

**RECORD OF DECISION**  
**CESAC-RD-SAC-2008-1333**  
**INTERSTATE 73**

I have reviewed and evaluated, in light of the overall public interest, the documents and factors concerning the Department of the Army (DA) permit application for the proposed action, as well as the stated views of interested agencies and the public. In doing so, I have considered the possible consequences of the proposed action in accordance with regulations published in Title 33 Code of Federal Regulations (C.F.R.) Parts 320 through 332, and Title 40 C.F.R. Part 230 and Parts 1500 through 1508.

**Findings and Decision**

**Introduction:**

As part of its review of the South Carolina Department of Transportation's (SCDOT) initial (and revised) DA permit application for the entire I-73 project in South Carolina, the U.S. Army Corps of Engineers, Charleston District (Corps or Charleston District) has been a cooperating agency with the Federal Highway Administration (FHWA) for purposes of complying with the National Environmental Policy Act (NEPA).

The Corps has finished its evaluation of SCDOT's revised DA permit application, dated June 22, 2016, to determine whether SCDOT should be allowed to place fill material in waters of the U.S. for the construction of a new interstate facility in South Carolina, as identified in plan sheets 1-178 of 178 entitled "PIN 36358\_RD01 PROPOSED INTERSTATE 73 MARLBORO, DILLON, MARION, AND HORRY COUNTIES, S.C. APPLICATION BY SCDOT FEDERAL FUNDS TO BE USED", and dated 06/06/2016.

Council of Environmental Quality (CEQ) regulations implementing NEPA at 40 C.F.R. § 1506.3 establish that the Corps, as a cooperating agency, may adopt, without re-circulating, the NEPA document (e.g., Environmental Impact Statement) of a lead agency when, after an independent review, the cooperating agency concludes that its comments and suggestions have been satisfied (see also Corps' NEPA regulations at 33 C.F.R. § 230.21, and CEQ "Guidance Regarding NEPA Regulations," 48 Fed. Reg. 34263, at 34265-66 (dated July 28, 1983)). Therefore, in accordance with 33 C.F.R. Part 325, Appendix B, Par. 8.c. and Par. 20, this Record of Decision (ROD) evidences the Corps' decision to adopt in full the following documents:

(1) FHWA *Interstate 73 Final Environmental Impact Statement & Section 4(f) Evaluation From I-95 to Future Interstate 74 in North Carolina* (8/2008) [FEIS for I-73 North];

(2) FHWA *Interstate 73 Final Environmental Impact Statement & Section 4(f) Evaluation From I-95 to the Myrtle Beach Region* (11/2007) [FEIS for I-73 South];

(3) FHWA *Interstate 73 South Dillon, Horry, and Marion Counties, South Carolina Final Environmental Impact Statement Re-Evaluation (5/2010)* [2010 Re-Evaluation for I-73 South];

(4) FHWA *I-73 North Re-Evaluation Dillon and Marlboro Counties, South Carolina and Richmond and Scotland Counties, North Carolina (5/2017)* [2017 Re-evaluation for I-73 North]; and

(5) FHWA *I-73 South Re-Evaluation Horry, Marion, and Dillon Counties, South Carolina (5/2017)* [2017 Re-evaluation for I-73 South];

Furthermore, consistent with CEQ regulations implementing NEPA, as well as Corps regulations at 33 C.F.R. Part 325, Appendix B, Par. 18<sup>1</sup>, it is appropriate for the Corps, as a cooperating agency, to rely upon and integrate FHWA's Final Environmental Impact Statement (FEIS) for each segment of I-73 in South Carolina to make a decision on a DA permit application for the entire I-73 corridor in South Carolina. See 40 C.F.R. § 1506.3 (adoption), 40 C.F.R. § 1500.5(h) (reducing delay through adoption), 40 C.F.R. § 1500.5(i) (reducing delay through combining documents), 40 C.F.R. § 1506.4 (combining documents), 40 C.F.R. § 1500.4(o) (reducing paperwork by combining environmental documents with other documents); see also 23 U.S.C. 101(e). Specific portions of each NEPA document listed above are quoted and/or discussed, as necessary, throughout the remainder of this ROD.

In addition, on June 5, 2017, the Corps finalized an Environmental Assessment (EA), entitled *Memorandum For Record: Department of the Army Environmental Assessment, CESAC-RD, SAC 2008-1333, Environmental Assessment for SCDOT I-73 (6/2017)* (2017 Corps EA for I-73) to assist the Corps in the determination that a supplemental EIS was not required for the Corps' regulatory review of SCDOT's revised DA permit application for the I-73 project in South Carolina. The 2017 Corps EA for I-73 is incorporated by reference in its entirety. See 40 C.F.R. § 1500.4(j) (reducing paperwork by incorporating by reference), 40 C.F.R. § 1502.21 (incorporation by reference), 40 C.F.R. § 1500.5(i) (reducing delay through combining documents), and 40 C.F.R. § 1506.4 (combining documents).

In accordance with 40 C.F.R. § 1505.2(a), 33 C.F.R. § 325.2(a)(6), and 33 C.F.R. Part 325, Appendix B, Par. 18, this ROD documents the decision by the Corps to issue a Department of the Army (DA) permit (Application No. SAC-2008-1333) to the South Carolina Department of Transportation (SCDOT) for work in waters of the U.S. associated with the construction of a new, limited access, approximately 75-miles long, four lane, interstate beginning at SC 22, northwest of Conway, South Carolina, extending through Horry, Marion, Dillon and Marlboro Counties and ending at the North Carolina/South Carolina State line, northeast of Bennettsville, South Carolina. This DA

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<sup>1</sup> 33 C.F.R. Part 325, Appendix B, Par. 18 ("To avoid duplication, the record of decision may reference the EIS.")

permit is issued pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

As discussed in the 2017 Corps EA for I-73, and due to the proposed interstate distance of approximately 80 miles, FHWA developed logical termini<sup>2</sup> that ultimately divided the I-73 project in South Carolina into the North and South sections, with I-73 North being located from I-73/I-74 in Rockingham, North Carolina to I-95 in Dillon County, and I-73 South being located between I-95 and the Conway, Myrtle Beach, and Georgetown area. All comments received in response to the Draft EIS (DEIS) were addressed in two FEIS documents and FHWA's subsequent Records of Decision in 2008 (FHWA RODs). Comments received in response to the Corps' public notice issued in 2016 were further evaluated and addressed in the 2017 Re-Evaluations by the FHWA and summarized by topic in the 2017 Corps EA for I-73. This ROD includes the Corps' conclusions regarding the comments received in response to the 2016 public notice advertising SCDOT's revised application for a DA permit.

Based on a review of the FEISs for I-73 North and I-73 South, FHWA's Re-evaluations in 2010 and 2017, the Corps' files on this matter, and the 404(b)(1) analysis performed by the Corps for this DA permit application, the Corps has determined that the proposed project should be permitted in South Carolina, with the inclusion of the special conditions contained in this ROD. In making this decision, the Corps analyzed reasonable alternatives in relation to factors, including engineering, economics, social criteria, and the natural environment. Furthermore, the Corps finds that issuance of a DA permit, subject to the special conditions discussed below (and included in this ROD), is not contrary to the public interest. The Corps also finds that the proposed project is the least environmentally damaging practicable alternative. These findings are documented herein, and were made prior to, and in support for, this decision to issue a DA permit pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act for the proposed project.

Because the geographic boundary of the Charleston District's regulatory jurisdiction ends at the North Carolina/South Carolina state line, only those jurisdictional impacts to waters of the U.S. identified within the State of South Carolina have been evaluated by the Charleston District for purposes of requirements specific to DA authorization under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. For the portion of I-73 North in North Carolina, it is the Charleston District's understanding that the North Carolina Department of Transportation (NCDOT) will coordinate with the U.S. Army Corps of Engineers, Wilmington District, to obtain necessary permits and provide mitigation for the North Carolina portion of the project.

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<sup>2</sup> According to FHWA website ([www.environment.fhwa.dot.gov](http://www.environment.fhwa.dot.gov)) on NEPA and project development for their environmental review toolkit, logical termini for project development are defined as (1) rational endpoints for a transportation improvement; and (2) rational endpoints for a review of the environmental impacts. In addition, FHWA states that "in the past the most common termini have been points of major traffic generation, especially intersecting roadways."

## **Roles of Responsible Parties**

The FEISs include information on a broad range of issues that may be regulated by other Federal, State, or local authorities.

### **Role of SCDOT**

SCDOT is a government agency in the State of South Carolina. Its mission is to build and maintain roads and bridges and administer mass transit services.

By state law<sup>3</sup>, the SCDOT's function and purpose is the systematic planning, construction, maintenance, and operation of the state highway system and the development of a statewide mass transit system that is consistent with the needs and desires of the public. The SCDOT also coordinates all state and federal programs relating to highways. The goal of the SCDOT is to provide adequate, safe, and efficient transportation services for the movement of people and goods. The SCDOT is the applicant for the proposed project.

### **Role of the FHWA**

FHWA is an agency within the U.S. Department of Transportation that supports state and local governments in the design, construction, and maintenance of the Nation's highway system (Federal Aid Highway Program) and various federally and tribal owned lands (Federal Lands Highway Program). Through financial and technical assistance to State and local governments, FHWA is responsible for ensuring that America's roads and highways continue to be among the safest and most technologically sound in the world. (US Department of Transportation Federal Highway Administration, 2017). To guide its assessment of the impacts, the FHWA used a standard of significance of impacts based on the CEQ guidance (40 C.F.R. § 1508.27).

### **Role of the Corps**

The Corps' role as a cooperating agency with the FHWA in preparation of the two FEIS documents was intended to review and/or provide the environmental information the Corps needed to meet its NEPA obligation, findings of compliance with the 404(b)(1) Guidelines, and complete the Public Interest Review for its permitting decision. This decision by the Corps reflects the national concern for both protection and use of important resources. The benefit that may reasonably be expected to accrue from the proposed project must be balanced against its reasonably foreseeable detriments.

As a cooperating agency, the Corps was part of the Agency Coordination Team (ACT) and was involved in aspects of the environmental review, including scoping, public meetings, public comment resolution and the EIS review and/or preparation.

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<sup>3</sup> South Carolina Code of Laws, Title 57 – Highways, Bridges and Ferries, Section 57-1-30.



Consultations were held with Federal, State, Tribal, and local agencies to identify any compliance, permit, or significant environmental issues of concern.

As described above, the Corps conducted an independent review and assessment and adopted the FEISs and their analysis and conclusions in satisfying its NEPA obligations and review criteria for SCDOT's revised DA permit application.

**1. Application**

**1.1 Applicant** South Carolina Department of Transportation (SCDOT or applicant)  
Post Office Box 191  
Columbia SC 29202-0191

**1.2 Waterway and Location**

This project consists of the construction of a new, four lane, limited access Interstate roadway approximately 75.3 miles, on new alignment, from SC-22 near Conway, South Carolina, to the existing I-74 corridor near Hamlet, North Carolina, crossing various waterbodies to include Newton Bay, Beverly Creek, Cottingham Creek, Hagins Prong, Little Reedy Creek, The Gulley, Maidendown Swamp, Little Sister Bay, Back Swamp, Little Pee Dee River, Black Creek, Hannah Bay, Lake Swamp, Rattlesnake Branch, Long Branch, Joiner Swamp, Loosing Swamp, Watery Bay, Mose Swamp, Chinnners Swamp, and Cross Branch (from Latitude 34.79250 N, Longitude -79.66042 W (NAD83) to Latitude 33.93806 N, Longitude -79.06833 W (NAD83)).

**1.3 Description of activity requiring a Department of Army permit**

Based upon information provided by SCDOT, this project will require the placement of fill material in waters of the U.S. within the State of South Carolina to allow for the construction of the new Interstate 73 roadway. Specifically, permanent placement of fill materials/structures in a total of 4,643 linear feet of stream and a total of 324.1 acres of other waters of the U.S., including jurisdictional wetlands. The impacts to jurisdictional wetlands include: 254.28 acres from fill, 48.67 acres from temporary clearing, 16.75 acres from permanent clearing, and 4.4 acres from excavation.

**1.4 Existing Conditions**

The existing conditions of the project study area can be found in Chapter 3, "Existing Conditions and Environmental Consequences of the Preferred Alternative" of the Final EISs for I-73 South and I-73 North with pertinent sections/areas updated in the 2010 Re-evaluation for I-73 South and the 2017 Re-evaluations for I-73 South and I-73 North. Specifically, FHWA's 2017 Re-evaluations examined changes to the following resource categories: environmental justice, traffic, socioeconomics/communities, relocations, historic resources, hazardous materials/waste sites, air quality, farmlands, water quality/water resources, waters of the U.S., floodplains, protected species, indirect/cumulative impacts, and noise.

Although the 2017 Re-evaluations indicate a change in impacts or circumstances for these categories, FHWA concluded in both Re-evaluations that “[a]lthough impacts to a number of previously described environmental resources increased, the changes were not found to be significant and did not change the validity of the [prior NEPA documentation].” 2017 Re-evaluation for I-73 North at page 59; 2017 Re-evaluation for I-73 South at page 67.

## 1.5 Proposed Work as Described in the 2016 Public Notice

The proposed work consists of the placement of fill to construct a new four lane, Interstate roadway, approximately 75.3 miles, on new alignment. This project will also include the construction of interchanges, over/underpasses, and improvements to existing roadways at the interchanges and over/underpasses. The project would utilize a standard limited access interstate design with frontage roads and entrance/exit ramps at interchanges, storm water facilities, grassed medians, shoulders, guide rails, and barrier fences. In detail, the I-73 project will include permanent placement of fill materials/structures in a total of 4,643 linear feet of stream and a total of 324.1 acres of other waters, including wetlands. The impacts to wetlands include: 254.28 acres from fill, 48.67 acres from temporary clearing, 16.75 acres from permanent clearing, and 4.4 acres from excavation. These project impacts will occur within 17 separate streams, 139 separate wetlands, and 5 separate ponds/impoundments.

## 1.6 Avoidance & Minimization

Throughout the NEPA process for I-73, FHWA and SCDOT, with input from the ACT, have identified numerous measures to avoid and minimize impacts to the human and natural environment. Avoidance and minimization measures incorporated into the design include the use of 2:1 fill slopes, where practicable, to reduce the impact footprint, the use of bridges rather than box culverts where feasible, and a commitment to using best management practices (BMPs) during construction to avoid non-permitted impacts to adjacent wetlands and streams. These are memorialized in SCDOT’s NEPA Environmental Commitments identified in the 2017 Re-evaluations, and also listed in Section 1.5 of the 2017 Corps EA for I-73.

## 1.7 Compensatory Mitigation Plan

The FEISs for both I-73 North and I-73 South did not identify specific compensatory mitigation, but rather discussed various options that SCDOT was considering at that time. Specifically, Chapter 3 of both documents contains sections pertaining to potential mitigation options for I-73. The FEISs include language stating that there is the potential for large areas of preservation, enhancement, and restoration areas available within the project study area. Both FEISs concluded by stating that once the type of mitigation is identified, a final mitigation plan would be submitted along with a DA permit application for unavoidable wetland and stream impacts. The FEIS for I-73 North also committed that NCDOT will coordinate with the U.S. Army Corps of Engineers, Wilmington District, to obtain necessary permits and provide mitigation for the North Carolina portion of the

project.

