

ENVIRONMENTAL ASSESSMENT

MARTIN ROAD IMPROVEMENTS

SECTION 26A APPROVALS FOR CROSSINGS OF HUNTSVILLE SPRING BRANCH AND MCDONALD CREEK AND DIKE CONSTRUCTION ON REDSTONE ARSENAL, ASSOCIATED WITH FOUR-LANE CONSTRUCTION OF MARTIN ROAD, WHEELER RESERVOIR, MADISON COUNTY, ALABAMA

AND SECTION 26A APPROVAL FOR DIKE CONSTRUCTION AT RACCOON CREEK WILDLIFE MANAGEMENT AREA, GUNTERSVILLE RESERVOIR, JACKSON COUNTY, ALABAMA

The Proposed Decision and Need

The U.S. Army Aviation and Missile Command (AMCOM) and the Alabama Department of Transportation (ALDOT) propose to widen Martin Road from U.S. 231 to Redstone Arsenal's Patton Road. Martin Road is a major, east-west restricted access thoroughfare on Redstone Arsenal. The additional lanes are needed to accommodate current and future traffic demands generated by the continuing growth of military employment and facilities at Redstone Arsenal. This project consists of two sections due to road ownership and subsequent maintenance responsibilities. ALDOT proposes to widen the road from U.S. 231 to the Redstone Arsenal Gate 1, the eastern section, and AMCOM proposes to widen the road on the RSA installation from Gate 1 to the interchange for Patton Road, the western section.

Eastern Section

ALDOT proposes to construct additional lanes on the south side of Martin Road between U.S. 231 and Patton Road in Madison County, Alabama. An application for the eastern portion of this project, from the Redstone Arsenal Gate to U.S. 231, was received in 1999, withdrawn in February 2000, and then resubmitted in August 29, 2000. The proposed eastern portion involves the four-lane construction of Martin Road from Gate 1 of Redstone Arsenal to U.S. 231. In order to construct the eastern portion, ALDOT proposes to fill 4.3 acres of wetlands and construct a new bridge across Huntsville Spring Branch. Mitigation for the wetland fill would be provided by construction of a dike on the Raccoon Creek Wildlife Management Area (WMA) in Jackson County, Alabama. The dike would seasonally flood 100 acres for the WMA's waterfowl management project. Approximately 18 acres of this area would be maintained as an emergent wetland to offset the loss of 4.3 acres of wetlands.

Western Section

AMCOM proposes to construct additional lanes on the south side of Martin Road between Patton Road and Gate 1. An application for this section of the project was received on October 3, 2001. New bridges would be constructed at McDonald Creek and a tributary to McDonald Creek. In addition, 5.35 acres of wetlands would be filled.

