



DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND

8 August 2018

MEMORANDUM FOR DISTRIBUTION

FROM: 94 MSG/CE  
884 Industrial Drive  
Dobbins ARB, Georgia 30069

SUBJECT: Public Notice on the Environmental Analysis for the Road Crossing Repair  
at Poorhouse Creek, Dobbins ARB, Georgia, Project Number: 16-0017

1. The Air Force Reserve Command (AFRC) is proposing to repair the Road Crossing at Poorhouse Creek on Dobbins Air Reserve Base.
2. Background: The attached analysis is provided to support this action. Upon identification of the failing structure, a project was proposed to repair the structure. An Air Force Environmental Impact Analysis Process (EIAP) was initiated when the structure failure was identified. At this time, draft EIAP analysis has been completed. These documents are provided for your review and comments.
3. The purpose of the Proposed Action is to repair the road crossing at Poorhouse Creek. The existing structure is failing. Extreme bank erosion and scour has occurred on the left bank of the stream which undercut the concrete base, thus requiring replacement of the structure with an acceptable engineered solution. In addition, during high rain events debris accumulates at the posts effectively damming up the stream causing further bank erosion.
4. In accordance with the No Action Alternative, Dobbins Air Reserve Base would not repair the crossing structure. The extreme bank erosion and scour which is occurring on the stream will continue to undercut the concrete base of the current structure. During heavy storm water events, additional sediment will be deposited downstream.
5. This analysis was prepared to evaluate the Proposed Action and the No Action Alternative. The resources that have been considered in the impact analysis are: noise, land use, air quality, geological resources, water resources, biological resources, cultural resources, infrastructure, hazardous materials, waste management, and safety.
6. This draft AF Form 813 package has been prepared as part of the environmental planning effort. Public review and comments are appreciated, and all public comments received will be considered in the preparation of the final AF Form 813 package.

7. Dobbins Air Reserve Base shall obtain and comply with a United States Army Corps of Engineers Section 404 Permit, prior to repair/construction. Additionally, the final repair design will include requirements specified by the Corps of Engineers permit. At this advanced planning stage, the Corps of Engineers permit and repair design are not available for public review.

8. In accordance with Executive Order 11988, Floodplain Management, Dobbins Air Reserve Base is providing this environmental analysis for your review and comments. Your comments and information are requested for consideration. Please send directly to the undersigned at 94th Airlift Wing Public Affairs Office, 94 AW/PA, 1430 First Street, Dobbins ARB, Georgia, 30069 or by email to [94aw.pa@us.af.mil](mailto:94aw.pa@us.af.mil).

WILLIAMS.KENNE  
TH.W.1230684916

Digitally signed by  
WILLIAMS.KENNETH.W.1230684  
916  
Date: 2018.08.08 10:57:08 -04'00'

KENNETH W. WILLIAMS, GS-13, DAF  
Base Civil Engineer

Attachments:

1. EIAP Analysis 17-13

**REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS**

Report Control Symbol  
RCS: 17-13

INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).

**SECTION I - PROPONENT INFORMATION**

**Draft Only. Document Will Be Revised**

1. TO (Environmental Planning Function) 94 MSG/CEV	2. FROM (Proponent organization and functional address symbol) 94 MSG/CEC	2a. TELEPHONE NO.
3. TITLE OF PROPOSED ACTION 17-13, Repair Outfall 9 - Poorhouse Creek at Windy Hill 16-0017		
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) See continuation sheet		
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) See continuation sheet		
6. PROPONENT APPROVAL (Name and Grade)		6b. DATE

**SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY.** (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)

	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. WATER RESOURCES (Quality, quantity, source, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. OTHER (Potential impacts not addressed above.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION**

17.  PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.7 ; OR  
 PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS  
 Attention: See items 9, 11, and 12 of the AF Form 813 Continuation Sheet.  
  
 CATEX A2.3.7. Continuation or resumption of pre-existing actions, where there is no substantial change in existing conditions or existing land uses and where the actions were originally evaluated in accordance with applicable law and regulations, and surrounding circumstances have not changed.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade)	19b. DATE
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**Draft Only. Document Will Be Revised**

**SECTION I - PROPONENT INFORMATION**

**1. To (Environmental Planning Function):** 94MSG/CEV

**2. From (Proponent organization and functional address symbol):** 94MSG/CEC

**2a. Telephone No:**

**3. Title of Proposed Action:** 17-13, Repair Outfall 9 - Poorhouse Creek at Windy Hill 16-0017

**4. Purpose and Need for Action:** Current box culvert structure at Poorhouse Creek was designed and constructed back in 2005. The heavy buildup of debris at the structure, especially during periods of heavy rain, impedes the flow through the culvert. These restrictions over time have deteriorated the upstream and downstream banks of the culvert and flooded the roadway/bridge. In addition the continuous removal of accumulated debris at the structure utilizes valuable resources. This project will also ensure that Dobbins is in compliance with Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C 403) and/or Section 404 of the Clean Water Act (33 U.S.C 1344).

