



## Appendix C

### Jurisdictional Determination Verification Letter



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69A Hagood Avenue  
CHARLESTON, SOUTH CAROLINA 29403-5107

March 9, 2016

RECEIVED

MAR 14 2016

Regulatory Division

Environmental Management  
SCDOT

Mr. Sean Connolly  
South Carolina Department of Transportation  
Post Office Box 191  
Columbia, South Carolina 29202-0191

Dear Mr. Connolly:

This is in response to your letter which was received on August 28, 2015, requesting a Preliminary Jurisdictional Determination (Preliminary JD), on behalf of South Carolina Department of Transportation, for an 1170 acre project area, within a project known as Carolina Crossroads that is located on and along segments of I-20, I-26, & I-126 adjacent to, and including the I/20/I-26/I-126 Interchange in Richland and Lexington Counties, South Carolina (SCDOT PIN 27662). The project area is depicted on the sketches, Figures 6-1 to 6-30 (on enclosed computer disc), prepared by Mead & Hunt entitled "Delineated Waters of the U.S., Carolina Crossroads" and dated November 19, 2015. A Preliminary JD is used to indicate that this office has identified wetlands and/or other waters on the property, and that in lieu of making an Approved Jurisdictional Determination, relies on the presumption of jurisdiction for the purpose of expediting the request for a Preliminary JD.

Based on an on-site inspection, a review of aerial photography, topographic maps, National Wetlands Inventory maps, soil survey information, and Wetland Determination Data Forms, it has been concluded that the boundaries shown on the referenced sketches are a reasonable approximation of the wetlands and/or other waters found within the project area. The site in question contains approximately 7.718 acres and 21,664 linear feet of federally defined wetlands and/or other waters. You are cautioned that the boundaries of the delineated wetlands and/or other waters depicted on the enclosed sketch are approximate and subject to change.

This office should be contacted prior to performing any work in or around these wetlands and/or other waters. In order for a definitive determination of jurisdiction to be provided, you must submit a request for an Approved Jurisdictional Determination (Approved JD) rather than the presumption of jurisdiction provided in this letter. Enclosed is a Preliminary Jurisdictional Determination Form describing the areas in question and clarifying the option to request an Approved JD. You should also be aware that the areas identified as wetlands and/or other waters may be subject to restrictions or requirements of other state or local government entities.

Please note that since this is a Preliminary JD, it is subject to change and therefore is not an appealable action under the Corps of Engineers administrative appeal procedures defined at 33 CFR 331. If a permit application is forthcoming as a result of this Preliminary JD, a copy of this letter, as well as the sketches should be submitted as part of the application. Otherwise, a delay could occur in confirming that a Preliminary JD was performed for the proposed project area.

This Preliminary JD is a non-binding action and as such has no expiration until it is superseded by an Approved JD. If you intend to request an Approved JD in the future, you are advised not to commence work in these wetlands and/or waters prior to receiving the Approved JD.

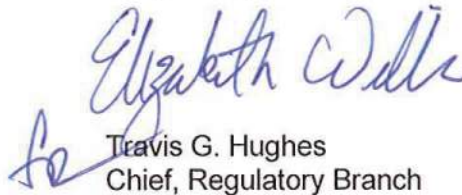
This delineation/determination has been conducted pursuant to Corps of Engineers regulatory authority for the purpose of identifying the geographic extent of waters on the particular site identified in this request. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

In future correspondence concerning this matter, please refer to SAC 2015-1080-DS. You may still need state or local assent. Prior to performing any work, you should contact the South Carolina Department of Health and Environmental Control. A copy of this letter is being forwarded to them for their information.

Enclosed are two copies of the Preliminary Jurisdictional Determination Form signed by our office. Please sign both copies, retain one copy for your records and return one signed copy to this office in the enclosed self-addressed envelope.

If you have any questions concerning this matter, please contact Stephen Brumagin at 803-253-3445.

Respectfully,



Travis G. Hughes  
Chief, Regulatory Branch

Enclosures:

Computer Disc-sketches of delineated waters  
Preliminary Jurisdictional Determination Form

Copy Furnished:

South Carolina Department of  
Health and Environmental Control  
Attn: Mr. Chuck Hightower  
Bureau of Water  
2600 Bull Street  
Columbia, South Carolina 29201

Mead & Hunt  
Mr. Matt DeWitt, PWS  
307 W. Main Street  
Lexington, SC 29072



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69A HAGOOD AVENUE  
CHARLESTON, SC 29403-5107

JUN 27 2018

REPLY TO  
ATTENTION OF:

Regulatory Division

Ms. Siobhan Gordon  
South Carolina Department of Transportation  
P.O. Box 191, 955 Park St.  
Columbia, South Carolina 29202-0191

Dear Ms. Gordon:

This letter is in response to your request for a Preliminary Jurisdictional Determination (PJD) (SAC-2015-01080) received in our office on February 26, 2018, for a 1,440-acre site located in Richland and Lexington Counties. The site in question is shown in Figures 6-1 to 6-33 on the enclosed CD, entitled "Delineated Waters of the U.S., Carolina Crossroads" and dated 05/18/2018 prepared by Mead & Hunt for South Carolina Department of Transportation. A PJD is used to indicate that this office has identified the approximate location(s) and boundaries of wetlands and/or other aquatic resources that are presumed to be waters of the United States on the site pursuant to Section 404 of the Clean Water Act (CWA) (33 USC § 1344).

Based on a May 15, 2018, on-site inspection, a review of aerial photography, topographic maps, National Wetlands Inventory maps, soil survey information, and Wetland Determination Data Forms, it has been concluded that the boundaries shown on the referenced figures are a reasonable approximation of the aquatic resources found within the site that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers. The site in question contains approximately 11.934 acres of federally defined wetlands and approximately 0.739 acre and 27,574 linear feet of other aquatic resources that are presumed to be waters of the United States that are subject to regulatory jurisdiction under Section 404 of the CWA.

You are cautioned that the boundaries of the delineated wetlands and/or other aquatic resources that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers shown on the enclosed depiction are approximate and subject to change. **Also, please be aware, that due to revisions to the project area, this PJD supersedes the former PJD the Corps provided for the Carolina Crossroads project dated March 9, 2016.**

By providing this PJD, the Corps of Engineers is making no legally binding determination of any type regarding whether jurisdiction exists over the particular aquatic resource(s) in question. In this regard, this PJD is not a definitive determination of the presence or absence of areas within the Corps of Engineers' jurisdiction, and, therefore, it does not have an expiration date. A PJD is "preliminary" in the sense that a recipient of a PJD can later request and obtain an Approved Jurisdictional Determination (AJD) for a definitive, official determination that there are, or that there are not, jurisdictional aquatic resources on a site, including the identification of the geographic limits of the jurisdictional aquatic resources. In order for a definitive determination of jurisdiction to be provided, you must submit a request for an AJD.

**COPY**

**Enclosures:**

Preliminary Jurisdictional Determination Form

Notification of Appeal Options

Self-addressed envelope

CD containing: Figures 6-1 to 6-33, entitled "Delineated Waters of the U.S., Carolina Crossroads"

**Copies Furnished:**

Mr. Matt DeWitt, PWS (w/o enclosures)

Mead & Hunt

878 South Lake Drive

Lexington, South Carolina 29072

South Carolina Department of

Health and Environmental Control (w/o enclosures)

Bureau of Water

2600 Bull Street

Columbia, South Carolina 29201

Appendix D  
Representative Photographs

## Representative Photographs

	<p>Date: 4/13/2015</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 1</p>
	<p>Description: View of Tributary 1, facing upstream. Photograph is taken west of US 176 (Broad River Road), facing east.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 2</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 2. Photograph is taken facing southeast.</p>

## Representative Photographs



	<p>Date: 4/13/2015</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 3</p>
	<p>Description: View of Tributary 2, facing downstream. Photograph is taken from the stream origination point, facing north.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 4</p>
	<p>Description: View of Freshwater Wetland 39, facing up gradient. Photograph is taken from the northern boundary of the wetland, facing south.</p>




## Representative Photographs

	<p>Date: 4/13/2015</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 5</p>
	<p>Description: View of Freshwater Wetland 40, facing up gradient. Photograph is taken near the southern boundary of the wetland facing north.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 6</p>
	<p>Description: View of Freshwater Wetland 1, facing down gradient. Photograph is taken from the northern portion of the wetland, facing southwest.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 7</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 3. Photograph is taken facing east.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 8</p>
	<p>Description: View of Tributary 3, facing downstream. Photograph is taken from the stream origination point, facing west.</p>


