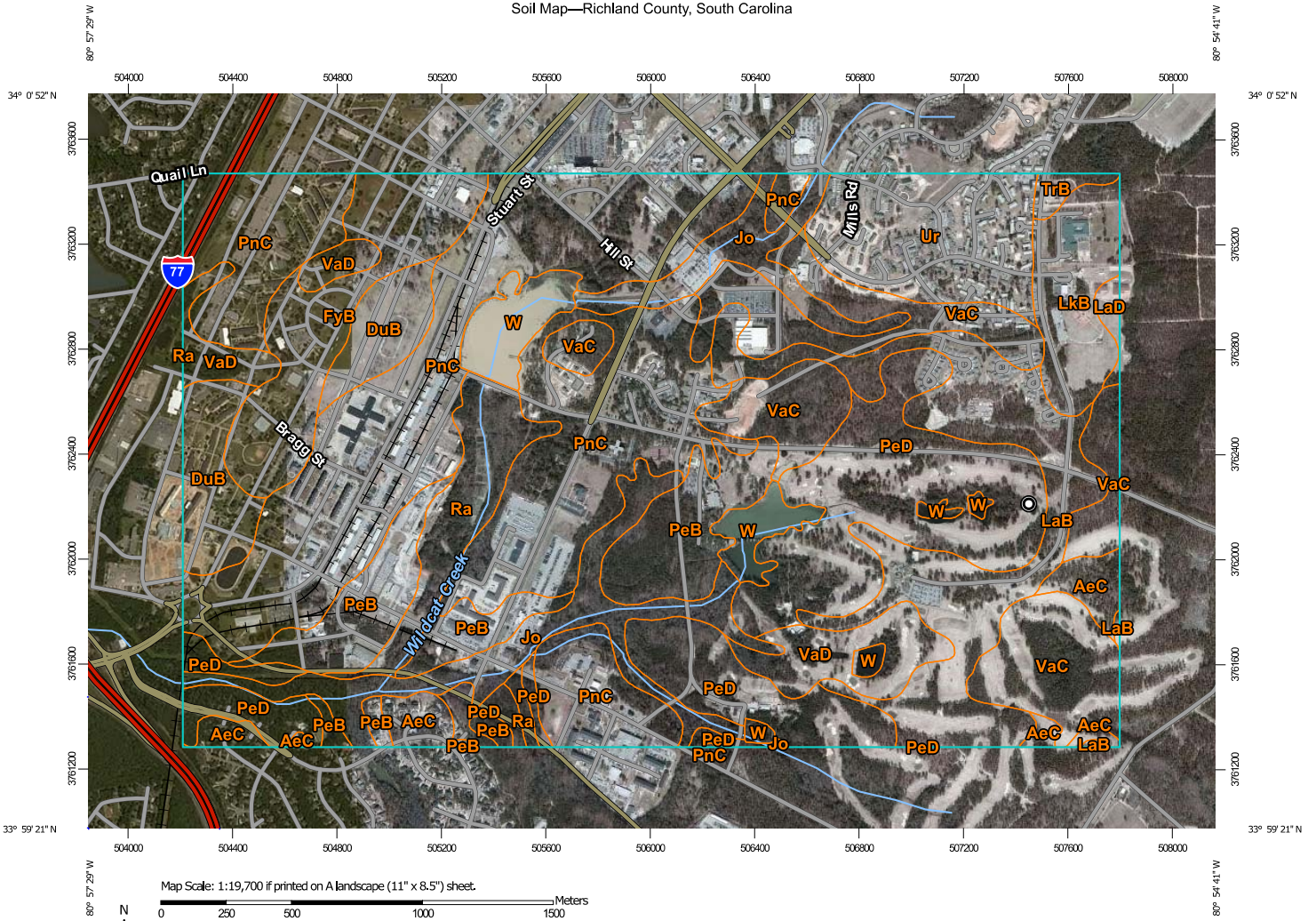






































Appendix A

Soils

Soil Map—Richland County, South Carolina



MAP LEGEND

- Area of Interest (AOI)**
-  Area of Interest (AOI)
- Soils**
-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points
- Special Point Features**
-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Richland County, South Carolina
 Survey Area Data: Version 18, Sep 29, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 26, 2010—Jun 14, 2013

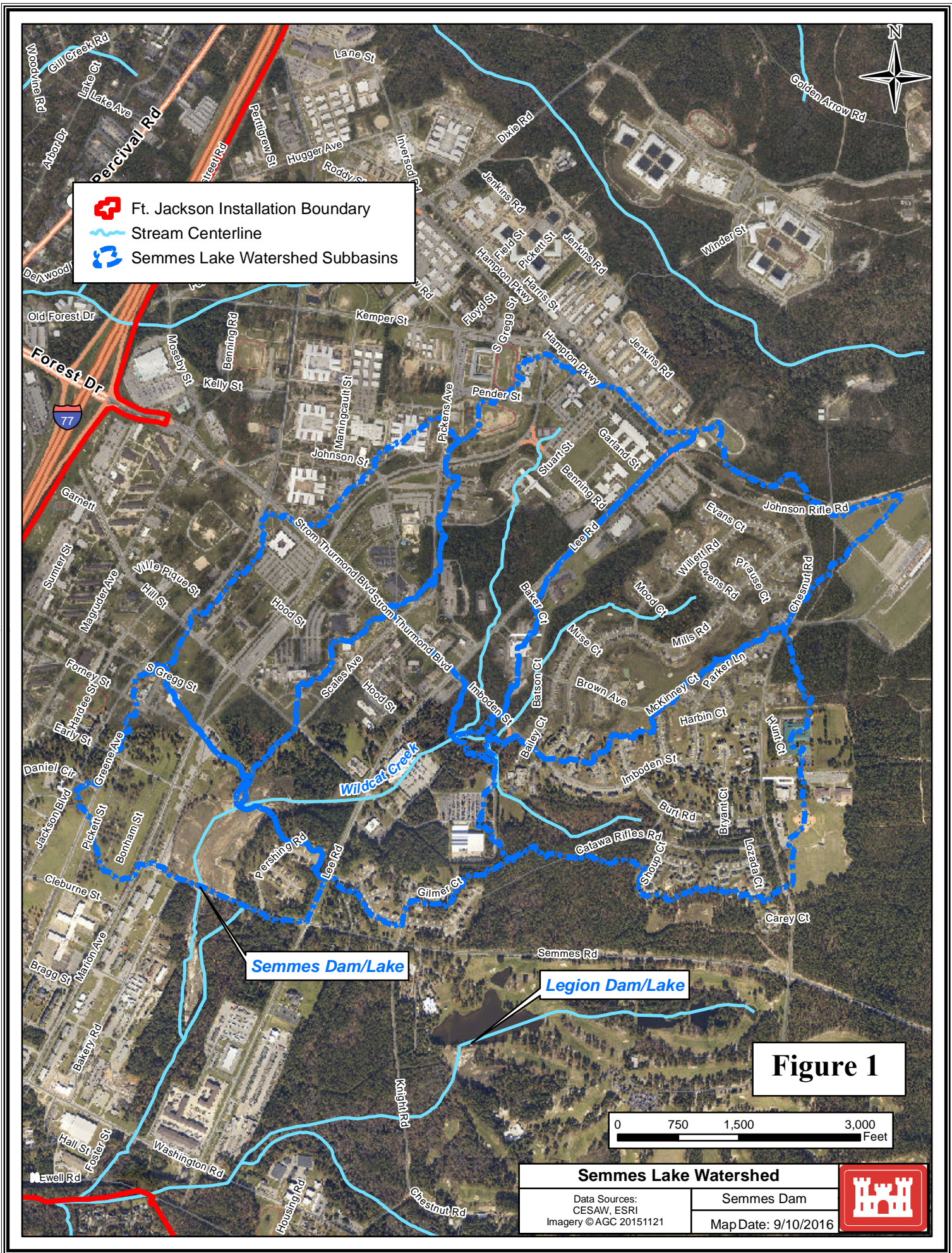
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Richland County, South Carolina (SC079)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AeC	Ailey loamy sand, 2 to 10 percent slopes	38.1	2.0%
DuB	Dothan-Urban land complex, 0 to 6 percent slopes	71.8	3.7%
FyB	Fuquay-Urban land complex, 0 to 6 percent slopes	96.7	5.0%
Jo	Johnston loam	124.8	6.4%
LaB	Lakeland sand, 2 to 6 percent slopes	167.3	8.6%
LaD	Lakeland sand, 10 to 15 percent slopes	5.2	0.3%
LkB	Lakeland-Urban land complex, 2 to 6 percent slopes	56.8	2.9%
PeB	Pelion loamy sand, 2 to 6 percent slopes	130.8	6.7%
PeD	Pelion loamy sand, 6 to 15 percent slopes	253.8	13.0%
PnC	Pelion-Urban land complex, 2 to 10 percent slopes	531.3	27.3%
Ra	Rains sandy loam	58.4	3.0%
TrB	Troup sand, 0 to 6 percent slopes, Carolina and Georgia Sand Hills	6.9	0.4%
Ur	Urban land	97.6	5.0%
VaC	Vaucluse loamy sand, 6 to 10 percent slopes	188.1	9.7%
VaD	Vaucluse loamy sand, 10 to 15 percent slopes	66.4	3.4%
W	Water	53.3	2.7%
Totals for Area of Interest		1,947.3	100.0%