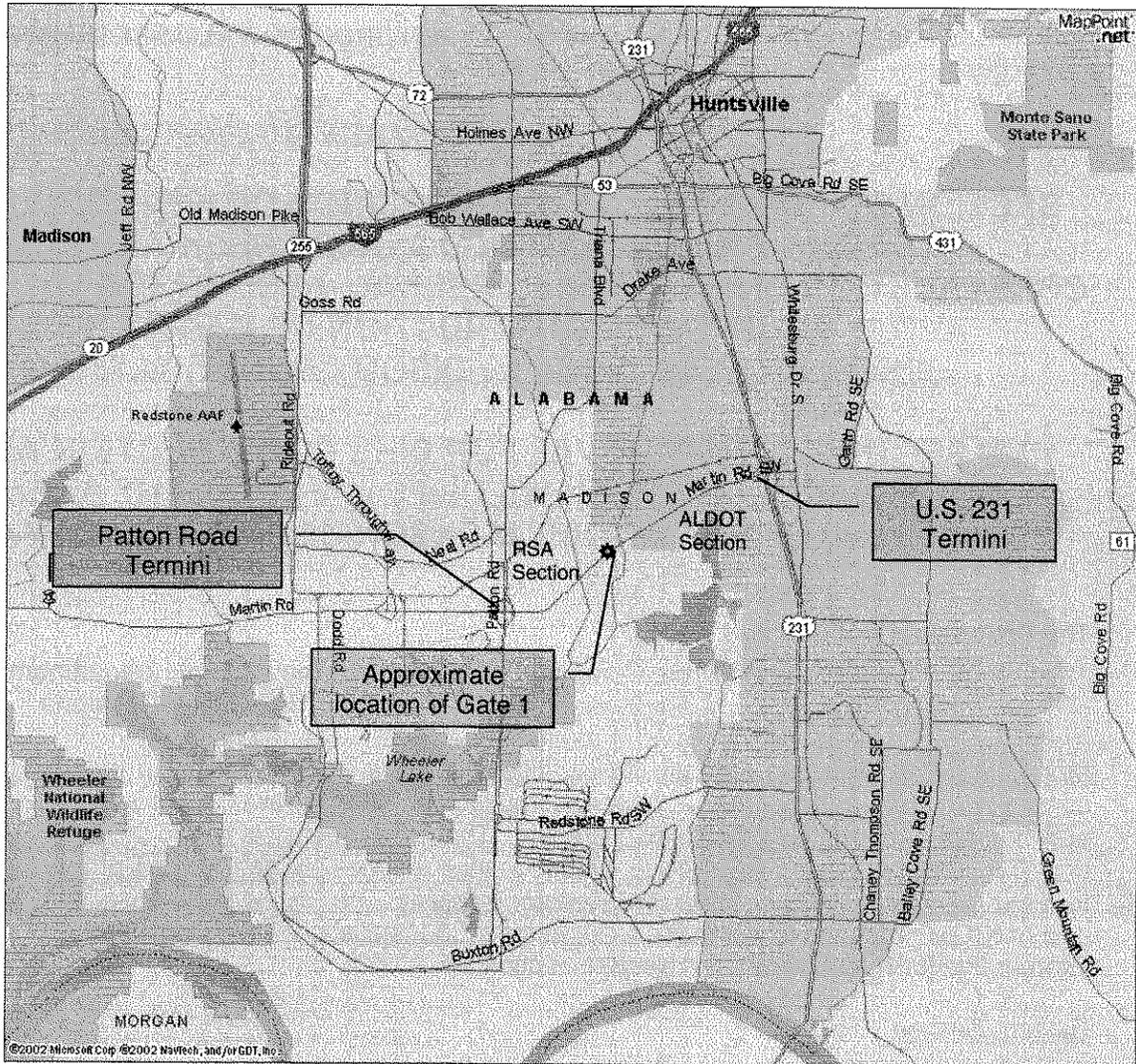


Figure 1.1. Location Map

As mitigation for the 5.35 acres of wetland fill, AMCOM proposes to establish an area of advanced mitigation credits to be used solely for projects on Redstone Arsenal.

A Section 26a approval would be needed for the following actions:

- bridge across unnamed tributary to McDonald Creek,
- bridge across McDonald Creek,
- bridge across Huntsville Spring Branch;
- wetland fills in the floodplain of McDonald Creek and Huntsville Spring Branch,
- dike construction at Raccoon Creek WMA wetlands mitigation on the eastern section, and
- dike construction at Redstone Arsenal for wetlands mitigation on the western section.

TVA is preparing this Environmental Assessment (EA) to assess the impacts of its action to approve the Section 26a request. In making this assessment TVA has relied on other assessments of the project conducted by Federal Highway Administration

(FHWA)/ALDOT, AMCOM, and U.S. Army Corps of Engineers (USACE). These other assessment documents (described in the next section) are incorporated into the EA by reference. Because the Martin Road project involves wetland fills and questions have been raised regarding mitigation involving wetlands along Huntsville Spring Branch and McDonald Creek, TVA decided to supplement these earlier assessments by documenting its consideration of wetland mitigation plans which were not available at the time of completion of the FHWA/ALDOT and AMCOM EAs. This EA provides the supplemental analysis for the construction of a dike on TVA property at Raccoon Creek WMA, in Jackson County, Alabama, and the proposed wetland bank to be constructed on Redstone Arsenal.

