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Environmental Assessment

Southern Electric Generating Company
Gaston-Yellow Dirt 230kVTL

Special Use Permit

Talladega Ranger District
Talladega National Forest

Talladega and Clay Counties, Alabama

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SUMMARY

The Talladega National Forest proposes to issue an amendment to the Special Use Permit (SUP) to Southern Electric Generating Company (SEGCO) for the operation and maintenance of the Gaston – Yellow Dirt Road 230kV Transmission Line and associated access roads (Form 299, Appendix C). The project area is located in the southern portion of the Talladega Ranger District, Talladega National Forest, Alabama. This transmission line and access roads lie within Clay and Talladega Counties. This action is needed to allow for pre-determined maintenance needs over the next 5 (five) year period.

The purpose of the project is to amend the existing SUP to include these proposed actions over the next 5 years. This is the proposed action:

- Replacement of 9 (nine) structures
- Improvement of 3.3 miles of service road, including widening width to 20' with necessary tree trimming and removal
- Installation of 3 heavy gates to restrict access
- Maintenance of 1 ford crossing (Swept Creek) in access roads
- Installation of a bridge to cross West Fork of Hatchet Creek including a short term fording of the creek staging equipment
- Installation of 0.48 acres of stone fill in wetlands for access road
- Maintenance/improvement to surface of Skyway Motorway (NFSR 600-1) to improve access from Hwy 77 approximately 8 miles according to the maintenance plan
- Temporary relocation or closure of a short section of the Pinhoti trail to access structure 86
- Construction of temporary access and turn around point to structure 86 including removal of approximately 50 trees, construction of access and turn around past the transmission line followed by rehabilitation of the area
- Replacement of two culverts on the Skyway Motorway (NFSR 600-1) by NF.

The United States Department of Agriculture – USDA (USFS) will evaluate the following alternatives:

Alternative 1, No Action – Under the No Action Alternative only maintenance of the existing structures would occur along with routine herbicide application, occasional mowing and felling of dead trees along the right-of-way. This alternative is analyzed in detail in the Southern Electric Generating Company, Gaston Yellow Dirt 230 kV TL Special Use Permit (September 2012) as the proposed action.

Alternative 2, Proposed Action – The Proposed Action would authorize: replacement of 9 (nine) structures; improvement of 3.3 miles of service road, including widening width to 20' with necessary tree trimming and removal; installation of 3 gates; maintenance of 1 ford crossing (Swept Creek) in access roads; installation of a bridge to cross West Fork of Hatchet Creek; installation of 0.48 acres of stone fill in wetlands for access road; maintenance/improvement to surface of Skyway Motorway (NFSR 600-1) to improve access; replacement of two culverts by the FS; temporary rerouting or closure of the Pinhoti trail to access structure 86; and construction of temporary access to structure 86 including removal of trees, construction of access followed by rehabilitation of the area.

Based upon the effects of the alternatives, the responsible official will decide whether or not to issue the amendment to the SUP for the replacement of 9 structures, construction of a bridge across Hatchet Creek, 0.48 acres of wetland fill and other proposed actions.

I. INTRODUCTION

Document Structure

SEGCO has prepared this Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This Environmental Assessment discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four parts:

- *Part I - Introduction:* The section includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the USFS informed the public of the proposal and how the public responded.
- *Part II - Comparison of Alternatives, including the Proposed Action:* This section provides a more detailed description of the agency's proposed action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes possible mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Part III - Environmental Consequences:* This section describes the environmental effects of implementing the proposed action and other alternatives. This analysis is organized by identifying the resource area and then discussing the effected environment related to the "No Action" and "Proposed Action" Alternatives. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- *Part IV - Agencies and Persons Consulted:* This section provides a list of preparers and agencies consulted during the development of the environmental assessment.
- *Appendices:* The appendices provide more detailed information to support the Environmental Assessment.

Background

SEGCO obtained an easement from the United States Forest Service (USFS), on September 17, 1958 for right-of-way for the construction, operation, and maintenance of a transmission line upon lands of the United States within parts of the National

Forests in the State of Alabama. SEGCO also obtained rights of ingress and egress to and from the right-of-way over open and established roads located within the forests under prevailing conditions of use, subject to the rules and regulations of the Secretary of Agriculture. The right of way easement granted to SEGCO was for a width of 150' and a length of 10.53 miles. Since the granting of the original easement to SEGCO, the length of easement located on National Forest lands has been reduced to approximately 3.6 miles due to real estate transactions, land swaps, and land sales by the USFS. The easement was initially granted for a term of fifty (50) years, and was renewed on September 26, 2012 (TAL401302) for a period of an additional 30 years.

Purpose and Need for Action

The purpose of this EA is to amend the existing SUP is to authorize SEGCO to perform pole replacement and bridge construction for access to structures where T&E mussels are located (Hatchet Creek) along with other proposed activities on the existing 230kV transmission line on National Forest lands within the Talladega National Forest. The purpose of this existing 230kV transmission line is to provide power to a variety of current customers. This proposed project implements the land and resource management plan and is subject to §218 subparts A and B as required under 36 CFR 218.7. This Purpose and Need for Action responds to the goals and objectives outlined in the Revised Land Resource Management Plan (RLMP), National Forests in Alabama, and helps move the project area towards desired conditions described in the RLMP. Relevant sections of the RLMP included in this analysis are as follows:

Goal 18 *Riparian ecosystems, wetlands and aquatic systems are managed and/or restored to protect and maintain soil, water, vegetation, fish and wildlife associated resource values.*

Chapter 2 – Special Uses

All uses of National Forest System lands, improvements, and resources, except those governing the disposal of timber, minerals, and the grazing of livestock are designated "special uses" The predominant use is for public roads and utility rights-of-way. These special uses serve a public benefit by providing public access through the National Forest, and providing the transmission of electricity, natural gas, water, and various types of communication signals. Authorizations for access to private land are also considered, in addition, recreational activities such as outfitting and guiding and competitive events such as fishing tournaments, foot races, horse endurance races, mountain bike races, etc. also fall into the arena of "special use". Communication/electronic sites are designated as Prescription area 5.B and are usually located on mountain and ridge tops.

Proposed Action

The USFS proposes to amend SUP TAL401302 to SEGCO for the continued operation and maintenance of the existing Gaston – Yellow Dirt 230kV Transmission Line, associated structures, and ingress and egress.

As part of this action the replacement of nine (9) structures will be completed over the next 5 year period per the maintenance schedule detailed in Appendix A. Activities necessary for the replacement of these structures will require the use of USFS roads to access the existing improved roads currently within the power line easement. The USFS roads, in their current condition, are adequate for passage of the various types of construction (cranes) and bucket vehicles needed for structure replacement, with the exception of the Skyway Motorway (NFSR 600-1). However, access roads located within and outside the current power line easement will require improvement. A total of 3.3 miles of existing service road will require grading and drainage improvements to allow for appropriate vehicle and equipment access needed for structure replacement. Portions of the Skyway Motorway will have surface maintenance and tree trimming conducted to allow access to structure 86 (approximately 10,300 ft.). Additionally, 1280 linear feet of wetland will be filled with aggregate to access structures 87 & 88. Temporary relocation or closure of a short section of the Pinhoti trail to access structure 86 will occur. Following structure replacement, the trail will be returned to as near to previous condition as practical, including replanting of any trees removed. The botanical survey used to develop a remediation plan for this work is included in Section 3.6.2.

Access roads will be graded to a width of twenty (20) feet which will allow for safe access by all of the various vehicles and equipment necessary for the construction and placement of new structures. Road improvement will be accomplished using a fixed blade bulldozer. This will result in a smooth road service to provide safe passage of equipment and will repair existing conditions of these roadways.

Table I-1 lists the total amount of soil disturbance associated with road improvements for accessing the nine structures in need of replacement:

Table I-1 – Service Road Improvement (Excluding Skyway Motorway)

Structure #	Road Size	Sq. Feet	Acres
78	4260 x 20	85,200	1.96
80	1315 x 20	26,300	0.60
82	1650 x 20	33,000	0.76
83	2986 x 20	59,720	1.37
84	2094 x 20	41,880	0.96
85	1650 x 20	33,000	0.76
86	200 X 80*	16,000	0.37
87-88	3365 x 20	67,300	1.54
Total		**362,400**	**8.32**

*Temporary access to be rehabilitated upon completion of work

In addition to the necessary ground disturbances for road improvement, a construction pad will be necessary adjacent to each structure proposed for replacement. The purpose of this construction pad is to prepare a smooth basal area for the placement of cranes and other construction vehicles during the erection of the supporting structure. Appendix A details the activities and equipment required for the construction pad.

Table I-2, shown below details the amount of soil disturbance required for pad construction:

Table I-2 – Construction Pad Ground Disturbance

Structure	Pad Size	Sq. Feet	Acres
78	100 x 200	20,000	0.46
80	100 x 200	20,000	0.46
82	100 x 200	20,000	0.46
83	100 x 200	20,000	0.46
84	100 x 200	20,000	0.46
85	100 x 200	20,000	0.46
86	100 x 100	10,000	0.23
87	100 x 200	20,000	0.46
88	100 x 200	20,000	0.46
Total		**150,000**	**3.90**

SEGCO is proposing the use of the following grass mix for soil stabilization to be applied immediately upon structure replacement activities have been concluded:

Table I-3 – US Forest Service Requested Grass Mix

Type	Pounds Per Acre
13-13-13 Fertilizer	500
Browntop Millet (March-August)	40
Reseeding Red Clover	15
Winter Wheat	25
Annual Rye Grass (Sept-March)	25

In order for SEGCO to replace Structures 87 & 88 with new structures, a crossing on the West Fork of Hatchet Creek will have to be provided. SEGCO is proposing to approach the creek from Horns Valley Road and use an access road across the existing right of way. This planned access route has been identified to contain localized jurisdictional wetlands. An Army Corp of Engineers General Permit has been obtained to construct a 15' gravel road through these jurisdictional wetlands. A copy of the permit is available in Appendix G. Additionally, a 12' wide by 80' long weathered steel bridge will be installed for permanent access across the West Fork of Hatchet Creek. The bridge will be designed so that the bottom of steel will be approximately 2' above the estimated 100 year flood elevation, which will reduce the probability of any contact with upstream debris. A 100' and 120' ramp section will be constructed at each end with a 6% drive slope in order to maintain the required bridge elevation above the 100 year flood. Design reviews have been conducted by Alabama Power Company and US Forest Service throughout the design process. Design and installation drawings may be found in Appendix B. These actions should assure no impact to endangered mussels which might inhabit Hatchet Creek.

Decision Framework

Given the Purpose and Need as discussed previously, the deciding official reviews the proposed action and the other alternatives in order to make the following decisions:

- Whether to issue a SUP amendment for SEGCO to implement the proposed action.

Public Involvement

This proposed action has been listed in the Schedule of Proposed Actions since July, 10, 2013. The public scoping period for the proposal to amend the SU permit was initiated by mailing the scoping letter to our NEPA mailing list on July 10, 2013 with the official scoping period from July 10 to July 19, 2013. No comments were received.

The public request for comments on the proposal to amend the SU permit was published in the Daily Home on August 9, 2014 establishing the official 30 day comment period for the draft EA. A request for comments was also published in the Clay Times-Journal on August 14, 2014. To-date no comments have been received on this proposed action.

Issues

The ID Team did not identify any issues to the proposed project. Issues were defined as those potential effects directly or indirectly caused by implementing the Proposed Action.

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This chapter describes and compares the alternatives considered for the Gaston – Yellow Dirt 230kV Transmission Line project. It includes a description and map of each alternative considered. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a basis for choice among options by the decision maker and the public. Some of the information used to compare the alternatives is based upon the design of the alternative and some of the information is based upon the environmental, social and economic effects of implementing each alternative.

Alternatives

Alternative 1 - No Action

Under the No Action Alternative only maintenance of the existing structures would occur along with routine herbicide application, occasional mowing and felling of dead trees along the right-of-way. This alternative is analyzed in detail in the Southern Electric Generating Company, Gaston Yellow Dirt 230kV TL Special Use Permit EA (September 2012) as the proposed action and is located in the project files at the Talladega District office and is available upon request.

Alternative 2 - The Proposed Action

The proposed action is to issue an amendment to SUP TAL401302, to SEGCO to allow for pre-determined upgrades. The Proposed Action would authorize: replacement of 9 (nine) structures; improvement of 3.3 miles of access road, including widening width to 20' with necessary tree trimming and removal; installation of 3 gates; maintenance of 1 ford crossing (Swept Creek) in access roads; installation of a bridge to cross the West Fork of Hatchet Creek; installation of 0.48 acres of stone fill in wetlands for access road; maintenance/improvement to surface of Skyway Motorway (NFSR 600-1) to improve access; replacement of two culverts on NFSR 600-1 by FS; temporary relocation or closure of the Pinhoti trail to access structure 86; and construction of temporary access to structure 86 including removal of trees, construction of access followed by rehabilitation of the area.

II. COMPARISON OF ALTERNATIVES

This section provides a summary of the effects of implementing each alternative. Information in Table II-1 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

Table II-1 - Comparison of Alternatives

Affected Environment	No Action Alternative	Proposed Action Potential Impact	Protective Measures
Soils	<1% ground disturbance during routine maintenance	Disturbance to soils during replacement of structure activities and maintenance not to exceed 5 acres at any one time.	The implementation of a BMP plan will keep soil erosion to a minimum, and retain all sediment on site. Appropriate state permits will be acquired before construction begins.
Air Quality	Minimal impacts to air quality during routine maintenance	Minimal impacts to air quality during replacement of structure activities and maintenance	None
Water Quality	No impacts anticipated due to use of appropriate BMPs	No impacts anticipated due to use of appropriate BMPs	The implementation of a BMP plan will keep soil erosion to a minimum and protect water quality. Appropriate state permits will be acquired before construction begins
Wetlands	Future impacts to wetlands without mitigation during emergency work	Approximately 0.48 acres wetland fill	Mitigation 0.37 credits utilizing Corps NWP #12
Wildlife & Vegetation Resources	Negative impact to in stream T&E during emergency crossing of Hatchet Creek. Surveys indicate T&E mussels are present.	Positive effects to Georgia Aster Positive impacts to mussel species due to bridge installation	Vegetation maintenance within area to keep project area suitable Construction of bridge to protect in stream species
Scenic Integrity	None	<1 month scenic effects to Pinhoti Trail due to tree removal	Trail would be restored as close as practical to its original state.

Public Health and Safety	Deterioration of power poles resulting in power outages	None	None
Recreation	No impact	Rerouting or closure of Pinhoti Trail during construction Installation of gates will positively improve dispersed recreation experience by eliminating unwanted 4-wheeler traffic	Close or re-route trail during construction activity
Economics	No impact	Local economic increase due to purchase of aggregate & chert for road maintenance/possible meals & lodging of worker	None
Civil Rights and Environmental Justice	Loss of reliability of electric power impacts all residents negatively	Increased reliability of electric power provides positive impacts to all residents equally	None
Heritage Resources	Standard Maintenance	Surface maintenance of NFSR 600-1; replace two culverts by FS	Survey by OAR UA archeologists documenting historical basis of Skyway Motorway; mitigation leave CCC culvert in place and install new culvert adjacent to it

III. ENVIRONMENTAL CONSEQUENCES

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives. It also presents the scientific and analytical basis for comparison of alternatives presented in the chart above.

3.1 Soils

3.1.1 Affected Environment

Soil data for the proposed action site was collected from the Soil Survey of Clay and Talladega Counties, Alabama, using the United States Department of Agriculture's Web Soil Survey website (www.websoilsurvey.nrcs.usda.gov). This information has been utilized to prepare a site specific soil report for the proposed action's limits and is presented in Appendix E. Eight (8) different soil types have been identified within the proposed action's limits.

- Allen association, rolling
- Altavista complex
- Clymer association. Steep
- Tatum – Chewacla association, hilly
- Tatum – Tallapoosa – Riverview association, steep
- Tallapoosa – Tatum complex, 6 to 15% slopes
- Tallapoosa – Tatum association, hilly
- Toccoa loams

In general, these soils are described as follows. The Allen association, rolling is typically found on ridges and is comprised of Alluvium derived from sandstone and shale. Altavista complex soils are located on terraces and are represented by loamy fluviomarine deposits derived from sedimentary rock. Clymer association, steep is located on high hills and is comprised of residuum weathered from underlying sandstone and siltstone. Tatum-Chewacla association, hilly and Tatum Tallapoosa-Riverview association, steep are located on hills and are comprised of clayey residuum weathered from schist. Tallapoosa-Tatum complex, 6 to 15 percent slopes are located on hillsides and are comprised of loamy residuum weathered from slate. Tallapoosa-Tatum association, hilly is located on hillsides and is comprised of loamy residuum weathered from slate. Toccoa loams are located in floodplains and are derived from loamy alluvium derived from igneous, metamorphic and sedimentary rocks.

3.1.2 Environmental Effects

Alternative 1: No Action

Under the No Action Alternative only maintenance of the existing structures would occur along with routine herbicide application, occasional mowing and felling of dead trees along the right-of-way. This alternative is analyzed in detail in the Southern Electric Generating Company, Gaston Yellow Dirt 230kV TL Special Use Permit (September 2012) as the proposed action and is located in the project files at the Talladega District office and is available upon request.