Appendix B

Wildcat Creek Watershed



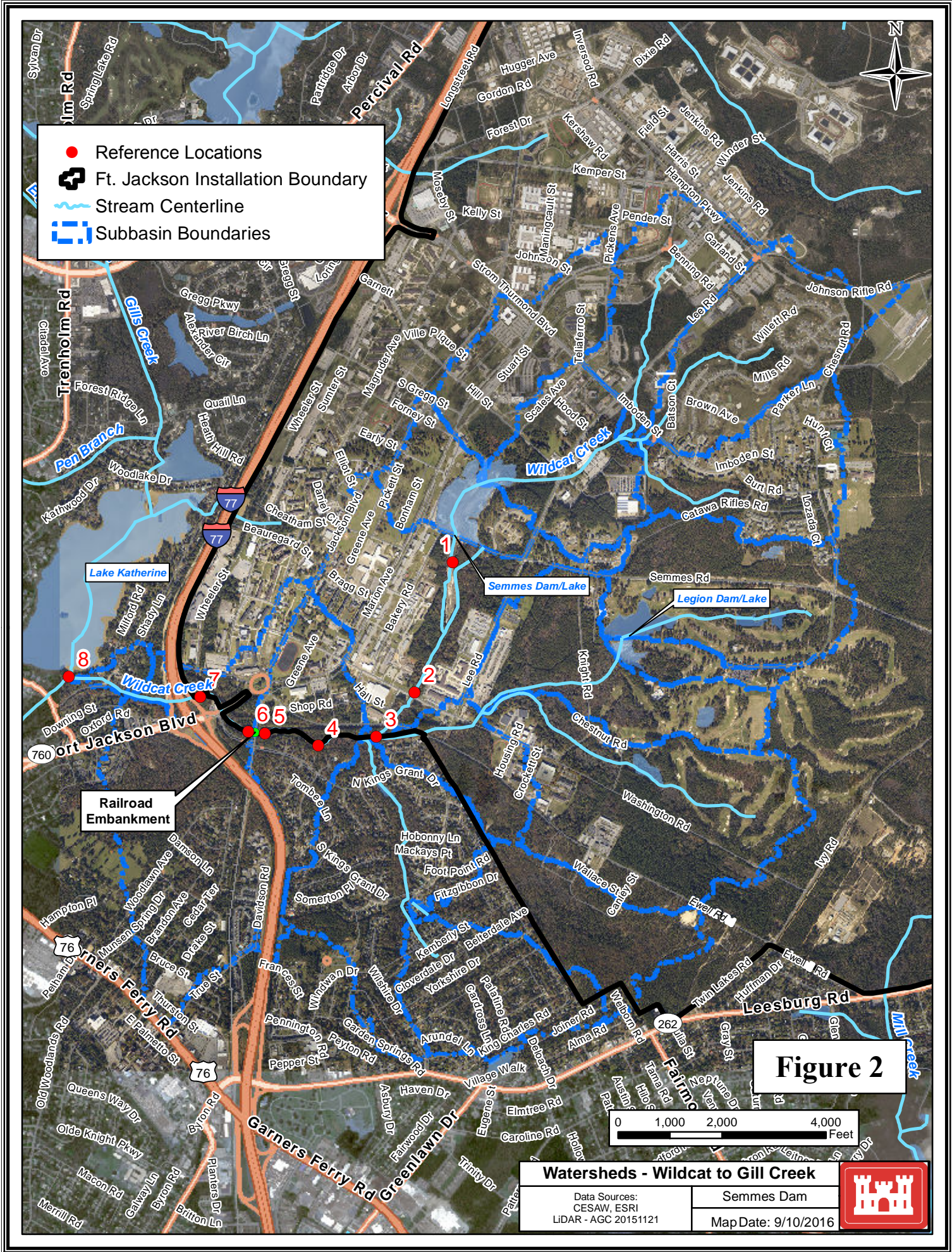



Figure 2

0 1,000 2,000 4,000 Feet

Watersheds - Wildcat to Gill Creek		
Data Sources: CESAW, ESRI LiDAR - AGC 20151121	Semmes Dam	
Map Date: 9/10/2016		

Appendix C

Floodplain Data

EO 11988 Evaluation
SEMMES LAKE DAM REPAIRS

Ft. Jackson, South Carolina

May 2017

Below is the eight-step process that agencies should carry out as part of their decision-making on projects that have potential impacts to or within the floodplain. The eight steps reflect the decision-making process required in Section 2(a) of the Order.

1. Determine if a proposed action is in the base floodplain (that area which has a one percent or greater chance of flooding in any given year).

The preferred alternative and all other evaluated alternatives are within a floodplain.

2. Conduct early public review, including public notice.

In addition to ongoing coordination as part of the NEPA process, a public meeting was held on December 14, 2016 to inform the public of alternatives being considered for the rehabilitation of Semmes Lake and Upper and Lower Legion Lakes. The public was notified of both the public meeting and the upcoming availability of the draft EA.

3. Identify and evaluate practicable alternatives to locating in the base floodplain, including alternative sites outside of the floodplain.

As all action alternatives consist of measures to address damages from flooding to structures existing in the floodplain. No non-floodplain alternatives exist.

4. Identify impacts of the proposed action.

All action alternatives (this excludes the No Action Alternatives) will restore structures within the floodplain to pre-flood (October 2015) conditions or construct storage within the floodplain so no stormwater detention is lost when compared to pre-flood (October 2015 conditions).

5. If impacts cannot be avoided, develop measures to minimize the impacts and restore and preserve the floodplain, as appropriate.

The floodplain would be restored to pre-flood (October 2015) conditions.