Other Environmental Reviews and Documentation

Eastern Section

The FHWA/ALDOT EA on the eastern portion of the project was released for public review on October 14, 1998. No public comments were received. A FHWA FONSI was signed on December 9, 1998 (see Attachment 1).

Following receipt of an application for Section 404 and Section 26a permits for the eastern portion of the project, USACE issued a Joint Public Notice 00-07 on January 10, 2000. It was cancelled on February 1, 2000, at the request of the applicant, and then reinstated as Public Notice 00-07B on September 14, 2000. Comments on the public notices were received from the Alabama Historical Commission (AHC), Alabama Waterfowl Association (AWA), Robinsong Ecological Resources, University of Alabama Museums, U.S. Fish and Wildlife Service (USFWS), and four individuals. AHC concurred with the project; however, University of Alabama Museums requested a cultural resources survey of the mitigation site. Only two of the sites identified by the University of Alabama Museums were within the actual project area and neither one would be directly impacted by construction activities. These two sites would only be affected by ongoing operations (seasonal flooding) and therefore TVA determined there would be no adverse affect caused by this undertaking. AWA, Ms. Maxine McMurtrie and Robinsong Ecological Resources suggested that alternative wetland mitigation sites be evaluated. Because the wetlands are of low quality and because the state wildlife management agency would prefer to mitigate wetland impacts at their wildlife management area, ALDOT would prefer not to purchase credits at other wetland banks. Mr. Don Smith requested that a public hearing be held, and Mr. Gordon Woodcock and Ms. Linda Woodcock opposed the proposal due to the loss of wetlands and farmland. The proposed mitigation measures would address loss of wetlands. It is not anticipated that there would be loss of farmland because the land within the mitigation impoundment would be only seasonally flooded and no prime farmland was identified in this area. It would continue to be available for farming uses. USFWS stated that the proposal would have no effect on endangered or threatened species. USACE obtained additional information from ALDOT on hydraulic impacts of the project and confirmed that there would be no changes in flood stages or backwater at the site. Water quality certification under Section 401 of the Clean Water Act was issued by the Alabama Department of Environmental Management on November 16, 2000. After considering all comments, the USACE issued a statement of findings and FONSI for the eastern portion of the project on January 5, 2001 (see attachment 2), relying, in part, on FHWA/ALDOT's EA of October 14, 1998.

Western Section

AMCOM coordinated a preliminary EA with TVA and other agencies in September 1998. An EA was released for public comment in April 1999. Again, no public comments were received. A FONSI was issued by AMCOM on July 8, 1999. The FHWA adopted the AMCOM EA and issued a FONSI on November 24, 2000 (see attachment 3).

The USACE issued a joint public notice (#03 02) on March 19, 2003 for the proposed creation of the AMCOM advanced compensatory wetland credit site. USFWS and the AHC provided comments. Initially, AMCOM proposed a 1:2 ratio for the conversion of the temporarily ponded/saturated wetland to a restored tupelo gum swamp wetland, resulting in 47.54 additional credits for the bank. USFWS was concerned that this ratio was too high. At a joint USACE, USFWS, and AMCOM meeting, the conversion ratio for the tupelo gum swamp wetland from the existing bottomland hardwood wetland was changed to the 1:1 ratio. The AHC stated they had not reviewed the Phase II survey report for the mitigation area and would issue formal comments after the review. AHC has reviewed and concurred with finding of the report that no historic properties would be affected. Water quality certification under Section 401 of the Clean Water Act was issued by the Alabama Department of Environmental Management (ADEM) on June 26, 2003. After considering all comments, the USACE issued a statement of findings and FONSI for the western portion of the project on August 5, 2003 (see attachment 4).

