that "We have been alarmed at reports that Canebrake would close two braches of the creek to create only one channel." As stated above, Canebrake Club sees Piney Creek as a unique natural resource that should be protected, which it fully intends to do on that portion they own. At this time Canebrake Club has no plans to alter Piney Creek or the by-pass channel that traverses its property.

Filling 17 wetlands adjacent to Piney Creek: Here again, the Public has been misled by the letter by Ms. Doris Gabel Welch published in the local newspaper. The letter goes on to state that "According to the (newspaper) article this would include 17 wetlands and two streams". There are a total of 17 wetlands located on the Canebrake Club property, but only 5 small wetlands could not be avoided.

#### **Consulting Firm Comments—**

Robinsong Ecological Resources, Inc. comments could not be grouped with the Agency or Public comments, so they will be addressed separately as follows:

- References the *Mitigation Guidelines for the Nashville District Regulatory Program* and accurately quotes from these guidelines, but the key phrase here is "whenever possible".

Response—What is left out is that the Army Corps prefers to mitigate onsite whenever possible. Robinsong goes on to state that creation is strongly discouraged, but does not say by whom. It is this scribner's experience that wetlands can be created with ease as long as the hydrologic conditions can be met.

- Requests answers to several questions: "What soil types will be used for fill and cut in these created wetland areas? How will hydric soils be duplicated?"

Response—Soils found on site will be used for fill, and the cuts would not have hydrologic conditions to meet the wetland criteria. Hydric

soils found in some of the 17 wetlands were formed from beaver activity and poor drainage associated with farming that took place over a period of many years. It is not required to have hydric soils to meet the Army Corps 1987 Wetland Delineation Manual's criteria for jurisdictional wetland classification. Hydrologic conditions remains the key ingredient to wetland restoration and creation, ask any beaver.

- "How will hydrology be provided, and will monitoring wells be established to determine that the site is inundated for the proper amount of time during the growing season?"

Response—Monitoring wells are not part of the Monitoring Plan for this permit request. The annual 5 year reports will cover aquatic vegetation colonizing the sites, the survival rates of arborescent vegetation, wildlife utilizing the wetlands, visual records of hydrologic conditions, and photo documentation. With this information, the Army Corps and ADEM will be able to judge success without the need of expensive monitoring wells.

- Robinsong states that the mitigation requirements are not met because the 2:1 ratio falls short by 4.67 acres.

Response—The commenter is confused between what is debit and credit calculations; suffice it to say the commenter is mixing apples with oranges (please see revised Table 1).

- Robinsong refers to RGLs regarding stream mitigation, Mobile District Compensatory Stream Mitigation Guidelines, and asked several questions concerning bioassessments, sediment transport and other buzz words often used in stream restoration projects. To sum up their comments: "We find the stream mitigation component of this project to be highly objectionable, in that the proposed mitigation restores nowhere near the aquatic function that will be impacted."

Response—The two streams being relocated have been severely impacted from decades and possibly centuries of agricultural production. They have been straightened by farmers and dammed by beavers. There are few riffle areas because of the flat topography. The channel design was based on Athens, Alabama codes and not Rosgen techniques to duplicate these impacted streams that are no more than a couple of feet wide and a couple of inches deep. When the banks are stabilized and the land disturbances cease there will be much less sediment load to these drainages than occurred when cotton and

Mr. William E. Sinclair  
File No. 970011470  
Canebrake Club  
Page 9 of 9

soybeans were grown. In addition to the various RGLs that guide the Army Corps, Regulations also suggest that each project must be evaluated independently and on a case by case basis. I'm sure the Mobile Engineer District has excellent mitigation guidelines, but this project is under the jurisdiction of the Nashville District. Finally, one can not help but wonder about conflicts of interest, not to mention ethics, when a company that is in the mitigation banking business would use the DA permit process to increase mitigation requirements in an attempt to promote its product.

By increasing the wetland mitigation ratio from 2:1 to 3:1 as requested by the resource agencies, increasing the mitigation land to 36.56 acres while impacting 8.67 acres of jurisdictional wetlands, and adding in-stream structure, Canebrake Club has met the spirit and intent of the Environmental Protection Agency's 404(b) (1) Guidelines, the Clean Water Act, and the President's No-Net-Loss Policy regarding wetlands.

As always, the expeditious processing of the DA permit application will be appreciated. Please do not hesitate to contact me or Mr. Bruce Cole at 256-350-9754 to discuss GSE's response to the PN comments, or if you have any questions concerning this proposed work.

