

## **APPENDIX A**

# RUNWAY JUSTIFICATION REPORT

Guntersville Municipal Airport  
Guntersville, Alabama

April 2002

**BWSC** | BARGE  
WAGBONER  
SUMNER &  
CANNON, INC.

5960 Carmichael Place  
Montgomery, Alabama 36117  
(334) 409-2972

# RUNWAY JUSTIFICATION REPORT

## GUNTERSVILLE MUNICIPAL AIRPORT

### GUNTERSVILLE, ALABAMA

#### Purpose

The purpose of this report is to justify the construction of a new 5,500 foot runway at the Guntersville Municipal Airport. The existing runway is 3,360 feet in length and is limiting the economic growth of the City of Guntersville. A business park is currently being constructed whose potential could be bounded by the availability of air transportation. The site chosen for Connors Island Park, illustrated on page 2, will be in a location that is easily accessible by Highway 431, a railroad, and a navigable waterway. Considering this, improvements to the Guntersville Municipal Airport becomes a major marketing tool in persuading companies to move into the business park. The length of the existing runway could prove to be a costly constraint to the business park if a runway of adequate length is not constructed. Achieving a runway of this length will require construction of a new runway. An extension of the existing runway has proven unfeasible as it is located between a major highway immediately to the South, and Lake Guntersville to the North. A runway exceeding 5,500 feet is necessary to meet the existing and future needs of the City of Guntersville.

Documented in this report is the individual and corporate demand for airport access by turbojet aircraft that utilize, or would like to utilize, the Guntersville Municipal Airport and require 5,500 feet of runway. This report also addresses the requirements associated with constructing a runway of 5,500 feet in length, as outlined by the Federal Aviation Administration (FAA). The guidelines state that in order for the FAA to consider a community request to fund a runway extension of 5,500 feet, justification must be provided identifying aircraft that require the length. FAA guidelines further require the identification and documentation of 500 annual operations by turbojet aircraft. The FAA defines an operation as either a takeoff or a landing, and a visit from an itinerant aircraft is considered two operations.

#### Data Collection

Barge, Waggoner, Sumner and Cannon, Inc. researched businesses that use turbojet aircraft for cargo, charter, air ambulance, or corporate transportation. A survey was then conducted during the months of February and March 2002 to determine the demand by airport users that would warrant the construction of a 5,500 foot runway. Discussions were held with the Guntersville Airport Manager and City Officials to identify local companies and other regular users of the airport operating turbojet aircraft.

Information gathered in the survey was obtained via telephone calls and included the name of the company, contact person, corporate address, type of aircraft operated, aircraft N-number, and estimated number of annual operations. Subjects were also asked if they conducted operations at the airport. Companies who currently use the airport indicated that they flew small aircraft to Guntersville simply because the runway could not accommodate larger aircraft. All companies surveyed, regardless of whether or not it flew into the airport at this time, were asked to give an estimate as to how many annual operations it would conduct if the runway was lengthened to 5,500 feet. Copies of these surveys appear in Appendix 2. A detailed operations summary is available in Appendix 1, which summarizes the data that was provided in the survey. The charts in this appendix

contain the company name, phone number, person contacted, title of person contacted, corporate address, type of aircraft, N-number of aircraft, number of annual operations, and interview comments. Table 1: Summary of Survey Results, which appears at the top of page 5, provides a brief summary of the operators, aircraft, and estimated annual operations at the Guntersville Municipal Airport. The types of turbojet aircraft requiring additional runway length include Lear, Falcon, Gulfstream, Citation, Beechjet, Hawker, and Challenger.

### Survey Results

Approximately 50 aircraft operators were contacted and 22 of those indicated that it could foresee increasing its annual number of flights into the Guntersville Municipal Airport if the runway was lengthened to 5,500 feet. It is important to note that these operators stressed very strongly that a longer runway would be needed in order to conduct safe and efficient turbojet operations. The companies contacted estimated that they would conduct an estimated 766 annual operations at the airport.

### Runway Length Determinants

An aircraft may require more runway length than is currently available at the Guntersville Municipal Airport for several reasons. Field elevation, a factor in all runway length calculations, is constant in the case of a particular location. Calculations must be made by the pilot for each flight to ensure that the runway is long enough to handle the necessary landing, takeoff, and climb operations. An accelerated-stop operation is an action to safely abort a takeoff and bring the aircraft to a halt at any time prior to the "decision point" of a takeoff operation. Climb considerations may involve clearing obstructions or meeting departure performance profiles. An aborted takeoff after the decision point is an emergency action involving an emergency landing. Other factors that enter into the equation are:

1. Density Altitude
2. Aircraft Weight
3. Weather Conditions (wet runway surfaces)
4. Runway Gradient

**1. Density Altitude** - The density altitude is an artificially derived height above sea level assuming standard temperature and pressure. Density altitude is determined by pressure altitude and ambient temperature. For a given pressure altitude, temperature increases with density altitude. The higher the density altitude, the longer the runway that is required for takeoff. Since the average maximum temperature of the summer months is above 90° Fahrenheit, the climate adversely affects the takeoff performance of all aircraft, requiring longer runway lengths than would be required in cooler climates.

**2. Aircraft Weight** - As an aircraft's weight increases, the runway length required for safe takeoff operations increases. The gross weight of an aircraft consists of the empty aircraft weight (the weight of the basic airplane and equipment, unusable fuel, pilots, residual oil, and hydraulic fluid) and the useful load (the weight of passengers, useable fuel, oil and cargo). An aircraft may find it necessary to take off at a high weight (sometimes maximum gross allowable weight) due to the weight of passengers and/or cargo or due to the heavy fuel load needed to meet the necessary haul distance to the first fuel stop (stage length).