In the revised DA application submitted to the Corps in June of 2016, SCDOT identifies a conceptual mitigation proposal for compensating for the unavoidable impacts to waters of the U.S. within the State of South Carolina, referred to as the Gunter's Island Mitigation Plan. Specifically, the compensatory mitigation proposed by SCDOT for unavoidable impacts to waters of the United States includes a Permittee-Responsible plan utilizing the Gunter's Island mitigation site in Horry County. The mitigation is detailed in SCDOT's final mitigation plan entitled "I-73 Compensatory Mitigation Plan Dillon, Horry, Marion, and Marlboro Counties, SC SAC 2008-1333-DIS" (referred to herein as the Final Gunter's Island Mitigation Plan or Final Mitigation Plan), dated May 3, 2017. The Gunter's Island site is proposed to provide compensatory mitigation for the impacts to waters of the U.S. located in South Carolina resulting from the construction of both the North and South portions of I-73. In addition, it is noted that SCDOT's Final Mitigation Plan does not differentiate between impacts to non-jurisdictional wetlands and those impacts to waters of the U.S., as SCDOT proposed to address concerns from the Corps and SCDHEC, and therefore, compensate for all impacts to aquatic resources, both jurisdictional and non-jurisdictional. Section 1.7 of the 2017 Corps EA for I-73 provides additional details and discussion of the Final Mitigation Plan.

## 2.0 Purpose and Need

As described in the public notice, the applicant's stated purpose is to provide an interstate link between the I-73/I-74 Corridor in North Carolina to the Myrtle Beach region in South Carolina, to serve residents, businesses, and travelers while fulfilling congressional intent in an environmentally sensitive manner. The I-73 primary needs are to provide system linkage and to enhance economic development. The I-73 project will improve national and regional connectivity by providing a link between the I-73/I-74 National Corridor and the Myrtle Beach region. In addition, the project will help enhance economic development opportunities and tourism in northeastern South Carolina.

For additional detail regarding the purpose and need of the proposed project, see Section 2.0 of the 2017 Corps EA for I-73.

## 2.1 Basic Project Purpose

The basic project purpose is to provide a roadbase foundation for the construction of an interstate facility.

## 2.2 Water Dependency

The project  is/  is not water dependent.

### 2.3 Overall Project Purpose

The overall project purpose, as defined by the Corps, is to provide an interstate link between the I-73/I-74 Corridor in North Carolina to the Myrtle Beach region in South Carolina, to serve residents, businesses, and travelers while fulfilling congressional intent in an environmentally sensitive manner.

For additional detail regarding the overall project purpose of the proposed project, see Section 2.0 of the 2017 Corps EA for I-73.

### 2.4 Proposed Work that is the Subject of this Record of Decision:

The proposed work consists of construction of a new, limited access, approximately 75-miles long, four lane, interstate beginning at SC 22, northwest of Conway, South Carolina, extending through Horry, Marion, Dillon and Marlboro Counties, and ending at the North Carolina/ South Carolina State line, northeast of Bennettsville, South Carolina.

In detail, the I-73 project will include the placement of fill materials/structures in a total of 4,643 linear feet of stream and a total of 324.1 acres of other waters, including wetlands. The impacts to wetlands include: 254.28 acres from fill, 48.67 acres from temporary clearing, 16.75 acres from permanent clearing, and 4.4 acres from excavation activities.

### 2.5 Statutory Authorities Applicable to the Proposed Project

#### Corps Authorities

**Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403):** Section 10 of the Rivers and Harbors Act prohibits the unauthorized obstruction or alteration of any navigable waters of the U.S. and requires issuance of a permit from the DA for any structures placed in navigable waters of the U.S.

**Section 404 of the Clean Water Act (33 U.S.C. 1344):** Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits, after notice of, and opportunity for a public hearing, for the discharge of dredged or fill material into waters of the United States, which includes wetlands. The selection and use of disposal sites must be in accordance with the "Guidelines for Specification of Disposal Sites for Dredged or Filled Material" (referred to as the 404(b)(1) Guidelines) developed by the USEPA.

#### South Carolina Department of Health and Environmental Control (SCDHEC) authorities

**Section 401 of the Clean Water Act:** Section 404 of the CWA requires any person or entity proposing an action that may result in a discharge into waters of the United States obtain a 401 certification from the State in which the discharge originates. The



South Carolina Department of Health and Environmental Control (DHEC) Bureau of Water (BOW) is responsible for the 401 certification decision. The Certification in accordance with Section 401 of the Clean Water Act, as amended, with conditions was issued on April 26, 2017.

**Coastal Zone Management Act (16 U.S.C. 1451 et seq.):** The Coastal Zone Management Act requires all Federal projects or activities authorized by Federal permit to comply, to the greatest extent practicable, with the state's Coastal Zone Management Program (CZMP). The South Carolina DHEC, Office of Ocean and Coastal Resource Management (OCRM) reviews all activities requiring permits by Federal agencies to determine if the projects are consistent with the Coastal Zone Management Program. In order to receive certification approval, an activity must be determined to be consistent with relevant policies contained in the S.C. CZMP. These policies are aimed at protecting freshwater wetland areas as well as the quality of surface waters. OCRM issued a concurrence in accordance with the CZMP on April 26, 2017.

#### **Other Authorities**

**Clean Air Act (42 U.S.C 7401-7671q):** The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed *de minimis* levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be predictably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

**Endangered Species Act (16 U.S.C. 1531-1544):** The Endangered Species Act (ESA) provides for the designation and protection of invertebrates, wildlife, fish and plant species that are endangered or becoming extinct and conserves the ecosystem on which such species depend. The ESA makes it illegal to kill, collect, remove, harass, import, or export a protected species without a permit from the Secretary of the Department of the Interior. Regulatory and administrative actions are the responsibility of the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). All Federal agencies must follow regulations as outlined under Section 7 of the ESA, which defines the process through which Federal actions that may affect protected species are approved, disapproved, and appealed. The USFWS and the NMFS were consulted during the preparation of the FEISs, as well as during the review of the revised DA permit application, dated June 22, 2016, regarding the potential impact of the proposed project on Federally listed species protected by the ESA.

**Fish and Wildlife Coordination Act (16 U.S.C. 661-666c):** Federal agencies are required to consult with the USFWS and the NMFS, if applicable, and the appropriate State agency, regarding the conservation of wildlife resources by prevention of their direct or indirect loss and damage due to the activity proposed in a permit application.

USFWS and NMFS were consulted during the preparation of the FEISs, as well as during the review of the revised DA permit application, dated June 22, 2016, regarding the potential impact of the proposed project on wildlife resources.

***Fishery Management Conservation Act (16 U.S.C. 1801 et seq.):*** Congress enacted amendments to the Magnuson-Stevens Fishery Conservation Management Act in 1996 that established procedures for identifying Essential Fish Habitat (EFH) and required interagency coordination to further the conservation of federally-managed fisheries. Rules published by the NMFS specify that any Federal agency that authorizes, funds or undertakes, or proposes to authorize, fund or undertake, an activity that could adversely affect EFH is subject to the consultation provisions of the above-mentioned Act. The USFWS and the NMFS were consulted during the preparation of the FEISs, as well as during the review of the revised DA permit application, dated June 22, 2016, regarding the potential impact of the proposed project on EFH.

***Migratory Bird Treaty Act (16 U.S.C. 703-712):*** The Migratory Bird Treaty Act provides protection to migratory birds such as waterfowl, shorebirds, passerines, hawks, owls, vultures, and falcons. The Act makes it unlawful to pursue, hunt, take, capture, or kill, any migratory bird, part, nest, or egg, except as permitted by regulation.

***Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c):*** The Bald and Golden Eagle Protection Act makes it unlawful to take, possess, sell, purchase, barter, offer to sell, transport, export or import, any bald or golden eagle, part, nest, or egg without a permit issued by the Secretary of the Interior.

***National Environmental Policy Act (42 U.S.C. 4321 et seq.):*** The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. It establishes policy, sets goals, and provides means for carrying out the policy. NEPA contains "action-forcing" provisions to make sure that federal agencies act according to the letter and spirit of the Act. Their purpose is to tell federal agencies what they must do to comply with the procedures and achieve the goals of the Act. NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. NEPA requires that the responsible federal agency perform an assessment of all reasonable alternatives to a proposed action that would avoid or minimize adverse effects upon the quality of the human environment. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.

Two FEISs and three Re-evaluations (one in 2010 and two in 2017) were prepared by FHWA, acting as the lead federal agency for this project, and one EA was prepared by the Corps in 2017 pursuant to the Council on Environmental Quality (NEPA) Regulations (40 C.F.R. Parts 1500-1508), as well as the Corps Procedures for Implementing NEPA (33 C.F.R. Parts 230 and 325 Appendix B). This ROD documents the approval of DA Permit Application SAC 2008-01333, and the associated mitigation plan, including provisions for monitoring and compliance.

**National Historic Preservation Act (16 U.S.C. 407(f)):** The National Historic Preservation Act (NHPA) requires the Federal agency responsible for the action to consider the effect on historic properties. Requirements of Section 106 of the Act apply to any Federal undertaking, funding, license or permit. In South Carolina, the S.C. Department of Archives and History (SCDAH) is consulted when projects are subject to review under Section 106 of the NHPA. The review process typically requires a broad range of activities, including Federal and State agency coordination, public involvement, identification of historic properties in the project area, formal assessment of National Register eligibility, and development of mitigation strategies, if applicable.

### **3.0 Scope of review for National Environmental Policy Act, Section 7 of the Endangered Species Act, and Section 106 of the National Historic Preservation Act**

#### **3.1 NEPA Scope:** The scope of analysis consists of the entire project area within the identified I-73 corridor (to include both I-73 North and I-73 South).

For additional details regarding the NEPA scope for the proposed project, see Section 3.1 of the 2017 Corps EA for I-73.

#### **3.2 ESA Action Area**

The entire I-73 project area (to include both I-73 North and I-73 South) is included in the action area.

For additional details regarding the ESA action area for the proposed project, see Section 3.2 of the 2017 Corps EA for I-73.

#### **3.3 NHPA Permit Area**

The entire I-73 project area (to include both I-73 North and I-73 South) is included in the permit area.

For additional details regarding the NHPA permit area for the proposed project, see Section 3.3 of the 2017 Corps EA for I-73.

### **4.0 Coordination**

For additional details regarding coordination of the proposed project, including the ACT and topics of concern, see Section 4.0 of the 2017 Corps EA for I-73.

#### **4.1 Public Notice:**

Application received: January 6, 2011

Application complete: January 12, 2011;

Revised Application: dated June 22, 2016; received June 27, 2016  
Revised Application complete: July 5, 2016

Public Notice dates: January 26, 2011 (original joint public notice); February 18, 2011 (comment period extension); July 8, 2016 (revised joint public notice);

Public Notice periods: January 26, 2011 to February 25, 2011; February 25, 2011 to March 18, 2011 (30 day extension); July 8, 2016 to August 8, 2016 (revised application); August 8, 2016 to September 6, 2016 (extension for individuals that requested additional time)

## 5.0 Alternatives Analysis

An evaluation of alternatives is required under NEPA, which requires discussion of a reasonable range of alternatives, including the no action alternative, and the effects of those alternatives. In accordance with 40 C.F.R. § 1505.2(b), the summary below identifies all alternatives considered by the Corps in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable (see Section 5.4 below).

Furthermore, the 404(b)(1) Guidelines at 40 C.F.R. § 230.10(a)(3) state as follows: *"Where the activity associated with a discharge which is proposed for a special aquatic site (as defined in subpart E) does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not "water dependent"), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise."*

- 5.1 **How the preliminary alternatives were developed during the EIS process:** As described in Chapter 2 in each of the FEISs, during the early stages of the project development, FHWA and SCDOT, in conjunction with input from the ACT, developed a computer model that utilized a Geographic Information System (GIS) to generate potential corridors. This program was named the Corridor Analysis Tool (CAT). The CAT is a series of GIS-based functions designed to route conceptual corridors among the identified human and natural environmental resources. The system determines the shortest route with the least amount of impacts. The initial CAT utilized numerous data layers including environmental, roadways, infrastructure, and demographic/socioeconomic information from various sources.

For both segments, preliminary alternatives were identified, which were then reduced by screening them using purpose and need, relief of local traffic congestion, and multimodal planning. They were then evaluated using various impacts to the natural environment, which included wetland acreage, wetland value, upland acreage, species



of concern, infrastructure (churches or fire stations), and corridor length/cost. Using this process, I-73 South reduced the 141 preliminary build alternatives to 25 and for I-73 North the preliminary build alternatives were reduced from 205 alternatives to 6. These preliminary build alternatives were presented to the public for review and comment (Section 2.5.1 in both the FEIS for I-73 North and the FEIS for I-73 South). Extensive discussion and evaluation by the ACT team also occurred and consensus was reached. The alternatives were further refined based on the constructability, cost, safety, and environmental impacts. For I-73 South, 8 reasonable build alternatives were identified and for I-73 North, 3 reasonable build alternatives were identified. The following provides detailed information regarding the reasonable build alternatives as summarized from the EISs for I-73 North and I-73 South.

## 5.2 **Reasonable Build Alternatives, as identified in the EISs<sup>4</sup>**

### **I-73 Northern Alignment**

The alternatives discussed for the northern alignment of I-73 all have the same start point, at a proposed interchange with I-95, and the same end point, at a proposed interchange with I-74, in Hamlet, North Carolina. Modifications were made to the alternatives as additional issues arose, such as the identification of historic sites, communities, businesses, and infrastructure. Details of impacts to the human and natural environment can be found in the table (Table 2.6, Three Reasonable Alternatives Matrix) after the descriptions of the three alternatives. The following three alternatives were carried forward for further study by the applicant:

#### **Alternative 1 for the Northern Alignment**

Alternative 1 is the western-most route. The alignment begins at the northern end of the interchange with I-95, which is the terminus of the Southern alignment of I-73. It extends to the northwest to the western side of Bingham, South Carolina, where it has an interchange with S.C. Route 34. It continues northwest where it has an interchange with S.C. Route 38 on the eastern side of Blenheim, South Carolina, and another with U.S. Route 15/401 west of Bennettsville, South Carolina. North of Bennettsville, the alignment continues in a northern direction where it has an interchange at S.C. Route 9. The alignment extends north to an interchange with I-74 near Hamlet, North Carolina. Alternative 1 was modified in the vicinity of Blenheim at the crossing of S.C. Routes 38 and 381 to provide an improved angle for the proposed interchange, which was necessary to improve constructability and safety. The angle at which Alternative 1 would have crossed S.C. Routes 38 and 381 would have created a complex interchange design that would have been more costly to construct and would not have provided the safest situation for drivers.

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<sup>4</sup> The following contains information from both the I-73 South and I-73 North Final Environmental Impact Statements. This section may contain direct quotes from the EIS documents. For readability, direct quotes are not referenced but this section, in its entirety, is derived directly from the FEISs.

Alternative 1 has several historic properties located along its proposed alignment. The Appin farmhouse, along with McCalls Mill Pond and the mill race/spillway, is a site located west of Bennettsville on U.S. Route 15/401 currently listed on the NRHP. The design in this area was limited due to close proximity of the airport to the north, a mitigation site to the west, a residential area to the southwest, and Bennettsville to the east. Despite these limitations, the alternative was modified to avoid potential impacts to the historic property. The Oakley Plantation is located northwest of Bennettsville at the intersection of Waffer Road (S-3533) and David's Pond Road (S-35-387). This site was determined eligible for listing on the NRHP and as such, modification was developed to avoid potential impacts to the property.

A modification was developed approximately 1.5-miles south of I-74 in the vicinity of Nebo Church Road (S35-258) to avoid the potential relocation of a church, multiple residences, and a water tower. The proposed modification was implemented to avoid these relocations.

#### Alternative 2 for the Northern Alignment (Applicant Preferred)

Alternative 2 is the central route. Like Alternative 1, it starts at the northern end of the interchange with I-95. The alternative extends to the northwest following the alignment of Alternative 1 on the western side of Bingham where it has an interchange with S.C. Route 34. It follows the alignment of Alternative 1 approximately 3.5-miles north of Bingham where it turns north and has an interchange with S.C. Route 381 between Blenheim and Clio, South Carolina. It continues northwest where it has another interchange with U.S. Route 15/401 east of Bennettsville. An interchange is also provided at S.C. Route 79, north of Bennettsville, and with I-74 near Hamlet, North Carolina.