6. Reevaluate alternatives.

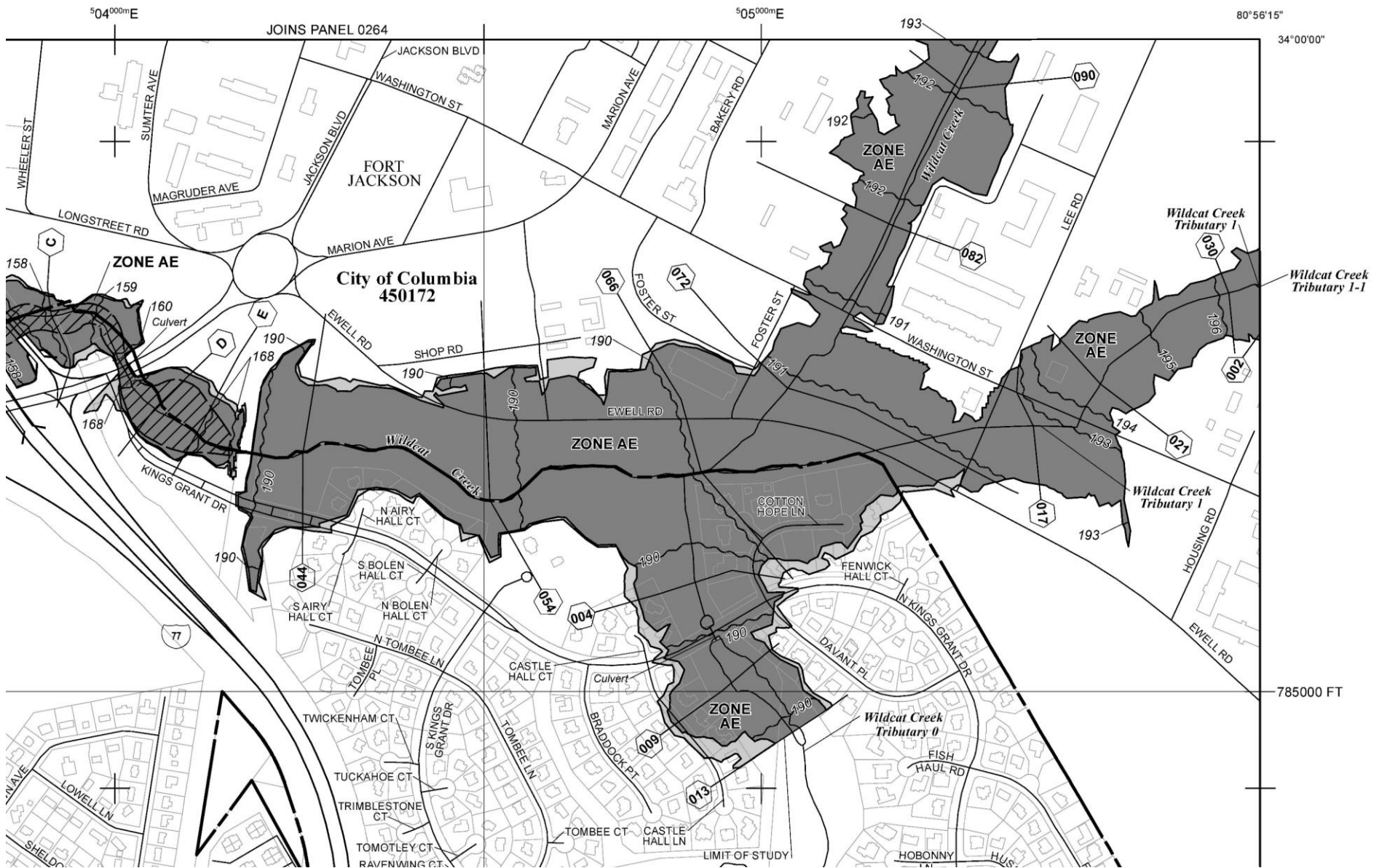
No non-floodplain alternative exists.

7. Present the findings and a public explanation.

Ft. Jackson has determined that there is no practicable alternative for locating the project out of the flood zone. This is due to the location of Semmes Dam within the floodplain. Details of the proposed action are available, to the public, in the draft EA. Additionally, a public meeting was held on December 14, 2016 to inform the public of alternatives being considered for the rehabilitation of Semmes Lake and Upper and Lower Legion Lakes and environmental impacts from those alternatives.

8. Implement the action

The proposed project cannot be implemented until the NEPA process is complete and funding is available. However once an action is initiated Ft. Jackson will also take an active role in monitoring the construction process to ensure no unnecessary impacts occur nor unnecessary risks are taken.



Portion of the FEMA FIRM in the Developed Area Downstream of Semmes Lake.

**DEPARTMENT OF DEFENSE
UNITED STATES ARMY**

**FINDING OF NO PRACTICABLE ALTERNATIVE FOR
REPLACEMENT OF SEMMES LAKE DAM
FORT JACKSON, SC**

1.0 Introduction

The Department of the Army (Army) proposes to replace infrastructure associated with Semmes Lake at Fort Jackson, South Carolina. Because the remnants of the Semmes Lake dam are located within the 100-year floodplain, the proposed action must be located within the 100-year floodplain. Pursuant to Section 2(a)(2) of Executive Order (EO) 11988, *Floodplain Management*, the Army must evaluate whether there is a practicable alternative to locating the proposed action in a floodplain. The practicability of a given alternative is evaluated by determining whether it is available and capable of being done after considering pertinent factors, such as community welfare, environmental impact, statutory authority, legality, cost, technology, and engineering within the context of the project purpose. If the only practicable alternative requires siting in a floodplain, the Army must design or modify its action to minimize harm to or within the floodplain. Thereafter, the Army must prepare and circulate a notice containing an explanation of why the action is proposed to be located in the floodplain. This Finding of No Practicable Alternative incorporates the analysis and conclusions of the Semmes Lake Environmental Assessment (including Appendix C, EO 11988 Evaluation).

2.0 Notice of Floodplain Involvement

Executive Order 11988 requires Federal agencies to first determine whether a proposed action would occur within a floodplain. “Floodplain” is defined in the EO as “the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year.” The 100-year floodplain represents those areas that could be inundated in the event of high flood water levels expected to occur once every 100 years from the combination of heavy rainfall, high tides, and storm surges. Based on existing Federal Emergency Management Agency Flood Insurance Rate Maps and an engineering-level analysis, it was concluded that the proposed action is within the 100-year floodplain.

3.0 Description of the Proposed Action, Floodplain Impacts, and Minimization

Fort Jackson is proposing to rebuild the Semmes Lake dam. This is alternative 4 from the EA. This alternative would maintain the stormwater detention capacity that existed prior to October 2015. The dam would be an earthen embankment constructed to current dam safety standards and designed to not overtop during storms up to the calculated Inflow Design Flood (IDF) which is based on the Probable Maximum Precipitation (PMP – approximately equal to 0.001% chance storm {i.e., a one in 100,000 year event}), and, in turn, the Probably Maximum Flood (PMF – the runoff from the PMP). Consistent with dam safety standards, the PMF was appropriately reduced to

the discharge at which dam failure will not significantly increase the downstream hazard. Analysis indicated that dam failure for the 80% PMF resulted in the same downstream hazard as the 100% PMF, so the 80% PMF was used as the IDF for the spillway design. The dam would have a top elevation of 224½ feet above mean sea level and a top width of 48 feet. The upstream face of the dam would be protected by rip-rap. The spillway for the dam would be moved to the western end of the dam and would be constructed as a labyrinth weir. A labyrinth weir is designed to progressively pass more water with increasing inflow into the lake. The weir would be designed to maintain a normal pool elevation in the lake of 215 feet above mean sea level. Semmes Road and a pedestrian sidewalk would be re-constructed on top of the dam. The dam would be listed on the National Inventory of Dams and would undergo periodic inspections and maintenance as required by dam safety standards.

