



Palmetto
RAILWAYS

May 15, 2018

#E1-26347

Ms. Diana Wood
Project Manager, Office of Environmental Analysis
Surface Transportation Board
395 E Street, SW
Washington, DC 20423-0001

Re: Camp Hall Rail Project Community Mitigation Commitments

Dear Ms. Wood:

Please accept this letter in response to your request for a more detailed description of the community mitigation measures that Palmetto Railways (PR) intends to implement as a part of the Camp Hall Rail Project (Proposed Project). PR recognizes the impacts of the Proposed Project and is committed to implementing the measures described below in the Cross, South Carolina, community to mitigate for the impacts of the proposed project. Please note these commitments are also described in the Avoidance and Minimization Plan that accompanied the Section 404/401 application submitted to the US Army Corps of Engineers on March 23, 2018. The community mitigation measures proposed by PR, which were developed in collaboration with community leaders from Cross, include:

Community Outreach

- PR will develop a Public, Agency, and Stakeholder Coordination Plan to ensure that outreach to diverse groups takes place throughout the Project to improve project awareness and education on the NEPA process. These types of coordination plans have been utilized for similar projects in the area in the past.
- PR is teaming with a local telecommunications company, Home Telecom, to provide financial assistance for a broadband infrastructure improvement program for the communities surrounding the project area. The extent and mechanism for implementing this assistance will be finally determined after input with local community leaders to ensure that the assistance meets the greatest need.
- PR will provide financial assistance for renovations and improvements to the existing Community Center and Spiers Landing recreational facility that are utilized by the Cross Community. Again, the extent and mechanism for implementing this assistance will be finally determined after input with local community leaders to ensure that the assistance meets the greatest need.
- PR will provide active warning systems with lights and gates at the 10 major roadway intersections, including advanced warning systems for three of the proposed grade crossings (Shortcut Rd, Old Highway 6 and Ranger Rd), which are all located within the Cross Community.
- PR will introduce and provide instructional programs from Operation Lifesaver, a nonprofit public safety education and awareness organization dedicated to reducing collisions, fatalities and injuries at highway-rail crossings and trespassing on or near railroad tracks (oli.org), to the

communities impacted by the Proposed Project. These will include in person, written, and online materials.

Noise and Vibration

PR will use continuously welded rail and steel ties to minimize noise associated with the operation of the rail line.

- Mitigation measures will be implemented for Pile Driving/Caissons/Drilled Shaft Foundations where applicable, and these conditions will be included in the construction contract.
 - a. The contractor will use drilled shaft foundations instead of piles, where feasible.
 - b. The contractor will use a vibratory hammer to the maximum extent practicable.
 - c. The contractor will use cushion blocks or other noise attenuation devices when using an impact hammer.
 - d. Pile driving activities shall be limited to no more than 12 hours per day (February - March, sturgeon; May - September, manatee).
 - e. The contractor will use a "soft start" for a pile driving activities (i.e. - driving does not occur at full power at first).

Air Quality

- PR will implement best management practices to minimize air emissions for the community and the environment of the region.
- The completed rail spur will comply with all applicable SCDHEC requirements.

Health and Safety

- The Proposed Project will utilize lights and gates at roadway crossings where an active warning system is warranted and appropriate.
- PR will implement early warning systems at Shortcut Road, Old Highway 6 and Ranger Road.
- PR will coordinate community workshops within the Cross community to educate residents about rail and rail crossing safety and to answer questions about the project.
- PR will coordinate with emergency services to address concerns with delays and will train local first responders on rail safety.
- PR will partner with the Berkeley County Emergency Services Division and the Cross Rural Fire District to upgrade equipment and/or facilities to improve services for the Cross Community.
- PR will provide Operation Lifesaver programs in the area.

PR is committed to being a good neighbor and being active in the community to ensure a positive and meaningful relationship and to promote safety, quality of life, and economic viability.

Should you have any questions or require any additional information, please contact me.