Alternative 2: The Proposed Action Direct Effects

Varying amounts of soil disturbance will occur with this alternative (Proposed Action), especially during the replacement of the nine structures. It is expected that soil loss via wind and water transport has the potential to occur during the construction phase of the project. During the replacement of the structures approximately 8.32 acres of soil disturbance will occur due to road improvements and an additional 3.9 acres of ground disturbance will occur for pad construction. However in any one year the maximum soil disturbance will not exceed 4.69 acres (2015 replacing structures 78, 80 & 82). The potential for soil loss from these areas of proposed structure replacement would further be reduced by the implementation of CBMPs (Construction Best Management Practices) during the construction phase of the project.

Protective measures taken for soil protection include an ADEM (Alabama Department of Environmental Management) construction stormwater general permit, should disturbance exceed one acre and a CBMP Plan to be implemented during the maintenance process to minimize the amount of soil and sediment leaving the site, especially during rainfall events. The required monitoring of the BMPs will be completed as outlined by the ADEM regulations during the construction and through final stabilization of all soils on the project site. Upon completion of maintenance activities all disturbed soil areas will be stabilized using the requested grass mix.

Alternative 1: No Action Cumulative Effects

Under the No Action Alternative only maintenance of the existing structures would occur along with routine herbicide application, occasional mowing and felling of dead trees along the right-of-way. This alternative is analyzed in detail in the Southern Electric Generating Company, Gaston Yellow Dirt 230kV TL Special Use Permit (September 2012) as the proposed action and is located in the project files at the Talladega District office and is available upon request.

Alternative 2: The Proposed Action Cumulative Effects

Varying amounts of soil disturbance will occur during the replacement of the nine structures. However in any one year the maximum soil disturbance will not exceed 4.69 acres (2015 replacing structures 78, 80 & 82). The potential for soil loss from these areas of proposed structure replacement would further be reduced by the implementation of CBMPs (Construction Best Management Practices) during the construction phase of the project.

3.2 Air Quality

3.2.1 Affected Environment

The Clean Air Act (CAA) of 1990 established the National Ambient Air Quality Standards (NAAQS). These standards list 6 pollutants (ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead) of concern that have been linked to public health and environment concerns. Section 7410 gives the states the designation to set forth a plan for implementation, maintenance, and enforcement of air quality standards for each section within the state. The plan set forth by each state shall ensure that conformity to the plan is being achieved; activities will not violate the standards or contribute to the increase of any existing violation; or delay the attainment of any standard in any area. Section 176(c) of the CAA says that any department or agency of the federal government shall not provide financial assistance for activities that do not conform to implementation plans set forth by section 7410.

The current transmission line is not required to have an air permit from ADEM. The transmission line on site does not contain any equipment with atmospheric discharge.

3.2.2 Environmental Effects

Alternative 1: No Action Alternative Direct Effects

Under the No Action Alternative only maintenance of the existing structures would occur along with routine herbicide application, occasional mowing and felling of dead trees along the right-of-way. This alternative is analyzed in detail in the Southern Electric Generating Company, Gaston Yellow Dirt 230kV TL Special Use Permit (September 2012) as the proposed action and is located in the project files at the Talladega District office and is available upon request.

Alternative 2: The Proposed Action Direct Effects

There will likely be minimal levels of increased air emissions due to the construction activities associated with the proposed replacement of the structures. These air emissions will be a product of the heavy equipment associated with construction vehicles used for structure replacement. An increased amount of traffic will occur during the construction phase as workers, contractors, and sub-contractors commute to the site, contributing to the air emissions in the general area. There are no plans of any equipment or discharges to the air that would require an air permit with the proposed action.

Alternative 1: No Action Alternative Cumulative Effects

Under the No Action Alternative only maintenance of the existing structures would occur along with routine herbicide application, occasional mowing and felling of dead

trees along the right-of-way. This alternative is analyzed in detail in the Southern Electric Generating Company, Gaston Yellow Dirt 230kV TL Special Use Permit (September 2012) as the proposed action and is located in the project files at the Talladega District office and is available upon request.

Alternative 2: The Proposed Action Cumulative Effects

There will likely be levels of increased air emissions due to the construction activities associated with the proposed replacement of the structures. These air emissions will be a product of the heavy equipment associated with construction vehicles used for structure replacement. An increased amount of traffic will occur during the construction phase as workers, contractors, and sub-contractors commute to the site, contributing to the air emissions in the general area. There are no plans of any equipment or discharges to the air that would require an air permit with the proposed action.

3.3 Water Quality

3.3.1 Affected Environment

The Clean Water Act of 1977 (CWA) sets the regulations for discharges of pollutants into public waters. Section 401 of the CWA includes language requiring individual States certify that a project meets the State water quality standards. The State must issue permits for activities that discharge into public waters. Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) which provides a permit system for the discharge of pollutants into public waters. Section 404 of the Clean Water Act (CWA) gives the Secretary of the Army the authority to issue permits for discharges of dredged or fill material into waters of the United States.

3.3.2 Environmental Effects

The projects site occurs within the Upper Hatchet Creek (03150107110) and the Tallasahatchee Creek (03150107010) watersheds which are part of the Middle Coosa watershed within the Coosa River Basin. Tallasahatchee Creek is listed on the 2010 Alabama 303(d) list for total dissolved solids from Municipal and Industrial sources for the stretch from its confluence with the Coosa River to an upstream point at the City of Sylacauga's water supply dam. Tallasahatchee Creek's listed use by ADEM is Fish and Wildlife. This point is downstream of the project area.

Hatchet Creek is not currently listed on ADEM's 303(d) list for impaired waterbodies; however it is listed as an Outstanding Alabama Waterway (OAW) and does contain two Forest Sensitive mussel species, Coosa combshell (*Villosa umbrans*) and Alabama

creekmussel (*Strophitus connasaugaensis*), and one federally threatened mussel, Fine-lined pocketbook (*Lampsilis altilis*). Swept Creek is not currently listed and bears the use classification of Fish and Wildlife

Alternative 1: No Action Alternative Direct Impacts

The No Action Alternative would have minimal impact on water quality during the hand application of herbicides on the site. Minimal disturbance during maintenance activities would be controlled utilizing best management practices for construction.

Alternative 2: The Proposed Action Direct Impacts

The Proposed Action requests replacement of nine (9) structures within the project area (Appendix D). With the construction activities associated with the structure replacement the potential for sedimentation increases as soil is disturbed. Construction activities will not directly impact streams within the project area due to the use of a bridge structure to gain access across the West Fork of Hatchet Creek, therefore avoiding direct impacts to this important stream which houses two sensitive mussel species (Coosa combshell and Alabama creekmussel) and one threatened mussel, the Finelined pocketbook. Swept Creek will be crossed at an existing ford crossing and should not be impacted by construction activity. Construction activities associated with the structure removal and installation will result in the disturbance of a maximum of 4.69 acres of soil at any one time, thus decreasing the potential for sediment to be carried away from the area either by stormwater run-off, via wind transport, and/or vehicle tracking.

Alternative 1: No Action Alternative Indirect Impacts

There are no indirect impacts to water quality based on the no active alternative.

Alternative 2: The Proposed Action Indirect Impacts

There are no indirect impacts to water quality expected during the proposed action.

Alternative 1: No Action Alternative Cumulative Impacts

The No Action Alternative would have minimal impact on water quality during the hand application of herbicides on the site. Disturbance during maintenance activities would be controlled utilizing best management practices for construction.

Alternative 2: The Proposed Action Cumulative Impacts

The Proposed Action requests replacement of nine (9) structures within the project area (Appendix D). With the construction activities associated with the structure replacement the potential for sedimentation increases as soil is disturbed. Construction activities will not directly impact streams within the project area due to the use of a bridge structure to gain access across the West Fork of Hatchet Creek, therefore avoiding direct impacts to this important stream which houses two sensitive mussel species (Coosa combshell and Alabama creekmussel) and one threatened mussel, the Finelined pocketbook. Swept Creek will be crossed at an existing ford crossing and should not be impacted by construction activity. Construction activities associated with the structure removal and installation will result in the disturbance of a maximum of 4.69 acres of soil at any one time, thus decreasing the potential for sediment to be carried away from the area either by stormwater run-off, via wind transport, and/or vehicle tracking.

Appropriate BMPs will be installed during the soil disturbance activities to minimize the amount of sediment leaving the site and potentially entering public waters. A General Construction Stormwater NPDES (National Pollutant Discharge Elimination System) Permit from the ADEM will be obtained if disturbance exceeds one acre. Additionally, a CBMP Plan will be developed and implemented during the structure removal/installation and/or maintenance process to minimize the amount of soil and sediment leaving the site, especially during rainfall events. The required monitoring of the BMPs will be completed as outlined by the ADEM regulations and the General Stormwater NPDES Permit during the construction and through final stabilization of all soils on the project site. Upon completion of removal activities all disturbed soil areas will be stabilized using the Forest Service requested grass mix. There should be no cumulative effects on the water quality within Hatchet or Swept Creeks.

3.4 Wetlands

The CWA regulates activities that will impact wetlands and waters of the United States, specifically the discharge of fill or dredged material. Section 404 of the CWA gives the Secretary of the Army the responsibilities of regulating impacts to wetlands and waters of the US through a permit program. The regulatory program is administered by the United States Army Corps of Engineers (USACE). There are two types of permits issued by the USACE authorizing the placement of fill or dredged material into wetlands and waters of the US. A General Permit authorizes impacts that have minimal impacts to jurisdictional waters. An Individual Permit is authorized on a case by case basis and requires public comments and considers the least damaging practical alternative.

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Each agency shall take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural benefit and value of wetlands in carrying out the agency's responsibilities.

3.4.1 Effected Environment

There are several wetlands located on the eastern portion of the project area associated with the West Fork of Hatchet Creek and an Unnamed Tributary to the West Fork of Hatchet Creek. There are two wetlands located east of the West Fork of Hatchet Creek and two wetlands located on the western side of Hatchet Creek. These wetlands are located in the existing power line right-of-way. The wetlands are currently classified as scrub shrub or emergent due to the vegetation maintenance and herbicide applications that are performed on the right-of-way to prevent hardwood occupation.

3.4.2 Environmental Effects

Alternative 1: No Action Alternative Direct Effects

This alternative would have minimal impact to wetlands during mowing and herbicide application. However, should emergency maintenance work be required significant impacts to wetlands are possible since most power outages occur during extreme weather conditions.

Alternative 2: The Proposed Action Direct Effects

The current plan will include the construction of a stone road with wetland impacts of 15' X 360', 15' X 100', 15' X 590' and 15' X 380' through 4 separate wetlands for a total of 0.48 acres of permanent wetland fill. Since this exceeds 0.1 acres a USACE 404 Nationwide Permit is required and has been obtained by Alabama Power Company. Based upon the requirements of the permit (SAM-2013-01100-JMT) Alabama Power Company has purchased 0.37 wetland credits from the Yellowleaf Mitigation Bank to compensate for impacts to waters of the US.

Alternative 1: No Action Alternative Indirect Effects

There are no indirect effects associated with no action.

Alternative 2: The Proposed Action Indirect Effects

There are no indirect effects anticipated with the proposed action.

Alternative 1: No Action Alternative Cumulative Effects

No action would have minimal impact to wetlands during mowing and herbicide application. However, should emergency maintenance work be required significant impacts to wetlands are possible since most power outages occur during extreme weather conditions. Cumulative effects would be negative in this case.

Alternative 2: The Proposed Action Cumulative Effects

The current plan will include the construction of a stone road with wetland impacts of 15' X 360', 15' X 100', 15' X 590' and 15' X 380' through 4 separate wetlands for a total of 0.48 acres of permanent wetland fill. Since this exceeds 0.1 acres a USACE 404 Nationwide Permit is required and has been obtained by Alabama Power Company. Based upon the requirements of the permit (SAM-2013-01100-JMT) Alabama Power Company has purchased 0.37 wetland credits from the Yellowleaf Mitigation Bank to compensate for impacts to waters of the US. Additionally this permanent impact will prevent future unpermitted impacts during emergency conditions since permanent access will be available. Cumulative impacts will be positive since all impacts have been mitigated and no unpermitted activities will occur in wetlands.

3.5 Wildlife and Vegetation Resources

3.5.1 Affected Environment

An approximate 3.6 mile transmission line operated by SEGCO traverses the Talladega National Forest (TNF) in the southern portion of the Talladega Ranger District. The existing right-of-way is 150' in width and encompasses 43.64 acres of National Forest property.

3.5.2 Environmental Effects

3.5.2.1 USFS Sensitive Species

Species Considered & Evaluated

"There are over 182 Regional Forester's Sensitive Species known or suspected to occur on or near one or more of the management units comprising the National Forests in Alabama. This comprehensive list can be found on page four of the "National Forest in Alabama Appendices Final Environmental Impact Statement for the Revised Land and Resource Plan." Sensitive species known to occur on or near the Talladega Division are evaluated in this document (USDA 2010). All species were considered, yet some species were excluded from the analysis based on whether or not they occurred or likely occurred within the project area based on surveys and/or suitable habitat. Table III-1 contains the listing for all species and their consideration for inclusion/exclusion from a detailed analysis.

Table III-1. USFS Sensitive Species considered and included/excluded from Analysis in EA/BE. (USDA 2004)

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Rafinesque's big-eared bat (*Corynorhinus rafinesquii*)	G3G4	S2	Open mature pine woodlands, midstory vegetation is sparse or absent		X
Eastern small-footed bat (*Myotis leibii*)	G3	S1	Roosts in caves, hollow trees and forages over open water and riparian areas		X
Bachman's sparrow (*Aimophila aestivalis*)	G3	S3	open pinewoods with a thick ground cover of native grasses		X
peregrine falcon (*Falco peregrinus*)	G4	S3	Rivers, lakes and large wetland systems	X[2]	
Diana fritillary (*Speyeria Diana*)	G3	S3	Rocks in riffles and shoals in fast flowing rivers and large tributaries		X
Frosted elfin (*Callopphrys irus)*	G3	SU	Early-successional forests and woodlands, and savannas		X
A liverwort (*Plagiochila echinata*)	G2	SNR	Cliff habitat, late-successional riparian forests, & bases of cliff bluffs	X[1]	
Little Georgia moss *(tetrodondium brownianum)*	G3	SNR	Rock outcrops, cliffs, spray cliffs, and late-successional riparian habitat	X[1]	

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Small-flowered buckeye (*Aesculus parviflora*)	G2G3	S2	rich mesic forests, usually on bluffs and silty alluvial woods		X
Georgia aster (*Aster georgianus*)	G2G3	S2S3	Roadsides, open woods, barrens, and glades, Utility ROW		X
Alabama grapefern (*Botrichrium jenmenii*)	G3G4	SH	Canopy gaps in moist woods and open woodlands		X
Kral's indian paintbrush (*Castilleja kraliana*)	G2	S2	Dry sand hills and montane longleaf pine communities		X
Whorled horsebalm (*Colinsonia verticellata*)	G3	SNR	Well drained, moist substrates		X
Large witchalder (*Fothergilla major*)	G3	S2	Ridgetops, dry & rocky longleaf forests and open woodland settings often over sandstone		X
longleaf sunflower (*Helianthus longifolius*)	G3	S1S2	Glades & barrens as well as rocky ridgetops		X
Smith's sunflower (*Helianthus smithi*i)	G2Q	S2	Dry rocky ridgetops & mountain longleaf slopes.		X
Harper's wild ginger (*Hexastylis shuttlesworthii* var. *harperi*)	G4T3	S2	Moist shaded hardwood slopes and rich soils		X
Carolina spider lily (*Hymenocallis caroliniana*)	G2Q	SNR	River corridors, sandbanks, cobbles, stream scours and riparian habitat		X

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Alabama warbonnet (*Jamesianthus alabamaensis*)	G3	S3	Moist shaded-to-partially-sunny riparian forest, alluvial deposits, basic mesic or circumneutral soils		X
Butternut (*Uglans cinerea*)	G3G4	S1	Moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks, bluffs		X
Fraser's yellow loosestrife (*Lysimachia fraseri*)	G2	S1	River corridors, sandbanks, cobbles, stream scours and riparian habitat		X
Broadleaf Barbara's buttons (*Marshallia trinervia*)	G3	S3	Open canopy with little to no shrub competition in bogs, seeps, and streamsides		X
Alabama snow wreath (*Neviusia alabamaensis*)	G2	S2	Canopy gaps in basic mesic forests and late successional riparian forests		X
White fringeless orchid (*Platanthera integriilabia*)	G2G3	S2	Wet, boggy areas, streamheads or seepage slopes in acidic muck or sand in flat or sharply sloped streamside areas		X
Clammy locust (*Robinia viscosa*)	G3	SU	Dry sandy soils, rocky slopes around small drain heads.		X

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Eared coneflower (*Rudbeckia auriculata*)	G1	S1	Moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks		X
Pinnate-lobed black-eyed Susan (*Rudbeckia triloba* var. *pinnatiloba*)	G5T3	S2S3	Moist shaded hardwood slopes & rich soils as well as overlap into the late-successional riparian forest		X
Appalachian rose gentian (*Sabatia capitata*)	G2	S2	Dry sandy soils, rocky slopes and moderately open stands		X
Alabama skullcap (*Scutellaria alabamaensis*)	G2	S2	Light to deep shade in fine sands or sandy loams, well drained moist substrates.		X
Nevius' stonecrop (*Sedum nevii*)	G3	S3	Moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks, bluffs and rises in rich coves		X
Piedmont meadow-rue (*Thalictrum macrostylum*)	G1G2Q	SNR	Moist shaded hardwood slopes and rich soils		X