## Representative Photographs

	<p>Date: 4/13/2015</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 9</p>
	<p>Description: View of Tributary 3, facing downstream. Photograph is taken west of Columbiana Avenue, facing west.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 10</p>
	<p>Description: View of a stormwater basin within the PSA. The basin did not provide hydric soil indicators and was therefore not determined to be a Water of the U.S. Photograph is taken facing south.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 11</p>
	<p>Description: View of a stormwater basin within the PSA. The basin did not provide hydric soil indicators and was therefore not determined to be a Water of the U.S. Photograph is taken facing north.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 12</p>
	<p>Description: View of Freshwater Wetland 41, facing down gradient. Photograph is taken facing south towards the wetland.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 13</p>
	<p>Description: View of Tributary 4, facing downstream. Photograph is taken north of SC 60 (Lake Murray Blvd), facing southwest.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 14</p>
	<p>Description: View of Freshwater Wetland 2, facing up gradient. Photograph is taken from the center of the wetland, facing southwest.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 15</p>
	<p>Description: View of Tributary 5, facing downstream. Photograph is taken east of I-26, facing southwest.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 16</p>
	<p>Description: View of Freshwater Wetland 3, facing up gradient. Photograph is taken from the center of the wetland, facing east.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 17</p>
	<p>Description: View of Tributary 6, facing upstream. Photograph is taken from Columbiana Drive, facing northwest.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 18</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 7. Photograph is taken facing northwest.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 19</p>
	<p>Description: View of Tributary 7, facing downstream. Photograph is taken near the stream origination point, facing south.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 20</p>
	<p>Description: View of Tributary 7, facing downstream. Photograph is taken within the portion of Tributary 7 located immediately east of I-26, facing southwest.</p>





## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 21</p>
	<p>Description: View of Tributary 7, facing downstream. Photograph is taken within the portion of Tributary 7 located immediately west of I-26, facing south.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 22</p>
	<p>Description: View of Freshwater Wetland 42, facing up gradient. Photograph is taken from the northeastern boundary of the wetland, facing southwest.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 23</p>
	<p>Description: View of Freshwater Wetland 43, facing down gradient. Photograph is taken near the northern boundary of the wetland, facing south.</p>
	<p>Date: 4/21/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 24</p>
	<p>Description: View of Tributary 8, facing upstream. Photograph is taken east of I-26, facing east.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 25</p>
	<p>Description: View of Tributary 8, facing upstream. Photograph is taken west of I-26, facing east.</p>
	<p>Date: 4/30/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 26</p>
	<p>Description: View of Pond 1, facing down gradient. Pond 1 was inundated at the time of review and exhibited obligate wetland vegetation. Photograph is taken facing south.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 27</p>
	<p>Description: View of Tributary 9, facing downstream. Photograph is taken east of I-26, facing west.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 28</p>
	<p>Description: View of Tributary 9, facing upstream. Photograph is taken west of I-26, facing east.</p>

## Representative Photographs

	<p>Date: 4/30/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 29</p>
	<p>Description: View of Freshwater Wetland 44, facing down gradient. Photograph is taken from the northern boundary of the wetland, facing south.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 30</p>
	<p>Description: View of Tributary 10, facing upstream. Photograph is taken north of Harbison Boulevard, facing east.</p>



## Representative Photographs

	<p>Date: 4/23/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 31</p>
	<p>Description: View of Tributary 10, facing upstream. Photograph is taken south of Harbison Boulevard, facing east.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 32</p>
	<p>Description: View of Freshwater Wetland 4, facing up gradient. Photograph is taken east of Fernandina Road, facing south.</p>

## Representative Photographs

	<p>Date: 4/30/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 33</p>
	<p>Description: View of Freshwater Wetland 45, facing down gradient. Photograph is taken from the western boundary of the wetland, facing east.</p>
	<p>Date: 04/23/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 34</p>
	<p>Description: View of Tributary 11, facing upstream. Photograph is taken east of Fernandina Road, facing east.</p>

## Representative Photographs

	<p>Date: 4/23/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 35</p>
	<p>Description: View of Tributary 11, facing downstream Photograph is taken west of Giles Parkway, facing south.</p>
	<p>Date: 4/29/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 36</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 12. Photograph is taken facing west.</p>





## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 37</p>
	<p>Description: View of Tributary 13, facing upstream. Photograph is taken at the tributary's discharge into Freshwater Wetland 5, facing northeast.</p>
	<p>Date: 4/22/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 38</p>
	<p>Description: View of Freshwater Wetland 5, facing up gradient. Photograph is taken from the southwest portion of the wetland, facing northeast.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 39</p>
	<p>Description: View of Tributary 14, facing downstream. Photograph is taken east of Fernandina Road, facing west.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 40</p>
	<p>Description: View of Tributary 14, facing upstream. Photograph is located downstream of the pipe outfall under I-26. Photograph is taken west of I-26, facing east.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 41</p>
	<p>Description: View of Tributary 15, facing upstream. Photograph is taken west of I-26, facing east.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 42</p>
	<p>Description: View of Freshwater Wetland 46, facing up gradient. Photograph is taken near the western boundary of the wetland, facing east.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 43</p>
	<p>Description: View of a stormwater basin within the PSA. The basin did not provide hydric soil indicators and was therefore not determined to be a Water of the U.S. Photograph is taken facing west.</p>
	<p>Date: 4/22/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 44</p>
	<p>Description: View of Freshwater Wetland 6, facing up gradient. Photograph is taken from the northern portion of the wetland, facing s.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 45</p>
	<p>Description: View of Tributary 16, facing downstream. Photograph is taken from the stream origination point (pipe) located west of Jamil Road, facing southwest.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 46</p>
	<p>Description: View of Freshwater Wetland 47, facing up gradient. Photograph is taken from the northern boundary of the wetland, facing east.</p>


## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 47</p>
	<p>Description: View of Tributary 17, facing downstream. Photograph is taken from the stream origination point (pipe) located west of Jamil Road, facing west.</p>
	<p>Date: 4/22/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 48</p>
	<p>Description: View of Freshwater Wetland 7, facing up gradient. Photograph is taken from the center portion of the wetland, facing south.</p>

## Representative Photographs



	<p>Date: 4/22/2015</p>
	<p>Taken By: Thomas Melton</p>
	<p>Photograph 49</p>
	<p>Description: View of Freshwater Wetland 8, facing down gradient. Photograph is taken from the center portion of the wetland, facing south.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 50</p>
	<p>Description: View of Tributary 18, facing downstream. Photograph is taken west of Jamil Road, facing east.</p>

## Representative Photographs

	<p>Date: 4/13/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 51</p>
	<p>Description: View of Tributary 18, facing downstream. Photograph is taken east of Fernandina Road, facing southeast.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 52</p>
	<p>Description: View of Tributary 19, facing downstream. Photograph is taken from Evelyn Drive, facing south.</p>



## Representative Photographs

	<p>Date: 4/13/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 53</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 20. Photograph is taken facing west.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 54</p>
	<p>Description: View of Tributary 20, facing downstream. Photograph is taken near the stream origination point, facing northeast.</p>

## Representative Photographs

	<p>Date: 4/13/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 55</p>
	<p>Description: View of Tributary 21, aka Stoop Creek, facing downstream. Photograph is taken east of Fernandina Road, facing south towards the culvert inlet.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 56</p>
	<p>Description: View of Tributary 21, aka Stoop Creek, facing downstream. Photograph is taken from Berryhill Drive, facing southwest.</p>

## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 57</p>
	<p>Description: View of Tributary 22, facing downstream. Photograph is taken from the project study area boundary, facing west.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 58</p>
	<p>Description: View of Tributary 21, aka Stoop Creek, facing upstream. Photograph is taken north of Berryhill Drive, facing north.</p>



## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 59</p>
	<p>Description: View of Tributary 23, facing downstream. Photograph is taken from the project study area boundary, north of I-20, facing south.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 60</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 24. Photograph is taken facing north.</p>



## Representative Photographs

	<p>Date: 4/15/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 61</p>
	<p>Description: View of Tributary 24, facing downstream. Photograph is taken near the stream origination point, facing southwest.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 62</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 25. Photograph is taken facing northwest.</p>

## Representative Photographs

	<p>Date: 4/15/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 63</p>
	<p>Description: View of Tributary 25, facing downstream. Photograph is taken near the stream origination point, facing southeast.</p>
	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 64</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 26. Photograph is taken facing west.</p>

## Representative Photographs



	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 65</p>
	<p>Description: View of Tributary 26, facing downstream. Photograph is taken near the stream origination point, facing southeast.</p>
	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 66</p>
	<p>Description: View of Freshwater Wetland 9, facing up gradient. Photograph is taken from a forested area in the center portion of the wetland, facing north.</p>

## Representative Photographs



	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 67</p>
	<p>Description: View of Freshwater Wetland 9, facing down gradient. Photograph is taken in the linear portion of the wetland adjacent to the NPDES-Permitted Treatment Basin, facing southwest.</p>
	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 68</p>
	<p>Description: View of Freshwater Wetland 10, facing up gradient. Photograph is taken in the central portion of the wetland, facing south.</p>




## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 69</p>
	<p>Description: View of the NPDES-Permitted Treatment Basin, facing down gradient. The basin is a detainment area for water treatment. Photograph is taken facing north.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 70</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 27. Photograph is taken facing east.</p>