A modification to this alternative was developed south of U.S. Route 15/401 along Covington Mill Pond Road (S-35-356), between Bennettsville and Tatum to avoid a power substation, avoid impacting a minority community located in the vicinity of S.C. Route 9 and Hebron Dunbar Road (S-35-23), and improve the design of Alternative 2. In addition, a modification was made to avoid impacting a former school site, which is potentially eligible for listing on the NRHP, located northeast of Bennettsville on the southern side of S.C. Route 79.

Similar to Alternative 1, Alternative 2 also would have impacted Mark's Creek, which is a significant natural heritage area in North Carolina. A modified alignment was developed to connect Alternative 2 to the eastern interchange with I-74.

#### Alternative 3 for the Northern Alignment

Like the other reasonable Build Alternatives, Alternative 3 begins at the northern end of the interchange with I-95. Alternative 3, the eastern route, extends to the north crossing between Bingham and Little Rock, South Carolina, where it has an interchange with S.C. Route 9. The alignment continues north, passing west of Alford Plantation, to an interchange with S.C. Route 83 east of Clio. Alternative 3 continues northwest to an

interchange between Tatum and McColl, South Carolina, on U.S. Route 15/401 and then follows the same alignment as Alternative 2, including an interchange at S.C. Route 79 and another at I-74 near Hamlet, North Carolina.

The original alignment of Alternative 3 would have impacted Alford Plantation, which had been determined to be eligible for listing on the NRHP; however, a modification was developed to avoid impacting the site. In addition, the modified alignment was anticipated to avoid potential impacts to Free State, a minority community east along S.C. Route 34.

Alternative 3 was also modified east of Bennettsville near the intersection of State Road 17 and State Road 28. A poultry farm located on S.C. Route 83 could not be avoided due to the presence of wetlands on both sides of the proposed route. The modification minimized potential relocations in the vicinity of Adamsville Crossroads and provided a better crossing of the railroad near U.S. Route 15/401 between Tatum and McColl. A modification was developed to avoid the potential impact of Alternative 3 on another large poultry operation located approximately one mile south of I-74 in the vicinity of N.C. Route 38.

Table 2.6 Three Reasonable Alternatives Matrix					
Category	Unit of Measure	Alternative			
		1	2 (Preferred)	3	
<b>Purpose and Need</b>	System Linkage	Yes	Yes	Yes	
	Economic Development	Yes	Yes	Yes	
	Improved Access for Tourism	Yes	Yes	Yes	
	Increased Safety on Existing Roads	Yes	Yes	Yes	
	Multimodal Planning	Yes	Yes	Yes	
<b>Engineering Criteria</b>	Length	Miles	40.6	36.8	37.2
	Design Criteria	Meets/Does Not Meet	Meets	Meets	Meets
	Constructability	Ranking	1	1	1
	Construction Cost (year 2012)	\$ Millions	1,210	1,080	1,190
<b>Natural Features</b>	Threatened and Endangered Species	Yes (#) / No	No	No	No
	Species of Concern	Yes (#) / No	No	No	No
	Wetlands	Acreage	167.7	114.3	116.0
	Fill	Acreage	161.9	107.0	114.4
	Bridge	Acreage	5.8	7.3	1.6
	Wetland Quality	Value	1,255.2	768.1	729.3
	Fill	Value	1,157.6	736.2	714.6
	Bridge	Value	47.6	31.9	14.7
	Sstreams				
	Total Crossings	# of Crossings (Linear Feet)	15 (4,566)	24 (8,143)	24 (10,062)
	Perennial	# (Linear Feet)	6 (1,666)	10 (3,778)	7 (3,555)
	Intermittent	# (Linear Feet)	9 (2,900)	14 (4,365)	17 (6,507)
	Water Quality				
	Outstanding Resource Water	# of Crossings	0	0	0
	303(d) Impaired (2006 Draft List)	# of Crossings	0	0	0
Habitat	Unique	No	No	No	
Uplands (Fill Only)	Acreage	1,952.6	1,800.8	1,845.6	
Floodplains	Acreage	64.0	25.0	23.0	
<b>Man-Made Features</b>	Hazardous Material Sites	#	1	1	2
			Auction Water - Hamlet	Auction Water - Hamlet	Auction Water - Hamlet & Red Bluff Grocery
	Parks and Wildlife Refuges	Yes (#) / No	No	No	No
	Historical Structures	#	1 Visual Impact S-18 House	0	1 Direct Impact McLaurin House
	High Potential Area for Archaeological Sites	Acreage	993.0	804.9	1297.9
	Noise (R= Residential)	#	6 R	3 R	2 R
	Farmland	Acreage	1,705	1,505	1,582
	Prime	Acreage	824	805	961
	Unique	Acreage	0	0	0
	Statewide Important	Acreage	881	700	621
Poultry Farm	#	0	0	1	
Hog Farm	#	0	0	0	
<b>Socioeconomic Issues</b>	Community Impacts	#	7	8	6
			Aaron's Temple, Bennettsville, Blenheim, Brightsville, Chavistown, Hamlet, Salem	Adamsville, Bennettsville, Brightsville, Clio, Dunbar, Hamlet, Hebron, Newtonville	Adamsville, Bennettsville, Brightsville, Clio, Hamlet, Newtonville
	Total Relocations	#	71	41	40
	Residential Relocations	#	69	35	36
	Commercial Relocations	#	2	6	4
Environmental Justice	# of Block Groups	7	8	10	
<b>Infrastructure</b>	Airports	#	0	0	0
	Fire Stations	#	0	0	0
	Schools	#	0	0	0
	Churches	#	0	0	1 Community House of Prayer
	Cemeteries	#	0	0	0
	Railroad Crossings	#	4	4	5
	Gas Line Crossings	#	3	2	1



### **Applicant's Designation of Preferred Alternative for the Northern Alignment**

Each of the reasonable Build Alternatives would equally meet the primary needs of the project by providing a direct link between future I-73 South (from I-95 to the Myrtle Beach area) and the I-73/I-74 Corridor in North Carolina, while providing economic development opportunities. The secondary needs of the project, improved access for tourism, increased safety on existing roads, and multimodal planning, would be met by all of the reasonable Build Alternatives. The reasonable build alternatives were then compared based upon public input, agency concerns, potential impacts to the human and natural environment, and qualitative benefits and impacts that would result from each of them. After careful consideration of all of these factors, a Preferred Alternative for I-73 North was identified.

Alternative 2 is the Preferred Alternative for I-73 North because it would have the least amount of wetland impacts (114.3-acres), the least impact to total farmland (1,505-acres), the least impact to prime farmland (805-acres), the lowest cost, low number of relocations, would not directly affect any known historic resources, be in close proximity to existing infrastructure, would be centrally located to serve the communities of the project study area more equally, and is supported by agencies, local governments, and the public. The three reasonable Build Alternatives all have some features that are favorable and advantageous, but when compared with Alternative 2, the other reasonable Build Alternatives were less suitable.

Alternative 1 would have the highest wetland impacts (167.7-acres), the highest cost (\$1.21 billion), the most relocations (71), the highest impact to farmland (1,705-acres), the most floodplain impacts (64-acres), and would potentially have a visual impact to an historic home located on S-18. Concerns were expressed by resource agencies regarding the crossing of major wetland systems and the potential for habitat fragmentation that would be caused by Alternative 1. At public meetings, many people spoke against Alternative 1 due to the potentially detrimental impacts to farming operations in the area.

Alternative 3 would have the highest linear feet of stream impact (10,062), the greatest impact to prime farmland (961-acres), higher wetland impacts than the preferred alternative (116-acres), would impact the property associated with the McLaurin House that is listed on the NRHP resulting in a Section 4(f) impact, would impact a poultry operation, the Red Bluff Grocery, the Community House of Prayer, and would be removed from existing infrastructure that would limit potential future economic development. Concerns were expressed by SCDOC regarding Alternative 3 based on its distance from available infrastructure.

### **I-73 Southern Alignment**

The alternatives discussed for the southern alignment of I-73 all have the same end point; they all follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres. In addition, they all start at a proposed interchange with I-95, although at

different locations. Modifications were made to the alternatives as additional issues arose, such as the identification of historic sites, communities, businesses, and infrastructure. Details of impacts to the human and natural environment can be found in the table (Table 2.5, Reasonable Alternatives Matrix, Interstate 73 FEIS: I-95 to Myrtle Beach Region) after the descriptions of the eight alternatives.

The following eight alternatives were carried forward for further study by the applicant:

*Alternative 1 for the Southern Alignment*

Alternative 1 starts at the southernmost interchange with I-95, and from there extends southeast on the western side of Latta where it would have an interchange with U.S. Route 501, crosses to the east immediately north of Temperance Hill, South Carolina, then extends southeast where it would interchange with S.C. Route 41A. The alternative continues southeast and would have an interchange with U.S. Route 76 on the western side of Mullins, South Carolina. Once south of Mullins it angles back to the south towards U.S. Route 501. The alignment would have an interchange with S-91 (which would provide access to S.C. Route 41) and then crosses the Little Pee Dee River at the existing U.S. Route 501 crossing. It passes on the east side of the Galivants Ferry Historic District and then extends southeast along U.S. Route 501 to an interchange with S.C. Route 22. The interchange with S.C. Route 22 would be designed so that the traffic movement from I-73 to S.C. Route 22 would be the predominant movement through the interchange. There would be ramps providing access between U.S. Route 501 and I-73 along U.S. Route 501 at the Little Pee Dee River crossing and along U.S. Route 501 just south of Aynor. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres. This alternative would avoid crossing the Buck Swamp and Lake Swamp systems. It would provide better access to the 17,000-acre inland port development proposed by Marion County than alternatives located farther from the proposed facility.

Construction of this alternative would also impact the athletic facility associated with Aynor High School, which, because it is also available for public use, would be considered a Section 4(f) impact.

Based upon coordination with the State Historic Preservation Office (SHPO), this alternative would also be expected to have the potential for negative visual impacts to the Galivants Ferry Historic District.

*Alternative 2 for the Southern Alignment*

Alternative 2 starts at the northernmost interchange with I-95, and from there passes southeast on the western side of Dillon, South Carolina, east of Latta, South Carolina, to an interchange with U.S. Route 501. It continues southeast to an interchange with S.C. Route 41A, then southeast to an interchange with U.S. Route 76 on the western side of Mullins. Once south of Mullins it angles back to the south to U.S. Route 501. It would

have an interchange with S-91 (which would provide access to S.C. Route 41) and then cross the Little Pee Dee River at the existing U.S. Route 501 crossing. It passes on the east side of the Galivants Ferry Historic District and then extends east along Winburn Road. There would be an interchange with S-23, then it turns to the southeast to an interchange with S.C. Route 22 near Bakers Chapel, about two miles west of the U.S. Route 701/S.C. Route 22 interchange. The interchange with S.C. Route 22 would be designed so that traffic movement from I-73 to S.C. Route 22 would be the predominant movement through the interchange. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres.

Alternative 2 would be east of the Temperance Hill community and thus would minimize the impacts to that community. It would also avoid the impacts to Aynor resulting from Alternative 1. There are no Section 4(f) impacts associated with this alternative.

#### Alternative 3 for the Southern Alignment (Applicant Preferred)

Alternative 3 starts at the southernmost interchange with I-95, and from there extends southeast on the western side of Latta where it would have an interchange with U.S. Route 501, crosses to the east immediately north of Temperance Hill, then extends southeast where it would interchange with S.C. Route 41A. It continues southeast and would have an interchange with U.S. Route 76 on the western side of Mullins. Once south of Mullins it angles slightly east and crosses the Little Pee Dee River immediately adjacent to the existing S.C. Route 917 crossing on the south side. It would have an interchange with S-308, then continues southeast on new alignment to an interchange with S.C. Route 22 near Bakers Chapel, about two miles west of the U.S. Route 701/S.C. Route 22 interchange. The interchange with S.C. Route 22 would be designed so that the traffic movement from I-73 to S.C. Route 22 would be the predominant movement through the interchange. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres.

Alternative 3 is in close proximity to the proposed inland port designated by Marion County. It would not impact the Gateway Industrial Park, but it is not the alignment requested by Dillon County. This alternative would also cross from west to east in proximity to the Temperance Hill community. It would also impact the Zion community, located along S.C. Route 41 Alternate, north of Mullins. This alternative would impact a Section 4(f) resource, the Vaughn tract, which is part of the Little Pee Dee River Heritage Preserve located around the S.C. Route 917 crossing of the Little Pee Dee River. The project would be built parallel, and to the south of existing S.C. Route 917 where it crosses the Little Pee Dee River. The alignment was moved to this location, in consultation with the ACT, to avoid creating a new crossing of the Little Pee Dee River, which could lead to fragmentation of wildlife habitat.

#### Alternative 4 for the Southern Alignment

Alternative 4 starts at the southernmost interchange with I-95, and from there extends southeast on the western side of Latta, where it would have an interchange with U.S.

Route 501, and continuing southeast on the eastern side of Marion, where it would have an interchange with the U.S. Route 501 Bypass (this would be the access to S.C. Route 41A also). It continues southeast from Marion to the U.S. Route 501 crossing of the Little Pee Dee River. It then passes on the east side of the Galivants Ferry Historic District and then extends southeast along U.S. Route 501 to an interchange with S.C. Route 22. There would be ramps providing access between U.S. Route 501 and I-73 along U.S. Route 501 at the Little Pee Dee River crossing and along U.S. Route 501 just south of Aynor, South Carolina. The interchange with S.C. Route 22 would be designed so that the traffic movement from I-73 to S.C. Route 22 would be the predominant movement through the interchange. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres.

This alternative is the shortest alternative at 42.6 miles long. It would avoid the Temperance Hill community. It also would be in close proximity to the proposed Marion County inland port. In addition to the Section 4(f) impact associated with the Aynor High School athletic facilities, there would be another impact to an archaeological site near Marion. There would also be a visual impact to the Galivants Ferry Historic District.

#### Alternative 5 for the Southern Alignment

Alternative 5 starts at the southernmost interchange with I-95, and from there extends southeast on the western side of Latta where it would have an interchange with U.S. Route 501, crosses to the east immediately north of Temperance Hill, then extends southeast where it would interchange with S.C. Route 41A. It continues southeast and would have an interchange with U.S. Route 76 on the western side of Mullins. Once south of Mullins it angles back to the south towards U.S. Route 501. It would have an interchange with S-91 (which would provide access to S.C. Route 41) and then cross the Little Pee Dee River at the existing U.S. Route 501 crossing. It passes on the east side of the Galivants Ferry Historic District and then extends east along Winburn Road. There would be an interchange with S-23, then it turns to the southeast to an interchange with S.C. Route 22 near Bakers Chapel, about two miles west of the U.S. Route 701/S.C. Route 22 interchange. The interchange with S.C. Route 22 would be designed so that the traffic movement from I-73 to S.C. Route 22 would be the predominant movement through the interchange. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres.

This alternative would be in close proximity to the Marion County proposed inland port. Alternative 5 would have no Section 4(f) impacts. It would be in close proximity to the Temperance Hill community. It would impact the Zion and Winburn communities. Alternative 5 has the potential to have visual impacts to the Galivants Ferry Historic District.

#### Alternative 6 for the Southern Alignment

Alternative 6 starts at the northernmost interchange with I-95, and from there extends southeast on the western side of Dillon, east of Latta, to an interchange with U.S. Route



501. It continues southeast to an interchange with S.C. Route 41A, then southeast to an interchange with U.S. Route 76 on the western side of Mullins. Once south of Mullins, it angles slightly east and crosses the Little Pee Dee River immediately adjacent to the existing S.C. Route 917 crossing on the southern side. It would have an interchange with S-308, then continues southeast on new alignment to an interchange with S.C. Route 22 near Bakers Chapel, about two miles west of the U.S. Route 701/S.C. Route 22 interchange. The interchange with S.C. Route 22 would be designed so that the traffic movement from I-73 to S.C. Route 22 would be the predominant movement through the interchange. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres.