3. **Weather Conditions** - When a runway is wet, an aircraft's ability to accelerate, decelerate, and stop in a given distance is degraded. The mean annual precipitation in the area is 53.2 inches. Frequent fog and dew can result in a damp runway surface even though they do not create standing water. Although each aircraft may have a unique adjustment for wet conditions, a 15% increase in calculated length for wet runways is an average standard, with some calculations adjusting up to 30% additional runway length.

4. **Runway Gradient** - The difference between runway end elevations at the Guntersville Municipal Airport is 10.6 feet. This results in an effective runway gradient, or slope, of .315%. This distance reduces the landing or takeoff performance of turbojet aircraft and results in the existing runway having an effective length that is less than its physical length of 3,360 feet.

#### Findings

The survey identified an estimated 766 annual operations by turbojet aircraft operators, many of which require a 5,500 foot runway. Further consideration should be given to the fact that numerous operators are currently upgrading or anticipating an upgrade of larger aircraft to their fleet, and several of the heavy turboprop aircraft operators will eventually purchase turbojet aircraft. This report clearly demonstrates an existing and future aviation demand that meets FAA criteria for construction of a new 5,500 foot runway. The aircraft operators surveyed were enthusiastic about the possibility of a new runway at the airport. The corporations contacted either do business, plan to do business, or plan to visit the area on a regular basis. In addition, the Guntersville area serves as a destination for both business and pleasure travelers. A safe, jet-capable runway will have a positive impact on economic activity in the area by allowing corporate and recreational visitors to fly directly between Guntersville, Alabama and distant destinations. This could prove to be a deciding factor for many businesses considering relocating or establishing operations in the Connors Island Business Park or the surrounding area. In conclusion, the need for a safe and efficient airport has been recognized and endorsed by local officials as an important element in the local transportation system.

**Table 1**  
**Summary of Survey Results**

COMPANY	AIRCRAFT	ANNUAL OPERATIONS
Alabama Power Company	Citation V, Lear 45	4
Alpha Jet International	Gulfstream II, Lear 24, 35	10
Averitt Air	Citation II, Lear 25, 31, 35, 60	10
Avsouth Aviation	Diamond	10
Brindlee Capital, LLC	Citation Bravo	416
Corporate Flight Management	Diamond, Lear 35	20
Drummond Company, Inc.	Sabreliner	2
Epps Aviation	Challenger 604, Citation III, Lear 31, 35, 60	10
Executivejet	Citation V, Encore, Excel, Hawker 800	10
Flying "M"	Citation II	2
Global Air Response	Lear 25, 35, 36	16
Goldkist Farms	Citation VII	48
Healthsouth	Citation CJ1, II, V, X, Gulfstream V, Westwind	24
Hill Aircraft Charter	Citation II, III	24
Medjet	Lear 35	4
Mobile Air Center	Citation II	2
Music City Charter	Falcon 10	48
Progress Rail	Westwind	12
Raytheon Aircraft Services	Beechjet, Citation II, Diamond, Westwind	32
Raytheon Travel Air	Beechjet, Hawker	20
Southern Company Services	Citation V, Lear 45	40
Wiley Sanders	Citation I	2
<b>TOTAL</b>		<b>766</b>

Source: Telephone Survey Conducted by Barge, Waggoner, Sumner and Cannon, Inc., February-March 2002.

## **APPENDIX B**



US Army Corps  
of Engineers.

# Public Notice

Public Notice No.09-08

Date: May 1, 2009

Nashville District

Application No. 2003-00631

Please address all comments to:  
Nashville District Corps of Engineers, Regulatory Branch  
3701 Bell Road, Nashville, TN 37214

**JOINT PUBLIC NOTICE**  
**US ARMY CORPS OF ENGINEERS**  
**TENNESSEE VALLEY AUTHORITY**  
**AND**  
**STATE OF ALABAMA**

SUBJECT: Proposed Wetland Fill and Culvert Construction on Streams, at Guntersville Airport, Tennessee River Mile 363.0R, Guntersville Lake, Marshall County, Alabama

TO ALL CONCERNED: The application described below has been submitted for a Department of the Army (DA) Permit pursuant to **Section 404 of the Clean Water Act (CWA)** for the discharge of fill material into waters of the United States, and a Tennessee Valley Authority (TVA) permit pursuant to **Section 26a of the TVA Act**. Before a permit can be issued, certification must be provided by the state of Alabama, pursuant to **Section 401(1)(1) of the CWA**, that applicable water quality standards will not be violated. By copy of this notice, the applicant hereby applies for the required certification.

APPLICANT: City of Guntersville  
341 Gunter Avenue  
Guntersville, Alabama 35976

LOCATION: Wetlands Adjacent to Streams, and Various Unnamed Tributaries to Tennessee River Mile 363.0, Right Bank, Guntersville Lake, at the existing Guntersville Airport along Highway 431, Marshall County, Alabama (Mt. Carmel Quad; lat 34-21-30, lon 86-16-15)

DESCRIPTION: The existing Guntersville Airport is proposing improvements that would safely accommodate a wide range of general aviation aircraft, including turbine aircraft. The proposed improvements would involve constructing a new 5,000 long runway with a full-length parallel taxiway, aircraft hangars, aircraft parking apron, associated connectors, a

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terminal building, and support facilities. A total of 82.54 acres of jurisdictional wetlands have been identified on the airport property. Based on the design projections, the airport expansion would require discharge of fill material into 40.28 acres of wetlands. The proposed wetland fill area would be located adjacent to and east of the existing airport. The 40.28 acres of proposed impacted wetlands consist of approximately 22.40 acres of forested wetlands and approximately 17.88 acres of scrub-shrub wetlands. Portions of the wetlands have been impacted over the past from clear-cutting activities.