Assessment of Direct Impact to 100-Year Floodplain

Under the proposed action at Semmes Lake, the project would occur within the 100-year floodplain (the area of Semmes Lake, the Semmes Lake dam, and the downstream portions of Wildcat Creek are physically located within the 100-year floodplain). The Army has evaluated the proposed action pursuant to EO 11988 and determined that there are no practicable alternatives outside of the floodplain that will meet the project purpose. The purpose of the project is to rebuild the Semmes Lake dam to current safety standards and to continue to manage stormwater flows to minimize downstream impacts. Because the lake bed and dam footprint are situated in the floodplain, and because the management of stormwater has an impact on conditions in the floodplain, the proposed action and all of the evaluated action alternatives are necessarily within the floodplain. The proposed action will ensure that the infrastructure associated with Semmes Lake meets current safety standards and will appropriately minimize the potential for flooding and stormwater impacts to structures existing in the floodplain. The proposed action would return the floodplains in the project area to essentially pre-flood (October 2015) conditions once construction activities are completed. The dam removal alternative would require siting stormwater detention ponds within the floodplain and, if designed to manage the same volume of stormwater, would similarly impact downstream flows and stormwater management. Construction of a dry dam and lakebed detention areas to manage a comparable volume of stormwater would have similar floodplain impacts to the proposed action. Even the no action alternative would have an effect on the floodplain because it would leave Semmes Lake and Dam in a condition where the stormwater management function is compromised. The cost and engineering required to craft an alternative somehow situated wholly outside of the floodplain would be excessive (and no such alternatives were identified). Such an alternative would not be technically feasible, would not meet the needs of the community downstream in terms of structural safety and stormwater management, would involve substantial environmental impact, and would fail to meet the purpose of the project.

Minimization of Impact from the Proposed Action

The proposed action would minimize the impacts to the floodplain. The proposed action would generally use the existing infrastructure configuration and footprint to rebuild the Semmes Lake dam to meet applicable safety standards. Upgrading Semmes Lake Dam to current safety standards, will benefit downstream interests subject to stormwater impacts. Once completed, the proposed action will ensure that the current management of downstream flows and stormwater reliably continues.

4.0 Finding

Following an evaluation of the impacts associated with the proposed action and the impacts of alternatives to implement the proposed action, I find that there is no practicable alternative to the proposed action located outside of the floodplain. Furthermore, pursuant to EO 11988, and as described above, the Army will take all practicable measures to minimize impacts associated with the proposed action to and within the floodplain environment.

Date

Mr. Paul D. Cramer
Deputy Assistant Secretary of the Army
Installations, Housing & Partnerships

DRAFT

Appendix D

Endangered Species

South Carolina List of At-Risk, Candidate, Endangered, and Threatened Species - Richland County

CATEGORY	COMMON NAME/STATUS	SCIENTIFIC NAME	SURVEY WINDOW/ TIME PERIOD	COMMENTS
Amphibian	Chamberlain's dwarf salamander (ARS)	<i>Eurycea chamberlaini</i>	Spring/Fall surveys	Breeding survey: November to February
Bird	American wood stork (T)	<i>Mycteria americana</i>	February 15-September 1	Nesting season
	Bald eagle (BGEPA)	<i>Haliaeetus leucocephalus</i>	October 1-May 15	Nesting season
	Red-cockaded woodpecker (E)	<i>Picoides borealis</i>	April 1-July 31	Nesting season
Crustacean	Broad River spiny crayfish (ARS)	<i>Cambarus spicatus</i>	November-April	
Fish	American eel (ARS)	<i>Anguilla rostrata</i>	March 1-May 30; October 1-December 15	Temperature dependent: normally (17-20°C); can be found between 13-25°C
	Atlantic sturgeon* (E)	<i>Acipenser oxyrinchus*</i>	February 1-April 30	Spawning migration
	Blueback herring (ARS)	<i>Alosa aestivalis</i>	Mid-January-mid May	Peak: March-April
	Robust redhorse (ARS)	<i>Moxostoma robustum</i>	Late April-early May	Temperature dependent: 16-24°C
	Shortnose sturgeon* (E)	<i>Acipenser brevirostrum*</i>	February 1-April 30	Spawning migration
Insect	None Found			
Mammal	Rafinesque's big-eared bat (ARS)	<i>Corynorhinus rafinesquii</i>	Year round	Found in mines, caves, large hollow trees, buildings, and bat towers
	Tri-colored bat (ARS)	<i>Perimyotis subflavus</i>	Year round	Found in mines and caves in the winter
Mollusk	Savannah lilliput (ARS)	<i>Toxolasma pullus</i>	March 1-September 30	
Plant	Bog spicebush (ARS)	<i>Lindera subcoriacea</i>	March-August	
	Canby's dropwort (E)	<i>Oxypolis canbyi</i>	Mid-July-September	
	Carolina-birds-in-a-nest (ARS)	<i>Macbridea caroliniana</i>	July-November	
	Ciliate-leaf tickseed (ARS)	<i>Coreopsis integrifolia</i>	August-November	
	Georgia aster (ARS*)	<i>Symphotrichum georgianum</i>	Early October-mid November	
	Michaux's sumac (E)	<i>Rhus michauxii</i>	May-October	
	Purple balduina (ARS)	<i>Balduina atropurpurea</i>	August-November	
	Rocky shoals spider lilly (ARS)	<i>Hymenocallis coronaria</i>	May-June	Found in rocky shoals of large streams and rivers; showy and fragrant
	Rough-leaved loosestrife (E)	<i>Lysimachia asperulaefolia</i>	Mid May-September	
	Sandhills lily (ARS*)	<i>Lilium pyrophilum</i>	Late July-August	
	Smooth coneflower (E)	<i>Echinacea laevigata</i>	Late May-October	
	Spathulate seedbox (ARS)	<i>Ludwigia spathulata</i>	June-October	
Wire-leaved dropseed (ARS)	<i>Sporobolus teretifolius</i>	August-September	Following fire	
Reptile	Southern hognose snake (ARS)	<i>Heterodon simus</i>	Most of the year	

South Carolina List of At-Risk, Candidate, Endangered, and Threatened Species - Richland County

- * Contact National Marine Fisheries Service (NMFS) for more information on this species
- ** The U.S. Fish and Wildlife Service (FWS) and NMFS share jurisdiction of this species
- ARS Species that the FWS has been petitioned to list and for which a positive 90-day finding has been issued (listing may be warranted); information is provided only for conservation actions as no Federal protections currently exist.
- ARS* Species that are either former Candidate Species or are emerging conservation priority species
- BGEPA Federally protected under the Bald and Golden Eagle Protection Act
- C FWS or NMFS has on file sufficient information on biological vulnerability and threat(s) to support proposals to list these species
- CH Critical Habitat
- E Federally Endangered
- P or P - CH Proposed for listing or critical habitat in the Federal Register
- S/A Federally protected due to similarity of appearance to a listed species
- T Federally Threatened

These lists should be used only as a guideline, not as the final authority. The lists include known occurrences and areas where the species has a high possibility of occurring. Records are updated as deemed necessary and may differ from earlier lists.

For a list of State endangered, threatened, and species of concern, please visit <https://www.dnr.sc.gov/species/index.html>.

1/11/2017

Appendix E

Cumulative Impacts Documents

Rest Easy would build a new 331-room Candlewood Suites (CWS) hotel and associated parking lot (277 spaces) on an undeveloped, mostly grass covered open space. Tennis courts, basketball courts, and parking lots existing with the footprint of the proposed hotel and parking lot would also be conveyed and converted to parking. The Army also would grant Rest Easy a 46-year lease on the parcel. Figure 1 shows the current condition of the proposed location for the new hotel and associated parking. Figure 2 shows parking in the area a more detailed drawing of the proposed new hotel and associated parking.