Alternative 6 would avoid the southern Latta area, the Temperance Hill community, and Aynor. However, the alternative would impact the Zion community, and would result in the relocation of three churches. It would also impact a Section 4(f) site, the Vaughn tract of the Little Pee Dee River Heritage Preserve. Because of the close proximity of this alternative's I-95 interchange with that of the S.C. Route 34/I-95 interchange that has resulted from moving the interchange to avoid the Bethea Historic District, this interchange would be complex. It would be close to the proposed Bethea Historic District, which might result in visual impacts to this district.

#### Alternative 7 for the Southern Alignment

Alternative 7 starts at the southernmost interchange with I-95, and from there extends southeast on the western side of Latta where it would have an interchange with U.S. Route 501. It then extends southeast on the eastern side of Marion, where it would have an interchange with the U.S. Route 501 Bypass (this would be the access to S.C. Route 41A also). It continues southeast from Marion to the U.S. Route 501 crossing of the Little Pee Dee River. It then passes on the east side of the Galivants Ferry Historic District and then extends east along Winburn Road. There would be an interchange with S-23, then it turns to the southeast to an interchange with S.C. Route 22 near Bakers Chapel, about two miles west of the U.S. Route 701/S.C. Route 22 interchange. The interchange with S.C. Route 22 would be designed so that the traffic movement from I-73 to S.C. Route 22 would be the predominant movement through the interchange. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres.

This alternative would be closer to the proposed site of the inland port; however, the Datwyler Rubber facility, located at U.S. Route 76 and U.S. Route 501 Bypass, could be impacted by this alternative. It would impact a potentially eligible (for listing on the list of National Register of Historic Places) archaeological site near Marion and might have visual impacts on the Galivants Ferry Historic District. The archaeological site would be a Section 4(f) site. It would also impact the Winburn Road community.

#### Alternative 8 for the Southern Alignment

Alternative 8 starts at the northernmost interchange with I-95, and from there extends

southeast on the western side of Dillon, east of Latta, to an interchange with U.S. Route 501. It continues southeast to an interchange with S.C. Route 41A, then southeast to an interchange with U.S. Route 76 on the western side of Mullins. Once south of Mullins it angles back to the south to U.S. Route 501 and crosses the Little Pee Dee River at the existing U.S. Route 501 crossing. It would have an interchange with S-91 (which would provide access to S.C. Route 41) and then cross the Little Pee Dee River at the existing U.S. Route 501 crossing. It passes on the east side of the Galivants Ferry Historic District and then extends southeast along U.S. Route 501 to an interchange with S.C. Route 22. There would be ramps providing access between U.S. Route 501 and I-73 along U.S. Route 501 at the Little Pee Dee River crossing and along U.S. Route 501 just south of Aynor. The interchange with S.C. Route 22 would be designed so that moving from I-73 to S.C. Route 22 would be the predominant movement through the interchange. Like all of the Build Alternatives, it would follow S.C. Route 22 to its terminus with U.S. Route 17 near Briarcliff Acres.

Alternative 8, like Alternatives 1 and 4, would have one-way frontage roads along U.S. Route 501 in Aynor, which, as previously described, would be inconvenient for local residents using them to access each side of U.S. Route 501. Alternative 8 also would pass between the incorporated limits of Aynor and the Aynor Elementary and Middle Schools. Construction of this alternative would also impact the athletic facility associated with Aynor High School, which, because it is also available for public use, would be considered a Section 4(f) impact as well. In addition, this alternative would require the relocation of three churches, and would potentially have visual impacts to the potential Bethea Historic District and the Galivants Ferry Historic District.



**Table 2.5**  
**REASONABLE ALTERNATIVES MATRIX**  
**Interstate 73 FEIS: I-95 to the Myrtle Beach Region**

CATEGORY	UNIT OF MEASURE	ALTERNATIVE								
		1	2	(Preferred) 3	4	5	6	7	8	
<b>UNDESIRABLE</b>	System Linkage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Economic Development	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Hurricane Evacuation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Local Traffic Congestion	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Multimodal Planning	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<b>DESIRABLE CRITERIA</b>	Length	Miles	44.9	47.7	44.2	42.6	48.3	43.6	46.0	44.3
	Design Criteria	Meets/Does Not Meet	Meets	Meets	Meets	Meets	Meets	Meets	Meets	Meets
	Constructability	Scale 1-6 (1 highest)	4	3	1	6	3	1	4	4
	Construction Cost	Year 2011 Dollars (Billions)	1,492	1,547	1,290	1,392	1,430	1,406	1,350	1,595
<b>ENVIRONMENTAL FEATURES</b>	Threatened and Endangered Species	Yes (Y) / No	No	No	No	No	No	No	No	No
	Species of Concern	Yes (Y) / No	Yes (1)	No	No	Yes (1)	No	No	No	Yes (1)
	Wetlands	Acres	417.5	443.6	384.1	497.0	412.9	413.1	492.1	448.6
	Fill	Acres	372.8	386.6	352	453.2	372.9	365	453.0	386.8
	Bridges	Acres	44.8	57.0	32	43.9	40.1	48	39.2	61.8
	Wetland Quality	Value	2,919.4	2,869.4	2,486.1	3,212.4	2,816.1	2,588.4	3,105.8	2,976.8
	Fill	Value	2,556.0	2,408.5	2,228.5	2,847.0	2,481.4	2,212.5	2,769.3	2,486.1
	Bridges	Value	363.5	460.9	257.6	365.4	334.7	375.9	336.4	490.7
	Streams									
	Total Crossings	# of Crossings	60	62	58	45	56	64	41	66
	Perennial	# (Linear Feet)	52 (18,086)	54 (18,052)	48 (16,243)	35 (12,591)	49 (15,878)	53 (18,420)	32 (10,863)	57 (20,260)
	Intermittent	# (Linear Feet)	8 (1,968)	8 (3,070)	10 (3,770)	10 (4,877)	7 (3,060)	11 (3,780)	9 (5,969)	9 (1,978)
	Water Quality									
	Outstanding Resource Water	# of Crossings	10	10	5	10	10	5	9	10
303(d) Impaired	# of Crossings	3	6	3	6	2	7	5	7	
Habitat	Unique	No	No	No	No	No	No	No	No	
Uplands	Acres	2,139	2,210	1,923	1,884	2,154	1,979	1,899	2,194	
Floodplains	Acres	173	193	94	321	176	111	323	191	
<b>MAN-MADE FEATURES</b>	Hazardous Material Sites	#	2	3	1	2	2	4	2	3
	Parks and Wildlife Refuges	Yes (Y) / No	0	0	1	0	0	1	0	0
	Historical Structures	Yes (Y) / No	1 Visual	2 Visual	1 Visual	1 Direct	1 Visual	2 Visual	1 Visual, 1 Direct	2 Visual
	High Potential Area for Archaeological Sites	Acres	1,086	1,144	1,032	991	1,149	1,025	1,057	1,078
	Noise (R= Residential, C= Church)	#	18R, 1C	19R	37R	17R	22R, 1C	41R	20R	15R
	Farmland	Acres	1,993	2,009	1,708	1,717	2,136	1,835	1,781	2,155
	Prime	Acres	1,046	1,210	1,004	648	1,344	1,147	1,036	1,180
	Unique	Acres	0	0	0	0	0	0	0	0
Statewide Important	Acres	947	690	614	849	792	688	745	996	
<b>SOCIOECONOMIC ISSUES</b>	Community Impacts	Scale 1-6 (1 least impact)	5	3	2	3	2	4	1	5
	Total Relocations	#	121	92	88	74	98	50	51	116
	Residential Relocations	#	109	82	81	61	93	68	45	98
	Commercial Relocations	#	12	10	7	13	5	12	6	18
Environmental Justice	Yes / No	No	No	No	No	No	No	No	No	
<b>INFRASTRUCTURE</b>	Airports	#	0	0	0	0	0	0	0	0
	Fire Stations	#	0	0	0	0	0	0	0	0
	Schools	#	0	0	0	0	0	0	0	0
	Churches	#	0	3	0	0	0	3	0	3
	Cemeteries	#	0	0	0	0	0	0	0	0

### **Applicant's Designation of Preferred Alternative for the Southern Alignment**

The Preferred Alternative (Alternative 3) for the southern segment of I-73 would have the least wetland impacts (384-acres), in both acreage and wetland assessed value, lowest cost (\$1.296 billion), least impact to farmland (1,708-acres), least impact to potential historic sites (this alternative was preferred by SHPO as stated at an ACT meeting), was one of three preferred alignments by the SCDNR and USFWS, and, along with Alternative 6, would be the most constructible. This alternative, along with Alternative 6, would be the least likely to lead to changes in land use in western Horry County. This is in keeping with the opinion expressed by the public at meetings, in letters, and telephone calls, and by the elected officials from Horry County.

All eight Build Alternatives have features that are favorable and advantageous and many have one or more flaws, that when compared with the other alternatives, make that alternative less suitable. Alternatives 1, 4, and 8 each have a segment that crosses the Little Pee Dee River on U.S. Route 501, and then extends around the Galivants Ferry Historic District back along U.S. Route 501 through Aynor to intersect S.C. Route 22. Horry County Council and the Town of Aynor voted unanimously to have this route eliminated. The SCDNR and USFWS voiced opposition to the Aynor segment. At public meetings the people of western Horry County spoke overwhelmingly against this, and any other corridors that came near Aynor and Cool Spring. For these reasons alone, these three alternatives could be eliminated. Adding to this the difficulty of building along, and within, the U.S. Route 501 corridor, the traffic management problems associated with building there, and the change in travel patterns associated with the one-way frontage roads makes them even less attractive alternatives.

Furthermore, each of these alternatives has other negative issues associated with it. Alternative 1 would have the most relocations (121), one of the highest costs (\$1.498 Billion), high wetland impacts (412-acres), potential visual impacts to Galivants Ferry Historic District, and a Section 4(f) impact to Aynor High School (athletic facilities used by the public). Alternative 4 would have the highest wetland impacts (497-acres), a cost of approximately \$1.404 Billion, and the Section 4(f) impact at Aynor High School. Alternative 8 would have the highest cost (\$1.595 Billion), a high amount of relocations (115), high wetland impacts (448.6-acres), the highest impact to farmland (2,155-acres), impact three churches (Dothan Baptist Church, New Memorial Temple of Christ, and Spring Grove Baptist Church), would impact the Gateway Industrial Park, cross Buck Swamp, and potentially impact two historic districts (Bethea and Galivants Ferry). Based upon all of these negative impacts and negative public input, these three alternatives were eliminated.

The five remaining Build Alternatives (2, 3, 5, 6, and 7) were all viable alignments. Alternative 7 was eliminated primarily because it had such high wetland impacts (492-acres), but also because of the constructability issues for the portions at the U.S. Route 501 Bypass and at the Little Pee Dee River crossing. Alternatives 5 and 7 would be harder to construct due to being located within the median of existing U.S. Route 501,



when compared to those on new alignment. While U.S. Route 501 is a four-lane road, it would have to be modified to meet interstate standards; major reconstruction would include widening the median, providing shoulder widths in accordance with SCDOT design standards, and adding frontage roads. Building on the existing U.S. Route 501 corridor would require an extensive frontage road system on both sides to access properties. This extensive system of frontage roads and the upgrades to U.S. Route 501 would offer additional challenges for construction and maintenance of traffic.

Alternative 7 had higher wetland impacts (492.1-acres), as compared to the other reasonable Build Alternatives, which eliminated it from further consideration as the Preferred Alternative for I-73 South. The difference between the other four Build Alternatives, Alternatives 2, 3, 5, and 6, was that Alternative 3 had less impacts in several categories, as discussed above, and better features than these remaining Build Alternatives. For these reasons, Alternative 3 was selected as the applicant's Preferred Alternative for the southern segment of the proposed project.

### **Modifications to Preferred Alternative (Southern Segment)**

The Preferred Alternative (Alternative 3) to the southern alignment went through several modifications based on resource agency and public input before the preferred alignment was designated.

In regards to the proposed interchange at I-95, residents to the south were concerned with potential impacts to private property. While the applicant could not accommodate their suggestions entirely, the ramp from I-95 to I-73 was modified and resulted in one less relocation of property.

The Preferred Alternative was going to impact the Signode facility, which is a major commercial employer in Dillon County. Two modifications were evaluated to avoid the Signode facility, a Northern Modification and a Southern Modification. The original alignment would potentially impact thirteen private residences, the Signode facility, and 23.2-acres of jurisdictional wetlands. An evaluation of the Northern Modification resulted in impacts to six private residences, the Penske Truck Rental business, and 23.8-acres of jurisdictional wetlands, while an evaluation of the Southern Modification resulted in impacts to four private residences, no commercial businesses, and 38.5-acres of jurisdictional wetlands. The applicant chose to move forward with the Northern Modification because it lessened the number of relocations from thirteen to six, while only slightly increasing the amount of wetland impacts from 23.2-acres to 23.85-acres, from the original alignment.

At the request of Dillon County officials, a modification of the proposed interchange at U.S. Route 501 was evaluated at U.S. Route 301. The interchange at U.S. Route 501 was proposed as a diamond interchange; however, a partial cloverleaf interchange would be required at U.S. Route 301 due to size of the available area. After review, it was determined that, based on cost, relocations of both private and commercial properties, and relocation of an existing water tower and water treatment facility, that

the preferred alternative would move forward with the proposed interchange at U.S. Route 501, but modified the existing U.S. Route 501/301 intersection to create a perpendicular crossing and a frontage road between the U.S. Route 501 interchange with U.S. Route 301 to allow for better connectivity and access.

Comments from the Temperance Hill community regarding disruption to their community, way of life, and about maintaining traditional travel routes and the potential separation of families, were raised. As a result, the applicant modified the original alignment from cul-de-sacs on Carroll Road at I-73 to adding an overpass, thus providing community cohesion and continued access for emergency vehicles. The original alignment of I-73 would impact two residences in the vicinity of Carroll Road, while the modification to include an overpass would impact six residences with no additional wetland impacts. Due to safety and operational concerns, the applicant determined that the addition of an overpass to the original alignment at Carroll Road would alleviate the concerns raised by the residents and continue to provide connectivity for the Temperance Hill community.

The Preferred Alternative would impact two conservation easements identified by the NRCS managed under the Farm and Ranch Lands Protection Program (FRPP), which prohibits development of protected properties for nonagricultural use. One of the properties (Little Sister Bay) is located south of Mullins on U.S. Route 76 and the second property (McRae Farm) is located on S-34-31 (Old Stage Road) to the southeast of Mullins. The local NRCS office stated that they do not have the ability to lift any conservation easement managed under the FRPP and suggested that the proposed project avoid these two areas. The State cannot condemn a property with a Federal interest, unless specifically stated in the language of the instrument, which these two easements do not include. As a result, these two properties were avoided; however, in so doing, approximately 31.5-acres of additional wetlands would be impacted.

Comments from residents of Pecan Pointe, in Mullins, and those in the vicinity of Old Stage Road, near Gapway, South Carolina, suggested that the applicant consider elevated roadways through their communities. The applicant evaluated several alternatives, but due to cost, logistics, and long-term maintenance, determined to proceed with their original proposal.

Concerns were raised during the Public Hearing regarding disruption of traffic flow along S.C. Route 917 and State Road 23 (Nichols Highway), south of the Little Pee Dee River, and a modification was also proposed in this area by resource agencies to parallel the existing crossing of Nichols Highway over Lake Swamp. Per the I-73 Southern Segment EIS, Chapter 2, Section 2.8.2, *"The original alignment would have 23 potential residential relocations, impact approximately 149.2-acres of wetlands, and cross Nichols Highway three times, while the modified alignment would impact 14 residences, 167.2-acres of wetlands, only cross Nichols Highway at one location, and parallel the existing Nichols Highway crossing of Lake Swamp."* This modified alignment would be shorter in distance and cost approximately \$6.1 million less than the

original. As such, it was determined that the modified alignment, with an overpass at Pee Dee Road to provide connectivity for area residents, would be carried forward.