Sincerely,



T Ravenel
Director of Special Projects

AVOIDANCE, MINIMIZATION AND MITIGATION PLAN

**CAMP HALL RAIL PROJECT
BERKELEY COUNTY, SOUTH CAROLINA
SAC: 2016-01395**

PREPARED FOR:



**PALMETTO RAILWAYS
540 EAST BAY STREET
CHARLESTON, SOUTH CAROLINA**

JULY 27, 2017

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1. EXECUTIVE SUMMARY

Development within the Camp Hall Commerce Park has increased the demand for rail service to interconnect the commerce park with the existing rail network of CSX Transportation in Berkeley County, South Carolina, in a manner that is logistically feasible to better serve the needs of industry within the Camp Hall Commerce Park for transportation, distribution, and logistics. To accomplish this, Palmetto Railways has determined a need to construct a rail spur from the CSXT A-line (via the CSXT Cross Subdivision) with the intent to enhance distribution for the industrial development and the tenants that locate at Camp Hall Commerce Park.

Palmetto Railways is requesting regulatory approval to locate, build, own, and operate an industrial rail line between Santee Cooper's Cross Generating Station and the Camp Hall Commerce Park in Berkeley County, South Carolina. The proposed rail line will service the new Volvo Cars North America's ("Volvo Cars") manufacturing facility, as well as future proposed development within the Camp Hall Commerce Park.

A detailed Alternatives Analysis was conducted to evaluate potential routes from existing Class 1 rail lines into the Camp Hall Commerce Park. The alternatives analysis reviewed potential impact environmental, economic, and socioeconomic resources, as well as cultural resources. Six alternative route alignments were considered under Level 1 of the alternatives analysis, with four alignments being advanced to Level 2 of the alternatives analysis. It was determined that the Cross option, beginning near Santee Cooper's Cross Generating Station and terminating at the Camp Hall Commerce Park, was the preferred alternative. Four separate Cross Route alignments were analyzed in Level 3 of the alternatives analysis, and Cross Route 3 (Proposed Project) is proposed as the most practical route with the least amount of overall impacts, as judged by the potential impacts to environment, economic, and socioeconomic resources.

The Proposed Project corridor is approximately 22.7 miles long by 200 feet wide [0.85 square mile (544 acres)] which will connect to the CSXT rail network near the Santee Cooper Cross Generating Station and travel south and west to the Camp Hall Commerce Park. The construction of the rail line will impact approximately 95 acres of jurisdictional wetlands, 169 feet of jurisdictional streams, and 0.06 acres of non-wetland waters. These estimates are preliminary and will likely be adjusted as the project design is finalized and additional avoidance and minimization measures are investigated.

Due to the absence of suitable existing wetland mitigation bank or an in-lieu fee program for the watershed, all required compensatory mitigation for impacts to wetlands and waters of the United States will be obtained through off-site, landscape scale, permittee-responsible mitigation activities utilizing the watershed approach.

2. PURPOSE AND NEED

The purpose of the Proposed Project is to locate, build, own and operate an industrial rail line that will connect to the existing Class 1 rail line with the Camp Hall Commerce Park. The need for the Proposed Project derives from the development within the Camp Hall Commerce Park which has increased the demand for rail service to interconnect the commerce park with an existing Class 1 rail network in Berkeley County, South Carolina, in a manner that is logistically feasible to better serve the need of the future tenants and industry within the Camp Hall Commerce Park for transportation, distribution, and logistics.

3. BACKGROUND

The Proposed Project involves the construction and operation of an industrial rail line which will connect the Camp Hall Commerce Park to existing railroad right-of-way, near the Santee Cooper Cross Generating Station in Berkeley County, South Carolina (Figure 1).

The Camp Hall Commerce Park comprises approximately 6,781 acres, of which 2,880 acres have been permitted by Berkeley County for development of Volvo Cars first North American factory (Project Soter – SAC-2015-0476-SIR). An additional 1,387 acres of the Camp Hall Commerce Park is being permitted for industrial development by Santee Cooper (SAC-2015-01764). The Proposed Project is intended to bring industrial rail service to these developments. Industrial rail service is an additional transportation mode that enhances options for distribution and logistics for the industrial development and the customers that locate at the Camp Hall Commerce Park. In addition, the proposed industrial rail service will support the State of South Carolina and Berkeley County's infrastructure needs and will help alleviate highway congestion involving large commercial trucks.

The Proposed Project corridor is approximately 22.7 miles long by 200 feet wide (0.85 square mile) that will connect to the CSXT rail network near the Santee Cooper Cross Generating Station and travel south and west to the Camp Hall Commerce Park (Figure 1).