The wetland areas were evaluated utilizing the Wetland Rapid Assessment Protocol (WRAP) to assess the functionality of the natural wetlands. The WRAP was completed for the various components of the project and the results generally indicated that many of the existing wetlands were functioning at between 50-60 percent of their functional capacity generally due to the continued alterations to a majority of the hydrologic and invasive floristic components of the systems. The wetlands associated with the northeast section of the project scored in the 80-95 percent functional capacity due to the mature canopy and limited or absent invasive species. Whereas the remainder of the wetlands scored generally low due to historical and recent hydrologic alterations in the form of ditching, water quality degradation from upgradient agricultural and municipal sources, clear-cut timber operations, and the natural secession and establishment of invasive and exotic species.

While this action would not require a DA permit, 3.17 acres of wetlands would be indirectly impacted surrounding the proposed Automated Weather Observing System by the cutting of trees within a 500' radius. The existing elevations would not be impacted in this area and the tree stumps would not be removed.

The applicant has proposed mitigation for the 40.28 acres of direct wetland impacts by purchasing 80.56 credits (2:1 ratio) at the Robinson Spring Wetland Mitigation Bank (RSWMB) in Jackson County, Alabama. In addition, the applicant has proposed to purchase an additional 1.44 credits for mitigation for the 3.17 acres of indirect wetland impacts (0.5:1 ratio). Thus, the applicant has proposed to purchase a total of 82 credits from the RSWMB. Also, options would be available for enhancement measures for the wetlands located on the project site that would not be impacted by the construction.

In addition, there are nine identified jurisdictional tributaries on the airport property, for a total length of 12,650'. Eight of the 9 streams, for a total length of 5,850', would be directly impacted by the proposed runway construction activities. The streams would be impacted by encapsulation by culverts under the proposed airport facilities/runway. Two of the 8 streams have been identified as relatively permanent waterways (RPW) and would be impacted for a total of 1,100'. The RPW streams are labeled as Streams H and I on the plans. The other 6 streams proposed to be impacted have been determined to be non-relatively permanent waterways (NRPW). The applicant has proposed that the remaining 6,800' of non-impacted streams onsite would be utilized for mitigation. The stream mitigation would involve enhancement and restoration of the original stream characteristics, i.e., natural sinuosity, addition of riffle pool complexes, removal of invasive species currently present in and along the stream channels, and the incorporation of natural limestone/rock features.

Currently, most medium and large general aviation aircraft who wish to visit Guntersville must land at other nearby airports, i.e., Albertville or Huntsville, because of inadequate runway length. The need for the relocation of the existing runway was documented in a Runway Justification Study approved by the Federal Aviation Administration (FAA) on May 30, 2002. The Runway Justification Study demonstrated an existing and additional aviation demand that exceeds the FAA criteria for relocating a runway at the airport for its existing location, to a new runway orientation and ultimate length of 5,000'. The proposed facilities must adhere to FAA regulations. The community's need for airport improvements is due in part to the growth of the City's new industrial park, Connors Island.

Plans of the proposed airport expansion project are attached to this notice.

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 that 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 the 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 that it would 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, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment 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 to determine the overall public interest of the proposed activity.

The Federal Aviation Administration (FAA) issued a finding of No Significant Impact (FONSI) and released a final Environmental Assessment (FEA) for the proposed airport expansion project in June 2005. In addition, the FAA is preparing a Supplemental EA (SEA), that will be released to the public in mid-May 2009, for the acquisition of 116 acres of TVA land for the airport expansion project. As cooperating agencies, FAA's SEA and FONSI would be adopted by the Corps of Engineers and TVA. A separate SEA would not be prepared by the USACE or TVA prior to a final decision concerning issuance or denial of the requested DA and/or TVA permits, unless new issues arise during the environmental review process.

The City has revised the scope of the project since the FEA and FONSI were issued in June of 2005. As a result of the changes, the airport expansion plan has outgrown its original footprint, necessitating additional land from TVA. TVA received a formal application in August 2008, wherein the City of Gunterville requested approximately 116 acres

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on four tracts of TVA property for runway construction and operation, and necessary vegetation management to implement its long-standing plans for airport expansion. The City would require a term easement over 69 acres of TVA property for construction of the new 5000 foot runway. The easement would be consistent with other term easements TVA has issued for public infrastructure. Additionally, to meet the FAA's approach requirements, the City would require a term easement and land-use agreement with TVA, permitting vegetation management on 47 acres of TVA property. The property would be cleared of trees and re-vegetated with low-growing non-invasive plant species. Provided the City manages these parcels in a manner that is compatible with existing sensitive resources, this use would be consistent with the 2001 Guntersville Reservoir Land Management Plan and the 2006 TVA Land Policy. The City would also need approval required under Section 26a of the *TVA Act* for any fill associated with runway construction.

Previous archaeological investigations of the project area identified two archaeological sites and two isolated archaeological finds. One of the archaeological sites and both isolated finds are determined to be ineligible for listing in the National Register of Historic Places. However, the other archaeological site is considered potentially eligible for inclusion to the National Register of Historic Places. However, contingent upon implementation of mitigation measures minimizing disturbance activities within a 10-meter buffer zone of the site, archeological resources would not be adversely affected by the proposed work. Pursuant to Section 106 of the *National Historic Preservation Act* and its implementing regulations at 36 CFR § 800.4, TVA sought the concurrence of the Alabama State Historic Preservation Officer (SHPO) with these findings. In a letter dated April 2, 2009, the SHPO concurred with TVA's determination. If avoidance of the site were not feasible, Phase II testing would need to be conducted in consultation with TVA and the SHPO. The Choctaw Nation of Oklahoma stated by letter dated April 2, 2009, that to the best of their knowledge, the work would have no adverse effect on historic properties within the project's area of potential effect. This review constitutes the full extent of cultural resources investigations unless comment to this notice is received documenting that significant sites or properties 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 SHPO.

