

**NOTICE OF APPLICATION FOR FEDERAL CONSISTENCY REVIEW  
LAKE MICHIGAN COASTAL ZONE PROGRAM**

**Project Number:** ER-18287-1

**Name of Applicant:** Mike Wigley

**Address of Applicant:**

Norfolk Southern Railroad Company  
1200 Peachtree Street NE-Building Box 7-142  
Atlanta, GA 30309

**Project Description:** Construction of new railway extensions for Pine Rail Yard: a lead at the east end, and a new Trail Track at the west end, resulting in 0.932 acres of wetland impacts, Gary; Norfolk Southern Railway Co. (NSRR); IDEM ID #2015-152-45-MTM-A

**Location of Project:**

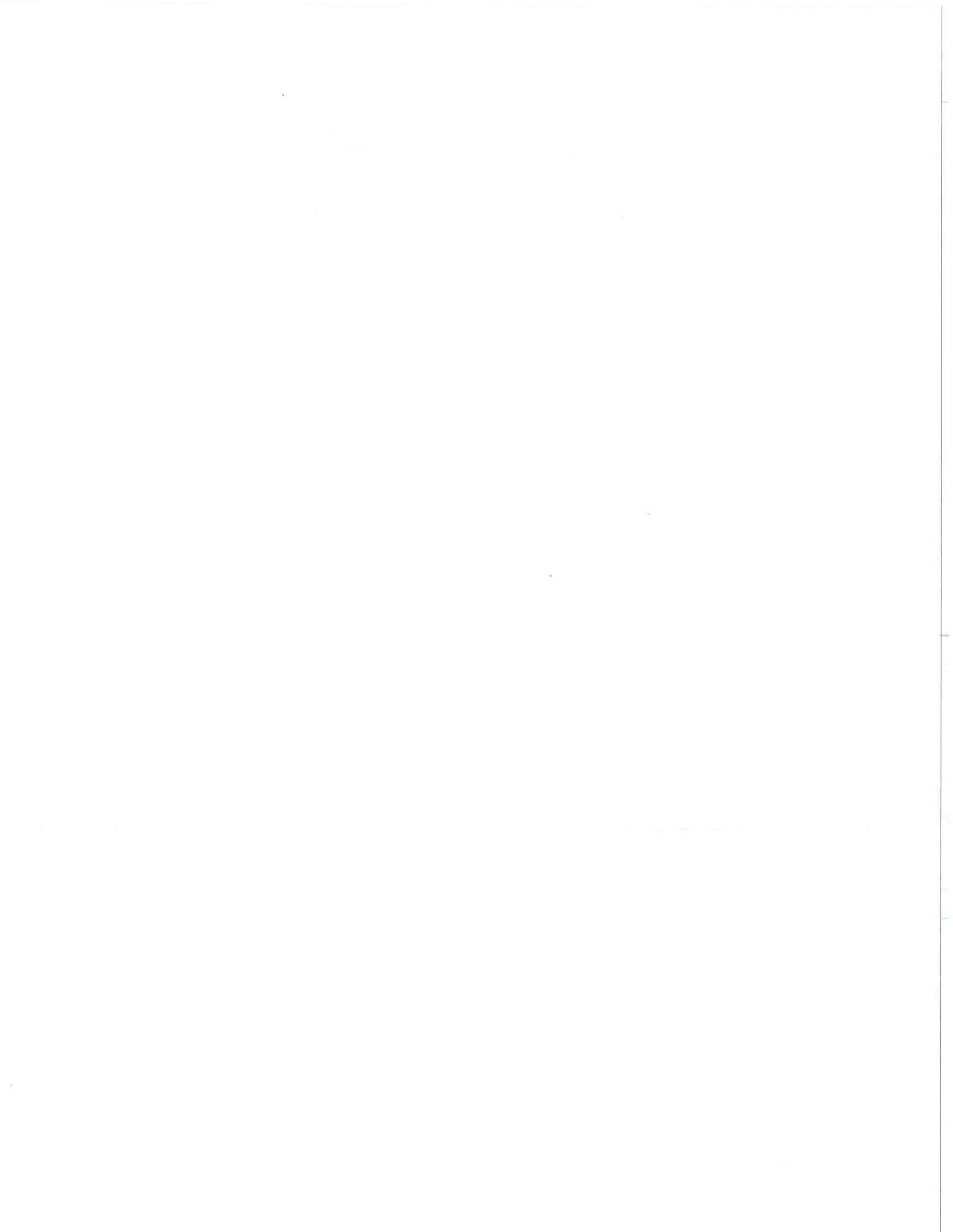
Gary, Indiana; Lake County

**Send comments to the following no later than December 24, 2015:**

Federal Consistency Review Coordinator, Environmental Unit  
Division of Fish and Wildlife  
Department of Natural Resources  
402 West Washington Street, Room W273  
Indianapolis, IN 46204  
Electronic mail: [environmentalreview@dnr.in.gov](mailto:environmentalreview@dnr.in.gov)

**Copies of the request, accompanying information and data are available for inspection at the following location:**

Environmental Unit  
Division of Fish and Wildlife  
Department of Natural Resources  
402 West Washington Street, Room W273  
Indianapolis, IN 46204





Norfolk Southern Railway  
Engineering - Design & Construction  
1200 Peachtree St. NE – Bldg. Box 7-142  
Atlanta, GA 30309

\* FC \*

ER-18287-1  
ER-18287

**Mike Wigley, P.E.**  
Assistant Chief Engineer  
Design  
404-529-1332

December 8, 2015

Environmental Review Coordinator  
Department of Natural Resources  
402 West Washington Street, Room W273  
Indianapolis, IN 46204  
Electronic mail: environmentalreview@dnr.in.gov

**Subject: Federal Consistency Review under Indiana Lake Michigan Coastal Program  
Norfolk Southern Railway Company  
Pine Siding Extension and Lead Track  
Gary, Indiana**

Dear Sir or Madam:

This letter constitutes Norfolk Southern Railway Company's ("NSRC") transmission of applications and federal consistency certifications to Indiana Department of Natural Resources ("IDNR") for review by the Indiana Lake Michigan Coastal Program ("LCMP") for federal consistency pursuant to Coastal Zone Management Act ("CZMA"), 16 U.S.C. 1451, 1456 et seq., and implementing regulations at 15 C.F.R. Part 930 in connection with the proposed Pine Siding Extension and Pine Yard Lead Track in Gary, Lake County, IN.

This project is Indiana Gateway Project #7, a part of the federally-funded Indiana Gateway program, which is administered by the Indiana Department of Transportation. The proposed work will reduce overall rail traffic congestion and increase and optimize operations on the Chicago Line, which is an important intercity passenger rail route in northwestern Indiana. The project consists of extensions of the Pine Siding track, construction of a new Pine Yard Lead at the east end of Pine Yard, and construction of a new Tail Track at the west end of Pine Yard. NSRC is a Class I freight railroad operating in interstate commerce<sup>1</sup>. This project is a linear project with impacts to waters of the United States of 1.35 acres. The project is located in Calumet Township, Lake County, Indiana. The approximate center of the project is 41.622693° latitude and -87.387669° longitude. Proposed construction is entirely within existing NSRC railroad right-of-way.

<sup>1</sup> Certain state and local approvals and conflicting requirements are preempted as applied to rail facilities operating in interstate commerce under the Interstate Commerce Commission Termination Act of 1995 ("ICCTA"), 49 U.S.C. §10501, and Federal Railway Safety Act of 1970 ("FRSA") 49 U.S.C. § 20101. NSRC does not waive and expressly preserves any claims or defenses related to such ICCTA or FRSA preemption related to the subject matter of this letter.

**RECEIVED DEC 10 2015**

The project has received authorization under Section 402 of the Federal Clean Water Act ("CWA"), 33 U.S.C. § 1342 et seq., from IDEM, authorized for implementation of the CWA National Pollutant Discharge Elimination System ("NPDES") permitting program. NSRC applied for authorization pursuant to Section 404 of the CWA, 33 U.S.C. § 1344 et seq., on March 25, 2015 with the United States Army Corps of Engineers ("Corps" or "USACE"), and associated Section 401 Water Quality Certification ("WQC") from IDEM pursuant to Section 401 of the CWA, 33 U.S.C. § 1341 et seq. Prior to realignment of the Pine Yard Lead Track and agency response to mitigation proposals, the 120 day period set forth in Indiana Code Section 13-18-23-1 for IDEM's action on Section 401 WQC expired on July 24, 2015 resulting in IDEM denial of the 401 WQC. On November 12, 2015, at the request of IDEM, NSRC filed a subsequent request for Section 401 WQC for the proposed project, addressing the comments received from IDEM, United States Environmental Protection Agency ("EPA"), the Corps, IDNR and the public.

This project requires Section 401 WQC and authorization pursuant to Section 404, and thus is a federal action subject to federal consistency. 16 U.S.C.1456(c)(3)(A); 15 CFR Part 930 Subpart D. An applicant for a federal license or permit is required to certify in its application to the Agency that its proposed activity complies with and will be conducted in a manner consistent with the LMCP. The applicant is also required to submit to the Environmental Unit a copy of the certification and data and information necessary to demonstrate consistency.

Enclosed you will find copies of the above-referenced November 12, 2015 application for 401 WQC and March 25, 2015 application for authorization pursuant to Section 404 of the CWA and documentation supporting these applications. These applications and their supporting documentation contain information and data required to determine compliance with state law and consistency with the LMCP. The applications also include the required federal consistency certifications.

### **Enclosed Applications**

The enclosed Section 404 Indiana Regional General No. 001 Permit Pre-Construction Notification and supporting documentation includes:

1. ENG Form 4345 Application for Department of Army Permit
2. Application for Authorization to Discharge Dredged or Fill Material Into Isolated Wetlands and/or Waters of the State (State Form 51821)
3. 404 Permit Application Supplement:
4. Appendices to 404 Permit Application Supplement
  - Appendix A - Waters of the U.S. Summary Report- Pine Yard Siding Extension, Lead Track, and Tail Track, Gary, IN- March 13, 2015
  - Appendix B - Indiana Natural Heritage Data Center Response – March 18, 2015

The enclosed 401 WQC application and supporting documentation includes:

1. Application for Authorization to Discharge Dredged or Fill Material Into Isolated Wetlands and/or Waters of the State (State Form 51821)
2. Supplement to State Form 51821
3. Appendices to Supplement to State Form 51821:
  - Appendix A- Purpose and Need
  - Appendix B- Waters of the U.S. Summary Report- Pine Yard Siding Extension, Lead Track and Tail Track, Gary IN - August 10, 2015
  - Appendix C- Indiana Natural Heritage Data Center Response – March 18, 2015
  - Appendix D- Revised Erosion and Sediment Control Plans – August 31, 2015
  - Appendix E- Alternatives Analysis - August 8, 2015
  - Appendix F- Mitigation Plan – October 9, 2015
  - Appendix G- Indiana Department of Natural Resources Division of Nature Preserves Letter of Support – October 26, 2015

#### Closure

NSRC requests a finding of federal consistency for this project. If you have any questions, please do not hesitate to contact Derek Tichy at (404) 529-1283 or e-mail [derek.tichy@nscorp.com](mailto:derek.tichy@nscorp.com). We appreciate your consideration.