The Proposed Project corridor is located in the Middle Atlantic Coastal Plain region of South Carolina, which is generally a flat region underlain by unconsolidated sedimentary deposits. Rivers meander through broad floodplains characterized by cut-off lakes and swamp vegetation. Elevation differences in the Middle Atlantic Coastal Plain range from 300 feet at the border of the Sandhills to sea level at the border of the coast. Soils in the Middle Atlantic Coastal Plain consist of a mixture of sand, clay and organic materials. Additionally, the Proposed Project area is located at the convergence of two distinct river basins: (1) the project area is located predominantly in the upper reaches of the Cypress Swamp Watershed of the

Figure 1. Project Corridor



Cooper River Basin and (2) a small portion of the project is on the lower boundary of the Lower Four Hole Swamp Watershed of the Edisto River Basin.

Land use within the project corridor is a mix of residential, commercial, silvicultural, and wetlands. The study area originates on Santee Cooper property adjacent to its Cross Generating Station, and crosses the Diversion Canal between Lake Marion and Lake Moultrie. South of the Diversion Canal. The project corridor includes the unincorporated rural community of Cross, with an estimated total population of 7,253 in 2015. Outside of the Cross community, the corridor runs south through intensively managed pine plantation in short pulp rotations, and then into the Camp Hall Commerce Park.

4. DESCRIPTION OF MITIGATION ACTIVITIES

4.1 Community Mitigation

4.1.1 Community Outreach

A Public, Agency, and Stakeholder Coordination Plan was developed to ensure that outreach to diverse groups takes place throughout the Project. This outreach will be to improve project awareness and education on the NEPA process. The primary goal of this plan is to foster open communication between a diverse public, agencies, stakeholders, and the Project Team to gain productive input leading to better decisions that meet the community's needs.

1. Encourage elected officials, area businesses and civic and community organizations to represent the interests of their constituents and to promote direct participation by their constituents throughout the process. These community leaders can help to reach, or at least to represent, the interest of hard-to-reach groups including youth, the elderly, minorities and low-income residents.
2. Continual public education of the NEPA process through communication tools.
3. Ongoing updates through direct mailings to those in the study area.
4. Use notices / flyers within communities at appropriate locations (community centers, grocery stores, public transportation centers).
5. Provide a variety of options for receiving input from the general public and other stakeholders.
6. Provide opportunities for following up on inquiries, requests and community concerns.

4.1.2 Community Programs and Activities

4.1.2.1 Broadband access

Through strategic teaming with local telecommunications company, PR is exploring opportunities to provide financial assistance for a broadband infrastructure improvement program for the communities surrounding the project area. Many of the census block in the Cross community are designated as un-served or under-served by the FCC for broadband access. This grant will be utilized to upgrade the broadband infrastructure in parts of the Greater Cross Community and provide service at a more affordable cost. This program will target those households that participate in any one of the many federal assistance programs such as Free or Reduced Lunch program offered through Berkeley County Schools of which 93% of the students in Cross area schools participate.

4.1.2.2 Community facilities

Through a partnership with the local representatives of the Berkeley County Council and Berkeley County School Board, PR is working to provide assistance with the improvement and upgrade of existing community and recreational facilities that are utilized by the Cross community.

4.2 Traffic and Transportation

"FRA's Office of Railroad Safety promotes and regulates safety throughout the Nation's railroad industry. The office executes its regulatory and inspection responsibilities through a diverse staff of railroad safety experts".¹

At grade rail crossings are intersections where the rail line would cross an existing roadway at-grade. Depending on the type of roadway facility, the warning/control devices would need to be determined. These devices are similar to stop signs and/or traffic signals for a roadway intersection. At grade crossings include both private and public roadways. Additionally, public crossings could be both paved and unpaved roadways under the jurisdiction of a state, county, or local authority. Private roads are facilities that are not owned or maintained by a public authority and are not intended for public use. For public crossing that are determined as active crossings, active warning measures are required and would include gates that have flashing lights and bells. Passive crossings only have passive warning systems that include signs that are shaped as an "X" (referred to as a crossbuck), yield and stop signs, and if applicable pavement markings. The Manual of Uniform Traffic Control Devices (MUTCD) specifies all warning and control devices. The table below shows the various crossings, roadway types, and the preliminary warning device type proposed. This is still preliminary, and final crossing types would not be decided until the final design is progressed. PR has been made aware of specific

¹ Federal Railroad Administration (FRA). "Railroad Safety." <https://www.fra.dot.gov/Page/P0010> (accessed June 21, 2017)

safety concerns with three of the proposed at-grade crossings (Shortcut Rd., Old Highway 6, and Ranger Road) through its community outreach and plans to implement early warning systems in those locations.