Figure 1 - current condition of the proposed new hotel and associated parking

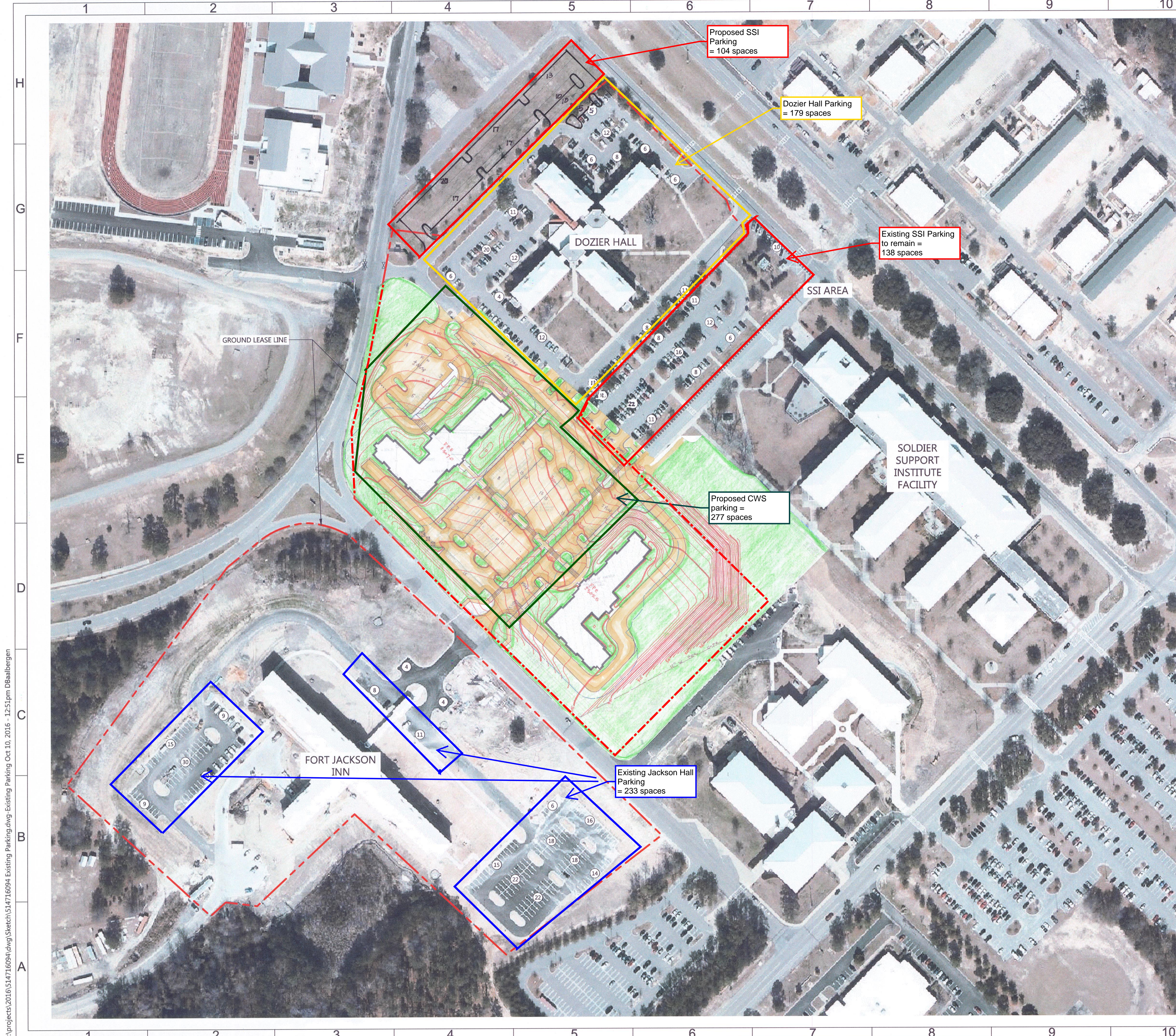
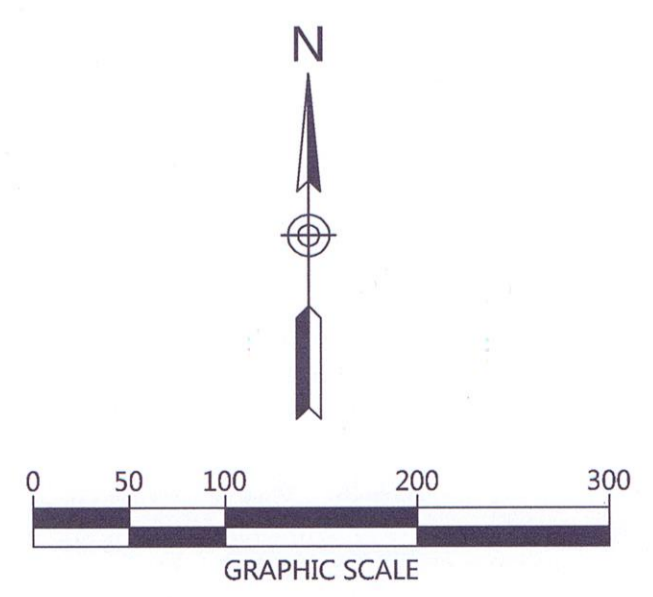


Figure 2.

Existing Parking Summary:
 Dozier Hall: 136 rooms / 187 Parking Spaces
 Jackson Inn: 209 Rooms / 241 Spaces
 Existing SSI Parking = 272 Spaces
TOTAL EXISTING PARKING: 700 Spaces

Proposed Parking Summary
 Dozier Hall: 136 rooms / 179 spaces
 Jackson Inn: 209 rooms / 233 Spaces
 New CWS - 331 rooms / 277 Spaces
 (net 676 rooms / 689 spaces)
 Proposed NEW SSI parking - 104 spaces
 Proposed EXISTING SSI parking to remain - 138 spaces
 (net SSI ONLY spaces - 242 spaces)
TOTAL PROPOSED SPACES = 931 Spaces



G:\projects\2016\514716094\Sketch\514716094-Existing Parking.dwg - Existing Parking Oct 10, 2016 - 12:51pm DBaalbergen



INCIDENT & INJURY FREE
 SIN LESIÓN O ACCIDENTE
 LIVE SAFE WORK SAFE
 VIVE SEGURO TRABAJE SEGURO

Issue:	
Date:	
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Date:	

OCTOBER 10, 2016

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 T 615.385.6144 F 615.385.4020 www.littlejohn.com

NOT FOR CONSTRUCTION

PAL - NEW BUILD
 FORT JACKSON, SOUTH CAROLINA
 PARKING EXHIBIT

Project No: 514716094
 Drawn:
 Checked:
 Approved:
 *Scale:
 *use graphic scales if sheet size varies from 22 x 34