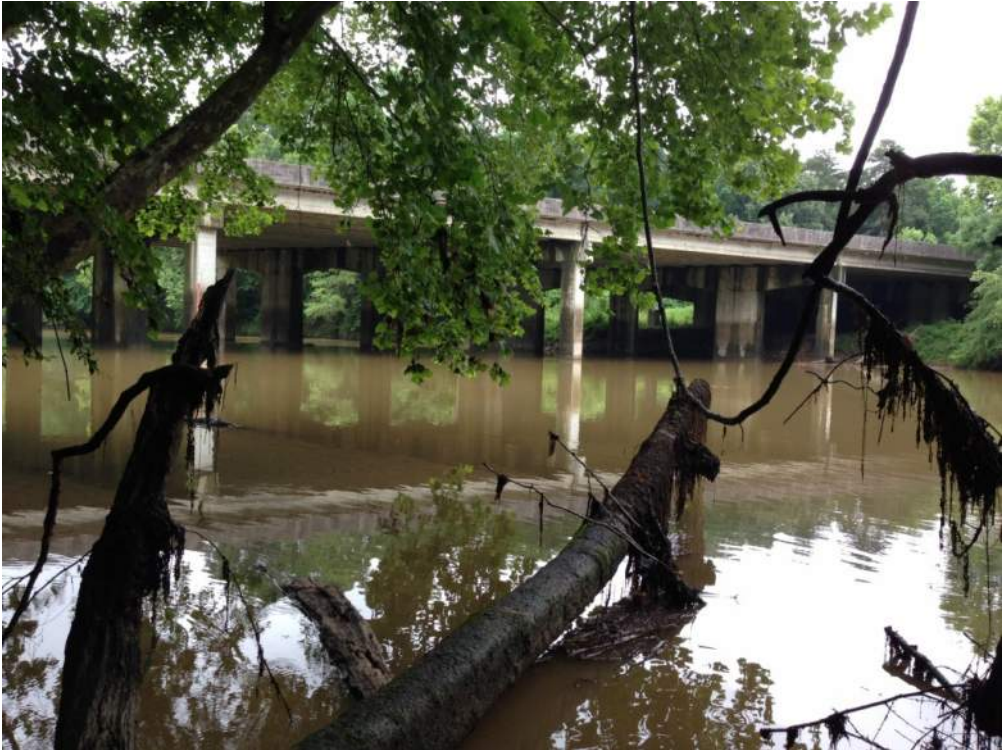
## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 71</p>
	<p>Description: View of Tributary 27, facing downstream. Photograph is taken near the stream origination point, facing west.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 72</p>
	<p>Description: View of Freshwater Wetland 11, facing up gradient. Photograph is taken in the central portion of the wetland, facing east.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 73</p>
	<p>Description: View of Freshwater Wetland 12, facing up gradient. Photograph is taken in the central portion of the wetland, facing north.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 74</p>
	<p>Description: View of Tributary 28, facing downstream. Photograph is taken from the central portion of the tributary, facing southwest.</p>

## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 75</p>
	<p>Description: View of Tributary 29, facing downstream. Photograph is taken from the project study area boundary, facing southwest.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 76</p>
	<p>Description: View of Tributary 30, aka, Saluda River, facing downstream. Photograph is taken from northeastern river bank, facing south.</p>



## Representative Photographs

	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 77</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 31. Photograph is taken facing west.</p>
	<p>Date: 6/3/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 78</p>
	<p>Description: View of Tributary 31, facing downstream. Photograph is taken near the stream origination point, facing east.</p>



## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 79</p>
	<p>Description: View of Tributary 23, facing downstream. Photograph is taken south of I-20, facing south.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 80</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 32. Photograph is taken facing west.</p>

## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 81</p>
	<p>Description: View of Tributary 32, facing downstream. Photograph is taken near the stream origination point, facing east.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 82</p>
	<p>Description: View of Tributary 21, aka Stoop Creek, facing downstream. Photograph is taken south of I-20, facing south.</p>

## Representative Photographs



	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 83</p>
	<p>Description: View of the stream origination point (headcut/pool) of Tributary 33. Photograph is taken facing east.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 84</p>
	<p>Description: View of Tributary 33, facing downstream. Photograph is taken from the stream origination point, facing west.</p>





## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 85</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 34. Photograph is taken facing east.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 86</p>
	<p>Description: View of Tributary 34, facing downstream. Photograph is taken from the stream origination point, facing west.</p>



## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 87</p>
	<p>Description: View of Tributary 34, facing downstream. Photograph is in the lower portion of the tributary, facing west.</p>
	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 88</p>
	<p>Description: View of Freshwater Wetland 13, facing up gradient. Photograph is taken from a forested area in the eastern portion of the wetland, facing north.</p>

## Representative Photographs

	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 89</p>
	<p>Description: View of Freshwater Wetland 14, facing up gradient. Photograph is taken from the central portion of the wetland, facing north.</p>
	<p>Date: 6/2/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 90</p>
	<p>Description: View of Tributary 35, facing downstream. Photograph is taken north of I-20, facing south.</p>

## Representative Photographs

	<p>Date: 6/4/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 91</p>
	<p>Description: View of Tributary 35, facing downstream. Photograph is taken south of I-20, facing south.</p>
	<p>Date: 6/4/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 92</p>
	<p>Description: View of the stream origination point (headcut/pool) of Tributary 36. Photograph is taken facing west.</p>


## Representative Photographs

	<p>Date: 6/4/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 93</p>
	<p>Description: View of Tributary 36, facing downstream. Photograph is taken near the stream origination point, facing east.</p>
	<p>Date: 6/4/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 94</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 37. Photograph is taken facing north.</p>

## Representative Photographs

	<p>Date: 6/4/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 95</p>
	<p>Description: View of Tributary 37, facing downstream. Photograph is taken near the stream origination point, facing south.</p>
	<p>Date: 6/4/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 96</p>
	<p>Description: View of Freshwater Wetland 15, facing up gradient. Photograph is taken from the northern portion of the wetland, facing north.</p>

## Representative Photographs

	<p>Date: 4/15/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 97</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 38. Photograph is taken facing north.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 98</p>
	<p>Description: View of Tributary 38, facing downstream. Photograph is taken near the stream origination point, facing south towards the culvert under I-20.</p>

## Representative Photographs

	<p>Date: 6/4/2015</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 99</p>
	<p>Description: View of Tributary 38, facing downstream. Photograph is taken near the I-20 culvert outfall, facing south.</p>
	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 100</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 39. Photograph is taken facing west.</p>



## Representative Photographs

	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 101</p>
	<p>Description: View of Tributary 39, facing downstream. Photograph is taken near the stream origination point, facing east.</p>
	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 102</p>
	<p>Description: View of Tributary 39, facing downstream. Photograph is taken in the lower portion of Tributary 39, facing east.</p>



## Representative Photographs

	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 103</p>
	<p>Description: View of Freshwater Wetland 16, facing down gradient. Photograph is taken from the central portion of the wetland, facing north.</p>
	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 104</p>
	<p>Description: View of Freshwater Wetland 17, facing down gradient. Photograph is taken from the central portion of the wetland, facing north.</p>

## Representative Photographs

	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 105</p>
	<p>Description: View of Freshwater Wetland 18, facing down gradient. Photograph is taken from the central portion of the wetland, facing northeast.</p>
	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 106</p>
	<p>Description: View of Freshwater Wetland 19, facing down gradient. Photograph is taken from the central portion of the wetland, facing north.</p>



## Representative Photographs

	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 107</p>
<p>Description: View of Tributary 40, aka, Broad River, facing upstream. Photograph is taken from northwestern river bank, facing northeast.</p>	
	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 108</p>
<p>Description: View of the stream origination point (culvert) of Tributary 41. Photograph is taken facing north.</p>	

## Representative Photographs

	<p>Date: 5/20/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 109</p>
	<p>Description: View of Tributary 41, facing downstream. Photograph is taken near the stream origination point, facing south.</p>
	<p>Date: 5/4/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 110</p>
	<p>Description: View of Tributary 42, facing downstream. Photograph is taken north of Browning Road, facing south.</p>

## Representative Photographs

	<p>Date: 5/4/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 111</p>
	<p>Description: View of Tributary 42, facing upstream. Photograph is taken west of I-26, facing north.</p>
	<p>Date: 5/4/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 112</p>
	<p>Description: View of Tributary 43, facing downstream. Photograph is taken west of I-26, facing southwest.</p>

## Representative Photographs

	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 113</p>
	<p>Description: View of Freshwater Wetland 20, facing down gradient. Photograph is taken from the central portion of the wetland, facing southwest.</p>
	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 114</p>
	<p>Description: View of Tributary 43, facing upstream. Photograph is taken south of US Bush River Road, facing northeast.</p>