Crossing	Station	Roadway Type	Preliminary Crossing Device Type
State Road S-8-717 (Old Highway 6)	403+00	Paved Roadway	Active
Ranger Drive-Berkeley S-132 E	348+00	Paved Roadway	Active
SR 311	732+50	Paved Roadway	Active
Short Cut Road - Berkeley S-60 E	500+00	Paved Roadway	Active
State Road S-8-135 (Mudville Rd)	741+50	Paved Roadway	Active
US Highway 176	1117+50	Paved Roadway	Active
State Road S-8-708 (Viper Road)	184+25	Paved Roadway	Active
Fish Rd	1290+00	Paved Roadway	Active
Volvo Car Dr	123+00	Paved Roadway	Active
Fish Rd	147+75	Paved Roadway	Active
Calamus Pond Rd	907+00	Unpaved Roadway	Passive
George Wigfall Rd	655+00	Unpaved Roadway	Passive
George Wigfall Rd	678+50	Unpaved Roadway	Passive
Royalgates Ct	409+00	Unpaved Roadway	Passive
Santee Cooper Internal	236+00	Unpaved Roadway	Passive
Westvaco	752+50	Unpaved Roadway	Passive
Westvaco	816+75	Unpaved Roadway	Passive
George Wigfall Rd	655+00	Unpaved Roadway	Passive
37 - Access Roads	Various	Unpaved Roadway	Passive

During further project development, public awareness and rail safety awareness programs will be implemented. Public awareness programs could include open-house meetings with local officials to identify targeted audiences within the area, and workshops within schools, churches, and community associations. This type of outreach would provide information and materials on railroad safety. PR also intends to provide rail safety training to all emergency response personnel.

It is anticipated that Palmetto Railways will initiate the use of Operation Lifesaver. This is a nationwide, nonprofit information safety program dedicated to educating the public on how to reduce crashes, injuries and fatalities at at-grade rail crossings and on railroad rights-of-way. This public service creates awareness of the hazards that may occur on railroad property and at at-grade crossings in particular. Operation Lifesaver has developed an outreach education program specifically for children. Palmetto Railways will sponsor this in-school education program beginning in advance of start-up operations.

In addition, Palmetto Railways would provide a 24-hour emergency contact which first responders can call in the event of an emergency.

4.3 Hazardous Materials

To ensure the safest handling of hazardous materials, there are mandated requirements for rail, roadway, and intermodal facilities. The transportation of hazardous materials is regulated by the U.S. Department of Transportation (USDOT), the U.S. Department of Homeland Security, the U.S. Transportation Security Administration, and the Federal Railroad Administration (FRA), among others². Class I railroads have adopted special operating practices for hazardous materials transport that often exceed regulatory requirements to help ensure these materials are shipped safely and securely. If there is a need to transport hazardous materials to and from the Camp Hall Industrial Park, hazardous materials containers on the Camp Hall Commerce Park Rail Spur will be handled according to industry standard.

4.4 Noise and Vibration

1. Palmetto Railways will use continuously welded rail and steel ties to minimize noise associated with operation of the rail line.
2. Palmetto Railways will explore the feasibility of establishing Quiet Zones at the crossings of Ranger Road, Mudville Road, Shortcut Road, SC 311 and Old Highway 6.
3. Palmetto Railways plans to implement early warning systems at Shortcut Road, Old Highway 6 and Ranger Road.
4. Track and wheel maintenance is considered a viable mitigation option for groundborne vibration of freight trains; this can include regularly scheduled rail grinding, wheel truing programs, vehicle reconditioning programs, and use of wheel- flat detectors where feasible. Rail car and locomotive maintenance will be performed on-site to ensure that all equipment is operating properly and efficiently to reduce brake and wheel noise.
5. Mitigation measures will be implemented for Pile Driving/Caissons/Drilled Shaft Foundations.
 - a. The contractor shall use a vibratory hammer to the maximum extent practicable.
 - b. The contractor shall use cushion blocks or other noise attenuation devices when using an impact hammer.
 - c. Pile driving activities shall be limited to no more than 12 hours per day (February - March, sturgeon; May - September, manatee).
 - d. Contractor shall use a "soft start" for a pile driving activities (i.e. - driving does not occur at full power at first).