Alternatives and Comparison

The EA prepared by the FHWA for *Project A-AD-13(1), Martin Road Improvements from Redstone Arsenal's East Gate to the US-231 Interchange, Madison County* evaluates the environmental consequences of two alternatives: Preferred Alternate and No-Build (No Action). The alternative of Postponing the Action was not evaluated in detail because the eventual impacts would likely be the same as the preferred alternative. Under the No Build Alternative, the project would not be constructed, although routine maintenance would continue. No additional impacts to the environment of the area, including wetlands, would occur; however, the level of service for traffic flow would continue to deteriorate and the accident rate would likely increase.

Under the Preferred Alternative, Martin Road would be widened to a four-lane facility with a grassy median for most of its length. The additional lanes would be added to the south of the existing road and would accommodate current and future traffic demands generated by the continuing growth of military employment and facilities at Redstone Arsenal. If growth continues, the proposed design would allow additional lanes to be added in the grassy median. The project corridor is currently open land with emergent wetlands occurring in pockets along the 2-mile length. In the EA, wetland impacts were estimated to be up to 6 acres of emergent wetlands and 0.5 acre of forested wetlands and were projected to be the primary impact of the project. No significant water quality, floodplain, cultural resources, noise, air quality, or other environmental impacts were identified from implementation of the Preferred Alternative. FHWA issued a FONSI for the project on December 9, 1998.

The EA prepared by the AMCOM, *Environmental Assessment for the Widening of Martin Road, Redstone Arsenal, Alabama*, evaluated the environmental impacts of six alternatives, including No Action. The five action alternatives differed in the location of additional lanes to be added to the roadway. Alternative 1, the Preferred Alternative,

proposes to add two additional lanes to the south side of the existing Martin Road alignment, separated from the existing alignment by a reduced-size median with a concrete barrier separating the eastbound and westbound lanes. Alternative 2 would add an additional lane to each side of the existing roadway, while Alternative 3 would minimize impacts by using vertical retaining walls on the portion of the roadway over water. Alternative 4 would further minimize fills by constructing an elevated roadway on concrete pilings across the standing water traversed by the road for most of its length. Alternative 5 would place new lanes to the south of the existing lanes, but would have a standard width median with no barriers. The Redstone Arsenal portion of Martin Road runs through a freshwater forested wetland containing tupelo trees and the dwarf trillium. These resources would be affected by all alternatives, but would be minimized by Alternatives 1 and 2. Alternatives 2 and 3 would affect three archaeological sites that are eligible for the National Register of Historic Places. Alternatives 1, 4, and 5 would impact one archaeological site on the south side of the road. Impacts to other resources would likely be insignificant for implementation of all alternatives. After considering agency and public comments on the EA, AMCOM issued a FONSI for the project on July 8, 1999. FHWA adopted the AMCOM EA on November 24, 2000, after confirming that the archaeological site on the south side of the road and the Gate 1 Guardhouse was not eligible for the NRHP.

In TVA's review of the Martin Road Project, TVA considered five action alternatives for the entire project in its evaluation. These alternatives are the five described above in the AMCOM EA; each of these five alternatives includes the "Build" corridor in the FHWA EA.