Sincerely,  
**Great Southern Engineering**



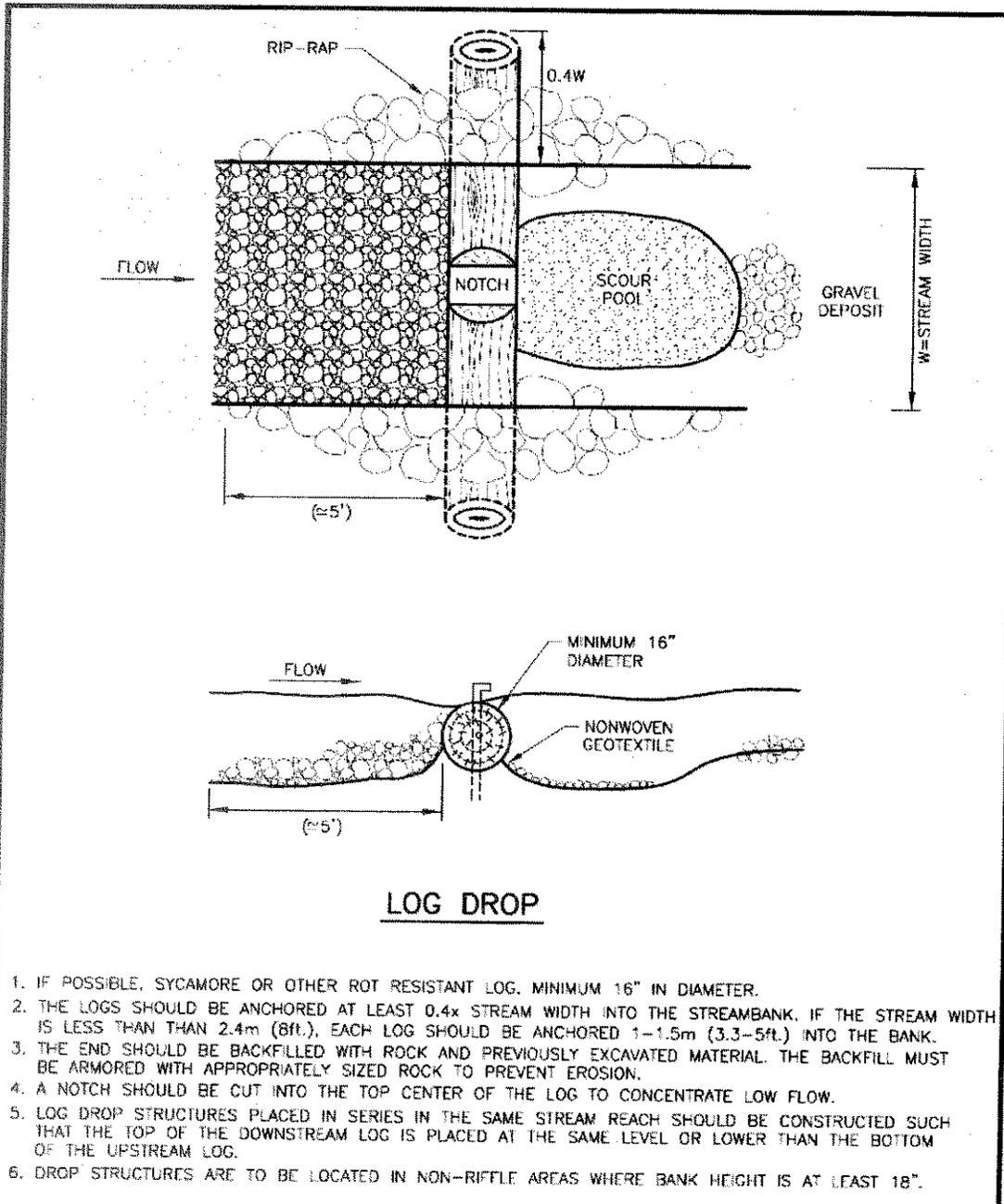
H. Joe Cathey, CFP  
*Senior Project Manager / Biologist*

Encl

Log Drop Diagram

CF:

David Wright, Manager  
Canebrake Club



**Proposed Log Drop Structure for Canebrake Club Relocated Streams**

**Appendix D**

**SHPO Letter of No Objection  
1997 Archaeological Report**



STATE OF ALABAMA  
ALABAMA HISTORICAL COMMISSION  
468 SOUTH PERRY STREET  
MONTGOMERY, ALABAMA 36130-0900

COLONEL (RET.) JOHN A. NEUBAUER  
EXECUTIVE DIRECTOR

January 4, 2007

TEL: 334-242-3184  
FAX: 334-240-3477

Eric Sinclair  
Regulatory Branch  
Nashville district USACE  
3701 Bell Road  
Nashville, Tennessee 37214

Re: AHC 2007-0242  
Public Notice No. 06-131  
Wetlands Fill and Stream Relocation  
Limestone County

16 JAN 2007

Dear Mr. Sinclair:

Upon review of the above referenced project, we have determined that the project activities will have no effect on any known cultural resources listed on or eligible for the National Register of Historic Places. Therefore, we can concur with the proposed project activities.

However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. Artifacts are objects made, used or modified by humans. They include but are not excluded to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicate disturbance by human activity. Some examples are post holes, building foundations, trash pits and even human burials. This stipulation shall be placed on the construction plans to insure contractors are aware of it.

We appreciate your commitment to helping us preserve Alabama's non-renewable resources. Should you have any questions, please contact Amanda Hill of this office and include the AHC tracking number referenced above.

Sincerely,

Colonel (Ret.) John A. Neubauer  
State Historic Preservation Officer

JAN/AMH/amh

**Appendix F**  
**ADEM Water Quality Certification**

ONIS "TREY" GLENN, III  
DIRECTOR



BOB RILEY  
GOVERNOR

Alabama Department of Environmental Management  
adem.alabama.gov  
1400 Coliseum Blvd. 36110-2059 Post Office Box 301463  
Montgomery, Alabama 36130-1463  
(334) 271-7700  
FAX (334) 271-7950

July 10, 2007

DAVID WRIGHT  
CANEBRAKE CLUB  
23015 FOUNDERS CIRCLE  
ATHENS AL 35613

RE: CWA Section 401 Water Quality Certification  
COE JPN# AL06-131 T3S, R4W, S25 Limestone County (083)  
Proposed Deposit of Fill Material into Streams and Wetlands Adjacent to Unnamed Tributaries of Piney Creek and Limestone Creek.

Dear Mr. Wright:

This office has completed a review of the above-referenced joint public notice and all associated materials submitted related to the proposed project. Any comments made during the public notice period have also been forwarded to us for review.

From our review, it is understood that the applicant proposes to deposit fill material associated with filling a total of 8.67 acres of wetland and the relocation of 4,500 linear feet of stream channel with culverts for the development of single-family residential lots around a golf course.

Because action pertinent to water quality certification (WQC) is required by Section 401(a)(1) of the Clean Water Act (CWA), 33 U.S.C. Section 1251, et seq., we hereby issue certification, for a period not to exceed five (5) years from the date of issuance, that there is reasonable assurance that the discharge resulting from the proposed activities as submitted will not violate applicable water quality standards established under Section 303 of the CWA and Title 22, Section 22-22-9(g), Code of Alabama, 1975, provided the applicant acts in accordance with the following conditions as specified. We further certify that there are no applicable effluent limitations under Section 301 and 302 nor applicable standards under Section 306 and 307 of the CWA in regard to the activities specified.

Please be advised that this certification shall expire **eighteen (18) months** after issuance if initial construction or implementation of the proposed project has not begun, unless an extension is approved by ADEM.

To minimize adverse impacts to State waters, by copy of this letter we are requesting the Nashville District Corps of Engineers to incorporate the following as special conditions of the Corps Permit:

1. Please be advised that all terms, conditions, and requirements of the National Pollutant Discharge Elimination System (NPDES) registration ALR160261 approved on February 19, 2007, are in effect and must be followed and maintained. Failure to comply with the NPDES registration approval may constitute a violation of this certification. Please be advised that this NPDES registration currently expires February 18, 2008.
2. During project implementation, the applicant/owner/operator shall ensure compliance with applicable requirements of ADEM. Admin. Code Chapter 335-6-6 (National Pollutant Discharge Elimination System), Chapter 335-6-10 (Water Quality Criteria), and Chapter 335-6-11 (Water Use Classifications for Interstate and Intrastate Waters).
3. Upon the loss or failure of any treatment facility, best management practice (BMP), or other control, the applicant shall, where necessary to maintain compliance with this certification, suspend, cease, reduce or otherwise control work/activity and all discharges until effective treatment is restored. It shall not be a defense for the applicant in a compliance action that it would have been necessary to halt or reduce work or other activities in order to maintain compliance with the conditions of this certification.

Birmingham Branch  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6168  
(205) 941-1603 (Fax)

Decatur Branch  
2715 Sandlin Road, S.W.  
Decatur, AL 35603-1333  
(256) 353-1713  
(256) 340-9359 (Fax)

Mobile Branch  
2204 Perimeter Road  
Mobile, AL 36615-1131  
(251) 450-3400  
(251) 479-2593 (Fax)

Mobile - Coastal  
4171 Commanders Drive  
Mobile, AL 36615-1421  
(251) 432-6533  
(251) 432-6598 (Fax)

1 2 111 2007

4. The applicant shall retain records adequate to document activities authorized by this certification including but not limited to, inspection reports, monitoring information, copies of any reports and all data used to complete the above reports or the application for this certification, for a period of at least three years after completion of work/activity authorized by the certification. Upon written request, the applicant shall provide ADEM with a copy of any record/information required to be retained by this paragraph. After completion of construction of the proposed project the applicant is required to submit to ADEM certification by a professional engineer (PE) registered in the State of Alabama and/or an ADEM recognized qualified credentialed professional (QCP) that all aspects of the project have in fact been implemented according to the requirements of this certification.
5. The applicant shall implement the project in accordance with all plans, designs, specifications, descriptions, drawings, schedules, maps, and other information submitted to ADEM relative to the proposed project, unless authorized otherwise by ADEM based on a detailed written request by the applicant to modify the project.
6. The applicant shall implement and maintain the Best Management Practices (BMP) Plan for prevention and control of nonpoint sources of pollutants, including measures that will be taken to ensure permanent revegetation or cover of all disturbed areas during and after project implementation, that was submitted as part of the application or required by this certification.
7. The applicant shall implement and maintain appropriate, effective Best Management Practices (BMPs) for prevention and control of nonpoint sources of pollutants during and after project implementation. The applicant, at a minimum, must implement and maintain applicable effective BMPs as provided in the Alabama Handbook For Erosion Control, Sediment Control, And Stormwater Management On Construction Sites And Urban Areas, as amended, Alabama Soil and Water Conservation Committee (ASWCC). A copy of the Handbook can be downloaded or ordered at [http://swcc.state.al.us/erosion\\_handbook.htm](http://swcc.state.al.us/erosion_handbook.htm). Immediately after completion of the project, the applicant is required to implement and maintain effective measures to ensure permanent revegetation or cover of all disturbed areas.
8. The applicant shall implement a Spill Prevention Control and Countermeasures (SPCC) Plan for all temporary and permanent onsite fuel or chemical storage tanks or facilities consistent with the requirements of ADEM Admin. Code R. 335-6-6-.12(r), Section 311 of the Federal Water Pollution Control Act, and 40 CFR Part 112. The applicant shall maintain onsite or have readily available sufficient oil & grease absorbing material and flotation booms to contain and clean-up fuel or chemical spills and leaks. The applicant shall immediately notify ADEM after becoming aware of a significant visible oil sheen in the vicinity of the proposed activity. In the event of a spill with the potential to impact groundwater or other waters of the State, the applicant should immediately call the National Response Center at 1-800-424-8802 and the Alabama Emergency Management Agency at 1-800-843-0699. The caller should be prepared to report the name, address and telephone number of person reporting spill, the exact location of the spill, the company name and location, the material spilled, the estimated quantity, the source of spill, the cause of the spill, the nearest downstream water with the potential to receive the spill, and the actions taken for containment and cleanup.
9. The applicant shall conduct, at a minimum, weekly comprehensive site inspections to ensure that effective Best Management Practices (BMPs) are properly designed, implemented, and regularly maintained (i.e. repair, replace, add to, improve, implement more effective practice, etc.) utilizing good engineering practices to prevent/minimize to the maximum extent practicable discharges of pollutants in order to provide for the protection of water quality. The inspections shall be conducted by a qualified credentialed professional (QCP), qualified personnel under the direct supervision of a QCP, or an ADEM recognized qualified credentialed inspector (QCI), until completion of the proposed activity.
10. Additional, effective BMPs shall be fully implemented and maintained on a daily basis as needed to prevent to the maximum extent possible potential discharges of pollutants from activities authorized by this certification, directly to or to a tributary or other stream segment, that have the potential to be impact a State water currently considered impaired [waterbody is identified on the Alabama 303(d) list, a total maximum daily load (TMDL) has been finalized for the waterbody, and/or the waterbody is otherwise considered a Tier 1 water pursuant to ADEM Admin. Code Ch. 335-6-10]. The applicant shall inspect all BMPs as often as is necessary (daily if needed) for effectiveness, need for maintenance, and the need to implement additional, effective BMPs. Additional effective BMPs shall immediately be implemented as needed and may include but are not limited to sediment retention basins, greater capacity in sediment retention structures, hydroseeding with application of non-toxic tackifiers, grass sodding, non-toxic chemical treatment, erosion control blankets, other effective innovative/alternative technologies, etc. to ensure full compliance with ADEM requirements and the protection of water quality in the impaired waterbody.

11. All construction and worker debris (e.g. trash, garbage, etc.) must be immediately removed and disposed in an approved manner. If acceptable offsite options are unavailable, effective onsite provisions for collection and control of onsite worker toilet wastes or gray waste waters (i.e. port-o-let, shower washdown, etc.) must be implemented and maintained. Soil contaminated by paint or chemical spills, oil spills, etc. must be immediately cleaned up or be removed and disposed in an approved manner. Also, the applicant shall manage and dispose of any trash, debris, and solid waste according to applicable state and federal requirements.
12. Appropriate measures must be taken to prevent the deposition of airborne pollutants such as spray paint, herbicides, excessive road dust, etc. from entering the waterbody.
13. Appropriate measures must be taken to prevent the disposal, minimize to the maximum extent practicable the deposition, and remove as necessary, any material, debris, or liquids resulting from bridge/culvert, building, or other construction and/or maintenance such as waste concrete/cement, wash water, surfactants, sand blasting particles, paint, etc. from falling into or entering the waterbody.
14. Surface drainage patterns should be designed, constructed, and maintained to the extent practicable with swales or other methods to minimize direct runoff into the waterbody and to prevent/minimize the introduction of pollutants. Diversion structures (berms, ditches, etc.) created in order to re-route upgradient stormwater runoff from the proposed project location shall be constructed, stabilized, and vegetated as necessary, prior to commencement of disturbance activities.
15. All materials used as fill, or materials used for construction of structures in a waterbody, must be non-toxic, non-leaching, non-acid forming, and free of solid waste or other debris.
16. The applicant shall implement appropriate measures to minimize the potential for a decrease of instream dissolved oxygen concentrations as a result of project implementation. In addition, the applicant shall ensure that the activities authorized by this certification do not significantly contribute to or cause a violation of applicable water quality standards for instream dissolved oxygen.
17. Dredged or fill material shall not be sidecast or otherwise placed in adjacent waters or wetlands outside the permitted project area.
18. The applicant shall implement appropriate, effective BMPs, including installation of floating turbidity screens as necessary, to minimize downstream turbidity to the maximum extent practicable. The applicant shall visually monitor or measure background turbidity. The applicant must suspend operations should turbidity resulting from project implementation exceed background turbidity by more than 50 NTUs. Operations may resume when the turbidity decreases to within acceptable levels.
19. The applicant shall conduct the proposed operation in a timely manner with all due diligence utilizing good engineering practices in order to reduce potential environmental impacts created by the project to the maximum extent practicable. The applicant shall conduct the proposed operation in an expedient time frame in order to reduce the amount of time to the maximum extent practicable in which turbid water is produced.
20. Any proposed temporary channel, pipe, culvert, conduit, or other management measures implemented to temporarily divert stream flow to accommodate culvert construction, stream crossings, pipelines, or other within-bank stream work shall be constructed and maintained at all times to ensure that water quality is not adversely impacted. The measures to protect water quality during the construction of the temporary diversion channel may include but is not limited to, temporarily blocking/impounding and pumping water around the construction area, construction of a temporary channel lined with plastic or rip-rap, temporary installation of a properly sized pipe, etc.
21. Any proposed new or modified permanent waterbody channel should duplicate the old waterbody channel or a natural waterbody channel in regard to pools, riffle areas, riparian vegetation, depth, gradient, and length to the maximum extent practicable so that the new/modified waterbody channel maintains its dimension, pattern, and profile while neither degrading nor aggrading to ensure that water temperature, pH, turbidity, and dissolved oxygen concentrations are not adversely impacted, and are improved to the extent possible, after the project is completed.

22. Permanent or temporary raised waterbody crossings must be constructed with pipe(s)/culvert(s) to safely pass expected mean water flow of the waterbody for the time of year and length of time that they are installed, unless a properly designed and constructed low-water crossing is installed that provides for unobstructed stream flow over the low-water structure. The crossing must be inspected on a regular basis and any significant debris or blockage removed and properly disposed to ensure unobstructed flow of water. Placement of raised rock-fill or other fill without pipe(s)/culvert(s) for passage of water is not acceptable. Each raised waterbody crossing must be designed and maintained to ensure structure integrity and stability for safe passage of water flow generated by expected precipitation events while the structure is in place.
23. The bottom of any proposed new or modified, temporary or permanent waterbody channel, culvert, ditch, culvert, or pipe should be V-notched, sloped, concave in shape, or otherwise constructed with a base flow channel or configuration, to ensure adequate concentrated and unobstructed flow of water during periods of low flow. Alternatively, the bottom of the culvert/structure can be buried at a sufficient depth considering the hydraulic gradient of the existing channel to provide for a stable sediment streambed through the culvert/structure, or a bottomless culvert can be installed where the stream bottom is bedrock or as otherwise determined suitable by the design engineer.
24. Design features, such as protection of existing waterbody trees or planting of new shade trees or other appropriate measures, should be implemented to the maximum extent practicable in order to minimize temperature extremes in any new or modified permanent waterbody channel.
25. The applicant shall adhere to the following sequence when preparing to release water into any temporary or permanent, new or modified waterbody channel. The new channel shall be fully stabilized prior to diversion of water. The applicant shall remove the downstream seal of the new channel. The upstream seal of the new channel is to be removed next. For new or modified permanent waterbody channels only, the applicant must wait at least 48 hours before sealing off the upstream entrance of the existing channel. Once the upstream section is sealed in the existing temporary or permanent channel, the applicant must ensure that all flow has left the existing channel to the maximum extent practicable before sealing the downstream opening of the existing channel and diverting all flow to the new or modified, temporary or permanent channel.
26. Please be advised that (A) ADEM Admin. Code R. 335-6-6-.03 (aaa) [NPDES Rules] defines "Waters of the state" as all waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce, (B) ADEM Admin. Code R. 335-6-9-.02(i) [Surface Mining Rules] defines "stream" as any body of water having a drainage area in excess of one square mile [640 acres], (C) Pursuant to ADEM Admin. Code R. 335-6-12-.21(10) [Construction Stormwater Rules], the installation or use of instream or within-bank sediment storage traps or deposition areas, or other sediment storage/detention BMPs, in waters of the State to control/treat stormwater runoff from construction/ activity, is not authorized, and (D) ADEM Admin. Code R. 335-6-12-.21(2)(b)3. [Construction Stormwater Rules], requires proper cleanup/removal or effective stabilization of sediment deposited offsite, in the event of such an occurrence, and effective remediation of sediment or other pollutant instream impacts to the maximum extent practicable.

In recognition that projects are site specific in nature and conditions can change during project implementation, ADEM reserves the right to require the submission of additional information or require additional management measures to be implemented, as necessary on a case by case basis, in order to ensure the protection of water quality.

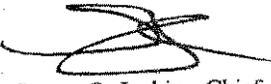
Liability and responsibility for compliance with this certification are not delegable by contract or otherwise. The applicant shall ensure that any agent, contractor, subcontractor, or other person employed by, under contract, or paid a salary by the applicant complies with this certification. Any violations resulting from the actions of such person shall be considered violations of this certification and may subject the applicant to enforcement action.

ADEM certification decisions are predicated on current regulatory requirements, established engineering standards and technical considerations, best management practices information, and formal administrative procedures in conformance with ADEM regulations and applicable Alabama law. Issuance of a certification by ADEM neither precludes nor negates an operator/owner's responsibility or liability to apply for, obtain, or comply with other ADEM, federal, state, or local government permits, certifications, licenses, or other approvals.

This certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, and in no way purports to vest in the applicant title to lands now owned by the State of Alabama nor shall it be construed as acquiescence by the State of Alabama of lands owned by the State of Alabama that may be in the applicant's possession.

Should you have any questions on this or related matters, please do not hesitate to contact **Vanessa Mae Heath, Mining & Nonpoint Source Section**, by email at [vheath@adem.state.al.us](mailto:vheath@adem.state.al.us) or by phone at (334) 394-4321.

Sincerely,



Steven O. Jenkins, Chief  
Field Operations Division

SOJ/vmh

File: WQ401/2529

c: Nashville COE  
Tennessee Valley Authority  
Permits & Services Division, ADEM  
Wetlands Section, EPA Region IV



STATE OF ALABAMA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
64 NORTH UNION STREET  
MONTGOMERY, AL 36130

December 19, 2006

JAMES H. GRIGGS, DIRECTOR  
GREGORY M. LEIN, ASSISTANT DIRECTOR  
STATE LANDS DIVISION

TELEPHONE (334) 242-3484  
FAX NO. (334) 242-0999

BOB RILEY  
GOVERNOR  
M. BARNETT LAWLEY  
COMMISSIONER  
RICHARD C. LILES  
OPERATIONS DIRECTOR

Nashville District Corps of Engineers  
Regulatory Branch,  
Mr. Eric Sinclair  
3701 Bell Road  
Nashville, TN 37214

08 JAN 2007

Re: Public Notice No. 06-131, Proposed Wetland and Stream Fill Associated with  
Development of Residential Lots, Athens, Limestone County, Alabama.

Dear Mr. Sinclair:

The Department of Conservation and Natural Resources has reviewed the above mentioned public notice involving the proposed filling of 8.67 acres of wetlands and 4,500 linear feet of stream associated with the development of residential lots. The Division of Wildlife and Freshwater Fisheries submits the following comments:

- If the proposed project will impact habitat types known to support protected species, the applicant should have a professional survey completed to determine if such species currently inhabit the project site. The applicant is also advised that it is necessary to coordinate with the U. S. Fish and Wildlife Service (USFWS) regarding potential impacts to federally-protected species, but please note that USFWS does not provide information on state-protected species. If protected species are adversely impacted by the project, additional coordination with the Department of Conservation and Natural Resources (334-242-3851) and/or with USFWS (251-441-5181) will be required.
- The applicant proposes to mitigate for wetland losses through the creation of 25.33 acres of wetland habitat. We do not generally consider wetland creation a preferred mitigation alternative due to the relatively high risk of failure associated with these activities; however, if the COE- Nashville has visited the site and judged the site viable for wetland creation we will agree to the wetland mitigation plan with the exception of credit calculations. We believe that the 2:1 ratio submitted by the applicant is only appropriate when wetland restoration is being performed. It has been and continues to be our view that when wetland creation is employed as compensatory mitigation a 3:1 ratio should be applied to the credit calculations. In this case, the applicant would receive 8.44 acres/credits for the wetland creation work performed leaving the applicant with a 0.23 acre deficit.
- The public notice also states that 4,500 linear feet of stream will be impacted. Specifically, S-6 and S-8 will be relocated. We are particularly concerned about the proposed piping of 186 linear feet of S-8. RCP as an alternative stream channel discourages and may inhibit passage of aquatic organisms. Since the success of this project does not require piping of stream channel, we encourage the applicant to explore other design alternatives. Overall the proposed stream relocation activities will result in approximately 1500± linear feet of channel being lost. The applicant proposes riparian enhancement activities as the preferred mitigation alternative. We do not oppose riparian enhancement as mitigation; however we feel that



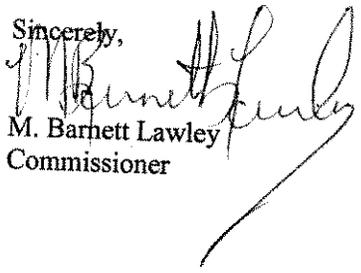
Page 2  
06-131  
Mr. Sinclair

mitigation activities resulting from lost stream channel should have an "in-stream" component to them. In addition, we do not believe beaver activities constitute a reasonable justification for not placing log drop structures on these sites. Finally, we suggest that sound stream restoration and impact prevention principles advocated by hydrologist Dave Rosgen in Applied River Morphology be applied at the relocation sites. We request the opportunity to review and comment on any revisions to the proposed mitigation plan.

▪ State water quality standards (particularly those related to erosion control, water turbidity, and dissolved oxygen) are strictly adhered to.

Additionally, The Natural Heritage Section of the State Lands Division has reviewed their database and provides the following information pertaining to state protected, and federally listed candidate, threatened, and endangered species. The closest species is recorded in our database as occurring approximately 3.2 miles from the subject site. This federally listed threatened aquatic species (Slackwater Darter) is found typically in gravel-bottomed pools in sluggish areas of creeks and small rivers that generally are not more than 12 m wide and 2 m deep. It spawns in very shallow (2-4 inches deep) clear, moving seepage or spring water in fields and open woods characterized by the presence of JUNCUS and ELEOCHARIS.

Sincerely,

  
M. Barnett Lawley  
Commissioner

Cc: Wildlife and Freshwater Fisheries  
ADEM

**Appendix E**

**Section 404(b)(1) Guidelines Compliance**

**Section 404 (b)(1) Guidelines.**

Evaluation of Compliance with Section 404 (b)(1) guidelines (restrictions on discharge, 40 CFR 230.10). (An X in a block denoted by an asterisk indicates that the project would not comply with the guidelines.)

1) Alternatives test:

Yes\*  No X

i) Based on the alternatives discussion, are there available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into "waters of the U.S." or at other locations within these waters?

Yes X No\*  NA

ii) Based on the alternatives discussion, if the project is in a special aquatic site and is not water dependent, has the applicant clearly demonstrated that there are no practicable alternative sites available?

2) Special restrictions. Will the discharge:

Yes\*  No X

i) Violate state water quality standards?

Yes\*  No X

ii) Violate toxic effluent standards (under Section 307 of the Act)?

Yes\*  No X

iii) Jeopardize endangered or threatened species or their critical habitat?

Yes\*  No X

iv) Violate standards set by the Department of Commerce to protect marine sanctuaries?

Yes X No\*

v) Evaluation of the above information indicates that the proposed discharge material meets testing exclusion criteria for the following reason(s).  
( X ) based on the above information, the material is not a carrier of contaminants.  
( ) the levels of contaminants are substantially similar at the extraction and disposal sites and the discharge is not likely to result in degradation of the disposal site and pollutants will not be transported to less contaminated areas.  
( ) acceptable constraints are available and will be implemented to reduce contamination to acceptable levels within the disposal site and prevent contaminants from being transported beyond the boundaries of the disposal site.

3) Other restrictions. Will the discharge contribute to significant degradation of "waters of the U.S." through adverse impacts to:

Yes\*  No

i) Human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife, and special aquatic sites?

Yes\*  No

ii) Life states of aquatic life and other wildlife?

Yes\*  No

iii) Diversity, productivity and stability of the aquatic ecosystem, such as loss of fish or wildlife habitat, or loss of the capacity of wetlands to assimilate nutrients, purify water or reduce wave energy?

Yes\*  No

iv) Recreational, aesthetic and economic values?

Yes  No\*

4) Actions to minimize potential adverse impacts (mitigation). Will all appropriate and practicable steps (40 CFR 230.70-77) be taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?

**Appendix G**

**USFWS Section 7 Letter**



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
1208-B Main Street  
Daphne, Alabama 36526

SEP 20 2007

IN REPLY REFER TO:  
2007-FA-0028c

Mr. Eric Sinclair, Regulatory Specialist  
U.S. Army Corps of Engineers  
Western Regulatory Field Office  
2042 Beltline Road, SW  
Building C, Suite 415  
Decatur, AL 35601

Pickwick - Wheeler Watershed Team	
JKA	JDS
CLC	SJS
SAH	SST
WRM	
RLM	
SDM	
HLM	
RJM	
JGP	
RLP	
AMP	
DJS	Files
Received: 9/19/07	

Dear Mr. Sinclair:

This is a follow-up report to a September 5, 2007, electronic mail submission from the environmental consultant for Great Southern Engineering, Inc. (GSE), on behalf of the applicant, Canebrake Club, concerning public notice (PN) 06-131, application No. 970011470 joint public notice United States Army Corps of Engineers (COE), Tennessee Valley Authority (TVA), and the State of Alabama, Department of Environmental Management (ADEM); in which GSE provided a revised stream mitigation plan for impacts associated with the Canebrake Club project located in Athens, Limestone County, Alabama.

This report is prepared in accordance with the requirements of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), and Fish and Wildlife Coordination Act (16 U.S.C. 661-667e) and is to be used in your determination of 404 (b) (1) guidelines compliance (40 CFR 230) and in your public interest review (33 CFR 320.4) as they relate to protection of fish and wildlife resources.

The Service has been in consultation on this project with the COE and the applicant since December 2006. Originally, the Service had no records of any federally Threatened or Endangered (T&E) species being located on the subject property. The Service was aware and described in their initial response letter to the COE, dated December 20, 2006 (Service Ref. #2007-FA-0028), that the subject property and proposed project location was approximately 1.5 miles upstream of two federally endangered aquatic snail species, the armored marstonia (*Pyrgulopsis pachyta*) and the slender campeloma (*Campeloma decampi*). However, once this project was announced through the COE's public notice process, the Service was informed that this project may have direct, adverse impacts on Piney Creek and these two federally endangered aquatic snail species. That information was provided by two T&E species surveyors who had completed survey efforts in Piney Creek, near the subject property, and in several other streams in Limestone County, Alabama, during the summer of 2006. In light of this new information, we retracted our T&E species determination made in the first response letter, by official

[www.fws.gov](http://www.fws.gov)

PHONE: 251-441-5181



FAX: 251-441-6222

letter, dated December 21, 2006 (Service Ref. #2007-FA-0028b), and requested a site visit with the applicant and appropriate federal and state agency representatives to discuss project plans and potential impacts to these two T&E species. Based on information gathered and shared during the January 16, 2007, onsite visit with these individuals, our letter requested the applicant provide more detailed information on their proposed mitigation activities. We also requested that the applicant describe how they proposed to avoid adverse impacts to these species while accomplishing their proposed onsite stream mitigation

On August 27, 2007, a Service biologist received, via an electronic mail submission from GSE, the engineering design/plan for the proposed stream bank stabilization project for Piney Creek By-pass channel. GSE's proposal to improve stream bank condition within the By-pass channel was considered part of the overall stream mitigation necessary to offset adverse impacts associated with a channel relocation of a perennial stream channel on the subject property. As proposed, the stream bank stabilization project would stabilize both the right and left banks up- and downstream from the golf cart bridge located near the upstream end of the By-pass channel. The stabilization would be accomplished by sloping the existing stream banks to a 2:1 slope, placement of geotextile filter fabric onto the bare slope, then placement of class III riprap stone on those contoured slopes.

On September 4, 2007, after review of the proposed bank stabilization, a Service biologist telephoned GSE to discourage their proposed use of geotextile fabric on the stream banks because those materials would likely discourage native vegetative recruitment to occur in and among the riprap stone. The Service biologist also requested that GSE provide engineering details on the proposed instream log drop structures planned for stream S-6, riparian tree planting proposed along stream S-6 and the stream bank stabilization, and their monitoring plans for both the stream bank stabilization and log drop structures in stream S-6. Later that same day, via an electronic mail message, GSE stated that they would remove the use of geotextile materials from the stream bank stabilization plans and informed the Service biologist that additional information regarding stream S-6 and compensatory stream mitigation monitoring would be gathered and sent to the Service from GSE's environmental consultant.

On September 5, 2007, the Service received from GSE's environmental consultant an engineering design for stream S-6's log drop structures, compensatory stream mitigation monitoring plans, and a riparian tree planting proposal with a list of tree species to be planted. After review of this information, we concur with the plans to place eight log drop structures in stream S-6 and believe the structure design is adequate to stabilize and provide aquatic habitat for stream S-6.

We reviewed the riparian tree planting proposal and list of trees considered for planting. We concur with the tree planting spacing of 15' on center and the planting of willow and pin oak tree species, however, we recommend the COE discourage GSE from planting red maple. Red maple is a pioneering tree species and natural recruitment of this species is highly likely at the project site and within the flood prone and floodplain area of Piney Creek. For the benefits of both stream bank stability and improving wildlife habitat conditions at this site over time, we recommend substituting red maple with water oak, a relatively long-lived, wildlife suitable mast producing tree.

We would like to reiterate that monitoring of all compensatory stream mitigation as well as compensatory wetlands mitigation should be conducted according to the COE's guidance documents on compensatory mitigation. We acknowledge GSE's intent to follow COE's compensatory mitigation monitoring requirements for both the stream and wetlands and encourage GSE to immediately correct and/or ameliorate failures if they occur.

We believe that the applicant has provided adequate information on their proposed onsite compensatory stream and wetlands mitigation. Based on the best information available at this time and the recent survey conducted in areas in close proximity to the proposed project, we believe that the requirements under Section 7 of the Endangered Species Act (ESA) of 1973, as amended, are fulfilled. Obligations under Section 7 of the ESA must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not considered, (2) the action is subsequently modified to include activities which were not considered in this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action. Therefore, this letter represents our concurrence with the proposed activities. However, we do have a few recommendations and comments that we believe should be considered by COE and included as contract language so as to avoid adverse impacts to T&E species, other fish and wildlife resources, and their habitats.

Our recommendations and comments are as follows:

Stream bank stabilization activities should occur during low, base flow discharge conditions within Piney Creek By-pass channel, typically during the summer months (July through October). Stream flow through the footprint will not be altered or otherwise impeded during stream bank stabilization activities.

Contour stream banks at no less than a 2:1 slope. We recommend the riprap stone placement occur at the toe of the newly contoured bank slope and allow no riprap stone to be placed out into the active, flowing stream channel (i.e. do not fill existing stream channel with rock). All riprap stone placement will be conducted by use of equipment capable of individually placing the stone (i.e., track hoe or back hoe with appropriate reach limits for the site).

All mechanized equipment used to complete this project will be monitored regularly to ensure all hydraulic, fuel, and oil lines (hoses and fittings) are in proper working condition and there are no leaks of any hazardous fluids on the work site. At no time will vehicle refueling or maintenance take place within 100 feet of aquatic habitats. If equipment will be parked or staged within 100 feet of an aquatic habitat, drip pans and emergency spill equipment will be on hand for use and clean-up.

Best management practices (BMPs) are essential in minimizing adverse impacts to fish and wildlife and plant resources. Therefore, BMPs and their appropriate use will be employed prior to and maintained throughout the duration of the project to avoid or minimize sedimentation and turbidity in Piney Creek and Wheeler Reservoir/Tennessee River during all phases of construction for this project.

All bare soil areas will receive measures to reduce soil erosion at the work site (i.e. use hay bales, spread hay/straw, spread grass seed, erosion control fences, geotextile blankets, etc...).

The preferred time of the year to establish shrub and tree species is during the winter months, typically December or January. However, the variability of stream flows during the winter and early spring months can create difficulty for the establishment of vegetation on stream banks. Therefore, monitoring these plantings and reestablishment of vegetation where it has been compromised would remain a priority for the applicant to receive credit for their mitigation efforts. Although winter is considered the most appropriate time for vegetation planting, if conditions warrant (i.e. stream base flows moderate and soil conditions/soil moisture remain good), to reduce impacts from flooding, we recommend the planting of shrubs and stream bank vegetation during late spring. Flooding is one of many potential impacts to planting vegetation. A need may currently exist or may arise to deter wildlife (e.g. beavers, deer) from browsing on newly established plantings. If applicable, we recommend the applicant consider reducing these impacts by employing wildlife-deterrent technologies (e.g. shrub or tree tubes) to improve establishment and survival of plantings.

The Wheeler National Wildlife Refuge office (#256/353-7243, ask for Mr. Rob Hurt) will be contacted at least 48 hours prior to any work that will directly affect the stream to enable a Service representative to be on site during the project to verify proper implementation of BMPs and provide technical assistance if necessary. If during the proposed construction of this project a federally-proposed or federally-listed threatened or endangered species is encountered, onsite work will cease and a Service biologist contacted immediately.

Lastly, we understand the applicant has agreed to mitigate wetlands losses at a 3:1 ratio for the proposed wetlands creation proposed on the subject property. Due to past research and studies conducted on wetlands creation in the United States, it is essential the applicant monitor closely their efforts, successes and failures, and keep the COE updated as to the progress of the wetlands creation efforts. Monitoring should include hydrologic, vegetation and soils conditions. Although visual observation of the sites identified for wetlands creation leads the Service to believe hydrologic conditions would be met in those sites, we recommend the use of monitoring wells (e.g. piezometer) to verify hydrology criteria are being met. Provided wells are used, the applicant and regulatory agencies would be able to track hydrologic conditions with quantitative data rather than relying on visual observations and photo documentation as the sole source for determining success or failure.

Monitoring vegetation could be accomplished by setting up plots that are regularly surveyed for vegetation establishment, thus allowing the applicant and regulatory agencies to follow vegetation trends in these created wetlands. We recommend wetland preservation credits be no less than 20:1 on this site. At this ratio, it appears as though the applicant would continue to meet appropriate mitigation of wetlands impacts and off-set the wetlands losses occurring on-site. We reiterate that all wetlands creation and preservation sites be placed into a conservation easement or restrictive covenant to protect them in perpetuity from future land disturbing activities.

We appreciate the opportunity to comment on this project and request that we be kept informed of the proposed action. We look forward to working with you in the future. If you have any questions please contact Mr. Rob Hurt at (256) 353-7243, ext. 29.

Sincerely,



William J. Pearson  
Field Supervisor  
Alabama Ecological Services Field Office

cc: Mr. Eric Sinclair, COE, Decatur, AL  
Ms. Heather McGee, TVA Wheeler Watershed Team, Muscle Shoals, AL  
Ms. Tonya Mayberry, ADEM, Montgomery, AL  
Mr. Brian Topping, EPA, Atlanta, GA  
Mr. James Cherry, ADCNR, Montgomery, AL  
Mr. Rob Hurt, USFWS, Decatur, AL