## Representative Photographs

	<p>Date: 5/4/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 115</p>
	<p>Description: View of Freshwater Wetland 21, facing up gradient. Photograph is taken from the central portion of the wetland, facing north.</p>
	<p>Date: 5/4/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 116</p>
	<p>Description: View of Freshwater Wetland 22, facing down gradient. Photograph is taken from the central portion of the wetland, facing south.</p>





## Representative Photographs

	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 117</p>
	<p>Description: View of Freshwater Wetland 23, facing up gradient. Photograph is taken from the central portion of the wetland, facing north.</p>
	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 118</p>
	<p>Description: View of Freshwater Wetland 24, facing down gradient. Photograph is taken from the central portion of the wetland, facing west.</p>



## Representative Photographs

	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 119</p>
	<p>Description: View of Tributary 30, aka, Saluda River, facing upstream. Photograph is taken from northeastern river bank, facing southeast.</p>
	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 120</p>
	<p>Description: View of Freshwater Wetland 25, facing down gradient. Photograph is taken from the central portion of the wetland, facing east.</p>



## Representative Photographs

	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 121</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 44. Photograph is taken facing north.</p>
	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 122</p>
	<p>Description: View of Tributary 44, facing downstream. Photograph is taken near the stream origination point, facing south.</p>

## Representative Photographs

	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 123</p>
	<p>Description: View of Tributary 44, facing downstream. Photograph is taken in the lower portion of Tributary 44, south of the railroad corridor, facing southwest.</p>
	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 124</p>
	<p>Description: View of Freshwater Wetland 26, facing down gradient. Photograph is taken from the central portion of the wetland, facing east.</p>


## Representative Photographs

	<p>Date: 5/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 125</p>
	<p>Description: View of Tributary 45, facing upstream. Photograph is taken in the upper portion of Tributary 45, east of I-126, facing northeast.</p>
	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 126</p>
	<p>Description: View of Tributary 45, facing downstream. Photograph is taken in the lower portion of Tributary 45, west of I-126, facing southwest.</p>

## Representative Photographs

	<p>Date: 5/5/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 127</p>
	<p>Description: View of Freshwater Wetland 27, facing down gradient. Photograph is taken from the central portion of the wetland, facing west.</p>
	<p>Date: 5/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 128</p>
	<p>Description: View of Freshwater Wetland 28, facing up gradient. Photograph is taken from the central portion of the wetland, facing east.</p>

## Representative Photographs

	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 129</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 46. Photograph is taken facing east.</p>
	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 130</p>
	<p>Description: View of Tributary 46, facing downstream. Photograph is taken from the stream origination point, facing west.</p>

## Representative Photographs



	<p>Date: 5/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 131</p>
	<p>Description: View of Freshwater Wetland 29, facing up gradient. Photograph is taken from the central portion of the wetland, facing northwest.</p>
	<p>Date: 5/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 132</p>
	<p>Description: View of Tributary 47, facing downstream. Photograph is taken east of I-126, facing west.</p>



## Representative Photographs

	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 133</p>
	<p>Description: View of Tributary 47, facing downstream. Photograph is taken immediately west of I-126, where Tributary 47 and 48 separate. Photograph is facing northwest.</p>
	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 134</p>
	<p>Description: View of Tributary 47, facing upstream. Photograph is taken west of I-126, south of Tributary 48, facing north.</p>

## Representative Photographs

	<p>Date: 5/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 135</p>
	<p>Description: View of Tributary 48, facing upstream. Photograph is taken west of I-126, north of Tributary 47, facing east.</p>
	<p>Date: 5/19/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 136</p>
	<p>Description: View of Freshwater Wetland 30, facing down gradient. Photograph is taken from the central portion of the wetland, facing north.</p>

## Representative Photographs

	<p>Date: 5/19/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 137</p>
	<p>Description: View of the stream origination point (Freshwater Wetland 31) of Tributary 49. Photograph is taken facing southeast.</p>
	<p>Date: 5/19/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 138</p>
	<p>Description: View of Tributary 49, facing downstream. Photograph is taken from the stream origination point, facing northwest toward Freshwater Wetland 30.</p>

## Representative Photographs

	<p>Date: 5/19/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 139</p>
	<p>Description: View of Freshwater Wetland 31, facing up gradient. Photograph is taken from the central portion of the wetland, facing south.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 140</p>
	<p>Description: View of Pond 2, facing down gradient. Pond 2 appears to be an overflow retaining area from the Saluda River. Photograph is taken facing southwest.</p>

## Representative Photographs

	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 141</p>
	<p>Description: View of Tributary 50, facing upstream. Photograph is taken east of I-26, facing southeast.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 142</p>
	<p>Description: View of Tributary 50, facing downstream. Photograph is taken west of I-26, facing east.</p>



## Representative Photographs

	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 143</p>
	<p>Description: View of the stream origination point (pipe) of Tributary 51. Photograph is taken facing west.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 144</p>
	<p>Description: View of Tributary 51, facing downstream. Photograph is taken from the stream origination point, facing east toward Tributary 50.</p>

## Representative Photographs

	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 145</p>
	<p>Description: View of Freshwater Wetland 32, facing up gradient. Photograph is taken from the central portion of the wetland, facing south.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 146</p>
	<p>Description: View of Freshwater Wetland 33, facing up gradient. Photograph is taken from the central portion of the wetland, facing south.</p>

## Representative Photographs



	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 147</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 52. Photograph is taken facing southwest.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 148</p>
	<p>Description: View of Tributary 52, facing downstream. Photograph is taken from the stream origination point, facing northeast toward Tributary 50.</p>



## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 149</p>
	<p>Description: View of Freshwater Wetland 34, facing up gradient. Photograph is taken from the central portion of the wetland, facing south.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 150</p>
	<p>Description: View of Freshwater Wetland 35, facing down gradient. Photograph is taken from the central portion of the wetland, facing southwest.</p>

## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 151</p>
	<p>Description: View of Freshwater Wetland 36, facing up gradient. Photograph is taken from the central portion of the wetland, facing north.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 152</p>
	<p>Description: View of Freshwater Wetland 37, facing up gradient. Photograph is taken from the central portion of the wetland, facing northwest.</p>



## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 153</p>
	<p>Description: View of Freshwater Wetland 38, facing up gradient. Photograph is taken from the central portion of the wetland, facing south.</p>
	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 154</p>
	<p>Description: View of Tributary 53, aka Senn Branch, facing upstream. Photograph is taken west of I-26, facing west.</p>

## Representative Photographs

	<p>Date: 4/15/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 155</p>
	<p>Description: View of Tributary 53, aka Senn Branch, facing downstream. Photograph is taken east of I-26, facing east.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 156</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 54. Photograph is taken facing northeast.</p>

## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 157</p>
	<p>Description: View of Tributary 54, facing downstream. Photograph is taken from the stream origination point, facing southwest.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 158</p>
	<p>Description: View of the stream origination point (Freshwater Wetland 38) of Tributary 55. Photograph is taken facing west.</p>



## Representative Photographs

	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 159</p>
	<p>Description: View of Tributary 55, facing downstream. Photograph is taken from the stream origination point, facing northeast.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 160</p>
	<p>Description: View of the stream origination point (headcut) of Tributary 56. Photograph is taken facing south.</p>

## Representative Photographs



	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 161</p>
	<p>Description: View of Tributary 56, facing downstream. Photograph is taken from the stream origination point, facing north towards Tributary 55.</p>
	<p>Date: 4/14/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 162</p>
	<p>Description: View of Tributary 57, facing downstream. Photograph is taken east of I-26, facing northeast.</p>

## Representative Photographs


	<p>Date: 4/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 163</p>
	<p>Description: View towards the stream origination point (pipe) of Tributary 58. Photograph is taken facing west.</p>
	<p>Date: 4/13/2015</p>
	<p>Taken By: Thomas Blackwell</p>
	<p>Photograph 164</p>
	<p>Description: View of Tributary 58, facing downstream. Photograph is taken from the stream origination point, facing east.</p>





## Representative Photographs

	<p>Date: 9/20/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 165</p>
	<p>Description: View of Tributary 59, looking downstream. The photograph was taken from the culvert east of I-26, facing east.</p>
	<p>Date: 9/20/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 166</p>
	<p>Description: View of Tributary 59, looking downstream. The photograph was taken on the west side of I-26, facing east.</p>



## Representative Photographs

	<p>Date: 8/31/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 167</p>
	<p>Description: View of Pond 3. The photograph was taken from a parking lot south of the pond, facing west.</p>
	<p>Date: 8/31/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 168</p>
	<p>Description: View of Tributary 60, looking downstream. The photograph was taken from the Western Lane culvert, facing north.</p>



## Representative Photographs

	<p>Date: 8/31/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 169</p>
	<p>Description: View of Tributary 60, looking upstream. The photograph was taken from the west side of I-26, facing south.</p>
	<p>Date: 8/31/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 170</p>
	<p>Description: View of Pond 4. The photograph was taken from Woodcross road, facing northeast.</p>