Affected Environment and Evaluation of Impacts

The immediate area of the proposed project is very rural in appearance, dominated by large open fields, lowlands, and some hardwood forested areas. The western terminus of the project is on undeveloped Redstone Arsenal land; the majority of the project is on undeveloped lowlands; and, the eastern terminus is near a relatively large concentration of residential areas, as well as commercial and light-industrial development along the US-231 frontage roads. Essentially the western two-thirds of the project is located within the floodplain of Huntsville Spring Branch, and the existing roadway is on a fill which is adjacent (on both sides) to several pockets or areas of wetlands. Most of the wetlands are Palustrine (freshwater) Emergent with a small area of Palustrine Forested Wetlands. These areas are generally surrounded by temporarily to seasonally flooded or saturated bottomland forests. Extensive wetlands are located along Martin Road on both sides of the Gate 1 entrance to Redstone Arsenal. These include mixed hardwood bottomland wetlands and tupelo gum swamp, which are rare in northern Alabama. The relatively high proportion of emergent wetlands along Martin Road provides good habitat for a number of wildlife species including ducks, herons, kingfishers, muskrats, beavers, turtles, and snakes. Huntsville Spring Branch and McDonald Creek provide habitat for several species of fish including white bass and catfish. The dwarf trillium has habitat on the south side of Martin Road, east of the intersection of Patton Road, in a beech-mixed oak-sweetgum community type and two known populations exist in the area. Potential impacts to populations of dwarf trillium would be mitigated by relocating populations of the plant that are in danger of being impacted. Plants near the edge of the existing roadway would be marked when they are actively growing in the spring and early summer and relocated to a suitable habitat after they have seeded in late June.

Two sites were selected to offset the impacts to the 4.3 acres of wetlands in the eastern section and to the 5.35 acres of wetlands in the western section. ALDOT chose to offset the 4.3 acres of wetland impacts at a 4:1 ratio by constructing a dike at Raccoon Creek WMA to provide seasonal flooding of approximately 100 acres. AMCOM chose to offset the 1.7 acres wetland loss of tupelo gum swamp at a 3:1 ratio and 3.65 acres of mixed hardwood bottomland wetlands at a 2:1 ratio on the western section by selecting a site that would also include Advanced Mitigation Credits on the south end of Redstone Arsenal.

Impacts of Dike Construction at Raccoon Creek WMA

The FHWA EA for the eastern section states that a total of 6.3 acres would be impacted by the proposed project. However, after preparation of the EA, ALDOT was able to reduce the amount of impacted wetlands from 6.3 acres to 4.3 acres. ALDOT, in coordination with the Alabama Department of Conservation and Natural Resources (ADCNR), proposes to mitigate the loss of the 4.3 acres of emergent wetlands with "in-lieu" mitigation to be performed at the ADCNR's Raccoon Creek (WMA). The Raccoon Creek WMA is located along the Tennessee River Mile 397.0 to 400.0, Left Bank, on Guntersville Reservoir, near Stevenson, Alabama, in Jackson County. This land is TVA-owned land under long term easement to ADCNR for the management of waterfowl. ALDOT would pay ADCNR approximately \$10,000 per acre of wetland fill for a total of \$43,000. These funds, along with matching funds from Ducks Unlimited, would be used to expand the Raccoon Creek WMA by converting an additional 100 acres of land used for farming practices to provide more attractive wildlife and waterfowl habitat. The area would be flooded from October to March of each year and then drained in the summer for planting. Approximately 18 acres of this area would not be planted during the summer and developed and maintained as an emergent wetland, resulting in a 4:1 offset to the loss of the 4.3 acres filled on Martin Road.

According to the Jackson County soils maps, a large portion of the land in this area has soils classified as prime farmland soils; however, converting from farming to wetlands would not be considered a conversion of prime farmland. There would continue to be summer time wildlife management activities, such as planting crops for wildlife and activities to prevent tree cover (e.g., mowing). For compliance with Executive Order 11988, a dam is considered to be a functionally dependent use of the floodplain that is approvable provided adverse floodplain impacts are minimized. During the site review for this action, no threatened and endangered species or sensitive habitat were identified. The site has been surveyed for historic properties and archaeological resources and the proposed action not result in adverse impact to any significant historic property. An archeologist visited the site prior to construction to document boundaries of known sites and to determine if any unrecorded sites were present prior to any bank shaping. No bank shaping was required and no archeological resources were observed. Therefore, the proposed action would not result in any adverse impact to any historic properties or archaeological resources. The proposed project involves the placement of riprap, modifications to an existing pump station, and construction of electrical service and an earthen dike. For compliance with Executive Order 11988, these facilities are considered to be repetitive actions in the floodplain that should result in minor impacts. The project would comply with the Flood Control Storage Loss Guideline because less than one-acre-foot of flood control storage would be displaced as a result of construction of these facilities.