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Based on available information, the proposed work would not destroy or endanger any federally listed threatened or endangered species or their designated critical habitats, as identified under the *Endangered Species Act*. Therefore, a no effect determination has been reached and 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 required for the proposed work are as follows:

Tennessee Valley Authority (TVA) approval is required under Section 26a of the *TVA Act* 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.

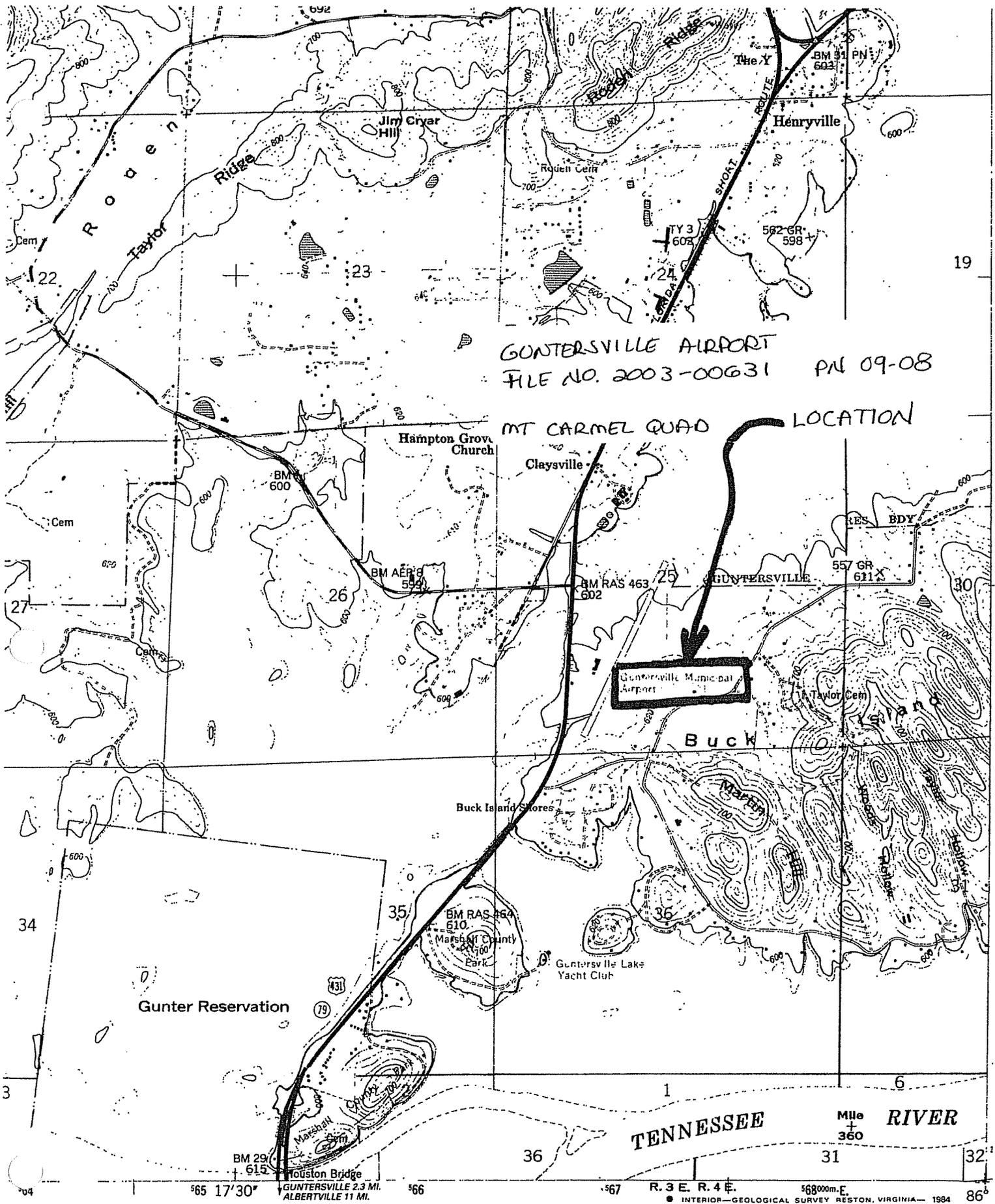
Water Quality Certification from the state of Alabama is required for the proposed work in accordance with Section 401(a)(1) of the *Clean Water Act*.

A "No-Rise" Certification is required from the city of Gunterville and/or Marshall County prior to issuance of the DA permits to ensure that flood heights would not be impacted by the proposed work.

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 public hearings shall state, with particularity, the reasons for holding a public hearing.

Written statements received in this office on or before **June 1, 2009**, 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, Attention: Amy Robinson, at the above address, telephone (615) 369-7509. It is not necessary to comment separately to TVA since copies of all comments will be sent to that agency and will become part of its record on the proposal. However, if comments are sent to TVA, they should be mailed to Kelly R. Baxter, Tennessee Valley Authority, 400 West Summit Hill Drive, WT 11-D, Knoxville, Tennessee 37902.

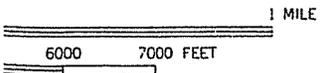
If you received this notice by mail and wish to view all of the diagrams, visit our web site at:  
<http://www.lrn.usace.army.mil/cof/notices.htm>, or contact Amy Robinson at the above address or phone number.



