Appendix E: Agency Correspondence

May 12, 2017

Paige Olson
Review and Compliance Coordinator
State Historic Preservation Office
900 Governors Drive
Pierre, SD 57501

RE: Otter Tail Power Company Astoria Station Project

Dear Ms. Olson,

Otter Tail Power Company (OTP) is proposing to construct an approximate 250 MW, natural gas combustion electricity-generating station in Deuel County, South Dakota. HDR Engineering, Inc. (HDR) has been contracted by OTP to provide state permitting support and guidance related to cultural resources. The purpose of this letter is to provide an introduction to the project and provide an opportunity for your agency to comment.

The project is located in Section 22, Township 113N, Range 48W. The project is approximately 1.5 miles north-northwest of the town Astoria in Scandinavia Township (see attached map). The project will include the generation station, piping to connect to the nearby natural gas pipeline, and an electric generation-tie line to connect to the nearby electric transmission grid. While still preliminary, the current engineering layout for the project shows all construction activities for the project taking place within the identified parcels.

As an electricity-generating facility larger than 100 MW, the project will require a permit from the South Dakota Public Utilities Commission and be subject to applicable state processes, including SDCL 49-41B-11, 22. At this time the project is not a federal undertaking as defined under Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800).

An initial file search and desktop review was conducted for the project area plus a 1-mile buffer. According to information obtained from SDARC and SHPO-CRGRID, one unevaluated site (39DE40) was recorded in the south part of the project area, and four prehistoric sites have been recorded within 1 mile. A review of historical atlases and current aerial imagery indicates that there may be late nineteenth and early twentieth-century farmstead or farmstead remains within the project area and vicinity.

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In order to assist OTP in forecasting the Astoria Station's possible impacts on cultural resources, HDR intends to complete a Level III archaeological survey of the project area. Survey methods will comply with *Guidelines for Cultural Resource Surveys and Survey Reports for Review and Compliance* (South Dakota State Historic Preservation Office 2005) and *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* [48 FR 44716-44740] (National Park Service 1983).

I look forward to receiving your response. If you have any questions or concerns, please contact me by phone at 612.756.4977 or by email at Pamela.Hale@hdrinc.com.

Sincerely,

Pamela J. Hale
Archaeologist

Cc: Mark Thoma, Otter Tail Power Company
Dan Schmidt, HDR Engineering

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south dakota
STATE HISTORICAL SOCIETY
DEPARTMENT OF EDUCATION

June 7, 2017

Ms. Pamela J. Hale
HDR
701 Xenia Ave S, Suite 600
Minneapolis, MN 55416

SDCL 1-19A-11.1 Consultation
Project: 170516002S – Otter Tail Power Company Astoria Station Project - Construct 250 MW Natural Gas Combustion Electricity-Generation Station, T113N, R48W, Section 22
Location: Deuel County
(South Dakota Public Utilities Commission)

Dear Ms. Hale:

On May 16, 2017, we received your letter dated May 12, 2017, regarding the proposed construction of the Otter Tail Power Company (OTP) Astoria Station Project. Based on the information you provided in your letter, we agree with the proposed approach for the identification of historic properties.

In addition to the Level III Pedestrian Survey, we recommend relocating and assessing unevaluated archaeology property 39DE0040 for listing in the State and National Register of Historic Places as it appears to be within the project area. We also recommend conducting a reconnaissance level survey of architectural properties within in a one mile of the project area.

We appreciate OTP's proactive approach to the identification of historic properties. We look forward to working with HDR and OTP to ensure that the non-renewable cultural resources of South Dakota are taken into consideration.

Should you require any additional information, please contact Paige Olson at Paige.Olson@state.sd.us or (605) 773-6004.

Sincerely,

Jay D. Vogt
State Historic Preservation Officer

P Olson

Paige Olson
Review and Compliance Coordinator

September 25, 2017

Paige Olson
Review and Compliance Coordinator
State Historic Preservation Office
900 Governors Drive
Pierre, SD 57501

RE: Otter Tail Power Company Astoria Station Project, Level III Archaeological Survey Report
SDCL 1-19.A-11.1 Consultation, Project 170516002S

Dear Ms. Olson,

Enclosed for your review and comment is a copy of the Level III archaeological survey report completed by HDR on behalf of Otter Tail Power Company (OTP) for the Astoria Station Project (SDCL 1-19.A-11.1 Consultation Project 170516002S). A letter introducing the project was mailed to you on May 12, 2017, and your initial reply was received by HDR on June 7, 2017. Information from the report is summarized briefly below.

OTP proposes to construct an approximately 250 MW, natural gas combustion electricity-generating station in Deuel County, South Dakota. The Level III archaeological survey was completed in order to assist OTP in fulfilling Administrative Rules of South Dakota 20:10:22:23(6). The Project is not a federal undertaking as defined under Section 106 of the National Historic Preservation Act and its implementing regulations (36 Code of Federal Regulations § 800).

The project is located in Section 22, Township 113N, Range 48W. Project components include a new natural gas combustion, electricity-generating station, piping to connect the generation station to the nearby Northern Border natural gas pipeline, and an electric generation-tie line to connect to the nearby electric transmission grid. For project planning purposes, OTP requested an archaeological review of approximately 52 acres over two parcels (OTP Property). HDR archaeologists conducted field survey of the OTP Property from June 19 to 22, 2017.

A records search identified one recorded site (39DE0040) intersecting the OTP Property. Site 39DE0040 is recorded as a prehistoric lithic artifact scatter. All cultural materials were collected during the original recordation, and no evidence of the site was identified during HDR's survey of the area. Because of the sparsity of the artifact scatter and lack of integrity caused by impacts from farming activities, HDR concurs with the University of South Dakota's original

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recommendation that the site is not eligible for listing on the National Register of Historic Places and no further archaeological work is recommended.