**5. Description of Proposed Action and Alternatives:** All work necessary to design, construct and repair box culvert, damaged roadway on both sides of the culvert and reestablish creek banks and bed upstream and downstream of bridge over Poorhouse Creek on East Patrol Road. Project will facilitate the removal or elimination of debris at culvert structure. This work shall also incorporate the latest flood event data available to prevent creek overflow and road washout. Project design of stream bed and banks immediately upstream and downstream of culvert aprons shall protect the culvert from future erosion and washout problems.

**No Action:** The removal of debris at the structure will continue to utilize valuable resources. The stream banks and roadway will continue to erode with the potential of causing greater damage or possibly a catastrophic failure of the culvert, which would result in the elimination of a base entry/exit. A washout of the roadway/bridge will result in the base being out of compliance with Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C 403) and/or Section 404 of the Clean Water Act (33 U.S.C 1344).

**SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY.**

**7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE**

*(Noise, accident potential, encroachment, etc.)*

**Construction Noise.** Noise from construction activities varies depending on the type of equipment being used, the area that the action would occur in, and the distance from the noise source. As shown in the table below, construction usually involves several pieces of equipment (e.g., trucks and bulldozers) that can be used simultaneously. Under the proposed action, the cumulative noise from the construction equipment, during the busiest day, was estimated to determine the total impact of noise from construction activities at a given distance. These sound levels were predicted at 50, 100, 200, 400, 800, and 1,200 feet from the source of the noise.

**Predicted Noise Levels from Construction Activities**

<b>Distance from Noise Source</b>	<b>Predicted Noise Level</b>
50 feet	89 dBA
100 feet	83 dBA
200 feet	77 dBA
400 feet	71 dBA
800 feet	65 dBA
1,200 feet	61 dBA

The noise from construction equipment would be localized, short-term, and intermittent during machinery operations. Heavy equipment would be used periodically during construction; therefore, noise levels from the equipment would fluctuate throughout the day.

Construction activities under the proposed action would result in short-term, minor, adverse impacts on the noise environment in the vicinity of construction activities. However, noise generation would last only for the duration of construction activities and would diminish as they moved farther away from the receptor. Noise generation could be minimized by restricting construction to normal working hours (i.e., between 7:00 a.m. and 5:00 p.m.) and the use of measures such as equipment exhaust mufflers. It is not anticipated that the short-term increase in ambient noise levels from the proposed action would cause significant adverse effects on the surrounding populations.

**8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)**

**Construction Emissions Estimates.** Short-term, adverse effects on air quality would be expected from the construction associated with the repair; however, the effects would not be significant. The construction activities associated with the repair would generate air pollutant emissions from site-disturbing activities such as grading, filling, compacting, trenching, and operation of construction equipment. Construction activities would also generate particulate emissions as fugitive dust from ground-disturbing activities and from the combustion of fuels in construction equipment and hauling of materials to the site. Fugitive dust emissions would be greatest during the initial site preparation activities and would vary from day to day depending on the work phase, level of activity, and prevailing weather conditions. The quantity of uncontrolled fugitive dust emissions from a construction site is proportional to the area of land being worked and the level of activity. Construction activities would incorporate best management practices (BMPs) and control measures (e.g., frequent use of water to suppress dust from dust-generating activities) to minimize fugitive particulate matter emissions.

**General Conformity.** This action has been reviewed for General Conformity with the Georgia State Implementation Plan (SIP). This review concluded that the requirements of General Conformity do not apply to this action because the maximum annual total direct and indirect emissions of this action are estimated to be below de minimis levels based on the size and scope of the action. The action is not regionally significant based on annual regional emissions for the region around DARB.

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AF IMT 813, 19990901, V1, CONTINUATION SHEET

RCS: 17-13, Repair Outfall 9 - Poorhouse Creek at Windy Hill 16-0017

**9. WATER RESOURCES** (*Quality, quantity, source, etc.*) This project will have a positive impact on the water quality and quantity of Poorhouse Creek. Current conditions result in abnormal silt and debris build up during precipitation runoff events. The project will improve stream quality by minimizing silt and debris accumulation thereby improving streambed characteristics and mitigating impacts to benthic communities in Poorhouse Creek. Water quantity should be improved by reducing the severity of flooding following significant rain events that currently deposit large quantities of silt and debris resulting in restricted flow, flooding, and damage to existing infrastructure.

A Clean Water Act (CWA) Section 404 permit must be obtained from the US Army Corp of Engineers (USACE) as well as Stream Buffer variance from Cobb County, GA before construction activities begin.