Impacts of Mitigation for Redstone Arsenal section of Martin Road

The widening of Martin Road on Redstone Arsenal (the western section) would impact 5.35 acres of several types of wetlands ranging from temporarily to seasonally inundated/saturated wetlands and semi-permanently flooded water tupelo swamp in the Huntsville Spring Branch and McDonald Creek watershed. The loss of the 1.7 acres of tupelo gum swamp wetlands would be offset at a 3:1 ratio, which would be 5.1 acres or credits. The loss of the 3.65 acres of mixed hardwood bottomland wetlands would be offset at a 2:1 ratio, which would be 7.3 acres or credits. Therefore, the total number of wetland credits needed for the wetland loss on the Redstone Arsenal section (the western section) of highway would be 12.4 acres or credits.

AMCOM proposes to develop an Advanced Compensatory Wetlands Mitigation Site (ACWMS) or wetland bank, on Redstone Arsenal consisting of approximately 51.68 compensatory wetland mitigation credits. This site consists of non-wetland forest, non-wetland field, and temporarily ponded/saturated wetland dominated by soft-masted, light-seeded tree species, for a total of 51.68 acres (see classifications table). The area is a large linear channel scar where the Tennessee River once ran before it eroded a new channel to the south. The remaining basin gradually filled in from annual flooding, and was in part of a tupelo swamp prior to the 1930's, surrounded by bottomland hardwoods. TVA dug large ditches draining this former tupelo swamp in the 1930's as part of its mosquito control program. Since the draining of the swamp, light seeded tree species that were less water tolerant (sugarberry, green ash, red maple and sweetgum) became established and shaded out the water tupelo. The project area is currently in forest cover and pasture for hay, along with some wildlife crops. Only a small portion of this land use would change from hay production as fringe bottomlands are restored. The site would provide an opportunity to restore wetlands that have been drained and modified and would be much larger than what would be required to mitigate for wetlands lost due to the Martin Road Project. AMCOM proposes to develop this site for Advance Mitigation Credits, the first of which (12.4 acres) would be used for the loss of wetlands associated with the widening of Martin Road on Redstone Arsenal.

ACWMS (or wetland bank) Classifications Table

Existing Classification	Acreage	Converted Classification	Advance Mitigation Credits (Acres)
Non-wetland forest	25.03	Hard Mast Bottomland Wetland (1:1 ratio)	25.03
Non-wetland field	2.88	Hard Mast Bottomland Wetland (1:1 ratio)	2.88
Temporarily ponded/saturated wetland (bottomland hardwood)	23.77	Tupelo Gum Swamp Wetland (1:1 ratio)	23.77
Total	51.68		51.68

AMCOM proposes to construct an earthen dam and flow control structure on the western edge of the mitigation area to; maintain surface water for longer periods, allow restoration of hard mast forest species where bottomlands have been converted to

fields, by expanding saturated soil conditions over a greater area, expand the wetland/upland interface, and set back succession in the forest to allow regeneration and establishment of wetland species with minimal effort. This would restore areas that are semi-permanently flooded from seasonally to temporarily inundated on soils that are poorly drained to somewhat poorly drained. The backwater area to be restored to tupelo swamp is on a lower elevation than the uplands to the north and the river levee to the south, so water would pool there for some weeks to months during the early growing season. Once the hydrology is restored, some of the light seeded hardwoods would start to succumb to the longer inundation, and this would assist in opening up the canopy for the water tupelo to regenerate. Reestablishment of the hydrophytic vegetation would be done by germination of resident seeds in the seed bank, the addition of hard mast seeds (oak and hickory), and planted seedlings.