One new archaeological site (39DE0126) that intersects the OTP Property was identified and recorded during the survey. Site 39DE0126 is an abandoned twentieth century farmstead consisting of foundations, artifact scatters, depressions, and two extant buildings. HDR and OTP held a phone conversation with the South Dakota State Historic Preservation Office on August 30, 2017, during which the archaeological site and the two extant buildings were assessed. Through the phone discussion, it was indicated that neither archaeological nor architectural components of the site were eligible for the National Register of Historic Places and no additional work would be required.

I look forward to receiving your response. If you have any questions or concerns, please contact me by phone at 612.756.4977 or by email at Pamela.Flynn@hdrinc.com.

Sincerely,

Pamela J. Flynn
Archaeologist

Enclosure: Level III Archaeological Survey for the Proposed Astoria Station Project, Deuel County, South Dakota

Cc: Mark Thoma, Otter Tail Power Company
Dan Schmidt, HDR

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June 27, 2017

Leslie Murphy
SDGFP Environmental Review Coordinator
South Dakota Dept. of Game Fish and Parks
523 E. Capitol Avenue
Pierre, SD 57501

Via Email: leslie.murphy@state.sd.us

RE: Otter Tail Power Company Astoria Station Project

Dear Ms. Murphy,

Otter Tail Power Company (OTP) is proposing to construct an approximate 250 MW, natural gas combustion electricity-generating station in Deuel County, South Dakota. HDR Engineering, Inc. (HDR) has been contracted by OTP to provide state permitting support and guidance related to biological resources. The purpose of this letter is to provide an introduction to the project and provide an opportunity for your agency to comment.

The project is located in Section 22, Township 113N, Range 38W. The project is approximately 1.5 miles north-northwest of the town Astoria in Scandinavia Township (see attached map). The project will include the generation station, piping to connect to the nearby natural gas pipeline, and an electric generation-tie line to connect to the nearby electric transmission grid. While still preliminary, the current engineering layout for the project shows all construction activities for the project taking place within the identified parcels.

As an electricity-generating facility larger than 100 MW, the project will require a permit from the South Dakota Public Utilities Commission and be subject to applicable state processes, including SDCL 49-41B-11, 22. At this time we do not expect that the project will be a federal undertaking and therefore no consultation will be required under Section 7 of the Endangered Species Act.

I visited and evaluated the site for habitat that could be used by species such as the Dakota skipper, prairie-fringed orchid, Topeka shiner and northern long-eared bat on June 8, 2017. Habitats present on the site include cropped lands, pastured wetlands, a field planted to native grasses, and dilapidated farm outbuildings with some trees. A ditch also runs across the northern portion of the site but is choked with cattails and no water was present at the time of the site review. No native prairie habitats or unaltered habitats occur within site boundaries.

Based on my desktop and field review of the site, I believe that no further species or habitat review is warranted. Otter Tail expects to complete tree clearing (if necessary) at a time that will not affect potential listed species.

I look forward to receiving your response. If you have any questions or concerns, please contact me by phone at 763.591.5420 or by email at scott.krych@hdrinc.com.

Sincerely,

Scott Krych
Senior Biologist

Cc: Mark Thoma, Otter Tail Power Company
Dan Schmidt, HDR Engineering

SOUTH DAKOTA DEPARTMENT OF
GAME, FISH AND PARKS
523 EAST CAPITOL AVENUE | PIERRE, SD 57501

July 7, 2017

Mr. Scott Krych, Senior Biologist
HDR, Inc.
701 Xenia Ave S., Suite 600
Minneapolis, MN 55416

RE: Otter Tail Power Company Astoria Station Project
Deuel County, South Dakota

Dear Scott,

The South Dakota Department of Game, Fish and Parks, Division of Wildlife, has reviewed the above project involving the construction of a 250MW, natural gas combustion electricity-generating station in Deuel County, South Dakota. The project will include the generation station, piping to connect to the existing gas pipeline, and an electric generation-tie line to connect to the nearby electric transmission grid.

We recommend that any new power lines or transmission lines be buried. If this is not possible, placement of above-ground transmission lines should be located along existing corridors such as within existing disturbed areas. Electrocution of birds that perch, roost, or nest on power lines continues to be a source of mortality, especially for eagles, hawks, and owls (Avian Power Line Interaction Committee 2006). The Avian Power Line Interaction Committee (APLIC) has developed two documents that provide useful information on how to reduce power line strikes and electrocutions:

Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 and *Mitigating Bird Collisions with Power Lines*

Both of these documents are available from the Edison Institute (http://www.aplic.org).

A search of the Natural Heritage Database indicated that there are no known threatened, endangered or rare species in the project boundary, therefore we anticipate that the project as described will have no effect to listed or proposed protected species. However, please note that many places in South Dakota have not been surveyed for rare or protected species and the absence of a species from the database does not preclude its presence from your project area. If surveys indicate that state endangered, threatened, or rare species may occur in the project area, South Dakota Codified Law 34A-8-8 allows for only limited and specific authorized take of threatened and endangered species for scientific, zoological, or educational purposes. For more information, please visit https://gfp.sd.gov/licenses/other-permits/endangered-species-permit.aspx. If survey and monitoring activities include live trapping or the collection of wildlife

species, you must first obtain a collection permit from our agency. If these activities include bats, specific sampling and collection protocols must be followed for a collectors permit to be issued. More information can be found at the following websites:

Scientific Collectors Permit –
https://gfp.sd.gov/licenses/other-permits/scientific-collectors.aspx

Bat Sampling and Collection Protocol Guidelines and Requirements –
https://gfp.sd.gov/wildlife/docs/bat-protocol.pdf

A review of the National Wetlands Inventory indicated that wetlands may be present in the project area. If it is determined that a project may impact wetlands, the Department of Game, Fish and Parks recommends complete avoidance of wetlands, if possible, followed by minimization of any adverse impacts, and finally replacement of any lost acres. All feasible project alternatives should be examined and the least damaging practical alternative implemented. If wetland impacts are determined to be unavoidable, a mitigation plan addressing the number and types of wetland acres impacted and the methods of replacement should be prepared and submitted to the resource agencies for review.