GUNTERSVILLE AIRPORT  
 FILE NO. 2003-00631 PN 09-08

MT CARMEL QUAD LOCATION

Guntersville Municipal Airport

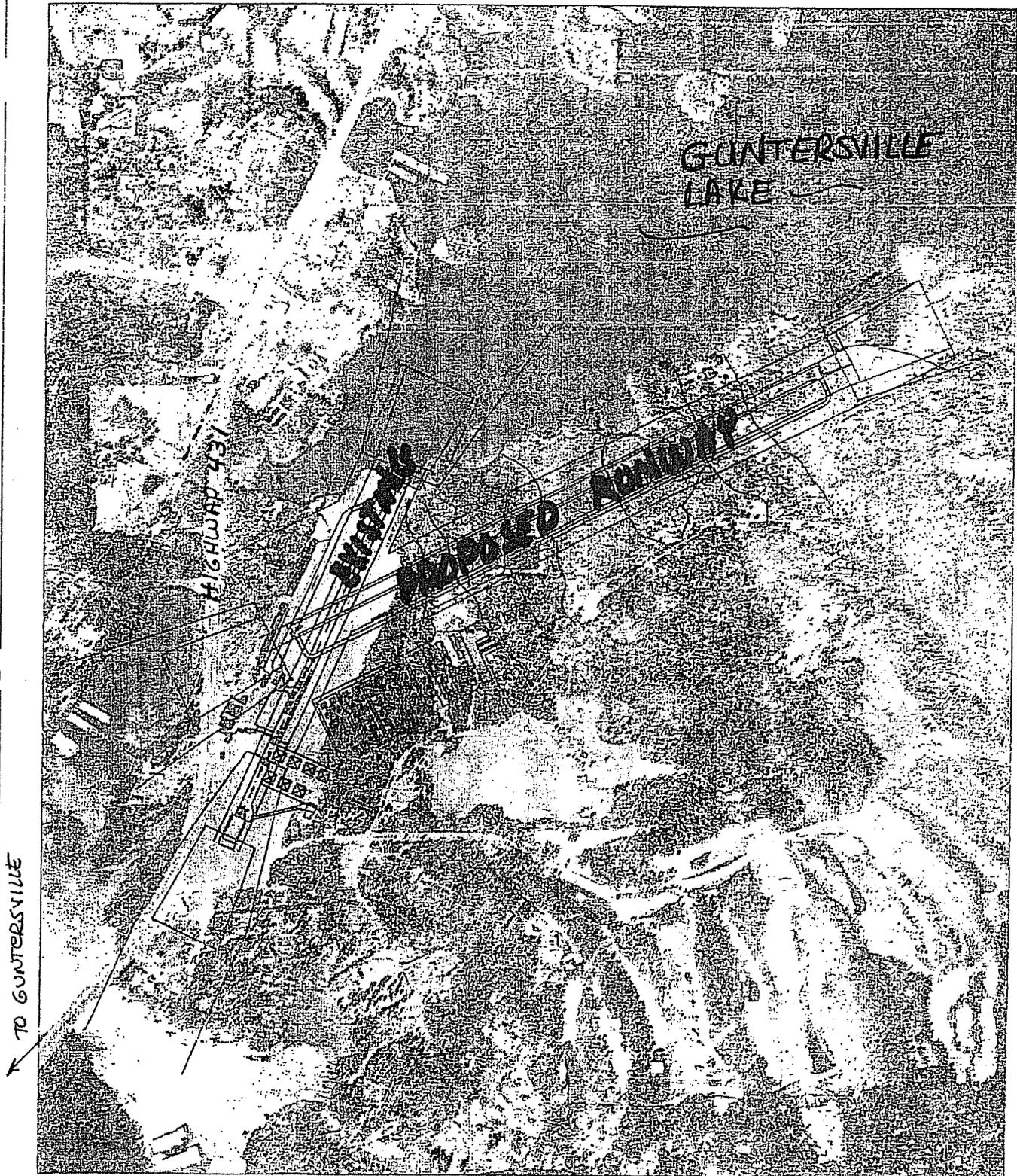


TENNESSEE RIVER  
 Mile + 360

ROAD CLASSIFICATION (TVA 83-NE)

- Primary highway, all weather, hard surface
- Secondary highway all weather
- Light-duty road, all weather, improved surface
- Unimproved road, fair or dry