## Representative Photographs

	<p>Date: 8/31/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 171</p>
	<p>Description: View of Tributary 11, looking upstream. The photograph was taken looking at the culvert from Pond 4, facing north.</p>
	<p>Date: 8/31/2017</p>
	<p>Taken By: Matt DeWitt</p>
	<p>Photograph 172</p>
	<p>Description: View of Tributary 11, looking downstream. The photograph was taken from the middle reach of the tributary, facing south.</p>


## Representative Photographs

	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 173</p>
	<p>Description: View of Tributary 61, looking downstream. The photograph was taken looking at the culvert under I-20, facing south.</p>
	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 174</p>
	<p>Description: View of Tributary 61, looking downstream. The photograph was taken looking at the culverts under Devaga Road, facing south.</p>

## Representative Photographs

	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 175</p>
	<p>Description: View of Tributary 61, looking upstream. The photograph was taken looking towards the culverts under Devega Road, facing north.</p>
	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 176</p>
	<p>Description: View of Freshwater Wetland 48. The photograph was taken from the southwest of driveway drainage pipe.</p>

## Representative Photographs



	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 177</p>
	<p>Description: View of Freshwater Wetland 49.</p>
	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 178</p>
	<p>Description: View of Freshwater Wetland 50. The photograph was taken looking at the drainage channel of the wetland.</p>

## Representative Photographs

	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 179</p>
	<p>Description: View of Freshwater Wetland 50. The photograph was taken looking at the southeastern portion of the wetland.</p>
	<p>Date: 7/28/2017</p>
	<p>Taken By: Steven Busbee</p>
	<p>Photograph 180</p>
	<p>Description: View of Freshwater Wetland 50. The photograph was taken looking at the drainage channel of the wetland.</p>




## Representative Photographs

	<p>Date: 7/25/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 181</p>
	<p>Description: View of Tributary 62, looking downstream. The photograph was taken looking towards the Saluda River, facing south.</p>
	<p>Date: 7/25/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 182</p>
	<p>Description: View of Tributary 63, looking downstream. The photograph was taken looking towards the Saluda River, facing south.</p>



## Representative Photographs

	<p>Date: 7/26/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 183</p>
	<p>Description: View of Tributary 64, looking downstream. The photograph was taken facing southwest.</p>
	<p>Date: 7/26/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 184</p>
	<p>Description: View of Tributary 65, looking downstream. The photograph was taken facing southeast.</p>

## Representative Photographs

	<p>Date: 7/26/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 185</p>
	<p>Description: View of Tributary 66, looking upstream. The photograph was taken looking towards Tributary 65, facing west.</p>
	<p>Date: 5/4/2015</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 186</p>
	<p>Description: View of wetland 51. The photograph was taken facing north.</p>



## Representative Photographs

	<p>Date: 7/25/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 187</p>
	<p>Description: View of Wetland 52. The photograph was taken facing southeast.</p>
	<p>Date: 7/25/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 188</p>
	<p>Description: View of Wetland 53. The photograph was taken facing southeast.</p>

## Representative Photographs

	<p>Date: 7/25/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 189</p>
	<p>Description: View of Wetland 54. The photograph was taken facing northeast.</p>
	<p>Date: 7/26/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 190</p>
	<p>Description: View of Wetland 55. The photograph was taken facing looking southeast.</p>

## Representative Photographs

	<p>Date: 7/25/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 191</p>
	<p>Description: View of Tributary 68, looking downstream. The photograph was taken facing south.</p>
	<p>Date: 7/25/2017</p>
	<p>Taken By: Kelly Thames</p>
	<p>Photograph 192</p>
	<p>Description: View of Tributary 67, looking upstream. The photograph was taken from where the tributary meets Tributary 68, facing northwest.</p>

## Representative Photographs



Date:  
7/25/2017

Taken By:  
Kelly Thames

Photograph 193

Description:  
View of the stream origination point (culvert) of Tributary 69, looking downstream. The culvert is sourced from Wetland 48. The photograph was taken facing east.



Date:  
7/25/2017

Taken By:  
Kelly Thames

Photograph 194

Description:  
View of Tributary 69, looking downstream. The photograph was taken west of the utility easement, facing east.

## Representative Photographs



Date:  
7/25/2017

Taken By:  
Kelly Thames

Photograph 195

Description:  
View of Tributary 69, looking downstream. The photograph was taken east of the utility easement, facing south.



Date:  
7/25/2017

Taken By:  
Kelly Thames

Photograph 196

Description:  
View of Tributary 69, looking downstream. The photograph was taken near the study area boundary, facing east.



## Representative Photographs



Date:  
11/16/2018

Taken By:  
Conor Makepeace

Photograph 197

Description:  
View of the additional reach of Tributary 2 (north of Western Lane). The photograph was taken looking at the culvert outlet, facing southeast (upstream).



Date:  
11/16/2018

Taken By:  
Conor Makepeace

Photograph 198

Description:  
View of the additional reach of Tributary 2 (north of Western Lane). The photograph was taken from the culvert outlet, facing north (downstream).

## Representative Photographs



Date:  
11/16/2018

Taken By:  
Conor Makepeace

Photograph 199

Description:  
View of Freshwater  
Wetland 56. The  
photograph was taken  
north of Western Lane,  
facing northwest.



Date:  
11/16/2018

Taken By:  
Conor Makepeace

Photograph 200

Description:  
View of Freshwater  
Wetland 57. The  
photograph was taken  
south of Western Lane,  
facing northeast.

## Representative Photographs



Date:  
11/16/2018

Taken By:  
Conor Makepeace

Photograph 201

Description:  
View of Freshwater Wetland 58. The photograph was taken within the wetland northeast of Parkridge Drive, facing north.





Date:  
11/16/2018

Taken By:  
Conor Makepeace

Photograph 202

Description:  
View of Freshwater Wetland 59. The photograph was taken on the edge of the wetland south of Harbison Boulevard, facing northeast.

## Representative Photographs

	<p>Date: 11/16/2018</p>
	<p>Taken By: Conor Makepeace</p>
	<p>Photograph 203</p>
	<p>Description: View of Tributary 70. The entirety of the feature within the Project Study Area is shown in the photograph. The left portion of the photograph shows the stream origination point (headcut). The photograph was taken within a utility easement, facing northeast (across gradient).</p>
	<p>Date: 11/16/2018</p>
	<p>Taken By: Conor Makepeace</p>
	<p>Photograph 204</p>
	<p>Description: View of Freshwater Wetland 60. The photograph was taken from the Project Study Area boundary, facing southeast.</p>

## Representative Photographs



Date:  
11/15/2018

Taken By:  
Conor Makepeace

Photograph 205

Description:  
View of the stream origination point (pipe) of Tributary 71. The photograph was taken north of Riverchase Way, facing south (upstream).



Date:  
11/15/2018

Taken By:  
Conor Makepeace

Photograph 206

Description:  
View of Tributary 71. The photograph was taken from the lower reach of the tributary, facing northeast (upstream).

## Representative Photographs



Date:  
11/15/2018

Taken By:  
Conor Makepeace

Photograph 207

Description:  
View of the of Tributary 72 and the culvert under Riverchase Way. This culvert represents the stream origination point of the feature within the Project Study Area. The photograph was taken north of Riverchase Way, facing southeast (upstream).



Date:  
11/15/2018

Taken By:  
Conor Makepeace

Photograph 208

Description:  
View of Tributary 72. The photograph was taken north of Riverchase Way, facing northwest (downstream).

## Appendix E

### Bald Eagle (*Haliaeetus leucocephalus*) Survey Memo

## **Memorandum**

*Date:* April 29, 2016

*To:* Mead & Hunt

*From:* STV Incorporated

*Subject:* Carolina Crossroads; Bald Eagle (*Haliaeetus leucocephalus*) Survey

---

### **Introduction**

As part of SCDOT's proposed Carolina Crossroads improvement project, surveys were conducted by STV Incorporated (STV) to determine if the project would have any effect on the federal and state protected bald eagle (*Haliaeetus leucocephalus*). The Carolina Crossroads project study area (PSA) encompasses approximately 396 acres within Lexington and Richland Counties and consists of roadway and intersection improvements along I-20 from the Saluda River to the Broad River, I-26 from US 378 to Broad River Road, and I-126 from Colonial Life Boulevard to I-26; please see Appendix A for a figure depicting the location and extent of the PSA. This document summarizes the results of literature reviews and field surveys conducted to determine the presence of bald eagles and associated nesting habitat within the PSA.