We appreciate the opportunity to provide comments. If you have any questions, please contact me at 605.773.6208.

Sincerely,

Leslie Murphy

Leslie Murphy
Environmental Review Coordinator
523 East Capitol Avenue
Pierre, SD 57501
Leslie.Murphy@state.sd.us

June 20, 2017

Scott Larson, Field Supervisor
United States Fish and Wildlife Service
South Dakota Ecological Services Field Office
420 S. Garfield Avenue
Suite 400
Pierre, SD 57501-5408

Via Email: southdakotafieldoffice@fws.gov

RE: Otter Tail Power Company Astoria Station Project

Dear Mr. Larson,

Otter Tail Power Company (OTP) is proposing to construct an approximate 250 MW, natural gas combustion electricity-generating station in Deuel County, South Dakota. HDR Engineering, Inc. (HDR) has been contracted by OTP to provide state permitting support and guidance related to biological resources. The purpose of this letter is to provide an introduction to the project and provide an opportunity for your agency to comment.

The project is located in Section 22, Township 113N, Range 38W. The project is approximately 1.5 miles north-northwest of the town Astoria in Scandinavia Township (see attached map). The project will include the generation station, piping to connect to the nearby natural gas pipeline, and an electric generation-tie line to connect to the nearby electric transmission grid. While still preliminary, the current engineering layout for the project shows all construction activities for the project taking place within the identified parcels.

As an electricity-generating facility larger than 100 MW, the project will require a permit from the South Dakota Public Utilities Commission and be subject to applicable state processes, including SDCL 49-41B-11, 22. At this time we do not expect that the project will be a federal undertaking and therefore no consultation will be required under Section 7 of the Endangered Species Act.

I visited and evaluated the site for habitat that could be used by species such as the Dakota skipper, prairie-fringed orchid, Topeka shiner and northern long-eared bat on June 8, 2017. Habitats present on the site include cropped lands, pastured wetlands, a field planted to native grasses, and dilapidated farm outbuildings with some trees. A ditch also runs across the northern portion of the site but is choked with cattails and no water was present at the time of the site review. No native prairie habitats or unaltered habitats occur within site boundaries.

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Based on my desktop and field review of the site, I believe that no further species or habitat review is warranted. Otter Tail expects to complete tree clearing (if necessary) at a time that will not affect potential listed species.

I look forward to receiving your response. If you have any questions or concerns, please contact me by phone at 763.591.5420 or by email at scott.krych@hdrinc.com.

Sincerely,

Scott Krych
Senior Biologist

Cc: Mark Thoma, Otter Tail Power Company
Dan Schmidt, HDR Engineering

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701 Xenia Ave S, Suite 600, Minneapolis, MN 55416
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June 28, 2017

U.S. Army Corps of Engineers
Omaha District – South Dakota Regulatory Office
28563 Powerhouse Road
Pierre, SD 57501

RE: Otter Tail Power Company – Astoria Station Project; Wetland Delineation Report

To Whom It May Concern,

Otter Tail Power Company (Otter Tail) is proposing to construct the Astoria Station Project (Project). The Project will consist of an approximate 250 MW natural gas simple cycle combustion turbine electricity-generating station, piping to connect to the nearby natural gas pipeline, and an electric generation-tie line to connect to the nearby electric transmission grid. The Project is located in Section 22, Township 113N, Range 48 West, Scandinavia Township, Deuel County, approximately 1.5 miles north-northwest of Astoria, South Dakota. The Project filed a Notice of Intent with the South Dakota Public Utilities Commission on April 4, 2017 (PUC Docket EL17-017). On behalf of Otter Tail, HDR Engineering, Inc. (HDR) is submitting the attached Wetland Delineation Report for the Project.

The purpose of this letter is to request an official Jurisdictional Determination for all water bodies identified in the attached Wetland Delineation Report. The Project is currently going through preliminary design, and thus the final extent of development within the delineated area is not yet known. Otter Tail is committed to avoiding impacts to wetland resources to the extent practicable, and based on the current project area, no more than 0.5 acres of impacts to wetland resources would occur if unavoidable impacts to wetlands are identified after final design. Therefore, Otter Tail assumes unavoidable impacts to wetland resources caused by the Project are eligible for authorization under Nationwide Permit 39 – Commercial and Institutional Developments. Otter Tail will submit a Pre-Construction Notification (PCN) for the Project, if required, at a later date once final design is complete.

In addition to the Jurisdictional Determination, in order to facilitate a more efficient PCN process if required, Otter Tail is requesting that the U.S. Army Corps of Engineers verify the applicability of Nationwide Permit 39 and define an Area of Potential Effects (APE) in regards to Nationwide Permit General Conditions 18 (Endangered Species) and 20 (Historic Properties) for the Project. Otter Tail will then initiate review of the APE in regards to Endangered Species and Historic Properties as applicable.

As Otter Tail's consultant, please address all correspondence to my attention. If you have any questions or comments, feel free to contact me at 763-278-5946 (michael.swenson@hdrinc.com) Thank you for your assistance.

Sincerely,
HDR Engineering Inc

Michael Swenson
Environmental Scientist

CC: Mark Thoma, Otter Tail Power Company
Dan Schmidt, HDR

Enclosure

Wetland and Waters of the U.S. Delineation Report

Astoria Station Project

Deuel County, South Dakota

Otter Tail Power Company

June 2017

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Contents

Tables

Figures

Appendices

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1 Introduction

Otter Tail Power Company (Otter Tail) is proposing to construct, own, and operate the Astoria Station Project (Project) which will consist of a simple cycle combustion gas turbine consisting of one combustion turbine generator, stack, standard equipment enclosures, balance-of-plant equipment, and associated facilities.