Countless comments and requests to shift the alignment away from specific property owners were received. However, a shift in alignment away from any one specific property owner would only result in impacts to another property owner. A shift of impacts from one property to another was not fully evaluated if it did not provide a benefit to the overall project.

The estimated cost to construct the Preferred Alternative was determined in 2006 dollars, and then factored up by six percent per year to the Years 2011 and 2016. The total estimated cost for Alternative 3, the Preferred Alternative, is \$964 million in 2006. In 2011 the estimated cost would be \$1.290 billion and \$1.726 billion in 2016.

Following the evaluation of the proposed modifications, the Preferred Alternative was re-quantified and can be found on Table 2.17 of the EIS for I-73 South.

### 5.2.2 Combining Alternatives into One Project

As previously stated, due to the project length (a total of eighty miles from Hamlet, North Carolina to SC 22 near Conway), FHWA determined that the project could be divided into two separate segments (I-73 North and I-73 South) based on logical termini, which, for this project, is the proposed I-73/I-95 interchange. As such, FHWA and SCDOT determined that they would prepare separate EISs for the I-73 Northern alignment (I-95 to Hamlet, North Carolina) and the I-73 Southern alignment (I-95 to SC-22 near Conway). Although each alignment was identified and evaluated independently in the two FEISs, SCDOT combined the two segments into one overall project for the purposes of the Corps' DA permit application. As discussed above, Alternative 2 was the Preferred Alternative for I-73 North, and Alternative 3 was the Preferred Alternative for I-73 South. Thus, Alternative 2 for the northern segment and Alternative 3 for the southern segment were combined to form the Applicant's Preferred Alternative for purposes of SCDOT's revised DA permit application. Although the alternatives presented herein are discussed as separate potential alignments, this ROD also discusses and considers the entire I-73 project (both North and South segments) for South Carolina.

### 5.3 No action alternative:

#### The "No Build" Alternative

The "no build" alternative includes no construction of a new interstate roadway (both the north and south segments). The FHWA and SCDOT identified in both Environmental Impact Statements (northern segment and southern segment) that the "no build" alternative would fail to satisfy the stated project purpose and not fulfill the primary and secondary needs. Therefore FHWA and SCDOT did not conduct any further evaluation of the no build alternative.

The "No Action Alternative" for this project is an alternative where there is no new construction of Interstate I-73 in South Carolina, but only maintenance of the existing roadways. Through maintenance activities of existing roadways and bridges, SCDOT would be able to keep their infrastructure in service for a finite period, since roads and bridges have a service life and eventually need to be rebuilt and/or replaced. However, maintenance activities of existing roadways alone will not provide any additional traffic capacity nor will maintenance activities provide a reduction of traffic congestion. Based on this, the No Action alternative can only keep the existing roadways functioning at current conditions for a finite time and will not address identified primary and secondary needs. Existing infrastructure will eventually fail when conditions reach the point that maintenance is not sufficient to keep roads operational. When these roads become impassable due to safety concerns, existing traffic congestion will become worse and motorists will require new roadways, which may result in more impacts to waters of the U.S., including jurisdictional wetlands, when compared to the proposed alternative.

#### **5.4 Least Environmentally Damaging Practicable Alternative (LEDPA)**

After the Corps' independent review of FHWA and SCDOT's search and associated analysis of alternatives, it is the Corps' determination that SCDOT has met its burden to clearly demonstrate that practicable alternatives that do not involve impacts to special aquatic sites do not exist, and, further, that the proposed project (i.e., the Applicant's Preferred Alternative as the combination of Alternative 2 for the northern segment and Alternative 3 for the southern segment) is considered the least environmentally damaging practicable alternative that meets the overall project purpose. In addition, and for purposes of NEPA, it is the Corps' determination that the Applicant's Preferred Alternative is considered to be environmentally preferable.

#### **6.0 Further Evaluation of the 404(b)(1) Guidelines**

This section addresses the impacts associated with the placement of dredged or fill material into waters of the U.S., including special aquatic sites, within the State of South Carolina, within the regulatory authority of the Charleston District, as proposed by SCDOT. Impacts to waters of the U.S. include the permanent placement of fill material/structures in a total of approximately 4,643 linear feet of stream and 324 acres of other waters, including jurisdictional wetlands. As stated in the 2017 Re-evaluation for I-73 North, "*For the portion of I-73 North in North Carolina . . . , the North Carolina Department of Transportation (NCDOT) will coordinate with the USACE Wilmington District, to obtain necessary permits and provide mitigation for the North Carolina portion of the project*" identified in the FEIS for I-73 North. (Page 47 for I-73 North)

For each evaluation criterion listed below, this section generally summarizes the potential impact, as well as any minimization measures that will be used to reduce the level of impact. An expanded discussion of each section below is provided in the 2017 Corps EA for I-73.



**6.1 Potential effects on physical and chemical characteristics of the aquatic ecosystem (Subpart C)**

**Sec. 230.20 Substrate**

The proposed discharge will have a permanent, significant adverse effect on the substrates of the filled wetlands and streams but will not cause significant, long-term adverse effects on substrates outside the filled areas. A special condition of the DA permit will state:

**During bridge construction, access to the project site must be attained from highland, from the portions of the bridge already completed ("end on end construction") or from floating barges or mats (instead of barge canals or causeways).**

**Sec. 230.21 Suspended particulates/turbidity**

The discharge of fill material associated with the proposed project will have minor, short term effects on suspended particulates and turbidity in the water column. Consequently, the Corps has determined that none of the impacts identified from suspended particulates and turbidity were of a severity that will cause or contribute to significant degradation of waters of the U.S. A special condition of the DA permit will state:

**The permittee must implement appropriate best management practices that will minimize erosion and migration of sediments on and off the project site during and after construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments, and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized upon project completion.**

**Sec. 230.22 Water**

The proposed discharge will cause a temporary, minor effect upon water quality during construction of the Interstate roadway and bridge approaches. However, the proposed discharge will have no long term significant adverse effects on water quality. Consequently, the Corps has determined that impacts associated with water are not of a severity that will cause or contribute to significant degradation of waters of the U.S. A special condition of DA permit will state:

**Only clean earthen material free of all potential sources of pollution must be used as fill.**

### **Sec. 230.23 Current patterns and water circulation**

The proposed discharge will cause a permanent, minor effect on the current patterns and circulation of water in the filled wetlands and streams due to minor relocations and routing of streams and wetland hydrology through culverts in the roadway fill. However, this project will not cause significant, long-term adverse effects on current patterns and water circulation outside the filled areas. Consequently, the Corps found that none of the secondary impacts associated with current patterns and water circulation were of a severity that will cause or contribute to significant degeneration of waters of the U.S.

A special condition of the DA permit will state:

**A sufficient number of adequately sized culverts must be placed at the same elevation as the streams and wetlands to maintain flows, wetland hydrology, and unrestricted aquatic life passage.**

### **Section 230.24 Normal water fluctuations**

Although there will be a minor, short term effect on normal water fluctuations, none of the impacts associated with normal water fluctuations are of a severity that will cause or contribute to significant degradation of waters of the U.S. In order to ensure that normal flood fluctuations remain minimal, a special condition of the DA permit will state:

**That the permittee agrees to comply with all FEMA regulations and requirements. The permittee is advised that development activities in a Special Flood Hazard Area (i.e 100-year floodplain), as designated in the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), are subject to the floodplain management regulations of the National Flood Insurance Program [(NFIP)(44CFR)]. The NFIP prohibits any development within a designated floodway, including placement of fill, without a No Impact Certification from FEMA or the local NFIP representative. The permittee shall provide this office with a copy of the No Impact Certification prior to the commencement of authorized work.**

### **Sec. 230.25 Salinity gradients**

The proposed project will have no significant adverse effects on salinity gradients.

## **6.2 Potential effects on biological characteristics of the aquatic ecosystem (Subpart D)**

### **Sec. 230.30 Threatened and endangered species**

As documented in the 2017 Corps EA for I-73, construction of the proposed Interstate may affect, but is not likely to adversely affect Kirtland's warbler, *Dendroica kirtlandii*, Shortnose sturgeon, *Acipenser brevirostrum*, and the Atlantic Sturgeon, *Acipenser*

*oxyrinchus*, and there will be no effect on any other listed threatened or endangered species or their critical habitat. A detailed discussion of the Corps' Section 7 determinations and subsequent consultation with USFWS and NMFS' Office of Protected Resources is located in Section 3.2 of the 2017 Corps EA for I-73. The following Special Conditions will be added to the DA permit:

**That the permittee shall comply with the following conditions during construction in the Little Pee Dee River in order to minimize potential adverse impacts to sturgeon and other anadromous fish:**

- 1. The permittee shall implement an in-water work moratorium from February 1 to April 30.**
- 2. Construction of Cofferdams may take place before or after the moratorium, but not during the moratorium. However, once a coffer dam is built, work inside it may continue year-round.**
- 3. Bridge construction will never obstruct more than half of the river at any one time.**

**Sec. 230.31 Fish, crustaceans, mollusks, and other aquatic organisms in the food web.**

Impacts to aquatic organisms are outlined in Section 3.14 of the FEIS for I-73 North and the FEIS for I-73 South, and summarized in Section 6.0 (Section 230.31) of the 2017 Corps EA for I-73. Based thereon, there will be no significant adverse effects on fish, crustaceans, mollusks, and other aquatic organisms.

**Sec. 230.32 Other wildlife.**

As discussed in Section 6.0 (Section 230.32) of the 2017 Corps EA for I-73, there will be both long term and short term impacts on wildlife, but these impacts should not cause significant adverse effects.

**6.3 Potential Effects on Special Aquatic Sites (Subpart E)**

**Sec. 230.40 Sanctuaries and refuges**

There are no designated sanctuaries or refuges within the project study area or expected to be impacted by the northern segment of I-73; however, I-73 South will impact approximately 30 acres of the Vaughn Tract of the Little Pee Dee Heritage Preserve in Horry County. Specifically, I-73 South will result in the filling and clearing of approximately 12 acres of waters of the U.S. within lands being acquired from the Little Pee Dee Heritage Preserve (Drawing Sheets 115, 117, and 119 (dated 6/6/2016) of SCDOT's Proposed Plans for I-73). As discussed in the FEIS for I-73 South in Section 3.4, the Little Pee Dee Heritage Preserve is a property owned by SCDNR's Heritage Trust Program, which is used by the public for various activities to include hunting, fishing, boating, hiking, camping, and wildlife viewing. Because this is also considered

an impact to what FHWA designates as a "4(f)" resource, coordination occurred between SCDNR and SCDOT to mitigate for these impacts. A compensation package of payment for the property at a 10:1 ratio was coordinated and accepted by SCDNR to allow them to offset those resources, as deemed appropriately.

#### **Sec. 230.41 Wetlands.**

The discharge of dredged or fill material in jurisdictional wetlands for this project will directly damage and destroy approximately 324 acres of wetland habitat and adversely affect the biological productivity of the underlying wetland ecosystem where these impacts occur. Potential impacts of the fill may result in smothering, or altering substrate elevation or periodicity of water movement. The addition of fill material will destroy wetland vegetation or result in advancement of succession to dry land species, specifically on the road shoulders. Secondary impacts include the potential to reduce or eliminate nutrient exchange by a reduction of the system's productivity, or by altering current patterns and velocities where the surface water in wetlands is funneled through culverts or pipes. Discharges can also change the wetland habitat value for fish and wildlife as discussed in Subpart D.

SCDOT has incorporated numerous avoidance and minimization measures into the design including the use of 2:1 fill slopes where practicable to reduce the impact footprint, the use of bridges rather than box culverts where feasible, and a commitment to using best management practices (BMPs) during construction to avoid non-permitted impacts to adjacent wetlands and streams. In addition, SCDOT has proposed a permittee responsible plan that will more than offset the direct effects of the wetlands lost to the discharge of fill material.

In order to offset the effect of the authorized impacts associated with this project, the Corps will include special conditions requiring compensatory mitigation in accordance with SCDOT's Final Mitigation Plan. To further minimize direct and indirect effects related to placement of fill in wetlands, best management practices have also been included as special conditions in the DA permit. The proposed discharge will result in impacts to a large amount of wetlands, but it will not cause or contribute to significant degradation of waters of the U.S. See Section 6.6 for Special Conditions related to minimizing impacts to wetlands, compensatory mitigation measures, and BMPs.

#### **Sec. 230.42 Mud flats.**

There are no mud flats in the project area; therefore the project will have no effect on mud flats.

#### **Sec. 230.43 Vegetated shallows.**

Various habitat types and aquatic resources included in the proposed project area are discussed in Section 3.12.4 and Section 3.14 of the FEIS for I-73 North and FEIS for I-73 South. However, since a minimal amount of fill material is proposed to be placed in



open water areas that may have an opportunity to support vegetated shallows, impacts to vegetated shallows are expected to be negligible and will not contribute to the significant degradation of waters of the U.S.

#### **Sec. 230.44 Coral reefs.**

There are no coral reefs in the project area; therefore the project will have no effect on coral reefs.

#### **Sec. 230.45 Riffle and pool complexes**

Various habitat types and aquatic resources included in the proposed project area are discussed in Section 3.12.4 and Section 3.14 of the FEISs for I-73 North and I-73 South. Overall, this project is not anticipated to have more than negligible impacts upon riffle-pool complexes due to the project being dominated by low gradient streams that have few documented riffle-pool complexes.

### **6.4 Potential effects on human use characteristics (Subpart F)**

#### **Sec. 230.50 Municipal and private water supplies**

Both the EIS for I-73 South and the EIS for I-73 North, Sections 3.21.2 "*Section 401 Water Quality*", Section 3.16 "*Groundwater Resources*" and Section 3.17 "*Surface Water Resources*" discuss potential impacts to water supplies. As discussed in the 2017 Corps EA for I-73, runoff from the construction site, including areas where fill will occur, will be contained and controlled through the implementation of BMP's and is not likely to cause significant impacts to water quality. SCDOT proposed sediment and erosion control structures/practices include run off diversion facilities, sediment control fences, rock structures, basins, seeding/mulching, etc. These BMP's will be designed and implemented as specified in the SCDHEC WQC and as outlined in the EISs. In addition, special condition 5 of the SDHEC WQC issued on April 26, 2017, requires "*Only clean earthen material free of all potential sources of pollution must be used as fill*,"; therefore, it is not anticipated that fill placement will change the chemistry or the physical characteristics of the water through the introduction of chemical constituents in suspended or dissolved form.

Based thereon, the proposed discharge will have a negligible effect on municipal and private water supplies.

#### **Sec. 230.51 Recreational and commercial fisheries.**

Recreational fishing in the immediate area may temporarily be affected during construction associated with tributary crossings, most notably in the Little Pee Dee River, but conditions should return to normal after construction is complete. The existence of the roadways and bridge approaches after construction will have a negligible long term effect on commercial or recreation fishing. Based thereon, the

proposed discharge will have no significant adverse effects on recreational or commercial fisheries. The following special condition will be added to the DA Permit:

**That the permittee shall not interfere with the public's right to free navigation on all navigable waters of the United States, and therefore, at no time shall work impede more than 50% of any navigable channel.**

**Sec. 230.52 Water-related recreation.**

There may be a minor temporary effect on water related recreation in the immediate area may during construction but conditions should return to normal after construction is complete. The existence of the roadways and bridges, after construction, will have a negligible long term effect on water related recreation. The following special condition will be added to the DA Permit:

**That the permittee shall not interfere with the public's right to free navigation on all navigable waters of the United States, and therefore, at no time shall work impede more than 50% of any navigable channel.**

**Sec. 230.53 Aesthetics**

There will be temporary adverse impacts to aesthetics during construction; however, following reclamation and reestablishment of natural vegetation these impacts will be considerably diminished. The aesthetic impacts resulting from the construction of a new interstate will be long term and adverse.

