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U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003 Expires: 02-28-2022

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at . Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website:

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME
First - Steve Middle - Last - Barker
Company - NIPSCO
E-mail Address - sbbarker@nisource.com

8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Ben Middle - Last - Mannies
Company - Cardno, Inc
E-mail Address - ben.mannies@cardno.com

6. APPLICANT'S ADDRESS:
Address- 2755 Raystone Drive
City - Valparaiso State - IN Zip - 46383 Country -

9. AGENT'S ADDRESS:
Address- 708 Roosevelt Road
City - Walkerton State - IN Zip - 46574 Country - USA

7. APPLICANT'S PHONE NOs. w/AREA CODE
a. Residence b. Business 219-246-7290 c. Fax

10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business 317-437-0156 c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Cardno, Inc. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

X SIGNATURE OF APPLICANT DATE 2021-08-23

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)
Aetna to 483# Loop Project

13. NAME OF WATERBODY, IF KNOWN (if applicable)
Multiple locations along linear corridor. See narrative

14. PROJECT STREET ADDRESS (if applicable)
Address 1 North Clark Road (approx. northern terminus)
City - Gary State- IN Zip- 46406

15. LOCATION OF PROJECT
Latitude: °N 41.609263 Longitude: °W -87.34812

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)
State Tax Parcel ID Multiple, see narrative Municipality Gary
Section - Multiple Township - Multiple Range - Multiple

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17. DIRECTIONS TO THE SITE

Linear corridor project entirely within the incorporated city limits of Gary Indiana, beginning at the existing Aetna Station (approx. 3003 E 15th Place, 46405) traveling generally northwest to the terminus at the proposed new 483# Backfeed Station adjacent to US Steel (approx. 1 N Clark Rd, 46406).

18. Nature of Activity (Description of project, include all features)

Installation of approximately 7.7 miles of new 30-inch natural gas pipeline. This also requires various lateral tie-ins to existing gas mains and gas services and the installation of 4 cathodic protection systems. Proposed installation methods will consist of open cut (trench) installation, conventional bore installation, and horizontal directional drilling installation within existing and obtained easement. All impacts along the mainline pipe installation, tie-ins and service replacements, and cathodic protection installation will be restored to pre-construction use and condition following Project completion.

Seven new regulator stations are also required at various locations along the route. Proposed regulator stations will be graded, or built up with clean fill and gravel as needed, to provide flat working surfaces above anticipated ground water or ponding concerns in order to install above-ground facilities.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the Project is to create a redundant "loop" or feed with existing natural gas infrastructure in Northwest Indiana to meet demand needs from new and existing customers while complying with the requirements of Indiana Code 8-1-39. The Project will improve infrastructure safety and reliability by allowing NIPSCO to supply gas along this corridor via a modern conveyance system. The Project will connect NIPSCO's existing Aetna Station to the new 483# Backfeed Station and tie into the pipeline that connects to NIPSCO's existing 20/30 Station.

In addition to creating a redundant feed or loop for northern Lake County, it is also replacing an existing but aged 14-inch pipeline. Currently, NIPSCO is not able to perform required maintenance and monitoring along the majority of the existing 14-inch line. This Project, once completed, will be designed to allow for inspection and monitoring of the 30-inch pipeline with modern in-line inspection technologies.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Proposed pipeline installation methods will consist of open cut (trench) installation, conventional bore installation, and horizontal directional drilling installation within existing and obtained easement. Along the proposed pipeline, wetlands will be temporarily impacted by open cut (trench) excavations and / or stockpiling. All temporary impacts will be restored to pre-construction use and condition.

Proposed regulator stations will be graded, or built up with clean fill and gravel as needed, to provide flat working surfaces above anticipated ground water or ponding concerns in order to install above-ground facilities. These installation methods can not be completed without the discharge of permanent fill (gravel) into one jurisdictional wetland feature.

There will be no discharge to streams.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
483# Backfeed Station, gravel, 6,780 CY		

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 0.7 acre (perm.) and 11.08 (temp.). See Attachment VIII, Mitigation Plan, Table 1-1 and Appendix A for full breakdown.

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Exhaustive efforts were made to evaluate alternative routes (5) in order to avoid and minimize WOTUS. Full details are presented in the cover letter / narrative of this application as well as supplemental attachments. In total, 38 wetlands (totaling 78.42 acres) and two streams (totaling 400 linear feet) were recorded within the approx. 333 acre study area (Delineation Report, Attachment II). Within the approx. 100 acre LOD, temporary and permanent impacts are proposed to 22 separate wetlands totaling 11.78 acres (Mitigation Plan Attachment VIII, Table 1-1 and Appendix A). No impacts are proposed to streams. Compensation will include wetland creation and enhancement of Dune & Swale wetland within NIPSCO ROW and NPS INDU Miller Woods Unit (Mitigation Plan Attachment VIII, Table 1-2 and Appendix B).

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24. Is Any Portion of the Work Already Complete? ○ Yes ● No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See Attachment IX

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
IDEM	401 WQC	TBD	2023-08-23		
USFWS	No adverse affect	N/A	2019-11-14	2020-02-27	
IDNR-F&W	No adverse affect		2021-06-25	2021-07-26	
City of Gary	SWPPP	TBD	2021-08-20		

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE
	2021-08-23		2021-08-23

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

August 23, 2021

To:

United States Army Corps of Engineers
Chicago District
Regulatory Branch
Attention: Ms. Brielle Cummings
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60604

Subject: Application for Section 404 and Section 10 Permit
NIPSCO Aetna to 483# Loop Project
USACE Project Reference Number: LRC-2021-542

Dear Ms. Cummings:

Northern Indiana Public Service Company (NIPSCO) is submitting a Section 404 and Section 10 application for the proposed NIPSCO Aetna to 483# Loop Project (Project). The proposed pipeline extends approximately 7.7 miles in Lake County, Indiana, from the existing Aetna Station north and west to the northern extent of Clark Road. The Project is designed to replace an aging 14-inch-diameter pipeline that connects the existing Aetna high pressure gauging station on 15th Place with the new 483# Backfeed Station on North Clark Road. The pipeline will be constructed within newly acquired pipeline easements or will be co-located within existing NIPSCO electric high voltage transmission line rights of way (ROW). NIPSCO designed the Project to utilize existing pipeline easement and NIPSCO fee owned ROW, to the extent possible, to ease land access acquisition and reduce the Project's environmental impact. NIPSCO has taken numerous measures to route and design the Project to have the least impact on waters of the United States (WOTUS).