**10. SAFETY AND OCCUPATIONAL HEALTH** (*Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.*)

The proposed activity has been evaluated for known existence of, and/or removal actions for, asbestos and lead based paint. The proposed activity is not the type of activity with the potential to cause radiation exposure, chemical exposure, or BASH hazards. The proposed activity does not occur within an explosive safety zone.

Positive impacts include reduced Bird-Aircraft Strike Hazard Reduction (BASH) hazards. The repair project will improve base drainage and help minimize any standing water problems on the runway or water impoundments in the infield area that attract birds which are a hazard to aircraft.

**11. HAZARDOUS MATERIALS/WASTE** (*Use/storage/generation, solid waste, etc.*)

The materials expected to be used to perform this activity will be reviewed by the Hazardous Material Management Process Team for authorization prior to use.

Negative solid waste impacts will occur, due to removal of existing structures. Work will generate non-hazardous construction debris. Waste management (for solid waste, construction or demolition debris, hazardous waste or any other waste) is addressed in the DARB 01560 specification.

No known or anticipated activities, including construction activities, are expected to use more than small quantities of fuels and lubricants, for use in on-site equipment during the project. Impacts will be negligible. All current DARB solid waste management procedures will be followed. Thus, the proposed Action will not result in adverse impacts to workers or to the environment resulting from the use of hazardous materials or the generation of solid wastes. The only wastes anticipated to be generated will be construction debris.

**12. BIOLOGICAL RESOURCES** (*Wetlands/floodplains, threatened or endangered species, etc.*)

The project is located downstream and in close proximity to Wetland WL-101. The project boundary is not anticipated to be within the wetland boundary. Protections must be implemented to protect Wetland WL-101 from any construction project activities.

The project location is sited in a 100 year floodplain. Proposed actions that will occur in, or could adversely affect floodplains, require compliance with E.O. 11988 "Floodplain Management" prior to implementing an action. Due to the location, a Finding of No Practicable Alternative (FONPA) document must be completed. In addition, a Clean Water Act (CWA) Section 404 permit must be obtained from the US Army Corp of Engineers (USACE) before construction activities begin.

# Draft Only. Document Will Be Revised

AF IMT 813, 19990901, V1, CONTINUATION SHEET

RCS: 17-13, Repair Outfall 9 - Poorhouse Creek at Windy Hill 16-0017

No federally listed threatened, endangered, or candidate species or Georgia DNR special concern species have been documented within the site location. Therefore, no impacts on federally or state-listed species would be expected from the implementation of the proposed action.

The project should improve water quality by restricting the rate of erosion currently occurring along the stream bank.

### **13. CULTURAL RESOURCES** (*Native American burial sites, archaeological, historical, etc.*)

No adverse impacts anticipated. The proposed undertaking was considered in reference to 36CFR§800.3(a)(1) and it is not the type of activity with potential to cause effects on historic properties, assuming such could be present. The AF has no further obligations under NHPA, Sec. 106.

### **14. GEOLOGY AND SOILS** (*Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.*)

**Topography.** DARB is located within the Central Uplands District of the Piedmont Physiographic Province (hereafter, “the Piedmont”). The topography of the region is characterized by moderately sloped hills and broad ridges that define various stream valleys. On the installation, the topography exhibits a gradual slope toward the southeast with elevations ranging from 950 feet above mean sea level (MSL) along the eastern boundary to 1,100 feet above Mean Sea Level (MSL) along the western boundary.

The topography in the Approach and Transitional Zones on the West End slopes down toward Olley Creek to the northwest with elevations ranging from 1,020 feet above MSL to 1,100 feet above MSL to the east. The topography in the Approach and Transitional Zones on the East End slopes towards Poorhouse Creek. Elevations range from 920 feet above MSL along Poorhouse Creek to 1,060 feet above MSL to the southeast.

**Geology.** Georgia lies on a passive continental margin with a stable transition between continental and oceanic crust. The Piedmont is an area that contains moderate-to-high grade metamorphic rocks. The Piedmont also contains an abundance of mineral resources such as stone, granite, and soapstone. A major geologic feature of this Province is the Brevard Fault Zone which runs in a southwest-northeast direction across the state including the area underlying northwest Atlanta. DARB is at minimal risk from geologic hazards since Georgia lies on a passive continental margin with a stable transition between continental and oceanic crust. The U.S Geological Survey produced seismic hazard maps based on current information about the frequency and intensity of earthquakes. The maps show the levels of horizontal shaking that have a 2 in 100 chance of being exceeded in a 50-year period. Shaking is expressed as a percentage of the force of gravity (percent g) and is proportional to the hazard faced by a particular type of building. In general, little or no damage is expected at values less than 10 percent g. The 2008 National Seismic Hazard map produced by the U.S Geological Survey shows that DARB has a seismic hazard rating of approximately 8 to 10 percent g, making the risk of damage from seismic activity minimal.