² <https://www.csx.com/index.cfm/about-us/safety/hazardous-materials1/>

4.5 Air Quality

Palmetto Railways will implement options to minimize air emissions for the community and the environment of the region. The Camp Hall Commerce Park Rail Spur will comply with all applicable SCDHEC requirements.

Proposed mitigation measures include:

1. To reduce the emission of pollutants, appropriate construction best management practices (BMPs) will be observed and engines would be properly maintained.
2. A dust mitigation program to ensure emissions and fugitive dust are kept at a minimum may be implemented during development of the line.
3. It is expected that Palmetto Railways and their contractors will maintain their vehicles/equipment so that carbon monoxide, ozone-producing chemicals and other emissions are kept to a minimum.
4. Comply with Air Quality State Construction and Operating permit requirements, conditions, and reporting.
5. Operate and maintain air pollution control equipment in accordance with permit requirements.

4.6 Health and Safety

1. Appropriate lights and gates will be established at roadway crossings as discussed in the Traffic and Transportation section of this mitigation plan.
2. Palmetto Railways plans to implement early warning systems at Shortcut Road, Old Highway 6 and Ranger Road
3. Community workshops will be held within the Cross community to educate residents about rail and rail crossing safety and to answer questions about the project.
4. Palmetto Railways will coordinate with emergency services to address concerns with delays and will train local first responders on rail safety. PR intends to partner with the Berkeley County Emergency Services Division and the Cross Rural Fire District to upgrade equipment and/or facilities to improve services for the Cross Community.
5. Palmetto Railways will be active in Operation Lifesaver (OL). The mission of OL is to end collisions, death, and injuries at highway-rail grade crossings and on railroad property through a nationwide network of volunteers who work to educate people about rail safety. Palmetto Railways will consider sponsoring this in-school education program beginning in advance of start-up operations. Some of the topics covered in this education effort includes rail crossing safety, trespass prevention, and passenger rail/transit safety; school bus driver training will be offered in all area schools.

4.7 Natural Environment Mitigation

Palmetto Railways has made every effort to account for the impacts to the natural environment, including geology and soils, wetlands, water resources and floodplains, biotic communities, and protected species.

4.7.1 Geology and Soils

Proposed minimization and mitigation measures regarding geology and soils include:

1. Implement a Storm Water Pollution and Prevention Plans (SWPPP) as required by the National Pollutant Discharge Elimination System (NPDES) permit, including management of sediment and erosion control.
2. Implement a Spill Prevention Control and Countermeasures (SPCC) Plan for petroleum products.
3. Use BMPs and/or methods of managing sediment and erosion control during construction pursuant to the South Carolina Stormwater Management Handbook (SCDHEC August 2005).
4. Following construction, implement soil stabilization and vegetation management measures.

4.7.2 Wetlands

Proposed minimization and mitigation measures regarding wetlands include:

1. Design the Camp Hall Commerce Park Rail Spur to minimize impacts to Waters of the U.S.
2. Where possible, limit the placement of pilings for bridges within waterways.
3. Compensatory mitigation will be required to offset the permanent impacts. The permanent impacts for this project fall into three categories: fill, dredge, and flood/impound. "Fill" refers to depositing material used for the primary purpose of replacing an aquatic area with dry land. "Dredge" means to dig or excavate.
4. Design culverts and bridges to maintain existing flow/exchange and hydrology for wetland areas and marshes.
5. Submit application for Section 404 Permit as promulgated by Clean Water Act and comply with any requirements as determined by the Corps. Delineated wetlands (95.23 acres), streams (169-feet), and linear conveyances (693-feet) will be considered as part of the permit process.

It is anticipated that all required compensatory mitigation for impacts to wetlands and waters of the United States will be provided by a combination of Permittee Responsible Mitigation (PRM)

and mitigation bank credits. For impacts within the Four Hole Swamp watershed, PR proposed to purchase wetland credits from the Francis Beidler Forest Mitigation Bank. For impacts within the Cooper River watershed, PRM is proposed at the Fairlawn C1 Parcel site, a 1,550-acre site within Francis Marion National Forest that will consist of both enhancement and preservation of wetlands and streams. Mitigation activities include enhancement of 550 acres of wetlands, the preservation of 43 acres of wetlands and the preservation of approximately 14,000 linear feet of streams. The property will be transferred to United States Forest Service (USFS), which will permanently protect the site and make open to the public 1,000 acres of land, including 539 acres of wetlands.