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Lanceleaf trillium (*Trillium lancifolium*)	G3	S2S3	Moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks, bluffs and rises in moist sandy bottoms		X
Southern nodding trillium (*Trillium rugelii*)	G3	S2	Moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks, bluffs and rises in moist sandy bottoms		X
Loggerhead musk turtle (*stenotherus minor)*	G5	S5	Big rivers or creeks, low gradient, medium river, pool, spring/spring brook	X[2]	
Holiday darter (*Etheostoma brevirostrum*)	G2	S2	Clear cool, moderate to swift currents over cobble-boulder-gravel substrates within relatively shallow portions of runs, pools and sometimes riffles of medium to large streams	X[3]	
Coldwater darter (*Etheostoma ditrema*)	G1G2	S1	Shallow slow currents over well-vegetated, coarse organic debris substrates within springs and spring-runs of small streams		X

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Lined chub (*Hybopsis lineappunctata*)	G3	S3	Flowing currents over gravel-sand-rubble substrates within riffles and pools of small to medium streams		X
Coal darter (*Percina brevicauda*)	G2	S2	Swift currents over gravel-cobble-sand substrates within bedrock troughs at the foot of rapids or riffle heads of large streams and rivers		X
Freckled darter (*Percina lenticula*)	G2	S3	Deep swift currents over sand substrates within runs and rapids of main channel large streams and rivers		X
Bronze darter (*Percina palmeris*)	G3	S3	Deep moderate currents over gravel-cobble-boulder substrates within riffles and runs of large streams and small rivers		X
A crayfish (*Cambarus englishii*)	G3	S3	Various substrates within riffle and pool habitats of streams	X³	

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Alabama spike (*Elliptio arca*)	G3	S2	High gradient swift currents over gravel substrates within lateral bars and riffles of large streams and rivers	X[3]	
Tennessee heelsplitter (*Lasmigona holstonia*)	G3	S2	Shallow water of various currents over sand and mud substrates within riffles of small headwater and tributary streams and small spring runs, and occasionally backwaters and side channel pools of large rivers	X[3]	
Georgia pigtoe (*Pleurobema hanleyianum*)	G1	SH	Moderate gradient and swift shallow currents over coarse sand and gravel substrates within runs, riffles, or shoals of small to medium rivers and large tributary streams	X[3]	
Alabama clubshell (*Pleurobema troshelianum*	G1	SH	Moderate gradient and swift shallow currents over coarse sand and gravel substrates within runs, riffles, or shoals of small to medium rivers and large tributary streams	X_3	

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Ridged mapleleaf (*Quadrula rumphiana*)	G3	S1S2	Moderate gradient slow to fast currents over sand-gravel substrates within medium sized rivers and reservoirs	X[3]	
Alabama creekmussel (*Strophitus connasauganensis*)	G3	S2	Areas with little to no currents within either larger tributary streams or small rivers		X
Alabama rainbow (*Villosa nebulosa*)	G3	S3	Small headwater streams	X[2]	
Coosa combshell (*Villosa vanusemensis umbrans*)	G4T2	S2	Large tributary headwater streams and rivers		X
Helma's net spinning caddisfly (*Cheumatopsyche helma*)	G1G3	S1	Bottom dwellers within small headwater streams		X
A caddisfly (*Hydroptila cheaha*)	G1	S1	May inhabit springs and small spring-fed streams		X
A caddisfly (*Hydroptila choccolocco*)	G1	S1	May inhabit springs and small spring-fed streams	X[3]	
A caddisfly (*Hydroptila patricea*)	G1	S1	Presumably they inhabit small streams	X[3]	
A caddisfly (*Hydroptila setigera*)	G1	S1	Primarily inhabits small headwater streams of the lower Appalachian Mountains	X[3]	

USFS Sensitive Species	Global Rank (*)	State Rank (**)	Habitat	Considered but excluded from Analysis	Considered in EA
Allegheny snaketail (*Ophiogomphus incurvatus alleghaniensis*)	G3Q	S1S2	Primarily inhabit flowing currents over cobble-gravel-mud substrates within shallow riffles of spring-fed small to medium sized "pristine" streams	X[3]	
Appalachian snaketail (*Ophiogomphus incurvatus*)	G3		Clear flowing currents over sand and gravel substrates within riffles of piedmont streams	X[3]	
Carlson's polycentropus caddisfly (*Polycentropus carlsoni*)	G1G3	S1	Benthic dwellers in very small streams	X[3]	

Notes:

1 - No record of occurrence

2 - Suitable habitat doesn't exist in or near project area

3 - Located in watersheds outside of project area

(*) Global rankings are established by the Association for Biodiversity Information, in partnership with the Nature Conservancy.

(**) State rankings are determined by the Alabama Natural Heritage program.

Evaluated Sensitive Species Survey Information

Field reviews of the project area have been conducted by Heath Belyeu (Ecologist) of Spectrum Environmental, Inc. Surveys for sensitive species were conducted during October of 2011 on the proposed project areas. The survey was completed in October because this period of the year represents the flowering season for the Georgia aster and as such the potential to identify habitat, if present, was more easily accomplished. Existing populations of the Georgia aster within the project area were flagged in the field for visibility and awareness, and to allow for avoidance during the completion of work within these areas. The project area was additionally surveyed for suitable habitat of the other species evaluated.

The survey was performed on the existing 150' wide transmission right-of-way. The area exhibits savannah like conditions throughout its entire length located within FS lands due to the long term vegetation maintenance that has been performed on the area. Topography within the area consists of rolling hills with a significant steep ridge (Horn Mountain) located on its eastern portion.

Species preferring an open canopy and savannah like conditions inhabit a majority of the survey area. Herbaceous species such as *Andropogon spp., Aster spp., Helianthis spp., Panicum spp., Scuttelaria spp., Rudbeckia spp., Solidago spp. Baptisia spp., Viola spp., Asclepias spp., Eupatorium capillifolium, Coriopsis spp. Liatris aspera* are common throughout the survey area. Additional species such *Pteridium aquilinum, Vitus rotundfolia, Smilax bona-nox,* and *Rubus argutus* are located in the easement as well. The wetland areas contain vegetation such as *Juncus effusus, alnus serrulata, salix nigra, carax spp., acer rubrum, and liquidambar styraciflua.*

No additional surveys for sensitive species were necessary.

SS-1Bachman's sparrow

This species of bird inhabits open pinewoods with a groundcover of thick native grasses. Within the Talladega National Forest the most likely habitat is located within areas of managed longleaf pine stands that are maintained by fire in connection with red-cockaded woodpecker management areas. The species is known from the Talladega Division of the Talladega National Forest by counts and bird surveys (Appendices USDA 2004).

Alternative 1 (No Action): There is no immediate direct effect with the No Action Alternative.

Alternative 2 (Proposed Action): There will be no short or long term direct effect on these species since the project area does not currently provide the required habitat conditions.

SS-2Diana fritillary and Frosted elfin

The Diana fritillary (*Speyeria diana*) has recently been found in the Talladega Division of the National Forest. The species primary habitats include hardwood woodlands and mixed pine-hardwood woodlands and forests. The species lays eggs at random on grasses and their caterpillars feed primarily on the genus *Viola*.

The Frosted elfin (*Callophrys irus*) feeds primarily on the species within the *Baptisia* genus. It is not known to occur in Alabama but if it is present, and then it is most likely to occur within the Talladega Division. Habitats include early successional hardwood forests and woodlands, and savannahs. The species also prefers flowers from the genus of *Ericacea*. (Appendices USDA 2004, p.20).

Alternative 1 (No Action Alternative): No Action Alternative will continue to keep the site conditions in its current state providing occupational, nesting, foraging, and egg laying areas for the two species. The alternative includes infrequent disturbances to the area that may cause minor, short-term impacts to the species due to the required vegetation monitoring that occurs within the project area. These vegetation treatments include herbicide application, especially to hardwoods. Hardwood treatment within the project area will benefit overall habitat conditions for the two species in the long term by preserving the area in its current state and promoting the inhabitance of the preferred *Viola* and *Baptisia* species which are common in the project area.

Alternative 2 (Proposed Action): The Proposed Action will continue to keep the site conditions in its current state providing occupational, nesting, foraging, and egg laying areas for the two species. The alternative includes infrequent disturbances to the area that may cause minor, short-term impacts to the species due to the required vegetation monitoring that occurs within the project area. These vegetation treatments include herbicide application, especially to hardwoods. Hardwood treatment within the project area will benefit overall habitat conditions for the two species in the long term by preserving the area in its current state and promoting the inhabitance of the preferred *Viola* and *Baptisia* species which are common in the project area.

SS-3 Rafinesque's big-eared bat and Eastern small-footed bat

The Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) has not been documented in any of the management units in the National Forests of Alabama. It has been given the ranking of FP for having a potential residence on any management unit in the National Forests of Alabama. The species utilizes caves, hollow trees, and other structures for nesting areas. The species forages over open wetlands and riparian zones. The absence of the species from the Talladega National Forest is attributed to the lack of caves and open wetlands. (Appendices USDA 2004, p.10)

Eastern small-footed bat *(Myotis leibii)* range within Alabama is limited to the northernmost counties of the State. It has been given an FP ranking for its potential to be located on the northern extent of the Talladega National Forests' range, which may reach the bat's southernmost extent. The species has not been documented on any management unit in Alabama. The Eastern small-footed bat roosts in open caves, mines, cliffs, rock fissures, and other structures. Foraging areas include open water and riparian areas. The most limiting factor for the species absence from the Talladega

National Forest is the general lack of caves and open wetlands. (Appendices USDA 2004, p.12)

Alternative 1 (No Action Alternative): There would be no short or long term direct effect to these species under this alternative. The area does not provide suitable habitat for roosting required by the species. However, foraging areas are available along the right-of-way.

Alternative 2 (Proposed Action): The proposed action will have no short or long term direct effect to these species. The area does not provide suitable habitat for roosting required by the species, therefore proposed action will only continue to provide foraging area along the right-of-way.

SS-4 Small-flowered buckeye, Whorled horsebalm, Harper's wild ginger, Alabama warbonnet, Butternut, Pinnate-lobed black-eyed Susan, Alabama skullcap, Piedmont meadowrue, Lanceleaf trillium, Southern nodding trillium, Eared coneflower, and Alabama snow-wreath

Small-flowered buckeye (*Aescules parviflora*) is known to be found on the Talladega unit of the National Forest. It is found in open mesic hardwood communities. The species is found under full canopy. It is very rare on the forest units, and high quality occurrences with large numbers of individuals are not known to occur. Protection of known sites during project planning is important for providing opportunities for population expansion. (Appendices USDA 2004, p.53)

Whorled horsebalm (*Collinsonia verticillata*) is known from three (3) locations on the Talladega National Forest. Habitat includes moist shaded hardwood slopes in rich soils. It grows in light to deep shade in fine sandy or sandy loam soils in sites that are rarely dry. The sites usually receive a steady flow of water from adjacent uplands but they do not flood. The species usually disappears when the overstory has been completely removed. The species is not tolerant to dry soils or frequent disturbances. (Appendices USDA 2004, p.60)

Harper's wild ginger (*Hexastylis shuttlesworthii var. harperi*) is known from three locations on the Talladega National Forest. It prefers moist shaded hardwood slopes with rich soils. It is found in locations with light to deep shade in fine sandy or sandy loam soils. The sites are rarely dry and can also be associated with bogs and forest seeps. (Appendices USDA 2004, p.63)

Alabama warbonnet *(Jamesianthus alabamensis*) prefers moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks, bluffs and rises in moist sandy bottoms. (Appendices USDA 2004, p.63).

Butternut (*Juglans cinerea*) is not known from the Talladega Division of the National Forests of Alabama. The tree prefers moist shaded to partially sunny riparian forest, alluvial deposits, streambanks, bluffs, and rises. It is located in areas with light shade to open canopy on rock or cliffs, including spray cliff conditions and late successional riparian basic forests. The main requirement seems to be some light and constant water source. (Appendices USDA 2004, p.65)

Pinnate-lobed black-eye Susan (*Rudbeckia triloba var pinnatiloba*) prefers moist shaded hardwood slopes and rich soils. It is found in light to deep shade in fine sands and sandy loamy soils. The sites are rarely dry and receive a steady hydrologic input from the adjacent uplands. The sites rarely flood. It does not tolerate drying of the soils or disturbance. (Appendices USDA 2004, p.78)

Alabama skullcap (*Scutellaria alabamensis*) prefers moist shaded hardwood slopes in rich soils. It is found in light to deep shade, in fine sands or sandy loams. The sites are rarely dry and receive a steady hydrologic flow from their adjacent uplands. The sites do not flood. It is normally associated with spring woodland forbs that require well-drained, moist substrates and disappear when the overstory is completely removed. It does not seem to tolerate disturbance or over-drying of the soils. (Appendices USDA 2004, p.80)

Piedmont meadowrue (*Thalictrum macrostylum = T. subrotundum*) prefers moist shaded hardwood slopes in rich soils. It is found in light to deep shade, in fine sands or sandy loams. The sites are rarely dry and receive a steady hydrologic flow from their adjacent uplands. The sites do not flood. It is normally associated with spring woodland forbs that require well-drained, moist substrates and disappear when the overstory is completely removed. It does not seem to tolerate disturbance or over-drying of the soils. (Appendices USDA 2004, p.83)

Lanceleaf trillium (*Trillium lancifolium*) has been found in the Talladega National Forest. This species prefers moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks, bluffs and rises in moist sandy bottoms.] (Appendices USDA 2004, p.85)

Southern nodding trillium (*Trillium rugelii*) has been found only in the Talladega National Forest. This prefers moist shaded-to-partially-sunny riparian forests, alluvial

deposits, basic mesic or circumneutral soils, streambanks, bluffs and rises in moist sandy bottoms. (Appendices USDA 2004, p.85)

Eared coneflower (*Rudbeckia auriculata)* has been found in the Oakmulgee and Talladega National Forest. The plant prefers moist shaded-to-partially-sunny riparian forests, alluvial deposits, river corridors and streambanks. It grows in light shade to open canopy on rocks or cobbles, and even in the middle of the stream. The main requirement seems to be some light and constant water source. (Appendices USDA 2004, p.77)

Alabama snow-wreath (*Neviusia alabamensis*) is not currently known from any locations in the National Forests in Alabama, though based upon the species' rangewide distribution it is possible that it could occur in the Talladega National Forest, since it has been found close to the administrative boundaries of the unit. This species requires canopy gaps in basic mesic forests and in late successional riparian forests. (Appendices USDA 2004, p.70)

Alternative 1 (No Action): This alternative will have no direct immediate effect on any of these species since they occur and/or prefer either shaded or partially shaded area in open hardwood forest. The existing project area occurs in full sun with very little shade, which may only occur on the edges where it meets with the existing forest. The lack of a canopy in the project area allows for direct sunlight penetration within the area which prevents much of the area from being shaded and moist as required by these species.

Alternative 2 (Proposed Action): This alternative will have no short or long term effect on any of these species

SS-5. Nevius' stonecrop, White fringeless orchid, Carolina spider lily, Frasier's yellow loosestrife, and Broadleaf Barbara's buttons

Nevius' stonecrop (*Sedum nevii*) has been found on the Talladega National Forest. This species prefer moist shaded-to-partially-sunny riparian forests, alluvial deposits, basic mesic or circumneutral soils, streambanks, bluffs and rises in rich coves. It grows in light shade to open canopy on rocks, cliffs, including spray cliff conditions, dry calcareous waterfall areas, and boulders in the middle of the streams, and late successional riparian basic forests. (Appendices USDA 2004, p.81)

White fringeless orchid (*Platanthera integrilabia*) is currently known form one location in the Talladega district. The species is listed as a candidate species for listing by the US Fish and Wildlife Service. The site in the Talladega district contains

approximately 5 individuals. The species can be found over a variety of landscapes but is likely to be located in wet, boggy areas, stream heads, or seepage slopes in acidic muck or sand, in flat or at the bottom of sharply sloped streamsides. Common associates are species of *Sphagnum* moss and fern species such as: Cinnamon fern (*Osmunda cinnamoma*), Chain fern (*Woodwardia areolata*), and New York fern (*Thelyptris noveboracensis*). (Appendices USDA 2004, p.50)

Carolina spider lily *(Hymenocallis caroliniana)* has been given a Forest Service rank of F1 on the Talladega unit as being critically imperiled. Preferred habitat includes river corridors, sandbanks, cobbles, stream scours and riparian areas. It grows in light shade to open canopy on alluvial deposits and gravel. It has been found on boulders and cobbles in the center of the river course. The main requirement seems to be some light and constant water source. (Appendices USDA 2004, p.64)

Fraser's yellow loosestrife (*Lysimachia fraseri*) prefers river corridors, sandbanks, cobbles, stream scours, and riparian areas in light shade to open canopy. These areas are found over alluvial deposits and gravel, streambanks, scours, and first level terraces. It can also be located within the stream on boulders and cobbles. The plant needs some light and a constant water source. (Appendices USDA 2004, p.67)

Broadleaf Barbara's buttons (*Marshallia trinervia*) is located within bogs, seeps, and streamsides with a partially open canopy with little to no shrub competition. (Appendices USDA 2004, p.68).