Initially, AMCOM proposed a 1:2 ratio for the conversion of the temporarily ponded/saturated wetland to a restored tupelo gum swamp wetland, resulting in 47.54 additional credits for the bank (see bolded text in table above). However, during the public review period for the proposal, USFWS was concerned that this ratio was too high, because of the potential difficulty in restoring tupelo gum wetlands, the lack of any previous tupelo gum wetland restoration projects, that this was the enhancement of an existing bottomland hardwood wetland, and that the USACE typically grants a maximum 1:1 credit ratio for wetland bank creation. At a joint USACE, USFWS, and AMCOM meeting, the conversion ratio for the tupelo gum swamp wetland from the existing bottomland hardwood wetland was changed to the 1:1 ratio. The total amount of advance mitigation credits for the ACWMS or wetland bank would be 51.68 acres. After debiting the site 12.4 acres or credits for the Martin Road wetland losses, 39.28 credits would be available to Redstone Arsenal for future use. (This amount of available credits may be increased or decreased, based on the success of the tupelo gum swamp wetland restoration. This determination would be made after long term monitoring.)

The Tennessee River levee and the terrace land to the north of the mitigation area are rich with cultural resource sites. A Phase I archeological survey was performed to identify, qualify, and map the cultural resources in that portion of the Tennessee River Floodplain. Eight sites (1Ma136, 1Ma139, 1Ma169, 1Ma504/632, 1Ma545, 1Ma633, and 1Ma645) were found to be eligible for listing on the National Register of Historic Places. The upper areas of site 1Ma504/632 would be avoided by covering the site with crushed limestone fill or some other type of protective layer. A Phase II survey was conducted on the lower portion of 1Ma504/632 that would be impacted by the dam construction. Results of the Phase II testing indicated that no significant archaeological deposits are present within the dam construction area. These sites, with the exception of the lower portion of 1Ma504/602, would be adequately protected by extensive flagging by the surveyors, fence construction, and monitoring during construction. This is to ensure that no activities (i.e., movement of construction vehicles, etc.) occur in areas where historic properties are located. The SHPO has concurred with TVA's finding that no historic properties eligible for the National Register of Historic Places would be affected by this undertaking (see Attachment 5).

For compliance with Executive Order 11988, a dam is considered to be a functionally dependent use of the floodplain that is approvable provided adverse floodplain impacts are minimized. The dam would be built across the end of a vector control drainage ditch that TVA constructed after completion of Wheeler Reservoir. The additional flood control storage provided by the ditch was not considered in the original allocation for Wheeler

Reservoir. The proposed project would comply with the TVA Flood Control Storage Loss Guideline because there would be no loss of flood control storage.

Cumulative Impacts

TVA is aware of other reasonably foreseeable actions and past actions that have affected similar wetland systems in the area. These include the proposed Huntsville Southern Bypass project, which will potentially affect 82 acres of wetlands in Madison County. Also, the U.S. 231 bridge project across the Tennessee River potentially affects five acres of wetlands in Madison and Morgan Counties to the south of the proposed Martin Road project. Several other proposed road projects would cumulatively affect wetlands and the types of habitats affected by this project in the Huntsville area. The wetlands to be impacted by the eastern portion of the Martin Road project are providing minimal flood control and wildlife values and are low quality. The proposed mitigation at the Raccoon Creek WMA in Jackson County is appropriate because there are no suitable on-site mitigation areas. The Redstone Arsenal wetlands to be impacted by the western portion of the project are higher in quality. The proposed mitigation at Redstone Arsenal is appropriate because the mitigation would be onsite, would increase wildlife and waterfowl habitat in the area, and create a tupelo gum wetland system that is functionally similar to the wetland being impacted. This is important because tupelo-gum wetlands are unique to the area and rapidly declining. Use of these wetland mitigation sites are the condition of U.S. Army Corps of Engineers approvals for the wetland fills. TVA believes that with the inclusion of standard Section 26a approval conditions, the USACE commitments to construct mitigation wetlands, and the commitments contained in the FHWA and AMCOM EAs, the subject construction of Martin Road, when added to other past, present, and reasonably foreseeable future actions will not have a significant impact on the wetland functions and values in the Tennessee Valley region. Because of the regulatory requirement that there be no net loss of wetland functions and values, the incremental impact of this project when combined with other actions would not be significant.

