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Project Name: Proposed Guntersville Municipal Airport Expansion Improvements  
Project Number: 2008-30

**ADOPTION AND FINDING OF NO SIGNIFICANT IMPACT**  
**TENNESSEE VALLEY AUTHORITY**  
**PROPOSED RUNWAY CONSTRUCTION**  
**GUNTERSVILLE MUNICIPAL – JOE STARNES FIELD**  
**GUNTERSVILLE, ALABAMA**  
**ENVIRONMENTAL ASSESSMENT (EA) AND SUPPLEMENTAL EA**

**Proposed Action and Need**

The City of Guntersville (the City) intends to realign and expand the Guntersville Airport in Marshall County, Alabama, to facilitate projected increased aviation activity at the airport and to support economic development efforts in Guntersville. The capability of the airport to fully serve the people and business community of the surrounding area is limited due to the length of the runway. The airport's existing runway is 3,368 feet in length, but because of a nearby roadway, usable runway length is only 2,568 feet for approaching aircraft. The runway can presently accommodate most small aircraft. However, according to Federal Aviation Authority (FAA) data, the runway needs to be extended to at least 5,000 feet in order to safely accommodate 75 percent of larger aircraft (those weighing more than 12,500 pounds and less than 60,000 pounds) at 60 percent useful load. Implementation of the proposal to upgrade and modernize the Guntersville Airport would provide a safe aviation facility that meets current FAA design standards and accommodates a variety of general aviation aircraft.

Guntersville Airport presently covers 125 acres, and the proposed expansion project area is 203 acres. The Tennessee Valley Authority (TVA) received a formal land use application in August 2008, wherein the City requested approximately 116 acres of public land on four tracts of property to implement its long-standing plans for airport expansion. The City has requested an easement over 69.1 acres for runway expansion. TVA considered the City's plans when developing the 2001 *Guntersville Reservoir Land Management Plan* and allocated 69.1 acres of land for airport uses, pursuant to FAA regulations. The City has also requested a land use agreement with TVA, permitting vegetation management on an additional 47.15 acres of adjacent TVA property. If approved, these parcels of forested land would be converted to low-growing vegetation to accommodate the safety areas required by FAA regulations at both ends of the runway. Furthermore, the City needs approval under Section 26a of the *TVA Act* for any fill associated with runway construction, as well as permit approvals under Section 404 and Section 401 of the *Clean Water Act* from the U.S. Army Corps of Engineers (USACE), Nashville District, and the State of Alabama, respectively.

**Background**

In June 2005, the City submitted an EA, *Proposed New Runway – Guntersville Municipal – Joe Starnes Field – Guntersville, Alabama*, to the FAA, which considered the potential environmental impacts of a proposed airport expansion program. The FAA issued a finding of no significant impact (FONSI) on July 14, 2005. Approximately 69.1 acres of TVA property were included in the project scope. The USACE and TVA served as cooperating agencies in the preparation of the 2005 EA. The USACE adopted the 2005 EA; however, TVA did not adopt the EA because the applicant never submitted a formal land use request or application for Section 26a approval. The 2005 EA is attached and incorporated by reference.

Since 2005, in response to FAA regulations, the City revised the project scope to include safety areas with low-growing vegetation for aircraft approaches. Additionally, the proposed runway length was reduced from 5,500 feet to 5,000 feet due to property constraints. Changes to project scope necessitated additional FAA coordination and approval, including supplemental documentation and coordination with resource agencies. Therefore, a supplemental EA (SEA) has been prepared to address the scope changes to the 2005 EA. This SEA is attached and incorporated by reference. The FAA is the lead agency, and TVA and USACE are cooperating agencies.

### **Alternatives**

The SEA evaluated two alternatives in detail, the No Action Alternative and the Preferred Alternative. Seven alternatives were evaluated in the 2005 EA. Of those, only the Preferred Alternative was affected by the project scope changes. Further discussions from the 2005 EA of the other alternatives considered but not selected are included in Appendix E of the SEA and include:

1. Extend the Existing Runway to the South
2. Extend the Existing Runway to the North
3. New Airport Site
4. Use of Albertville Municipal Airport
5. Postponing the Project
6. No Action Alternative
7. Preferred Alternative

Under the No Action Alternative, there would not be any new construction at Guntersville Airport other than routine improvements and maintenance. TVA would not grant the City a 116-acre term easement for the airport expansion project. Furthermore, TVA would not issue Section 26a permit approvals for the placement of fill material associated with runway construction.

The Preferred Alternative, evaluated in the SEA, consists of reorienting the existing runway to a location parallel to the shoreline of Guntersville Reservoir. This new location would provide space for a new 5,000-foot runway and development of a vegetation management area (VMA) on both ends of the proposed runway. Other improvements would include the installation of airfield lighting, construction of a new terminal area, installation of an Automated Weather Observing System, and installation of a perimeter fence. Furthermore, the Preferred Alternative would require the acquisition of an estimated 203 acres of land, of which TVA manages 116 acres. The Preferred Alternative was selected because it best addresses the needs of the City. Moreover, it is the most practicable alternative, and it ensures that the airport would be in compliance with FAA regulations.

### **Impacts Assessment**

The EA and SEA conclude that impacts from the proposed project to air quality, wildlife and vegetation, aquatic ecology, prime farmland, and environmental justice would be minor and insignificant. Existing noise levels would not significantly increase.

The proposed runway and associated improvements would be in close proximity to the floodplain. Methods used to minimize loss of floodplain functions and values will include standard construction controls to minimize erosion and sedimentation, such as use of permeable surfaces (where practicable) to control runoff, waste, and spoils disposal to avoid

contamination of groundwater and surface water. Implementation of the standard control measures would minimize adverse impacts to the floodplain. The proposal complies with Executive Order 11988 on floodplain management and the *TVA Flood Control Storage Loss Guideline*.

The proposed project would not impact any aquifers designated as sole or principal drinking water resources for the airport area. Turbidity and siltation from construction activities such as excavation and grading would be short term and localized. Sound construction and engineering standard and best management practices (BMPs) would be used to minimize sedimentation impacts to water quality and aquatic life. Water quality impacts would be minor and would not result in reservoir conditions becoming significantly worse.

There would be no effect on federally listed plant and animal species, and there would be no adverse effect on state-listed species. On behalf of the City, the architectural and engineering firm of Barge Waggoner Sumner & Cannon Inc. (BWSC) consulted with the U.S. Fish and Wildlife Service (USFWS) regarding proposed actions in the 2005 EA. BWSC indicated that the proposed project would not impact federally listed species or their habitat. In a letter dated March 31, 2004, the USFWS concurred with BWSC's finding and indicated no further consultation was necessary unless the identified action is modified in a manner that causes an effect on listed species. Although the project scope has been modified since the 2005 EA, a Site Observation Report was sent to the USFWS in October 2007 indicating that project modifications would not impact any federally listed or state-listed species or their critical habitat. In addition, an interagency meeting with the FAA, USACE, TVA, and USFWS was held on June 23, 2009, to discuss the revised scope and potential impacts. The USFWS indicated further consultation would not be necessary.

Removal of trees within the VMA would necessitate the relocation of a section of a hiking trail that provides access to an adjacent small wild area. In order to mitigate for the potential loss of trail use, part of the trail would be repositioned. Specific relocation design and implementation will be coordinated by TVA and the applicant.

There may be some visual discord during the construction period due to an increase in personnel and equipment. These minor visual obstructions would be temporary until completion of construction activities. In order to minimize visual impacts, mitigation measures identified below will be implemented.

An archaeological site (1Ms484) occurs in the proposed VMA consisting of a mid- to late-19th century rural domestic site. Shovel testing identified potentially intact midden deposits and a light artifact scatter within the structure area. Given the presence of intact structural remains, coupled with the potential for intact midden deposits, the site was designated as potentially eligible for inclusion in the National Register of Historic Places (NRHP). To ensure that sensitive archaeological resources associated with the site would not be adversely affected, the proposed project would be subject to mitigation measures described below. The proposed action would have no effect on historic structures listed in or eligible for listing in the NRHP. The Alabama State Historic Preservation Office (SHPO) concurred with TVA's findings and proposed mitigation measures in a letter dated April 2, 2009. Consequently, TVA has met its obligations under Section 106 of the *National Historic Preservation Act (NHPA)* and impacts to historic properties would not be significant.

There would be impacts to jurisdictional wetlands and streams from the proposed project; there are 83.54 acres of jurisdictional wetlands in the project area. Land clearing and/or fill activities

would directly impact approximately 40.28 acres of wetlands and eight streams (estimated 5,850 feet). The applicant has proposed on-site stream mitigation, as detailed below.

Additionally, to mitigate for adverse wetland impacts to 40.28 acres, the applicant will purchase available off-site compensatory wetland mitigation bank credits from the Robinson Spring Wetland Mitigation Bank. Approximately 22.40 acres are forested wetlands, and the remaining 17.88 acres are scrub-shrub wetlands. To compensate for the temporal loss of 22.40 acres of mature, forested wetlands, the City will purchase wetland bank credits at a ratio of 2.25:1. For the remaining 17.88 acres of scrub-shrub wetlands, the City will purchase wetland bank credits at a ratio of 2:1, thereby requiring a total of 86.16 available credits from the wetland mitigation bank.

### **Mitigation**

Under the Action Alternative, TVA would require that the City adhere to TVA's Section 26a General and Standard Conditions, including construction-related BMPs as well as the following mitigation measures. These conditions and measures would reduce the potential for adverse environmental effects and would be listed as additional conditions in the Section 26a permit.

- A 400-foot segment of the Buck Island Small Wild Area access trail would be relocated, requiring construction of an estimated 700 to 800 feet of new trail with a 75- to 100-foot vegetative buffer between the new trail alignment and the VMA. TVA will coordinate with BWSC, prior to construction, to include the new trail on engineering drawings. The recorded bounds of the new trail will be established by TVA and demarcated by flagging.
- In order to minimize lighting impacts to travelers, the proposed airfield lighting shall be aimed and shielded as permitted by FAA regulations, or have low-glare optics, such that no light is emitted from the fixture at angles above the horizontal plane so that there would be no light within the horizontal plane along U.S. Highway 431. Area lighting and parking lot poles shall be no taller than 40 feet, unless they are lighting objects taller than 40 feet. In such cases, pole heights shall be reduced to the lowest functional height consistent with the lighting objective and FAA regulations.
- To ensure that sensitive archaeological resources would not be adversely affected, the proposed area will be subject to the following mitigation measures: a 10-meter buffer zone surrounding the recorded boundary of the archaeological site will be established by TVA and demarcated by flagging; no heavy machinery will be allowed within the 10-meter buffer area; all vegetation removal within the 10-meter buffer zone will be conducted by hand; and no subsurface disturbance, including impact to existing structural remains in the area, will be permitted, thus avoiding disturbance of *in situ* deposits. The applicant may maintain the site by mowing.
- In order to minimize impacts to biotic communities due to the anticipated spread of invasive plant species resulting from tree canopy removal, the applicant will revegetate the VMA with noninvasive, low-growing herbaceous plant species.
- The applicant has proposed on-site stream mitigation measures to reduce the anticipated stream impacts. The stream mitigation plan proposes to enhance and restore the original stream characteristics of 6,800 feet of on-site streams not impacted by the project. Mitigation activities will include improving natural sinuosity, addition of riffle pool complexes, and removal of invasive plant species present in and along the stream channels. Further plans include a proposed channel design for each area

identified for mitigation. Conceptual drawings of the channel designs are included in Appendix D of the SEA. The applicant has not yet developed final mitigation plans. The applicant will submit final stream mitigation plans for review and approval by USACE and a TVA aquatic ecologist prior to construction activities.

- The City will mitigate adverse impacts to 40.28 acres of wetlands through off-site compensatory mitigation banking. The City will purchase mitigation credits to compensate for the temporal loss of the 22.40 acres of mature, forested wetlands at a ratio of 2.25:1. For the remaining 17.88 acres of scrub-shrub wetlands, the applicant will purchase mitigation credits at a ratio of 2:1. The applicant will purchase a total of 86.16 wetland mitigation bank credits. Copies of the certificates of purchase will be provided to TVA and USACE for documentation purposes.

### Public and Intergovernmental Review

The Guntersville Airport expansion proposal was the subject of a joint public notice issued by TVA and USACE on May 1, 2009. Copies of the public notice were posted on the USACE Web site and placed in the local newspaper. One comment from the USFWS expressing concerns regarding bald eagles and the loss of 40.28 acres of wetland habitat was received during the comment period. The draft SEA and 2007 Site Observation Report from BWSC addressed the bald eagle concerns. Based on the USFWS comment, additional wetland mitigation bank credits will be purchased by the applicant to compensate for the temporal loss of 22.40 forested wetland acres.

A draft SEA was issued for public comment in June 2009 and made available to local, state, and federal agencies and interested stakeholders. Furthermore, a public hearing was held in Guntersville on June 22, 2009, for the purpose of soliciting public comment regarding the draft SEA. Six citizens attended the hearing, and no comments were received at the public hearing. A summary of the public hearing is included in Appendix J of the final SEA.

### Conclusion and Findings

TVA has independently reviewed the FAA EA and jointly prepared SEA and found them to be adequate. TVA is therefore adopting the 2005 EA and the 2009 SEA. Based on the EA and SEA, TVA concludes that issuance of the term easement and Section 26a approval for this proposal would not be a major federal action significantly affecting the environment. Accordingly, preparation of an environmental impact statement is not required. This FONSI is contingent upon adherence to the permit conditions and mitigation measures described above.



for

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Date Signed