**Soils.** Georgia soils of the Piedmont are commonly red in color due to the presence of clay minerals and iron oxides that result from the weathering of feldspar-rich igneous and metamorphic rocks. Natural Resources Conservation Service soil surveys indicate that soils on and around DARB are predominately micaceous silts and micaceous sandy silts derived from the weathering of underlying rock.

The two main soil associations on-installation are the Madison-Gwinnett-Cecil and the Madison-Gwinnett-Pacolet associations both of which are characterized by well-drained sand and clay loams on the surface and sub-surface. Due to agricultural use prior to the establishment of the installation in 1942 and subsequent development, many of the native soil profiles on DARB have been disturbed or destroyed. Much of the original topsoil has been eroded, exposing clayey subsoils.

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AF IMT 813, 19990901, V1, CONTINUATION SHEET

RCS: 17-13, Repair Outfall 9 - Poorhouse Creek at Windy Hill 16-0017

Soils located beyond the west end of the runway and off the installation are predominately urban due to past development activities. Hydric soils generally follow Olley Creek through the northwest portion of the Approach and Transitional Zones. Soil conditions in the southwest portion of the Approach and Transitional Zones are composed of the Madison and Pacolet series.

Soils located beyond the east end of the runway and off the installation are comparatively more diverse although past development activities have resulted in a significant amount of disturbed, urban soils. Within the Approach Zone, clay and sandy loams are most prominent, in particular the Madison, Gwinnett, and Appling soil series, among others. Hydric soils are found in areas adjacent to Poorhouse Creek. Soil conditions within the Transitional Zones are similar to those found in the Approach Zone; however, the western portion of the Transitional Zone (north of the Approach Zone) is largely composed of urban soils whereas the western portion of the Transitional Zone (south of the Approach Zone) contains a large amount of hydric soils in the vicinity of Poorhouse Creek.

Prime and Unique Farmland. According to Natural Resources Conservation Service data, the Cecil and Madison sandy loams are designated as prime farmland. However, the lands are disturbed and not currently available for agriculture and would not likely be used for agriculture in the future. Therefore, Farmland Protection Policy Act documents do not apply.

## **15. SOCIOECONOMIC** (*Employment/population projections, school and local fiscal impacts, etc.*)

No adverse impacts anticipated. Short-term, negligible, beneficial impacts on the local economy from increases in employment and local business volume during the project would be expected from the potential influx of personnel to complete the Proposed Action.

No environmental justice issues would be expected, as construction activities in this area would occur entirely on DARB property.

## **16. OTHER** (*Potential impacts not addressed above.*)

No other potential impacts were identified.

1. COMPONENT AFRC	FY 2018 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 27 Jul 17	
3. INSTALLATION AND LOCATION Dobbins ARB, MARIETTA, GA 30069-5009		4. PROJECT TITLE CONSTRUCT AND REPAIR OUTFALL 9 CULVERT AT POORHOUSE CREEK AND WINDY HILL ROAD, FACILITY 484			
5. PROGRAM ELEMENT 52576 52578	6. CATEGORY CODE 871-101	7. PROJECT NUMBER FGWB 16-0017	8. PROJECT COST (\$000) EEIC 52995 - \$ 575.0 EEIC 52495 - \$ 115.9		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
CONSTRUCT OUTFALL 9 CULVERT AT POORHOUSE CREEK AND WINDY HILL ROAD, FACILITY 484 (529)		SY	450	1,228.88	553.0
Site Preparation		SY	450	237.78	107.0
Site Improvement		SY	450	924.44	416.0
Misc. Fees & Permits		LS			30.0
SIOH (4%)					22.0
Total Funded Cost					575.0
Unfunded Design Cost (10%)					57.5
Total Project Cost					632.5
REPAIR OUTFALL 9 AT POORHOUSE CREEK AND WINDY HILL ROAD, FACILITY 484 (524)		CY	450	247.56	111.4
Site Earthwork & Demolition		CY	450	5.33	2.4
Banks Stabilization Improvements		LF	160	468.75	75.0
Pavement - Roadway		SY	625	19.20	12.0
Fence		LF	250	88.00	22.0
SIOH (4%)					4.5
Total Funded Cost					115.9
Unfunded Design Cost (10%)					11.6
Total Project Cost					127.5
TOTAL FUNDED PROJECT COST					690.9
10. <b>DESCRIPTION OF PROPOSED WORK:</b> All work necessary to design, construct and repair box culvert, damaged roadway on both sides of the culvert and reestablish creek banks and bed upstream and downstream of bridge over Poorhouse Creek on East Patrol Road. Project will facilitate the removal or elimination of debris at culvert structure. This work shall also incorporate the latest flood event data available to prevent creek overflow. Project design of stream bed and banks immediately upstream and downstream of culvert aprons shall protect the culvert from future erosion and washout problems.					
11. <b>PROJECT:</b> CONSTRUCT AND REPAIR OUTFALL 9 CULVERT AT POORHOUSE CREEK AND WINDY HILL ROAD, FACILITY 484.					
<b>REQUIREMENT:</b> This project will also ensure that Dobbins ARB is in compliance with Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C 403) and/or Section 404 of the Clean Water Act (33 U.S.C 1344).					
<b>CURRENT SITUATION:</b> Current box culvert structure at Poorhouse Creek was designed and constructed back in 2005. The heavy buildup of debris at the structure, especially during periods of heavy rain, impedes the flow through the culvert. These restrictions over time have deteriorated the upstream and downstream banks of the culvert and flooded the roadway/bridge.					

1. COMPONENT AFRC	FY 2018 CONSTRUCTION PROJECT DATA	2. DATE 27 Jul 17
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3. INSTALLATION AND LOCATION  
Dobbins ARB, MARIETTA, GA 30069-5009

4. PROJECT TITLE  
CONSTRUCT AND REPAIR OUTFALL 9 CULVERT AT POORHOUSE CREEK AND WINDY HILL ROAD, FACILITY 484

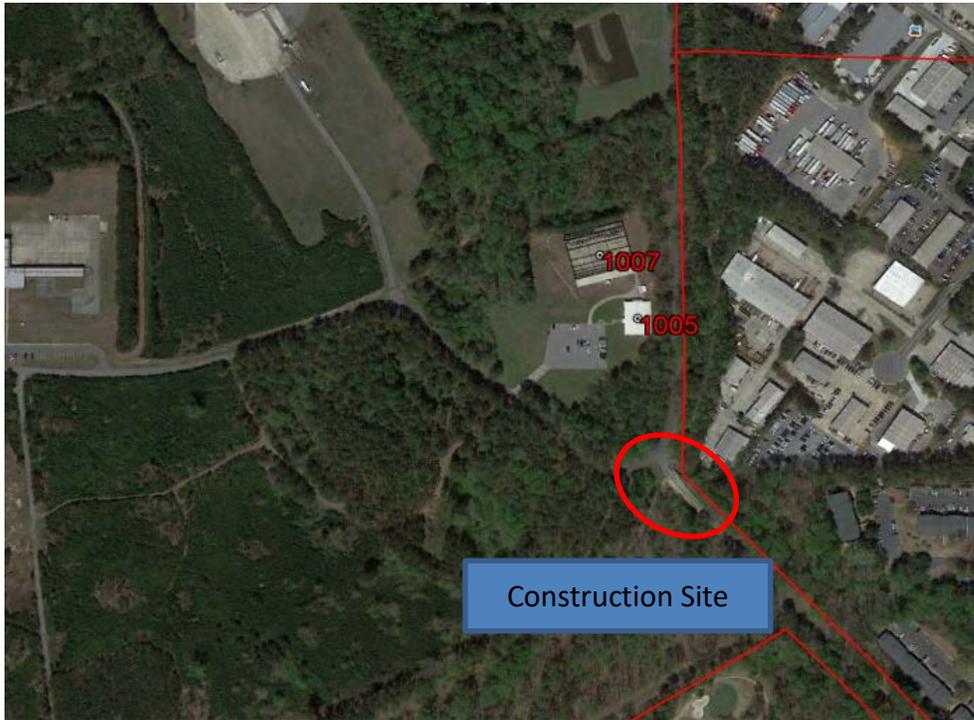
5. PROJECT NUMBER  
FGWB 16-0017

**IMPACT IF NOT PROVIDED:** The removal of debris at the structure will continue to utilize valuable resources. The stream banks and roadway will continue to erode with the potential of causing greater damage or possibly a catastrophic failure of the culvert, which would result in the elimination of a base entry/exit. A washout of the roadway/bridge will result in the base being out of compliance with Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C 403) and/or Section 404 of the Clean Water Act (33 U.S.C 1344).

**ADDITIONAL:** This facility can be used by other components on an "as available" basis: however, the scope of this project is based on Air Force Requirements.

//Signed/KWW/14-Aug-17//  
KENNETH W. WILLIAMS  
Base Civil Engineer

<b>1. COMPONENT</b> AFRC	<b>FY 2018 CONSTRUCTION PROJECT DATA</b>	<b>2. DATE</b> 27 Jul 17
<b>3. INSTALLATION AND LOCATION</b> Dobbins ARB, MARIETTA, GA 30069-5009		
<b>4. PROJECT TITLE</b> CONSTRUCT AND REPAIR OUTFALL 9 CULVERT AT POORHOUSE CREEK AND WINDY HILL ROAD, FACILITY 484	<b>5. PROJECT NUMBER</b> FGWB 16-0017	



Site Plan



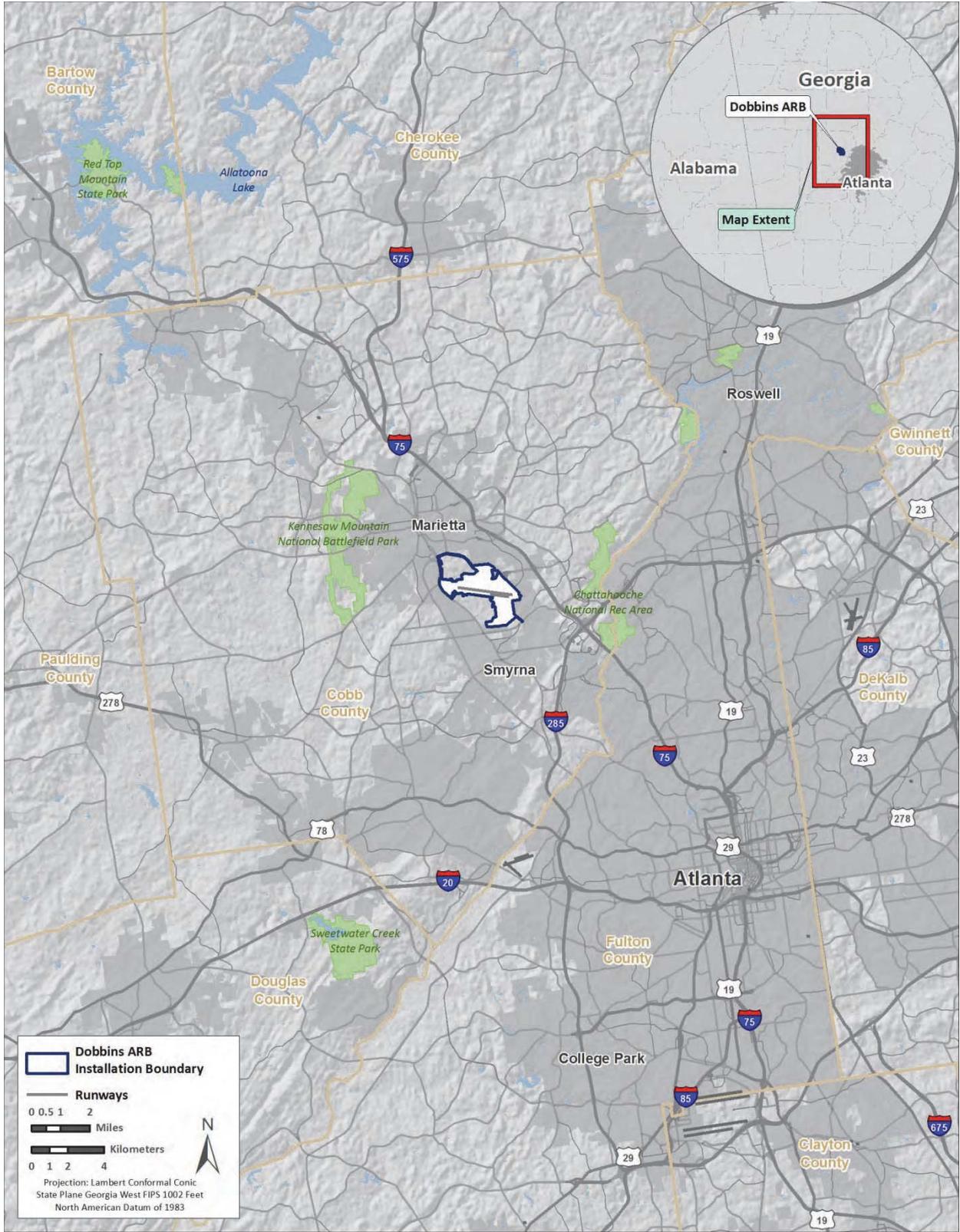
After a Heavy Rainfall



Up Stream

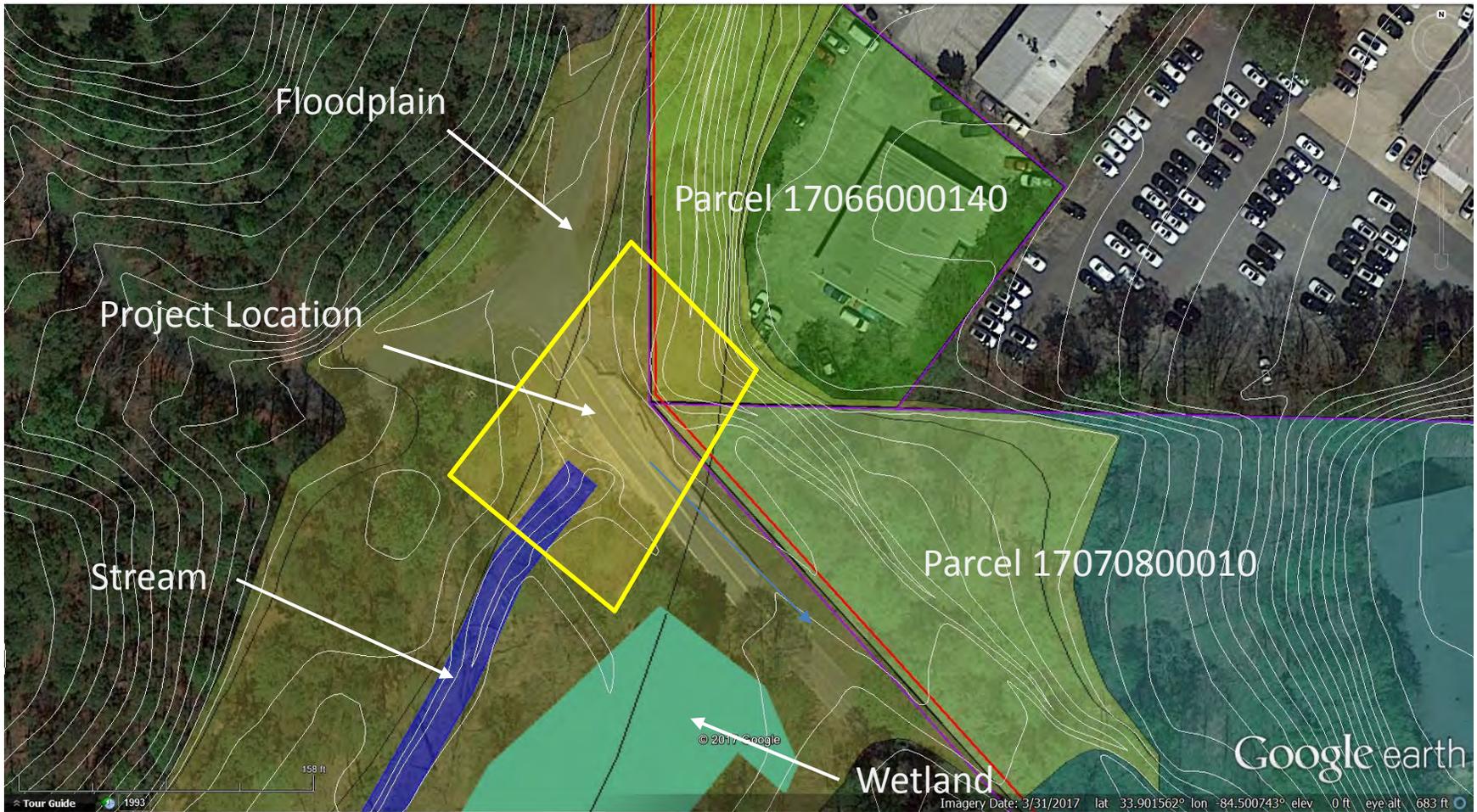


Down Stream



Dobbins ARB Vicinity Map

# 17-13 Project Constraints Map (16-0017)



84°30'30"W

84°30'15"W

### MAP SHEET 11 OF 11

Wetland and Stream Delineation Map  
Dobbins Air Reserve Base  
Marietta, Georgia



Prepared By:  
e<sup>2</sup>M, Inc.

Drawn By: SFM  
Checked By: SRC

Date: September 2009

- Dobbins ARB Installation Boundary
- 100 Year Flood Zone
- Areas not Delineated in Survey

#### Elevation Contours

- Index - 10'
- Interval - 2'

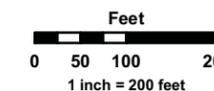
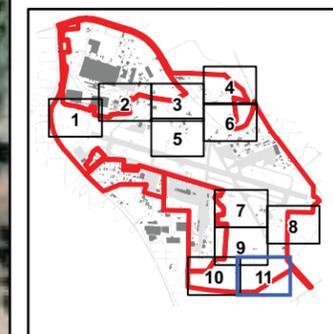
#### 2009 Wetland Delineation

- Wetland Observation Points\*
- Wetland Boundary Points\*
- Stream Boundary Points\*

- PEM
- PEM/PSS
- PFO
- PFO/PSS
- PFO/R
- POW
- PSS/R
- Streams

- W# Wetland Number
- S# Stream Number

\*Due to map scale constraints, not all labels appear adjacent to their corresponding point.



Projection: Transverse Mercator  
State Plane Georgia West FIPS 1002 Feet  
North American Datum of 1983



84°30'30"W

84°30'15"W

33°54'0"N

South Patrol Road

84°30'30"W

84°30'15"W

### MAP SHEET 11 OF 11

#### Wetland and Stream Delineation Map Dobbins Air Reserve Base Marietta, Georgia



Prepared By:  
e<sup>2</sup>M, Inc.