The proposed energy conversion facility site is located in the N ½ of Section 22, Township 113N, Range 48 West, Scandinavia Township, Deuel County, approximately 1.5 miles northwest of Astoria, South Dakota (see Figure 1). HDR conducted an onsite field delineation of wetlands for the project on June 8, 2017 to identify wetlands within the project area.

2 Methods

The wetland delineation was conducted using the Routine Determination, Onsite Inspection Necessary method outlined in the *1987 Corps of Engineers Wetlands Delineation Manual* (1987 Manual) (USACE 1987) and the *Great Plains Regional Supplement* (Great Plains Regional Supplement) (USACE 2012) for all wetlands. The U.S. Army Corps of Engineers (USACE) defines areas as wetlands based on the following:

> Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (33 Code of Federal Regulations [CFR] 328 3.b)

The delineation of a wetland is based on the presence of the following three parameters:

- The area must exhibit indicators of wetland hydrology
- The area must have a predominance of hydrophytic vegetation
- The area must have a presence of Hydric soils

Atypical areas or problem areas may be missing one or more of the three parameters, and still can be classified as wetlands.

2.1 Offsite Review

Initial offsite evaluation for the presence of wetlands within the project area was performed using available information including: U.S. Geological Survey (USGS) topographic maps, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps and Soil Survey Geographic (SSURGO) Database (see Figure 2). Historic and high-resolution aerial photographs of the project area were also reviewed within the context of precipitation history. This analysis identified potential wetlands within the project area that were used to determine focus areas for field review.

2.2 Onsite Review

The Routine Determination, Onsite Inspection Necessary delineations included a review of the entire project area and focused on wetlands identified as part of the offsite review as well as all low-lying and/or wet areas not identified by the offsite data sources. Delineated wetland boundaries are shown in Figure 2. Data sheets and wetland boundaries were collected for these wetlands according to the 1987 Manual and Great Plains Regional Supplement and are included in Appendix A.

Upland and wetland data plots were collected and evaluated for all wetland areas. At each plot location, a soil pit was dug for observation of soil and hydrology characteristics. Hydric soil and wetland hydrology characteristics were identified using methods described in the 1987 Manual and Great Plains Regional Supplement. The vegetation was analyzed for plant species dominance in a 5-foot radius from the sample pit for the herbaceous layer, in a 15-foot radius for shrub layer, and in a 30-foot radius for overstory trees. The wetland indicator status of plants was identified using the National Wetland Plant List 2016.

Data collection points and the wetland boundaries were mapped using a Global Positioning System (GPS) unit with sub-meter accuracy. Using geographic information system (GIS), an accurate delineation map (see Figure 2) was created from the GPS data and field drawings, providing a permanent record of the onsite wetland delineation boundaries for the project.

3 Site Description

The project location consists of a combination of tilled, fallow, and pasture land with isolated patches of trees and a small creek generally running across the site to the north east.

3.1 Precipitation History Prior to Field Delineations

Precipitation for the project area was identified as Normal at the time of the field delineation, with a multi-month score of 13, February-April 2017 (NRCS 2017). Table 1 displays the Wetness Evaluation Table for the Project area for the 3-month period prior to field work.

Table 1. Wetness Evaluation Table for Project Area

Criteria – values are in inches	First Prior Month	Second Prior Month	Third Prior Month
	May-17	April-17	March-17
Estimated Precipitation Total	4.96	1.53	1.60
30% chance location will have less than	2.17	1.51	0.95
30% chance location will have more than	3.88	2.88	2.09
Type of Month (Dry, Normal, Wet)	Wet	Normal	Normal
Monthly Score	3*3=9	2 * 2 = 2	1 * 2 = 2
Overall Wetness:	13 (Normal)		
6 to 9 (Dry), 10 to 14 (Normal) 15 to 18 (Wet)			

3.2 Soils

Barnes-Svea loams and Barnes-Svea-Buse loams are the most widespread soil types mapped in the project area. Hydric soil map units occur in the project area. A summary of the soil map units that occur within the project area are listed in Table 2. Soil map units are shown in Figure 2.

Table 2. Mapped Soil Types Onsite

Map Unit Symbol	Map Unit name	Hydric Rating
AvD	Arvilla-Sioux complex, 6 to 15 percent slopes	Non-Hydric
BgD	Barnes-Buse-Svea loams, 2 to 15 percent slopes	Predominantly Non-Hydric
BkB	Barnes-Svea loams, 1 to 6 percent slopes	Predominantly Non-Hydric
BmC	Barnes-Svea-Buse loams, 2 to 9 percent slopes	Predominantly Non-Hydric
Dv	Divide loam	Predominantly Non-Hydric
Hm	Hamerly-Badger complex	Predominantly Non-Hydric
HtA	Hegne-Fulda silty clay loams	Predominantly Hydric
Lr	Lamoure-Rauville silty clay loams, channeled	Predominantly Hydric
Lw	Lowe loam	Predominantly Hydric
Mr	Moritz-Lamoure complex	Predominantly Non-Hydric
Pa	Parnell silty clay loam	Hydric
PwA	Poinsett-Waubay silty clay loams, 0 to 2 percent slopes	Non-Hydric
Rc	Rauville silty clay loam	Hydric
So	Southam silty clay loam, 0 to 1 percent slopes	Predominantly Hydric
Vc	Vallers loam	Predominantly Hydric

4 Results

A total of 3 wetlands were delineated during the onsite wetland review. A summary of all delineated wetlands is included in Table 3. Descriptions of all delineated features are included in this section. USACE wetland delineation data forms are included as Appendix A.