Alternative 1 (No Action): No action will continue to allow for the area to remain in its current state. The project area currently provides for an absence of a canopy which is beneficial to the survival of these species. The Proposed Action will have no negative direct immediate effect on any of these species since they occur in open canopy or partial sun in wet or streambank areas.

Alternative 2 (Proposed Action): Proposed work associated with the Proposed Action including the short term structure replacement activities and long-term vegetation maintenance avoids disturbance to wet and streambank areas to the maximum extent practicable, thus no adverse long term effect is anticipated. The installation of BMPs during ground disturbance activities will further minimize secondary impacts to this habitat.

SS-6. Kral's Indian paintbrush, Large witchalder, Longleaf sunflower, Smith's sunflower, Clammy locust, Appalachian rose gentian, and Alabama grapefern

Kral's Indian paintbrush (*Castileja sp. nov. kraliana*) is not currently known from any locations in the National Forests in Alabama, though based upon the species' rangewide distribution it is possible that it could occur on the Talladega National Forest. This species is endemic to mountain longleaf pine ecosystems. Habitat includes dry sandhills and montane longleaf pine communities. (Appendices USDA 2004, p.59)

Large Witchalder (*Fothergilla major),* has been ranked as an F1 and has been found in the Talladega National Forest. It is commonly found within ridgetop and dry rocky longleaf pine forests, and open woodland savannah settings, often over sandstone. (Appendices USDA 2004, p.62)

The Longleaf sunflower (*Helianthus longifolius*) occurs in a single location within the Talladega National Forest. It is associated with ridgetop and montane longleaf pine open woodland settings. This is a species that occurs on glades and barrens, as well as rocky ridgetops. (Appendices USDA 2004, p.62)

Smith's sunflower (*Helianthus smithii*) is located at six (6) sites in the Talladega National Forest. It is an associate of ridgetop and montane longleaf pine settings. This is a species that occurs on dry rocky ridgetops as well as mountain longleaf slopes. The habitat plays a moderate role in limiting the viability of this species currently at high risk. (Appendices USDA 2004, p.63)

Clammy locust (*Robinia viscosa*) is commonly found on ridgetops, dry rocky mountain longleaf pine forests, and open woodland or savannahs within the Talladega National Forest. Soils are dry sandy or rocky soils on slopes. It can also be located around small drainheads. It is partially shade tolerant. (Appendices USDA 2004, p.77)

Appalachian rose gentian (*Sabatia capitata*) is endemic to the southern Appalachian with associations on dry ridgetops and montane longleaf pine forests. It can also be found in open woodlands and savannah settings. Habitat soils are dry sandy soils, rocky slopes, and in moderately open stands. (Appendices USDA 2004, p.79)

Alabama grapefern (*Botrichium jenmenii*) is known from one (1) location in the National Forests in Alabama. It is located in canopy gaps in moist woods, and open woodlands and grasslands on drier sites. (Appendices USDA 2004, p.57)

Alternative 1 (No Action): No action would allow the current open savannah like habitat to remain in-tact through the continuance of vegetation maintenance and hardwood species control. The project area currently provides the required habitat conditions for a number of these species.

Alternative 2 (Proposed Action): The proposed actions will have no direct effect on these species since the project area currently provides the required habitat conditions for a number of these species.

SS-7. Coldwater darter, Lined chub, Coal darter, Freckled darter, Bronze darter, Coosa Combshell, Alabama creekmussel, Helma's net spinning caddisfly, A caddisfly (*Hydroptila cheaha*)

Coldwater darters (*Etheostoma ditrema*) are endemic to the Coosa River basin in Alabama, Georgia, and Tennessee (Mettee et al. 1996). The species may be found in four watersheds associated with the Talladega National Forest. The darters are rare in abundance on the Talladega National Forest. The fish inhabits shallow water usually less than 1 m in depth in slow currents over well vegetated coarse organic debris substrates in springs and spring runs of small streams, especially moss and milfoil (Mettee et al. 1996, Keuhne & Barbour 1983). Main prey includes amphipods, chironomids, and copepods (Mount 1986). The species is sensitive to water temperature and changes and flow regime alterations. (Appendices USDA 2004, p.108)

Lined chubs (*Hybopsis lineappunctat*) potentially inhabit ten (10) watersheds associated with the Talladega National Forest. Lined chubs primarily inhabit flowing currents over gravel-sand-rubble substrates within riffles and pools of small to medium streams (Pierson et al. 1986). In stream habitat for the species is leaf litter in sandy main channel pools (Pierson et al. 1986). Prey includes aquatic and terrestrial insects (Mettee et al. 1986). (Appendices USDA 2004, p.119)

Coal darter (*Percina brevicauda*) potentially inhabits eight (8) watersheds associated with the Oakmulgee Division and the main division of the Talladega National Forest. The species is found in swift currents over gravel-cobble-sand substrates within bedrock troughs at the foot of rapids or riffle heads of large streams and rivers (Mettee et al. 1996, Natureserve 2012). It is commonly associated with *Podostemum* or *Justicia* beds (Suttkus et al. 1994). Prey includes aquatic insect larvae, microcrustaceans, and aquatic worms (Mettee et al. 1996). (Appendices USDA 2004, p.127)

Freckled darter (*Percina lenticular*) is known from twenty (20) extant populations within the Tombigbee, Cahaba, Tallapoosa, and Coosa River systems (Pierson et al, 1989, Mettee et al. 1996). The species inhabits deep swift currents over sand substrates within runs and rapids of main channel large streams and rivers (Mettee et al. 1996, Ross 2001). Juveniles are located in shallow riffles with *Justicia* beds (Mettee et al. 1996). Cover types for adults are boulders, logs, and large woody debris (Pierson et al. 1989, Ross 2001). Prey of the freckled darter is large mayflies, caddisflies, dragonflies, stoneflies, and hellgrammites (Ross 2001). (Appendices USDA 2004, p.130)

Bronze darter (*Percina palmaris*) potentially inhabits thirteen (13) watersheds associated with the Talladega National Forest. Bronze darters are endemic and limited in their distribution. Bronze darters primarily inhabit deep moderate currents over

gravel-cobble-boulder substrates within riffles and runs of large streams and small rivers, usually associated with Justicia and river weed (Mettee et al. 1996). Prey of the species is various aquatic insects and snails (Wieland 1983). (Appendices USDA 2004, p.134)

The Coosa combshell (*Villosa umbrans*) is considered at risk of population decline according to Williams et al. (1992). Globally the species is ranked as "apparently secure" (G4T2); within Alabama, the species is ranked as "imperiled" (S2) (Natureserve 2012). This species has been identified as a priority 2 species of high concern (i.e."imperiled") within the State of Alabama (ADCNR 2003). Coosa combshells are endemic to the Mobile River basin and range across Georgia, Alabama, and Tennessee above the fall line. Currently, the species potentially inhabits four watersheds associated with the Oakmulgee and main divisions of the Talladega National Forest. Coosa combshells may occur on several other National Forest management units within the southeast. The species is known to inhabit the West Fork of Hatchet Creek near the project area. The National Forests represent less than 5 percent of the species' range within the State of Alabama. Coosa combshells are widespread in their distribution within tributaries above the fall line (ACDNR 2003). Where encountered, they are generally rare and in low abundance (Mettee et al. 1996, Smith et al. 2002, ACDNR 2003). It is primarily a species of small creeks to medium rivers. However, there are a few records from the Coosa River proper prior to its impoundment. It is found in a mixture of sand, gravel, and cobble substrates in moderate current (Williams et al., 2008).

Alabama creekmussel (*Strophitus connasaugaensis*) is considered at risk of population decline according to Williams et al. (1992). Globally the species is ranked as "vulnerable" (G3); within Alabama, the species is ranked as "imperiled" (S2) (Natureserve 2012). This species has been identified as a priority 4 species of low concern (i.e. fairly secure) within the State of Alabama (ADCNR 2003). Alabama creekmussels are endemic to the Mobile River basin in Alabama, Mississippi, Georgia, and Tennessee. The species is known to inhabit the West Fork of Hatchet Creek near the project area. Historically, Alabama creekmussels probably ranged throughout the Coosa and Cahaba drainages. Alabama creekmussels also occur on the Cherokee National Forest in Tennessee and Georgia. The National Forests represent less than 5 percent of the species' range within the State of Alabama. Alabama creekmussels are generally clumped in their distribution. Where encountered, they are generally common and in high abundance (Mettee et al. 1996)(Smith et al. 2002)(ACDNR 2003).

Helma's net-spinning caddisflies (*Cheumatopsyche helma*) have been located in the upper and middle Coosa River basin within Clay and DeKalb Counties. The species potentially inhabits three watersheds associated with the Talladega National Forest. Aquatic stages of the life cycle the species inhabits main stems of the streams. Adult terrestrials inhabit wooded ridge tops. The species may be sensitive to siltation, point

source pollution, altered flows, and loss or modification of riparian vegetation and ridge-top trees. (Appendices USDA 2004, p.180)

A caddisfly (*Hydroptila cheaha*) are endemic to the middle Coosa River basin in Talladega County, Alabama. The caddisfly is currently only known from the Cheaha watershed but has the potential to inhabit three separate watersheds associated with the Talladega National Forest. The species may inhabit springs and small spring-fed streams while adult terrestrials inhabit riparian vegetation which is also used for food. The caddisfly also uses rocky crevices and woody debris (Harris et al. 1991). (Appendices USDA 2004, p.194)

Alternative 1 (No Action): This alternative would have no impact on current conditions and referenced species.

Alternative 2 (Proposed Action): Water quality within the project area would continue to remain in its current state. The Proposed Action will not impact water quality or propose direct long term impacts to streams within the area which may affect the species. The implementation of BMPs will protect water quality during the structure replacement activities. The use of a bridge to access needed work areas to the west of the West Fork of Hatchet Creek helps to minimize impacts to this stream which would undoubtedly occur if other types of crossings such as a stone ford or traditional culvert had been selected. Sensitive mussel species already identified in the Creek, Coosa combshell (*Villosa umbrans)* and Alabama creekmussel *(Strophitus connasaugaensis)* will be protected during the construction activity, and the final product will prevent future impacts to the sensitive species. Any impacts associated with the water quality impacts to streams are considered indirect and short term and insignificant in terms of effect on the species.

SS-8. Georgia Aster

"Georgia aster (*Aster georgianus*), a candidate for federal listing, is a plant of roadsides, open woods, barrens and glades, utility rights-of-way, or other sunny situations, and appears to be adaptable to dry, open habitats independent of soil type (Matthews, 1993). Georgia aster is known to occur in Alabama, North Carolina, Georgia, South Carolina, and Virginia. Based on information summarized in a status survey completed in December 1993, there are 56 surviving populations, though many appear to be declining (Matthews 1993). Within the Talladega National Forest, Georgia aster occurs at 3 geographically distinct sites (Survey information 2002) including one occurrence that has been suggested to be the largest known site found to date in Alabama (ALNHP 2002). All sites occur along roadsides or powerline rights-of-way, making them vulnerable to management actions. However, two of the populations found on the Talladega National Forest are at low numbers (unpublished data, USDA Forest Service). Historically, much of the species' habitat was xeric woodlands, savannahs, or grasslands that were maintained in an open condition by fires caused by lightning or Native American burning (Matthews 1993)(Davis et al. 2002)(Appendices USDA 2004, p.46)(USDA 2010).

Alternative 1 (No Action): This alternative would have a positive impact on the Georgia Aster management Plan by continuing to provide hardwood control and mowing, both of which reduce the amount of competition by other plant species.

Alternative 2 (Proposed Action): Work to be conducted through the removal of certain structures included in this alternative can be accomplished with little or no short term effect on this species. SEGCO has implemented a vegetation maintenance plan that is beneficial to this species through its use of herbicides for hardwood control and mowing, both of which reduce the amount of competition by other plant species.

Alternative 1 (No Action) Cumulative Effects for all Sensitive Species

Cumulative effects for the analyzed sensitive species include those past, present, and reasonably foreseeable future actions that may affect their habitat. Therefore, the No Action Alternative for these species will result in no adverse impact during the short and/or long term. Plants which require full sunlight, such as the Georgia aster will be positively impacted by this action.

Alternative 2 (Proposed Action) Cumulative Effects for all Sensitive Species

Cumulative effects for the analyzed sensitive species include those past, present, and reasonably foreseeable future actions that may affect their habitat. Past, present, and future activities on national forest lands have been, and will continue to be, conducted under the guidance provided in the maintenance plan established by SEGCO. This continued implementation will allow for existing habitat to be maintained and the communities present to thrive. No potential exists in the Proposed Action to create habitat where it does not already exists, i.e. caves, cliffs, etc., however, the continuation of management implementation will provide for opportunity for maturation and exploitation by those species present in desirable conditions. Long term water quality will continue to be maintained and will likely be enhanced because of the maintenance of established riparian buffers and effective grass and forb community. As such, it is our opinion that the Proposed Action will support the continuation and propagation of sensitive species that occur, or may occur, within the project area.

3.5.2.2 Threatened, Endangered, Proposed, and Candidate Species

Species Considered & Evaluated

All Proposed, Endangered, Threatened, and Candidate (PETC) species were considered, yet some species were excluded from the analysis based on whether or not they occurred or likely occurred within the project area based on surveys and/or suitable habitat. Table III-2 contains the listing for all species and their consideration for inclusion/exclusion from a detailed analysis.

Table III-2. Threatened, Endangered, Proposed, and Candidate Species considered and included/excluded from Analysis in EA/BE. (USDA 2004)

Threatened, Endangered, Proposed, & Candidate Species	USFWS Status	Habitat	Occurrence in Talladega Unit	Considered but excluded from Analysis	Considered in EA
Red-cockaded Woodpecker (*Picoides borealis*)	Endangered	Open mature pine woodlands, midstory vegetation is sparse or absent	8 PBG's in 2013		X
Gray bat (*Myotis sodalist*)	Endangered	Roost in caves, forages over streams/bodies of water	Outside of known distribution in state	X[1]	
Indiana bat (*Myotis grisescens*)	Endangered	Roosts under loose bark summer, caves winter, forages on winged insects	Outside of known distribution in stat		X[2]
Bald eagle (Haliaeetus leucocephalus)	Threatened	Rivers, lakes and large wetland systems	Outside of known distribution in state	X[1,3]	
Tulotoma snail (*Tulotoma magnifica*)	Endangered	Rocks in riffles and shoals in fast flowing rivers and large tributaries	Outside of known distribution in state	X[1,3]	

Threatened, Endangered, Proposed, & Candidate Species	**USFWS Status**	**Habitat**	**Occurrence in Talladega Unit**	**Considered but excluded from Analysis**	**Considered in EA**
Blue shiner (*cyprinella caerulea*)	Threatened	Cool, clear, medium sized rivers over a variety of substrates and lentic conditions	Potentially on district		X
Pygmy sculpin (*Cottus pygmaeus*)	Threatened	Cool, clear springs	Found off of Shoal Creek R.D.	X'	
Coosa Moccasinshell (*Medionidus parvulus*)	Endangered	sand and gravel in clear streams and small rivers with moderate to strong flow	Found off district Hatchet creek.		X
triangular kidneyshell (*Ptyobranchus greeni*)	Endangered	shoals and runs of small rivers and large streams over firm substrate	Found off district Hatchet creek		X
Threatened, Endangered, Proposed, & Candidate Species	**USFWS Status**	**Habitat**	**Occurrence in Talladega Unit**	**Considered but excluded from Analysis**	**Considered in EA**

Threatened, Endangered, Proposed, & Candidate Species	**USFWS Status**	**Habitat**	**Occurrence in Talladega Unit**	**Considered but excluded from Analysis**	**Considered in EA**
Southern pigtoe (*Pleurobema georgianum*)	Endangered	Coarse gravel/sand substrate in moderate current in small rivers/large tributary streams	Found off district Hatchet creek.		X
Fine-lined pocketbook (*Lampsilis altilis*)	Threatened	Sand/mud mixture with gravel in moderate currents & depths	Found in Several Locations within the District		X
Upland combshell (*Epioblasma metastriata*)	Endangered	stable substrates in rivers and large streams	No known population on district		X
Southern acornshell (*Epioblasma othcaloogensis*)	Endangered	high gradient creeks and medium gradient rivers in riffles	Found off district Hatchet creek		X
Ovate clubshell (*Pleurobema perovatum*)	Endangered	sand and gravel shoals in small rivers and large streams	Found off district Hatchet creek.		X
Alabama moccasinshell (*Medionidus acutissima*)	Threatened	Sandy stream margins in clear moderate flow waters of small to large rivers	No known population on district	X[1]	

Threatened, Endangered, Proposed, & Candidate Species	**USFWS Status**	**Habitat**	**Occurrence in Talladega Unit**	**Considered but excluded from Analysis**	**Considered in EA**
southern clubshell (*Pleurobema decisum*)	Endangered	gravel substrates within shoals of large rivers to small streams	Found off district Hatchet creek		X
Georgia pigtoe (*Pleurobema hanleyianum*)	Endangered	medium sized rivers with sand/gravel substrate	Historic collections from district	X[2]	
Alabama clubshell (*Pleurobema troshelianum*)	Candidate	Sand/gravel substrate within pools/riffles of small headwater/tributary pine streams.	Historic collection	X[1]	
Flat pebblesnail (*Lepyrium showalteri*)	Endangered	Clean smooth stone in rapids of small to large rivers	No known population on district	X[1]	
Painted rocksnail (*Leptxis taeniata*)	Threatened	shoals and riffles of rivers on gravel and cobble	Potential occurrence Tallaseehatchee		X
Cylindrical liopax (*Lioplax cyclostomaformis*)	Endangered	Mud and shell fragment interstitial spaces among tabular boulders and bedrock slabs	Locally extirpated	X[1]	

Threatened, Endangered, Proposed, & Candidate Species	**USFWS Status**	**Habitat**	**Occurrence in Talladega Unit**	**Considered but excluded from Analysis**	**Considered in EA**
Lacy elimina (*Elimia crenatella*)	Endangered	Underside of rock slabs or gravel/cobble of medium/large tributary streams	Found off district in Hatchet creek, potential Tallaseehatchee		X
Mohr's Barbara's buttons (*Marshallia mohrii*)	Threatened	Moist prairie-like openings in woodlands along shale-bedded streams	Found on private lands near district		X
Alabama leather flower (*Clematis socialis*)	Endangered	Mesic flats near intermittent streams in silty/clay soils	Found on private lands near district		X
Harperella (*Ptilimnium nodosum*)	Endangered	Seasonally flooded streams, coastal plain ponds, and low savannah meadows	Found on private lands near district		X
Green pitcher plant (*Sarracenia oreophila*)	Endangered	Moist upland areas or boggy, sandy stream edges	Historic records & Found on private lands near district		X
Tn Yellow-eyed grass (*Xyris tennesseensis*)	Endangered	open or thin canopied woods in gravelly seep-slopes or gravel bars	No known population on district	X'	

Threatened, Endangered, Proposed, & Candidate Species	USFWS Status	Habitat	Occurrence in Talladega Unit	Considered but excluded from Analysis	Considered in EA
Georgia aster (*Aster georgianus*)	Candidate	Dry open woods, roadsides, and openings	3 known populations on district		X
White fringeless orchid (*Platanthera integrilabia*)	Candidate	wet, flat bogs at the head of streams and seepage slopes	1 known location on district		X

Notes:

1 - No record of occurrence

2 - Located in watersheds outside of project area

3 - Suitable habitat doesn't exist in or near project area

Table III-3. Designated Critical Habitat considered and included/excluded from Analysis in EA/BE.