INTERIOR-GEOLOGICAL SURVEY RESTON, VIRGINIA- 1984



**FIGURE 3**  
AERIAL PHOTOGRAPHS WITH SITE LAYOUT PLAN  
Guntersville, Alabama

FILE No. 2003-00631

PN 09-08

WETLANDS

FILE No. 2003-00631

PN 09-08

FIGURE 2

SITE MAP ~ WITH WETLAND DELINEATION & WETLAND IMPACT

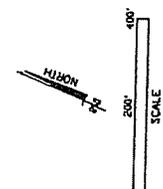
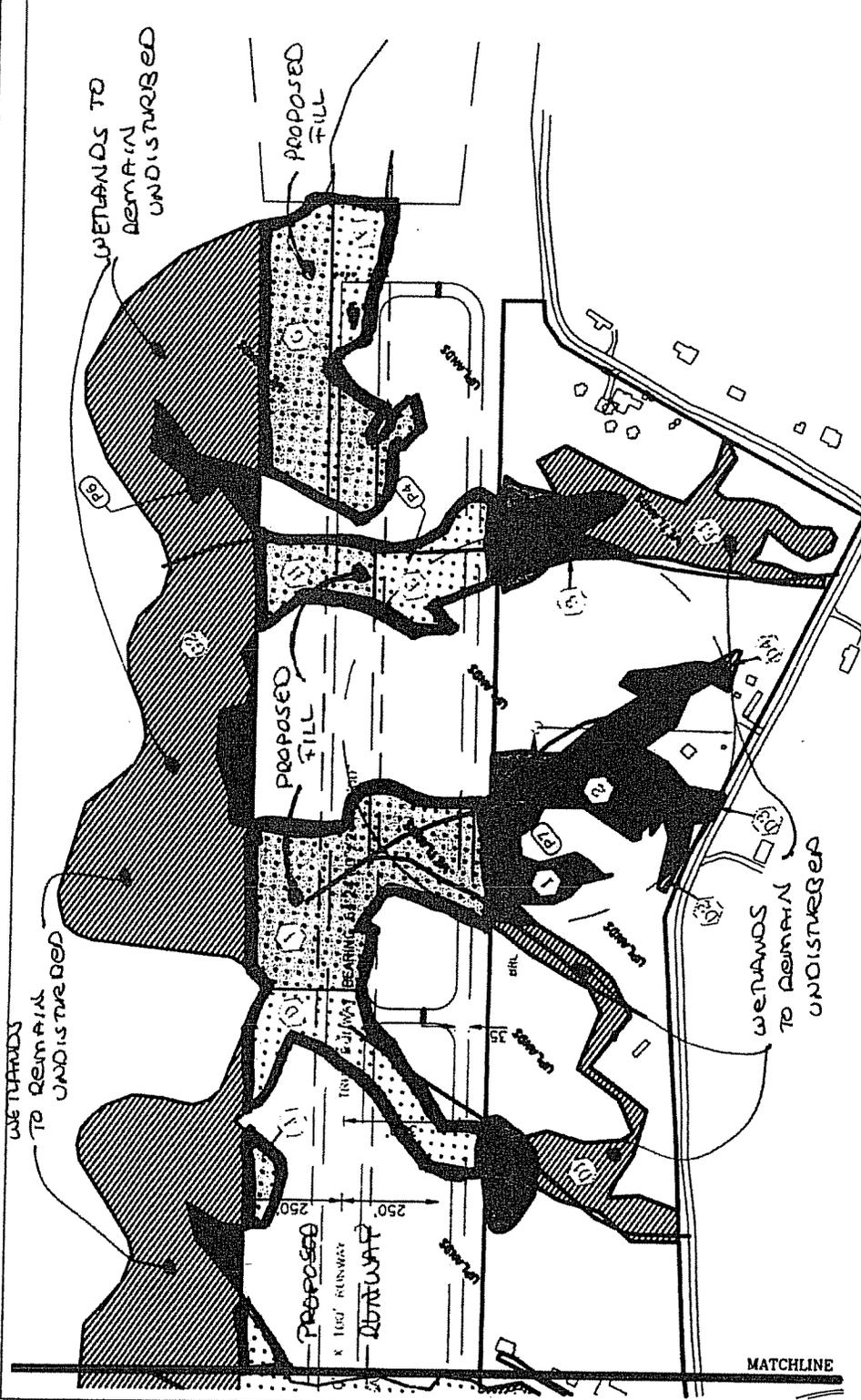
GUNTERVILLE MUNICIPAL - JOE STARNES FIELD

GUNTERVILLE, ALABAMA

DATE	12-22-04
BY	WETLANDS
REVISION	
DATE	02-22-05
BY	WETLANDS
REVISION	
DATE	04-30-08
BY	WETLANDS
REVISION	

2 OF 2

FILE NO. 2003-00631



**WETLANDS IMPACTED BY CONSTRUCTION/FILL (4028 ACRES)**

SCRUB / SHRUB	(1728 ACRES)
FORESTED	(2240 ACRES)
(1) 893 ACRES	
(2) 507 ACRES	
(3) 84 ACRES	
(4) 464 ACRES	
(5) 317 ACRES	
(6) 147 ACRES	
(7) 899 ACRES	

**WETLANDS IMPACTED BY MANUAL CLEARING FOR PROPOSED AVIS (317 ACRES)**

(1) 889 ACRES	
(2) 232 ACRES	
(3) 816 ACRES	

**WETLAND AREAS IDENTIFIED BUT NOT IMPACTED BY CONSTRUCTION (659 ACRES)**

(1) 187 ACRES	
(2) 148 ACRES	
(3) 834 ACRES	
(4) 210 ACRES	
(5) 882 ACRES	
(6) 884 ACRES	
(7) 253 ACRES	
(8) 1796 ACRES	
(9) 1350 ACRES	

WETLANDS ENHANCEMENT AREA/ RETENTION BASIN (272 ACRES)

NOTE: STREAM LOCATIONS IDENTIFIED ARE BASED ON VISUAL FIELD OBSERVATIONS AND AERIAL PHOTO REVIEW. STREAMS WERE NOT SURVEYED BY A PLS OR LOCATED UTILIZING GPS TECHNOLOGY.