Table 3. Delineated Wetlands

Resource ID	Wetland Type	Wetland Size (acres)	Latitude	Longitude
Wetland 1	PEM	6.81	44.582547	-96.564301
Wetland 2	PEM	3.21	44.579599	-96.563063
Wetland 3	PEM	0.12	44.580425	-96.561657

Wetland 1

Date of Wetland Delineation: June 8, 2017

Location: Section 22, Township 113N, Range 48 West

Data Points: 1.1, 1.2, 1.3, 1.4

Wetland Setting: Wetland 1 is located along the northern and western boundary of the project area. The wetland borders the north and west edge of an agricultural field. Wetland 1 also contains a drainage feature that flows west to east existing at the north east corner of the Delineation Area. The boundaries of Wetland 1 extend beyond the Delineation Area.

Wetland Classification: PEM

Total Acreage within project area: 6.81 ac

Soil Survey Types (Hydric Rating):

- Hegne-Fulda silty clay loam (Predominantly Hydric)
- Lamoure-Rauville silty clay loams, channeled (Predominantly Hydric)
- Barnes-Svea loams, 1 to 6 percent slopes (Predominantly Hydric)
- Poinsett-Waubay silty clay loams, 0 to 2 percent slopes (Non-Hydric)
- Moritz-Lamoure complex (Predominantly Non-Hydric)
- Parnell silty clay loam (Hydric)
- Barnes-Buse-Svea loams, 2 to 15 percent slopes (Predominantly Non-Hydric).

Soil Indicators: Soils in the investigation area meet the criteria for thick dark surface (A12) and redox dark surface (F6).

Hydrology Indicator: Wetland hydrology indicators identified at this wetland are high water table (A2), saturation (A3), saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC neutral test (D5).

Dominant Vegetation of Wetland: Dominant vegetation included reed canary grass (*Phalaris arundinacea*).

Adjacent Upland Vegetation: Dominant vegetation is smooth brome grass (*Bromus inermis*) and areas where vegetation is significantly disturbed by agricultural activities.

Basis of Delineated Boundary: The boundary of the delineation was based on the presence of the extent of hydrophytic vegetation and a topographic break line near the toe of slope of a concave depression.

Photograph of Wetland 1

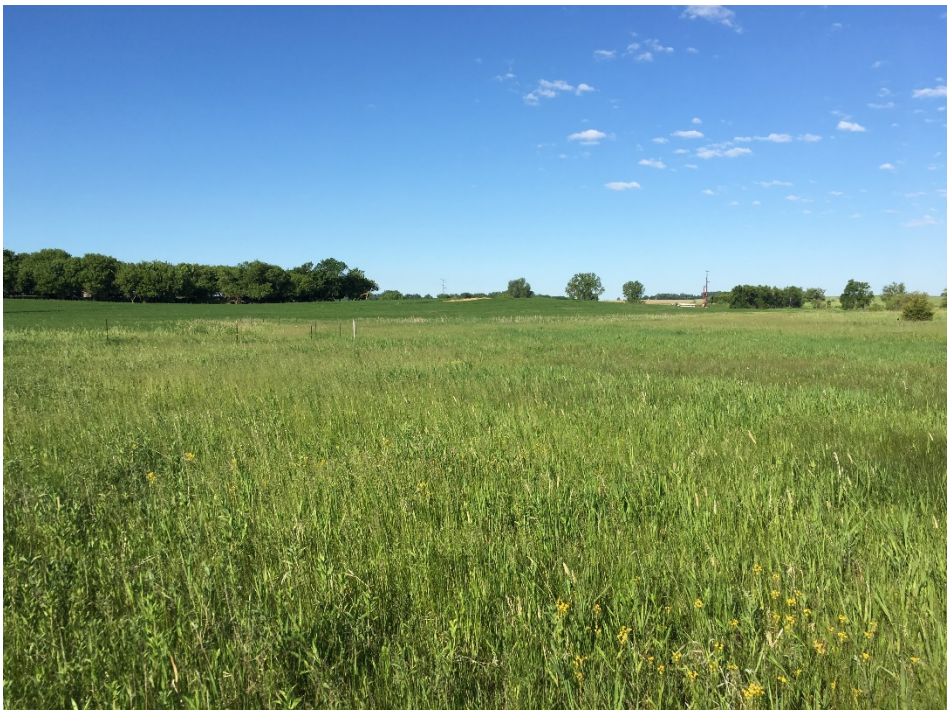

Photo Point 1 - Wetland 1 (Northern Portion). Facing southwest, looking at the emergent wetland located along the northern boundary of the project area.