SHEET 1 OF 1
FTJK-NBLD
EX. 2

Appendix F

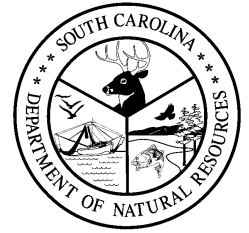
Comments Regarding the Draft EA

Date	Comment Summary
8/29/2017	South Carolina Department of Natural Resources (SCDNR) outlined several measures to reduce and manage environmental risk to water quality. The SCDNR comment letter is included in this appendix.
	<p style="text-align: center;">Response</p> Mitigation measures for the project have been outlined on pages 6-7 of the Final FNSI and on pages 31-32 of the Final EA.
8/29/2017	<p style="text-align: center;">Comment Summary</p>
	US Environmental Protection Agency (EPA) comments included the following topics: <ol style="list-style-type: none"> 1. Compliance with water quality certifications 2. Impacts to Native American resources 3. Impacts to stormwater detention 4. Questions regarding the measurements units used to present the height of the dam 5. Request to include SHPO coordination in the EA The EPA Comment letter is included in this appendix
8/29/2017	<p style="text-align: center;">Response</p>
	<ol style="list-style-type: none"> 1. Additional information regarding water quality certification was added to section 3.6.2 of the Final EA. 2. Additional coordination with Native American tribes was conducted (correspondence included in this appendix). Additionally, section 3.12 of the Final EA was updated to reflect this coordination. 3. Information regarding the history of the dam is given on page 2. Detailed information regarding stormwater is presented in section 3.4 of the Final EA. 4. Presenting the dam height as feet above mean sea level is an accepted engineering practice. 5. Additional coordination with the SHPO was conducted (correspondence included in this appendix). Section 3.12 of the Final EA and table 3.4 of the EA was updated to reflect this coordination. The FNSI has also been updated with this information (Cultural Resource section and page 7 summary table).
9/11/2017	<p style="text-align: center;">Comment Summary</p>
	Thlopthlocco Tribal Town had comments regarding the Section 106 compliance and tribal coordination for the proposed project. The Thlopthlocco Tribal Town comment letter is included in this appendix.
9/11/2017	<p style="text-align: center;">Response</p>
	Since the closure of the public comment period on 13 Sept 17 Ft. Jackson has been in contact with the THPO's from the Thlopthlocco Tribal Town, the SC SHPO and the SC Institute for Archeology and Anthropology [SCIAA]. During Sept/Oct 2017 Ft. Jackson provided draft documents to the THPO's. Ft. Jackson discussed the comments made by the THPO's with SCIAA. The end result was that one of the discovered cultural resources site was changed to now being considered as "unevaluated". The SC SHPO agrees with this change as stated in their letter dated 3 Oct 17. The text in Section 3.12.1 of the EA was revised to reflect this change. The text in the FONSI was also revised accordingly and as a mitigation measure for the site, Ft. Jackson will execute

	a protection project in the vicinity of the berm to protect the site from wave or erosion damage. This project will be completed prior to the water at Semmes lake bed returning to its full pool level.
8/24/2017	Comment Summary
	Muscogee (Creek) Nation had comments regarding the cultural resources survey reports for the proposed project and the status of SHPO concurrence. The Muscogee (Creek) Nation comment letter is included in this appendix.
	Response
	Since the closure of the public comment period on 13 Sept 17 Ft. Jackson has been in contact with the THPO from the Muscogee Creek Nation Tribe, the SC SHPO and the SC Institute for Archeology and Anthropology [SCIAA]. During Sept/Oct 2017 Ft. Jackson provided draft documents to the THPO's. Ft. Jackson discussed the comments made by the THPO's with SCIAA. The end result was that one of the discovered cultural resources site was changed to now being considered as "unevaluated". The SC SHPO agrees with this change as stated in their letter dated 3 Oct 17. The text in Section 3.12.1 of the EA was revised to reflect this change. The text in the FONSI was also revised accordingly and as a mitigation measure for the site, Ft. Jackson will execute a protection project in the vicinity of the berm to protect the site from wave or erosion damage. This project will be completed prior to the water at Semmes lake bed returning to its full pool level.
8/13/2017	Comment
	"I don't trust the U S Army or representatives of Ft. Jackson to maintain any dam that is built or re-built or repaired. You couldn't maintain what you had when you knew it to be in poor condition and were warned the dam was a hazard. You chose not to spend your time or financial resources to maintain it so why would I trust you to maintain it now or later? I thought our military was here to protect the citizens of this country but instead you put lives and property at substantial risk and in fact lives were lost and property was destroyed because [sic] of your negligence. My home had 4 feet of water inside the residence and over 12 feet of water in the back yard as a result of your lake emptying out into my neighborhood. It cost well over \$250,000 for us to repair and replace our home and belongings. Why don't you take the money you are going to spend on the dam repairs and help your neighbors. Do the right thing."
	Response
	The preferred alternative will rebuild Semmes Lake dam to current dam safety standards. The structure and related facilities will be constructed to facilitate oversight and maintenance. Semmes Lake dam will be maintained pursuant to Army regulation. All other action alternatives considered in the EA would also require oversight and maintenance. The reconstructed Semmes Lake dam will continue to be only one component of water management in the overall Gills Creek watershed. As in the past, future precipitation rates and volumes may be sufficient to subject the watershed to flood events.

South Carolina Department of Natural Resources

1000 Assembly Street Suite 336
PO Box 167
Columbia, SC 29202
803.734.3282 Office
803.734.9809 Fax
mixong@dnr.sc.gov



Alvin A. Taylor
Director
Robert D. Perry
Director, Office of
Environmental Programs

August 29, 2017

Submitted via electronic mail

REFERENCE: Draft Environmental Assessment
Replacement of Semmes Lake Dam
Fort Jackson, South Carolina

Personnel with the South Carolina Department of Natural Resources (SCDNR) have reviewed the Draft Environmental Assessment, the Draft Finding of No Significant Impact, and the Draft Finding of No Practicable Alternative for the proposed project and offer the following comments.

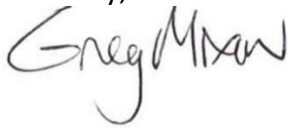
According to SCDNR data, there are currently no records of threatened and endangered species in the project area; however, there are records of several State Wildlife Action Plan (SWAP) priority species located approximately two miles downstream near the confluence of Wildcat Creek and Gills Creek. These include two fish species which are Flat Bullhead (*Ameiurus platycephalus*) and Snail Bullhead (*Ameiurus brunneus*), and the Cedar Creek Crayfish (*Procambarus chacei*). Appropriate measures should be taken to minimize or avoid impacts to these species and their habitat within the project area and in downstream areas. Please keep in mind that information in regards to the presence or absence of species is derived from existing databases, and SCDNR does not assume that it is complete. Areas not yet inventoried by SCDNR biologists may contain significant species or communities. However, the SCDNR does not have an objection to this project provided the following recommendations are abided.

- Prior to beginning any land disturbing activity, appropriate erosion and siltation control measures (i.e. silt fences, curtains or barriers) must be in place and maintained in a functioning capacity until the area is permanently stabilized.
- Materials used for erosion control (e.g., hay bales or straw mulch) will be certified as weed free by the supplier.
- Inspections of temporary erosion control measures should occur on a weekly basis to safeguard against failures.
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.
- Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
- Upon project completion, all disturbed areas must be permanently stabilized with vegetative cover (preferable), riprap or other erosion control methods as appropriate.

- Where necessary to remove vegetation, supplemental plantings should be installed following completion of the project. These plantings should consist of appropriate native species for this ecoregion.
- The project must be in compliance with any applicable floodplain, stormwater, land disturbance, dam safety or riparian buffer ordinances.
- SCDNR reserves the right to review and comment on any required federal or state permits, mitigation proposals or other documents at the time of public notice.

Thank you for the opportunity to review this project and provide comments. Should you have any questions or need more information, please do not hesitate to contact me by email at mixong@dnr.sc.gov or by phone at 803.734.3282.

Sincerely,

A handwritten signature in black ink that reads "Greg Mixon". The signature is written in a cursive, slightly slanted style.