**Sec. 230.54 Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves**

The discharge of dredged or fill material into such areas may modify the aesthetic, educational, historical, recreational and/or scientific qualities thereby reducing or eliminating the uses for which such sites are set aside and managed.

The EPA has provided the following explanation of this section of the 404(b)(1) Guidelines:

*"Section 230.54 (proposed 230.41) deals with impacts on parks, national and historical monuments, national sea shores, wilderness areas, research sites, and similar preserves. Some readers were concerned that we intended the Guidelines to apply to activities in such preserves whether or not the activities took place in waters of the United States. We intended, and we think the context makes it clear, that the Guidelines apply only to the specification of discharge sites in the waters of the United States, as defined in § 230.3. We have included this section because the fact that a water of the United States may be located in one of these preserves is significant in evaluating the impacts of a discharge into that water."*

45 Fed. Reg. 85336, at 85341 (December 24, 1980).<sup>5</sup> The Little Pee Dee Heritage Preserve was classified as a "Sanctuary and Refuge". Please see Section 230.40 for further details.

## 6.5 Evaluation and testing (Subpart G)

### **Sec. 230.60 and 230.61 General evaluation of dredged or fill material and Chemical, biological and physical evaluation and testing.**

All fill material will be clean material from upland source sites and therefore no testing was required.

## 6.6 Actions to minimize adverse effects (Subpart H)

Actions regarding the location of the discharge, the material to be discharged, controlling the material after discharge, the method of dispersion, those related to technology, plant and animal populations, spawning or migration seasons and other biologically critical time periods were considered. In evaluating this application, the direct fill in waters of the U.S. has been minimized to the maximum extent practicable and the following special conditions will be added to the DA permit to minimize the secondary impacts of the discharges:

**The permittee understands and agrees that the Department of the Army permit has been issued based upon the permittee's intended purpose to construct and operate an interstate facility in accordance with the permitted plans. The permittee recognizes that its commitment to construct and operate the interstate facility and comply with the proposed mitigation for the impacts resulting from the project as described in the Department of the Army permit application, as well as the environmental commitments that were made as part of the development of the EISs for the I-73 project which were revised and/or re-affirmed, was a deciding factor in the favorable decision on this permit. In addition, the permittee recognizes further that a deviation from such details may be grounds for modification, suspension or revocation of this Department of the Army authorization.**

**The permittee recognizes that its commitment to perform and implement the following was a deciding factor in the favorable decision on this permit, and recognizes further that a failure on its part to both actively pursue and implement these conditions may be grounds for modification, suspension or revocation of this Department of the Army authorization:**

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<sup>5</sup> A scrivener's error in the 2017 Corps EA for I-73 incorrectly cited the volume number for this portion of the Federal Register as "48" instead of "45." The correct citation is 45 Fed. Reg. 85336, at 85341 (December 24, 1980).

1. **As compensatory mitigation to offset impacts to aquatic resources, the permittee will implement and fully comply with the mitigation plan dated May 3, 2017, and entitled "I-73 Compensatory Mitigation Plan Dillon, Horry, Marion, and Marlboro Counties, SC SAC 2008-1333-DIS".**
2. **That the permittee must submit evidence of protection of the site to both the Corps of Engineers and DHEC, prior to the commencement of authorized work.**

**During bridge construction, access to the project site must be attained from highland, from the portions of the bridge already completed ("end on end construction") or from floating barges or mats (instead of barge canals or causeways).**

**The permittee must implement appropriate best management practices that will minimize erosion and migration of sediments on and off the project site during and after construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments, and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized upon project completion.**

**Only clean earthen material free of all potential sources of pollution must be used as fill.**

**Construction activities shall be confined within the permitted limits to prevent the unnecessary disturbance of adjacent wetland areas.**

**Measures must be taken to prevent the spread and establishment of invasive species to the extent practicable.**

**Appropriate containment measures must be taken to prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands.**

**A sufficient number of adequately sized culverts must be placed at the same elevation as the streams and wetlands to maintain flows, wetland hydrology, and unrestricted aquatic life passage.**

**That the permittee agrees to comply with all FEMA regulations and requirements. The permittee is advised that development activities in a Special Flood Hazard Area (i.e 100-year floodplain), as designated in the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), are subject to the floodplain management regulations of the National Flood Insurance Program [(NFIP)(44CFR)]. The NFIP prohibits any development within a designated floodway, including placement of fill,**



**without a No Impact Certification from FEMA or the local NFIP representative. The permittee shall provide this office with a copy of the No Impact Certification prior to the commencement of authorized work.**

**That the permittee shall comply with the following conditions during construction in the Little Pee Dee River in order to minimize potential adverse impacts to sturgeon and other anadromous fish:**

- 1. The permittee shall implement an in-water work moratorium from February 1 to April 30.**
- 2. Construction of Cofferdams may take place before or after the moratorium, but not during the moratorium. However, once a coffer dam is built, work inside it may continue year-round.**
- 3. Bridge construction will never obstruct more than half of the river at any one time.**

**The permittee shall comply with the stipulations described in the two Memorandum of Agreements among the Federal Highway Administration, the South Carolina Department of Transportation and the South Carolina State Historic Preservation Officer regarding the Interstate 73 Project in Marlboro and Dillon Counties, South Carolina last signed on January 13, 2017 and July 17, 2008 to ensure responsibilities under Section 106 of the NHPA are fulfilled.**

For purposes of NEPA, and in light of the special conditions included in this ROD (e.g., implementation of the Final Mitigation Plan, BMPs, etc.), the SCDNR compensation package (see Section 6.3 [Section 230.40]), and the compensation and other mitigative actions discussed in Section 10.0, it is the Corps' determination that all practicable means to avoid or minimize environmental harm from the Applicant's Preferred Alternative (i.e., the combination of Alternative 2 for the northern segment and Alternative 3 for the southern segment) have been adopted. See 40 C.F.R. § 1505.2(c). The Final Mitigation Plan is summarized in Section 1.7 above, and also discussed in Section 10.0 of this ROD (see also Sections 1.7 and 8.0 of the 2017 Corps EA for I-73). SCDOT's avoidance and minimization measures are discussed further in Sections 1.6 and 6.0 (e.g., Sections 230.40 and 230.41) of this ROD.

## **6.7 Factual Determinations (Subpart B, section 230.11)**

### **Sec. 230.11 Factual determinations.**

The permitting authority shall determine in writing the potential short-term or long-term effects of a proposed discharge of dredged or fill material on the physical, chemical, and biological components of the aquatic environment in light of subparts C through F. Such factual determinations shall be used in Sec. 230.12 in making findings of compliance or non-compliance with the restrictions on discharge in Sec. 230.10. The evaluation and testing procedures described in Sec. 230.60 and Sec. 230.61 of subpart

G shall be used as necessary to make, and shall be described in, such determination. The determinations of effects of each proposed discharge shall include the following:

**Physical substrate determinations.**

Substrates will be impacted in association with the construction of roadways and bridge approaches for the I-73 project. A number of minimization measures are proposed in Section 3.12.13 of the FEIS for I-73 North and the FEIS for I-73 South to reduce sediment and sediment-associated pollution loading from disturbed areas. These measures include: (1) designing roadway slopes to minimize erosion, as is feasible; (2) construction at existing grade whenever possible; (3) performing concurrent and final reclamation to minimize soil loss and erosion; and (4) the use of timber mats, barges, temporary trestles, and existing structures to minimize impacts to soils during construction. In addition, the permittee will be required to implement Storm Water Pollution and Prevention Plans as required by the requisite NPDES permit and manage erosion and sedimentation controls during construction as specified in the SCDHEC Water Quality Certification issued on April 26, 2017. The Corps considers the use of BMP's and other measures to be critical to ensuring that any proposed project will not cause significant adverse impact on waters of the U.S. Therefore, the Corps has determined that the project is expected to have minor, long term effects to physical substrate.

**Water circulation, fluctuation, and salinity determinations.**

The project is expected to have minor, short term effects on water circulation and fluctuation, and no impacts on salinity gradients.

**Suspended particulate/turbidity determinations.**

Suspended particulates and turbidity are expected to temporarily increase during construction; however, after the construction of the interstate is complete and all areas have been stabilized, including vegetative cover, the potential for runoff related sediment will be greatly reduced. The permittee will implement sediment and erosion control measures as outlined in *The South Carolina Stormwater Management and Sediment Control Handbook for Land Disturbance Activities* to reduce sediment and sediment-associated pollutant loading from disturbed areas during construction. In addition, the applicant will implement Storm Water Pollution and Prevention Plans as required by the requisite NPDES permit, manage erosion and sedimentation controls during construction as specified in the SCDHEC Water Quality Certification issued on April 26, 2017, and require the contractor comply with Section 107.26, SCDHEC's *Environmental Protection and Water Pollution Control from the South Carolina Highway Department Standard Specifications for Highway Construction*. Therefore, the Corps has concluded that the discharge of fill material associated with the proposed project will have minor, short term effects on suspended particulates and turbidity in the water column.

**Contaminant determination.**

The discharge of fill material associated with the proposed project will not result in the introduction, relocation, or increase of contaminants into the aquatic environment.

**Aquatic ecosystem effects.**

Impacts on the aquatic ecosystem and the organisms supported by the aquatic ecosystem will cause long-term major effects in the specific fill areas, but not to any particular aquatic species. Direct impacts on aquatic ecosystems at the discharge site, from the placement of fill in wetlands and tributaries, will be major and permanent. However, overall impacts to the aquatic ecosystems outside the specific fill areas will be minor and temporary.

**Proposed disposal site.**

Since the discharges will occur in wetlands and streams and not in turbulent open waters, the considerations of this section do not apply.

**Cumulative effects.** (40 C.F.R. § 230.11[g])

Project-induced changes in stream flows and seasonal hydrologic regimes will result in minimal cumulative impacts because no other known past, present, or projected projects were identified that will cause more than minor impacts on the hydrology and flow regimes of the affected streams. A full discussion of cumulative effects can be found in Section 7.0 of the 2017 Corps EA for I-73. Based thereon, the project will cause minor long-term cumulative effects on the aquatic ecosystem.

**Secondary effects.** (40 C.F.R. § 230.11[h]) Secondary effects are defined (40 C.F.R. § 230.11[h]) as "effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material." Secondary impacts associated with the placement of fill material include wetland and stream habitat fragmentation, topographic changes, and the addition of sediment into these environments from temporarily exposed soils. A full discussion of secondary effects can be found in Section 7.6 of the 2017 Corps EA for I-73. Based thereon, the project will cause minor long-term secondary effects on the aquatic ecosystem.

**6.8 Restrictions on Discharges (Subpart B, Section 230.10)**

(1) Alternatives (230.10 [a]):

There is no practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem that does not have other significant adverse environmental consequences. (See Section 5.0, "Alternatives Analysis" for supporting information on this determination.)

True     False

(2) Other program requirements (230.10[b]):

(a) The proposed activity violates applicable State water quality standards or Section 307 prohibitions or effluent standards. (See Section 9.0 "Compliance with Other Laws, Policies, and Requirements" for supporting information on this determination.)

No  Yes

(b) The proposed activity jeopardizes the continued existence of federally listed threatened or endangered species or affects their critical habitat. (See "Section 230.30" above and Section 9.0 "Compliance with Other Laws, Policies, and Requirements" for supporting information on this determination.)

No  Yes

(c) The proposed activity violates the requirements of a federally designated marine sanctuary. (See Section 9.0 "Compliance with Other Laws, Policies, and Requirements" for supporting information on this determination.)

No  Yes

(3) Significant Degradation (230.10[c]):

The activity will not cause or contribute to significant degradation of waters of the United States. This finding is based on appropriate factual determinations, evaluations, and tests required by Subparts B and G, after consideration of Subparts C through F, with special emphasis on the persistence and permanence of the effects as discussed above.

True  False

(4) Minimization of adverse effects (230.10[d]):

(a) Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

True  False

## 7.0 Public Interest Review

All public interest factors have been reviewed, as discussed in the 2017 Corps EA for I-73. Both cumulative and secondary impacts on the public interest were considered and the conclusions are provided below.

### Conservation

Based on all available information, the impacts to conservation will be long-term and minor.



## **Economics**

The proposed project is expected to improve the overall economic conditions within the project area. Increased employment, tax revenues, and business growth should result from construction of the interstate facility. Residents, business, tourists, etc. will be able to travel more efficiently, facilitating improved movement of goods and people. Therefore, the overall impacts to economics from the project will be long term and beneficial.

## **Aesthetics**

Aesthetic impacts will include degradation of the project area due to a change in the visual character in the surrounding landscape, irrelevant of the current site condition (i.e. residential, commercial, farmlands, etc.). The proposed project will result in major long-term, adverse effects on aesthetics to those properties the interstate facility will traverse, as well as those within the viewshed of the project.

## **General environmental concerns**

Issues like overpopulation, land use, pollution, and climate change fall within what the Corps would consider general environmental concerns. The proposed project will result in minor short-term and long-term effects on general environmental concerns.

## **Wetlands**

The proposed project will cause a major, long-term, adverse direct impact on the wetlands underlying the fill areas. However, the lost chemical, physical, and biological functions and values associated with this project will be mitigated with the implementation of the Final Mitigation Plan. The SCDOT and FHWA have evaluated the need for the proposed interstate facility as described in the FEISs and have determined that there is a public need for the project. The following special conditions will be included in the DA permit to ensure that impacts to those wetland resources not directly impacted by this project will be minimized:

**The permittee understands and agrees that the Department of the Army permit has been issued based upon the permittee's intended purpose to construct and operate an interstate facility in accordance with the permitted plans. The permittee recognizes that its commitment to construct and operate the interstate facility and comply with the proposed mitigation for the impacts resulting from the project as described in the Department of the Army permit application, as well as the environmental commitments that were made as part of the development of the EISs for the I-73 project which were revised and/or re-affirmed, was a deciding factor in the favorable decision on this permit. In addition, the permittee recognizes**

**further that a deviation from such details may be grounds for modification, suspension or revocation of this Department of the Army authorization.**

**The permittee recognizes that its commitment to perform and implement the following was a deciding factor in the favorable decision on this permit, and recognizes further that a failure on its part to both actively pursue and implement these conditions may be grounds for modification, suspension or revocation of this Department of the Army authorization:**

- 1. As compensatory mitigation to offset impacts to aquatic resources, the permittee will implement and fully comply with the mitigation plan dated May 3, 2017, and entitled "I-73 Compensatory Mitigation Plan Dillon, Horry, Marion, and Marlboro Counties, SC SAC 2008-1333-DIS".**
- 2. That the permittee must submit evidence of protection of the site to both the Corps of Engineers and DHEC, prior to the commencement of authorized work.**

**During bridge construction, access to the project site must be attained from highland, from the portions of the bridge already completed ("end on end construction") or from floating barges or mats (instead of barge canals or causeways).**

**The permittee must implement appropriate best management practices that will minimize erosion and migration of sediments on and off the project site during and after construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments, and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized upon project completion.**

**Only clean earthen material free of all potential sources of pollution must be used as fill.**

**Construction activities shall be confined within the permitted limits to prevent the unnecessary disturbance of adjacent wetland areas.**

**Measures must be taken to prevent the spread and establishment of invasive species to the extent practicable.**

**Appropriate containment measures must be taken to prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands.**

**A sufficient number of adequately sized culverts must be placed at the same elevation as the streams and wetlands to maintain flows, wetland**

**hydrology, and unrestricted aquatic life passage.**

**Historic Properties and Cultural Resources**

The proposed project will result in an adverse effect to the Beauty Spot Motor Court Office Building, which was determined eligible for the National Register of Historic Places (NRHP) during surveys for I-73 South. In an effort to reach a mutually agreeable mitigation strategy for the unavoidable impacts to the Beauty Spot Motor Court Office Building, SCDOT and FHWA coordinated with SHPO to develop a mitigation plan. The MOA is entitled, "Memorandum of Agreement between the Federal Highway Administration, The South Carolina Department of Transportation, and The South Carolina State Historic Preservation Office", last signed on July 17, 2008.