Stream	USFWS Status	Species	Occurrence in Talladega Unit	Considered but excluded from Analysis	Considered in EA
Hatchet Creek	Critical Habitat	Coosa moccasinshell (*Medionidus parvulus*), Ovate clubshell (*Pleurobema perovatum*), and Southern clubshell (*Pleurobema decisum*)	Located near the District		X

Evaluated Species Survey Information

Field reviews of the project area have been conducted by Heath Belyeu (Ecologist) of Spectrum Environmental, Inc. Surveys for PETC (Proposed, Endangered, Threatened, or Candidate) species were conducted during October of 2011 on the proposed project areas. The survey was completed in October because this period of the year represents the flowering season for the Georgia aster and as such the potential to identify habitat, if present, was more easily accomplished. Existing populations of the Georgia aster within the project area were flagged in the field for visibility and awareness during the completion of work within these areas.

PETC 1. Red cockaded woodpecker

The red cockaded woodpecker (RCW) (*Picoides borealis*) was listed as endangered with the passage of the Endangered Species Act of 1973. The species typically live in breeding groups that consists of a breeding pair with one or two male helpers. The birds typically utilize longleaf pine and loblolly pine for cavity trees. Historically mature longleaf were the preferred tree due to its tendency to have heart rot fungus which softened the insides of the tree for easier cavity excavation and its ability to produce high amounts of resin. The birds bore resin wells into the tree which allows for the resin to flow down the tree and serves as a protective barrier against snakes, which prey on the eggs and young in the nest. The red cockaded woodpecker requires an open midstory for foraging areas. The historic destruction of longleaf pine savannahs and the removal of fire has greatly decreased optimal habitat for this species. RCWs were extirpated from the Talladega Ranger District in the 1990's. In the fall of 2008 reintroduction of the species occurred and currently there are 8 potential breeding groups of RCWs.

Alternative 1 (No Action): The project area is currently an open savannah like area that is maintained in this state by vegetation maintenance and hardwood species control by the application of specific herbicides. There will be no direct effect on these species since the project area does not currently provide the required habitat conditions.

Alternative 2 (Proposed Action): There will be no direct effect on these species since the project area does not currently provide the required habitat conditions.

PETC 2. Indiana Bat

The species was originally listed as in danger of extinction under the Endangered Species

Preservation Act of 1966, and is currently listed as endangered under the Endangered Species Act of 1973, as amended. In summer, most reproductive females occupy roost sites under the exfoliating bark of dead trees that retain large, thick slabs of peeling bark. Primary roosts usually receive direct sunlight for more than half the day. Roost trees are typically within canopy gaps in a forest, in a fenceline, or along a wooded edge. Habitats in which maternity roosts occur include riparian zones, bottomland and floodplain habitats, wooded wetlands, and upland communities. Indiana bats typically forage in semi-open to closed (open understory) forested habitats, forest edges, and riparian areas (USDA 2004, p.3-227).

Although most hibernacula have been protected, the Indiana bat range-wide population has declined by about 60% since the 1960's (USDI FWS 1999). Causes of decline are not known; declines have continued despite efforts to protect all known major hibernacula. Researchers are focusing studies on land use practices in summer habitat, heavy metals, pesticides and genetic variability in attempt to find causes for the declines (USDA 2004, p.3-227).

A recent discovery of Indiana Bats within the Shoal Creek District of the Talladega National Forest was made near Cane Creek in Cleburne County, Alabama. The bats were discovered by the locating of two females which were radio tagged in Tennessee and followed via the radio transmitter to two dead loblolly pines, where approximately 25-30 individual bats were identified. It is believed that most or all of the bats within this maternal colony are Indiana bats (Personal Communication, Art Henderson).

Alternative 1 (No Action): The project area is currently an open savannah like area that is maintained in this state by vegetation maintenance and hardwood species control by the application of specific herbicides. No action will allow the continuance of these control devices and keep the area in its current state. In its current state the area may provide adequate roosting trees and foraging areas by the existence of forest edges along the boundary of the right-of-way. There is no immediate direct effect on these species since there are no known occurrences of the species within the Talladega District.

Alternative 2 (Proposed Action): There is no immediate direct effect on these species since there are no known occurrences of the species within the Talladega District.

PETC3. Coosa moccasinshell (E), Triangular kidneyshell (E), Southern pigtoe (E), Fine-lined pocketbook (T), Upland combshell (E), Southern acornshell (E), Ovate clubshell (E), Southern clubshell (E), Lacy elimia (E), Painted rocksnail (T), & Blue shiner (T)

The U.S. Fish and Wildlife Service published a final rule in the Federal Register designating critical habitat for 11 mussel species in the Mobile River Basin of Alabama, Mississippi, Georgia, and Tennessee. Eight of these species are located in close proximity to the Talladega National Forest or watersheds that occur within the Talladega National Forest. The mussel species with critical habitat are the Fine-lined pocketbook, Coosa moccasinshell, Ovate clubshell, Southern clubshell, Southern pigtoe, Triangular kidneyshell, Upland combshell, and Southern acornshell. In addition to these mussels the USFWS has designated critical habitat for two (2) snails and one (1) fish species that occurs within the watersheds that lie within the Talladega National forest.

Critical habitat refers to the specific geographic areas that are essential for the conservation of a threatened or endangered species and that may require special management and protection. Section 7(a)(2) of the Endangered Species Act requires that Federal agencies ensure that actions they fund, authorize, or carry out are not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat. (USDA 2010)

Unit 19 of the critical habitat designation is located south of the Talladega Ranger District starting where Clay County Road 4 crosses Hatchet Creek and continues south to the confluence of Swamp Creek at Coosa County Road 29 (USDA 2010).

Unit 22 of the critical habitat designation is located along the Cheaha Creek Channel, extending from its confluence with Choccolocco Creek, Talladega County, Alabama, upstream to the tailwater of Chinnabee Lake, Clay County (USDA 2010).

Fine-lined pocketbook (*Lampsilis altilis*) is threatened and historically occurred within the Coosa River System, among others. It is still located in small streams above the fall line in the Coosa River system in small streams. Hatchet Creek downstream of the Talladega District has been designated as critical habitat for this species. In stream habitat consists of sand mud mixture with gravel in moderate currents and depths. (USDA 2004, p.3-227)

Coosa moccasinshell (*Medionidus parvulus*) is listed as endangered and has only been documented in the Conasauga River of the upper Coosa River Basin since its listing

(USFWS 2003c). The USFWS has designated a portion of Hatchet creek that is located downstream of the Talladega National forest as Critical Habitat. The mussels typically inhabit sand-gravel-cobble substrates in and around bedrock in moderate current shoals or runs of various sized streams and small rivers (Parmalee and Bogan 1998). The mussel habitat requirements are clear flowing waters that are highly oxygenated (USFWS 2003c). (USDA 2004, p.3-232)

Ovate clubshell (*Pleurobema perovatum*) is listed as endangered and historically inhabited the Tombigbee, Black Warrior, Alabama, Cahaba, Tallapoosa, and Coosa Rivers systems and their tributaries. Critical habitat has been proposed for Hatchet Creek downstream of the Talladega District. . In stream habitat consists of moderate current in shoals and runs of large streams and small rivers (USDA 2004, p.3-240)

Southern clubshell (*Pleurobema decisum*) is listed as endangered and is typically found in shoals and runs of small rivers and large streams in sand, gravel, and cobble substrate. The species was historically found throughout every major sub-basin of the Mobile basin, except the Tensaw River. It is typically found in slow to moderate currents over coarse gravel-cobble substrate adjacent to riffles and runs (Pierson 1991). The species does not survive well in impounded waters and silt. The mussel uses blacktail shiner (*Cyprinella venusta*), Alabama shiner (*C. callista*), and tricolor shiners *(C. trichoistira*) as fish hosts. (USDA 2004, p.3-234)

Southern pigtoe (*Pleurobema georgianum*) is endangered and were historically located in the Coosa River system. Hatchet Creek downstream of the National Forest is designated as critical habitat for the mussel. They typically inhabit shallow riffles of small streams with course gravel and sand substrates. In larger rivers they inhabit areas with stronger current. (USDA 2004, p.3-241)

Triangular kidneyshell (*Ptychobranchus greeni*) is listed as endangered and historically were located within the Black Warrior, Cahaba, Alabama, and Coosa River systems. It may no longer inhabit the mainstem of the Black Warrior and Coosa Rivers (USFWS 2003c). Hatchet Creek downstream of the National Forest is designated as critical habitat for the mussel. They typically inhabit runs and shoals with coarse gravel and sand substrates. In larger rivers they inhabit areas with stronger current. (USDA 2004, p.3-241)

Upland combshell (*Epioblasma metastriata*) is listed as endangered and historically occurred within the Coosa River System, among others. It is believed to be extinct. Hatchet creek downstream of the Talladega District is proposed to be designated as critical habitat for this species. In stream habitat consists of swift currents over stable sand gravel substrates in riffles and shoals of small to medium sized rivers (Parmalee and Bogan 1998)(USFWS 2003c)(USDA 2004, p.3-224).

Southern acornshell (*Epioblasma othcaloogensis*) is listed as endangered and historically were endemic to the Coosa River and the Cahaba River above the Fall line, although it has not been documented since the 1970's(USFWS 2003c). The species may be extinct. Proposed critical habitat is also located within Hatchet Creek, downstream from the Talladega National Forest. In stream habitat is fine gravel substrates in riffles and runs of rivers and large tributary streams above the fall line. Streams usually display swift currents, coarse low substrates, and highly oxygenated water (Pierson 1992). (USDA 2004, p.3-225)

Lacy elimia (*Elimia crenatella*) are listed as endangered and are endemic to the Coosa River system and was known to inhabit several large tributaries from St. Clair down to Chilton County. None of these are currently inhabited and the species is disjunct within the lower Cheaha, Emauhee, and Weewoka Creeks in the Middle Coosa River Basin. The species is prefers riffles, bars, and shoals of medium to large tributary streams. Habitat includes undersides of rocks and amongst gravel cobble. The snail is a gill breathing species and typically lives in colonies. Most species graze on periphyton growing on benthic substrates (USFWS 2005). USDA 2004, p.3-243)

Painted rocksnail (*Leptxis taeniata*) is listed as threatened. It was historically known from the Coosa River and its tributaries from St. Clair County downstream into Monroe County. It was also known from the Cahaba River below the fall line. It is currently known from the Choccolocco Creek in Talladega County, Buxahatchee Creek in Shelby County, and Ohatchee Creek in Calhoun County. The snail is a gill breathing snail that attaches to cobble, gravel, and hard substrates in strong currents and riffles and shoals USFWS 2005).

Blue shiners (*Cyprinella careula*) are listed as threatened on April 22, 1992 by the USFWS. There are currently approximately six populations located within the Coosa River system. The shiner has been extirpated from the Cahaba River system and Big Wills Creek in the Middle Coosa River. The species is sensitive to water quality in regards to siltation and turbidity. Of the six populations existing in Alabama, two are partially located on, or downstream, from the Talladega National Forest. This species inhabits cool, clear, and low to moderate velocity currents and moderate depths over sand gravel substrates of riffles and runs in mid-order medium to large streams and adjoining tributaries (Pierson and Krotzer 1987, Dobson 1994). The species is commonly associated with tree roots, fallen branches, and in water willow beds (Dobson 1994). The shiner has also been associated with tricolor shiner (*Cyprinella trichoistia*), and the Coosa shiner (*Notropis xaenocephalus*). (USDA 2004, p.3-217)

Alternative 1 (No Action): No action would have no impact to water quality or affect the species.

Alternative 2 (Proposed Action): Water quality within the project area would continue to remain its current state. The Proposed Action will not impact water quality or propose direct long term impacts to streams within the area which may affect the species. The implementation of BMPs will protect water quality during the structure replacement activities. The use of a bridge to access needed work areas to the west of the West Fork of Hatchet Creek will aid in reducing impacts to this stream. Prior to construction of the bridge, staging of material will be required on west bank of Hatchet Creek. To accomplish this, a short time frame will be identified when trucks will be allowed to ford the creek staging required material for construction. Prior to that time period relocations of the 3 sensitive/endangered mussels will take place. After consultation with USFWS a 20' passage corridor, plus a 50' buffer on each side, for a total of 120' will be surveyed by a permitted professional and mussels relocated to the nearest suitable habitat. This relocation activity will take place on three occasions, approximately one week apart prior to the fording activity. USFWS has concurred with this action. Their concurrence letter is included in Appendix J. This will result in no negative impact to sensitive/endangered species in Hatchet Creek with construction of the bridge ensuring no future impacts.

PETC 4. Alabama leather flower (E), Harperella (E), Green pitcher plant (E), Mohr's Barbara's buttons (T), and White fringeless orchid (C)

The Alabama leather flower (*Clematis socialis*) was listed as endangered by the USFWS on September 26, 1986. The plant is currently only known from two locations in northeast Alabama on private lands. Both locations are located on highway right-of-ways in areas that are frequently bush-hogged. Habitat is mesic flats near intermittent streams with silty-clayey soils of the Conasauga series. The soils are circumneutral or slightly basic with a high hydropoeriod. The plant grows in full sun or part shade. It is believed that natural openings were present in locations before the area was colonized by early immigrant species. No known populations occur on the National Forests in Alabama; however, suitable habitat is present on the Talladega Division of the Talladega National Forest. (USDA 2004, p.3-282)

Harperella (*Ptilimnium nodosum*) was listed as endangered by the USFWS on September 28, 1998. There are 13 known populations currently. It is found on seasonally flooded rocky streams and coastal plain ponds. One location in Georgia is located on granite outcrops. The plant is located in two distinct habitat types, riverine, and coastal plain ponds. It is intolerant of deep water or conditions that are too dry. Two populations occur in Alabama, one on Little River in Dekalb and Cherokee Counties, and the other on Town Creek in Dekalb County. The populations in Alabama are located in the riverine habitat type. In Alabama, Harperella grows on rocky and sandy shoals, and rarely on muddy banks of seasonally flooded and quickly moving streams. It flowers in July and August. No known populations occur on the National Forests in Alabama; however, suitable habitat is present on the Talladega National Forest and Bankhead National Forest. (USDA 2004, p.3-273)

Green pitcher plant (*Sarracenia oreophila*) was listed as endangered on September 21, 1979. The species is known from 35 natural populations in Alabama, Georgia, and North Carolina. 32 of those populations are in northeast Alabama. The species can and does occur in moist uplands and boggy stream edges. Soils are generally acidic and are derived from sandstones and shales associated with the Cumberland Plateau, particularly Lookout and Sand Mountains in Northeast Alabama. The plants located at sites along stream banks are usually located approximately 2 feet above normal summer water levels. Fire seems to play an important role in the survivability of the green pitcher plant. Longleaf pine is a common associate of the species. The species is not known from any Forest Service lands near the project area.

Mohr's Barbara's buttons (*Marshallia mohrii*) was listed as a threatened species by the USFWS on September 7, 1988. The species is known from 14 locations in Georgia and Alabama. The plant typically occurs in moist prairie-like openings in woodlands and along shale-bedded streams. Some populations are located in swales and along highway ROWs. Soils are alkaline sandy-clays, high in organic matter and are seasonally wet. The species maintains itself in areas that are artificially cleared or naturally by fire and soil disturbances that promote grass-sedge communities. It is a member of the sunflower family and is an erect perennial, 1-2.3 feet in height. Its leaves are alternate 8-20 cm long. Flowers are a pale pink to lavender in color and are produced on several heads. Blooming occurs from mid-May through June and fruiting occurs in July and August (Kral, 1983).