Greg Mixon
Office of Environmental Programs

**Replacement of Fort Jackson Semmes Lake Dam Environmental Assessment
Columbia, SC**

US Environmental Protection Agency (EPA) Comments

August 29, 2017

- The EPA notes that the Environmental Assessment (EA) does not discuss the proposed project's impacts associated with water quality. Specifically, there is no discussion of the Army obtaining a state water quality certification as required by Section 401 of the Clean Water Act (CWA). Recommendation: The EPA recommends the Final EA have a discussion regarding the proposed project's impacts to water quality and if/when the U.S. Army will obtain a 401 water quality certification.
- As with water quality (see above statement), the EA does not contain a discussion regarding potential impact to Native Americans. The EPA understands that the proposed project will occur in the same footprint as the existing lake; however, the EPA is concerned that the U.S. Army has not coordinated with the appropriate Native American tribes regarding potential impacts to Native American resources. Additionally, the EPA is concerned with the lack of discussion regarding the proper handling of Native American human remains that could be unearthed during construction (as required by the Native American Graves Protection and Repatriation Act (NAGPRA)). Recommendation: The EPA encourages the U.S. Army to coordinate with the appropriate Native American tribes concerning potential impacts to tribal cultural resources. The EPA also recommends the U.S. Army discuss NAGPRA protocols for properly handling of Native American remains in the Final EA.
- On page 6 (1.4), the EA discusses alternatives eliminated from further study. In discussing the "Removed Breached Embankment" alternative, the U.S. Army states, "This alternative was rejected because it would provide little in the way of effective stormwater detention and because post-dam discharge rates would increase the 1% annual chance event (ACE) flood elevations downstream by approximately 2.1 feet." Additionally, all the action alternatives moved forward for further evaluation include discussions regarding the function and capacity of the reservoir for stormwater detention. The EPA notes that the stated purpose and need (page 5) is "...to analyze and evaluate the environmental impacts of alternatives to address the loss of Semmes Dam due to historic flooding...". There is no reference of the project acting as a stormwater detention facility within this purpose and need statement. Recommendation: If the "purpose" of the project (and preferred alternative) is to serve as a stormwater detention facility, then the EPA recommends the U.S. Army better describe the purpose to reflect this criteria. Additionally, the EPA recommends the Army better discuss the "need" for having this stormwater detention facility by providing more details and data within the Final EA especially given the communities concerns regarding the safety of the new reservoir.
- On page 10 (2.4 Alternative 4), the EPA notes the EA describes the dam in the preferred alternative as "224 ½ feet above mean sea level and a top width of 48 feet". The EPA is concerned that describing the height of the dam in terms of mean sea level will lead to

confusion and is not easily understood by the public. Recommendation: To better inform stakeholders and the public, the EPA recommends that the Final EA describe the dam not only in terms of mean sea level, but also include the height of the dam from the ground to the top.

- On page 25 (3.12.1 Affected Environment), the EA discusses coordination with the South Carolina State Historic Preservation Officer (SHPO) regarding three cultural resource sites that the U.S. Army has determined to not be eligible for listing in the national register. Recommendation: For NEPA disclosure, the EPA recommends that the SHPO's final determination and all correspondence to and from the SHPO be listed in the Final EA.

Poppen, Andrew G CIV USARMY IMCOM ATLANTIC (US)

From: Section106 <Section106@mcn-nsn.gov>
Sent: Thursday, August 24, 2017 11:00
To: Poppen, Andrew G CIV USARMY IMCOM ATLANTIC (US)
Subject: [Non-DoD Source] RE: Fort Jackson releases draft Environmental Assessment and Finding of No Significant Impact for Semmes Lake dam replacement- we seek your input

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

Mr. Poppen,

Thank you for contacting the Muscogee (Creek) Nation concerning the EA for the Semmes Lake Dam in Fort Jackson, Richland County, South Carolina. This project is located within our historic area of interest and is of importance to us. After reviewing the material provided, the Muscogee (Creek) Nation requests copies of the cultural resource survey reports for the area. Also, we would like to know what the South Carolina SHPO's determination is concerning the three sites that were found. Should any further information or comment be needed, please do not hesitate to contact me at (918) 732-7852 or by email atlwendt@mcn-nsn.gov < Caution-mailto:lwendt@mcn-nsn.gov > .

Regards,

LeeAnne Wendt

LeeAnne Wendt, M.A., RPA

Historic and Cultural Preservation Department, Tribal Archaeologist

Muscogee (Creek) Nation

P.O. Box 580 / Okmulgee, OK 74447

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Caution-<http://www.muscogeenation-nsn.gov/> < Caution-
<http://www.muscogeenation-nsn.gov/> >

From: Poppen, Andrew G CIV USARMY IMCOM ATLANTIC (US) [Caution-mailto:andrew.g.poppen.civ@mail.mil]
Sent: Friday, August 11, 2017 2:05 PM
To: cwhite@pci-nsn.gov; Section106
Cc: Morrow, Douglas M CIV USARMY USAG (US); Funk, Paul S CTR (US)
Subject: Fort Jackson releases draft Environmental Assessment and Finding of No Significant Impact for Semmes Lake dam replacement- we seek your input

The original message is attached because it is signed.



THLOPTHLOCCO TRIBAL TOWN

Tribal Historic Preservation Office

Terry Clouthier, Tribal Historic Preservation Officer

P.O. Box 188
Okemah, OK 74859
(918) 560-6113
thpo@ttown.org

September 11, 2017

THPO File Number: 2017-23

RE: draft Environmental Assessment and Finding of No Significant Impact for Semmes Lake dam replacement

To Whom It May Concern,

Thank you for contacting the Thlopthlocco Tribal Town Tribal Historic Preservation Office (THPO) soliciting comments regarding the draft Environmental Assessment and Finding of No Significant Impact for the Semmes Lake dam replacement at Fort Jackson, South Carolina. Our office has reviewed the documents provided and offers the following comments.

Prior to the current notification for the completion of both the draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FoNSI); what notifications, if any, were sent out to initiate Section 106 consultation with Tribes who may attach traditional religious and cultural significance to historic properties that may be affected by this undertaking?

Page 25 of the draft EA:

“A cultural resources survey has been conducted by the South Carolina Institute for Archeology and Anthropology at Semmes Lake. Three cultural resource sites were found within the lake bed of Semmes Lake; however, the preliminary determination is that these sites are not eligible for listing on the national register. This determination is currently being coordinated with the South Carolina State Historic Preservation Officer.”

Were the Tribes ever consulted pertaining to the cultural resources survey identification efforts, results and determinations of eligibility and effects for this undertaking? Section 106 requires the Tribes to be consulted for all of these actions. There is simply insufficient information contained within the EA or provided to the Tribes to determine a proper recommendation as it relates to cultural resources for this undertaking.

From the email dated 08/11/2017:

“Cultural resource surveys have been completed within the Area of Potential Effect. Three cultural resource sites were found within the lake bed of Semmes Lake; however, the preliminary determination is that these sites are not eligible for listing on the national register. This determination is currently being coordinated with the South Carolina State Historic Preservation Officer. Regardless of the outcome, these 3 sites will be avoided during any construction and therefore will not be disturbed.”

The three sites will be avoided during construction but what possible future and cumulative effects could potentially impact them? As the THPO does not have any information on the site types or locations and cultural resources are not addressed in the cumulative effects section it is therefore impossible for us to address these types of concerns for this undertaking.

The Thlopthlocco Tribal Town Tribal Historic Preservation Office (THPO) does not agree with the findings or recommendations contained within the EA or FoNSI based upon our concerns outlined within this letter. We look forward to working with your agency to address these concerns.

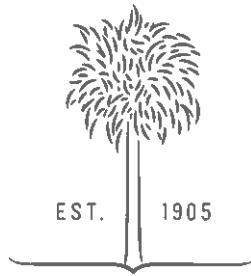
Please refer to THPO file number 2017-23 in all correspondence for this proposed undertaking.