### **Literature Review and Survey Methodology**

Prior to conducting field surveys, STV reviewed the following literature and reference material:

- S.C. Department of Natural Resources (SCDNR) Rare, Threatened, and Endangered Species and Communities Known to Occur in Lexington County, South Carolina (last updated June 11, 2014)
- SCDNR Rare, Threatened, and Endangered Species and Communities Known to Occur in Richland County, South Carolina (last updated June 11, 2014)
- U.S. Department of Agriculture – National Agricultural Imagery Program (NAIP) Aerial Imagery (2013)
- U.S. Fish & Wildlife Service (USFWS) South Carolina List of At-Risk, Candidate, Endangered, and Threatened Species - Lexington County (last updated September 3, 2015)
- USFWS South Carolina List of At-Risk, Candidate, Endangered, and Threatened Species - Richland County (last updated October 20, 2015)
- U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory Map (Accessed November 2015)
- USFWS IPaC – Information, Planning and Conservation System (Accessed November 2015)
- U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps [Columbia North, SC (2014) and Irmo, SC (2014)]
- USGS - National Hydrography Dataset (2012)



Additional information concerning known documented occurrences of bald eagles in Lexington and Richland Counties was obtained from the SCDNR's South Carolina Heritage Trust (SCHAT) Program Geographic Database of Rare, Threatened, and Endangered Species Inventory Species (last updated January 17, 2006). STV also coordinated directly with the Heritage Trust Program to obtain more up to date records of any known occurrences within the project vicinity (SCDNR, Personal correspondence with Julie Holling, December 2, 2015).

Bald eagles are large raptors with wingspans of up to seven feet in length. The bald eagle can be found in locations throughout the continental United States. Juvenile bald eagles are mostly dark brown with some white mottling. Adult bald eagles have a dark body, white head and tail, and yellow beak. In South Carolina, bald eagles typically nest in mature trees with open limb structures normally located within 1 kilometer or 3,280 feet from open water (SCDNR, 2015a). Nests are generally between four to six feet in diameter and approximately three feet deep although larger nests have been documented. Bald eagle nests are constructed of sticks and soft material such as dead vegetation, grasses, and pine needles. Nearly 80 percent of the documented nests in South Carolina were found in live mature pine trees, but bald eagles may also nest in live cypress trees or dead trees (SCDNR, 2015). Bald eagles prefer foraging in lakes greater than 35 acres and rivers greater than 330 feet across (USFWS, 2009).

Based on preliminary literature and field reviews, STV environmental scientists identified areas within the PSA containing potential nesting or foraging habitat for the bald eagle. Per USFWS survey protocol (USFWS, 2007), STV surveyed areas encompassing the potential nesting habitat; please see Appendix A, Figure 1 for the location and extent of the bald eagle survey area. Specifically, the USFWS has specified 660 feet to be the distance or buffer at which project construction activities do not disturb nesting eagles so this buffer was included in the survey area. Additionally, where applicable, the survey area was extended approximately 3,280 feet (one km) out from the open water nesting habitat as this is the specified distance in which nesting may occur. Utilizing ArcGIS Version 10.3 software, the 660-foot buffer of the project study area was clipped by the 3,280-foot buffer of open water habitat to create the bald eagle survey area as shown on Figure 1.

The portions of the Broad and Saluda Rivers located within the bald eagle survey area are used highly by recreational boaters including kayakers. Prior to conducting the field surveys, STV communicated with the owners of several local river guide/boat rental companies as to the location of any known reported bald eagle nests or occurrences of activity within the project survey area. STV environmental scientists surveyed potential nesting and foraging habitats for the presence of bald eagle individuals on October 15<sup>th</sup> and 16<sup>th</sup>, 2015. Field surveys of potential habitat were also conducted on April 28<sup>th</sup> and 29<sup>th</sup>, 2016 from one hour before sunrise to one hour after sunrise when bald eagles are known to be highly active. Potential habitats within the survey area were surveyed (visually inspected) by means of vehicle, pedestrian, and boat transect methods. Specifically, the Broad and Saluda River and associated forest edges were visually inspected by means of canoe. Interior mature forested tracts located adjacent to the rivers not visible by vehicle were inspected by means of pedestrian transects.

## **Findings and Conclusions**

The bald eagle survey area consists primarily of commercial and residential development and maintained roadway and utility right-of-way. Natural habitats within the survey area include the large open waterways associated with the Broad and Saluda Rivers, hardwood floodplain forest, and hardwood-pine forest. Dominant vegetation within the forested habitats included American Sycamore (*Platanus occidentalis*), red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), box elder (*Acer negundo*), and elm (*Ulmus* spp.). Loblolly pine (*Pinus taeda*) was present within the hardwood floodplain and hardwood-pine forests but at a much lesser extent than the above-noted hardwood species. Representative photographs of the habitats located within the bald eagle survey area are included in Appendix B.

Potential foraging habitat for the bald eagle includes the portions of the Broad and Saluda Rivers located within the survey area. Potential nesting habitat for the bald eagle is present in scattered large pine trees contained within the portions of floodplain forest located adjacent to the Broad and Saluda River. No cypress (*Taxodium* spp.) trees are present within the survey area.

The literature and field reviews conducted by STV revealed the presence of potential nesting and foraging habitat within the survey area including the Broad and Saluda Rivers and mature forested tracts located adjacent to these large waterways; however, no individuals and no evidence of nesting were observed during the field surveys. The habitat within the survey area is determined to be less than optimal and occurrences of bald eagles are unlikely due to the small number of large mature pine trees in the overstory of the forests located adjacent to the rivers and high level of development and associated noise present. Per coordination with Julie Holling, the director of SCDNR's Heritage Trust Program, there is one documented historic bald eagle nesting site located within one mile of the project study area; however, this historic nesting site is located outside of the bald eagle survey area. Additionally, per the local river guides, no bald eagles have been sited on the portions of the Broad or Saluda River located within the survey area.

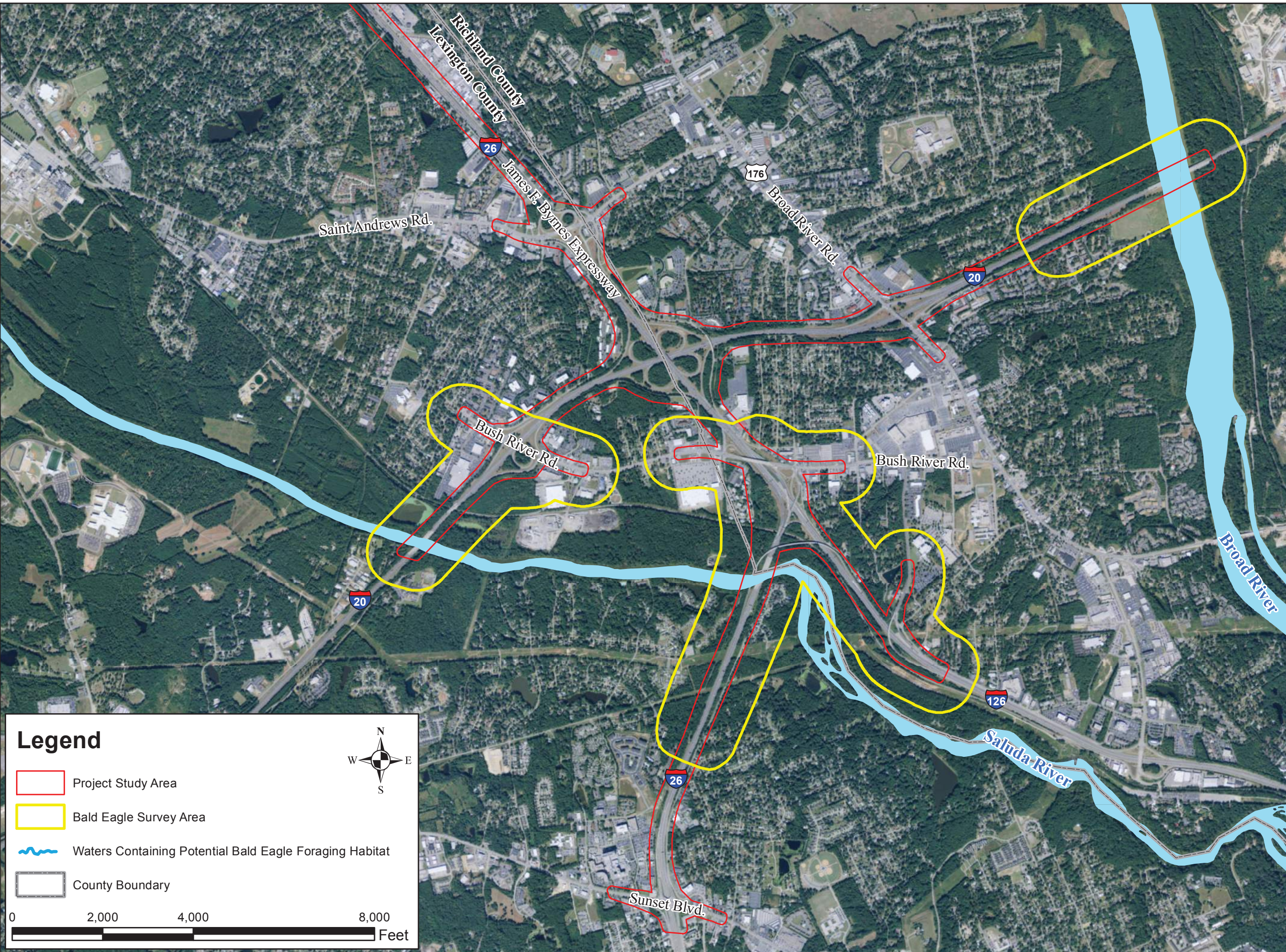
Based on the literature reviews and the field surveys conducted during the optimal bald eagle survey window from October 1<sup>st</sup> to May 15<sup>th</sup> as designated by the USFWS, it is determined that the project would have 'no effect' on the bald eagle.