Mitigation Measures

TVA concurs with the mitigation identified in the FHWA and AMCOM prepared EAs. TVA believes that the permit conditions and wetland mitigation in the USACE permits are adequate mitigation for the potential impacts to wetlands and aquatic resources. Approximately 18 acres at the Raccoon Creek WMA has been developed and will be maintained as an emergent wetland, resulting in a 4:1 offset to the loss of the 4.3 acres of wetland associated with the widening of Martin Road on the eastern section (ALDOT section). AMCOM will develop an on site Advance Compensatory Wetlands Mitigation Site and this site will be debited 12.4 acres for the loss of wetlands associated with the widening of Martin Road on the western section of the highway (on Redstone Arsenal). Use of these wetland mitigation sites are the condition of U.S. Army Corps of Engineers approvals for the wetland fills. TVA's Section 26a (of the TVA Act) approval is contingent upon successful implementation of Best Management Practices for erosion and sediment control including the TVA General and Standard Conditions 5e, 6a - i. In addition to the commitments required by USACE and ADEM, TVA would require adherence to the following special commitments:

- AMCOM will protect sites 1Ma136, 1Ma139, 1Ma169, the upper portion of 1Ma504/632, 1Ma545, 1Ma633, and 1Ma645, by extensive flagging by the surveyors, fence construction, and monitoring during construction. This is to

ensure that no activities (i.e., movement of construction vehicles, etc.) occur in areas where historic properties are located. AMCOM will avoid the upper areas of site 1Ma504/632 by covering the site with crushed limestone fill or some other type of protective layer. AMCOM will coordinate these activities with TVA and will provide documentation of the completion of these activities to TVA.

- Potential impacts to populations of dwarf trillium will be mitigated by relocating populations of the plant that are in danger of being impacted. Plants near the edge of the existing roadway will be marked when they are actively growing in the spring and early summer and relocated to a suitable habitat after they have seeded in late June. Prior to commencement of project construction, ALDOT will report to TVA the status of dwarf trillium populations that are to be relocated.

Preferred Alternative

TVA's preferred alternative is to approve the Section 26a requests based on mitigation measures identified in the FHWA EA for the dwarf trillium, and in the USACE's Statement of Findings for the loss of wetlands and protection of archeological resources.

TVA Preparers

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Agencies and Others Consulted

Alabama Department of Conservation and Natural Resources

Alabama Department of Transportation

Alabama State Historic Preservation Office

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

Attachments

- Attachment 1 - Federal Highway Administration, Finding of No Significant Impact and Environmental Assessment for Project A-AD-13(1); Martin Road Improvements from Redstone Arsenal's Gate to the US-231 Interchange, Madison County, December 1998.
- Attachment 2 - U. S. Army Corps of Engineers, Statement of Findings and Findings of No Significant Impact, for Martin Road Improvements from Redstone Arsenal's Gate to the US-231 Interchange, Madison County, January 2001.
- Attachment 3 - Federal Highway Administration, Finding of No Significant Impact for Project STPAA-0013(), Add Lanes on Martin Road from Patton Road to Main Gate East of Redstone Arsenal, Madison County, November, 2000.
- U.S. Army Aviation and Missile Command (AMCOM), Redstone Arsenal, Finding of No Significant Impact for the Environmental Assessment and the Environmental Assessment for the Widening of Martin Road, July 1999.
- Attachment 4 - U. S. Army Corps of Engineers, Statement of Findings and Findings of No Significant Impact, for Martin Road Improvements from Patton Road to Redstone Arsenal's Gate 1, Madison County, August 2003.
- Attachment 5 - AL SHPO Correspondence for the Redstone Arsenal Advance Compensatory Wetlands Mitigation Site.