4.7.3 Water Resources and Floodplains

Proposed minimization and mitigation measures regarding water resources and floodplains include:

1. To mitigate potential water quality impacts from the proposed rail line, a variety of post-construction stormwater BMPs will be used to convey, filter, and dissipate runoff from the new rail line, including but not limited to: vegetated swales, vegetated filter strips, stream bank stabilization, and channelized flow dissipation.
2. Implement a SWPPP as required by the industrial storm water NPDES permit.
3. Erosion prevention BMPs that may be implemented include dust control, mulching, blown straw, hydro-mulching/seeding, erosion control blankets, turf reinforcement mats, and outlet protection (i.e. rip-rap).
4. Runoff control and conveyance BMPs that may be implemented include diversion ditches/dikes, pipe slope drains, drainage swales, and level spreader.
5. Sediment control BMPs that may be implemented include sediment basins, sediment traps, silt fences, ditch checks, stabilized construction entrances, storm drain inlet protection, and sediment tubes.
6. All construction BMPs will be designed, implemented, and maintained per the guidance in the SCDHEC Storm Water Management BMP Handbook (August 2005).
7. Obtain a NPDES Phase II Construction General Permit (CGP) to address water quality and quantity.
8. "Flood/Impound," means to collect or confine the flow of a riverine system by means of a dike, embankment, or other man-made barrier. Appropriate rail design measures will be implemented to ensure minimal impact to floodplains. This will likely include placement of appropriately sized bridges or culverts under the road crossings to allow water and aquatic organisms to pass relatively unhindered.

9. Design culverts and/or bridges to maintain existing surface water drainage patterns and to prevent erosion.
10. Design culverts and/or bridges to allow aquatic organisms to pass relatively unhindered.
11. Adhere to Berkeley County's stormwater regulations associated with the specific implementation of various stormwater management facilities (i.e. ditches, culverts, secondary collection systems, etc.).
12. Culverts and bridges will be designed to maintain existing flow and hydrology for wetland areas and to prevent flooding upstream. Road culverts will be designed to the 25-year storm event.
13. Major drainage systems (i.e. large ditches and canals draining more than 200 acres) will be designed to carry the 50-year storm event within its banks.

4.7.4 Protected Species

Proposed minimization and mitigation measures regarding protected species include:

1. A Spill Prevention, Control, and Countermeasures Plan (SPCC) will be implemented during construction and operations to minimize the impact of a potential spill on protected species.
2. Structures over water and/or other benthic resources will be aligned so as to minimize the over-water footprint as much as possible.
3. The bald eagle is protected by the Bald and Golden Eagle Protection Act (BGEPA) even though it has been delisted under the Endangered Species Act. This law, originally passed in 1940, provides for the protection of the bald eagle and the golden eagle (as amended in 1962) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit Bald Eagle sitting in tree (16 U.S.C. 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (16 U.S.C. 668c; 50 CFR 22.3). Bald eagles will be protected by adherence to the BGEPA.
4. Over 1,000 migratory birds, including the bald eagle, are protected under the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, it is illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The Camp Hall project will comply with the MBTA by following all laws and regulations pertaining to the removal/take of nests in the project area.
5. It is anticipated that the proposed action "may effect, but is not likely to adversely affect four protected species". These species include American chaffseed, Canby's dropwort,

shortnose sturgeon, and wood stork. The following BMPs will be employed to help to ensure the protection of these species and any other protected species.