White fringeless orchid (*Platanthera integrilabia*) is currently known to exist in one location in the Talladega district. The species is listed as a candidate species for listing by the US Fish and Wildlife Service. The site in the Talladega district contains approximately 5 individuals. The species can be found over a variety of landscapes but is likely to be located in in wet, boggy areas, stream heads, or seepage slopes in acidic muck or sand, in flat or at the bottom of sharply sloped streamsides. Common associates are species of Sphagnum moss and fern species such as: Cinnamon fern (*Osmunda cinnamomea*), chain fern (*Woodwardia areolata*), and New York fern (*Thelyptris noveboracensis*). (Appendices USDA 2004, p.50)(NFA, p.3-275).

Alternative 1 (No Action): No action will allow for the area to remain in its current state. The project area currently provides for an absence of a canopy which is beneficial to the survival of these species, for a positive cumulative effect.

Alternative 2 (Proposed Action): Proposed work associated with the Proposed Action avoids disturbance to wet and streambank areas and riparian zones to the maximum extent practicable. Installation of the bridge across Hatchet Creek will have a permanent impact on a small amount of riparian zone (approximately 14 feet). However, installation of BMPs during ground disturbance activities will minimize secondary impacts to this habitat and help to maintain water quality such that the Proposed Action should have no adverse cumulative effect.

PETC 5. Georgia aster

A detailed discussion and analysis of potential environmental effects has been provided in the Sensitive Species section.

Alternative 1: No Action Alternative

Cumulative effects for the analyzed PETC species include those past, present, and reasonably foreseeable future actions that may affect their habitat. The No Action Alternative action would have no negative effects in the short and long term. Continued vegetation management will have positive effects on the habitat by controlling competing species.

Alternative 2: Proposed Action

The Proposed Action will have no negative effect on current conditions and thus will have a positive effect on the future of the Georgia aster population within the Forest.

Alternative 1 (No Action) Cumulative Effects for all Threatened and Endangered Species

Cumulative effects for the analyzed threatened and endangered species include those past, present, and reasonably foreseeable future actions that may affect their habitat. Therefore, the No Action Alternative for these species will result in no adverse impact during the short and/or long term. Plants which require full sunlight, such as the Georgia aster will be positively impacted by this action.

Alternative 2 (Proposed Action) Cumulative Effects for all Threatened and Endangered Species

Cumulative effects for the analyzed sensitive species include those past, present, and reasonably foreseeable future actions that may affect their habitat. Past, present, and future activities on national forest lands have been, and will continue to be, conducted under the guidance provided in the maintenance plan established by SEGCO. This continued implementation will allow for existing habitat to be maintained and the communities present to thrive. No potential exists in the Proposed Action to create habitat where it does not already exists, i.e. caves, cliffs, etc., however, the continuation of management implementation will provide for opportunity for maturation and exploitation by those species present in desirable conditions. Long term water quality will continue to be maintained and will likely be enhanced because of the maintenance of established riparian buffers and effective grass and forb community. Additionally the addition of the permanent bridge structure across Hatchet Creek will benefit the endangered mussel population by ensuring no further

fording of the creek along the right-of-way. During construction activities, appropriate BMPs will be utilized per state and federal guidelines for construction activity. All required land disturbance permits will be obtained and complied with. Relocation of mussels during the bridge construction process will follow all Federal relocation guidelines and will be performed by a permitted professional. As such, it is our opinion that the Proposed Action will support the continuation and propagation of threatened and endangered species that occur, or may occur, within the project area.

3.6 Scenic Integrity

3.6.1 Affected Environment

The existing transmission line traverses through two (2) different Management Prescriptions and three (3) different assigned Scenic Integrity Objectives; high, medium, and low. High Scenic Integrity objectives are located along the transmission line where the Pinhoti Trail crosses and along Nation Forest System Road 600-1. Medium Scenic Integrity Objectives occur along Taylor Mill Road (NFSR 615). The remainder of the transmission line R-O-W is located in areas with low Scenic Integrity objectives. The western portion of the transmission line is located in Management Prescription 8.D.1.: Red-Cockaded Woodpecker Management Areas and the eastern portion of the transmission line is located in the 9.D.1.: Southern Ridge and Valley Native Ecosystem Restoration and Maintenance Management Prescription. The Landscape Character goal for both Management Prescriptions is “Natural Appearing.”

3.6.2 Pinhoti Trail Vegetation

On September 24, 2013, APCO Biologists conducted a botanical survey on two areas prior to access road development for the Gaston-Yellow Dirt Transmission Line (TL). Both areas are adjacent to the Skyway Motorway Road and Pinhoti Trail within the Talladega National Forest, Clay County, AL. One area was the proposed road that will be 20 feet wide by 300 feet long and will be used to access Structure 86 on the Gaston-Yellow Dirt TL The other area (less than 0.06 acres) is about 1,300 feet south of the proposed road and will be used as a turnaround area for vehicles.

The most common vegetation found within the proposed road site was chestnut oak (*Quercus prinus*), pignut hickory (*Carya glabra*), blackgum (*Nyssa sylvatica var. sylvatica*) and red maple (*Acer rubrum*) in the tree/sapling strata (Table A). Elliott’s blueberry (*Vaccinium elliottii*) was the dominant shrub in the area and virtually no herbaceous species were found. The proposed turnaround area is relatively open and small and the most common vegetation for this area was field blackberries (*Rubus arvensis*) and panic grass (*Panicum* sp.) (Table B).

Table A. Botanical Survey for the Proposed Access Road for Gaston-Yellow Dirt TL

Tree Stratum		
Scientific Name	**Common Name**	**Occurrence**
Quercus prinus	Chestnut oak	C
Carya glabra	Pignut hickory	C
Nyssa sylvatica var. sylvatica	Blackgum	C
Quercus marilandica	Blackjack oak	O
Pinus palustris	Long leaf pine	S
Sapling Stratum		
Carya glabra	Pignut hickory	C
Nyssa sylvatica var. sylvatica	Blackgum	C
Acer rubrum	Red maple	O
Quercus prinus	Chestnut oak	O
Pinus virginiana	Virginia pine	S
Pinus palustris	Long leaf pine	S
Liquidambar styraciflua	Sweetgum	S
Shrub Stratum		
Vaccinium elliottii	Elliott's blueberry	C
Vaccinium arboreum	Sparkleberry	C
Acer rubrum	Red maple	C
Nyssa sylvatica var. sylvatica	Blackgum	C
Sassafras albidum	Sassafras	O
Quercus prinus	Chestnut oak	O
Hydrangea quercifolia	Oak leaf hygrangea	S
Liquidambar styraciflua	Sweetgum	S
Vine Stratum		
Smilax rotundifolia	Roundleaf greenbrier	S

C=Common, O=Occasional, S=Seldom

Note: There was virtually no visible herbaceous stratum.

Table B. Botanical Survey for the Turnaround Area Nearby Gaston-Yellow Dirt TL

Tree Stratum		
Scientific Name	**Common Name**	**Occurrence**
Quercus marilandica	Blackjack oak	O
Acer rubrum	Red maple	O
Nyssa sylvatica var. sylvatica	Blackgum	O
Pinus virginiana	Virginia pine	S
Shrub Stratum		
Nyssa sylvatica var. sylvatica	Blackgum	S
Quercus marilandica	Blackjack oak	S
Vaccinium arboreum	Sparkleberry	S
Vaccinium elliottii	Elliott's blueberry	S
Juniperus virginiana	Eastern red cedar	S
Herbaceous Stratum		
Rubus arvensis	Field blackberry	C
Panicum sp.	Panic grass	C
Solidago sp.	Goldenrod	O
Helianthus sp.	Sunflower	O
Fragaria virginiana	Wild strawberry	O
Hypericum sp.	St. Johnswort	O
Chamaecrista fascicularis	Partridge pea	S

C=Common, O=Occasional, S=Seldom

Note: There was virtually no sapling or vine stratum.

3.6.3 Environmental Effects

Alternative 1: No Action Alternative Direct and Indirect Effects

This alternative would result in a lack of change in current status thus no impact.

Alternative 2: Proposed Action Direct and Indirect Effects

The proposed action would result in temporary rerouting of the Pinhoti trail during the replacement of structure 86. In addition, trees will be removed to allow access to the structure due to the topography which will not allow direct access from the right-of-way crossing at the roadway. To provide visitor safety the trail may be temporarily closed.

3.6.4 Proposed Action Cumulative Effects

Minimal reduction in scenic integrity is expected due to the increased height of transmission pole and road widening. Removal of trees and disturbance near the Pinhoti trail will result in short term impact on scenic integrity. The trail will be returned to as close to original status as possible including replanting of trees and scrubs. However, due to size constraints, trees will need a growing period to return to current conditions.

3.7 Public Health and Safety

3.7.1 Affected Environment

A majority of the project area has limited vehicular access. Pedestrian access is also not readily available as the project area is surrounded on all sides by forested areas. There are no residential dwellings located in the immediate vicinity of the project area.

3.7.2 Health and Safety Effects

Alternative 1: No Action Alternative Direct Effects

There will be no immediate change due to inaction. Regular maintenance of the line would continue. However, the life of existing poles is limited and failure to replace them may result in failures and loss of electricity to residents creating potentially unsafe conditions.

Alternative 2: Proposed Action Direct Effects

Structure replacement activities would be short-term. Many different type of equipment would be used for the replacement activities. Workers on-site would be

required to follow all applicable (OSHA) guidelines for equipment and procedures required for the structure removal activities. Signage will be utilized where appropriate and temporary closure of NFSR 600-1 may be necessary. Continued reliable delivery of power to customers will be assured.

Alternative 1: No Action Alternative Indirect Effects

Loss of power could result in risk to health if power outages occur during extreme weather conditions (below freezing or high heat/humidity). Loss of traffic lights could results in safety issues in service areas.

Alternative 2: Proposed Action Indirect Effects

There are no indirect effects from the proposed action

Alternative 1: No Action Alternative Cumulative Effects

There will be no immediate change due to inaction. Regular maintenance of the line would continue. However, the life of existing poles is limited and failure to replace them may result in failures and loss of electricity to residents. Loss of power could result in risk to health if power outages occur during extreme weather conditions (below freezing or high heat/humidity). Loss of traffic lights could results in safety issues in service areas.

Alternative 2: Proposed Action Cumulative Effects

Structure replacement activities would be short-term. Many different type of equipment would be used for the replacement activities. Workers on-site would be required to follow all applicable (OSHA) guidelines for equipment and procedures required for the structure removal activities. Continued reliable delivery of power to customers will be assured.

3.8 Recreation

3.8.1 Affected Environment

The project area is located within an area of the Talladega National Forest that has mixed plant communities consisting of managed longleaf pine areas and sections of

mature hardwoods. A majority of the recreational opportunities within the general area consist of hunting activities and trail walking. There are no adjacent private dwellings, churches, or cemeteries to the project area.

The Pinhoti Trail crosses the right-of-way on top of Horn Mountain, adjacent to the NFSR 600-1. Herbicide application in the area adjacent to the Pinhoti Trail shall be applied in the fall of the year so as to occur more closely to the natural brown out of other vegetation in late fall and early winter. SEGCO will define the area adjacent to the Pinhoti Trail when herbicide application has been applied within the area by the posting of Re-entry signs, which will be obtained from the FS.

3.8.2 Environmental Effects

Alternative 1: No Action Alternative Direct Effects

The no action alternative will have no effect on recreational activities within the forest.

Alternative 2: Proposed Action Direct Effects

The SUP will not exclude any recreational activities which are already allowed within the area. An interruption of recreational activities within the area may occur during the structure replacement activities but theses interruptions would be short-term in their duration. During replacement of structure 86, just east of the Pinhoti Trail, signage indicating temporary closure of the trail will be utilized.

Alternative 1: No Action Alternative Indirect Effects

There are no indirect effects of any action being taken on recreational activities.

Alternative 2: Proposed Action Indirect Effects

There are no indirect effects of the proposed action on recreation within the forest.

Alternative 1: No Action Alternative Cumulative Effects

There are no cumulative effects on inaction.

Alternative 2: Proposed Action Cumulative Effects

No recreational activities will be excluded which are already allowed within the area. During replacement of structure 86, just east of the Pinhoti Trail, signage indicating temporary closure of the trail will be utilized to direct hikers around the construction activity.

3.9 Economics

3.9.1 Affected Environment

The National Forest is comprised of mature forested hardwood forests and areas of managed longleaf pine. It is common practice for the USFS to cut and sell timber from the National Forests.

3.9.2 Environmental Effects

Alternative 1: No Action Alternative

There will be no immediate change due to inaction. Regular maintenance of the line would continue. However, the life of existing poles is limited and failure to replace them may result in failures and loss of electricity to residents and businesses resulting in economic loss.

Alternative 2: The Proposed Action

Purchase of local materials, including aggregate, chert or other fill material and fuel will give a temporary boon to the local economy. Workers may also use local restaurants and lodging establishments for the duration of the work.

3.10 Civil Rights and Environmental Justice

3.10.1 Affected Environment

EO 12898 Environmental Justice in Minority Populations and Low Income Populations employs the same criteria as the Civil Rights Act (CRA) of 1964 and adds additional criteria set forth as analyzing the environmental effects, including human health, economic and social effects, of federal actions including the effects of minority and low income communities. EO 12898 also provides for community input on the NEPA process, including mitigation if necessary, and access to documents under the

Freedom of Information Act (FOIA), the Sunshine Act, and the Emergency Planning and Community Right-to-Know Act.

EO 13045 Protection of Children from Environmental Health and Safety Risks shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

3.10.2 Environmental Effects

Alternative 1: No Action Alternative Direct Effects

There will be no immediate change due to inaction. Regular maintenance of the line would continue. However, the life of existing poles is limited and failure to replace them may result in failures and loss of electricity to all residents.

Alternative 2: Proposed Action

The proposed action will increase the reliability of the electrical distribution system providing continued electrical service to all residents.

Alternative 1: No Action Alternative Indirect Effects

There will be no indirect effects to this action alternative

Alternative 2: Proposed Action Indirect Effects

There will be no indirect effects to the proposed action on Environmental Justice.

Alternative 1: No Action Alternative Cumulative Effects

There will be no immediate change due to inaction. Regular maintenance of the line would continue. However, the life of existing poles is limited and failure to replace them may result in failures and loss of electricity to all residents regardless of economic standing.

Alternative 2: Proposed Action

The proposed action will increase the reliability of the electrical distribution system providing continued electrical service to all residents regardless of economic status. Safety and health would be maintained.

3.11 Heritage Resources

3.11.1 Affected Environment

Section 106 of the National Historic Preservation Act (NHPA) states that work will not commence until the Section 106 consultation is complete. The site has been assessed for Cultural Resources and State Site files indicate there is only a single known site near the project site. The Skyway Motor Way is listed as eligible for the Register of Historic Places. It was constructed by the Civilian Conservation Corps as a New Deal program and contains several stone faced culverts. An archeological survey has been conducted of the Skyway Motor Way culverts documenting their locations and conditions.

3.11.2 Environmental Effects

Alternative 1: No Action Alternative Direct Effects

There will be no immediate change due to inaction. Standard maintenance of the road based on level 2 high clearance will continue.

Alternative 2: Proposed Action Direct Effects

The proposed action will result in more intensive maintenance of the road surface to allow access of large construction cranes, delivery of poles and access for bucket trucks. A survey was conducted by Alabama Power and Forest Service representatives of the Motorway from Hwy 77 to the transmission line crossing. It was mutually agreed upon by the Forest Service and Alabama Power Company that the repairs to the roadbed would be made by Alabama Power and the culverts would be replaced by the Forest Service, thus insuring that no impacts are made to the historical aspects. This work will be outlined in a five year road maintenance plan. At this time the Forest Service has determined that one historical culvert must be replaced. Mitigation as required by OAR. If physically possible, the existing culvert might be abandoned in place with new culvert installed immediately adjacent resulting in no damage to the historic culvert.

Alternative 1: No Action Alternative Indirect Effects

There are no indirect effects to Cultural Resources.

Alternative 2: Proposed Action Indirect Effects

APC has conducted a survey of all culverts in the roadway and has provided US Forest Service with documentation (location/photos/current status) of all culverts from the transmission line crossing to AL Hwy 70. This documentation will allow for future tracking of the culverts and their status.

Alternative 1: No Action Alternative Cumulative Effects

There will be no immediate change due to inaction. Standard maintenance of the road based on level 2 high clearances will continue.

Alternative 2: Proposed Action

The proposed action will result in more intensive maintenance of the road surface to allow access of large construction cranes, delivery of poles and access for bucket trucks. A survey was conducted by Alabama Power and Forest Service representatives of the Motorway from Hwy 77 to the transmission line crossing. It was mutually agreed upon by the Forest Service and Alabama Power Company that the repairs to the roadbed would be made by Alabama Power and the culverts would be replaced by the Forest Service, thus insuring that no impacts are made to the historical aspects. This work will be outlined in a five year road maintenance plan. At this time the Forest Service has determined that one historical culvert must be replaced. Mitigation will be conducted as required by OAR. If physically possible, the existing culvert might be abandoned in place with new culvert installed immediately adjacent resulting in no damage to the historic culvert. APC has conducted a survey of all culverts in the roadway and has provided US Forest Service with documentation (location/photos/current status) of all culverts from the transmission line crossing to AL Hwy 70. This documentation will allow for future tracking of the culverts and their status.