NIPSCO has conducted numerous environmental studies to characterize the potential impacts to WOTUS, as well as natural and cultural resources within the Project corridor. NIPSCO has conducted extensive outreach to landowners impacted by the proposed Project, as well as important stakeholders within the region with specific interest in pipeline projects and natural resources. Early coordination with these entities was an integral component in Project planning to identify constraints and select a route which minimized potential impacts. Concerns were raised regarding impacts to sensitive wetland resources along the NIPSCO ROWs adjacent to the Indiana Dunes National Park and Pine Station / Clark and Pine Nature Preserves. NIPSCO has been actively coordinating with the National Park Service (NPS), the Indiana Department of Natural Resources (IDNR), the United States Army Corps of Engineers (USACE), the Indiana Department of Environmental Management (IDEM), the City of Gary, and other organizations to solicit comments and appropriately mitigate any concerns or unavoidable impacts.

NIPSCO will continue to coordinate with the various conservation stakeholders to increase Project transparency and proactively address potential public comments, concerns or questions. State and federal resource agencies recommendations, included those as required as part of public notice and public comment periods, will be incorporated where feasible in the final planning and design of this Project and issuance of the overall Project Environmental Compliance Plan.

The majority of proposed impacts to wetlands will be temporary in nature, but a limited amount of palustrine forested (PFO) and palustrine scrub-shrub (PSS) wetlands will be permanently converted to emergent (PEM) wetlands. This is required to ensure pipeline safety and adhere to NIPSCO's vegetation management requirements for compliance with ROW maintenance activities outlined in Pipelines and Informed Planning Alliance (PIPA) Recommended Practice BL12, issued by the Department of Transportation Pipeline and Hazardous Materials Safety Administration (DOT PHMSA). In addition, permanent fill will also impact a low quality PEM wetland associated with the construction of the 483# Backfeed Station. Temporary impacts to various other PEM wetlands will be required as part of Project construction activities.

NIPSCO is requesting that this application be considered for approval under the terms and conditions of an Individual Permit. A separate application for Section 401 Water Quality Certification will be submitted to the IDEM. Enclosed for your review is an application for temporary and permanent wetland impacts associated with construction of the Project along with supporting documentation as detailed on the Chicago District's Application checklist. Attachment I contains the Application for Department of the Army Permit (ENG Form 4345).

Please reference the following additional supplemental materials required for Section 404 and Section 10 permit review. Attachment II contains the Regulated Waters Delineation Report for the Project and Attachment III contains US Army Corps of Engineers (USACE) wetland delineation concurrence. Attachment IV contains Endangered Species consultation letters from the U.S. Fish and Wildlife Service (USFWS), IDNR Division of Nature Preserves (IDNR DNP), and IDNR Division of Fish and Wildlife (IDNR F&W) documenting that the Project will have no adverse effects on endangered species. Attachment V contains the Cultural Resources Phase 1a Archaeology Report proposing that there are no archaeological resources in the Project area. This report has being submitted to the IDNR Division of Historical Preservation and Archaeology for concurrence and further correspondence will be forwarded immediately upon receipt. Attachment VI contains the Project Engineering Plans and Attachment VII contains the Project Erosion Control and Restoration Plans which detail the Project location and all areas of impact. Attachment VIII contains the Project Mitigation Plan which further details WOTUS-specific impacts and proposed compensatory mitigation. Attachment IX contains the list of adjacent landowners for public notice requirements.

The following sections of this letter provide additional detailed information as required in ENG Form 4345 and the USACE permit submittal checklist.

Project Description

The NIPSCO Aetna to 483# Loop Project (Project) involves the replacement and upgrade of an aging 14-inch natural gas pipeline with a new 30-inch pipeline. The Project is also required to create a redundant "loop" or feed with existing natural gas infrastructure in the area to ensure safe and reliable natural gas service to residential, commercial and industrial customers located in northern Lake County, Indiana. Seven new regulator stations, including a launcher and receiver for in line inspections, are also proposed for the Project.

The project is situated entirely within Calumet Township, Gary, Lake County, Indiana. It falls within: Sections 1, 2, 3, 4, 11, and 12 of Range 8W, Township 36N; Section 30, 31, 32, and 33 of Range 8W, Township 37N, and Sections 25 and 36 of Range 9W, Township 37N. The Latitude / Longitude coordinates of the center of the project are 42.609263 / -87.34812 which equates to the crossing of the Grand Calumet River.

Proposed pipeline installation methods will consist of open cut (trench, OC) installation, conventional bore installation, and horizontal directional drilling (HDD) installation within existing ROW and recently obtained easements. Installation of the proposed pipeline will be conducted using OC techniques along the majority of the Project alignment. The OC will result in the top of the pipeline being placed approximately four feet below ground surface. NIPSCO anticipates using HDD methods for crossing large expressways and the crossing of the Grand Calumet River. Traditional bores will be implemented at most local road and railroad crossings. HDD and traditional bore depths vary as required to maintain clearance under existing utilities and/or natural features. Proposed regulator stations will be graded, or built up with clean fill and gravel as needed, to provide safe working surfaces for above-ground appurtenances.

Along the pipeline installation, the Project will have an average construction corridor width of approximately 75 feet, which will include a 50-foot-wide permanent easement on privately held properties. Construction will require additional temporary workspaces for road and stream crossings, HDD locations, dewatering activities, and equipment staging. Refer to the Project Engineering Plans in Attachment VI and Erosion Control Plans in Attachment VII for figures displaying the Project's limits of disturbance (LOD) including designation of open cut, conventional bore, and HDD installation as well as permanent regulator station locations.

During construction, topsoil will be segregated during the construction process and will be used to restore the Project to pre-construction contours and grades. The majority of proposed impacts to wetlands will be temporary in nature, but a limited amount of PFO and PSS wetlands will be

permanently converted to PEM wetlands. Permanent fill will impact a low quality PEM wetland associated with the construction of the 483# Backfeed Station. Temporary impacts to various other PEM wetlands will be required as part of construction activities. Following Project construction, all temporary upland and wetland impacts will be restored with high quality native vegetation unless areas were previously turf grass or impervious surface. Mitigation will be provided to offset permanent impacts to WOTUS and temporal loss of function related to temporary impacts to high quality wetlands.

Project Purpose and Need

The purpose of the Project is to replace an aging natural gas line and increase the capacity of existing natural gas infrastructure in Northwest Indiana to meet demand needs from new and existing customers while complying with the requirements of Indiana Code 8-1-39. Additionally, the Project will improve infrastructure safety and reliability by allowing NIPSCO to supply natural gas along this transmission corridor via a modern conveyance system.

The Project will connect NIPSCO's existing Aetna Station to the new 483# Backfeed Station and tie into the pipeline that connects to NIPSCO's existing 20/30 Station. In addition to creating a redundant feed or loop for northern Lake County, it is also replacing an existing but aged 14-inch pipeline. Currently, NIPSCO is not able to perform required maintenance and monitoring along the majority of the existing 14-inch line. The Project, once completed, will be designed to allow for inspection and monitoring of the pipeline with in-line inspection technologies. Adequate material property information and pressure test documentation will be available with the new pipeline construction, providing increased system safety and reliability and reduced system risk.