Drawn By: SFM  
Checked By: SRC

Date: September 2009

- Dobbins ARB Installation Boundary
- 100 Year Flood Zone
- Areas not Delineated in Survey
- Buildings
- Paved Areas

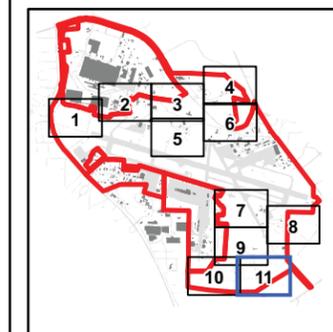
#### Elevation Contours

- Index - 10'
- Interval - 2'

#### 2009 Wetland Delineation

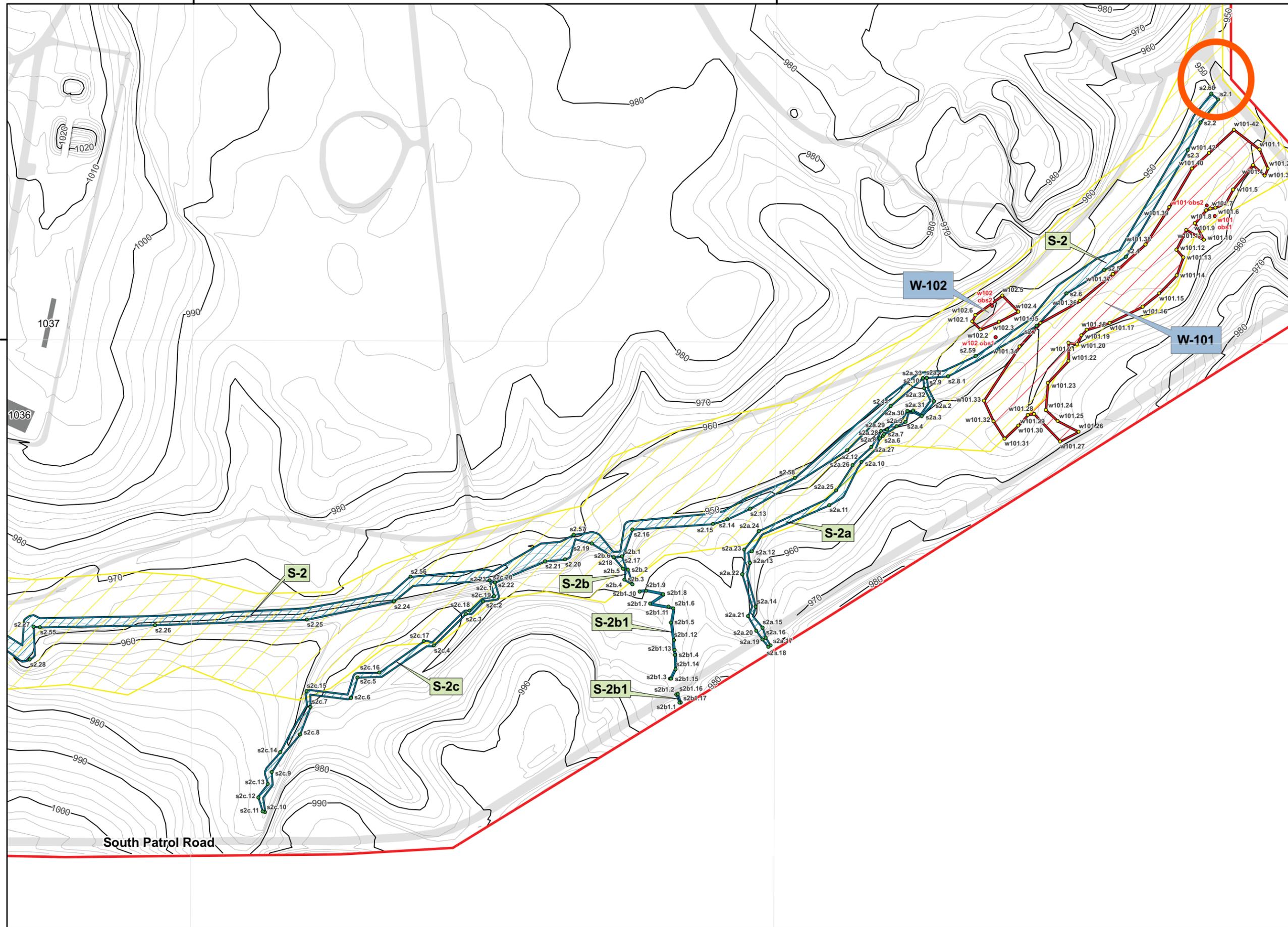
- Wetland Observation Points\*
- Wetland Boundary Points\*
- Stream Boundary Points\*
- PEM
- PEM/PSS
- PFO
- PFO/PSS
- PFO/R
- POW
- PSS/R
- Streams
- W-# Wetland Number
- S# Stream Number

\*Due to map scale constraints, not all labels appear adjacent to their corresponding point.



Feet  
0 50 100 200  
1 inch = 200 feet

Projection: Transverse Mercator  
State Plane Georgia West FIPS 1002 Feet  
North American Datum of 1983



84°30'30"W

84°30'15"W