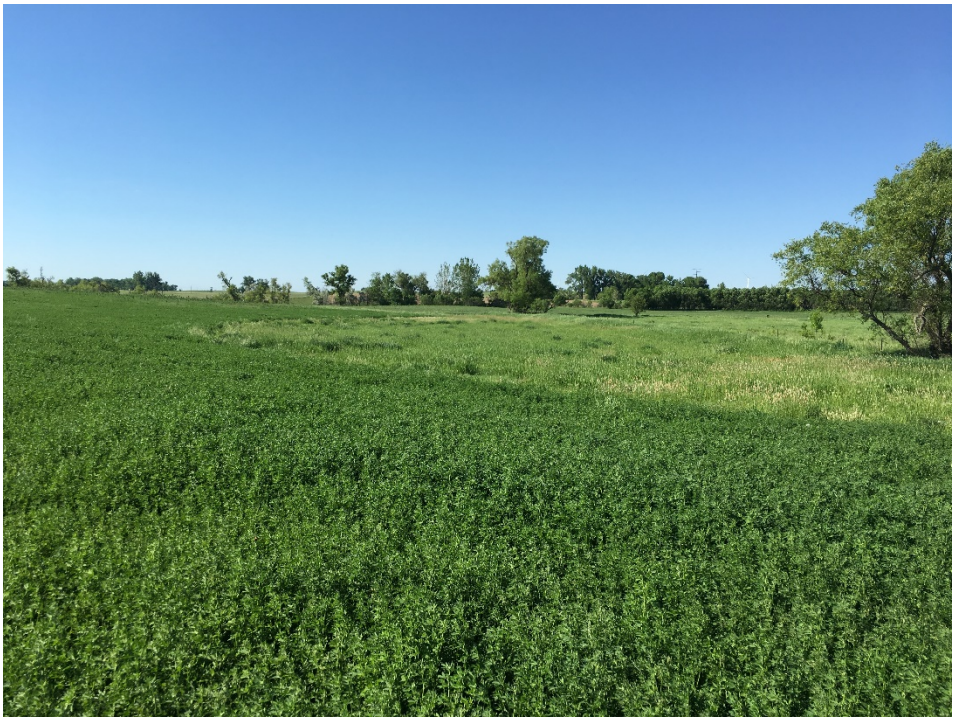

Photo Point 2 - Wetland 1 (Southwest Portion). Facing south, looking at the emergent wetland located along the western boundary of the project area.

Wetland 2

Date of Wetland Delineation: June 8, 2017

Location: Section 22, Township 113N, Range 48 West

Data Points: 2.1, 2.2

Wetland Setting: Wetland 2 is located along the west edge of 482nd Ave near the southern boundary of the Project area and consists primarily of a large expanse of emergent wetland. The boundary of Wetland 2 extends beyond the Delineation Area.

Wetland Type: PEM

Total Acreage within Project area: 3.74 ac

County Soil Survey Types (Hydric Rating):

- Barnes-Svea loams, 1 to 6 percent slopes (Predominantly Non-Hydric)
- Southern silty clay loam, 0 to 1 percent slopes (Predominantly Hydric)
- Rauville silty clay loam (Hydric)

Soil Indicators: Soils in the investigation area meet the criteria for thick dark surface (A12).

Hydrology Indicator: Wetland hydrology indicators identified at this wetland are high water table (A2) saturation (A3), saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC neutral test (D5).

Dominant Vegetation of Wetland: Dominant vegetation included marsh bristle grass (*Setaria parviflora*), reed canary grass and hybrid cattail (*Typha x. glauca*).

Adjacent Upland Vegetation: Dominant vegetation is cultivated Hairy vetch (*Vicia villosa*), vegetation significantly disturbed by agricultural activities.

Basis of Delineated Boundary: The boundary of the delineation was based on the presence of hydric soil indicators and the extent of hydrophytic vegetation.

Photograph of Wetland 2

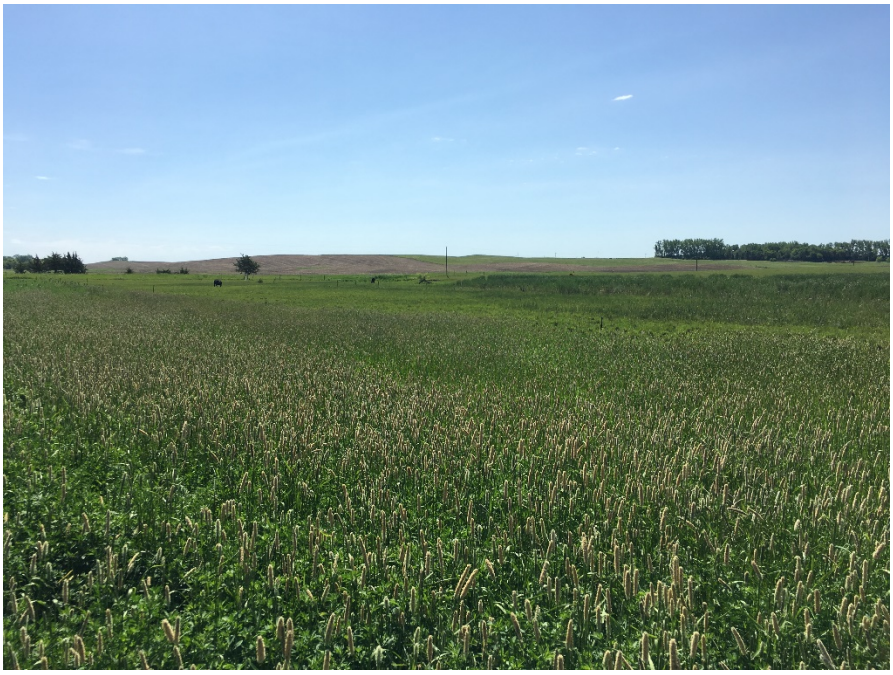

Photo Point 3 – Wetland 2. Facing southwest. Looking at the emergent wetland on the south edge of 482nd Ave.

Wetland 3

Date of Wetland Delineation: June 8, 2017

Location: Section 22, Township 113N, Range 48 West

Data Points: 3.1, 3.2

Wetland Setting: Wetland 3 is located along the embankment of 482nd Ave near the eastern boundary of the Delineation Area. Wetland 3 is entirely contained within the Delineation Area.

Wetland Type: PEM

Total Acreage within Project area: 0.12 ac

County Soil Survey Types (Hydric Rating):

- Divide loam (Predominantly Non-Hydric)

Soil Indicators: Soils in the investigation area meet the criteria for redox dark surface (F6).

Hydrology Indicator: Wetland hydrology indicators identified at this wetland are saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC neutral test (D5).

Dominant Vegetation of Wetland: Dominant vegetation included sand bar willow (*salix interior*) reed canary grass.

Adjacent Upland Vegetation: Dominant vegetation is smooth brome grass.

Basis of Delineated Boundary: The boundary of the delineation was based on the presence of the extent of hydrophytic vegetation and the topographic break line of a small depressional area.