## **References**

- South Carolina Department of Natural Resources (SCDNR). 2015. Bald Eagle (*Haliaeetus leucocephalus*). South Carolina State Wildlife Action Plan – Supplemental Volume: Species of Conservation Concern. Accessed on October 14, 2015 at <http://www.dnr.sc.gov/swap/supplemental/birds/baldeagle2015.pdf>
- SCDNR. 2015a. South Carolina's Bald Eagles – Biology. Accessed on October 7, 2015 at <http://www.dnr.sc.gov/wildlife/baldeagle/biology.html>
- SCDNR. 2006. South Carolina Heritage Trust (SCHT) Geographic Database of Rare, Threatened, and Endangered Species Inventory Species Found in Richland and Lexington County (Last updated January 17, 2006).
- U.S. Department of Agriculture (USDA). 2013. National Agricultural Imagery Program (NAIP) Aerial Imagery. Accessed 2013.
- U.S. Fish & Wildlife Service (USFWS). 2015. IPaC – Information, Planning and Conservation System. Accessed October 7, 2015 at <https://ecos.fws.gov/ipac/gettingStarted/index>.
- USFWS. 2009. Post-delisting Monitoring Plan for the Bald Eagle (*Haliaeetus leucocephalus*) in the Contiguous 48 States. Accessed on October 7, 2015 at [https://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BaldEagle/BEPDMP\\_Jan2013Final.pdf](https://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BaldEagle/BEPDMP_Jan2013Final.pdf).
- USFWS. 2007. National Bald Eagle Management Guidelines. Accessed October 7, 2015 at <http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf>
- U.S. Geological Survey (USGS). 2014. Irmo, SC 7.5-minute topographic quadrangle map.
- USGS. 2014. Columbia North, SC 7.5-minute topographic quadrangle map.
- USGS. 2012. National Hydrography Dataset (NHD).

## **Appendix A**

### **Figures**



Client:

Project:  
**Carolina Crossroads**

Title:  
**Bald Eagle Survey Map**

Sources: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and swisstopo.

Notes:  
 Surveys for the presence of bald eagles and associated nesting or foraging habitat were conducted by STV Inc. on October 15 and 16, 2015 and April 28 and 29, 2016.

**Legend**

- Project Study Area
- Bald Eagle Survey Area
- Waters Containing Potential Bald Eagle Foraging Habitat
- County Boundary

0 2,000 4,000 8,000 Feet

Drawn By: <b>JLK</b>	Checked By: <b>WSB</b>
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Approved By: <b>WSB</b>	Date: <b>4/29/2016</b>
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STV Inc. Project No.  
**4017084**

**Figure 1**

## **Appendix B**

### **Representative Photographs**



Photograph 1. View of the eastern side of the Broad River at the Interstate 20 bridge crossing.



Photograph 2. View of the western side of the Broad River at the Interstate 20 bridge crossing.



Photograph 3. View of the southern side of the Saluda River at the Interstate 20 bridge crossing.



Photograph 4. View of the northern side of the Saluda River at the Interstate 20 bridge crossing.





Photograph 5. View facing east at the Interstate 26 bridge crossing of the Saluda River.



Photograph 6. View facing west at the Interstate 26 bridge crossing of the Saluda River.



## Appendix F

### US Fish and Wildlife Service Concurrence Letter



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407

March 28, 2018

Mr. Edward Frierson  
NEPA Coordinator  
South Carolina Department of Transportation  
P.O. Box 191  
Columbia, SC 29202-0191

Re: SCDOT, Natural Resources Technical Report, Carolina Crossroads, Lexington and Richland Counties, SC, FWS Log No. 2018-I-0645

Dear Mr. Frierson:

The U.S. Fish and Wildlife Service (Service) has received the Natural Resources Technical Report (NRTR) regarding South Carolina Department of Transportation's (SCDOT) proposed Carolina Crossroads project in Lexington and Richland Counties, South Carolina. The proposed project entails redesigning and improving the I-26, I-126, and I-20 corridor by upgrading interchanges, replacing bridges, widening roadways, and other actions. This NRTR includes a review of each of the threatened and endangered (T&E) species that are known to occur, or may occur, within Lexington and Richland Counties. A survey for these species was performed in order to facilitate consultation with the Service as required by the Endangered Species Act of 1973 (ESA), as amended. The results are detailed and tabulated in the NRTR with a final determination of effect.

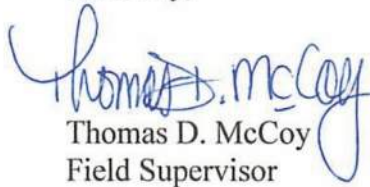
The SCDOT conducted surveys for T&E species that are known to occur in both counties in order to determine their presence within the project corridor. The presence of suitable habitat for each species was also examined during the surveys. The SCDOT did not locate individuals of, or suitable habitat for, the American wood stork, Canby's dropwort, Michaux's sumac, or rough-leaved loosestrife. As such, SCDOT determined the project would have no effect upon these species. Consultation is not required for no effect determinations. Suitable habitat was found for the smooth coneflower and red-cockaded woodpecker (RCW); however, no individuals for either species were located. Due to the presence of suitable habitat SCDOT conclude that the project may affect, but is not likely to adversely affect the RCW or smooth coneflower.

Upon review of the information provided, the Service concurs with SCDOT's determination that the Carolina Crossroads project may affect, but is not likely to adversely affect the RCW or smooth coneflower. Please contact the National Oceanic

and Atmospheric Administration for consultation requirements regarding the Atlantic and short-nose sturgeon. Please note that obligations under section 7 of the ESA must be reconsidered if: (1) new information reveals impacts of this identified action may affect any listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner, which was not considered in this assessment; or (3) a new species is listed or critical habitat is designated that may be affected by the identified action.

If you have any questions regarding the Service's determination, please do not hesitate to contact Mr. Mark Caldwell at (843) 727-4707 ext. 215, and reference FWS Log No. 2018-I-0645.

Sincerely,



Thomas D. McCoy  
Field Supervisor

TDM/MAC

## Appendix G

### Qualifications of Project Team Personnel

## Natural Resources Technical Report

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The following Project Team staff were responsible for the preparation of this document:

**Matthew DeWitt; Environmental Scientist**

**Bachelor of Science (B.S.) in Environmental and Natural Resources**

Matt DeWitt has twelve (12) years of experience throughout the southeastern United States working in environmental studies, with an emphasis on matters related to the Clean Water Act (CWA). He holds a bachelor's degree in environmental and natural resources, with minors in natural resource management and forestry. Matt has prepared numerous environmental documents pursuant to the National Environmental Policy Act (NEPA), including natural resources technical memorandums, protected species biological assessments, Environmental Assessments (EAs), and assisted in Environmental Impact Statements (EISs). Matt also performs natural resources studies, including wetland delineations, threatened and endangered species surveys, water quality sampling, environmental compliance studies, and mitigation site identification, design and monitoring. Mr. DeWitt acted as Team Leader for field efforts, and performed jurisdictional waters delineations, protected species surveys, and natural resource habitat assessments for the project. Mr. DeWitt also prepared GIS mapping and authored the NRTR document for the project.

**Thomas Melton; Staff Scientist**

**Bachelor of Science (B.S.) in Resource and Environmental Studies**

Thomas Melton has worked in environmental science and natural resources consulting for five years. The experience includes commercial and residential development, as well as utilities and energy industry. He performs field work on issues related to Section 404 and 401 of the Clean Water Act (CWA), National Historic Preservation Act (NHPA), and Endangered Species Act (ESA), so as to identify opportunities to avoid or minimize potential environmental impacts. Thomas has performed field assessments and delineations of thousands of acres of undeveloped land across the United States, and is a resource for principles of conservation and government regulations. Mr. Melton performed jurisdictional waters delineations, protected species surveys, and natural resource habitat assessments for the project.

**W. Steven Busbee, PWS; Senior Environmental Scientist**

**Bachelor of Science (B.S.) in Aquaculture, Fisheries, and Wildlife Biology**

**Master of Science (M.S.) in Forest Resources**

Mr. Busbee has over 15 years of experience in ecological studies and environmental assessment throughout the southeastern United States. Mr. Busbee has a Master's Degree in Forest Resources and a Bachelor's Degree in Aquaculture, Fisheries, and Wildlife Biology from Clemson University. Mr. Busbee's experience specifically includes stream and wetland determinations, delineations, functional assessments, natural resource and feasibility studies, preparation of Clean Water Act Section 404/401 permit documents, compensatory wetland mitigation planning and monitoring, protected plant and animal species surveys, invasive plant species surveys, water quality monitoring, and regulatory agency reporting and coordination. Mr. Busbee performed jurisdictional waters delineations, protected species (bald eagle) surveys, and natural resource habitat assessments for the project.