DATE 2 2 08



SCREAMS

FILE NO. 2003-00631

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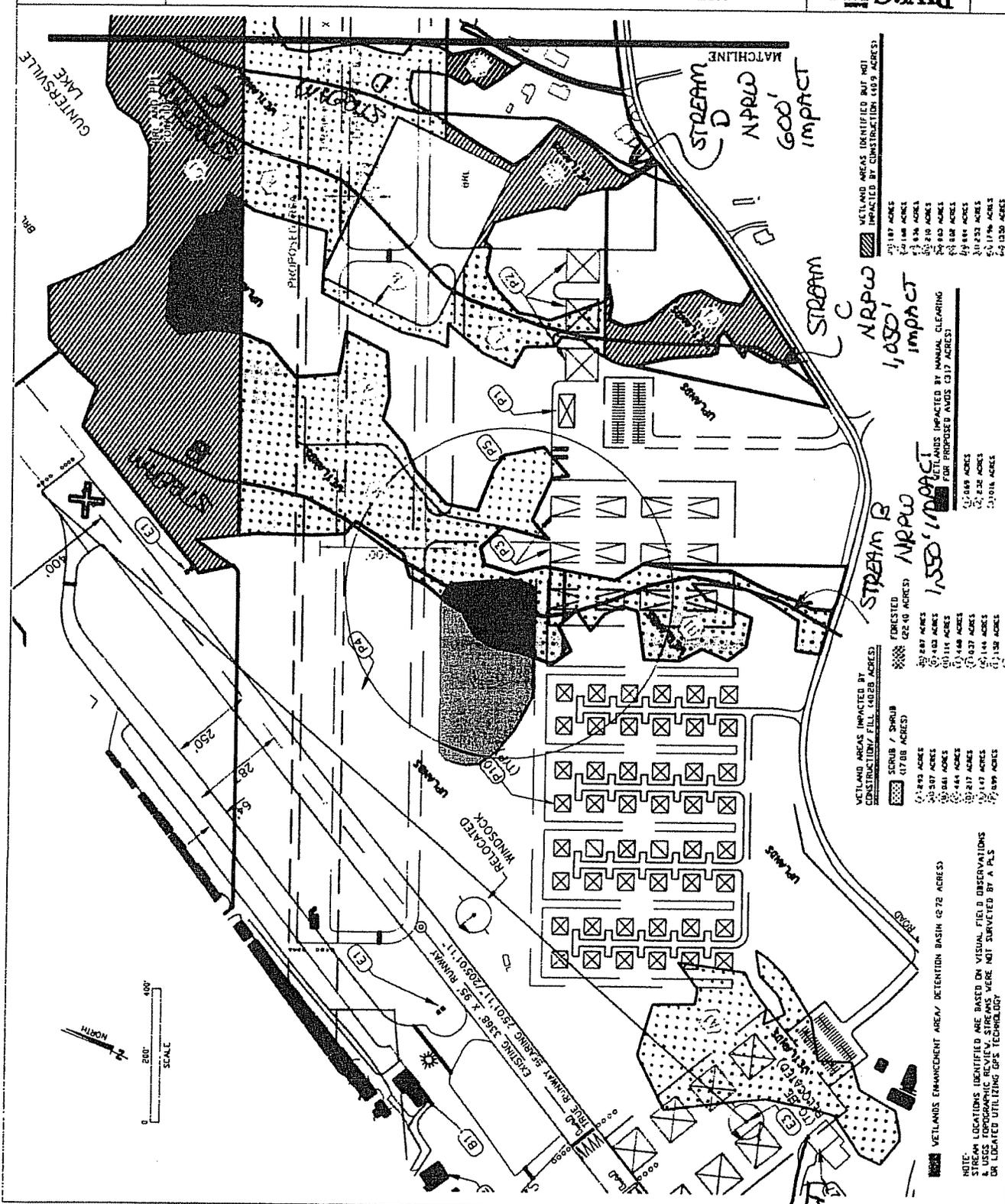


FIGURE 2

SITE MAP ~ WITH WETLAND DELINEATION & WETLAND IMPACT

GUNTERVILLE MUNICIPAL - JOE STARNES FIELD

REVISED	DATE	DESCRIPTION
REVISED	8-20-08	REVISED
REVISED	12-27-04	REVISED
ORIGINAL ISSUE	8-28-03	ORIGINAL ISSUE
DATE	DESCRIPTION	
1	OF 2	



WETLAND AREAS IDENTIFIED BUT NOT IMPACTED BY CONSTRUCTION (E.D. ACRES)

FORESTED	27,187 ACRES
SCRUB / SHRUB	24,168 ACRES
WETLANDS IMPACTED BY CONSTRUCTION	2,976 ACRES
FORESTED	2,976 ACRES
SCRUB / SHRUB	0 ACRES
WETLANDS IMPACTED BY MANUAL CLEARING	0 ACRES
FORESTED	0 ACRES
SCRUB / SHRUB	0 ACRES

WETLANDS IMPACTED BY MANUAL CLEARING (E.D. ACRES)

FORESTED	0 ACRES								
SCRUB / SHRUB	0 ACRES								
WETLANDS IMPACTED BY CONSTRUCTION (E.D. ACRES) <table border="1"> <tr> <td>FORESTED</td> <td>1,550 ACRES</td> </tr> <tr> <td>SCRUB / SHRUB</td> <td>0 ACRES</td> </tr> <tr> <td>WETLANDS IMPACTED BY CONSTRUCTION (E.D. ACRES) <table border="1"> <tr> <td>FORESTED</td> <td>1,050 ACRES</td> </tr> <tr> <td>SCRUB / SHRUB</td> <td>0 ACRES</td> </tr> </table> </td></tr></table>	FORESTED	1,550 ACRES	SCRUB / SHRUB	0 ACRES	WETLANDS IMPACTED BY CONSTRUCTION (E.D. ACRES) <table border="1"> <tr> <td>FORESTED</td> <td>1,050 ACRES</td> </tr> <tr> <td>SCRUB / SHRUB</td> <td>0 ACRES</td> </tr> </table>	FORESTED	1,050 ACRES	SCRUB / SHRUB	0 ACRES
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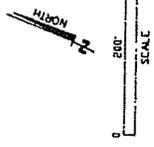
NOTE:  
STREAM LOCATIONS IDENTIFIED ARE BASED ON VISUAL FIELD OBSERVATIONS  
USING TOPOGRAPHIC REVIEW. STREAMS WERE NOT SURVEYED BY A PLS  
OR LOCATED UTILIZING GPS TECHNOLOGY