In addition to the Beauty Spot Motor Court Office, archaeological sites 38ML291, 38ML296, 38ML309, 38ML340, 38DN165, 38ML297, and 38ML342 were identified during the cultural resources surveys for I-73 North, within the right-of-way of the proposed alternative and may be impacted pending final design. It was determined these sites would need further testing to determine whether they are eligible for the NRHP. An MOA was signed between the Federal Highway Administration, the South Carolina Department of Transportation and the South Carolina State Historic Preservation Officer regarding the Interstate 73 project in Marlboro and Dillon Counties, South Carolina (last signed on January 13, 2017) and included stipulations regarding the measures that must be carried out before these sites can be impacted by any construction.

In accordance with 36 C.F.R. § 800.2(a)(2), FHWA – as the lead agency – fulfilled the collective federal agency responsibilities under 106 of the NHPA. MOAs were completed for those sites that were identified during the cultural resources surveys within the right-of-way of the proposed alternative that may be impacted by the final design and construction, as well as the known NRHP site, the Beauty Spot Motor Court Office Building. In order to ensure that SCDOT complies with the MOAs, the following special condition will be added to the DA permit:

**The permittee shall comply with the stipulations described in the two Memorandum of Agreements among the Federal Highway Administration, the South Carolina Department of Transportation and the South Carolina State Historic Preservation Officer regarding the Interstate 73 Project in Marlboro and Dillon Counties, South Carolina last signed on January 13, 2017 and July 17, 2008 to ensure responsibilities under Section 106 of the NHPA are fulfilled.**

**Fish and wildlife values**

As discussed in Section 6.0 of this ROD, as well as in greater detail in Section 6.0 of the 2017 Corps EA for I-73, fish and wildlife values will be lost as a result from this project. FHWA, SCDOT, and the Corps consulted with the USFWS, NMFS, and SCDNR (the

state agency responsible for fish and wildlife) concerning the potential impacts to wildlife resources due to the construction of the interstate facility and measures that SCDOT can take to prevent and/or minimize the loss and damage to fish and wildlife and their habitat. As identified above in the "Wetlands" section, numerous conditions will be added to the DA permit to ensure that impacts to aquatic resources, including fish and wildlife, remain minimal.

### **Flood hazards**

The proposed project will have a minimal adverse impact due to flood hazards. The following special condition will be added to the DA permit:

**For I-73 North, the permittee agrees that the drainage/conveyance system shall be designed by a licensed Professional Engineer (PE) and constructed by the permittee (or his designated assignee) to provide for the proper drainage of surface water of the drainage area of which it is a part, to permit the flow of natural or manmade watercourses, and to maintain positive drainage for adjacent properties. In addition, the drainage/conveyance system shall be sufficient to prevent any appreciable increase in water surface elevations or expansion/increases of the flood hazard area.**

**1. Sufficient documentation, signed by a PE, shall be provided to the Corps for review/approval 120 days prior to the anticipated commencement of authorized work. Documentation, in the form of summaries of modeling/calculations, shall verify that there is no adverse change in water surface elevations or expansion/increases of the flood hazard area on adjacent properties.**

**2. In cases where increases in water surface elevations or expansion/increases of the flood hazard area are unavoidable, the permittee shall submit to the Corps, 120 days prior to the anticipated commencement of authorized work, all information (including summaries of all data, modeling and/or studies, and inundation maps of the impacted area) supporting the determination that the increases in the flood risk are not appreciable. Written authorization/concurrence must be received from the Corps indicating that any increases are not considered appreciable before work can commence.**

### **Floodplain values and management**

The proposed project will result in a minor long-term impact on floodplain values and management. Consistent with SCDOT's Environmental Commitment, the following conditions will be added to the DA permit:

**That the permittee agrees to comply with all FEMA regulations and**



**requirements. The permittee is advised that development activities in a Special Flood Hazard Area (i.e 100-year floodplain), as designated in the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), are subject to the floodplain management regulations of the National Flood Insurance Program [(NFIP)(44CFR)]. The NFIP prohibits any development within a designated floodway, including placement of fill, without a No Impact Certification from FEMA or the local NFIP representative. The permittee shall provide this office with a copy of the No Impact Certification prior to the commencement of authorized work.**

### **Land use**

It is anticipated that the proposed roadway will have a positive impact on growth and development as new access would enhance the suitability and/or opportunity for development to occur. Therefore, the proposed project will result in a major, long-term impact on land use.

### **Navigation**

While there are construction related activities located in navigable waters that may cause an inconvenience for navigating these waters, there should not be an obstruction to navigation due to the proposed project. The following special condition will be added to the DA permit to ensure that the use of the permitted activity will not interfere with the public's right to free navigation:

**That the permittee shall not interfere with the public's right to free navigation on all navigable waters of the United States, and therefore, at no time shall work impede more than 50% of any navigable channel.**

Therefore, the proposed discharge will have no significant adverse effects on navigation.

### **Shore erosion and accretion**

The proposed project will not affect any beaches, shore, or coast line; therefore, the proposed project will not affect shore erosion or accretion.

### **Recreation**

The proposed project would impact approximately 30 acres of the Vaughn Tract of the Little Pee Dee Heritage Preserve in Horry County, which is used by the public for various activities to include hunting, fishing, boating, hiking, camping, and wildlife viewing. Coordination occurred between SCDNR and SCDOT to mitigate for these impacts and a compensation package was accepted by SCDNR to mitigate for this loss to recreational resources. As discussed previously, water-related recreation could

occur, specifically on the Little Pee Dee River; however, impacts are anticipated to occur only during construction and even then, the navigable channel should be open at least 50%. Therefore, the proposed project will result in a minor effect on recreation.

### **Water supply and conservation**

The proposed project will result in minor short-term effects on water supply and conservation.

### **Water quality**

The proposed project will result in minor, short-term and long-term adverse impacts on water quality, but will not result in violation of the South Carolina water quality standards. A Water Quality Certification was issued by SCDHEC on April 26, 2017 and several conditions were added to ensure the protection of water quality. The following will also be added as special conditions to the DA permit to ensure that impacts to water quality remain minimal.

**During bridge construction, access to the project site must be attained from highland, from the portions of the bridge already completed (“end on end construction”) or from floating barges or mats (instead of barge canals or causeways).**

**The permittee must implement appropriate best management practices that will minimize erosion and migration of sediments on and off the project site during and after construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments, and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized upon project completion.**

**Only clean earthen material free of all potential sources of pollution must be used as fill.**

**Construction activities shall be confined within the permitted limits to prevent the unnecessary disturbance of adjacent wetland areas.**

**Measures must be taken to prevent the spread and establishment of invasive species to the extent practicable.**

**Appropriate containment measures must be taken to prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands.**

### **Energy needs**

The proposed project will result in a negligible impact to energy needs.

### **Safety**

The proposed project will have a long term, beneficial impact on safety.

### **Food and fiber production**

The proposed project will have a minor impact on food and fiber production.

### **Mineral Needs**

The proposed project will have minor impact on mineral needs.

### **Considerations of property ownership**

As stated in the FEISs and Re-evaluations, SCDOT has either acquired, or will acquire all of the right-of-way needed for I-73. SCDOT processes all relocations in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Act), as amended (42 U.S.C. 460 et seq.). The purpose of the regulations is to ensure that owners of real property that will be acquired for Federal and federally-assisted projects, are treated fairly and consistently. The Act also encourages the expedition of acquisition by agreements with such owner to minimize litigation and relieve congestions in the courts, and to promote public confidence in Federal and federally-assisted land acquisition programs.

Regarding landowner's general right of access to navigable waters of the United States, the project does include work in the Little Pee Dee River. While construction related activities may cause an inconvenience for navigating these waters, a special condition will be added to the DA permit that will ensure that the permitted activities will not cause an interference with the public's right to free navigation.

### **Needs and welfare of the people**

In evaluating the applicant's need for the proposed project, the Corps will generally defer, as appropriate, to a governmental entity's decision to spend public funds. Even so, the Corps has discretion to review the public need for a project, especially if it appears to be unduly speculative. In the public interest review, the Corps has the responsibility to balance public interest need or benefits against public interest detriments. In this regard, the final decision on a proposed project is determined by the outcome of this balancing process. In evaluating the applicant's needs for this project, this office independently reviewed the FHWA and SCDOT's explanation of purpose and need, as well as other information provided by the applicant. After this review, the Corps has determined that the proposed project is not unduly speculative. Furthermore, with

regard to the purpose and need for the I-73 project, the Corps defers to FHWA as the expert federal agency responsible for ensuring federal funds are appropriated and expended appropriately. As such, the Corps has not questioned the appropriate use of state or federal funds for this project, but has focused on reviewing the proposed project, alternatives to the proposed project, and the resultant impacts of the proposed project on the natural and human environment, specifically focusing on those impacts to waters of the U.S., in accordance with federal regulations. As discussed in the 2017 2017 Corps EA for I-73, the U.S Congress identified the I-73 corridor as a High Priority Corridor by the in the *Intermodal Surface Transportation Efficiency Act of 1991*. Accordingly, the Corps has deferred to the transportation experts and has determined that due to its designation as a priority project, the project will result in beneficial, long-term effects on the needs and welfare of the people.

## **8.0 Consideration of Cumulative Impacts**

A detailed discussion of the cumulative impacts is located in Section 7.0 of the 2017 Corps EA for I-73, which is incorporated herein by reference (as also discussed in the Introduction section of this ROD).

## **9.0 Compliance with Other Laws, Policies, and Requirements**

### **9.1 Public Interest Factors: See Section 7.0 above.**

### **9.2 Endangered Species Act:** As discussed in Section 3.2 of the 2017 Corps EA for I-73, this project may affect, but is not likely to adversely affect the Kirkland's warbler, Shortnose sturgeon, and the Atlantic sturgeon. Specifically, the Corps made the following determinations for the proposed project:

*Schwalbae Americana* (American chaffseed)- No effect

*Oxypolia canbyi* (Canby's dropwort) – No effect

*Rhus michauxii* (Michaux's sumac)- No effect

*Lysimachia asperulifolia* (Rough-leaved loosestrife)- No effect

*Alligator mississippiensis* (American alligator)- No effect

*Lasmigonia decorate* (Carolina heelsplitter)- No effect

*Picoides borealis* (Red-Cockaded woodpecker)- No effect

*Lindera melissifolia* (Pondberry)- No effect

*Mycteria americana* (Wood stork)- No effect

*Dendroica kirtlandii* (Kirtland's warbler)- May affect, but not likely to adversely affect

*Acipenser brevirostrum* (Shortnose sturgeon) - May affect, but not likely to adversely affect

*Acipenser oxyrinchus* (Atlantic Sturgeon)- May affect, but not likely to adversely affect

On April 29, 2013, the Corps received concurrence from NOAA-NMFS, Protected Resources Division indicating that they believed the species are unlikely to be adversely affected. The Corps received concurrence from USFWS on July 19, 2016 stating that they concurred with Corps' determination "*this proposed action may affect, but will not*



*adversely affect, threaten or endanger species known to occur in the Counties encompassed by the proposed project".* In order to ensure SCDOT complies with the identified measures to reduce the potential for adverse effects to *Acipenser brevirostrum* and *Acipenser oxyrinchus*, the following will be added as a special condition to the DA permit:

**That the permittee shall comply with the following conditions during construction in the Little Pee Dee River in order to minimize potential adverse impacts to sturgeon and other anadromous fish:**

- 1. The permittee shall implement an in-work water moratorium from February 1 to April 30.**
- 2. Construction of Cofferdams may take place before or after the moratorium, but not during the moratorium. However, once a coffer dam is built, work inside it may continue year-round.**
- 3. Bridge construction will never obstruct more than half of the river at any one time.**

### **9.3 Magnuson-Stevens Fishery Conservation and Management Act**

The Corps coordinated with NOAA's National Marine Fisheries Service, Habitat Conservation Division. They responded in a letter dated July 29, 2016 stating that they agreed that the proposed work is not within areas designated essential fish habitat (EFH) and offered no comments under the authorities of the Magnuson-Stevens Fishery Conservation and Management Act.

### **9.4 Section 106 of the National Historic Preservation Act**

In accordance with 36 C.F.R. § 800.2(a)(2), FHWA – as the lead agency – fulfilled the collective federal agency responsibilities under 106 of the NHPA. No new historic properties have been identified within the project corridor and the project has not changed alignment where additional surveys would be needed to identify potential historic properties. The permittee shall comply with the stipulations described in the two Memorandum of Agreements among the Federal Highway Administration, the South Carolina Department of Transportation and the South Carolina State Historic Preservation Officer regarding the Interstate 73 project in Marlboro and Dillon Counties, South Carolina last signed on January 13, 2017 and July 17, 2008 to ensure responsibilities under Section 106 of the NHPA are fulfilled. The MOAs for the southern alignment was updated with revised dates and re-signed in 2017 for those sites that were identified during the cultural resources surveys within the right-of-way of the proposed alternative that may be impacted by the final design and construction. The following will be included as a special condition to the DA permit:

**The permittee shall comply with the stipulations described in the two Memorandum of Agreements among the Federal Highway Administration, the South Carolina Department of Transportation and**

**the South Carolina State Historic Preservation Officer regarding the Interstate 73 Project in Marlboro and Dillon Counties, South Carolina last signed on January 13, 2017 and July 17, 2008 to ensure responsibilities under Section 106 of the NHPA are fulfilled.**

- 9.5 **Water Quality Certification under Section 401 of the CWA:** The Certification in Accordance with Section 401 of the Clean Water Act, as amended, was issued with conditions on April 26, 2017.
- 9.6 **Coastal Zone Management Consistency/ Permit:** OCRM issued a concurrence in accordance with the Coastal Zone Management Program on April 26, 2017.
- 9.7 **Corps Wetland Policy:**  
Based on the public interest review herein, the beneficial effects of the proposed project outweigh the detrimental effects.
- 9.8 **Effect on Federal Projects:**  
There are no proposed federal projects within or adjacent to the I-73 Project Area.
- 9.9 **Safety of Impoundment Structures:**  
The Applicant demonstrated that impoundment structures comply with established dam safety criteria or have been designed by qualified persons and independently reviewed:
- True  False  Not Applicable
- 9.10 **Activities in Marine Sanctuaries:**  
If the proposed project would occur in a marine sanctuary, certification from the Secretary of Commerce was received:
- True  False  Not Applicable
- 9.11 **Other Authorizations:**  
  
SCDOT will obtain any other relevant State, Local or Federal permits necessary for the construction of I-73. It is noted in the FEISs, Re-evaluations, SCDOT's revised DA permit application, and the 2017 Corps EA for I-73 that SCDOT will obtain the required authorizations to discharge fill material into waters of the United States in areas outside of the jurisdiction of the Charleston District, specifically, the portions of the project that fall within the boundaries of North Carolina that require impacts to waters of the US.
- 9.12 **Significant Issues of Overriding National Importance:**  
  
There are no significant issues of overriding national importance.
- 10.0 **Compensation and Other Mitigative Actions**

### **Compensatory Mitigation:**

As discussed in Sections 1.7 and 8.2 and the 2017 Corps EA for I-73, and Section 3.10.3 of the Re-evaluation for I-73 South and Section 3.8.3 of the Re-evaluation for I-73 North, respectively, SCDOT proposed to offset the losses to aquatic resources via a permittee responsible mitigation plan. The compensatory mitigation proposed by SCDOT for unavoidable impacts to waters of the United States utilizes the Gunter's Island mitigation site in Horry County. Gunter's Island consists of over 6,000 acres on the Little Pee Dee River in Horry County and will include the preservation of over 89,000 linear feet of stream including, 11 miles of river frontage along the Little Pee Dee River, and 4,500 acres of wetlands. Gunter's Island also contains 12 identified ox-bow lakes along with numerous other ancient ox-bow channels, and several different categories of wetland type which all provide diversity in aquatic habitats and ecosystems. The mitigation is detailed in SCDOT's final mitigation plan entitled "I-73 Compensatory Mitigation Plan Dillon, Horry, Marion, and Marlboro Counties, SC SAC 2008-1333-DIS" (referred to herein as the Final Gunter's Island Mitigation Plan or Final Mitigation Plan) dated May 3, 2017.