Photograph of Wetland 3

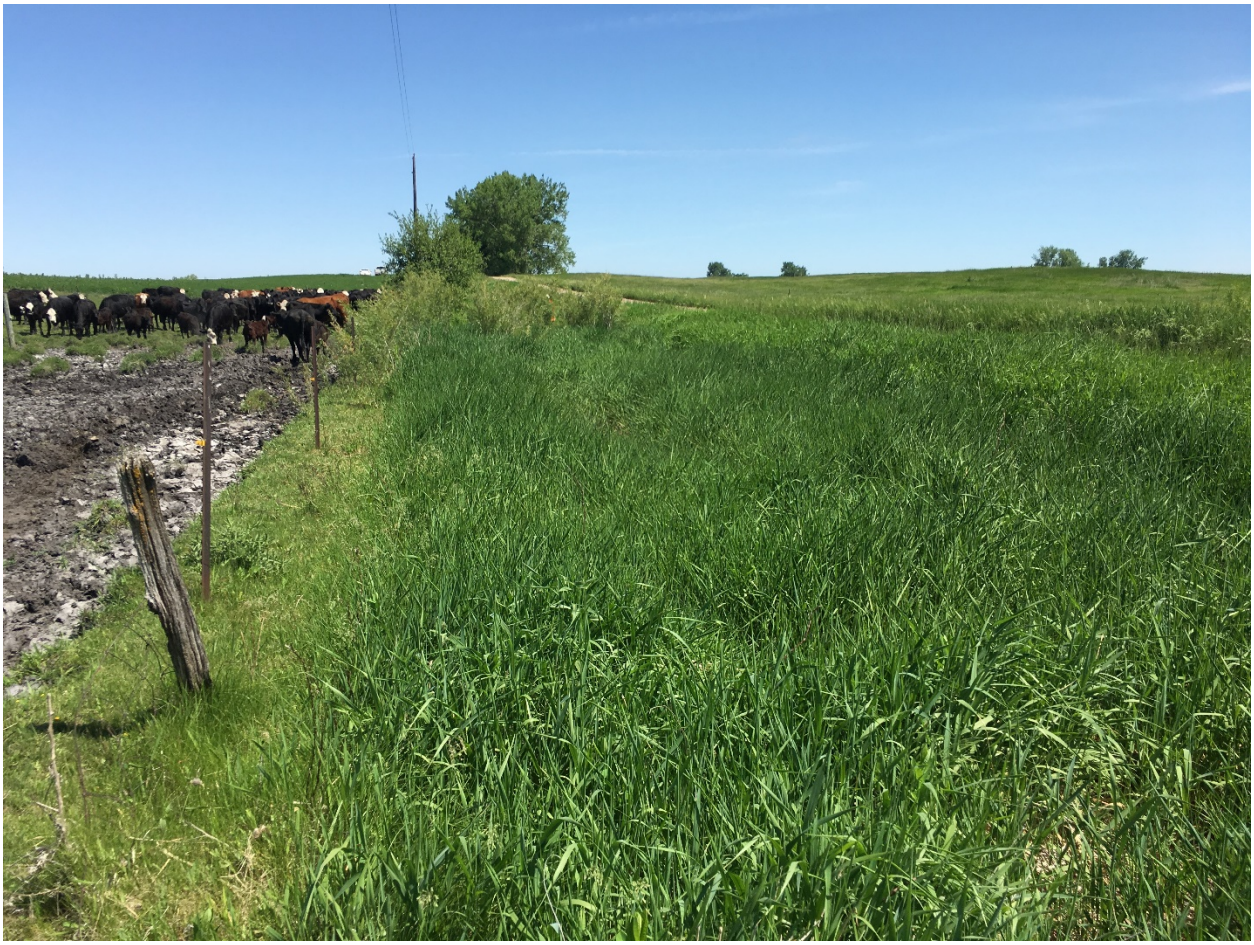

Photo Point 4 – Wetland 3. Facing north, looking at the embankment of 482nd Ave.

5 Conclusion

This delineation of wetlands and other Waters of the U.S. within the survey area were performed by HDR wetland biologists, with extensive experience with similar resources in South Dakota. Final wetland boundary determinations and jurisdictional status of all features identified in this report fall under the authority of the USACE. The results of this delineation will be incorporated into the design documents of the proposed project. Any encroachment on the features identified in this report will require coordination with the USACE and possibly other regulatory agencies.

6 References

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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
SOUTH DAKOTA REGULATORY OFFICE
28563 POWERHOUSE ROAD, ROOM 118
PIERRE, SOUTH DAKOTA 57501-6174

REPLY TO
ATTENTION OF

August 14, 2017

South Dakota Regulatory Office
28563 Powerhouse Road, Room 118
Pierre, South Dakota 57501

Otter Tail Power Company
Attn: Mark Thoma
215 South Cascade Street
Fergus Falls, Minnesota 56537

Dear Mr. Thoma:

Reference is made to the information received July 3, 2017, concerning Section 404 of the Clean Water Act permit requirements. The review area is located in the northeast quarter of Section 22, Township 113 North, Range 48 West, Deuel County, South Dakota.

Based on the information provided, we have determined that there are waters of the United States (i.e. jurisdictional waters) located within the review area. Therefore, any activity involving the discharge of dredged or fill material within the waters of the United States would require a permit from the Corps of Engineers.

An approved jurisdictional determination (JD) has been completed for your project. This JD is valid for 5 years from the date of this letter. The JD is enclosed and also may be viewed at our website. The link to the website is shown below. The JD will be available on the website within 30 days. If you are not in agreement with the JD, you may request an administrative appeal under Corps of Engineers regulations found at 33 C.F.R. 331. Enclosed you will find a Notification of Administrative Appeal Options and Process and Request for Appeal form (RFA). Should you decide to submit an RFA form, it must be received by the Corps of Engineers Northwestern Division Office within 60 days from the date of this correspondence (by October 14, 2017). It is not necessary to submit a RFA if you do not object to the JD.

You can obtain additional information about the Regulatory Program from our website:
http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/SouthDakota.aspx

If you have any questions, please feel free to contact this office at the above Regulatory Office address, or telephone Cathy Juhas at (605) 224-8531 and reference action ID NWO-2017-1197-PIE.