STREAM A  
(No Impact)

STREAM B  
1,550' IMPACT

STREAM C  
1,050' IMPACT

STREAM D  
600' IMPACT



GUNTERVILLE LAKE

BR1

BR2

BR3

BR4

BR5

BR6

BR7

BR8

BR9

BR10

BR11

BR12

BR13

BR14

BR15

BR16

BR17

BR18

BR19

BR20

BR21

BR22

BR23

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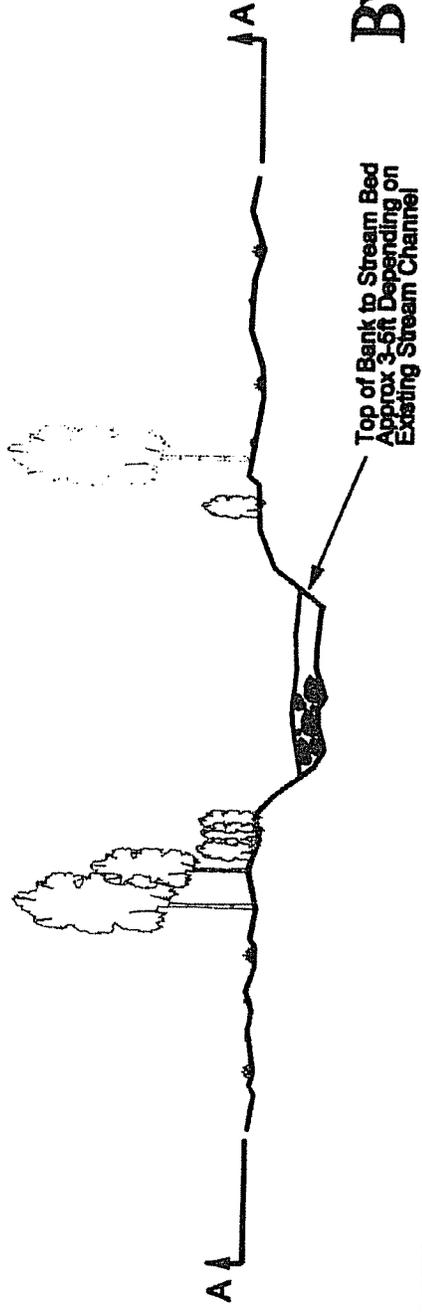
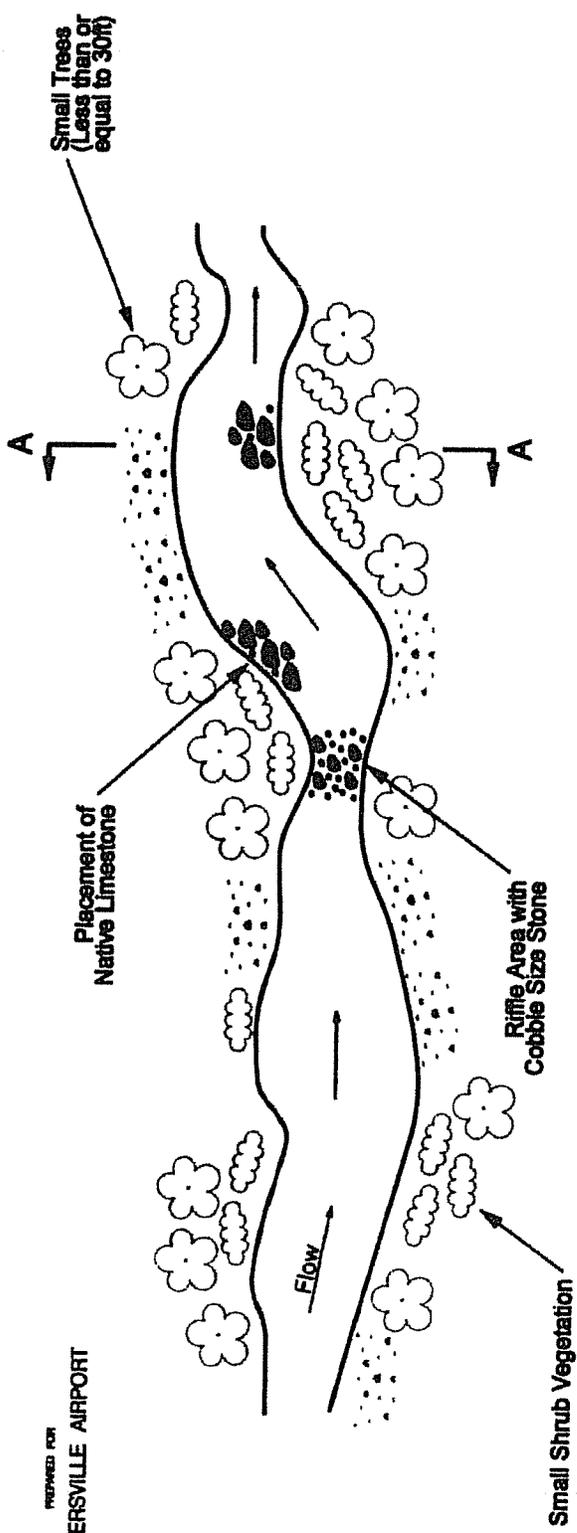
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Conceptual Stream Mitigation Plan  
FILE No. 2003-00631 PN 09-08

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