The Gunter's Island site is proposed to provide compensatory mitigation for the impacts to waters of the U.S. located in South Carolina resulting from the construction of both the North and South portions of I-73. In addition, it is noted that SCDOT's Final Mitigation Plan does not differentiate between impacts to non-jurisdictional wetlands and those impacts to waters of the U.S. as SCDOT proposed to address concerns from the Corps and SCDHEC, and therefore, compensate for all impacts to aquatic resources, both jurisdictional and non-jurisdictional.

As discussed in detail in the Section 3.10.3 of the Re-evaluation for I-73 South and Section 3.8.3 of the Re-evaluation for I-73 North, respectively, SCDOT's revised DA application included the newly proposed Gunter's Island Mitigation Plan in response to the concerns raised by resource agencies with regard to the ability of prior mitigation sites to adequately mitigate for the entire I-73 corridor in South Carolina. Importantly, the Final Gunter's Island Mitigation Plan was generally received by the resource agencies, including EPA and SCDNR, as a positive development.

In order to ensure SCDOT complies with the proposed mitigation, the following will be added as a special condition to the DA permit:

**The permittee recognizes that its commitment to perform and implement the following was a deciding factor in the favorable decision on this permit, and recognizes further that a failure on its part to both actively pursue and implement these conditions may be grounds for modification, suspension or revocation of this Department of the Army authorization:**

- 1. As compensatory mitigation to offset impacts to aquatic resources, the permittee will implement and fully comply with the mitigation plan dated May 3, 2017, and entitled "I-73 Compensatory Mitigation**

**Plan Dillon, Horry, Marion, and Marlboro Counties, SC SAC 2008-1333-DIS”.**

- 2. That the permittee must submit evidence of protection of the site to both the Corps of Engineers and DHEC, prior to the commencement of authorized work.**

**Other Mitigative Actions:**

SCDOT has identified numerous Environmental Commitments as part of the I-73 project. In addition, several conditions were added as part of the 401 Certification and CZM concurrence. The following will be Special Conditions to ensure other identified actions proposed for the project are completed and conveyed to the appropriate contractors and/or subcontractors:

**During bridge construction, access to the project site must be attained from highland, from the portions of the bridge already completed (“end on end construction”) or from floating barges or mats (instead of barge canals or causeways).**

**The permittee must implement appropriate best management practices that will minimize erosion and migration of sediments on and off the project site during and after construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments, and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized upon project completion.**

**Only clean earthen material free of all potential sources of pollution must be used as fill.**

**Construction activities shall be confined within the permitted limits to prevent the unnecessary disturbance of adjacent wetland areas.**

**Measures must be taken to prevent the spread and establishment of invasive species to the extent practicable.**

**Appropriate containment measures must be taken to prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands.**

**A sufficient number of adequately sized culverts must be placed at the same elevation as the streams and wetlands to maintain flows, wetland hydrology, and unrestricted aquatic life passage.**



## 11.0 Public Interest Review General Criteria (33 C.F.R. § 320.4[a][2])

The following general criteria were considered in the public interest review.

a. The relative extent of the public and private need for the proposed structure or work. The Corps has determined that due to I-73's designation as a priority project, the project will result in beneficial, long-term effects on the public and private needs.

b. Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work. As documented in this ROD, as well as the 2017 Corps EA for I-73, the Corps has determined that there are no reasonable or practicable alternative locations or methods to accomplish the objective of this proposal.

c. The extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited. Detrimental impacts are expected to be minimal although they would be permanent in the construction area. The beneficial effects associated with utilization of the property would be permanent.

## 12.0 Determinations

### 12.1 Public Hearing Request:

There were no requests for a public hearing.

I have reviewed and evaluated the requests for a public hearing. There is sufficient information available to evaluate the proposed project; therefore, the requests for a public hearing were denied.

In response to the requests for a public hearing, I determined that a public hearing was appropriate.

### 12.2 Section 176(c) of the Clean Air Act General Conformity Rule Review:

The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed *de minimis* levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 C.F.R. Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be predictably controlled by the Corps. For these reasons, a conformity determination is not required for this permit action.

### 12.3 EO 13175 Consultation with Indian Tribes, Alaska Natives and Native Hawaiians:

This EO was designed to establish regular and meaningful consultation and

collaboration with tribal officials in the development of Federal policies that have tribal implications and to strengthen the U.S. government-to-government relationships with Indian tribes. FHWA coordinated with numerous Tribes throughout the development of the EISs. Tribes included The Catawba Indian Nation, The United Keetoowah Band of Cherokee Indians in Oklahoma, The Tuscarora Nation, Choctaw Nation of Oklahoma, and the Shawnee Tribe. The coordination and copies of correspondence are found in Appendix J of each of the EISs as well as the technical memoranda referenced in the EISs. As the lead federal Agency for the EISs, to include responsibilities under 106 of the NHPA and compliance with EO 13175 *Consultation with Indian Tribes, Alaskan Natives and Native Hawaiians*, the Corps has deferred to FHWA and determined tribal trust responsibilities have been fulfilled.

**12.4 EO 11988 Floodplain Management:**

The proposed project is not in a floodplain

The evaluations in this document considered alternatives to locating the project in the floodplain, and minimizing and compensating for effects on the floodplain and are discussed in the FEISs, Re-evaluations, the 2017 Corps EA for I-73, and other areas throughout this ROD.

**12.5 EO 12898 Environmental Justice:**

In accordance with Title III of the Civil Rights Act of 1964 and EO 12898, it has been determined that the proposed project will not directly or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin; nor will it disproportionately affect minority or low-income communities.

**12.6 EO 13112 Invasive Species:**

There were no invasive species issues involved.

The evaluation in this document included invasive species concerns in the analysis of effects at the project site and associated compensatory mitigation.

Through the following special conditions, the permittee will be required to control the introduction and spread of exotic species:

**Measures must be taken to prevent the spread and establishment of invasive species to the extent practicable.**

**12.7 EO 13212 and 13302 Energy Supply and Availability:**

The proposed project will not increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

This review was expedited or other actions were taken to the extent permitted by law and regulation to accelerate completion of this energy-related (including pipeline safety) project while maintaining safety, public health and environmental protections.

**12.8 Findings of compliance or non-compliance with the restrictions on discharge. (Sec. 230.12 of the 404[b][1] guidelines):**

The proposed site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines.

The proposed disposal site for discharge or dredged or fill material complies with Section 404(b)(1) guidelines with the inclusion of conditions contained in this ROD.

The proposed disposal site for discharge of dredged or fill material does **not** comply with the Section 404(b)(1) guidelines for the following reasons:

There is a less damaging practicable alternative

The proposed discharge will result in significant degradation of the aquatic ecosystem

The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem.

**12.9 Public Interest Determination:**

The undersigned finds that the issuance of a Department of the Army permit is **not** contrary to the public interest.

**12.10** The above determinations were based on consideration of the final Project description and the imposition of Special Conditions in the DA permit, which are also included in this ROD (see Attachment A, Special Conditions).

PREPARED BY:

  
\_\_\_\_\_  
Steven A. Brumagin  
Project Manager, Special Projects Branch

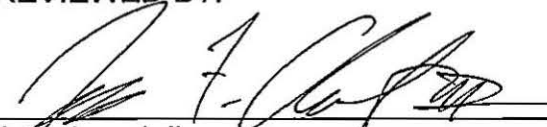
Date 6/19/17

REVIEWED BY:

  
\_\_\_\_\_  
Elizabeth G. Williams  
Chief, Special Projects Branch

Date 6/19/17

REVIEWED BY:

  
\_\_\_\_\_  
Jonathan Jellema  
District Counsel


Date 6/19/17

REVIEWED BY:

  
\_\_\_\_\_  
Travis G. Hughes  
Chief, Regulatory Division

Date 19 June 2017

APPROVED BY:

  
\_\_\_\_\_  
Matthew W. Luzzatto  
Lieutenant Colonel, U.S. Army  
District Commander

Date 19 June 2017



## **1.0 References**

- FHWA. (n.d.). *Section 4(f) Tutorial*. Retrieved May 8, 2017, from Federal Highway Administration: <https://www.environment.fhwa.dot.gov/section4f/properties.aspx>
- NPS, N. (2008, September 19). *National Park Service*. Retrieved from Land and Water Conservation Fund: <https://www.nps.gov/ncrc/programs/lwcf/protect.html>
- US Department of Transportation Federal Highway Administration*. (2017, 05 05). Retrieved from <https://www.fhwa.dot.gov/about/>

**ATTACHMENT A**  
**Final Project Description & Special Conditions**

**Final Project Description:** The work consists of constructing a new, limited access, approximately 75-mile long, four lane, interstate facility beginning at SC 22, northwest of Conway, South Carolina, extending through Horry, Marion, Dillon and Marlboro Counties and ending at the North Carolina/ South Carolina State line, northeast of Bennettsville, South Carolina.

**Permitted Plans titled:** *PIN 36358\_RD01 PROPOSED INTERSTATE 73 MARLBORO, DILLON, MARION, AND HORRY COUNTIES, S.C. APPLICATION BY SCDOT FEDERAL FUNDS TO BE USED* Date: 06/06/2016 Sheets 1-178 of 178.

**SPECIAL CONDITIONS FOR PERMIT #: SAC-2008-1333**

- a. That the permittee agrees to provide all contractors associated with construction of the authorized activity a copy of the permit and drawings. A copy of the permit will be available at the construction site at all times.
- b. That the permittee shall submit a signed compliance certification to the Corps within 60 days following completion of the authorized work and any required mitigation. The certification will include:
  1. A copy of this permit;
  2. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions;
  3. A statement that any required mitigation was completed in accordance with the permit conditions;
  4. The signature of the permittee certifying the completion of the work and mitigation.
- c. The permittee understands and agrees that the Department of the Army permit has been issued based upon the permittee's intended purpose to construct and operate an interstate facility in accordance with the permitted plans. The permittee recognizes that its commitment to construct and operate the interstate facility and comply with the proposed mitigation for the impacts resulting from the project as described in the Department of the Army permit application, as well as the environmental commitments that were made as part of the development of the EISs for the I-73 project which were revised and/or re-affirmed, was a deciding factor in the favorable decision on this permit. In addition, the permittee recognizes further that a deviation from such details may be grounds for modification, suspension or revocation of this Department of the Army authorization.

- d. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.**
- e. That the permittee shall not interfere with the public's right to free navigation on all navigable waters of the United States, and therefore, at no time shall work impede more than 50% any navigable channel.**
- f. The permittee must install and maintain, at their expense, any safety lights and signals prescribed by the U.S. Coast Guard (USCG), through regulations or otherwise, on authorized facilities. The USCG may be reached at the following address and telephone number: U. S. Coast Guard District Seven, Waterways Management Branch, 909 SE 1st Ave, Suite 406, Miami, FL. 33131, and 305-415-6755 or 305-415-6750.**
- g. The permittee understands and agrees that the Department of the Army permit has been issued based upon the permittee's intended purpose to construct and operate an interstate facility in accordance with the permitted plans. The permittee recognizes that its commitment to construct and operate the interstate facility and comply with the proposed mitigation for the impacts resulting from the project as described in the Department of the Army permit application, as well as the environmental commitments that were made as part of the development of the EISs for the I-73 project which were revised and/or re-affirmed, was a deciding factor in the favorable decision on this permit. In addition, the permittee recognizes further that a deviation from such details may be grounds for modification, suspension or revocation of this Department of the Army authorization.**
- h. The permittee recognizes that its commitment to perform and implement the following was a deciding factor in the favorable decision on this permit, and recognizes further that a failure on its part to both actively pursue and implement these conditions may be grounds for modification, suspension or revocation of this Department of the Army authorization:**

  - 1. As compensatory mitigation to offset impacts to aquatic resources, the permittee will implement and fully comply with the mitigation plan dated May 3, 2017, and entitled "I-73 Compensatory Mitigation Plan Dillon, Horry, Marion, and Marlboro Counties, SC SAC 2008-1333-DIS".**

- 2. That the permittee must submit evidence of protection of the site to both the Corps of Engineers and DHEC, prior to the commencement of authorized work.**
- i. During bridge construction, access to the project site must be attained from highland, from the portions of the bridge already completed (“end on end construction”) or from floating barges or mats (instead of barge canals or causeways).**
- j. The permittee must implement appropriate best management practices that will minimize erosion and migration of sediments on and off the project site during and after construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments, and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized upon project completion.**
- k. Only clean earthen material free of all potential sources of pollution must be used as fill.**
- l. Construction activities shall be confined within the permitted limits to prevent the unnecessary disturbance of adjacent wetland areas.**
- m. Measures must be taken to prevent the spread and establishment of invasive species to the extent practicable.**
- n. Appropriate containment measures must be taken to prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands.**
- o. A sufficient number of adequately sized culverts must be placed at the same elevation as the streams and wetlands to maintain flows, wetland hydrology, and unrestricted aquatic life passage.**
- p. That the permittee shall comply with the following conditions during construction in the Little Pee Dee River in order to minimize potential adverse impacts to sturgeon and other anadromous fish:**
  - 1. The permittee shall implement an in-water work moratorium from February 1 to April 30.**
  - 2. Construction of cofferdams may take place before or after the moratorium, but not during the moratorium. However, once a coffer dam is built, work inside it may continue year-round.**
  - 3. Bridge construction will never obstruct more than half of the river at any one time.**



- q. **The permittee shall comply with the stipulations described in the two Memorandum of Agreements among the Federal Highway Administration, the South Carolina Department of Transportation and the South Carolina State Historic Preservation Officer regarding the Interstate 73 Project in Marlboro and Dillon Counties, South Carolina last signed on January 13, 2017 and July 17, 2008 to ensure responsibilities under Section 106 of the NHPA are fulfilled.**
- r. **That the permittee agrees to comply with all FEMA regulations and requirements. The permittee is advised that development activities in a Special Flood Hazard Area (i.e 100-year floodplain), as designated in the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), are subject to the floodplain management regulations of the National Flood Insurance Program [(NFIP)(44CFR)]. The NFIP prohibits any development within a designated floodway, including placement of fill, without a No Impact Certification from FEMA or the local NFIP representative. The permittee shall provide this office with a copy of the No Impact Certification prior to the commencement of authorized work.**
- s. **For I-73 North, the permittee agrees that the drainage/conveyance system shall be designed by a licensed Professional Engineer (PE) and constructed by the permittee (or his designated assignee) to provide for the proper drainage of surface water of the drainage area of which it is a part, to permit the flow of natural or manmade watercourses, and to maintain positive drainage for adjacent properties. In addition, the drainage/conveyance system shall be sufficient to prevent any appreciable increase in water surface elevations or expansion/increases of the flood hazard area.**
- 1. Sufficient documentation, signed by a PE, shall be provided to the Corps for review/approval 120 days prior to the anticipated commencement of authorized work. Documentation, in the form of summaries of modeling/calculations, shall verify that there is no adverse change in water surface elevations or expansion/increases of the flood hazard area on adjacent properties.**
  - 2. In cases where increases in water surface elevations or expansion/increases of the flood hazard area are unavoidable, the permittee shall submit to the Corps, 120 days prior to the anticipated commencement of authorized work, all information (including summaries of all data, modeling and/or studies, and inundation maps of the impacted area) supporting the determination that the increases in the flood risk are not appreciable. Written authorization/ concurrence must be received from the Corps indicating that any increases are not considered appreciable before work can commence.**