## Natural Resources Technical Report

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**Josh Kotheimer; Environmental Scientist**

**Bachelor of Science (B.S.) in Environmental Technology and Management**

**Bachelor of Arts (B.A.) in Chemistry**

**Graduate Certificate in Geographic Information Science (GIS)**

Mr. Kotheimer has three years of experience in performing wetland delineations, environmental compliance inspections, protected species surveys, and mitigation monitoring. His experience also particularly includes the utilization of GPS and GIS software in creating maps/figures for various NEPA and permitting related documents including environmental impact statements, essential fish habitat reports, biological assessments, preliminary site investigations, and jurisdictional determination requests. Mr. Kotheimer performed jurisdictional waters delineations, protected species (bald eagle) surveys, and natural resource habitat assessments for the project.

**Thomas Blackwell, PWS; Environmental Scientist**

**Bachelor of Arts (B.A.) in Natural Sciences**

**Master of Science (M.S.) in Environmental Resource Management**

Thomas Blackwell is a professional wetland scientist (PWS) with more than 10 years of progressive experience in environmental consulting including wetland delineation, Section 404/401 permitting, threatened and endangered species surveys, stream geomorphic assessment and natural channel design, wetland functional assessment, and mitigation planning and design. Mr. Blackwell is trained and certified in NCWAM (North Carolina's rapid wetland assessment methodology). In addition to NCWAM, Thomas is experienced in the use of a number of other qualitative and quantitative rapid wetland assessment methodologies. Mr. Blackwell is experienced in the preparation of NEPA and SEPA environmental documents and has successfully managed numerous complex environmental permitting projects for both private and public sector clients throughout the southeast. Thomas served as HDR team leader for the stream and wetland delineation field effort on this project.

**Jason McMaster, PWS; Environmental Scientist**

**Master of Science (M.S.) in Environmental Studies**

**Master of Arts (M.A.) in Biology**

Jason McMaster is a Professional Wetland Scientist (PWS) in HDR's Charleston office. Jason has over 10 years of experience. Mr. McMaster performs wetland delineations for both State and Federal clients. He has experience using Trimble GPS equipment and is proficient in the use of ArcGIS mapping software. Mr. McMaster also has experience completing Section 404/401 and NPDES permitting for a variety of public sector projects. In addition, Jason has experience performing construction management oversight for environmental compliance, including Stormwater Prevention Pollution Plan (SWPPP) review and compliance/commitment monitoring, on major transportation corridor projects. Prior to joining HDR, Jason spent 4 years with State Dept. of Ocean and Coastal Resource Management (SCDHEC OCRM), in regulatory enforcement. Additionally, he served as the OCRM regulatory liaison for SCDNR's coastal science outreach program and coordinated a joint inspection program with Charleston County's stormwater division. Jason served as a team member for the stream and wetland delineation field effort and provided technical quality control and quality assurance (QA/QC) review for the jurisdictional delineation report.



## Appendix G

### Qualifications of Project Team Personnel



## Natural Resources Technical Report

---

The following Project Team staff were responsible for the preparation of this document:

**Matthew DeWitt; Environmental Scientist**

**Bachelor of Science (B.S.) in Environmental and Natural Resources**

Matt DeWitt has twelve (12) years of experience throughout the southeastern United States working in environmental studies, with an emphasis on matters related to the Clean Water Act (CWA). He holds a bachelor's degree in environmental and natural resources, with minors in natural resource management and forestry. Matt has prepared numerous environmental documents pursuant to the National Environmental Policy Act (NEPA), including natural resources technical memorandums, protected species biological assessments, Environmental Assessments (EAs), and assisted in Environmental Impact Statements (EISs). Matt also performs natural resources studies, including wetland delineations, threatened and endangered species surveys, water quality sampling, environmental compliance studies, and mitigation site identification, design and monitoring. Mr. DeWitt acted as Team Leader for field efforts, and performed jurisdictional waters delineations, protected species surveys, and natural resource habitat assessments for the project. Mr. DeWitt also prepared GIS mapping and authored the NRTR document for the project.

**Thomas Melton; Staff Scientist**

**Bachelor of Science (B.S.) in Resource and Environmental Studies**

Thomas Melton has worked in environmental science and natural resources consulting for five years. The experience includes commercial and residential development, as well as utilities and energy industry. He performs field work on issues related to Section 404 and 401 of the Clean Water Act (CWA), National Historic Preservation Act (NHPA), and Endangered Species Act (ESA), so as to identify opportunities to avoid or minimize potential environmental impacts. Thomas has performed field assessments and delineations of thousands of acres of undeveloped land across the United States, and is a resource for principles of conservation and government regulations. Mr. Melton performed jurisdictional waters delineations, protected species surveys, and natural resource habitat assessments for the project.

**W. Steven Busbee, PWS; Senior Environmental Scientist**

**Bachelor of Science (B.S.) in Aquaculture, Fisheries, and Wildlife Biology**

**Master of Science (M.S.) in Forest Resources**

Mr. Busbee has over 15 years of experience in ecological studies and environmental assessment throughout the southeastern United States. Mr. Busbee has a Master's Degree in Forest Resources and a Bachelor's Degree in Aquaculture, Fisheries, and Wildlife Biology from Clemson University. Mr. Busbee's experience specifically includes stream and wetland determinations, delineations, functional assessments, natural resource and feasibility studies, preparation of Clean Water Act Section 404/401 permit documents, compensatory wetland mitigation planning and monitoring, protected plant and animal species surveys, invasive plant species surveys, water quality monitoring, and regulatory agency reporting and coordination. Mr. Busbee performed jurisdictional waters delineations, protected species (bald eagle) surveys, and natural resource habitat assessments for the project.

## Natural Resources Technical Report

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**Josh Kotheimer; Environmental Scientist**

**Bachelor of Science (B.S.) in Environmental Technology and Management**

**Bachelor of Arts (B.A.) in Chemistry**

**Graduate Certificate in Geographic Information Science (GIS)**

Mr. Kotheimer has three years of experience in performing wetland delineations, environmental compliance inspections, protected species surveys, and mitigation monitoring. His experience also particularly includes the utilization of GPS and GIS software in creating maps/figures for various NEPA and permitting related documents including environmental impact statements, essential fish habitat reports, biological assessments, preliminary site investigations, and jurisdictional determination requests. Mr. Kotheimer performed jurisdictional waters delineations, protected species (bald eagle) surveys, and natural resource habitat assessments for the project.

**Thomas Blackwell, PWS; Environmental Scientist**

**Bachelor of Arts (B.A.) in Natural Sciences**

**Master of Science (M.S.) in Environmental Resource Management**

Thomas Blackwell is a professional wetland scientist (PWS) with more than 10 years of progressive experience in environmental consulting including wetland delineation, Section 404/401 permitting, threatened and endangered species surveys, stream geomorphic assessment and natural channel design, wetland functional assessment, and mitigation planning and design. Mr. Blackwell is trained and certified in NCWAM (North Carolina's rapid wetland assessment methodology). In addition to NCWAM, Thomas is experienced in the use of a number of other qualitative and quantitative rapid wetland assessment methodologies. Mr. Blackwell is experienced in the preparation of NEPA and SEPA environmental documents and has successfully managed numerous complex environmental permitting projects for both private and public sector clients throughout the southeast. Thomas served as HDR team leader for the stream and wetland delineation field effort on this project.

**Jason McMaster, PWS; Environmental Scientist**

**Master of Science (M.S.) in Environmental Studies**

**Master of Arts (M.A.) in Biology**

Jason McMaster is a Professional Wetland Scientist (PWS) in HDR's Charleston office. Jason has over 10 years of experience. Mr. McMaster performs wetland delineations for both State and Federal clients. He has experience using Trimble GPS equipment and is proficient in the use of ArcGIS mapping software. Mr. McMaster also has experience completing Section 404/401 and NPDES permitting for a variety of public sector projects. In addition, Jason has experience performing construction management oversight for environmental compliance, including Stormwater Prevention Pollution Plan (SWPPP) review and compliance/commitment monitoring, on major transportation corridor projects. Prior to joining HDR, Jason spent 4 years with State Dept. of Ocean and Coastal Resource Management (SCDHEC OCRM), in regulatory enforcement. Additionally, he served as the OCRM regulatory liaison for SCDNR's coastal science outreach program and coordinated a joint inspection program with Charleston County's stormwater division. Jason served as a team member for the stream and wetland delineation field effort and provided technical quality control and quality assurance (QA/QC) review for the jurisdictional delineation report.