Please feel free to contact the THPO at thpo@tttown.org or (918) 560-6113 if you have any questions.

Sincerely,



Terry Clouthier
Thlopthlocco Tribal Town
Tribal Historic Preservation Officer



October 3, 2017

SOUTH CAROLINA DEPARTMENT OF
ARCHIVES • HISTORY

Ann Garner, P.E.
Department of the Army
US Army Installation Management Command
Directorate of Public Works, Environmental Division
2562 Essayons Way
Fort Jackson, SC 29207-5608

Re: Boundary Delineation and National Register Evaluation of Seven Late Discoveries
FY 2016, U.S. Army Garrison
Fort Jackson, South Carolina
SHPO Project No. 17-KL0040

Dear Ann Garner:

Thank you for your letter of September 19, 2017, which we received on September 20, 2017, regarding the above-referenced undertaking. We also received the draft report *Boundary Delineation and National Register Evaluation of Seven Late Discoveries, FY 2016, US Army Garrison, Fort Jackson, South Carolina* as supporting documentation for this undertaking. The State Historic Preservation Office is providing comments to the Department of the Army pursuant to Sections 106 and 110 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

The investigations determined eligibility recommendations for seven archaeological sites on the Fort Jackson Military Installation (38RD1447, 38RD1448, 38RD1449, 38RD1450, 38RD1451, 38RD1452, and 38RD1453). Sites 38RD1448, 38RD1449, 38RD1450, 38RD1451, and 38RD1452 were recommended as not eligible for the National Register of Historic Places (NRHP). Site 38RD1453 was recommended as eligible for the NRHP under Criteria A and D. Our office concurs with these recommendations.

Site 38RD1447 was recommended as not eligible for the NRHP but the report states that it was “unable to fully evaluate the area underneath the berm” and recommends in the future that “plans be made to examine more thoroughly the interface between the berm fill and the original ground surface” (pg. xiii). As additional investigations are recommended to fully evaluate the eligibility of 38RD1447, our office does not concur with the recommendation of the site as not eligible for the NRHP. Our office recommends Site 38RD1447 as unevaluated, requiring additional testing. This term should be applied until additional field evaluation can be completed to adequately assess eligibility. The report recommends monitoring of the site if the berm protecting it is removed in the future. Our office concurs that the site should be monitored for impacts if the berm is altered or removed. As the report states that “the buried surface tapers off as one moves

away from the berm, suggesting surrounding soils have been scoured away by lake and possible flood action” (pg. 96) we additionally recommend that the site be monitored for impacts if Semmes Lake is restored.

Our office has additional technical comments on the report that we ask to see addressed (please see below). Please address these comments in a revised final report to be submitted to this office.

If you have any questions, please contact me at (803) 896-6181 or KLewis@scdah.sc.gov.

Sincerely,



Keely Lewis
Archaeologist
State Historic Preservation Office

Technical Comments

- Pg. 4-States that no additional work is recommended for sites recommended as not eligible for the NRHP but additional work is recommended for 38RD1447 on pg. xiii. Please clarify.
- Pg. 8-38RD602 is referenced in the third paragraph but not discussed. Did the author mean to refer to 38RD603?
- Pg.12-52 Middle Archaic projectile points listed (38 Morrow Mountains, 11 Guilfords, 1 Stanly, 1 Brewerton, 1 Guilford/Morrow Mountain); 30/52 = 58%, not 75% as listed for the majority recovered from Colonels Creek drainage. Please clarify.
- Pg.19-States that 38RD789 was tested as part of the current project and is discussed later in the report. Does not appear to be tested as part of the current project. Please clarify.
- Pg.92-TYPO: “these maps were maps [made]”.
- Pg.120-TYPO: “221 artifacts made on [of]”.
- Pg.122-TYPO: “may warrant edibility [eligibility]”.

From: [Olds, Melanie](#)
To: [Helton, Jesse S CIV USARMY CESAC \(US\)](#)
Subject: [EXTERNAL] Draft Semmes Lake EA & FONSI - FWS Log. No. 2017-CPA-0058
Date: Friday, October 27, 2017 1:25:27 PM

Jesse,

The U.S Fish and Wildlife Service has reviewed the Draft Environmental Assessment for the Replacement of Semmes Lake Dam, dated August 2017 as well as the draft Finding of No Significant Impact and No Practicable Alternative. Upon review of these documents the Service offer no comments or objections at this time.

The Service appreciates the opportunity to review and provide comments for this EA and stands ready to provide further assistance if required.

Thanks,

Melanie

Melanie Olds | Fish & Wildlife Biologist/FERC Coordinator

U.S. Fish and Wildlife Service

South Carolina Ecological Services Field Office
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
843-727-4707 ext. 205
843-727-4218 fax

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

Appendix G

Comments from Public Meeting
Held December 14, 2016

Date	Comment
12/14/2016	These lakes are purely recreational. They serve no benefit in mitigating storm damage to the wetlands. Rebuilding the damn is a mistake. They should be removed and the creeks would run its normal course. No lake means no flooding downstream.
12/14/2016	I would recommend returning all these area to natural wetlands as they would better serve to reduce flooding.
12/15/2016	. my comments is .i have tried to get fort jackson to fix this problem,they had me to write a letter to the military corp of engr. and there responce was its not a military problem and they have nothing to do with it.i would like to talk to someone about my personal project about this matter to give them a full picture of whats going on.please reply.
12/16/2016	Hope dams are rebuilt to help with flood control.
12/17/2016	I have lived in Forest Acres since July 2002. I understand the terrain and Hydrology Science behind this issue. I am not a Structural Engineer, so I defer Engineering suggestions to the Professionals. I learned Maintenance in my twenty years serving in the Military. I believe in routine Maintenance and Inspection as the Military taught and demanded of me and the Equipment I was responsible to Maintain. MY suggestion to you Is. build a safe dam. routine Inspection and Maintenance, and Action if needed must be part of this solution. If you decide to rebuild a retention structure, and hold water behind it, I expect that the Events of October 2015 and an unplanned release of a large body of water and the destruction of Civilian Property, not be repeated.
12/18/2016	FT. JACKSON AND THE U.S. ARMY HAVE PROVEN TO BE INCAPABLE OF AND IN FACT NEGLIGENT MAINTAINING PREVIOUS DAMS SO THAT THE SAFETY AND SECURITY OF NEIGBORS AND CITIZENS IS GUARANTEED. WHAT ASSURANCE DO WE HAVE THAT THEY WON'T ALLOW THE DAMS TO FALL INTO DISREPAIR AND DISREGARD INSPECTION REPORTS? SADLY THEY ARE NOT TO BE TRUSTED. THEY CHOSE NOT TO SPEND FUNDS TO MAKE THE NECESSARY REPAIRS TO THE DAMES WHEN THEY WERE MADE AWARE OF THE POTENTIAL DAM FAILURES. ANY FUNDS THAT WOULD BE SPENT TO REPAIR THE DAMS ON FT, JACKSON SHOULD BE GIVEN TO THE HOMEOWNERS WHOSE HOMES WERE DAMAGED AND CARS AND POSSESSIONS LOST WHEN THE LAKES EMPTIED INTO THEIR HOMES.
12/19/2016	As a resident of Kings Grant, and after having my house flooded, I am against the rebuild. My resason for this is how can you guarantee maintenance in the future. Based on what I know, Wildcat Creek is a Raparian creek and you have responsibility to maintain not only the dam, but your portion of the creek as well. I have lived in muy house for 16 years, with the exception of the repairs, and not once have I seen anyone lift a hand. My vote is to let the former lake return to its natural state. I understand that graduation families love to see the lake, but it is nothing more than recreational. I have no confidence in the army to standby the construction and maintenance of another dam.