6. General BMPs: The following BMPs will be implemented during construction by the contractor responsible for the execution of the work. These will be required in addition to conditions set forth in regulatory permit(s).
 - a. Prior to construction, the Contractor shall be required to submit a Work Plan describing their proposed construction approach, methodology, and equipment to be used. This plan will be reviewed by the Owner and/or their representative(s) to ensure compliance with applicable regulatory conditions and BMPs. The contractor shall also be required to attend and document his/her attendance at the Pre-Construction Conference meeting.
 - b. Once construction is initiated, the Contractor shall be required to complete the project in an expeditious manner in order to minimize the period of disturbance to environmental resources.
 - c. Land disturbing activities shall not encroach into any wetland areas outside of the permitted impact area.
 - d. The Contractor will be required to implement BMPs that will minimize erosion and migration of sediments on and off the upland project site, including reclaimed lands, during and after construction. The contractor will also be required to conduct inspections at a minimum of at least once every calendar week or within 24 hours of the end of a storm event of 0.5 inches or greater, until final stabilization is reached on all areas of the construction site.
 - e. The contractor will be required to ensure that oil, tar, trash, debris, and other pollutants do not enter the adjacent waters or wetlands during construction.
 - f. All construction personnel will be instructed on the potential presence of protected species in the construction area as described in the Protected Species Assessment and the need to prevent entrapment, harm, or other impacts to these animals.
 - g. All construction personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing protected species.
 - h. All in-water construction activities will be completed during daylight hours.
7. Pile Driving/Caissons/Drilled Shaft Foundations:
 - a. The contractor shall be required to implement measures to control and/or contain suspended sediments resulting from construction activities.

- b. Siltation barriers, if required, shall be made of material in which a Protected Species cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid entrapment of protected species.
 - c. The contractor shall use a vibratory hammer to the maximum extent practicable.
 - d. The contractor shall use cushion blocks or other noise attenuation devices when using an impact hammer.
 - e. Pile driving activities shall be limited to no more than 12 hours per day (February - March, sturgeon; May - September, manatee).
 - f. Contractor shall use a "soft start" for a pile driving activities (i.e. - driving does not occur at full power at first).
8. Vessel Operations:
- a. Shallow draft vessels that maximize the navigational clearance between the vessel and the river bottom (e.g. "jon boats", flat-bottomed barges, etc.) should be used where possible.
 - b. All vessels associated with the construction project shall operate at "no wake/idle" speeds whenever possible while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom.
 - c. If a protected species is seen within 300 feet of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a protected species. Operation of any mechanical construction equipment shall cease immediately if a Protected Species is seen within a 50-ft. radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition. Contact the USFWS immediately at (843) 727-4707.
 - d. Any collision with and/or injury to a West Indian manatee shall be reported immediately to the USFWS, Charleston Field Office, (843) 727-4707.

4.8 Historic Properties/Cultural Resources Mitigation

4.8.1 Cultural Resources

Proposed mitigation measures regarding cultural resources include:

- 1. The proposed rail project has the potential to cause an adverse effect to the Diversion Canal. Consultation with State Historic Preservation Officer (SHPO) and other parties

will be undertaken to identify ways to minimize and mitigate these possible adverse effects.

2. The Garrett Cemetery was identified during this investigation. The western edge of the survey corridor is approximately 75 feet outside of the cemetery boundaries; however, proposed impacts associated with the rail line itself will only occur within a zone approximately 175 feet from the cemetery boundary. A 50-foot buffer will be established around the resource. Avoidance of the cemetery and this buffer will be complied with. The proposed undertaking, as planned, will not impact the cemetery or its buffer
3. The Bulltown Ditch was identified north and east of the Santee Cooper power plant and was determined to be eligible for NRHP listing under A and C. The current alignment of this rail project will cross this resource at its northern end adjacent to the existing CSX Cross subdivision rail line. This section of the Bulltown Ditch has already been impacted by the construction of the existing CSX Cross subdivision and a transmission easement, both of which allow the ditch to pass beneath them through a culvert system. Steps will be taken to minimize this potential damage during construction and measures will be put in place to stabilize the bank of the Bulltown Ditch near where the rail line would cross the ditch.
4. In addition to the proposed Bulltown Ditch crossing, a portion of the rail line near the existing Santee-Cooper Power Plant runs parallel to the ditch approximately 150 feet away; this distance is sufficient to avoid impacts during construction.
5. Measures will be put in place to ensure impacts do not occur outside of the proposed APE in the vicinity of the Diversion Canal, Bulltown Ditch, and Garrett Cemetery. These are general recommendations for ways to minimize the potential to adversely affect the three significant historic resources; specific measures to minimize adverse effects will be developed in consultation with the South Carolina SHPO.
6. Coordination with SHPO is ongoing. If additional minimization and mitigation measures are incorporated into the project, this plan will be updates.