IV. CONSULTATION AND COORDINATION

The USFS consulted the following individuals, Federal, State, and local agencies, tribes and non-USFS persons during the development of this environmental assessment:

Inter-Disciplinary TEAM MEMBERS:

- Mary Humphries – Special Uses
- Art Henderson – Wildlife, Talladega R.D.
- David Rasmussen – Engineering
- Erika Davis – Engineering
- Marcus Ridley – Heritage Resources
- Scott Smith – Timber
- John Moran – Fisheries
- Art Goddard – Soil and Water

FEDERAL, STATE, AND LOCAL AGENCIES:

United States Fish and Wildlife Service

Alabama Historical Commission

APPENDIX A

STRUCTURE REPLACEMENT DETAILS

Gaston – Yellow Dirt 230kV TL

5-year Maintenance Plan for replacing 230kV H-frame structures

Alabama Power Company Eastern Transmission Maintenance Center

Project Scope Statement

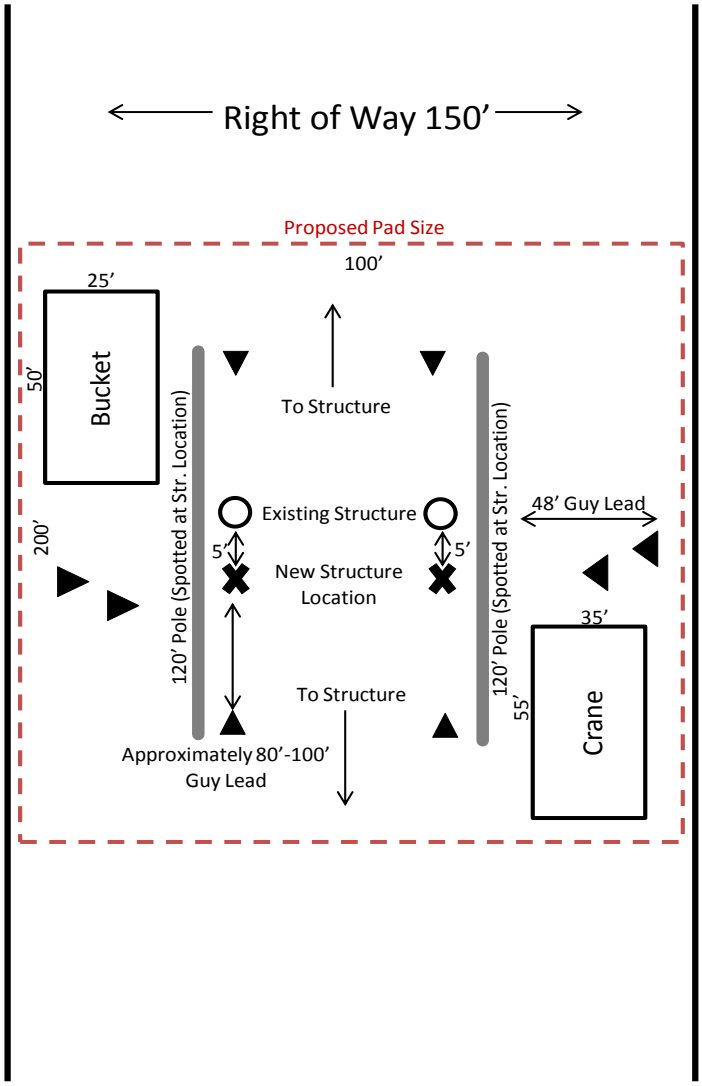
In 2012, Alabama Power Company replaced 3 structures (81, 89, and 91) on its Gaston-Yellow Dirt 230kV TL located on Talladega National Forest (TNF) lands to meet National Electric Safety Code ground clearance requirements. This project is to complete remaining structure replacements on National forest lands due to pre-determined maintenance needs (structure life-cycle). The proposed maintenance plan with access* is outlined below for replacement of nine (9) structures 78, 80, 82, 83, 84, 85, 86, 87, and 88 between 2014 and 2017.

Year	Work Description	Structures	Access
2014-2015	**Design and install permanent bridge across Hatchet Creek for APC and/or its contractor access; Replace structures due to pre-determined maintenance needs**	**87, 88**	**Take Horns Valley Road to R/W. Access point is on the West Side of the road. There is a gate with an APC lock on it. The bridge will be installed where Hatchet Creek crosses the R/W between Structures 89 & 90. Pads will need to be built at each structure during the construction process (200'X100'). Area vegetation and condition will be returned to previous state upon project completion as directed by TNF.**
2016	**Replace structures due to pre-determined maintenance needs**	**78, 80**	**Take Taylor Mill Road (NFSR 615) to just South of the R/W. Access point is on the West Side of the road. This leads to a woods road that parallels the R/W. There are access points that lead to each structure. This woods road needs to be improved before APC can use it for access. Pads will need to be built at each structure during the construction process (200'X100'). The earthen berm blocking access to this road will need to be removed. This woods road will need to be widened, limbs will need to be trimmed back, and gravel placed on the driving surface. The access points that lead to each structure will need the limbs trimmed back also. There is at least one low spot that could possibly need drainage. Area vegetation and condition will be returned to previous state upon project completion as directed by TNF.**
2016	**Replace structures due to pre-determined maintenance needs**	**82**	**Take Taylor Mill Road (NFSR 615) to just south of the R/W. This access will need to be improved, to include removal of trees, limbs, brush, and rock hauled in; pads will need to be utilized at structure for construction (200'X100'). An APC lock will need to be placed on the gate or an APC gate will need to be installed at entry point off NFSR 615. There are some low spots that could possibly need drainage. Area vegetation and condition will be returned to previous state upon project completion as directed by TNF.**
2017	**Replace structures due to pre-determined maintenance needs**	**83, 84**	**From structure 82 travel northeast utilizing existing logging roads to access structures. This access will need to be improved, to include removal of trees, brush, and rock hauled in; pads will need to be utilized at structure for construction (200'X100'). Area vegetation and condition will be returned to previous state upon project completion as directed by TNF.**
2017	**Replace structure due to pre-determined maintenance needs**	**85**	**From structure 84 travel due east along Trans Line ROW until you reach structure 85. This access will need to be improved and pads will need to be built at the structure for construction (200'X100'). There are some low spots that could possibly need drainage. Area vegetation and condition will be returned to previous state upon project completion as directed by TNF.**
2018	**Replace structures due to pre-determined maintenance needs**	**86**	**Use NFSR 600-1 (Skyway Motorway) for access to R/W. Due to approximately 30' of elevation difference between NFSR 600-1 and the location of structure 86, major site work will need to be performed. This will include but is not limited to: Pad around structure 86 (approximately 100'X100'), cleared access area to include turnaround, cranes, etc. An access road (approximately 80'X200') will need to be constructed from NFSR 600-1 to the pad at structure 86. This access road will require gravel, tree removal, and possibly drainage. In addition, appropriate signage, reroutes will be necessary to protect users of the Pinhoti Trail which runs west of structure 86. Area vegetation and condition will be returned to previous state upon project completion as directed by TNF.**

Annual maintenance work plan for Gaston-Yellow Dirt 230kV TL to replace remaining structures located on National Forest lands in the Talladega National Forest. This is a proposed plan and may be altered as necessary to meet the required project needs due to weather, planning, system operating needs, etc. Such changes will be communicated to the National Forest Service.

Typical Installation of 120' H-Frame Structure

Hole digger to dig two holes approximately 42" in diameter/14'-15' deep. Install two longitudinal anchors approximately 80' from new structure location. Install transverse anchors, 2 each side of the structure approximately 43' and 48' from new structure location. Once this is complete we will bring a crane and 100' bucket in and set them up at the structure location. After these pieces of equipment are in place a 5th wheel with a 40' flat pole trailer will bring the new structure in to the location. We will utilize the crane to unload the poles, spot them at the pole hole location, and jack them together. Next, we will utilize a Caterpillar D6 dozer to access the pole setting process. Once the new structure is installed the conductors will be transferred from the old structure to the new one. The old structure will be retired loaded on the 5th wheel/ 40' flat and hauled back to the sycamore warehouse. New guy's will be pulled to the new anchors and the old anchors removed. At this point we will be complete with the installation of the new structure and all equipment and old materials will be removed from the r/w.



APPENDIX B

BRIDGE DESIGN, INSTALLATION AND MAINTENANCE

Revised
6/9/2014

Gaston - Yellow Dirt Hatchet Creek Bridge Construction

Step	Scheduled Start	Scheduled Finish	Work Description	Work Request	Type	Switches involved	Responsibility
Road and Construction Prep Work							
1	9/15/2014	9/31/2014	Receive Bridge Material and APC Material; complete road work from Horns Valley Road to bridge	**N/A**	**N/A**	**N/A**	**Lines Construction/Environmental & Civil (Kristen Bridges, Harold Duncan, Pam McDaniel, Jonathan Maddox)**
Bridge Foundation and Abutment Work; Bridge Construction Begins							
2	10/1/2014	10/30/2014	deliver/set up crane for lifting equipment to opposite side of Creek; Construct Bridge abutments/Foundations and allow cure before beginning bridge erection	**140198**	**CLEARANCE**	**PENDING: 90951 @ Gaston 803 @ Ashland TS**	**Lines Construction (Jeff Waters, Harold Duncan)**
2A	10/15/2014	10/31/2014	Bridge Construction; complete road work on West side of bridge	**140198**	**CLEARANCE**	**PENDING: 90951 @ Gaston 803 @ Ashland TS**	**Lines Construction (Jeff Waters, Harold Duncan)**

2B	11/1/2014	12/31/2014	Area Reclamation of Bridge and Road Work	**140199**	**CLEARANCE**	**PENDING: 90951 @ Gaston 803 @ Ashland TS**	**Lines Construction (Jeff Waters, Harold Duncan)**
Replacement of Structures 87 and 88							
3	1/2/2015	1/31/2015	Replacement of structures 87 and 88 on the Gaston - Yellow Dirt 230kV TL (Gaston-Ashland section); removal of refuge and debris; return of unused material.	**140198**	**CLEARANCE**	**PENDING: 90951 @ Gaston 803 @ Ashland TS**	**Lines Construction (Jeff Waters, Harold Duncan)**

Bridge Preventive Maintenance (PM): The concept of preventive maintenance suggests that a planned strategy of cost effective treatments should be performed to keep bridges in good condition, retard future deterioration, and avoid large expenses in bridge reconstruction or replacement.

PREVENTIVE MAINTENANCE ACTIVITIES

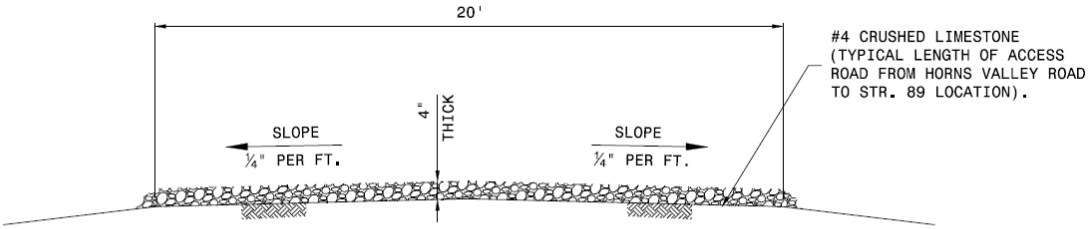
TASK DESCRIPTION	FREQUENCY
1. REMOVE DEBRIS FROM UPSTREAM SIDE OF BRIDGE	6 YEARS OR AFTER FLOOD EVENTS
2. INSPECT ABUTMENTS FOR UNDERMINING AND EROSION	6 YEARS OR AFTER FLOOD EVENTS
3. INSPECT FOR EROSION AROUND ABUTMENTS, REPAIR IF NEEDED	6 YEARS OR AFTER FLOOD EVENTS
4. INSPECT VEGETATION SOIL STABILIZATION AROUND ABUTMENTS, RE-VEGETATE BARE SOIL AREAS	6 YEARS OR AFTER FLOOD EVENTS
5. INSPECT DECK AND ABUTMENTS FOR STRESS CRACKS OR SPALLING CONCRETE	6 YEARS
6. INSPECT GALVANIZED STEEL FOR CORROSION, REPAIR WITH COLD GALVANIZING AS NECESSARY	6 YEARS
7. VEGETATION MANAGEMENT UNDER AND AROUND BRIDGE	6 YEARS
8. INSPECT BEARING PADS	6 YEARS

APPENDIX C

FORM 299

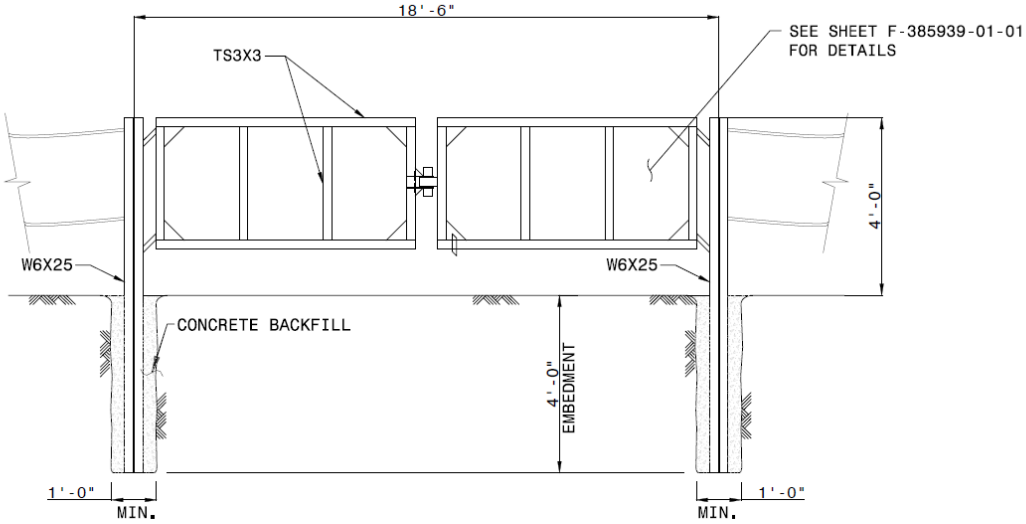
APPENDIX D

ROAD MAINTENANCE AND GATE INSTALLATION DETAILS

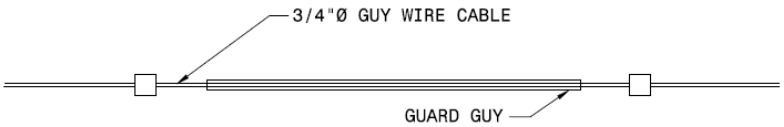


TYPICAL ROAD SECTION

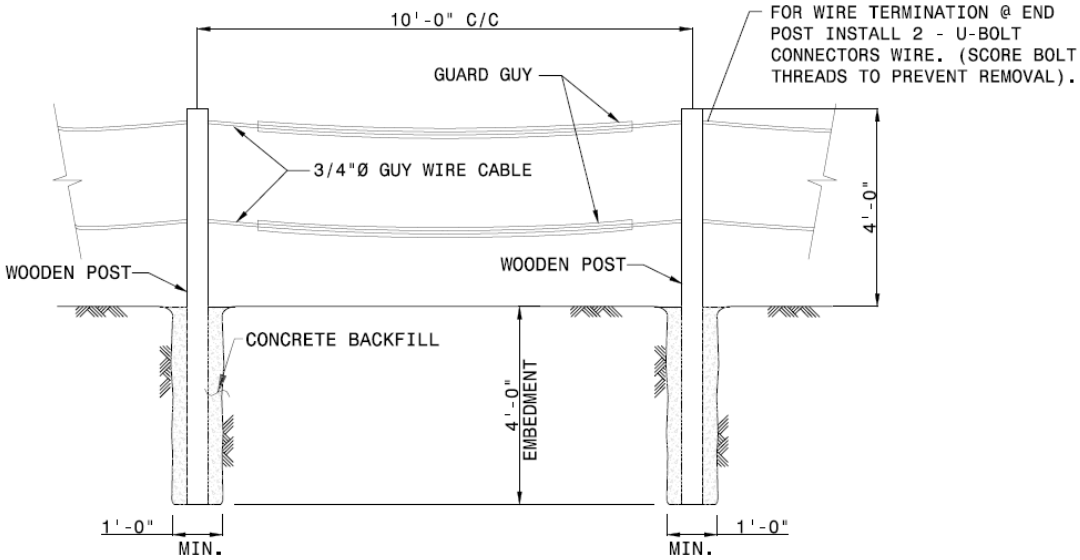
PLAN



HEAVY DUTY GATE DETAIL



PLAN



POST & CABLE BARRIER DETAIL

APPENDIX E

SOIL REPORTS

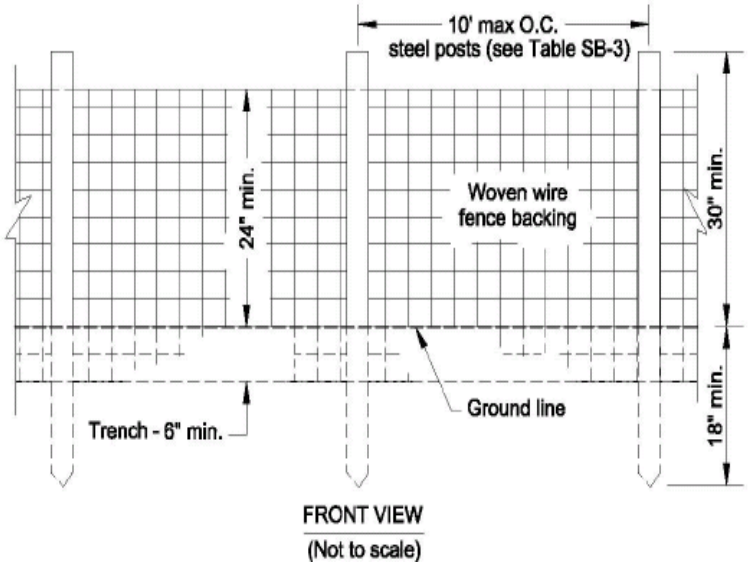
APPENDIX F

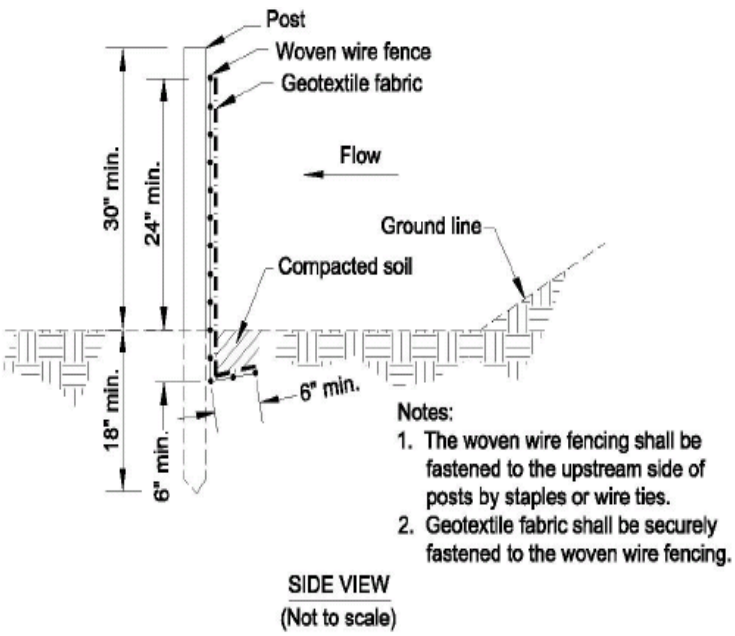
TYPICAL CONSTRUCTION BEST MANAGEMENT PRACTICES

Silt Fence:

Silt Fence is a sediment barrier that can be installed at any location that is not a solid surface. Type A silt fence will be used on the job. Install the silt fence by digging a 6 inch trench the length of the silt fence along the contour. Place the bottom 12 inches of the silt fence in the trench, keying the bottom 6 inches toward the up-gradient slope. Ensure the trench is completely backfilled and the bottom of the fence is secure in the ground for the entire length of the installation. Stakes should be spaced at a maximum 10 feet apart and driven 18 inches into the ground. Securely fasten the wire backing and silt fence to the stakes. Wire staples will be used to secure the silt fence to the post. A minimum of 5 fasteners are required per post.

Maintenance: Inspect sediment fences daily when work is ongoing in the area and after each significant rain event. Make required repairs immediately. Should the fabric of silt fence collapse, tear, decompose or become ineffective, replace it promptly. Remove sediment deposits when they reach a depth of 15” or ½ the height of the fence as installed to provide adequate storage volume for the next rain and to reduce pressure on the fence. Any sediment removed shall be placed upland on the right-of-way, spread and grassed.

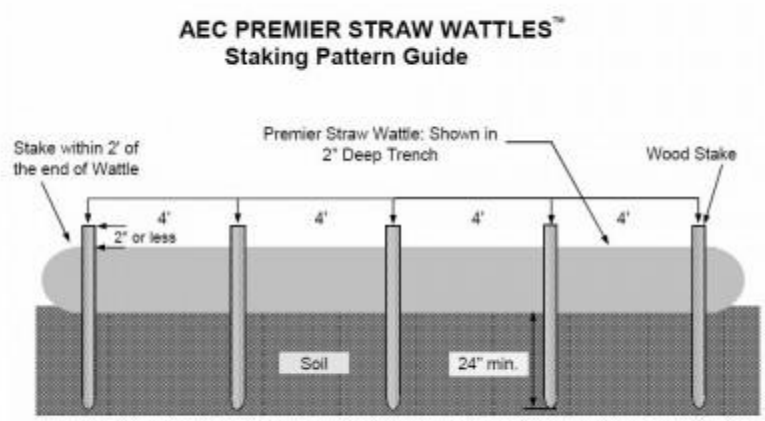


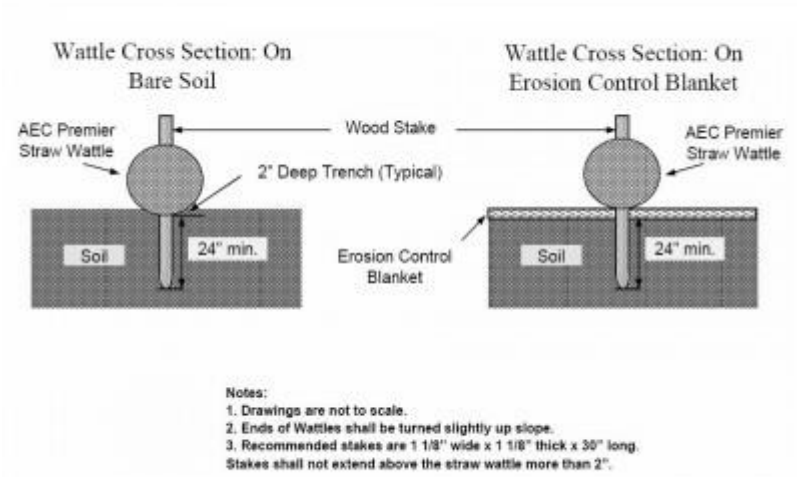


Wattle:

A wattle check dam is a sediment barrier that is easily installed around drainage ways to slow the flow of water. In areas of concentrated flow, place the 24" wattle perpendicular to the flow and stake the wattle in place utilizing 2" X 2" wooden stakes. Ensure there is no open pathway under the wattle.

Maintenance: The wattle will be inspected daily when work is ongoing in the area and after each qualifying rainfall event. The installation will be check for undermining and/or overtopping by stormwater flows. Silt shall be removed and placed upland on the right-of-way, spread and grassed once it reaches ½ of the wattle diameter.

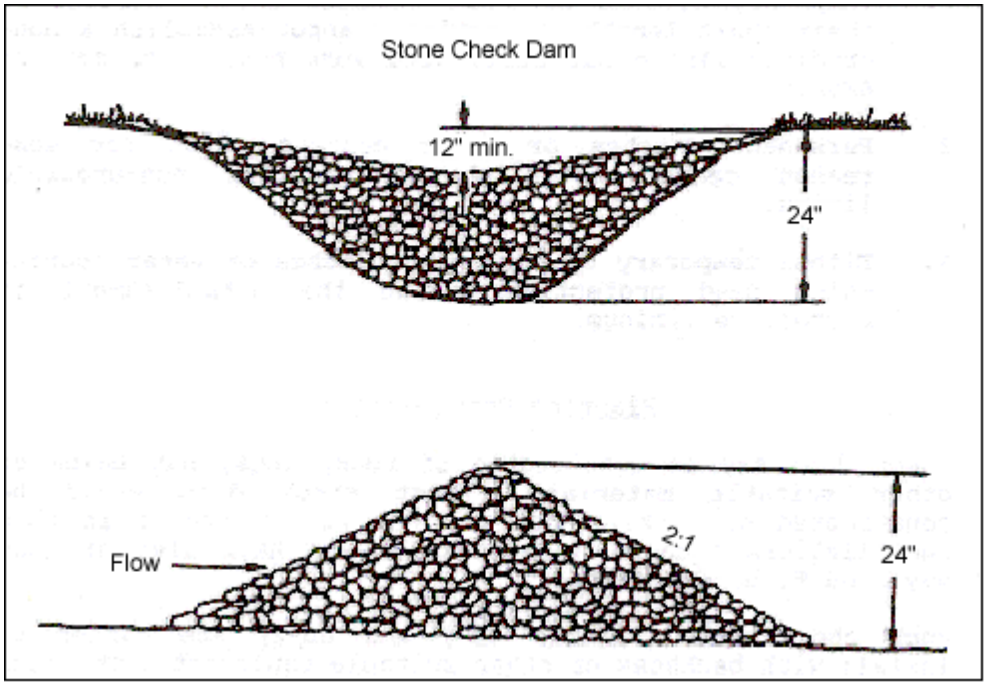




Stone Check Dam:

A check dam is a small barrier or dam constructed across a swale, drainage ditch or other area of concentrated flow for the purpose of reducing channel erosion. Channel erosion is reduced because check dams flatten the gradient of the flow channel and slow the velocity of channel flow. Excavate a shallow keyway (12”-24” deep and at least 12” wide) across the channel and into each abutment for each check dam. Install a non-woven geotextile fabric in the keyway in sandy or silty soils. This may not be required in clayey soils. Construct the dam with a minimum 2:1 side slopes over the keyway and securely embed the dam into the channel banks. Position the rock to form a parabolic top, perpendicular to channel flow, with the center portion at an elevation so that the flow goes over the structure and not around the structure.

Maintenance: Inspect the check dam for rock displacement and abutments for erosion around the ends of the dam after each significant rainfall event. If the rock appears too small, add additional stone and use a larger size. Inspect the channel after each significant rainfall event. If channel erosion exceeds expectations, consult with the design professional and consider adding another check dam to reduce channel flow grade.
Sediment should be removed if it reaches a depth of ½ the original dam height. If the area behind the dam fills with sediment there is a greater likelihood that water will flow around the end of the check dam and cause the practice to fail.



APPENDIX G

CORP OF ENGINEERS NW PERMIT

APPENDIX H

LITERATURE CITED

Literature Cited:

Alabama Comprehensive Wildlife Conservation Strategy (PDF). Alabama Department of Conservation and Natural Resources. 2003.

Davis, E., C. McRae, B. Estep, L. Barden, and J. Mathews. 2002. Vascular Flora of Piedmont Prairies: Evidence from Several Prairie Remnants. Castanea 67(1):1-12.

Dobson, T.I. 1994. An ichthyofaunal survey of the Little River drainage in Alabama with notes of *Cyprinella caerulea* (Jordan). M.S. Thesis, Jacksonville State Univ., Jacksonville, AL. 123pp.

Harris, S.C., P.E. O'Neil, and P.K. Lago. 1991. Caddisflies of Alabama. Bulletin 142, Geological Survey of Alabama, Tuscaloosa, AL. 442 pp.

Kuehne, R., R. Barbour. 1983. *The American Darters*. Lexington, Kentucky: The University Press of Kentucky.

Kral, R. 1983. A Report on Some Rare, Threatened, or Endangered Forest-related Vascular Plants of the South Volume II. USDA Forest Service. Technical Publication R8-TP 2, x + 1305 pages.

Mathews, J. 1993. Status Survey of *Aster georgianus* Alexander. NC Plant Conservation Program.

Mettee, M.F. Jr. and J.S. Ramsey 1986 Spring pygmy sunfish, *Elassoma* sp. p. 4-5. In R.H. Mount (ed.) Vertebrate animals of Alabama in need of special attention. Alabama Agricultural Experiment Station, Auburn University, Auburn, Alabama.

Mettee, M.F., P.E. O'Neil, and J.M. Pierson. 1996. Fishes of Alabama and the Mobile Basin. State of Alabama. Oxmoor House, Birmingham, AL.

Mount, R.H. (ed.) 1986. Vertebrate Animals of Alabama in Need of Special Attention. Alabama Agricultural Experiment Station, Auburn Univ. 18 pp.

NatureServe. 2012. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available

http://www.natureserve.org/explorer. (Accessed: June 11, 2012).

Parmalee, Paul W. and Authur E. Bogan. 1998. The Freshwater Mussels of Tennessee. The University of Tennessee Press. Knoxville, TN.

Pierson, J.M., C.A. Schultz, and H.T. Boschung. 1986. Fishes of the Buttahatchee River system of Alabama and Mississippi. Proceedings of the Southeastern Fisheries Council 4:11-13.

Pierson, J.M., and R.S. Krotzer. 1987. The distribution, relative abundance, and life history of the blue shiner, *Notropis caeruleus* (Jordan). Prepared for the Alabama Nongame Wildlife Coordinator. 105 pp.

Pierson, J.M., W.M. Howell, R.A. Stiles, M.F. Mettee, P.E. O'Neil, R.D. Suttkus, and J.S.Ramsey. 1989. Fishes of the Cahaba river system in Alabama. Bulletin 134, Geological Survey of Alabama. Tuscaloosa. 57 pp.

Pierson, J.M. 1991. Status survey of the Southern Clubshell, Pleurobema decisum (Lea, 1831). Jackson, MS: Mississippi Department of Wildlife, Fisheries and Parks, Museum of Natural Science. (Museum Technical Report No. 13).

Pierson, J.M. 1992. Endangered and threatened mollusk survey in Choccolocco Creek, Calhoun and Talladega counties, Alabama. Report prepared for the U.S. Dept. of Agriculture, Soil Conservation Service

Ross, S.T. 2001. *Inland Fishes of Mississippi*. University Press of Mississippi, Jackson, MS.

Smith, R. K., P. L. Freeman, J. V. Higgins, K. S. Wheaton, T. W. Fitzhugh, K. J. Ernstrom, A. A. Das. 2002. Freshwater Biodiversity conservation assessment of the southeastern United States. The Nature Conservancy.

Suttkus, R. D., B. A. Thompson, and H. L. Bart, Jr. 1994. Two new darters, *Percina* (Cottogaster), from the southeastern United States, with a review of the subgenus. Occasional Papers, Tulane University Museum of Natural History, Number 4.

U.S.D.A. Forest Service. 2010. Environmental Assessment, Beegum/Georgia Aster. Talladega Ranger District, Talladega, AL. 53 pp.

U.S.D.A. Forest Service. 2004. Final Environmental Impact Statement for the Revised Land and Resource Plan, National Forests in Alabama. U.S.D.A. Forest Service. Atlanta, Georgia, 643 pp.

USDI-Fish and Wildlife Service. 1999b. Indiana Bat Final Biological Opinion. USFWS, Ecological Services. Tulsa, Oklahoma. 28 pp.

U.S. Fish and Wildlife Service. 1989. Alabama Leather Flower Recovery Plan. U.S. Fish and Wildlife Service, Jackson, Mississippi. 21 pp.

U.S. Fish and Wildlife Service. 1990. Harperella (*Ptilimnium nodosum*) Recovery Plan. Newton Corner, Massachusetts. 60 pp.

U.S. Fish and Wildlife Service. 1991. Recovery Plan for Mohr's Barbara's Buttons. U.S. Fish and Wildlife Service, Jackson, Mississippi. 15 pp.

U.S. Fish and Wildlife Service. 1994. Green Pitcher Plant Recovery Plan. U.S. Fish and Wildlife Service, Jackson, Mississippi. 23 pp.

U.S. Fish and Wildlife Service. *1995.* Blue Shiner Recovery Plan. U.S. Fish and Wildlife Service. Jackson, Mississippi. 20 pp.

U.S. Fish and Wildlife Service. 2003. Recovery Plan for the Red-cockadedWoodpecker (*Picoides borealis*): Second Revision. U.S. Fish and Wildlife Service, Atlanta, GA.

U.S. Fish and Wildlife Service. 2005. Recovery Plan for 6 Mobile River Basin Aquatic Snails. U.S. Fish and Wildlife Service, Jackson, Mississippi. pp.

U.S. Fish and Wildlife Service (USFWS). 2007. Indiana Bat (*Myotis sodalis*) Draft RecoveryPlan: First Revision.

U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp.

Wieland, W. 1983. Interactive Life Histories of Three Species of Percina (Pisces: Percidae) in the Alabama River System. Ph.D. dissertation, Auburn University, Auburn, Alabama.

Williams, J. D., S. L. H. Fuller, and R. Grace. 1992. Effects of impoundment of freshwater mussels (Mollusca: Bivalvia: Unionidae) in the main channel of the Black Warrior and Tombigbee rivers in western Alabama. Bulletin of the Alabama Museum of Natural history No. 13:1-10

APPENDIX I

AHC CONCURRENCE LETTERS

STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE
EXECUTIVE DIRECTOR

TEL: 334-242-3184
FAX: 334-240-3477

March 23, 2012

Steven M. Lohr
U.S. Forest Service
2946 Chestnut Street
Montgomery, Alabama 36107-3010

Re: AHC 12-0683
Yellow Dirt Transmission Line
Talladega District, Talladega National Forest
Clay and Talladega Counties, Alabama

Dear Mr. Lohr:

Upon review of the additional information forwarded by Mr. Bill Gardner of Alabama Power and direct consultation with your office, we have determined that no cultural resources listed on or eligible for the National Register of Historic Places (NRHP) will be affected by the proposed activities. Therefore, we can now concur with this project. However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately.

We appreciate your continued efforts on this project. Should you have any questions, please contact Greg Rhinehart at (334) 230-2662. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown
Deputy State Historic Preservation Officer

EAB/GCR/gcr

cc: Bill Gardner, Alabama Power

APPENDIX J

US FISH & WILDLIFE CONSULTATION LETTERS