Project Alternatives Analysis

During the evaluation process for routing the Project, NIPSCO analyzed and dismissed routes that did not follow current utility easements or ROWs, had significant environmental or social impacts, did not provide the redundant feed function, and did not replace the functions of the existing 14-inch pipeline. As a general rule, natural resource impacts are often minimized by following prior disturbed and maintained ROWs. A figure detailing alternative routes in included as Attachment X.

It should also be mentioned that routes that did not follow an existing easement were found to have either greater Project costs due to acquiring new easements or outright purchase of properties. These alternatives were dismissed since NIPSCO's funding source for the Project comes from rate recovery mechanisms identified in Indiana's Transmission, Distribution, and Storage System Improvements Charges (TDSIC) statute. Indiana Code 8-1-39 allows electric and natural gas utilities to submit 7-year

infrastructure improvement plans for Indiana Utility Regulatory Commission (IURC) approval. Once a 7-year plan receives IURC approval, the utility may request incremental rate increases every 6 months to pay for the projects. TDSIC rate increases are limited to no more than 2 percent of total retail revenues. The TDSIC rate adjustment (or tracker) allows the utility to recover 80 percent of the costs as they are incurred. The remaining costs are deferred until the utility's next best rate case, which must be filed before the end of the 7-year period. The TDSIC statute creates a mandate to evaluate and plan critical projects in a manner that holds costs within these criteria. Therefore, the statute disallows any alternatives with costs that would exceed the aforementioned thresholds.

Based on the statutory project cost limitations, NIPSCO next evaluated existing utility routes that met the following criteria:

1. The proposed route located on NIPSCO ROW or NIPSCO has existing approval from a different utility to collocate a gas transmission pipeline within an existing easement.
2. Route provides redundant feed or loop function.
3. The easement allows for the construction of a new gas transmission pipeline, both from a constructability and property rights perspective.
4. The route is located within the targeted service area of the Project (Gary, IN).
5. The easement is located within a reasonable distance of the existing 14-inch gas transmission pipeline, which would allow cost-effective taps to existing customers and other gas transmission lines to increase local supply.
6. Minimized both environmental and social impacts.

No Build Alternative:

A no build alternative is not a plausible outcome based on needs of the region for natural gas demand and age and condition of the existing 14-inch pipeline. This alternative would not allow for required inspection and monitoring of the existing 14-inch pipeline system. Inspection and monitoring of modernized pipelines is an important part of the ongoing safety and customer supply of natural gas. The new 30-inch pipeline will be designed to allow for inspection & monitoring of the pipeline with in-line inspection technologies thereby meeting both state and federal safety regulations. Adequate material property information and pressure test documentation will be available with the new pipeline construction, providing increased system reliability and reduced system risk.

Five general routes (Attachment X) were analyzed to assess the feasibility of the route installation and identify the potential risks associated with construction and operation of the pipeline. An additional

"lift-and-lay route" (installing the new pipeline in the same trench as the existing pipe to be replaced) was not analyzed due to the existing 14-inch needing to stay in service until after the Project is in service.

Alternative Route 1 (follows existing 14-inch easement):

While environmental impacts are limited along Route 1, a crossing of NPS lands would require easement acquisition. This crossing along Tennessee Street will occur entirely in upland areas impacted by legacy fill, illegal dumping, and active transportation corridors. Construction activities along the Tennessee Street crossing will likely result in a net environmental benefit to NPS lands as a result of legacy fill removal and restoration with high quality native seed mix post construction. Crossing NPS on the east side of Tennessee Street also had the fewest impacts to NPS. A permanent easement has been executed between NIPSCO and NPS in June 2021.

Legacy contaminant concerns are present at a former NIPSCO Manufactured Gas Plant (MGP) and the US Steel (USS) C-Lot Lagoon Solid Waste Management Unit (SWMU) west of Broadway and east of the Grand Calumet River, although HDD installation under the Grand Calumet River would limit disturbance in this area. Additional contaminant concerns were present along the northern limit of USS's Corrective Action Management Unit (CAMU) between Bridge Street and Buchanan Street. Due to the congestion of railroads and existing utilities in this area, the pipeline would be required to be constructed outside, but parallel to, the northern limits of the CAMU utilizing OC installation. The CAMU received various contaminated wastes that were managed as part of the Gary Works on-site remediation efforts. It would be paramount to protect the integrity and functionality of the CAMU.

The major concern of Route 1 was congestion along the proposed pipeline route that primarily follows the existing 14-inch pipeline easement. Due to the close proximity and sheer number of utilities and railroads, there would be inadequate construction workspace for a significant portion of the pipeline. There would also be significant safety concerns during construction and post construction with long-term maintenance and accessibility requirements. Additionally, a portion of this Route runs directly adjacent to a residential area increasing concerns regarding High Consequence Areas.

The most notable challenge on the route was Canadian National's (CN) Kirk Yard Railyard. Due to distance required to construct the pipeline longitudinally with the CN railroad and Kirk Yard, this action was determined to be a fatal flaw of Route 1.

Based on review, it was determined that deviations from the existing easement would protect existing infrastructure, minimize risks to high consequence areas such as homes, buildings and railroads, and avoid sensitive environmental resources.

Route 1 Constraints Included:

- USS C-Lot Lagoon SWMU, USS CAMU, NIPSCO MGP
- Existing utility congestion
- High Consequence Area routing through residential area
- NPS impacts and easement
- Longitudinal railroad construction (inability to safely construct and maintain pipeline)
- CN's Kirk Yard and railroad (fatal flaw)

Alternative Route 2:

Route 2 follows a similar path to Route 1, but modifications were made along the route to utilize primarily existing NIPSCO ROW to reduce constraints associated with installing and maintaining a pipeline parallel to active railway. Specifically, the fatal flaw of Route 1 was addressed by providing more workspace by routing to the south of CN's Kirk Yard following existing ROW south of the Industrial Investments Incorporated (III) facility. This route avoids known crowded and un-constructible areas, providing a safer work environment for the contractors and future maintenance personnel. However, this reroute pushes Route 2 to the eastern and northern border of the IDNR's Pine Station Nature Preserve. This Nature Preserve has been documented as containing numerous endangered plant and animal species and is protected in perpetuity from development (such as pipeline construction). Federal deed restrictions also encumber the Nature Preserve, thereby making any easement acquisition infeasible. Although impacts would be limited in high quality wetlands within the Nature Preserve itself, endangered species are known to utilize the various low quality wetlands and uplands within the road ROW and NIPSCO ROW north of where the pipeline would be placed. NIPSCO would face would face pressure from the regulatory agencies and the public due to high quality conditions of wetlands, documented endangered species, and proximity to the Nature Preserve.

A second reroute was made north of US 12 / US 20, east of I-90. A Route 1 constraint in this area was overlap with the new Northern Indiana Commuter Transportation District's (NICTD) Double Track railway expansion. To alleviate this constraint, the pipeline was shifted north to a NIPSCO fee-owned ROW as part of Route 2. However, this reroute places the pipeline in the high quality wetlands directly adjacent to the NPS Miller Woods Unit of the Indiana Dunes Nation Park (INDU). Although coordination with the NPS would be required for access, only existing NIPSCO ROW would be utilized for construction so new easement acquisitions would not be required. Impacts to high quality wetlands, even if located entirely on NIPSCO property, would face pressure from the regulatory agencies and the public due to high quality conditions of wetlands, documented endangered species in the area, and proximity to NPS lands. However, while the wetlands are high quality they have been impacted by legacy fill, invasive species and other anthropogenic disturbances. Restoration post construction will likely results in a net environmental to the wetlands. Similar to Route 1, new easement from the NPS

would be required for the Tennessee Street crossing along Route 2 but construction activities will likely result in a net environmental benefit to NPS lands.

Similar to Route 1, the former NIPSCO MGP and the USS C-Lot Lagoon SWMU west of Broadway and east of the Grand Calumet River present legacy contaminant concerns, but HDD installation in this area limits risk. Additional contaminant concerns were present at the USS Buchanan Street SWMU and the USS CAMU between Bridge Street and Buchanan Street, where proposed Route 2 requires open cut install in close proximity to these basins, and the USS West End SWMU at the norther terminus.

Finally, Route 2 required the pipeline to be installed along North Clark Road, where proximity to CN's existing bridge abutments presented a major risk. There is not fatal flaw with Route 2.

Route 2 Constraints Include:

- NIPSCO MGP, C-Lot Lagoon SWMU, Buchanan St SWMU, CAMU, and West End SWMU
- NPS impacts and easement
- IDNR Nature Preserve easement acquisition
- High quality wetland impacts
- CN railway bridge abutments along North Clark Road

Alternative Route 3:

Several complications were identified with Route 3 that made it impracticable. The proposed route intersects approximately 173 total parcels, which is more than double the number crossed in any of the other route options. The route also intersects many existing utilities including telephone, water, electric, and gas. Coordinating with the public utilities and identifying all the existing locations through survey would be cost inhibitive. Furthermore, the proposed route cuts through numerous dense residential, commercial, and industrial areas with increased concerns regarding High Consequence Areas. Constructability complications arise because of limited workspace, required traffic control, and limited access in these areas during construction and post construction.

The construction of the pipeline on North Clark Road would adversely affect IDNR Nature Preserves and high quality wetlands. Similar to Route 2, NIPSCO would face pressure from the regulatory agencies and the public if the Nature Preserves were to be impacted. Additionally, new easement acquisition is not obtainable within the Nature Preserves. Another major environmental constraint would be the USACE Section 408 Permitting required for the Little Calumet River Flood Control Project. Section 408 permit conditions would inhibit NIPSCO's ability to construct, operate and maintain a new pipeline.

Finally, and most importantly, the route would not replace the functionality of the 14-inch pipeline by serving natural gas to customers along the existing 14-inch pipeline easement. While it does serve the

need for a redundant feed, the 14-inch would still need to be replaced with this alternative. Therefore, the route was not a viable option.

Route 3 Constraints Include:

- Total parcels intersected and additional ROW and easements required
- Existing utility congestion
- High Consequence Area routing through dense residential and commercial area
- IDNR Nature Preserve easement acquisition and high quality wetland impacts
- USACE Section 408 permitting
- Does not fulfill the Project purpose and need by replacing the 14-inch pipeline (fatal flaw)

Alternative Route 4:

Similar to Route 3, constructability, existing utility congestion, and High Consequence Area routing are the major problems for Route 4. Additionally, this route parallels and crosses a number of existing pipelines in a crowded utility corridor. The route runs parallel to overhead electric transmission lines and an existing liquid petroleum facility that has numerous storage tanks and underground pipelines. These underground liquid petroleum pipelines do not allow for adequate workspace for construction, and the contractor would have great difficulties maintaining safe construction practices with both above ground and below ground constraints. Also, the existing pipeline from Highland Junction to Grant Street does not allow for the additional capacity to provide enough gas customers to the north.

Similarly to Route 3, Route 4 would also need to cross the Little Calumet River Flood Control Project, triggering Section 408 Permitting. Section 408 permit conditions would inhibit NIPSCO's ability to construct, operate and maintain a new pipeline. High quality wetlands and protected species are also located at the Grand Calumet River / DuPont Natural Area. This private Nature Preserve is managed by The Nature Conservancy and Shirley Heinze Land Trust. Similar to Routes 2 and 3, NIPSCO would face pressure from the regulatory agencies and the public if the Nature Preserve were to be impacted. Obtaining new easements on this private natural area is not feasible.

Finally, and most importantly, this route would not serve as a redundant feed or "loop" for the 483# system, a critical need for the Project. Therefore, the route was not a viable option.

Route 4 Constraints Include:

- Existing utility congestion
- High Consequence Area routing through residential and commercial areas
- Safety and constructability concerns for building and maintaining a pipeline in close proximity to existing pipelines, overhead electric transmission lines, and above- and below-ground liquid petroleum facilities

- IDNR Nature Preserve easement acquisition and high quality wetland impacts
- USACE Section 408 permitting
- Boring locations under Rail Road Right of Way and the Gary Airport facility
- Does not fulfill the Project purpose and need by providing redundant feed function (fatal flaw)

Alternative Route 5

Route 5 follows a similar path to Route 1, but modifications were made along the route to utilize USS and NIPSCO property to reduce constraints associated with installing and maintaining a pipeline parallel to active railway. Specifically, the fatal flaw of Route 1 was addressed by providing more workspace by routing to the north of CN's Kirk Yard in USS's Gary Works Facilities. This route proposes that following a HDD crossing of Buchanan Street, the pipeline runs west through USS property for approximately 11,000 feet before ending at the existing USS Station. While this route avoids railroad congestion and associated constructability constraints, there were substantial concerns about existing underground utilities (both known and unknown), extensive environmental concerns and potential interruptions of operations at one of the nation's largest integrated steel mills.

A second reroute was made north of US 12 / US 20, east of I-90. A Route 1 constraint in this area was overlap with the new NICTD Double Track railway expansion. To alleviate this constraint, the pipeline was shifted north to a NIPSCO fee-owned ROW as part of Route 5. However, this reroute places the pipeline in the same high quality wetlands directly adjacent to the NPS Miller Woods Unit of the INDU as Route 2. Although coordination with the NPS would be required for access, only existing NIPSCO ROW would be utilized for construction so new easement acquisitions would not be required. However, impacts to high quality wetlands, even if located entirely on NIPSCO property, would face pressure from the regulatory agencies and the public due to high quality conditions of wetlands, documented endangered species in the area, and proximity to NPS lands. Similar to Route 1, new easement from the NPS would be required for the Tennessee Street crossing along Route 5 but construction activities will likely result in a net environmental benefit to NPS lands. Potential impact to wetlands is also present along the reroute north of Kirk Yard.

Similar to Route 1, the former NIPSCO MGP and the USS C-Lot Lagoon SWMU west of Broadway and east of the Grand Calumet River presents legacy contaminant concerns. Additional contaminant concerns were present at the USS West End SWMU and hazardous waste landfill located along the remaining 11,000 feet of Route 5 located on USS Gary Works property, which has been an active industrial steel mill for more than 100 years.

Finally, and most importantly, during routing discussions USS cited numerous concerns with various unknown underground utilities, environmental concerns, and constructability concerns. Since

installing pipeline on USS private property would require and easement, Route 5 was not a viable option.

Route 5 Constraints Include:

- C-Lot Lagoons SWMU, West End SWMU and hazardous waste landfills
- Impacts to high quality wetlands on NIPSCO ROW directly adjacent to NPS lands
- NPS impacts and easement
- Unknown underground utilities, environmental concerns, constructability concerns, easement acquisition and interruption of operations at USS Gary Works (fatal flaw)

Preferred Route

As the only route that did not have a fatal flaw, Route 2 was selected as the preferred route. The final route, which is presented as the proposed 30-inch pipeline in figures included in Attachments VI and VII, consists mainly of Route 2 with variations made to reduce and/or eliminate constraints where possible.

No other feasible alternative to impacts to high quality wetlands within existing NIPSCO ROW adjacent to the NPS Miller Woods Unit exists. Although impacts to these wetlands present substantial permitting and constructability complications, these will be alleviated by robust Project construction planning when a contractor is selected and compensatory mitigation to offset wetland impacts. High quality wetland and upland seed mixes will also be used post construction.

To alleviate constraints associated with impacts to the IDNR's Pine Station Nature Preserve, the final route was altered to be further east and north of the Nature Preserve, entirely on existing NIPSCO ROW and private property. This requires an HDD segment of installation under an existing borrow pit / detention basin on the adjacent industrial property. Although this complicates construction, it is a better alternative than obtaining new easement within, and thus impacting, Pine Station Nature Preserve.

To alleviate constraints associated with the CN railway bridge abutments along North Clark Road, the final route was shifted to cross North Clark Road perpendicularly north of the IDNR's Clark and Pine and Pine Station Nature Preserves and follow the toe-of-slope of the Industrial Cinders Landfill for approximately 1,000 feet. At this point, the final turns 90 degrees to the north, with HDD installation required under numerous active railways. Although this modification removed constraints associated with railway bridge abutments, it requires extensive work within the Industrial Cinders landfill, which presents a new major legacy contaminant constraint. This new constraint will be alleviated by robust soil and groundwater testing prior to construction as well as a robust health and safety plan (dewatering and spoils disposal protocol, fugitive dust control, additional contractor training and safety requirements, etc.) to ensure that contractor and public health risk is minimized due to ground

disturbing activities within the landfill limits. Although this complicated construction, it is a better alternative than potential impacts to CN railway bridge abutments.

The final route takes primary advantage of the NIPSCO fee owned ROW which helped reduced impacts to affected property owners and allows for safe construction. NIPSCO has had productive conversations with industrial property owners and other affected property owners in terms of the recommended route and route suggestions in order to determine a satisfactory design. While significant constraints still remain, e.g., Indiana Dunes National Park impacts and easements, IDNR Nature Preserves proximity, high quality wetland impacts, and legacy contaminants, the risks were mitigated. See Project Avoidance and Minimization Measures below.

The final route has been reviewed by NIPSCO's land, integrity, public relations, environmental and engineering groups. Formal surveys and delineations have been completed for the Project area. As this information was obtained, continual in-depth reviews from NIPSCO stakeholders were completed during final design phases of the Project in order to minimize and avoid potential impacts as possible. Permitting and easement acquisitions has begun and is ongoing for the Project.

The proposed Project, as presented in figures included in Attachments VI and VII, represents the optimal route that best met the purpose and need of the Project while complying with the specific requirements of Indiana Code 8-1-39.

GIS Data for Alternative Routes*					
Route Number	**1**	**2****	**3**	**4**	**5**
Route Description	TDSIC 1.0 2015 Route	**Preferred Route**	483 Secondary Feed Option 1	483 Secondary Feed Option 2	TDSIC 2.0 2017 Route
Route Length in Miles	6.92	**7.23**	7.68	6.28	6.56
Total Parcels Intersected	69	**36**	173	56	36
NIPSCO Parcels Intersected	12	**8**	13	36	9
Railroad Crossings	22	**23**	23	25	11
Known Foreign Pipeline Crossings	6	**6**	4	22	23
River Crossings	1	**1**	4	2	1
Road Crossings	32	**19**	49	25	18
Total Number of Bores	18	**16**	-	15	11
Linear Footage of Bores	3,120	**3,365**	-	2,380	1,733
Total Number of HDD's	2	**4**	-	1	2
Linear Footage of HDD's	2,000	**1,200**	-	1,500	1,508
Linear Footage of Open Cut	31,840	**33,715**	-	29,300	31,395
Wetland Crossing Linear Footage	250	**2,531**	2,287	2,103	1,922

* The numbers represented in this table are not final design numbers, are representative of initial routing studies, and are presented for reference only.

** Preferred route, with modifications

Project Avoidance and Minimization Measures

NIPSCO has taken steps to design the Project in a manner that has minimal impact to WOTUS, natural resources, and other sensitive resources. The Project workspace was modified, where possible, to avoid and/or minimize impacts to high-quality emergent, scrub-shrub, and forested wetlands, the Indiana Dunes National Park and IDNR managed lands. The final Project ROW reflects the avoidance and minimization measures outlined below, including reductions in workspaces to minimize impacts to WOTUS. A large avoidance and minimization measure implemented included NIPSCO's decision to install the pipeline via HDD completely under the Grand Calumet River.

Specific avoidance and minimization measures that have been implemented include:

1. Total impacts to wetlands (11.78 acres) to wetlands will be avoided and/or minimized to the extent practical during construction. The majority (9.17 acres) of proposed impacts to wetlands will be temporary in nature and restored with high quality native seed.
2. There is minimal permanent wetland loss anticipated for the Project as the permanent natural gas aboveground facilities, e.g., stations, have been designed to avoid or minimize delineated wetland features where feasible. 0.70 acre of permanent PEM impacts are unavoidable for construction of the 483# Backfeed Station due to existing underground utilities.
3. There is minimal permanent wetland conversion anticipated for the Project, but a limited amount of PFO and PSS (0.46 acre) wetlands will be permanently converted to emergent wetlands to ensure pipeline safety and adhere to NIPSCO's vegetation management requirements for compliance with ROW maintenance activities outlined in the DOT PHMSA's PIPA Recommended Practice BL12.
4. All soil excavated to construct the pipeline will be used to backfill the pipe trench and the entire construction ROW will be restored to preconstruction contours.
5. The pipeline will be co-located within existing the NIPSCO fee-owned electric transmission ROW wherever possible to avoid and minimize impacts to undisturbed lands, high consequence areas, NPS and DNR.
6. A robust sediment and erosion control plan will be executed during all phases of the Project. Appropriate sediment and erosion control best management practices (BMPs) (Attachment VII) will be implemented to minimize impacts to wetlands and streams. Disturbed wetlands and adjacent uplands will be immediately restored after construction activities have ceased.
7. Low-quality wetlands, comprised most of hybrid cattail and common reed, will be mowed within the limits of disturbance in winter prior to the start of construction. Clearing the vegetation will enhance the effectiveness of BMP installation and monitoring. Timber matting will also be utilized in all wetland areas to prevent rutting and hydric soil compaction.
8. An HDD will be used between Sta. 202+00 to Sta. 218.00 for the crossing of the Grand Calumet River to avoid impacts to this Section 10 waterway.
9. NIPSCO designed a reroute between Sta. 308+00 to Sta. 382+00 to avoid impacts to Pine Station Nature Preserve. NIPSCO will avoid IDNR managed lands (Pine Station and Clark and

Pine Nature Preserves) by 1) routing to the east of NIPSCO's Hendricks electric substation onto Indiana Industrial Investment property, and 2) locating the new pipeline on NIPSCO fee-owned ROW and road ROW. Extensive coordination occurred with the IDNR throughout Project design and permitting.

10. According to the Cultural Resources Phase 1a Archaeology Report, the Project avoids any known archaeological resources in the Project area.
11. Seasonal timing restrictions, as practical, and endangered species surveys and exclusion fencing will be required for all work within high quality wetlands where known or suspect populations of endangered species occur. No Federal listed species are expected to be impacted by Project activities and impacts to State listed species are proposed to be avoided by first surveying for and removing encountered endangered species followed immediately by installation of exclusion fencing. Coordination with the USFWS and the IDNR is included in Attachment IV affirming this approach.
12. Construction matting will be required for wetland crossings. Permanent trench breakers, designed to prevent lateral flow along the pipeline, will be placed within the pipeline trench at the edges of all wetlands and streams crossed to prevent drainage.
13. Any trees within the workspace that must be removed to allow for construction traffic will be cut flush with the ground and roots will be left in place, except over the 25-foot-wide ditch required to install the new pipeline. Tree clearing will be conducted between October 1 and March 31 to avoid potential impacts to threatened and endangered bat species unless USFWS provides authorization.
14. Each waterbody crossing will be treated as a separate construction entity, such that construction of mat roads, trenching, pipe installation, backfilling, and temporary stabilization or final restoration are completed in the minimum number of consecutive calendar days as possible.
15. All wetlands will be restored and seeded with a specialized native plant mix within 14 days following the completion of construction and final site grading; and certain invasive plants management approaches will be incorporated into a developing comprehensive company-wide vegetation management/conservation strategy.
16. While the Project will temporarily impact interdunal wetlands (dune and swale) on existing NIPSCO ROW, it is important to note that the wetlands have been degraded overtime by invasive species and legacy fill. Compensatory mitigation for Project impacts includes removal of 0.55 acres of legacy fill material for wetland creation in addition to the

enhancement of 6.0 acres of high quality interdunal wetland and associated upland buffers. Once restored, the quality and functionality of the dune and swale wetland complex will be greatly enhanced by 1) restoration of temporary impacts post construction with high quality wetland seed mixes and 2) implementation of the compensatory mitigation plan. While there will be temporal loss of function during construction, the Project will have a net ecological benefit post restoration and mitigation plan implementation for this invaluable resource.

17. Extensive soil and groundwater samples have been conducted along the proposed route. All impacted soil and groundwater will managed according to local and state regulations. Environmental legacies, including ROW impacted by fly dumping, will be cleaned up, remediated and restored as part of the Project as well. In the event that dewatering is required with impacted groundwater, additional treatment such as activated carbon filtration will be utilized to prevent adverse impacts to WOTUS.

Project Impacts

In total, 38 wetlands (totaling 78.42 acres) and two streams (totaling 400 linear feet) were recorded within the approximate 333 acre study area associated with the Project. Full details of all delineated features can be found within the Regulated Waters Delineation Report included in Attachment II. NIPSCO proposes that all delineated streams and wetlands be considered jurisdictional "Waters of the United States" and this approach received concurrence from the USACE (Attachment III). Within the Project LOD (approximately 100 acres), temporary and permanent impacts are proposed to 22 separate wetlands / wetland complexes totaling 11.78 acres. No impacts are proposed to streams.

Appendices A and B, as well as Tables 1-1 and 2-1, of Attachment VIII depict the specific wetlands that will be temporarily impacted, permanently converted, or permanently filled by construction activities. Table 1-1 and figures in Appendix A provide details of wetland impacts across the entire Project; with information on wetland type, wetland quality, impact type, and the total area of proposed impact included for each individual wetland. Appendix B and Table 2-1 provide the proposed compensatory mitigation required for temporary and permanent impacts to wetlands.

Approximately 0.70 acre of permanent fill (gravel) is required within a non-High Quality Aquatic Resource (HQAR) PEM wetland as a result of the construction of a permanent regulator station. This impacted wetland (Attachment VII Appendix A, 01-Wetland-001, EC-41 & EC-42) is located in an active industrial area, impounded by existing roadways, and dominated by invasive species.

Approximately 0.43 acre of permanent conversion is required within one PSS and one PFO wetland. This conversion is required as shrub and tree species are not compatible with gas ROW maintenance and safety requirements. As such, 0.34 acre of non-HQAR PSS wetland (Attachment VII Appendix A, 61-Wetland-003, EC-2 & EC-3) and 0.09 acre of non-HQAR PFO wetland (Attachment VII Appendix A, 61-Wetland-005, EC-3) will be converted to PEM wetland.

Approximately 3.93 acres of temporary impacts to HQAR PEM wetlands are required as part of temporary disturbance from OC installation and temporary workspaces. These impacts can be referenced in Attachment VII, Appendix A, EC-2 thru EC-4, EC-6 thru EC-8, and EC-36 thru EC-38).

Approximately 1.48 acre of short-term vegetation-only impacts to HQAR PEM are required for certain construction activities within wetland boundaries that will require foot traffic and/or light vehicle use only. Regarding 58-Wetland-002 (Attachment VII, Appendix A, EC-7) and 25-Wetland-001 (Attachment VII, Appendix A, EC-36 & EC-38), limited access and workspace is required to install and maintain dewatering areas. In these areas, dewatering discharge locations including filtration for sediment and/or contaminant concerns will be established to facilitate adjacent construction. Regarding 07-Wetland-001 and 11-Wetland-001 (Attachment VII, Appendix A, EC-38 & EC-39), limited access and workspace is required to locate existing utilities that are perpendicular to the proposed 30-inch pipeline to ensure clearance requirements are achieved. For all of these areas, the only anticipated disturbance will be to vegetation, due to the short duration and limited scope of activities.

Approximately 5.24 acres of temporary impacts to non-HQAR PEM wetlands are required as part of temporary disturbance from OC installation and temporary workspaces. These impacts can be referenced in Attachment VII, Appendix A, EC-12, EC-13, EC-30, EC-32 thru EC-35, and EC-38 thru EC-42).

One navigable waterway subject to jurisdiction under Section 10 of the Rivers and Harbors Act (Grand Calumet River) will be crossed by the Project. While no impacts are expected as an HDD will be used to cross this waterway, NIPSCO is seeking permit authorization for this crossing. A cross-section showing depth below the channel of the River is included in Attachment VI and a typical HDD drawing is included in Attachment VII.

Quantity and Type of Fill Material

Upland topsoil removed to facilitate the construction of the pipeline will be stockpiled in upland portions of the permitted workspace only. Stockpiling within wetland boundaries will be placed on timber matting with care taken to segregate topsoil from subsoil. Stabilized construction entrances

(Attachment VII) placed in wetlands will be temporary in nature and will be removed as soon as practicable. Travel lanes through wetlands within the Project workspace will be crossed using timber construction mats. Vegetation in PFO and PSS wetlands will be hand cleared and the travel corridors in these wetland types will also be matted, but temporary impacts to these wetland types have still been included in calculations. All sizable woody debris will be removed from wetlands following clearing.

The only permanent wetland impact involving fill is associated with the construction of the 483# Backfeed Station (Attachment VII Appendix A, 01-Wetland-001, EC-41 & EC-42). Clean fill and gravel will be permanently placed within wetland boundaries to provide safe working surfaces for above-ground appurtenances vital to the safety and reliability of the proposed 30-inch pipeline.

Anticipated Project Schedule

Initial Project activity is scheduled to begin in the winter of 2021, with tree clearing activities slated to begin in November/December. Tree clearing is scheduled to take place during colder months, when the ground is more likely to be frozen and soil erosion is likely to be minimized. Tree clearing during this time will be outside of the summer roosting season (April 1 – October 14) of protected bat species (i.e., federally listed endangered Indiana bat [*Myotis sodalist*] and threatened Northern long-eared bat [*Myotis septentrionalis*]). In the event tree clearing activities must occur during wet conditions, erosion and sediment control measures (timber mats, perimeter controls, etc.) will be placed in accordance with the Erosion Control Plans included in Attachment VII.

Prior to initiating tree clearing activities, the contractor will mark the limits of disturbance and will clearly mark trees along the edges of the proposed workspace to identify the limits of the tree clearing activities. Mechanical tree clearing will take place in upland areas and logs will be segmented and stacked along the edges of the workspace. Wood chips and ground stumps will be left within the proposed upland Project workspace and will act to reduce rutting and disturbance of the topsoil and reduce surface erosion. Tree clearing will be conducted via hand felling only in delineated wetland areas. Following tree clearing and woody debris removal, all temporary access measures (entrances, etc.) and erosion control measures will be removed and any ground disturbance restored to pre-impact conditions. Because construction will begin in these same areas within the following growing season, only temporary stabilization (wood chips, straw, etc.) and temporary seed will be required.

Construction of the new pipeline is scheduled to begin in calendar year 2022 with the following activities: US 12 & 20 Station with the exception of the tie ins and retirements; North Bridge Realty Station with the exception of the meter set installation, tie ins, and retirements (cannot start before 6/1/2022); Centennial Station with the exception of HDD and tie ins; mainline piping from station

01+68 to 49+00 (must be completed before 8/1/2022); and mainline piping from station 202+33 to 407+90. Construction is scheduled to continue in calendar year 2023 with the following activities: Republic Steel Station, Centennial Station HDD, tie ins and retirements, Alliance Steel distribution service; Mason and Tennessee Station, US 12 & 20 Station tie ins and retirements, North Bridge Realty Station tie ins and retirements, 483# Backfeed Station, mainline piping from station 49+00 to 202+33, and once all stations and mainline piping is installed, final hydrostatic testing, cleaning and drying prior to gassing in the new loop system.

Other Agency Authorizations

In addition to the Section 404/Section 10 permits required from the USACE, the permits and authorizations listed in the following table will be required for this Project:

Permit/Authorization	Regulatory Agency	Permit Status
Section 401 Water Quality Certification	Indiana Department of Environmental Management	In progress
Rule 5 Permit (SWPPP)	Indiana Department of Environmental Management / City of Gary	In progress
Section 402 NPDES Rule 11 General Permit for Hydrostatic Testing	Indiana Department of Environmental Management	In progress
Construction in a Floodway – Qualified Utility Line Crossing General License	Indiana Department of Natural Resources	Pre-approved
Special Use Permit	National Park Service	In progress
Industrial Discharge Permit (dewatering)	City of Gary	In progress
Road Crossing Permits	City of Gary / INDOT and Tollway Authority	In progress

Project Mitigation

NIPSCO has worked to survey and alter the route and select installation methods in order to avoid all stream impacts and minimize wetland impacts to the greatest extent possible. While wetland impacts are primarily temporary, permanent wetland impacts and temporary impacts to HQAR PEM wetlands necessitate mitigation. Temporary impacts to non-HQAR PEM wetlands and short-term impacts expected to only minimally disturb vegetation (non-ground disturbing activities limited in duration and scope) to HQAR PEM wetlands are not included in proposed mitigation.

At the northern terminus of the Project, at the 483# Backfeed Station, the original layout called for the new facility to be constructed entirely in uplands. However, a redesign of the station layout was required due to numerous underground activities and per request from the underlying property

owner. The station was required to be shifted west to not interfere with these utilities. This station relocation resulted in unavoidable impacts to a low quality PEM, but the site was designed and laid out in order to minimize the wetland impacts at this location. To compensate for permanent loss (0.7 acre) of this non-HQAR wetland, NIPSCO proposed to utilize a combination of HQAR PEM wetland creation and enhancement of existing HQAR PEM wetland.

Near the southern terminus of the Project, within the existing Aetna facility, a limited amount of PSS and PFO wetland will be permanently converted to PEM wetland to ensure pipeline safety, adhere to NIPSCO's vegetation management requirements, and DOT PHMSA standards. As designed, the Project will require approximately 0.34 acre of non-HQAR PSS wetland and 0.09 acre of non-HQAR PFO wetland to be permanently converted to PEM wetland. To compensate for this permanent conversion (0.43 acre), NIPSCO proposes to enhance existing HQAR PEM wetland.

At various locations, but primarily adjacent to the NPS Miller Woods Unit and the IDNR Clark and Pine and Pine Station Nature Preserves, temporary impacts to existing HQAR PEM wetlands are required as part of OC installation and workspaces. To compensate for temporal loss associated with HQAR PEM wetland temporary impacts (3.93) acres, NIPSCO proposes to enhance existing HQAR PEM wetland. Additionally, all HQAR PEM wetlands impacted during construction will be monitored and maintained for 3 years following restoration to ensure quality and conservation metrics associated with each wetland are returned to pre-impact values or greater.

Because there are no credits available from private mitigation banks and no mitigation sites have been built as part of the Indiana Stream and Wetland Mitigation Program (in-lieu fee program), NIPSCO proposes that permittee responsible mitigation is appropriate for this Project by utilizing a combination of wetland creation and enhancement at ratios in the table below. By utilizing this approach NIPSCO believes that temporal and permanent loss to wetlands associated with Project activities can be immediately compensated. Full details of the proposed mitigation are included in Attachment VII.

Wetland Type	Impact Type	Impact Total Acres	Mitigation Type	Mitigation Multiplier	Mitigation Total Acres
Non-HQAR PEM	Permanent Fill	0.55	Creation	1	0.55
Non-HQAR PEM	Permanent Fill	0.15	Enhancement	15	2.25
Non-HQAR PSS	Conversion	0.34	Enhancement	5.25	1.79
Non-HQAR PFO	Conversion	0.09	Enhancement	5.5	0.50
HQAR PEM	Temporary	3.93	Enhancement	0.36	1.41
CUMULATIVE TOTAL		5.06			6.5

To achieve proposed mitigation goals, an existing HQAR-PEM wetland that is within the Project LOD, and continues outside of the LOD on to NPS property, was selected. The mitigation site consists individually of property owned and maintained by NIPSCO as active ROW, property owned and maintained by NIPSCO as conservation lands, and property owned and maintained by the NPS as part of the INDU. Although segregated by parcel ownership, the overall mitigation site is either within or directly abuts the INDU Miller Woods Unit, which consists of linear interdunal wetlands situated among parallel upland dune ridges with a northeast-southwest orientation. This wetland-upland complex is an artifact of the historically higher water levels of Lake Michigan and represents geologically significant shoreline formations of the Lake. Because of the unique characteristics of this complex, this wetland harbors several plant and animal species of conservation concern.

Although this wetland currently exists as HQAR PEM wetland, legacy fill and invasive species pressure threatens the long-term conservation value of the wetland. For instance, the middle portions of the wetland vary in the native species present based on water levels. Visits in mid-2021 showed abundant wild rice (*Zizania* spp.) in the middle portion of the wetland as the water had dropped to a level where this annual species could thrive. Wild rice is an important species in the context of both conservation and cultural value and underscores the need to reduce the invasive species pressure in this wetland. Wild rice and numerous other native species share habitat requirements with the aggressive invasive species present. Therefore it can be expected that if invasive species are not controlled, existing high value native species populations will continue to be impacted as stands of invasive species expand. This wetland complex has been identified by the NPS and numerous private conservation partners as a high priority for conservation as it relates to the presence of state-listed endangered plants and animals and more importantly for overall ecological benefit of dune and swale wetland complexes as a whole.

Regardless of mitigation requirements, all temporary impacts to all wetlands will be restored immediately following construction. NIPSCO will conduct the restoration of all temporary wetland impacts using the following approach:

1. NIPSCO will restore all emergent wetlands impacted within the construction ROW. These areas will be restored to preconstruction elevations and soil compaction levels, using the original wetland topsoil stockpiled during pipeline construction. Permanent trench plugs will be installed to prevent lateral flow and loss of wetland hydrology within restored wetlands. Wetlands will be seeded with a high quality and diverse emergent wetland seed mixture. Naturalized upland areas will also be seeded with high quality native seed mixtures which will help increase floristic quality post construction. Conservation partners,

including the NPS, Save the Dunes, the IDNR, the Nature Conservancy, Shirley Heinze Land Trust and others have identified the NIPSCO ROW as a priority for habitat connectivity.

2. Due to pipeline integrity concerns and federally mandated requirements concerning electric and gas transmission line maintenance, NIPSCO will restore all forested and scrub-shrub wetlands within the Project LOD to emergent wetlands. These areas will be restored to preconstruction elevations and soil compaction levels, using the original wetland topsoil stockpiled during pipeline construction. Permanent trench plugs will be installed to prevent lateral flow along the pipeline. Wetlands will be seeded with an appropriate native seed mixture. Adjacent naturalized upland areas will also be seeded with an appropriate native and pollinator seed mix.

This Project's construction activities are schedule to commence in March 2022, due to specific statutory requirements placed on NIPSCO by the Indiana Utility Regulatory Commission to expend funds collected for this Project. NIPSCO respectfully requests that you review this permit application at your earliest convenience and provide a written determination once your review is complete.

Adjacent Landowners

NIPSCO has provided a list of potentially affected landowners and associated contact information as Attachment IX in order for the USACE to provide public notification.

We appreciate your cooperation in the processing of this request and continued coordination for this Project. Construction is scheduled to begin in early 2022. Please contact me with questions or if you require additional information. Thank you in advance for your help with this Project.

If you have any questions, please contact me at 219.246.7920 (mobile).

Sincerely,

Steve Barker
Environmental Principal, Natural Resource Permitting
sbbarker@nisource.com
Enclosures:

I. Application for Department of the Army Permit (ENG Form 4345)
II. Regulated Waters Delineation Report
III. USACE Wetland Delineation Concurrence
IV. Endangered Species Consultation
V. Cultural Resources Consultation
VI. Engineering Plans
VII. Erosion Control and Restoration Plans
VIII. Mitigation Plan
IX. Adjacent Landowners List
X. Alternative Routes Figure