Document Type: EA-Administrative Record
Index Field: FONSI
Project Name: US 43 Bridge Replacement - Bear Creek
Project Number: 2005-82

FINDING OF NO SIGNIFICANT IMPACT AND ADOPTION OF ENVIRONMENTAL ASSESSMENT PREPARED BY THE FEDERAL HIGHWAY ADMINISTRATION

TENNESSEE VALLEY AUTHORITY
SECTION 26A APPROVAL FOR STATE ROUTE 17 (US 43) BRIDGE REPLACEMENT OVER BEAR CREEK IN MARION COUNTY, ALABAMA

Proposed Action and Need

On March 17, 2005, Alabama Department of Transportation (ALDOT) requested Section 26a approval for a bridge replacement on U.S. Highway 43/State Route 17 (US 43) across Bear Creek near Hackleburg, Alabama. The project is the replacement of the existing bridge on US 43 over Bear Creek and the widening of US 43 from a two-lane to a divided four-lane roadway for approximately one mile on each side of the bridge. The Environmental Assessment (EA) for Project BR 392(6) SR 17 Bridge Replacement over Bear Creek in Marion County was approved March 16, 2001. The Federal Highway Administration (FHWA) approved a Finding of No Significant Impact (FONSI) for this project on February 13, 2003. The project also includes four other stream crossings. ALDOT proposes to extend a 36-inch pipe by 65 feet and a 42-inch pipe by 60 feet on an unnamed tributary to Nix Branch; extend a 42-inch pipe by 165 feet on another unnamed tributary to Nix Branch; install 395 feet of new 42-inch pipe on an unnamed drain to Nix Branch, and extend a 42-inch pipe by 140 feet on Hill Spring Branch. Construction of the bridge approaches would not impact wetlands and the U.S. Army Corps of Engineers verified that the project qualified for a Department of the Army Nationwide Permit (#14) on March 25, 2005.

In the public agency coordination, TVA commented that the stream crossings would require approval under Section 26a of the TVA Act and that the EA should evaluate the impacts of the project on recreational activities in this vicinity and two caves within the construction limits of the project. TVA also requested that access to the stream at the new bridge be restricted by extended guard rails or other types of vehicle barriers. TVA has decided to adopt the ALDOT/FHWA EA because of the potential scenic impacts to a stream listed on the Nationwide Rivers Inventory (NRI) and to recreation lands as defined under section 4(f) of the Department of Transportation Act, and also to account for the total federal involvement from federal funding for the entire project.

Impacts Assessment

This portion of Bear Creek is listed on the NRI, a list of rivers that are potentially eligible for designation as Wild and Scenic Rivers. Section 5(d) of the Wild and Scenic Rivers Act, and a presidential directive that implements it, require that Federal agencies avoid proposed actions which would foreclose options to classify any portion of the inventory segment as wild, scenic, or recreational river areas and incorporate avoidance/mitigation measures into the proposed action to the maximum extent feasible within the agency's authority. The bridge would impact the TVA-established Bear Creek Floatway, which extends from the tailwaters of Upper Bear Creek Dam to the reservoir influence of Bear Creek Reservoir. TVA purchased a permanent easement along this section of river to provide a scenic, undisturbed canoeing experience. In addition, TVA acquired five fee

parcels of land on the creek to provide public access to the creek. The existing bridge spans the Floatway just downstream of an additional access site provided by a TVA-licensed commercial outfitter. The intent of these access points is for public use of the fee parcels and no public use of the easement except as a scenic resource and a landing in case of emergencies. Likewise, the fee owners of the property are restricted from development and clearing of the easement area. The FHWA FONSI approval included a programmatic section 4(f) evaluation to address the potential impacts and possible mitigation for impacts to the Floatway. On December 5, 2002, TVA agreed with the FHWA's programmatic evaluation provided that vehicle access to the stream banks is restricted. FHWA's FONSI included an ALDOT agreement to the construction of extended guard rails for this purpose. These guardrails would uphold the purposes of the TVA purchased easement as envisioned by the Floatway Project. The National Park Service (NPS) was consulted and on April 11, 2005, issued a letter of concurrence with the proposed project (see attached).

Views of outstanding scenery are provided by the Floatway to recreational paddlers. A portion of this highly valued naturally appearing landscape is a 40-foot waterfall, which is centered by a broken and disjointed concrete flume. The waterfall is located just upstream of the existing US 43 bridge crossing at the confluence of Nix Branch and Bear Creek. Paddlers approaching the area have views of the existing bridge and partial views of the waterfall and flume, which is set back slightly from the shoreline. The scenic attractiveness is common within the project vicinity with areas in close proximity to the abandoned flume and waterfall exhibiting distinctive characteristics and the scenic integrity is moderate. Collectively, the proposed project would have minor impacts to the existing visual resources which would be confined to the construction period.

In response to the ecological consultant's request for a list of threatened and endangered species that may occur within the project area, the FWS returned their letter with a stamp and signature dated November 12, 1999, that stated no federally-listed, proposed, or candidate species were present. However, since that time, TVA has become aware of new information regarding threatened and endangered plants in northwest Alabama. Therefore, TVA assessed the potential for impacts to threatened and endangered plants and their habitats. Eight vascular plant species, including one candidate for federal listing, are included in the database of TVA's Regional Natural Heritage Program and the database of the Alabama Natural Heritage Program; Ash's hawthorn (*Crataegus ashei);* Shining clubmoss (*Huperzia lucidula);* Rock clubmoss (*Huperzia porophila);* Monkey-face orchid (*Platanthera integrilabia);* Spikemoss (*Selaginella arenicola ssp riddellii);* Spikemoss (*Selaginella rupestris);* Mountain camellia (*Stewartia ovata);* and Dwarf filmy-fern (*Trichomanes petersii).* On May 9, 2005, personnel of TVA's Regional Natural Heritage Program conducted a field survey. No listed species were seen in the area to be impacted; therefore, there would be no significant adverse impacts to these plants. Patterns of plant communities in this region are complicated because of the complex topography and soils of the region. One unique vegetation feature of this area is the presence of species which are typically found in cool temperate climates. In the project area, the vegetation is a mixture of several tree species in the canopy, a shrub layer, and a ground layer of species, all of which are predominate in cool and moist habitats. Of particular interest is the Cumberland Plateau Mesic Hemlock – Hardwood Forest, ranked by NatureServe (http://www.natureserve.org/explorer) as critically imperiled globally. The total extent of the forest community in Alabama is not known, but it does occur wherever there are undisturbed or little disturbed north or east facing sandstone bluffs and steep slopes in

the Cumberland Plateau Physiographic Province in Alabama. Such habitats are extensive on Upper Bear Creek Reservoir and along Bear Creek downstream along the Floatway to the Bear Creek Reservoir. The development of this forest community at the proposed crossing over Bear Creek (in Marion County) does not conform precisely to the description of the forest in NatureServe Explorer, although the overall Marion County occurrence conforms well enough to be included in the category. The proposed project would eliminate a small segment of this forest community. Because the segment of Cumberland Plateau Mesic Hemlock – Hardwood Forest is so small and not of the quality at this location as the rest of the community in Marion County, the loss of this small segment would not be a significant impact to this forest community. There are no other plant communities in the vicinity of the project area that are of conservation concern.

A review of the Heritage database indicates no extant aquatic threatened and endangered species in the vicinity of the proposed actions. The primary water quality concern during the construction activities would be sediment loading. Effects of sediment loading on surface water quality would be temporary in nature and would be minimized with the use of proper Best Management Practices (BMPs) for erosion and sediment control including the TVA standard conditions 5a through 5e for culverts and conditions 6a through 6i for construction. These conditions also include the avoidance of contact of wet cement with surface waters. TVA comments on the draft EA recommended that the EA should determine if any specific karst protection measures are needed to avoid adverse impacts to two caves shown on the ecological resources map in the EA and to water quality in the area. Their response was that “the two caves are within the construction limits of the project but the highway will not be constructed directly over each cave. Before the initiation of construction a soil profile will be made. If karst areas are detected they will be treated as lime sinks and sealed.” ALDOT performed a soil survey and determined that the caves do not need to be sealed.

A Phase I cultural resources survey was conducted by ALDOT in 2004. The survey identified three archaeological sites that were potentially eligible for the National Register of Historic Places. Subsequently ALDOT conducted Phase II testing on these three sites and, based on the results, determined that none were eligible for the Register. On February 14, 2005, ALDOT submitted the Phase II testing report and their determination to the Alabama State Historic Preservation Office (SHPO). The SHPO concurred with this determination on March 11, 2005.

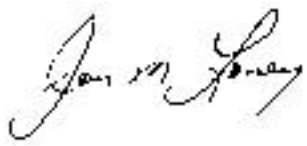
The proposed project involves the construction of bridges and culverts within the 100-year floodplain. For compliance with Executive Order 11988, bridges and culverts are considered to be repetitive actions in the floodplain. The unincorporated areas of Marion County participate in the National Flood Insurance Program (NFIP); therefore, by definition, the project meets the standards of the NFIP and complies with EO 11988. There would be no conflicts with navigation as long as the same bridge clearances are used as with the original bridge. There are no TVA navigation aids in the vicinity.

Public and Intergovernmental Review

ALDOT conducted a design/corridor public hearing on January 10, 2002. Comments included preserving access to private property, limiting the taking of pasture, and avoiding the taking of a watering trough. The EA stated that only a minor amount of right-of-way would be required, resulting in the partial loss of some of the residences’ yards.

Conclusion and Findings

TVA has concluded that the FHWA-prepared EA is adequate; the impacts on the environment and agency comments have been adequately addressed. TVA has decided to adopt the FHWA EA. It is attached and incorporated by reference. For compliance with Executive Order 11988, culverts, bridges, the grading, and fill associated with bridge approach are considered to be repetitive actions in the floodplain for which there is no practicable alternative. No wetlands would be affected. TVA has determined that there would be no effects to endangered and threatened species from the Section 26a approval. Based upon the provided cultural resource information, along with conversations with cultural resource personnel at ALDOT, TVA has determined that no historic properties would be affected. TVA's Section 26a approval is contingent upon successful implementation of BMPs for erosion and sediment control including the TVA standard conditions 5a through 5e for culverts and conditions 6a through 6i for construction. Based on the findings in the FHWA EA dated March 17, 2005, we conclude that the TVA Section 26a approval of the request for the US 43 bridge replacement would not be a major federal action significantly affecting the environment. Accordingly, an Environmental Impact Statement is not required.



June 20, 2005

Jon M. Loney, Manager
NEPA Administration
Environmental Policy and Planning
Tennessee Valley Authority

Date Signed

United States Department of the Interior

NATIONAL PARK SERVICE
Rivers, Trails, and Conservation Assistance
Southern Appalachian Field Office
175 Hamm Road, Suite C
Chattanooga, Tennessee 37405

IN REPLY REFER TO:

Electronic transmittal:

April 11, 2005

Mr. Richard Pflueger
Tennessee Valley Authority
P.O. Box 1010, SB1H
Muscle Shoals, Alabama 35662

Re: Bear Creek Bridge Replacement

Dear Mr. Pflueger:

Thank you for the opportunity to review the Federal Highway Administration's Environmental Assessment concerning the bridge replacement project associated with Bear Creek in Alabama. As you correctly noted, Bear Creek is listed on the National Rivers Inventory (NRI) which falls under the purview of the National Park Service. Based on the materials you provided, I concur with the Tennessee Valley Authority's conclusion that there will be minimal impact to the scenic and recreational attributes for which Bear Creek is listed on the NRI.

Thank you again for consulting with the National Park Service, and do not hesitate to contact me if I can be of further assistance.

Respectfully,

Jeffrey R. Duncan, Ph.D.
Regional Rivers Program Manager

TAKE PRIDE IN AMERICA