Sincerely,

  
Mike Wigley



November 12, 2015

Indiana Department of Environmental Management  
Office of Water Quality  
Section 401 WQC Program  
100 North Senate Avenue  
Indianapolis, IN 46204

**RE: 401 Water Quality Certification Application  
Norfolk Southern Railway Company  
Pine Siding Extension and Lead Track  
Gary, Indiana**

Dear Sir or Madam:

Shannon & Wilson, Inc. has been retained as the authorized agent for the above-mentioned project on behalf of Norfolk Southern Railway Company ("NSRC") for submittal of this application for Water Quality Certification ("WQC") pursuant to Section 401 of the Federal Clean Water Act, 33 U.S.C. § 1341 et seq., for the proposed Pine Siding Extension and Lead Track in Gary, Lake County, Indiana.

### BACKGROUND

The proposed Pine Siding Extension and Pine Yard Lead Track will reduce overall rail traffic congestion and increase and optimize rail operations on the subject rail line, which is part of the primary route of intercity passenger rail service in this area of northwestern Indiana. The project involves a Class I freight rail in interstate commerce.<sup>1</sup> Attached you will find all of the information required for WQC in accordance with regulations and requirements of the Indiana Department of Environmental Management ("IDEM"). Enclosed please find IDEM Form 51821. This application includes an application Supplement with figures (Attachment 1).

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<sup>1</sup> Note that certain state and local approvals and conflicting requirements are preempted as applied to rail facilities operating in interstate commerce under the Interstate Commerce Commission Termination Act of 1995 ("ICCTA"), 49 U.S.C. § 10501, and Federal Railway Safety Act of 1970 ("FRSA") 49 U.S.C. § 20101. NSRC does not waive and expressly preserves any claims or defenses related to such ICCTA or FRSA preemption related to the subject matter of this letter.

## SUMMARY OF PROJECT REVISIONS

The project will impact 1.35 acres of waters of the United States, of which 0.76 acre is a rail ditch<sup>2</sup> developed for storm water management and assessed in 2009 and 2015 as having low floristic quality. The original proposed alternative, called the Preferred Alternative, would have impacted 0.153 acre of higher quality wetland area, following minimization and avoidance activities including placement of the lead track on existing rail roadbed where rail previously existed. Following consultation with the agencies and receipt of public comments, NSRC is moving the alignment to Alternative E, which will be referred to as the Proposed Alternative. Alternative E is the southerly most alignment feasible in light of railroad engineering requirements and constraints and avoids upland areas which the Indiana Department of Natural Resources (“IDNR”) identified as having the presence of upland state protected plant species. Moving the alignment to Alternative E/Proposed Alternative increased impacts to waters of the United States from 0.15 acres of impact to wetlands with a floristic quality index (“FQI”) of 21.9 (Wetland W-01), 44.9 (Wetland W-02), 29.4 (Wetland W-03), 44.2 (Wetland W-04) to 0.59 acre of wetland with an FQI of 21.9 (Wetland W-01) and 44.2 (Wetland W-04).

The Supplement includes several Appendices as follows:

- Appendix A- Purpose and Need
- Appendix B- Waters of the U.S. Summary Report- Pine Yard Siding Extension, Lead Track and Tail Track, Gary IN -August 10, 2015
- Appendix C- Indiana Natural Heritage Data Center Response –March 18, 2015
- Appendix D- Revised Erosion and Sediment Control Plans –August 31, 2015
- Appendix E- Alternatives Analysis- August 8, 2015
- Appendix F- Mitigation Plan
- Appendix G- Indiana Division of Natural Resources Division of Nature Preserves Letter of Support – October 26, 2015

### Appendix Summaries

Appendix A – The purpose and need for the project has not changed from the original submittal.

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<sup>2</sup> This rail ditch is not a water of the United States or water of the state. However, NSRC has categorized the ditch as such and proposed mitigation to facilitate permitting. NSRC reserves all rights with respect to the proper designation of the rail ditch identified as W-05 and W-05A.

Appendix B – Revised Waters of the U.S. Summary Report and Floristic Quality Assessment was prepared following several site visits, which included U.S. Army Corps of Engineers (“Corps”) personnel. IDEM and IDNR have also conducted field visits to the Project site. IDNR was present for the delineation of waters of the U.S. confirmatory visit by the Corps on July 21, and identified state plant species of interest in the area. Appendix B was submitted to the Corps and IDEM on August 10, 2015.

Appendix C - Previously submitted to IDEM and the Corps on March 24, 2015 and has not changed.

Appendix D - Revised version of Erosion and Sediment Control Plans to reflect realignment, or movement, of the proposed project to the southerly-most alternative at the request of IDNR, the Corps, and referenced by stakeholders in public comment for the Section 404 permit application. The revised plans reflect the alternative previously identified as “Alternative E,” which we also refer to as the Proposed Alternative. The original Preferred Alternative is identified in documents only for the purpose of alternatives analysis assessment.

Appendix E - Updated Alternatives Analysis that includes a discussion of Alternative E, the Proposed Alignment.

Appendix F - Final Mitigation Plan, this plan supersedes mitigation conceptual plans previously provided to IDEM and the Corps in March, June, and August. The final Mitigation Plan was prepared in consultation with IDNR and features enhancement and restoration of an important Indiana Nature Preserve, the Pine Station Nature Preserve, which is the location of important dune and swale habitat under perpetual protection by IDNR. IDEM has previously approved mitigation of similar type at this location for other projects. As explained in the mitigation plan, mitigation ratios vary from 60 acres to 1 (60:1) to 15:1, depending upon the FQI and wetland quality. Ratios applied are in accordance with IDEM and Corps’ guidance as explained by the Corps in a transmittal dated August 27, 2015 and following review of NSRC submittals. While the plan proposes ratios higher than those applied by IDEM and the Corps for previous and similar projects, NSRC is presenting the plan in an effort to resolve resource agency concerns. The Mitigation Plan includes a five-year monitoring and assessment plan.

Appendix G - Recent letter from IDNR supporting the mitigation plan and Alternative E/Proposed Alternative.

Indiana Department of  
Environmental Management  
November 12, 2015  
Page 4 of 4

SHANNON & WILSON, INC.

This resubmittal is made at IDEM's request. NSRC has filed a separate appeal of a previous WQC and reserves all rights with respect to the pending appeal.

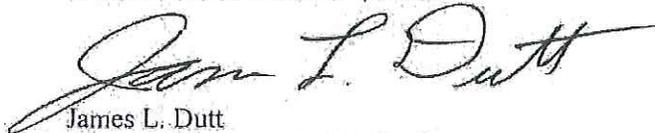
#### CLOSURE

On behalf of NSRC, Shannon & Wilson is requesting Section 401 certification. The project meets all conditions for 401 water quality certification. If you have any questions please do not hesitate to contact me, the applicant's agent, at (314) 564-8114 or via e-mail at [jtd@shanwil.com](mailto:jtd@shanwil.com) or Derek Tichy with NSRC at (404) 529-1283 or e-mail [derek.tichy@nscorp.com](mailto:derek.tichy@nscorp.com).

We appreciate your consideration.

Sincerely,

SHANNON & WILSON, INC.



James L. Dutt  
Principal Environmental Scientist

JLD:RWS/tad

Principal Environmental Scientist

Enc: Pine Siding Extension and Lead Track – Section 401 Application

cc: Derek Tichy – Norfolk Southern Railway Company  
Mike Wigley – Norfolk Southern Railway Company  
Matthew A. Gernand, Esq. – Norfolk Southern Railway Company  
David M. Moore – Smith, Gambrell & Russell, LLP



# Application for Authorization to Discharge Dredged or Fill Material to Isolated Wetlands and/or Waters of the State

State Form 51821 (R / 10-04)

Indiana Department of Environmental Management

- INSTRUCTIONS:**
1. Read the instruction sheet before filling out this form.
  2. You must complete all applicable sections of this form

1. Applicant Information		2. Agent Information	
Name of Applicant: Norfolk Southern Railway Company		Name of Agent: Shannon & Wilson, Inc.	
Mailing address: (Street/ PO Box/ Rural Route, City, State, ZIP Code)  1200 Peachtree Street NE, 7-142/Atlanta, Georgia, 30309		Mailing address: (Street/ PO Box/ Rural Route, City, State, ZIP Code)  2043 Westport Center Drive/Saint Louis, Missouri, 63385	
Daytime Telephone Number: (404) 529-1332		Daytime Telephone Number: (314) 564-8114	
Fax Number:		Fax Number: (314) 699-9661	
E-mail address: (optional) mike.wigley@nscorp.com		E-mail address: (optional) jld@shanwil.com	
Contact person: (required) Mike W. Wigley		Contact person: James L. Dutt	
3. Project/Tract Location			
County: Lake County		Nearest city or town: Gary	
U.S.G.S. Quadrangle map name (Topographic map):  Gary, Whiting, and Highland (See Attached Figure 1 and 3)		Project street address (if applicable):  See attached Figure 1 and 2 for location.	
Quarter:	Section: Multiple Sections	Township: T37N	Range: 8W
Type of aquatic resource(s) to be impacted: (Attach Worksheet One)  Wetlands		Project name or title: (if applicable)  Pine Yard Siding Extension, Lead Track, and Tail Track	
Other location descriptions or driving directions:  Center of the project at N 41.622693, W -87.387669 - See attached figure 1 and 2 for location maps.			
4. Project Purpose and Description (Use additional sheet(s) if required)			
Has any construction been started? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Anticipated start date: 3/1/2016	
If yes, how much work is completed?			
Purpose of project and overview of activities:  Norfolk Southern Railway Company (NSRC) is a Class I Freight Rail company operating in interstate commerce. Indiana Gateway Project #7 consists of extensions of the Pine Siding track, construction of a new Pine Yard Lead at the east end of Pine Yard, and construction of a new Tail Track at the west end of Pine Yard. There is a demonstrated need to reduce overall rail traffic congestion and increase operational fluidity on the Norfolk Southern Chicago Line, which is a major freight and passenger rail corridor in northwest Indiana. Indiana Gateway Project #7 will create a four-mile segment of signalized 3rd track for meeting and passing trains. Indiana Gateway Project #7 will also enable switching operations at Pine Yard without disruption of traffic on Main Track #1 of the Chicago Line. The purpose of Indiana Gateway Project #7 is to reduce traffic congestion and provide consistent passenger train service on this line segment. This application seeks 401 certification for the portion of Indiana Gateway Project #7 that impacts potential Waters of the U.S. This work consists of construction of the Proposed Pine Yard Lead Track and private access road along the Pine Siding Track Extension ("Project" or "project").			

**5. Avoidance, Minimization, and Mitigation Information: Applicants must answer all of the following questions**  
(Use additional sheet(s) if necessary - provide a detailed response to all applicable questions).

**A. For projects with Class II isolated wetlands –**

1. Is there a reasonable alternative to the proposed activity?

-Not Applicable-

2. Is the proposed activity reasonably necessary or appropriate?

-Not Applicable-

**B. For projects with Class III wetlands, adjacent wetlands, and/or streams, rivers, lakes or other water bodies –**

1. Is there a practicable alternative to the proposed activity?

An alternatives analysis has been performed on 6 different alignments to connect the lead track. Alignment E has been determined to be the least environmentally damaging practicable alternative. See Supplement, Appendix D, Alternative Analysis.

2. Have practicable and appropriate steps to minimize impacts to water resources been taken?

In consultation with resource agencies, NSRC has moved the Lead Track alignment to Alternative E (proposed alignment). NSRC minimized roadbed width and steepened side slopes to reduce footprint. See Supplement and Supplement, Appendix D, Alternative Analysis for details regarding avoidance and minimization.

Describe all compensatory mitigation required for unavoidable impacts.

NSRC proposes 45 acres of dune and swale habitat at the Pine Station Nature Preserve as mitigation for unavoidable impacts to Waters of the U.S. of 1.35 acres, in accordance with IDEM and Army Corps mitigation requirements. This area represents in-kind, dune and swale habitat mitigation and the Pine Station Nature Preserve is a outstanding resource, located within the same watershed in close proximity to the project impacts. See Supplement, Appendix E, Mitigation Plan (October 9,2015).

**6. Drawing/Plan Requirements (applicants must provide the following)**

- Top/aerial/overhead views of the project site showing existing conditions and proposed construction.
- Cross sectional view of areas of fill or alterations to streams and other waters.
- North arrow, scale, property boundaries.
- Include wetland delineation boundary (if applicable). Label all wetlands (jurisdictional, isolated and exempt) as I-1, I-2, I-3, etc. and the mitigation areas as M-1, M-2, etc.
- Location of all surface waters, including wetlands, erosion control measures, existing and proposed structures, fill and excavation locations, disposal area for excavated material, including quantities, and wetland mitigation site (if applicable).
- Approximate water depths and bottom configurations (if applicable).

**7. Supplemental Application Materials (applicants must provide the following)**

- A wetland delineation of all wetlands on the project site (for projects with wetland impacts).
- At least three photographs of the project site. Indicate the photo locations on the project plans.
- If isolated wetlands are present, a letter from the Corps of Engineers verifying this statement.
- Wetland mitigation plan and monitoring report.
- Classification of all isolated wetlands on the tract (if isolated wetlands are present onsite).
- Copies of all applicable local permits and/or resolutions pertaining to the project or tract.
- Tract history (see instructions).

**8. Additional information that MAY be required (IDEM will notify you if needed)**

- Erosion control and/or storm water management plans.
- Sediment analysis.
- Species surveys for fish, mussels, plants and threatened or endangered species.
- Stream habitat assessment.
- Any other information IDEM deems necessary to review the proposed project.

### 9. Permitting Requirements

a. Does this project require the issuance of a Department of the Army Section 404 Permit from the US Army Corps of Engineers?  Yes  No  
 If no, you do not need to answer Part b.

b. Have you applied for an Army Corps of Engineers Section 404 permit?  Yes  No

If yes, please supply the Corps of Engineers ID Number, the Corps of Engineers District, the project manager, and a copy of any correspondence with the Corps. If no, contact the Army Corps of Engineers regarding the possible need for a permit application.

U.S. Army Corps ID Number LRC-2015-213 - Project Manager is Mr. Paul Leffler.

c. Have you applied for, received, or been denied a permit from the Department of Natural Resources for this project?  Yes  No  
 Please give the permit name, permit number, and date of application, issuance or denial..

d. Have you applied for, received, or been denied any other federal, state, or local permits, variances, licenses, or certifications for this project?  Yes  No

Please give the permit name, agency from which it was obtained, permit number, and date of issuance or denial.

IDEM - Notice of Intent - Notice of Sufficiency - INR10K250 - Issued June 16, 2015

### 10. Adjoining Property Owners and Addresses

List the names and addresses of landowners adjacent to the property on which your project is located and the names and addresses of other persons (or entities) potentially affected by your project. Use additional sheet(s) if required.

Name See Supplement.  Address  City                      State              ZIP Code	Name  Address  City                      State              ZIP Code
Name  Address  City                      State              ZIP Code	Name  Address  City                      State              ZIP Code
Name  Address  City                      State              ZIP Code	Name  Address  City                      State              ZIP Code
Name  Address  City                      State              ZIP Code	Name  Address  City                      State              ZIP Code
Name  Address  City                      State              ZIP Code	Name  Address  City                      State              ZIP Code
Name  Address  City                      State              ZIP Code	Name  Address  City                      State              ZIP Code

**11. Signature - Statement of Affirmation**

I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true and accurate. I certify that I have the authority to undertake and will undertake the activities as described in this application. I am aware that there are penalties for submitting false information. I understand that any changes in project design subsequent to IDEM's granting of authorization to discharge to a water of the state are not authorized and I may be subject to civil and criminal penalties for proceeding without proper authorization. I agree to allow representatives of the IDEM to enter and inspect the project site. I understand that the granting of other permits by local, state, or federal agencies does not release me from the requirement of obtaining the authorization requested herein before commencing the project.

Applicant's Signature:



Date:

11/13/15  
(mm/dd/yyyy)

Print Name: Mike W. Wigley

Title: Assistant Chief Engineer



**D. Bank Stabilization – provide the following information for EACH segment (Use additional sheet(s) if required)**

Water body name: N/A
Description of impacts: N/A
Length of shoreline or bank protection: N/A
Volume (cubic yards) of bank protection fill placed below the Ordinary High Water Mark per running foot: N/A
Area (square feet) of bank protection fill placed below the Ordinary High Water Mark: N/A

**E. Stream Relocation**

Water body name: N/A
Description of impacts: N/A
Length of existing channel to be relocated: (linear feet) N/A
Length of new channel to be constructed: (linear feet) N/A
Existing channel to be backfilled: <input type="checkbox"/> Yes <input type="checkbox"/> No
Type of relocation: <input type="checkbox"/> Piping <input type="checkbox"/> Open Channel <input type="checkbox"/> Other: _____
Type of fill and volume: (cubic yards) N/A

**F. Open Water Fill**

Water body name: N/A
Description of impacts: N/A
Area of water body to be filled: (acres) N/A
Type of fill and volume: (cubic yards) N/A

INDIANA SECTION 401 CERTIFICATION APPLICATION  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
FOR NORFOLK SOUTHERN RAILWAY CORPORATION  
PINE YARD SIDING EXTENSION AND LEAD TRACK  
GARY, INDIANA

November 12, 2015

Prepared for:  
Norfolk Southern Railway Company  
1200 Peachtree Street NE, 7-142  
Atlanta Georgia 30309

By:  
Shannon & Wilson, Inc.  
2043 Westport Center Drive  
Saint Louis, Missouri 63146

41-1-37485-003

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**FIGURES**

- 1 Vicinity Map - Topographic
- 2 Vicinity Map – Aerial
- 3 Wetland Mapping Overview – Topographic
- 4 Wetland Mapping Overview – Aerial
- 5 Lead Track – Wetland Detail
- 6 Pine Siding Extension Wetland Impact – Detail (3 figures 6A, 6B, and 6C)
- 7 Lead Track – Alternative Centerlines

**APPENDICES**

- A Purpose and Need
- B Waters of the U.S. Summary Report – August 10, 2015
- C Indiana Natural Heritage Data Center Response – March 18, 2015
- D Revised Erosion and Sediment Control Plans – August 31, 2015
- E Alternatives Analysis – August 8, 2015
- F Mitigation Plan – October 9, 2015
- G IDNR – Letter of Support for Project – October 26, 2015

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**INDIANA SECTION 401 CERTIFICATION APPLICATION  
PINE YARD SIDING EXTENSION AND LEAD TRACK  
NORFOLK SOUTHERN RAILWAY CORPORATION – PINE YARD  
GARY, INDIANA**

**1.0 PROJECT PURPOSE AND DESCRIPTION (BOX 4)**

Norfolk Southern Railway Company (“NSRC”) is a Class I Freight Rail company operating in interstate commerce.<sup>1</sup> Indiana Gateway Project #7 consists of extensions of the Pine Siding track, construction of a new Pine Yard Lead at the east end of Pine Yard, and construction of a new Tail Track at the west end of Pine Yard. This project is a linear project with impacts to waters of the United States of 1.35 acres. There is a demonstrated need to reduce overall rail traffic congestion and increase operational fluidity on the NSRC Chicago Line, which is a major freight and passenger rail corridor in northwest Indiana. Indiana Gateway Project #7 will create a four-mile segment of signalized 3<sup>rd</sup> track for meeting and passing trains. Indiana Gateway Project #7 will also enable switching operations at Pine Yard without disruption of traffic on Main Track #1 of the Chicago Line. The purpose of Indiana Gateway Project #7 is to reduce traffic congestion and provide consistent passenger train service on this line segment. This application seeks 401 Water Quality Certification (“WQC”) for the portion of Indiana Gateway Project #7 that impacts waters of the United States. This work consists of construction of the Proposed Pine Yard Lead Track and private access road along the Pine Siding Track Extension (“Project” or “project”).

Construction of the roadbed for the proposed track will require placement of fill in wetlands identified as waters of the United States. See Figures 1 and 2 for Vicinity Maps.

**1.1 Project Vicinity**

The eastern two-thirds of the project is located within the Calumet Sag Channel-Little Calumet River Hydrologic Unit Code (“HUC”): 0712000304 watershed. This western third of the project is located within the Calumet River – Frontal Lake Michigan HUC: 0404000106 watershed. The project is located in Calumet Township, Lake County, Indiana. The

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<sup>1</sup> Certain state and local approvals and conflicting requirements are preempted as applied to rail facilities operating in interstate commerce under the Interstate Commerce Commission Termination Act of 1995 (“ICCTA”), 49 U.S.C. §10501, and Federal Railway Safety Act of 1970 (“FRSA”) 49 U.S.C. § 20101. NSRC does not waive and expressly preserves any claims or defenses related to such ICCTA or FRSA preemption related to the subject matter of this supplement.

approximate center of the project is 41.622693° latitude and -87.387669° longitude. The project is within existing NSRC right-of-way.

Project topography is depicted in Figures 1 and 3. The Project is located within a highly industrialized area, mostly consisting of existing and former railroads, industrial facilities, and roadways located far from urban areas and residences. The area has relatively flat topography.

The area has served industrial purposes for over a century. The specific property involved is operating rail property which has been in use by Class I freight rail in interstate commerce for over a century. The property was part of the acquisition of a portion of Conrail assets by Norfolk Southern Railway Company as approved by the Surface Transportation Board on July 23, 1998. In 2014, Indiana Department of Natural Resources identified adjacent property to the north as the "Lakeshore Railroad Prairie" and extended this designation south to NSRC property. NSRC was not consulted regarding the identification, and the designation appears to have been supported by analysis of adjoining property.

## 1.2 Rail Operations

The Project is located on the NSRC Chicago Line. The NSRC Chicago Line is a primary route of intercity passenger rail service in the Midwest, and a Class I freight route. Through a trackage rights agreement, Amtrak operates 14 scheduled passenger trains each day on the Chicago Line in northwest Indiana, providing service to the Chicago metropolitan area and Northern Indiana. Promotion of passenger rail is a national policy priority relating to passenger transportation and national goals regarding energy independence, reduction of greenhouse gases, and reduction of maintenance and operations costs for national and state highway systems.

## 1.3 Environmental Impacts

The project will impact 1.35 acres of waters of the United States, of which 0.76 acre is a rail ditch<sup>2</sup> developed for storm water management and assessed in 2009 and 2015 as having low floristic quality. The location of impacted wetlands, as well as minimization and avoidance alternatives, is found in Figures 3 through 7. The original proposed alternative, called the Preferred Alternative, would have impacted 0.15 acre of higher quality wetland area, following minimization and avoidance activities, including placement of the Lead Track on existing rail roadbed where rail previously existed. See Figure 7 for alternative alignments. Following

<sup>2</sup> This rail ditch is not a water of the United States or water of the state; however, NSRC has categorized the ditch as such and proposed mitigation to facilitate permitting. NSRC reserves all rights with respect to the proper designation of this area.

consultation with the agencies and receipt of public comment, NSRC is moving the alignment to Alternative E, which will be referred to as the Proposed Alternative. Alternative E represents an alignment that is shifted as far south and west as possible, considering railroad engineering requirements and constraints, and it avoids upland areas which the Indiana Department of Natural Resources (“IDNR”) identified as having the presence of upland state-protected plant species. Moving the alignment to Alternative E/Proposed Alternative increased impacts to waters of the United States from 0.15 impact to wetlands with a floristic quality index (“FQI”) of 21.9 (Wetland W-01), 44.9 (Wetland W-02), 29.4 (Wetland W-03), 44.2 (Wetland W-04), to 0.59 acres of wetland with an FQI of 21.9 (Wetland W-01) and 44.2 (Wetland W-04). Total impacts of the original alignment to potential waters of the United States were 0.933 acre, below thresholds for Regional General Permit (RGP) 001.<sup>3</sup>

See Figure 3 for an overview of the project alignment and locations of the wetlands identified overlaid on a topographic map. See Figure 4 for an overview of the project alignment and locations of the wetlands identified overlaid on an aerial photo. The majority of the project remains on existing rail roadbed, representing the siding extension. While Alternative E/Proposed Alternative moved the alignment from rail roadbed to wetland areas and areas potentially considered dune as part of dune and swale complex, FQI scores and consultation with resource agencies supports Alternative E/Proposed Alternative as the least environmentally damaging practicable alternative, or LEDPA, consistent with Corps’ regulations.

Wetland impacts due to the Pine Siding Extension occur due to construction of the siding extension and new access road adjacent to the north of the new siding track. These wetlands (W-5 and W-5A) were dominated by common reed (*Phragmites australis*). See Figure 3 for an overview of the project alignment and locations of the wetlands identified overlaid on a topographic map. See Figure 4 for an overview of the project alignment and locations of the wetlands identified overlaid on an aerial photo. Figure 5 depict the locations of the wetlands relative to the grading limits of the project for the lead track.

The table below summarizes the wetland name, type, and area filled for the lead track portion of this project.

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<sup>3</sup> The Chicago Corps District has suspended Nationwide Permit (NWP 14) which authorizes linear transportation projects such as this project with thresholds of less than 0.5 acre or 300 linear feet of impact to waters of the United States per crossing.

Alternative	Earthwork Excavation (CY)	Total Crushed Stone Fill (CY)	Wetland Impact (Acre)	Upland Impact (Acre)	Total Impact (Acre)
<i>Preferred</i>	405	1,722	0.153	0.636	0.789
<i>A</i>	671	3,551	0.412	0.805	1.217
<i>B</i>	1,079	1,877	0.326	0.522	0.848
<i>C</i>	978	1,958	0.491	0.309	0.800
<i>D</i>	868	2,194	0.660	0.282	0.942
<i>Proposed/E</i>	<b>995</b>	<b>2,573</b>	<b>0.589</b>	<b>0.281</b>	<b>0.870</b>

As noted above, a rail ditch which for the purpose of this 401 WQC application NSRC has considered a water of the United States constitutes 0.76 acre of impact to areas of low quality consistent with the rail ditch designation, with FQIs of 15.7 and 15.3 and native mean C of 2.7 and 3.7 for W-05 and W-05A, respectively.

Appendix B is the Revised Waters of the U.S. Summary Report – Pine Yard Siding Extension, Lead Track, and Tail Track, Gary, Indiana (March 16, 2015) that depicts the locations of the wetlands identified within the project area.

The project will not directly impact any areas designated pursuant to 327 Ind. Admin. Code 17-1-3 or otherwise designated special aquatic sites. See <http://www.in.gov/dnr/naturepreserve/4698.htm>.<sup>4</sup>

<sup>4</sup> Indiana Department of Natural Resources (“IDNR”) has identified properties in the vicinity as “Lakeshore Railroad Prairie” an area of interest to IDNR. NSRC and its predecessor companies have identified this area as operating rail property for use for transportation in interstate commerce for over a century, including this project supporting passenger rail and freight rail. NSRC has sought to avoid and minimize impacts to this area, including extensive realignment to avoid construction of the lead track on an existing rail roadbed of interest to IDNR.

## 2.0 THREATENED & ENDANGERED SPECIES

The U.S. Fish and Wildlife Service has been consulted and has initially determined that no federally listed species occur within the project area, including the Indiana bat (*Myotis sodalis*) or Northern Long-Eared bat (*Myotis septentrionalis*). The project is not likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or directly or indirectly destroy or adversely modify the critical habitat of such species.

As previously noted and identified in Appendix C, state protected plant species are identified in the project area. In consultation with the Corps, IDNR, and IDEM, the Alternative E/Proposed Alternative has been selected to minimize potential impacts to these upland state protected plant species.

As part of the water quality certification for the project, a request has been submitted to the IDNR Natural Heritage Data Center to request information regarding state listed endangered, threatened, rare species, high quality natural areas and significant natural areas in Indiana. According to the IDNR Natural Heritage Data Center, there are 43 potential species which have some level of state protection within the Lakeshore Railroad Prairie. Except for one state endangered mammal (*Spermophilus franklinii*) and one state endangered turtle (*Emydoidea blandingii*), the remainder are plants and insects including six state endangered, 10 state threatened, and 25 identified as state rare species. The siding track and a portion of the lead track will be constructed directly adjacent to the existing track and within rail right-of-way, minimizing impact to these species. IDNR's response is attached (Appendix C). See also, Indiana Division of Natural Resources Division of Nature Preserves Letter of Support (Appendix G).

## 3.0 ALTERNATIVES ANALYSIS

Following minimization and avoidance in accordance with IDEM regulations and guidance, as well as U.S. Army Corps of Engineers' requirements at 40 C.F.R. Part 230 and 33 C.F.R. Part 325, impacts to waters identified as waters of the United States are 1.35 acres. This impact is necessary to meet the purpose, need, and demand for the project and accommodate agency interests in upland plant species which colonized the original rail roadbed, and to meet the needs of Class I Freight rail transportation in interstate commerce. As noted below, the project is located entirely on NSRC right-of-way. NSRC has reduced the limits of disturbance on this

project in order to avoid and minimize impacts to the jurisdictional waters and wetlands present within the project alignment. The following is a summary of the efforts made to avoid and minimize impacts, which are described in detail in the attached permit submittal.

- Alternative alignments for the siding extension and tail track have been considered within the constraints of rail safety and design requirements. Appendix E includes a comprehensive assessment of alternatives, including FQI values regarding alternative wetland impacts, and geotechnical analysis. However, alternative alignments for this siding extension and tail track are limited to the project vicinity and existing adjacent tracks. The selected alignment minimizes and reduces total impacts by selecting the narrowest possible disturbance.
- Six alternative alignments for the lead track have also been evaluated. See Appendix E and Figure 7. Following consultation with IDNR, IDEM, and the U.S. Army Corps of Engineers (“the Corps”) and receipt of comments, the original preferred alignment of lead track was shifted southward to reduce wetland impacts. In addition, the width of the proposed lead track has been reduced to the minimum size necessary to ensure safe construction and railway operation. The alignment of lead track was adjusted to resemble Alternative E, the Proposed Alternative. This alternative is described in detail in the attached permit submittal, Appendix E.
- Alternative designs for the Pine Siding Track Extension and Lead Track roadbed within the adjacent wetland areas have also been evaluated. Alternative designs to the standard NSRC roadbed sections included precast concrete T-Wall, precast concrete block wall, cast-in-place concrete wall, steel sheet pile wall, gabion basket wall, and steep side slopes with rip-rap armor.
- Storm water features, appurtenances, and BMPs have been designed to comply with applicable local, state, and federal storm water and erosion control rules and regulations while avoiding impacts to waters of the United States. Construction storm water discharge will be compliant with the requirements of Clean Water Act (“CWA”), Section 402 as set forth by the IDEM National Pollutant Discharge Elimination System (“NPDES”) General Permit Rule for Storm Water Discharges Associated with Construction Activity under the NPDES (General Permit Rule 327 IAC 15-5[Rule 5]), as well as with the applicable Gary Storm Water Management District rules, regulations, and erosion control measures as practicable. Adjacent wetland areas will be marked in the field with high-visibility orange construction fencing to locate the areas for the

contractor to keep equipment, access points, and stockpiled material from inadvertently impacting these wetland areas.

Total impact avoidance to the identified wetlands is not possible to meet the purpose and need for the project and meet railroad safety, design, and feasibility constraints. Following minimization and avoidance, the siding track extension, new lead track, and new tail track will involve the placement of fill into a total of 1.35-acres of permanent impact to forested, emergent and scrub-shrub wetlands. No impacts to jurisdictional channels, streams, or open water are anticipated for this project.

#### 4.0 COMPENSATORY MITIGATION FOR UNAVOIDABLE IMPACTS

Appendix F provides a final mitigation plan developed in consultation with IDNR. The mitigation plan is developed in accordance with USACE's Final Mitigation Rule<sup>5</sup>.

The plan provides for permittee-responsible, in-kind mitigation for difficult-to-replace dune and swale totaling 0.59 acre. 0.44 acre of this 0.59 acre impact is to Wetlands 1 and 4, and result from a realignment requested by resource agencies which would move the proposed rail line from the existing rail roadbed to the south, identified as Alternative E. NSRC, August 10, 2015 Comments, Appendix II, Alternative Track Alignments. The 0.76 acre rail ditch, which does not show evidence of remnant dune and swale habitat (mean C 2.7; 3.7, FQI 15.3; 15.7), is also being mitigated as if it were dune and swale as a conservative mitigation approach.

USACE Chicago District guidance provides compensatory mitigation will be accomplished by establishing a minimum ratio of 1.5 acres of mitigation for every 1.0 acre of impact to waters of the U.S. "[http://www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/RPP20\\_12.pdf](http://www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/RPP20_12.pdf)". IDEM guidance references a maximum 4 to 1 ratio for higher quality wetlands. See <http://www.in.gov/idem/wetlands/2352.htm>. USACE Chicago District personnel have recently provided some general guidance regarding mitigation. A recent project included a 1.5 acre to 1 (1.5:1) mitigation ratio for impacts to low quality wetlands, 3:1 for high-quality or forested wetland impacts, and 6:1 for wetlands with State Listed species and exhibiting exceptionally high mean C-values and FQI values for in-kind restoration of dune and swale. The ratios provided by USACE Chicago District assumed that the mitigation will be an in-kind restoration project, involving grading and hydrologic modification. Less credit is given to preservation and

<sup>5</sup> [http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/final\\_mitig\\_rule.pdf](http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/final_mitig_rule.pdf); U.S. Army Corps of Engineers/U.S. Environmental Protection Agency, Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 73 Fed. Reg. 19,594 (Apr. 10, 2008) ("2008 Mitigation Rule").

enhancement. Based upon a recent Mitigation Banking Interagency Coordination Agreement (ICA), credit factor of 10-15% was provided for preservation, versus restoration or creation. USACE Chicago District indicated that enhancement activities, which are included in this plan, can potentially generate more credit. A credit factor of 10-25% was identified as appropriate and within the range of the ICA. NSRC has applied the more conservative 10% credit factor. Applying USACE Chicago District's guidance, an area of approximately 39 acres would be required for the 0.59 acre impact to dune and swale wetland, plus 0.76 acre of impact to rail ditch, assuming the rail ditch is also considered dune and swale wetland.

Mitigation will be performed at the Pine Station Nature Preserve. The Pine Station Nature Preserve is an outstanding resource which is located within the watershed, in close proximity to the impact area, but outside of operating railroad properties. As dune and swale, the Pine Station Nature Preserve represents in-kind mitigation for difficult-to-replace resources. Land use for the Pine Station Nature Preserve is consistent with long-term successful mitigation. The Pine Station Nature Preserve is a 253 acre nature preserve owned and managed by the State of Indiana under its system of nature preserves. Adequate acreage is available for enhancement, restoration, and rehabilitation to achieve policy goals regarding consolidation of compensatory mitigation projects and support of IDNR financial planning and scientific expertise.

The Pine Station Nature Preserve already serves as a USACE approved mitigation location for other permittee responsible mitigation, specifically for the same type of resources (e.g. dune and swale) potentially impacted by the NSRC project. IDNR has indicated that the enhancement, restoration, and rehabilitation activities under this plan are necessary, and IDNR has assisted in the development of this plan through provision of baseline data and information and identification of appropriate resource management needs. This plan satisfies USACE mitigation requirements and policies, supports IDNR policies and land management objectives, and develops a partnership between NSRC and IDNR.

## **5.0 SECTION 10 WATERS AND COASTAL ZONE MANAGEMENT AREA**

There are no discharges into Section 10 waters. This project is located within the Lake Michigan Coastal Program ("LMCP"). [http://www.in.gov/dnr/lakemich/files/lm-boundary\\_and\\_watershed.pdf](http://www.in.gov/dnr/lakemich/files/lm-boundary_and_watershed.pdf). The proposed activity complies with Indiana's approved coastal management program and will be conducted in a manner consistent with the program.

## 6.0 SUPPLEMENTAL INFORMATION

The following information is provided to assist in IDEM's review of this application.

### 6.1 Historic and Cultural Information

Review of historic and cultural resource data and site information indicates no known historic or cultural resources which will be impacted for this project. There are no known properties on the National Register of Historic Places within the project area.

### 6.2 U.S. Army Corps General Conditions

The following are the Corps' General Conditions under Indiana RGP No. 001<sup>6</sup>:

1. *Navigation.* The project will not have an adverse effect on navigation.
2. *Aquatic Life.* This activity will not disrupt the life cycle movements of aquatic life, including migratory species. No channels or streams will be impacted as a result of this project.
3. *Spawning Areas.* No spawning areas will be impacted as a result of this project.
4. *Migratory Bird Breeding Areas.* No breeding areas for migratory birds will be impacted as a result of this project.
5. *Shellfish Beds.* No shellfish populations are anticipated to be impacted by this project.
6. *Suitable Material.* The project does not include the use of materials determined to be unsuitable or that would cause water pollution as defined by the Indiana Department of Environmental Management.
7. *Water Supply Intakes.* No public water supply intakes are within the project limits or are expected to be impacted by this project.
8. *Safety of Impoundment Structures.* No impoundment structures are proposed or included within the limits of this project.
9. *Adverse Effects from Impoundments.* No impoundment structures are proposed or included within the limits of this project.

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<sup>6</sup> NSRC applied for authorization under RGP 001 to the U.S. Army Corp of Engineers on March 25, 2015. By public notice of this revised WQC submittal.

10. *Management of Water Flows.* Impacts to open waters and stream channelization are not included in this project. However, the project will be constructed to withstand expected high flow due to flooding where applicable and will not restrict or impede the passage of normal or high flows.

11. *Fills Within the 100-Year Floodplain.* This project will comply with applicable FEMA-approved state and local floodplain management requirements.

12. *Equipment.* Construction equipment will be refueled and maintained in an upland site away from existing streams, drainage ways, and wetland areas. Adjacent wetland areas will be marked in the field with construction fencing.

13. *Soil Erosion and Sedimentation Controls.* Storm water features, appurtenances, and BMPs will be designed to comply with applicable local, state, and federal storm water and erosion control rules and regulations while avoiding impacts to waters of the United States. Construction storm water discharge will be compliant with the requirements of CWA, Section 402 as set forth by the IDEM NPDES General Permit Rule for Storm Water Discharges Associated with Construction Activity under the NPDES (General Permit Rule 327 IAC 15-5[Rule 5]) as well as with the applicable Gary Storm Water Management District rules, regulations, and erosion control measures as practicable. Adjacent wetland areas will be marked in the field with construction fencing to locate the areas for the contractor to keep equipment, access points, and stockpiled material from inadvertently impacting these wetland areas. Erosion Sediment Control Plans for the project are attached to this submittal.

14. *Removal of Temporary Fills.* Temporary fills, if needed, will be removed in their entirety and the affected areas will be returned to the pre-construction conditions including elevation and re-establishment of vegetation.

15. *Proper Maintenance.* Fills placed for the project will be properly maintained, including being compacted, prior to placement of ballast, sub-ballast, or rip-rap to bring to final grade.

16. *Single and Complete Project:* This activity is a single and complete project.

17. *Endangered Species:* The U.S. Fish and Wildlife Service has been consulted and have initially determined that no federally listed species occur within the project area including the Indiana bat (*Myotis sodalis*) and/or Northern Long-Eared bat (*Myotis septentrionalis*).

A request has been submitted to the IDNR Natural Heritage Data Center to request information regarding state listed endangered, threatened, rare species, high quality natural areas, and significant natural areas in Indiana. According to the Natural Heritage Data Center, there are 43 potential species which have some level of state protection within the Lakeshore Railroad Prairie. Except for one state endangered mammal (*Spermophilus franklinii*) and one state endangered turtle (*Emydoidea blandingii*), the remainder are plants and insects including six state endangered, 10 state threatened, and 25 identified as state rare species. The lead track will be constructed directly adjacent to the existing track and within rail right-of-way, minimizing impact to these species within the Lakeshore Railroad Prairie, which the lead track alignment passes through. The response to this request is attached (Appendix C).

A pre-application site meeting was held on March 31, 2015 with the USACE and the IDNR to discuss potential impacts, if any, to state-listed species. In addition, pre-application and other meetings were held with the USACE and/or IDNR on May 28, July 27, and August 20, 2015.

18. *Migratory Birds and Bald and Golden Eagles.* No migratory birds or bald or golden eagles will be impacted as a result of this project.
19. *Migratory Bird Breeding Areas.* No breeding areas for migratory birds will be impacted as a result of this project.
20. *Historic Properties.* No historic properties listed or eligible for listing on the National Register of Historic Places are within the limits of or will be affected by this project.
21. *Discovery of Previously Unknown Remains and Artifacts.* If any previously unknown historic, cultural, or archeological remains or artifacts are discovered during this project, the District Engineer will be notified.
22. *Mitigation.* It is anticipated that mitigation will be required for the impacts to the 1.35 acres of wetlands filled as a result of this project. Mitigation will be accomplished by purchasing credits from the Lake Station Mitigation Bank, approved by the U.S. Army Corps of Engineers under Section 404 of the CWA and mitigation regulations at 33 C.F.R. Parts 325 and 332, 40 C.F.R. Part 230. This mitigation bank has been contacted and has available credits. This project is within the Lake Station Mitigation Bank's service area.
23. *Water Quality.* IDEM's State Form 51821 – Application for Authorization to Discharge Dredged or Fill Material to Isolated Wetlands and/or Waters of the State is attached to this

submittal. An individual State Water Quality Section 401 certification is anticipated for this project.

24. *Minimization/Avoidance.* Impacts to wetlands on the project have been avoided and minimized to the maximum extent practicable to still meet the purpose and need of the project. This is described above and in more detail in the attached permit submittal.

25. *Access.* Representatives from the Corps of Engineers and/or IDEM may inspect any authorized activity to ensure compliance with the terms and conditions of this RGP, Section 4010 Water Quality Certification, and applicable laws.

26. *Construction Period.* NSRC will complete the project within 1-year of the RGP expiration date. If this is deemed unfeasible, a time extension request will be submitted to the District Engineer a minimum of 3-months prior to the expiration date. Construction began in June 2015.

27. *Reporting.* After completion of this work under the RGP, a certification letter will be submitted to the District Engineer. The certification letter will include a statement that the work was done in accordance with the RGP authorization including compliance with all general and special conditions of the permit.

In accordance with IDEM and USACE conditions, appropriate measures will be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable. Temporary structures, work, and discharges, including cofferdams, are not necessary for this construction activity.

## 7.0 CLOSURE

On behalf of NSRC, Shannon & Wilson is requesting Section 401 certification. We believe that the required information needed to process the Section 401 certification is included in this submittal. If you have any questions please do not hesitate to contact me, the applicant's agent at (314) 564-8114 or via e-mail at [jld@shanwil.com](mailto:jld@shanwil.com) or Derek Tichy with NSRC at (404) 529-1283 or e-mail [derek.tichy@nscorp.com](mailto:derek.tichy@nscorp.com).

SHANNON & WILSON, INC.

SHANNON & WILSON, INC.

A handwritten signature in cursive script, appearing to read "James L. Dutt".

James L. Dutt  
Principal Environmental Scientist

JLD:RWS/tad

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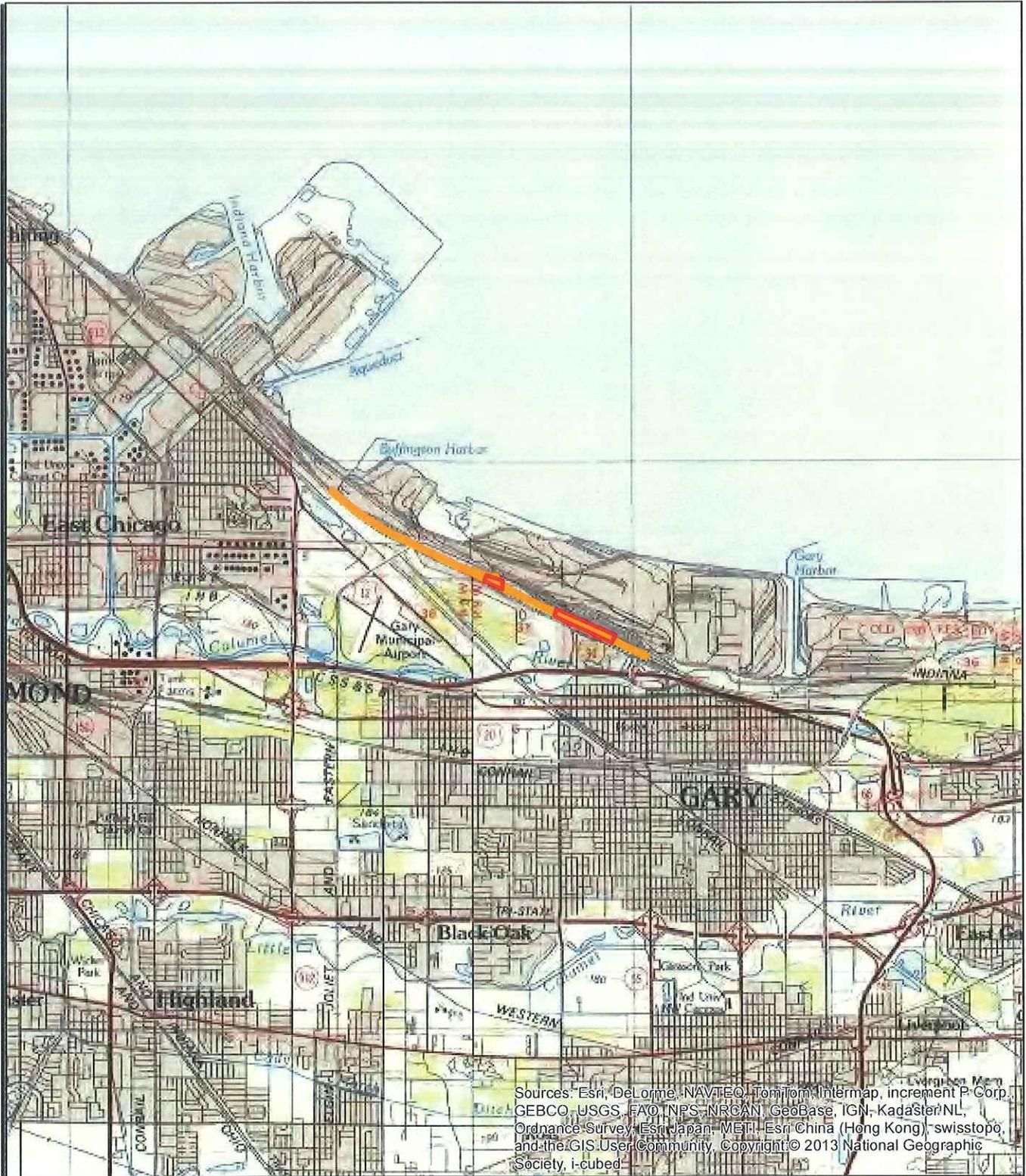
Figures

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Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, MEI, Esri China (Hong Kong), swisstopo, and the GIS User Community. Copyright © 2013 National Geographic Society, i-cubed

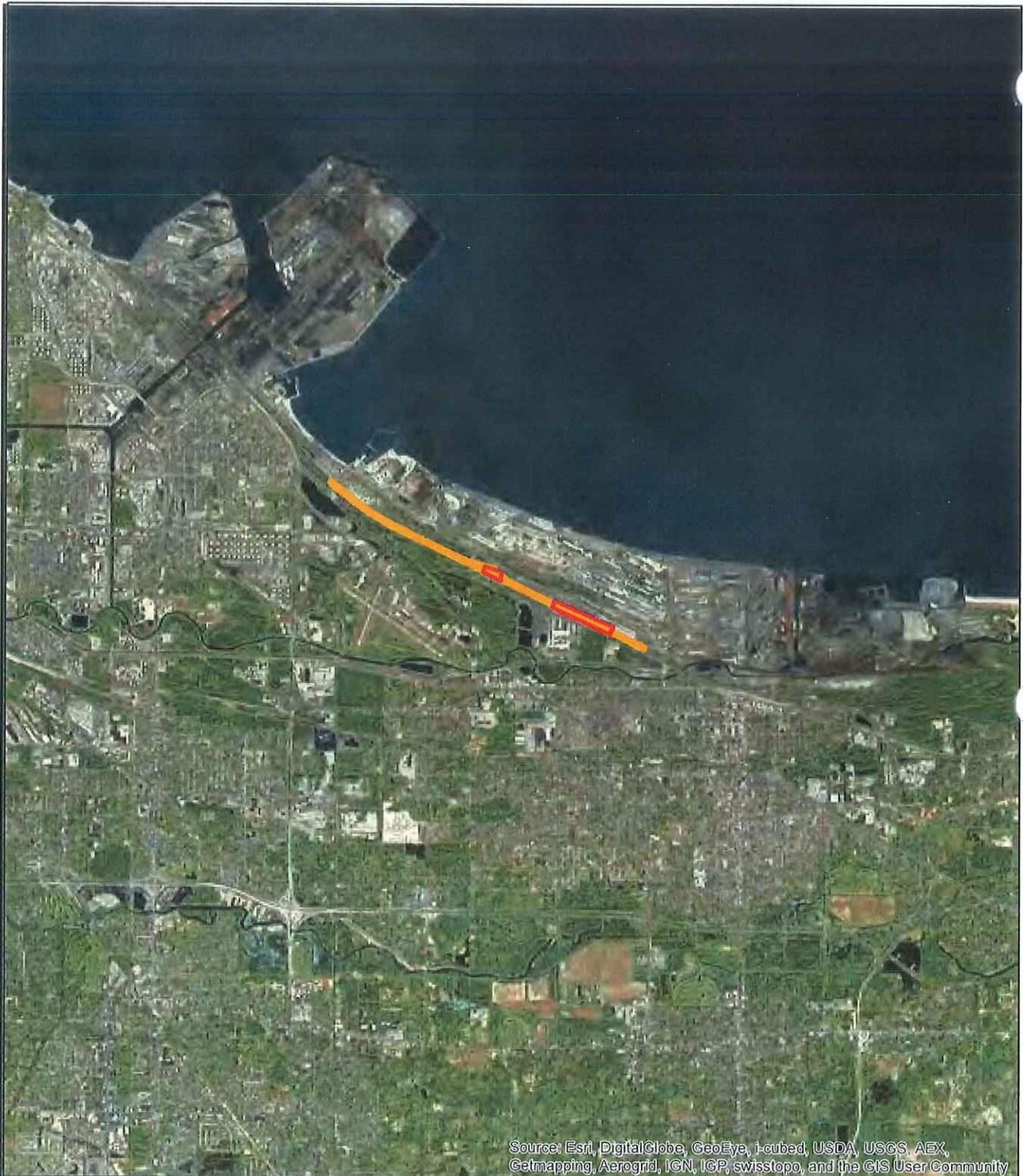


**Legend**

- Wetland Impact Areas
- Proposed Alignment



Norfolk Southern Railway Company Pine Yard Siding, Lead Track, and Tail Track Gary, Indiana	
<b>Vicinity Map</b>	
November 2015	41-1-37485-001
<b>SHANNON &amp; WILSON, INC.</b> <small>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS</small>	<b>FIGURE 1</b>

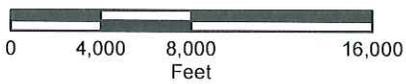


Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**Legend**

-  Wetland Impact Areas
-  Proposed Alignment

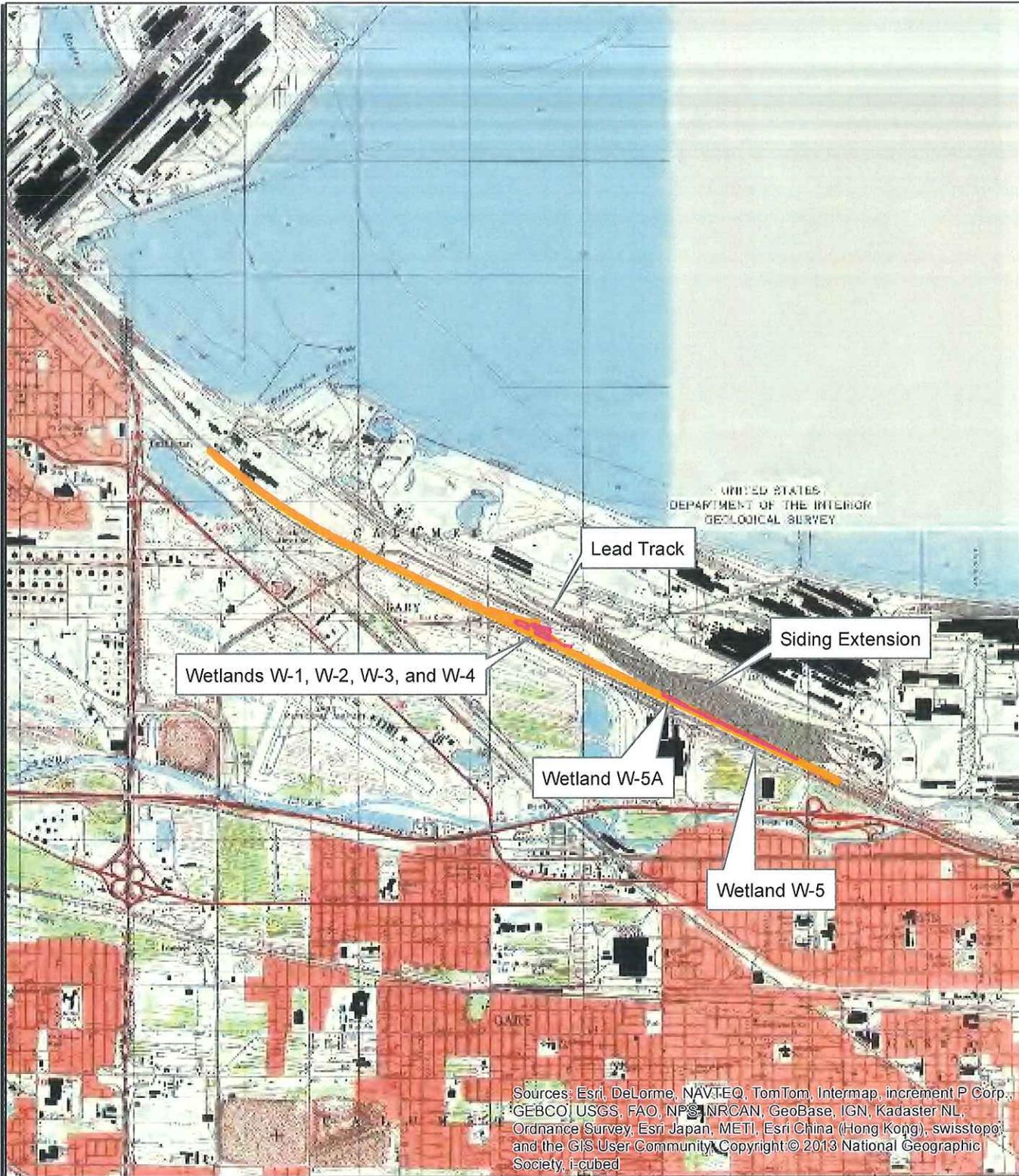


Norfolk Southern Railway Company  
 Pine Yard Siding, Lead Track, and Tail Track  
 Gary, Indiana

**Vicinity Map  
 Aerial**

November 2015 41-1-37485-001

 SHANNON & WILSON, INC. FIGURE 2



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Lead Track

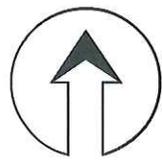
Siding Extension

Wetlands W-1, W-2, W-3, and W-4

Wetland W-5A

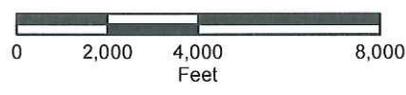
Wetland W-5

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community. Copyright © 2013 National Geographic Society, i-cubed



**Legend**

- Wetlands
- Proposed Alignment



Norfolk Southern Railway Company  
Pine Yard Siding, Lead Track, and Tail Track  
Gary, Indiana

**Wetland Mapping  
Overview - TOPO**

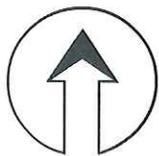
November 2015 41-1-37485-001

SHANNON & WILSON, INC.  
GEOGRAPHICAL AND ENVIRONMENTAL CONSULTANTS

**FIGURE 3**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS-User Community



**Legend**

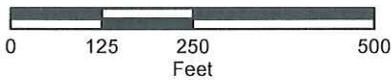
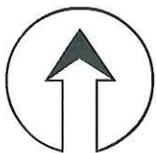
- Wetlands
- Proposed Alignment

Norfolk Southern Railway Company  
 Pine Yard Siding, Lead Track, and Tail Track  
 Gary, Indiana

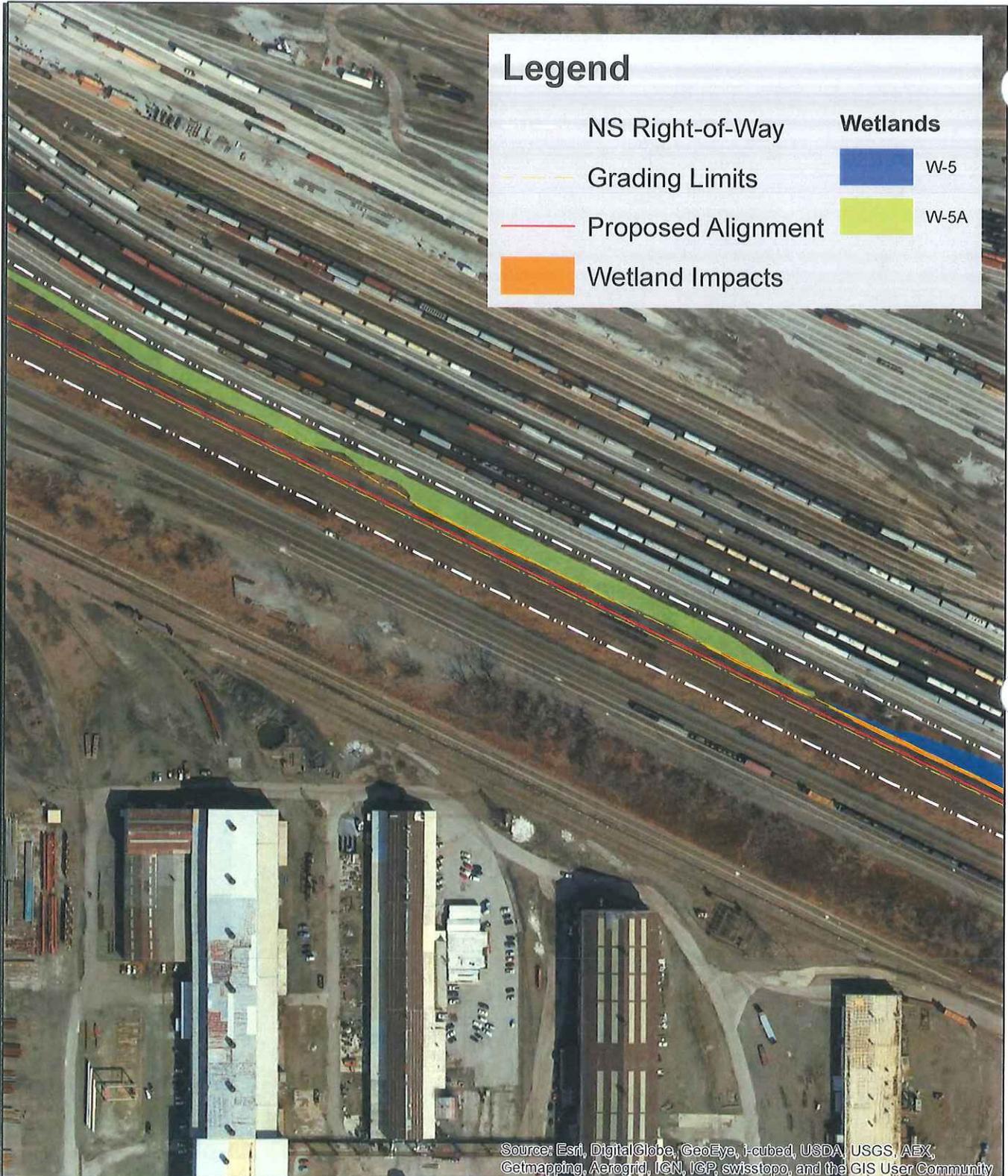
**Wetland Mapping  
 Overview - Aerial**

November 2015 41-1-37485-001

**SHANNON & WILSON, INC.** **FIGURE 4**  
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS



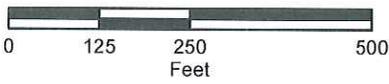
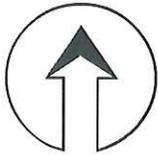
Norfolk Southern Railway Company Pine Yard Siding, Lead Track, and Tail Track Gary, Indiana	
<b>Lead Track Wetland Detail</b>	
November 2015	41-1-37485-003
SHANNON & WILSON, INC. <small>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS</small>	<b>FIGURE 5</b>



### Legend

	NS Right-of-Way		W-5
	Grading Limits		W-5A
	Proposed Alignment		Wetland Impacts

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

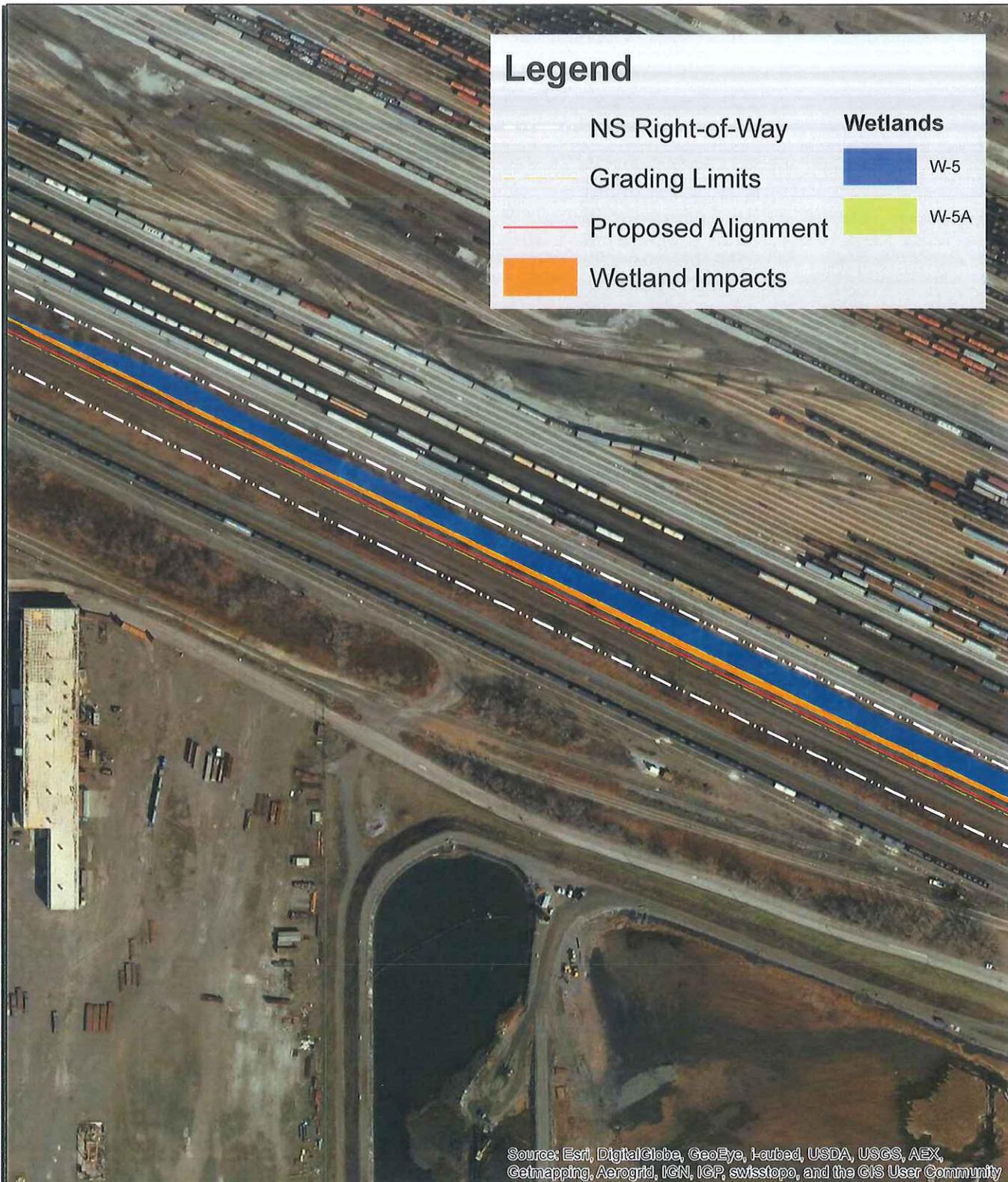


Norfolk Southern Railway Company  
 Pine Yard Siding, Lead Track, and Tail Track  
 Gary, Indiana

**Pine Siding Extension  
 Wetland Impact - Detail**

November 2015 41-1-37485-001

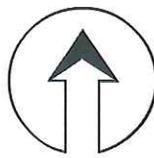
 SHANNON & WILSON, INC. FIGURE 6A



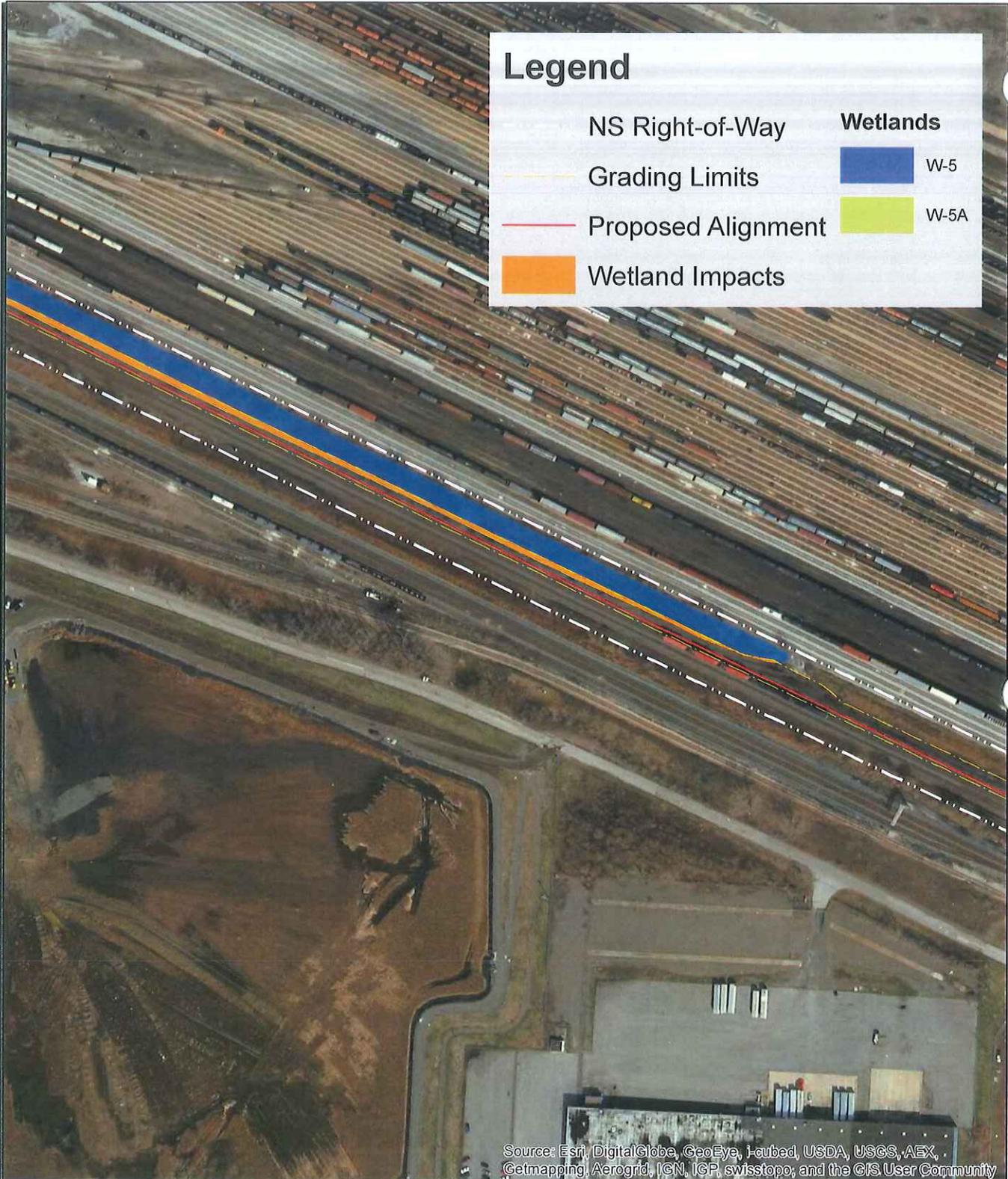
### Legend

- |   |                    |  |
|---|--------------------|--|
|  | NS Right-of-Way    | <b>Wetlands</b>  |
|  | Grading Limits     |  W-5  |
|  | Proposed Alignment |  W-5A |
|  | Wetland Impacts    |  |

Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Norfolk Southern Railway Company Pine Yard Siding, Lead Track, and Tail Track Gary, Indiana	
<b>Pine Siding Extension Wetland Impact - Detail</b>	
November 2015	41-1-37485-001
 SHANNON & WILSON, INC. <small>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS</small>	FIGURE 6B



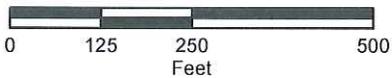
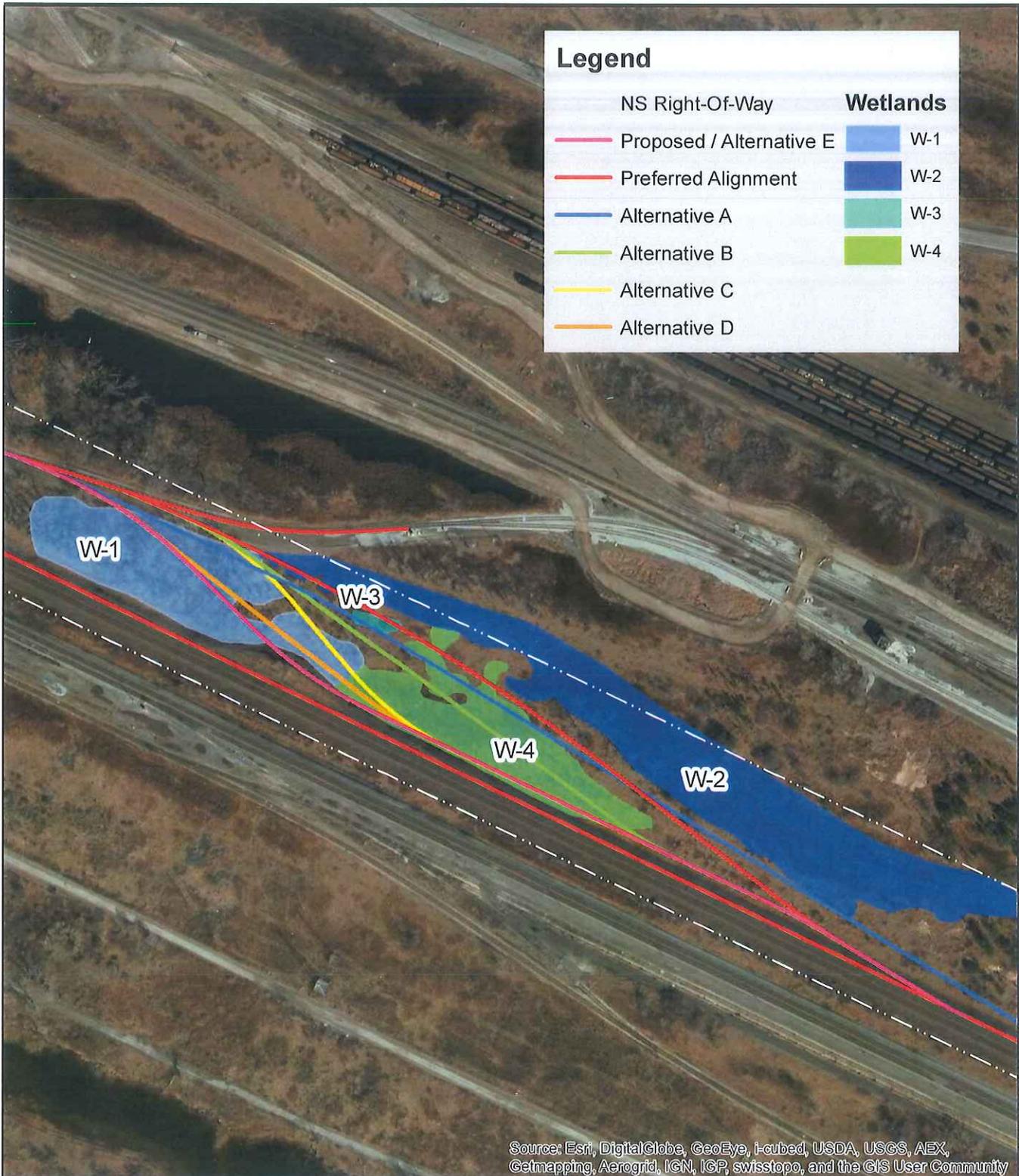
### Legend

	NS Right-of-Way		Wetlands
	Grading Limits		W-5A
	Proposed Alignment		
	Wetland Impacts		

Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Norfolk Southern Railway Company Pine Yard Siding, Lead Track, and Tail Track Gary, Indiana	
<b>Pine Siding Extension          Wetland Impact - Detail</b>	
November 2015	41-1-37485-001
 SHANNON & WILSON, INC. <small>TECHNICAL AND ENVIRONMENTAL CONSULTANTS</small>	<b>FIGURE 6C</b>



Norfolk Southern Railway Company  
Pine Yard Siding, Lead Track, and Tail Track  
Gary, Indiana

**Lead Track  
Alternative Centerlines**

November 2015

41-1-37485-003

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Figure 7

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