Sincerely,

for Steven E. Naylor
Regulatory Program Manager,
South Dakota

Enclosures

cc:
HDR Engineering, Inc. (Swenson)

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): August 8, 2017

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Omaha District, South Dakota Regulatory Office, Otter Tail Power Company Astoria Station Project Jurisdictional Determination, NWO-2017-1197-PIE

C. PROJECT LOCATION AND BACKGROUND INFORMATION: The project is located 1.5 miles northwest of Astoria, SD. The project area consists of a combination of tilled, fallow, ad pasture land with isolated patches of trees and a small creek generally running across the site to the north east.

State: South Dakota County/parish/borough: Deuel County City: Astoria
Center coordinates of site (lat/long in degree decimal format): Lat. 44.581454 N; Long. -96.564212 W
Universal Transverse Mercator: 14
Name of nearest waterbody: Lac qui Parle River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Minnesota River
Name of watershed or Hydrologic Unit Code (HUC): 07020003

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: August 8, 2017
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: 1,000 linear feet: 3 width (ft) and/or acres.
      Wetlands: 10.14 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
      Elevation of established OHWM (if known): .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) General Area Conditions:
   Watershed size: 3.58 **square miles**
   Drainage area: 3.58 **square miles**
   Average annual rainfall: 25 inches
   Average annual snowfall: 20 inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through **2** tributaries before entering TNW.

   Project waters are **30 (or more)** river miles from TNW.
   Project waters are **1 (or less)** river miles from RPW.
   Project waters are **30 (or more)** aerial (straight) miles from TNW.

[3] Supporting documentation is presented in Section III.F.
[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: Wetlands 1, 2, & 3 directly abut unnamed tributaries (RPWs) that flow northeast to the Lac qui Parle River (RPW) which flows into the Minnesota River (TNW).
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: The unnamed tributaries have been altered by extensive agricultural practices.

Tributary properties with respect to top of bank (estimate):
Average width: 3 feet
Average depth: 1 feet
Average side slopes: **3:1**. Varies greatly depending on associated uplands.

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☒ Gravel	☒ Muck
☐ Bedrock	☒ Vegetation. Type/% cover: 10	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: typical prairie drainages in an agricultural/rural interface, high silt content, eroding stream banks, small wetland buffer, farming up to banks in some areas, manipulated uplands, manipulated upland runoff, etc.
Presence of run/riffle/pool complexes. Explain: none.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **11-20**
Describe flow regime: intermittent.
Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☒ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☒ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- ☐ High Tide Line indicated by:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list):
- ☐ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: The land use for the catchment area is mostly agricultural with sparse rural development. There is a high probability that there are pollutants associated with these activities.

Identify specific pollutants, if known: Hydrocarbons, fertilizers, pesticides, herbicides.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☒ Wetland fringe. Characteristics: highly impacted by farming.
- ☒ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☒ Aquatic/wildlife diversity. Explain findings: Migratory birds, mammals, reptiles, & amphibians.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 3 wetlands that total 10.14 acres

Wetland type. Explain: palustrine/emergent.

Wetland quality. Explain: Low quality due to farming practices.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: The wetlands directly abut the unnamed tributaries (seasonal RPWs); each time a significant event passes the wetlands are inundated.

Surface flow is: **Discrete and confined**

Characteristics: .

Subsurface flow: **Unknown**. Explain findings: Likely.

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **30 (or more)** river miles from TNW.

Project waters are **30 (or more)** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **2-year or less** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: The land use for the catchment area is agricultural crops with sparse rural residences. There is a high probability that there are pollutants associated with farming activities (pesticides, herbicides, and fertilizer) & hydrocarbons from vehicles that travel on the nearby roads.

Identify specific pollutants, if known: Probable hydrocarbons, fertilizer, pesticides, & herbicides.

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☒ Vegetation type/percent cover. 30% Explain: most native vegetation removed by farming practices.

☐ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings:Migratory birds, mammals, reptiles, amphibians, and associated food webs.

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **5**
Approximately (10.14) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland 1 Y	6.81		
Wetland 2 Y	3.21		
Wetland 3 Y	0.12		

Summarize overall biological, chemical and physical functions being performed: The onsite wetlands directly abut unnamed tributaries that have an intermittent flow regime with seasonal ponding that contributes to detention of flood waters during times of high flow from precipitation events and snow melt, which helps to slow the discharge of water to downstream tributaries and reduce the velocity roughness coefficient of the streams, in turn, contributing to longer periods of normal flow versus high flow pulses. Many of the essential life cycle nutrients for the food chain originate in this up gradient ecosystem. Impacted by farming and surrounding rural conditions, the headwaters system helps to promote the structural biological, chemical and physical integrity of the downstream waters and the Minnesota River. Based on these factors, the headwater tributary system is providing a substantial effect on the Minnesota River TNW, and therefore, these waters are considered to have a significant ecological function.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Channel morphology of the unnamed tributaries as indicated in above sections suggests these waterways transport more than a specluative amount of water and sediments to downstream TNW's. Flow events are extended and predictable.

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☒ Tributary waters: **1,000** linear feet **3** width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
     - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
     - ☒ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: The wetlands within the project area are the headwaters of the intermittent unnamed tributaries, seasonal RPWs.

   Provide acreage estimates for jurisdictional wetlands in the review area: **3 wetlands that total 10.14 acres.**

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   - ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

[8]See Footnote # 3.

7. **Impoundments of jurisdictional waters.**[9]
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. **Data reviewed for JD (check all that apply -** checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Submitted by HDR Engineering, Inc.
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☒ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name:1:24K, SD-Astoria.
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☒ National wetlands inventory map(s). Cite name:.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date):ORM 2/Google Earth.
  or ☐ Other (Name & Date):Site photos provided in the delineation report dated June 2017.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .