Hub City Energy Park

Aberdeen, South Dakota

Application for an Energy Conversion Facility Permit

Docket EL26-031~~XXX~~

Appendix B – Stakeholder and Agency Consultations

November~~October~~ 2026

APPENDIX B – STAKEHOLDER AND AGENCY CONSULTATIONS

- Federal Aviation Administration ("FAA")
- Local Review Committee
- Public Open House Materials
- South Dakota Department of Agriculture and Natural Resources ("SD DANR")
- South Dakota Department of Transportation ("SD DOT")
- South Dakota Game, Fish, & Parks ("SD GFP")
- South Dakota State Historic Preservation Office ("SD SHPO")
- Tribes
- United States Army Corps of Engineers ("USACE")
- United States Department of Agriculture ("USDA") Natural Resources Conservation Service ("NRCS")
- United States Fish and Wildlife Service ("USFWS")
- Map included with Consultation Letters

SOUTH DAKOTA DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES (SD DANR)

- 8/11/26 – Pre-Application Meeting between NorthWestern and SD DANR Air Quality Division and One-Stop Permitting
- 8/31/26 – Letter from NorthWestern to the SD DANR Air Quality Division
- 8/31/26 – Letter from NorthWestern to the SD DANR One-Stop Permitting Contact
- 10/15/26 – NorthWestern Electronic Air Permit Application Submittal to SD DANR
  - Cover Letter
  - Air Permit Application
- 10/27/26 – Miscellaneous Correspondence between SD DANR and NorthWestern
- 11/3/26 – SD DANR Confirmation of Receipt of Hard-Copy of Air Permit Application

Scott Leigh

From: Babcock, Sady <Sady.Babcock@northwestern.com>
Sent: Thursday, October 15, 2026 5:14 PM
To: Rombough, Kyrik; 'Weber, Connor'; 'Brakke, Ashley'; 'samantha.olmstead@state.sd.us'
Cc: joshua.follman@northwestern.com; benjamin.sorensen; miranda.edwards@northwestern.com
Subject: New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy
Attachments: Hub_City_Energy_Park_DANR_Submittal_Cover_Letter.pdf; Hub City Energy Park Permit Application_Final_As Submitted_10-15-2026.pdf

Kyrik et al,

Attached find a New Source Review Minor Construction Permit application for the proposed Hub City Energy Park at 440 SW 135th Street in Aberdeen, South Dakota. The application requests authorization to construct and initially operate the project's proposed combustion turbines and associated auxiliary equipment. The original hard-copy application and check for the permit fee have been sent via the US Postal Service.

We are requesting a construction permit specific to Hub City Energy Park. Thank you for consideration of our application and let us know if additional information is needed to complete your review. SB

Sady Babcock
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NorthWestern Energy
Delivering a Bright Future

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October 14, 2026
South Dakota Department of Agriculture and Natural Resources
Air Quality Program
523 East Capitol
Pierre, SD 57501-3181

Re: New Source Review Minor Construction Permit Application — Hub City Energy Park, Aberdeen, South Dakota

Dear Air Quality Program:

I am submitting the enclosed New Source Review Minor Construction Permit Application and application fee for the proposed Hub City Energy Park at 440 SW 135th Street in Aberdeen, South Dakota. NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy is the applicant.

The application requests authorization to construct and initially operate the project's proposed combustion turbines and associated auxiliary equipment. It includes the project description, equipment and emissions information, regulatory applicability review, proposed permit conditions, completed application forms, potential-to-emit calculations, and facility plot plan.

The project is adjacent to the Aberdeen Generating Station, which operates under Title V Operating Permit No. 28.0801-03. As described in the application, NorthWestern plans to submit a Title V permit modification application within 12 months after operation of the first turbine begins. This submittal requests a construction permit specific to Hub City Energy Park.

Please review the application and let us know if additional information is needed to complete your review. We respectfully request DANR's consideration and issuance of the construction permit.

Please contact me if you have questions or need additional information regarding this application:

Joshua Follman, Director, Energy Supply Project Development
Joshua.Follman@northwestern.com
406-498-3617

Sincerely,

/s/ JOSH FOLLMAN

Joshua Follman
Director, Energy Supply Project Development

Enclosure: New Source Review Minor Construction Permit Application for Hub City Energy Park, Revision 0

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New Source Review Minor Construction Permit Application for Hub City Energy Park

Revision: 0

NorthWestern Energy

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Acronyms and Abbreviations

AGS	Aberdeen Generating Station
CARB	California Air Resources Board
CEMS	Continuous Emissions Monitoring System
CFR	*Code of Federal Regulations*
CH_4	methane
CI	compression ignition
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent(s)
EPA	U.S. Environmental Protection Agency
g	gram(s)
GHG	greenhouse gas
H_2SO_4	sulfuric acid
HAP	hazardous air pollutant
hp	horsepower
hp-hr	horsepower hours
HVAC	heating, ventilation, and air conditioning
kPa	kilo pascal
kW-hr	kilowatt-hours
l/cyl	liter(s) per cylinder
lb	pound
lb/hour	pound(s) per hour
MACT	maximum achievable control technology
MMBtu/hr	million British thermal units per hour
MW	megawatt(s)
N_2O	nitrous oxide
NESHAP	National Emission Standards for Hazardous Air Pollutants
NH_3	ammonia

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NMHC	nonmethane hydrocarbon
NorthWestern	NorthWestern Energy
NO_x	nitrogen oxide
NSPS	New Source Performance Standards
NSR	New Source Review
O_2	oxygen
PM	particulate matter
PM_{10}	particulate matter less than 10 micrometers in aerodynamic diameter
$PM_{2.5}$	particulate matter less than 2.5 micrometers in aerodynamic diameter
ppm	part(s) per million
ppmvd	part(s) per million by volume, dry
Project	Hub City Energy Park
Project Site	Hub City Energy Park location
psi	pounds per square inch
PSD	prevention of significant deterioration
PTE	potential to emit
RICE	reciprocating internal combustion engine(s)
RMP	Risk Management Plan
SD DANR	South Dakota Department of Agriculture and Natural Resources
SO_2	sulfur dioxide
ton	short ton – 2,000 pounds
tpy	ton(s) per year
ULSD	ultra-low sulfur diesel
VOC	volatile organic compound
VOL	volatile organic liquid

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1. Background and Project Description

NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy (NorthWestern) is proposing the construction and operation of the Hub City Energy Park (the Project) to support the future capacity and reliability needs of its South Dakota electric system. Located north of the existing Aberdeen Generating Station (AGS) near Aberdeen, South Dakota, the Project would add generation capacity that can be dispatched efficiently and flexibly, helping ensure reliable service during periods of high electricity demand. The Project will be located at 440 SW 135th Street, Aberdeen SD, 57401 (Project Site).

The Project will include up to seven natural gas-fired simple cycle combustion turbines rated at approximately 37 megawatts (MW) each (at average ambient temperature and site conditions), as well as miscellaneous auxiliary equipment, including two emergency diesel generators, one fire pump, two dew point heaters, three diesel fuel tanks, and heating, ventilation, and air conditioning (HVAC) and comfort heating equipment. The natural gas-fired turbines will be equipped with a multipollutant catalyst system to control and minimize air emissions for NO_x, carbon monoxide (CO), and volatile organic compounds (VOCs). The use of natural gas will limit emissions of particulate matter less than 10 micrometers in aerodynamic diameter (PM_{10}), particulate matter less than 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$), and sulfur dioxide (SO_2). The Project Site will be directly across the street from the existing AGS. Development of the Project is anticipated to occur over approximately 10 years, with the initial phase including the construction of three of the seven turbines.

The construction and operation of the Project will result in emissions of regulated air pollutants and therefore requires a construction permit pursuant to South Dakota Department of Agriculture and Natural Resources (SD DANR) Title 74, Article 36, Chapter 20, Section 02. This application is being submitted to obtain authorization for construction and initial operation of the Project. Because the Project Site will be adjacent to the existing AGS and will share common ownership and industrial grouping, the two facilities will be considered a single stationary source for air permitting purposes. As such, the existing AGS Title V Operating Permit (Permit 28.0801-03) will be modified to incorporate the Project within 12 months following commencement of operation of the first turbine. Although the Project Site and AGS are located in close proximity to one another and contribute to the same regional electric system, the Project was independently evaluated and selected through NorthWestern's resource planning process to address future capacity and reliability needs. Accordingly, the Project was developed through a distinct and separate planning process and schedule from the existing AGS; therefore, this application requests a construction permit specific to the Project.

As emissions from the Project are less than the applicable prevention of significant deterioration (PSD) major source significance thresholds for all regulated New Source Review (NSR) pollutants, the Project is a minor source for PSD. While greenhouse gas (GHG) emissions from the Project are estimated to exceed 75,000 tons per year on a carbon dioxide equivalent (CO_2e) basis, the Project does not result in a significant emissions increase for any other regulated NSR pollutant. Therefore, the Project is not subject to PSD review for GHG emissions alone. As a result, the Project will be permitted as a minor modification to the existing AGS, which is a major Title V stationary source. The existing AGS is a minor source for PSD.

The sections that follow in this minor source permit application for the Project provide a detailed summary of the equipment and associated emissions, a review of the applicability of both state and federal regulations, and the permit limitations being requested for the new units. Appendix A provides SD DANR required construction permit forms, and Appendix B provides detailed potential to emit (PTE) calculations. Appendix C provides a drawing showing the Project Site and emission source locations.

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2. Equipment and Emissions

The details that follow outline the equipment for the Project along with the associated fuel use, control equipment, and operational expectations. **Table 2-1** lists emission units included in the Project. Section 2.2 provides a Project-wide emissions summary. Appendix B provides detailed PTE calculations for the Project.

Table 2-1. New Emission Units

Emission Unit ID	Equipment Description	Design Rating
HUB-5	Titan 350 52500S GSC NG Turbine	37 MW (average ambient temperature and site conditions)
HUB-6	Titan 350 52500S GSC NG Turbine	37 MW (average ambient temperature and site conditions)
HUB-7	Titan 350 52500S GSC NG Turbine	37 MW (average ambient temperature and site conditions)
HUB-8	Titan 350 52500S GSC NG Turbine	37 MW (average ambient temperature and site conditions)
HUB-9	Titan 350 52500S GSC NG Turbine	37 MW (average ambient temperature and site conditions)
HUB-10	Titan 350 52500S GSC NG Turbine	37 MW (average ambient temperature and site conditions)
HUB-11	Titan 350 52500S GSC NG Turbine	37 MW (average ambient temperature and site conditions)
HUB-FP	250-hp Diesel Emergency Fire Pump	1.42 MMBtu/hr
HUB-EG1	800-kW Emergency Diesel Generator	7.9 MMBtu/hr
HUB-EG2	1,250-kW Emergency Diesel Generator	12.1 MMBtu/hr
HUB-DPH1	Dew Point Heater	7 MMBtu/hr
HUB-DPH2	Dew Point Heater	9 MMBtu/hr
DG-TNK-001	Diesel Storage Tank[a]	2,000 gallons
DG-TNK-002	Diesel Storage Tank[a]	2,000 gallons
FP-TNK-001	Diesel Storage Tank[a]	500 gallons
HUB_HVAC	Comfort Heaters and HVAC Equipment [b]	less than 3.5 MMBtu/hr each

[a] Emissions from the diesel tanks are less than 2 tpy; therefore, they are not subject to construction permit requirements. These new units are included for completeness.

[b] All heaters and HVAC equipment are rated less than 3.5 MMBtu/hr each. Emissions from the heaters and HVAC equipment are less than 2 tpy each; therefore, they are not subject to construction permit requirements. These new units are included for completeness.

hp = horsepower

MMBtu/hr = million British thermal units per hour

tpy = ton(s) per year

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2.1 Project Equipment

As listed in Table 2-1, the Project includes up to:

- Seven new Titan 350 natural gas combustion turbines rated at approximately 37 MW each (average ambient temperature and site conditions)
- One diesel-powered fire pump
- Two diesel emergency generators
- Two natural gas fueled dew point heaters.

Additional equipment with exempt emissions will include one 500-gallon diesel storage tank, two 2,000-gallon diesel storage tanks, and HVAC equipment.

2.1.1 Titan 350 Solar Turbines

NorthWestern is planning to install up to seven natural gas-powered Solar Turbines Titan 350 combustion turbines each rated at approximately 37 MW each at average ambient temperature and site conditions (HUB-5 to HUB-11). Each combustion turbine will consist of a compressor, combustor, and turbine. After filtration, air will pass through the compressor before entering the combustor and combining with the fuel. The combustion products and compressed air will pass through the turbine, which will drive both the compressor and the generator. The exhaust gas temperature from each turbine will be tempered with ambient air and the exhaust gas will enter the multipollutant catalyst system at high temperatures to control emissions of NO_x, CO, and VOCs.

Good combustion practices and burning of pipeline-quality natural gas will minimize emissions for other pollutants.

Table 2-2 provides the steady state stack emission rates for the gas turbines.

Table 2-2. Titan 350 Combustion Turbine Stack Emission Rates

Pollutant	Emissions Control Description	Normal Stack Emission Rates
NO_x	Multipollutant catalyst system	3.00 ppmvd @15% O_2
CO	Multipollutant catalyst system	6.00 ppmvd @15% O_2
VOC	Multipollutant catalyst system	1.50 ppmvd @15% O_2
Total $PM/PM_{10}/PM_{2.5}$	Good combustion practices; Use of pipeline-quality natural gas	3.96 lb/hour
SO_2	Use of pipeline-quality natural gas	0.5 grain sulfur/100 standard cubic feet of natural gas

lb/hour = pound(s) per hour

O_2 = oxygen

ppmvd = part(s) per million by volume, dry

2.1.1.1 Operating Schedule

Based on the projected power demand, NorthWestern proposes to limit the hours of operation for the gas turbines as described below. The operational limits are designed to ensure that emissions from the Project remain below PSD major source threshold of 250 tons per year (tpy):

- Turbine Units 1 through 3 (HUB-5 to HUB-7): 260 startup and shutdown events per year; 4,000 hours of normal operation per year, per turbine.

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- Turbine Units 4 through 7 (HUB-8 to HUB-11): 217 startups and shutdown events per year and 4,000 hours of normal operations per year, per turbine.

For the purposes of this permit, startup is defined as the period of initial firing until the turbine meets the steady state emission limits listed in Table 2-2. Shutdown is defined as the period after the initiation of the turbine shutdown sequence and ending with the cessation of firing of the gas turbine.

2.1.1.2 Emission Estimate Methodology

Criteria pollutant emissions for startup, shutdown, and normal operations were calculated using vendor-provided emission rates.

Emissions of formaldehyde were based on vendor-provided data. The remaining hazardous air pollutant (HAP) emissions were calculated using emission factors from U.S. Environmental Protection Agency (EPA) AP–42 Section 3.1, Stationary Gas Turbines, Table 3.1-3 (EPA 2024) with 50% control efficiency for the multipollutant catalyst system. This control efficiency was based on vendor-provided information.

GHG emission estimates of carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are based on *Code of Federal Regulations* Title 40, Part 98.33 (40 CFR 98.33) Tables C-1 and C-2 factors for natural gas. GHG emissions were converted to CO_2 equivalents (CO_2e) using the global warming potentials that became effective on January 1, 2025.

2.1.2 Diesel Emergency Generator Engines

The Project includes the installation of one 800-kW Tier 2 certified diesel generator engine (HUB-EG1) and one 1,250-kW Tier 2 certified diesel emergency generator engine (HUB-EG2).

2.1.2.1 Emission Estimate Methodology

The PTE emissions of VOC, NO_x, CO, and PM were calculated using factors from 40 CFR 60, Subpart IIII, Emission Standards for Stationary Internal Combustion Engines, which are equivalent to the Tier 2 emission standard for compression ignition (CI) reciprocating internal combustion engine (RICE). Emissions for NO_x and VOC were determined by applying the California Air Resources Board (CARB) methodology that the combined 'NO_x + nonmethane hydrocarbon (NMHC)' emission standard breaks down to 95% NO_x and 5% VOC (CARB 2011). As there are no Tier 2 standards for SO_2 and HAPs, emissions for these pollutants were calculated using the EPA emission factors from AP-42 Section 3.4, Large Stationary Diesel and All Stationary Dual-fuel Engines, Tables 3.4-1, 3.4-3, and 3.4-4 (EPA 2024). GHG emissions (CO_2e) were calculated by converting CO_2, CH_4, and N_2O using 40 CFR 98.33 Tables C-1 and C–2 for diesel fuel and applying global warming potentials that were effective starting January 1, 2025. The emergency generators will only use ultra-low sulfur diesel (ULSD) fuel.

Aside from emergency use, the emergency engines will operate for no more than 100 hours per year per unit for maintenance and testing purposes. For PTE calculations, the hours of operation per engine were assumed to be 100 hours per year.

2.1.3 Emergency Fire Pump

The Project includes the installation of one 250-horsepower (hp) diesel emergency fire pump engine (HUB-FP).

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2.1.3.1 Emission Estimate Methodology

The PTE emissions of VOC, NO_x, CO, and PM were calculated using factors from 40 CFR 60, Subpart IIII, Emission Standards for Stationary Fire Pumps, which are equivalent to the Tier 3 emission standard for CI RICE. The combined 'NO_x + NMHC' emission factor contains 95% NO_x and 5% VOC in accordance with CARB methodology (CARB, 2011). SO_2 emissions were calculated by assuming a sulfur content of 15 ppm in ULSD. HAP emissions were calculated using EPA emission factors from AP-42 Section 3.3, Gasoline and Diesel Industrial Engines, 3.3-2 (EPA 2024). GHG emissions (CO_2e) were calculated by converting CO_2, CH_4, and N_2O using 40 CFR 98.33 Tables C-1 and C-2 for diesel fuel.

Outside of emergency use, the fire pump will operate for no more than 100 hours per year for maintenance and testing purposes. For PTE calculations, the fire pump hours of operation were assumed to be 100 hours per year.

2.1.4 Dew Point Heaters

The Project includes the installation of one 7 million British thermal units per hour (MMBtu/hr) natural gas dew point heater (HUB–DPH1) and one 9 MMBtu/hr natural gas dew point heater (HUB-DPH2). The natural gas dew point heaters will be used to raise the temperature of the natural gas to a level exceeding the dew point to prevent condensation of liquids in the fuel gas.

Emissions for these units were calculated based on the applicable emission factors from EPA AP–42 Section 1.4, Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4 (EPA 2024). For NO_x and CO emissions, the combustor type was assumed to be small boilers less than 100 MMBtu/hour heat input with low NO_x burner control. GHG emissions (CO_2e) were calculated by converting CO_2, CH_4, and N_2O using 40 CFR 98.33 Tables C-1 and C-2 for natural gas. GHG emissions were converted to CO_2 equivalents (CO_2e) using the global warming potentials that became effective on January 1, 2025.

For PTE calculations, the dew point heaters were assumed to operate for 8,760 hours per year, per heater at full load. It is expected that the actual operating hours of the dew point heaters will be less than this conservative estimate.

2.1.5 Diesel Storage Tanks

Emissions from the diesel storage tanks were estimated using EPA TANKS 5.3 software (2026). Throughputs were conservatively estimated based on one turnover per day for the 2,000-gallon and 500-gallon diesel tanks that will support the emergency diesel engines and diesel fire pump, respectively. Based on these criteria, the PTE emissions for each of the tanks are less than 2 tpy for VOCs; therefore, these units are exempt from requirements for a construction permit. They are, however, included in the PTE for completeness purposes and to provide a Project-wide PTE.

2.1.6 HVAC and Comfort Heating Equipment

Comfort heating and HVAC equipment will be installed onsite. All HVAC and heating units are expected to have a heat input capability less than 3.5 MMBtu/hr and emissions less than 2 tpy for each unit for all criteria pollutants and HAPs. As such, these units are exempt from the requirement for a construction permit but will be included in the PTE for completeness purposes and to provide a Project-wide PTE. All HVAC and heating equipment are expected to be natural gas-fired or electric.

Emissions from the HVAC and heating units were calculated using the fuel combustion emission factors provided in EPA AP-42, Section 1.4, Natural Gas Combustion. Criteria pollutant emissions were estimated by applying the emission factors from AP-42 Table 1.4-1, Residential Furnaces for units with a heat input

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rating less than 0.3 MMBtu/hr and emission factors from Table 1.4-1, Small Uncontrolled Boilers were used for those units with a heat input rating greater than 0.3 MMBtu/hr. PM, SO_2, and VOC emissions were estimated using emission factors in AP-42 Table 1.4-2. HAP emissions were estimated using emission factors from AP-42 Table 1.4-3. Potential emissions were calculated assuming continuous operation (8,760 hours per year) at maximum heat input and were included in the Project-wide PTE.

2.2 Emissions Summary

Using the methodologies described in Section 2.1, NorthWestern has calculated PTE emissions for the Project for the operation scenario described in Section 2.1.1.1. **Table 2–3** summarizes the Project's PTE emissions for criteria pollutants and GHG, and **Table 2-4** summarizes the Project's potential HAP emissions. Appendix B provides detailed emissions calculations.

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Table 2-3. Project-wide Potential to Emit Criteria & PSD Pollutant Summary

Emissions Source	VOC	NO_X	CO	SO_2	Total PM	Total PM_{10}	Total $PM_{2.5}$	CO_2e	H_2SO_4
	tpy								
Existing Permitted Emissions Sources[a]	19.2	101.1	230.9	3.0	30.5	30.5	30.4	158,991	—
New Emissions Sources									
Titan 350 Natural Gas Combustion Turbine – Units 1 through 3	9.04	28.51	33.14	3.32	15.71	15.71	15.71	289,362	1.64
Titan 350 Natural Gas Combustion Turbine Startup and Shutdown – Units 1 through 3	4.26	8.83	70.71	0.13	0.87	0.87	0.87	—	—
Titan 350 Natural Gas Combustion Turbine – Units 4 through 7	12.05	38.02	44.18	4.43	20.94	20.94	20.94	383,414	2.19
Titan 350 Natural Gas Combustion Turbine Startup and Shutdown – Units 4 through 7	4.74	9.83	78.69	0.15	0.97	0.97	0.97	—	—
Diesel Fire Pump – 250 hp	4.10E-03	0.08	0.07	1.10E-04	4.0E-03	4.0E-03	4.0E-03	11.63	—
Diesel Emergency Generator – 800 kW	0.032	0.60	0.34	7.23E-04	0.020	0.020	0.020	65	—
Diesel Emergency Generator – 1,250 kW	0.049	0.94	0.53	1.13E-03	0.031	0.031	0.031	99	—
Natural Gas Dew Point Heater – 7 MMBtu/hr	0.17	1.59	2.66	0.019	0.24	0.24	0.24	3,588	—
Natural Gas Dew Point Heater – 9 MMBtu/hr	0.22	2.04	3.42	0.024	0.31	0.31	0.31	4,613	—
New Exempt Emission Sources									
2,000 Gallon Diesel Storage Tank for 800-kW Emergency Engine	1.7E-03	—	—	—	—	—	—	—	—
2,000 Gallon Diesel Storage Tank for 1,250-kW Emergency Engine	1.7E-03	—	—	—	—	—	—	—	—

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Emissions Source	VOC	NO_X	CO	SO_2	Total PM	Total PM_{10}	Total $PM_{2.5}$	CO_2e	H_2SO_4
	tpy								
500 Gallon Diesel Storage Tank for Fire Pump	5.84E-04	—	—	—	—	—	—	—	—
Heaters and HVAC Equipment	0.28	5.03	4.10	0.030	0.38	0.38	0.38	7,201	
Total Project PTE	**30.85**	**95.46**	**237.85**	**8.11**	**39.47**	**39.47**	**39.47**	**688,295**	**3.83**
PSD Threshold	*250*	*250*	*250*	*250*	*250*	*250*	*250*	—	*7*
Significant for PSD?	No	No	No	No	No	No	No	—	No

[a] Existing emissions are based on equipment permitted under Title V Operating Permit #28.0801-03.

Notes:

Numbers are rounded to the nearest hundredth.

— = not applicable

H_2SO_4 = sulfuric acid

MMBtu/hr = million British thermal unit(s) per hour

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Table 2-4. Project-wide Potential to Emit HAP Pollutant Summary

Pollutant	Combustion Turbine Units 1 through 3	Combustion Turbine Units 4 through 7	Fire Pump – 250 hp	Emergency Generator – 800-kW	Emergency Generator – 1,250-kW	Dew Point Heater – 7 MMBtu/hr	Dew Point Heater – 9 MMBtu/hr	Total HAP
	tpy							
1,3-Butadiene	5.31E-04	7.04E-04	—	—	—	—	—	1.24E-03
2-Methylnaphthalene	—	—	—	—	—	7.61E-07	9.78E-07	1.74E-06
3-Methylchloranthrene	—	—	—	—	—	5.71E-08	7.34E-08	1.30E-07
7,12-Dimethylbenz(a)anthracene	—	—	—	—	—	5.07E-07	6.52E-07	1.16E-06
Acenaphthene	—	—	1.01E-07	1.85E-06	2.82E-06	5.71E-08	7.34E-08	4.90E-06
Acenaphthylene	—	—	3.60E-07	3.65E-06	5.57E-06	5.71E-08	7.34E-08	9.71E-06
Acetaldehyde	4.94E-02	6.55E-02	5.45E-05	9.96E-06	1.52E-05	—	—	0.11
Acrolein	7.91E-03	1.05E-02	6.57E-06	3.12E-06	4.75E-06	—	—	0.018
Anthracene	—	—	1.33E-07	4.86E-07	7.42E-07	7.61E-08	9.78E-08	1.53E-06
Benz(a)anthracene	—	—	1.19E-07	2.46E-07	3.75E-07	5.71E-08	7.34E-08	8.71E-07
Benzene	1.48E-02	1.96E-02	6.63E-05	3.07E-04	4.68E-04	6.66E-05	8.56E-05	0.036
Benzo(b)fluoranthene	—	—	7.04E-09	4.39E-07	6.69E-07	5.71E-08	7.34E-08	1.25E-06
Benzo(a)pyrene	—	—	1.34E-08	1.02E-07	1.55E-07	3.80E-08	4.89E-08	3.57E-07
Benzo(g,h,i)perylene	—	—	3.48E-08	2.20E-07	3.35E-07	3.80E-08	4.89E-08	6.77E-07
Benzo(k)fluoranthene	—	—	1.10E-08	8.62E-08	1.31E-07	5.71E-08	7.34E-08	3.59E-07
Chrysene	—	—	2.51E-08	6.05E-07	9.23E-07	5.71E-08	7.34E-08	1.68E-06
Dibenzo(a,h)anthracene	—	—	4.14E-08	1.37E-07	2.09E-07	3.80E-08	4.89E-08	4.74E-07
Dichlorobenzene	—	—	—	—	—	3.80E-05	4.89E-05	1.48E-04
Ethylbenzene	3.95E-02	5.24E-02	—	—	—	—	—	9.19E-02

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Pollutant	Combustion Turbine Units 1 through 3	Combustion Turbine Units 4 through 7	Fire Pump – 250 hp	Emergency Generator – 800-kW	Emergency Generator – 1,250-kW	Dew Point Heater – 7 MMBtu/hr	Dew Point Heater – 9 MMBtu/hr	Total HAP
	tpy							
Fluoranthene	—	—	5.41E-07	1.59E-06	2.43E-06	9.51E-08	1.22E-07	4.78E-06
Fluorene	—	—	2.08E-06	5.06E-06	7.72E-06	8.88E-08	1.14E-07	1.51E-05
Formaldehyde	5.40E-01	7.16E-01	8.39E-05	3.12E-05	4.76E-05	2.38E-03	3.06E-03	1.27E+00
Hexane	—	—	—	—	—	5.71E-02	7.34E-02	0.22
Indeno(1,2,3-cd)pyrene	—	—	2.67E-08	1.64E-07	2.50E-07	5.71E-08	7.34E-08	5.70E-07
Naphthalene	1.61E-03	2.13E-03	6.03E-06	5.14E-05	7.84E-05	1.93E-05	2.49E-05	3.95E-03
PAH	2.72E-03	3.60E-03	—	—	—	—	—	6.32E-03
Phenanthrene	—	—	2.09E-06	1.61E-05	2.46E-05	5.39E-07	6.93E-07	4.41E-05
Propylene	—	—	1.83E-04	1.10E-03	1.68E-03	—	—	2.97E-03
Propylene Oxide	3.58E-02	4.75E-02	—	—	—	—	—	8.33E-02
Pyrene	—	—	3.40E-07	1.47E-06	2.24E-06	1.59E-07	2.04E-07	4.41E-06
Toluene	1.61E-01	0.21	2.91E-05	1.11E-04	1.69E-04	1.08E-04	1.39E-04	0.37
Xylenes	7.91E-02	0.10	2.03E-05	7.63E-05	1.16E-04	—	—	0.18
Arsenic	—	—	—	—	—	6.34E-06	8.15E-06	1.45E-05
Beryllium	—	—	—	—	—	3.80E-07	4.89E-07	8.70E-07
Cadmium	—	—	—	—	—	3.49E-05	4.48E-05	7.97E-05
Chromium	—	—	—	—	—	4.44E-05	5.71E-05	1.01E-04
Cobalt	—	—	—	—	—	2.66E-06	3.42E-06	6.09E-06
Manganese	—	—	—	—	—	1.20E-05	1.55E-05	2.75E-05
Mercury	—	—	—	—	—	8.24E-06	1.06E-05	1.88E-05
Nickel	—	—	—	—	—	6.66E-05	8.56E-05	1.52E-04
Selenium	—	—	—	—	—	7.61E-07	9.78E-07	1.74E-06

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Pollutant	Combustion Turbine Units 1 through 3	Combustion Turbine Units 4 through 7	Fire Pump – 250 hp	Emergency Generator – 800-kW	Emergency Generator – 1,250-kW	Dew Point Heater – 7 MMBtu/hr	Dew Point Heater – 9 MMBtu/hr	Total HAP
	tpy							
Lead	—	—	—	—	—	1.59E-05	2.04E-05	3.62E-05
Total Project PTE (tpy) [a]	**0.93**	**1.24**	**4.56E-04**	**1.73E-03**	**2.63E-03**	**5.99E-02**	**7.70E-02**	**2.40**
							Existing Permitted HAP Emissions [b]	**5.30**

[a] New exempt emission source HAP emission details are included in Appendix B.
[b] Existing emissions are based on equipment permitted under Title V Operating Permit #28.0801-03.

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3. Regulatory Overview

This section summarizes relevant state and federal air quality permitting and compliance requirements applicable to the Project.

3.1 Air Quality Construction Permit

According to SD DANR Title 74, Article 36, Chapter 20, Section 02, "A person may not construct, install, modify, or operate any source or unit likely to cause the emission of air pollutants into the ambient air or any equipment that prevents or controls the emission of air pollutants into the ambient air until a construction permit has been issued by the board or the secretary."

NorthWestern is proposing to construct, install, and operate new emission sources adjacent to the existing AGS facility and has therefore prepared and is submitting this air quality construction permit application in compliance with the SD DANR Air Pollution Control Program requirements.

3.2 Title V Operating Permit Program

The NorthWestern AGS facility operates under a Title V major source operating permit (permit number 28.0801-03). NorthWestern will submit a Title V permit modification application within 12 months after operation of the first emission unit begins, in accordance with SD DANR Title 74, Article 36, Chapter 05, Section 08 (SD DANR 74:36:05:08).

3.3 Source Designation

The Project is in Aberdeen, South Dakota, which is designated as attainment or unclassified for all criteria pollutants regulated under the Clean Air Act. Therefore, NorthWestern's facility is not subject to Nonattainment NSR.

According to 40 CFR 52.21, a PSD review is applicable to the "construction of any new major stationary sources or any project at an existing major stationary source in an area designated as attainment or unclassifiable." Based on the estimated emissions of regulated pollutants presented in Table 2-2 and Table 2-3 above, all criteria pollutants emissions are less than 250 tons a year; therefore, a PSD review is not required for this Project.

3.4 South Dakota Air Quality Standards and Regulations

This section describes the regulations applicable to the Project, as set forth at SD DANR Title 74, Article 36.

3.4.1 SD DANR 74:36:07:14. Standards of performance for volatile organic liquid storage vessels for which construction, reconstruction, or modification commenced after July 23, 1984, and on or before October 4, 2023.

This section references the standards of performance for volatile organic liquid (VOL) storage vessels, including petroleum liquid storage vessels for which construction, reconstruction, or modification began after July 23, 1984, as outlined in 40 CFR Part 60, Subpart Kb (July 1, 2018). NorthWestern will install three diesel storage tanks to support operation of the diesel emergency generator engines and diesel fire

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pump. As the diesel storage tanks will be installed after October 4, 2023, the diesel storage tanks will not be subject to 40 CFR Subpart Kb.

3.4.2 SD DANR 74:36:07:14.01 Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after October 4, 2023.

This section references the standards of performance for VOL storage vessels including petroleum liquid storage vessels for which construction, reconstruction, or modification began after October 4, 2023, as outlined in 40 CFR Part 60, Subpart Kc (October 14, 2024). NorthWestern will install three diesel storage tanks to support operation of the diesel emergency generator engines and diesel fire pump. The diesel storage tanks will not be subject to Subpart Kc as the capacity and vapor pressure measurements are less than the applicability thresholds described in Subpart Kc.

3.4.3 SD DANR 74:36:07:88. Standards of performance for stationary compression ignition internal combustion engines.

This section references the standards of performance for stationary CI internal combustion engines as outlined in 40 CFR Part 60, Subpart IIII (July 1, 2018). The CI engines include the diesel fire pump and two diesel emergency generators (HUB-EG1, HUB-EG2, and HUB-FP) and will be subject to and comply with applicable Subpart IIII requirements as detailed further in Section 3.5.

3.4.4 SD DANR 74:36:07:89. Standards of performance for stationary combustion turbines.

This section references the standards of performance for stationary gas turbines as outlined in 40 CFR Part 60, Subpart KKKK (July 1, 2024). NorthWestern will install seven natural gas combustion turbines which will be subject to and comply with Subpart KKKKa as it is the updated applicable regulation for newly constructed turbines as of December 14, 2025.

3.4.5 SD DANR 74:36:20:01 and 74:36:20:02. Construction permit applicability.

The regulations state that a person may not construct, install, modify, or operate any source or unit likely to emit air pollutants into the ambient air or any equipment that prevents or controls the emission of air pollutants into the ambient air until a construction permit has been issued by the board or the secretary.

The Project will result in emissions and therefore this application is being submitted to obtain a minor construction permit for the Project.

3.4.6 SD DANR 74:36:20:04. Emission unit exemptions.

Emission units meeting the criteria contained in this section are exempt from inclusion in a construction permit. In accordance with SD DANR 74:36:20:04(7) and (8), a unit with criteria pollutant PTE less than 2 tpy and HAP PTE less than 2 tpy before any controls are exempt from inclusion in a construction permit. Emission estimates from exempt sources must still be included in the application.

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The three diesel storage tanks, comfort heating equipment, and HVAC equipment meet these criteria as both uncontrolled criteria and HAP emissions are less than 2 tpy for each emission unit. As a result, these sources are considered exempt from construction permit requirements. Emissions from these sources were estimated and included in the facility-wide PTE inventory.

3.4.7 SD DANR 74:36:20:07. Required contents of complete application for a construction permit

An application for a construction permit pertaining to a new source or modification must include the following information to be considered a complete application:

- General company information, including company name and address or the plant name and address if different from the company name; owner's name and agent; and plant site manager or contact.
- A description of the plant and its processes and products.
- The following information on emissions:
  - Identification and description of all emission units.
  - Fuels, fuel use, raw materials, and production rates.
  - Identification and description of air pollution control equipment.
  - Limitations on source operation affecting emissions or any work practice standards.
  - Other information required by any applicable requirements, including information related to stack parameters.
- If available, a copy of any prepared plans and the specifications of any equipment or other facilities that may affect the source, including pollution control devices.
- A signed and notarized certification of applicant form.
- The results of any air dispersion modeling required by the department.
- The results of any stack performance testing required by the department.
- Any other information requested by the department that is relevant to determining compliance with the act or the Clean Air Act.
- The application must be signed by the responsible official or designated representative.

NorthWestern is submitting this construction permit application for the Project in accordance with these requirements. The permit application includes:

- General company Information
- Project description
- Emissions Information for the Project emission units
- Summary of applicable state and federal air quality regulations
- Control technology review
- Requested permit conditions
- Notarized and signed application forms

3.5 Federal Regulations

This section outlines federal regulations.

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3.5.1 New Source Performance Standards (40 CFR Part 60)

Title 40 CFR Part 60 New Source Performance Standards (NSPS) apply to the owner or operator of any stationary source that contains an affected facility, the construction or modification of which is began after the date of publication in Part 60 of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

3.5.1.1 40 CFR Part 60, Subpart A. General Provisions

The provisions of Subpart A apply to sources subject to a standard under 40 CFR Part 60. Applicability of the requirements contained in Subpart A are dependent on and listed in the source-specific subparts.

3.5.1.2 40 CFR Part 60, Subpart Dc. Standards of Performance for Small Industrial–Commercial-Institutional Steam Generating Units

Subpart Dc applies to "steam generating units" equal to or greater than 10 MMBtu/hour and less than 100 MMBtu/hour that began construction, modification, or reconstruction after June 9, 1989.

The dew point heaters are natural gas-fired units with a maximum heat input capacity of 7 MMBtu/hour and 9 MMBtu/hour each. Because the dew point heaters are rated at less than 10 MMBtu/hr, the requirements of Subpart Dc are not applicable. In addition, the comfort heating and HVAC equipment at the Project Site will have a maximum heat input capacity less than 3.5 MMBtu/hr and Subpart Dc will not be applicable.

3.5.1.3 40 CFR Part 60, Subpart GG. Standards of Performance for Stationary Gas Turbines.

Subpart GG applies to all stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million British thermal units) per hour, based on the lower heating value of the fuel-fired and began construction, modification, or reconstruction after October 3, 1977. In accordance with Part 60.4305(b), the combustion turbines are subject to Subpart KKKKa and are therefore not subject to NSPS under Subpart GG.

3.5.1.4 40 CFR Part 60, Subpart IIII. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Subpart IIII applies to stationary CI RICE and the manufacturers and/or owners and operators of these engines. Subpart IIII is applicable to the emergency fire pump (HUB-FP) and the emergency engines (HUB-EG1 and HUB-EG2) which are classified as CI RICE.

Emission Standards

This section outlines emissions standards.

Fire Pump

Fire pump diesel emergency engines rated at 250 hp with a model year of 2009 or later, and a displacement of 1.48 liters per cylinder (l/cyl), which is less than the 30 liters per cylinder threshold, must meet the following emission requirements [*Part 60.4205(c) and Table 4]*:

- 4.0 (3.0) grams (g) NMHC+NO_x/kilowatt-hours (kW-hr) (g/hp-hr)
- 3.5 (2.6) g CO/kW-hr (g/hp-hr)

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- 0.20 (0.15) g PM/kW-hr (g/hp-hr)

The 250-hp fire pump diesel emergency engine (HUB-FP) will be a certified engine capable of meeting the 40 CFR 60.4205(c) and Table 4 limits and therefore will satisfy these requirements.

800-kW and 1,250-kW Emergency Diesel Generator Engines

Emergency diesel generator engines rated at 800 kW and 1,250 kW with a model year of 2006 or later, and a displacement of 2.25 l/cyl and 2.68 l/cyl, respectively, which is less than the 30 l/cyl threshold, must meet the following Tier 2 emission requirements [Part 60.4205(b), Part 60.4202(b), and Table 2 to Appendix 1 – Part 1039]:

- 6.4 g NMHC+NO_x/kW-hr
- 3.5 g CO/kW-hr
- 0.20 g PM/kW-hr

The 800-kW and 1,250-kW emergency diesel generator engines (HUB-EG1 and HUB-EG2) will be certified engines capable of meeting the Tier 2 emission limitations and therefore will satisfy these requirements.

Fuel Requirements

Diesel fuel oil burned in the emergency engines with a displacement of less than 30 liters per cylinder must meet the following requirements [Part 60.4207(d) and Part 1090.305]:

- A maximum sulfur content of 15 ppm (0.0015%) by weight
- A minimum cetane index of 40 or a maximum aromatic content of 35% by volume

The diesel fuel used for the Project will comply with these requirements.

Compliance, Recordkeeping and Reporting/Notification Requirements

Owners and operators must operate and maintain engines and control devices according to the manufacturer's emission-related instructions, including changing only those emission-related settings permitted by the manufacturer [Part 60.4211(a) and (c)].

The engine can only be used for emergency operations, maintenance, and testing, and up to 50 hours per year in nonemergency situations. There is no time limit for emergency use. For maintenance and testing, the engine can operate up to 100 hours per year, which includes any nonemergency use. Maintenance checks and readiness testing must be recommended by relevant authorities or organizations. If additional hours are needed for maintenance, a petition can be submitted to the administrator. Nonemergency use is limited to 50 hours per year and cannot be for peak shaving or generating income, except under specific conditions where the engine is dispatched to mitigate local transmission issues. Records must be kept of the dispatching entity and the standards followed. If these requirements are not met, the engine will be reclassified as a nonemergency engine and must comply with all applicable standards for nonemergency engines.

Emergency engines not meeting the standards applicable to nonemergency engines, must install a nonresettable hour meter prior to startup of the engine [Part 60.4209(a)].

The owner or operator will maintain records indicating if federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year [Part 60.4211(f)(2)(i)]. NorthWestern must keep records of operation in emergency and nonemergency situations, recorded through a nonresettable hour meter.

Emergency engines do not require an initial notification.

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3.5.1.5 40 CFR Part 60, Subpart KKKK. Standards of Performance for Stationary Combustion Turbines

Subpart KKKK applies to all stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million British thermal units) per hour, based on the lower heating value of the fuel-fired and began construction, modification, or reconstruction after February 18, 2005. Because the combustion turbines will be constructed after December 13, 2024, in accordance with Part 60.4305(b), they are subject to Subpart KKKKa and are therefore not subject to the requirements of NSPS Subpart KKKK.

3.5.1.6 40 CFR Part 60, Subpart KKKKa. Standards of Performance for Stationary Combustion Turbines

The combustion turbines will be subject to NSPS Subpart KKKKa. This is because Subpart KKKKa applies to all stationary combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour constructed, modified, or reconstructed after December 13, 2024. The turbines for the Project will have a peak heat input greater than 10.7 gigajoules (10 MMBtu/hour); therefore, the turbines are subject to this standard.

Emission Standards

Subpart KKKKa regulates pollutant emissions of NO_X and SO_2 for combustion turbines.

For NO_X, the applicable Subpart KKKKa standard is for new, modified, or reconstructed natural gas-fired combustion turbines with heat input greater than 50 MMBtu/hour and less than 850 MMBtu/hour. The turbines are new units that will be firing natural gas and will be utilized for more than 45% of the year. In accordance with Subpart KKKKa Table 1, the applicable NO_X limitation for each turbine is either 15 ppm at 15% O_2 or 0.43 pounds per megawatt-hour gross. NorthWestern proposes a NO_x limit of 3 ppm @15% O_2 during steady state operation on an hourly basis, which is significantly less than the NSPS emission limit.

For SO_2, 40 CFR 60 Subpart KKKKa regulates SO_2 emissions by limiting SO_2 emissions to 0.90 pound per megawatt-hour (lb/MWh) or by limiting the fuel potential sulfur emissions to 0.060 lb SO_2/MMBtu. The turbines will meet the NSPS requirements by combusting natural gas (approximately 0.0014 lb SO_2/MMBtu for combustion turbines).

Compliance, Recordkeeping and Reporting/Notification Requirements

Owners and operators must operate and maintain stationary combustion turbines, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction.

To ensure compliance with emission standards, an initial performance test is required for NO_x. Following this test, annual performance tests or continuous monitoring are required to ensure compliance with the NO_x emission standard. Compliance with the SO_2 requirements is demonstrated through documenting the total sulfur content for the fuel combusted and submitting fuel records.

The NSPS requires that a NO_X CEMS be installed to continuously monitor NO_X emissions and a performance test is required to be performed within 180 days of initial startup of a turbine with specified reference method, operations, notification, and recordkeeping. Fuel records will be used to demonstrate compliance with SO_2 emission standards. NorthWestern will comply with these specific requirements.

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3.5.1.7 40 CFR Part 60, Subpart Kb. Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, and On or Before October 4, 2023

NorthWestern will install three diesel storage tanks to support operation of the diesel emergency generator engines and diesel fire pump. As the diesel storage tanks will be installed after October 4, 2023, 40 CFR Part 60 Subpart Kb is not applicable to this Project.

3.5.1.8 40 CFR Part 60, Subpart Kc. Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After October 4, 2023

NorthWestern will install three diesel storage tanks to support operation of the diesel emergency engines and diesel fire pump.

The requirements under 40 CFR Part 60, Subpart Kc are applicable to each storage vessel with a capacity greater than or equal to 20,000 gallons (75.7 cubic meters) that is used to store VOLs for which construction, reconstruction, or modification begins after October 4, 2023. According to 40 CFR Part 60.110c(b)(8), vessels that only store VOL with a maximum true vapor pressure less than 0.25 psi (or 1.7 kPA absolute) are not subject to this rule. The maximum true vapor pressure of diesel stored in the tanks will be less than 0.25 psi, and the tanks will have capacities less than 20,000 gallons. Therefore, 40 CFR Part 60 Subpart Kc is not applicable to the diesel storage tanks to be installed as part of this Project.

3.5.1.9 40 CFR Part 60, Subpart TTTT. Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources – Electric Utility Generating Units

Subpart TTTT applies to stationary combustion turbines that commence construction after January 8, 2014, but on or before May 23, 2023, and have a base heat input rating greater than 250 MMBtu/hour and serving a generator capable of selling 25 MW of electricity to a utility power distribution system. Construction for the combustion turbines would commence after May 23, 2023, and would not be subject to this subpart.

3.5.1.10 40 CFR Part 60, Subpart TTTTa. Standards of Performance for Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units

Subpart TTTTa applies to stationary combustion turbines that commence construction or reconstruction after May 23, 2023, have a base heat input rating greater than 250 MMBtu/hour, and serve a generator capable of selling 25 MW of electricity to a utility power distribution system. [40 CFR Part 60.5508a and 60.5509a]

This rule would currently be applicable to the combustion turbines. However, this rule is proposed to be repealed under Docket ID No. EPA-HQ-OAR-2025-0124. If the rule remains in effect when the combustion turbines become operational, the units will be required to meet the requirements of this subpart.

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3.5.2 National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63)

3.5.2.1 Overview

The National Emission Standards for Hazardous Air Pollutants (NESHAP) are emission standards set by EPA for HAPs not covered by National Ambient Air Quality Standards. PTE estimates indicate that the Project would be an area source of HAPs.

3.5.2.2 Subpart A – General Provisions

General maximum achievable control technology (MACT) provisions (40 CFR 63 Subpart A) are applicable to sources subject to a MACT Subpart and include various notification, monitoring, and recordkeeping requirements for the Project. The applicable source-specific subparts in 40 CFR 63 indicate which of the general provision in Subpart A are applicable to affected sources.

3.5.2.3 Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Subpart CCCCCC applies to loading of gasoline storage tanks at gasoline dispensing facilities. This subpart does not apply as the facility is an electricity generating station that will not use gasoline.

3.5.2.4 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

Subpart JJJJJJ applies to industrial, commercial, and institutional boilers located at area sources of HAPs, except for those exempted under 40 CFR 63.11195. This facility is an area source of HAPs. However, this rule is not applicable because the dew point heaters are natural gas-fired boilers in accordance with 40 CFR 63.11195(e).

3.5.2.5 Subpart YYYY – National Emission Standards for Hazardous Air Pollutants for HAPs for Stationary Combustion Turbines

Subpart YYYY establishes national emission limitations and operating limitations for HAP emissions from stationary combustion turbines located at major sources of HAP emissions.

This subpart does not apply as the total facility PTE shows that the individual HAP emissions are less than 10 tpy for all HAPs, and combined HAP emissions are less than 25 tpy and the facility is an area source of HAPs.

3.5.2.6 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for HAPs for Stationary Reciprocating Internal Combustion Engines

Subpart ZZZZ is applicable to stationary RICE at both major and area sources of HAP emissions. The diesel emergency generator engines and diesel fire pump are new stationary RICE located at an area source of HAPs. Therefore, the engines comply with 40 CFR 63 Subpart ZZZZ by meeting the requirements of NSPS Subpart IIII, *[Part 63.6590 (c)]*. No specific emissions limitations are therefore applicable from Subpart ZZZZ for fire pump or diesel emergency generator engines.

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3.5.3 Acid Rain Program

The acid rain program applies to electric utility generating units, including the turbines planned for the Project as they are larger than 25 MW. The facility, therefore, is subject to Phase II of the Acid Rain Program pursuant to Title IV of the Clean Air Act and is required to have a Title V operating permit. A Title V modification application will be submitted within 12 months of operations of the Project. The Project will be required to obtain allowances for calendar year SO_2 emissions. These allowances are expected to be readily available on the open market trading system or from other NorthWestern plants. Additionally, the acid rain permit will require emissions monitoring for NO_X and fuel monitoring for sulfur content.

3.5.4 Accidental Release Prevention Program

The use of aqueous ammonia (NH_3) for NO_X control at the facility is not anticipated to require a Risk Management Plan (RMP). The Accidental Release Prevention Program standard requires RMP preparation for aqueous NH_3 storage for more than 20,000 pounds of NH_3 of 20% or greater. The facility intends to use concentrations of aqueous NH_3 less than 20% for the NO_X control. Therefore, no RMP will be required for the Project.

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4. Control Technology Review

This Project is not a major PSD source under 40 CFR 52.21. Consistent with the application requirement in SD DANR Title 74, Article 36, Chapter 20, Section 07, a Best Available Control Technology review and air dispersion modeling are not required.

The Project turbines will be equipped with a multipollutant catalyst system to control and minimize emissions of NO_x, CO, formaldehyde, and other VOCs. Operation of the multipollutant catalyst system will produce emissions of ammonia via ammonia slip. Ammonia slip is expected to be no more than 10 parts per million by volume, dry (ppmvd) @ 15% O_2. To minimize emissions of SO_2 and particulate matter including PM, PM_{10}, and $PM_{2.5}$, NorthWestern plans to use natural gas for the combustion turbines and ULSD for the diesel engines and fire pump, alongside implementing optimal combustion practices for the units. The emergency diesel engines and fire pump will be certified units, and will comply with applicable NSPS requirements, including operational restrictions for emergency units.

This comprehensive approach to emission control ensures that the Project will fully comply with the applicable emission standards and state and federal requirements.

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5. Proposed Permit Conditions

This section outlines the permit conditions that NorthWestern is proposing.

Combustion Turbines

- Emissions to the atmosphere from each combustion turbine shall not exceed the following rates and concentrations shown in **Table 5-1** below:

Table 5-1. Turbine Emission Permit Conditions for NOx, CO, and VOC.

Pollutant	Limitations (Under Steady State/Normal Conditions)	Averaging Period
NO_x	3 ppmvd @ 15% O_2	3-hour average
CO	6 ppmvd @ 15% O_2	3-hour average
VOC	1.5 ppmvd @ 15% O_2	3-hour average

Steady state/normal operation includes all periods of turbine operation, except for periods of startup and shutdown. Startup is defined as the period beginning with turbine initial firing until the unit meets the ppmvd emission limits listed in the condition for steady state operation. Shutdown is defined as the period beginning with the initiation of the turbine shutdown sequence and ending with the cessation of firing of the gas turbine.

- NorthWestern will install, calibrate, and maintain CEMS on each of the combustion turbine stacks. The facility shall record the NO_x and CO emissions.
- NorthWestern will perform initial testing to comply with the emissions limits noted within 180 days of the initial operation of the combustion turbine.
- After the initial performance stack test, NorthWestern shall comply with the emissions limitations as follows:
  - NO_x: compliance shall be demonstrated by CEMS as outlined previously.
  - CO: compliance shall be demonstrated by CEMS as outlined previously.
  - VOC: compliance shall be demonstrated by stack testing at least once annually.
  - SO_2: compliance shall be demonstrated by documenting fuel sulfur content.

Emergency Generators and Fire Pump

The diesel emergency generators and fire pump shall be limited to100 hours per year of operation for testing and maintenance.

COPY

5.1 References

California Air Resources Board (CARB). 2011. *Frequently Asked Questions: Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation).* https://ww2.arb.ca.gov/sites/default/files/classic/msprog/ordiesel/faq/emissionfactorsfaq.pdf

Tetra Tech. (2024). *NorthWestern Energy Air Quality Construction Permit Application – Addition of Generating Units to the Aberdeen Generating Station.* August 8.

U.S. Environmental Protection Agency (EPA). 2024. *Compilation of Air Pollutant Emission Factors for Stationary Sources*. https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors-stationary-sources

U.S. Environmental Protection Agency (EPA). 2026. *TANKS Emissions Estimation Software, Version 5.* July 9. https://www.epa.gov/air-emissions-factors-and-quantification/tanks-emissions-estimation-software-version-5.

COPY

Appendix A
Construction Permit Forms

COPY

Application Form
Air Quality Construction Permit

General Information Form
And
Certification of Applicant Form

SEND ALL MATERIALS TO:

SD Department of Agriculture and Natural Resources
Air Quality Program
523 East Capitol
Pierre, South Dakota 57501-3181

(Please complete shaded areas - if you have questions call (605) 773-3151)

A. Application Type

Check the appropriate box:

✓	New [1]		Modification [1]		Administrative Revision

For administrative revisions, provide existing permit number:

[1] – Applications for a "New" air quality construction permit that is also a major source of air emissions under the Title V air quality operating permit program is required to submit an application fee of $138. In addition, a "Modification" to an existing source with a Title V air quality operating permit is also required to submit an application fee of $138. The application fee is not applicable to ethanol plants.

B. General Information

1. Facility name:	Hub City Energy Park
2. Mailing address:	3010 West 69th Street
City, state, zip code	Sioux Falls, South Dakota 57108

3. Facility location (if plant is portable, enter location at time of submittal):

Street and city	440 SW 135th Street, Aberdeen, South Dakota 57401
Legal description (if street address is unknown)	

(Quarter, Section, Township, Range)

4. Construction contact:

Name/title	Josh Follman, Director Energy Supply Project Development
Telephone number	406-498-3617
Email address	Joshua.Follman@northwestern.com

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5. Facility contact, if different than construction contact (Person to contact for arranging inspections):

Name/title	Josh Follman, Director Energy Supply Project Development
Telephone number	406-498-3617
Email address	Joshua.Follman@northwestern.com

6. Responsible official:

Name/title	Bleau LaFave, VP – Planning, Development, & Asset Management
Telephone number	605-978-2897
Email address	Bleau.LaFave@northwestern.com

Note: A responsible official is defined as a president, vice president, secretary, or treasurer for a corporation; general partner or the proprietor for a partnership; and principal executive officer or ranking elected official for municipal, state, federal or public agency.

C. Plant Description

7. Standard Industrial Classification Code (SIC code):

Primary SIC code: 4911 Secondary SIC code (if applicable):

Please contact the Department at (605) 773-3151 for assistance if SIC code is unknown.

8. For a "New" application, briefly describe the operations at the facility, including raw materials and finished products. For an administrative revision, skip to the next section:

NorthWestern Energy is proposing the Hub City Energy Park Project to support the future capacity and reliability needs of its South Dakota electric system. The proposed expansion will include up to seven (7) natural gas fired simple cycle combustion turbines rated at approximately 37 megawatts (MW) each (average ambient temperature, site conditions), as well as miscellaneous ancillary equipment including two (2) emergency diesel generators, one (1) fire pump, two (2) dew point heaters, three (3) diesel fuel tanks, and HVAC and comfort heating equipment. The natural gas-fired turbines will be equipped with a multipollutant catalyst system to control and minimize air emissions.

If additional space is needed to describe operations, please attach the additional paper to this application and reference the attachment here.

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D. Air Emissions Summary (skip this section for Administrative Revisions)

Potential air emissions are calculated assuming the permitted unit operates 24 hours per day, 7 days per week, 52 weeks per year at its maximum design capacity. If air emissions are available, please complete the following table. Attach all available documentation used to calculate the potential air emissions such as a spreadsheet, software programs (i.e., Tanks 4.09), emission factors, calculations, MSDS sheets for all products containing volatile organic compounds and/or hazardous air pollutants, and other supporting documentation.

Pollutant	Actual (tons per year)	Potential Controlled (tons per year)	Potential Uncontrolled (tons per year)
PM10 [2]	Not Applicable	See Table 2-3 in Application	
PM2.5 [3]	Not Applicable	See Table 2-3 in Application	
Sulfur Dioxide	Not Applicable	See Table 2-3 in Application	
Nitrogen Oxide	Not Applicable	See Table 2-3 in Application	
Carbon Monoxide	Not Applicable	See Table 2-3 in Application	
Volatile Organic Compounds	Not Applicable	See Table 2-3 in Application	
Greenhouse Gases	Not Applicable	See Table 2-3 in Application	
Hazardous Air Pollutants (if applicable)			
See Table 2-4 in Application			

[2] – PM10 means particulate matter 10 microns in diameter or less; and
[3] – PM2.5 means particulate matter 2.5 microns in diameter or less.

Please contact the Department at (605) 773-3151 if assistance is needed for calculating emissions for the permitted units such as emission factors, clarifying what potential emissions are, efficiency for control equipment, or for any other questions.

E. Forms for Specific Equipment and Control Equipment

9. The following forms must be completed for each piece of specific equipment being installed at the facility and submitted with this form:

Boiler, Turbine, or Furnace	**Generators and Fire Pumps**	**Incinerator**
Kiln or Dryer	**Spray Booth**	**Storage Tank**
Miscellaneous	**Insignificant Activities** [4]	

[4] – The "Insignificant Activities" form should be completed for each operation identified as an insignificant activity and exempt from permitting.

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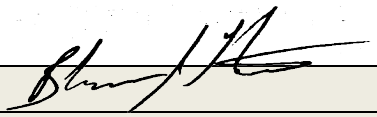
10. The following forms must be completed for each piece of specific air control equipment being installed at the facility and submitted with this form:

Baghouse	**Cyclone**	**Electrostatic Precipitator**
Thermal Oxidizer	**Wet Scrubber**	**Miscellaneous**

F. Certification of Compliance

I certify the following:

This application is submitted in accordance with the provisions of the South Dakota Codified Laws 34A-1 and Administrative Rules of South Dakota 74:36. To the best of my knowledge, after reasonable inquiry, the statements and information contained in the application and supporting documents are true, accurate, and complete. In accordance with South Dakota Codified Laws 1-41-20, I have also enclosed a completed Certification of Applicant form.

Signature:		10/13/2026
Print Name:	Bleau LaFave	Date

Responsible Official

COPY

STATE OF SOUTH DAKOTA

BEFORE THE SECRETARY OF

THE DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION OF	)	
NorthWestern Energy Public Service Corporation	)	**CERTIFICATION OF**
	)	**APPLICANT**
STATE OF South Dakota	)	
COUNTY OF Brown	)	

I, Bleau LaFave, the applicant in the above matter after being duly sworn upon oath hereby certify the following information in regard to this application:

I have read and understand South Dakota Codified Law Section 1-41-20 which provides:

"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:

(1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner, or resident general manager of the facility for which application has been made:

(a) Has intentionally misrepresented a material fact in applying for a permit;

(b) Has been convicted of a felony or other crime involving moral turpitude;

(c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;

(d) Has had any permit revoked under the environmental laws of any state or the United States; or

(e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or

(2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification, consideration of the application

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may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

I certify pursuant to 1-41-20, that as an applicant, officer, director, partner, or resident general manager of the activity or facility for which the application has been made that I; a) have not intentionally misrepresented a material fact in applying for a permit; b) have not been convicted of a felony or other crime of moral turpitude; c) have not habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage; (d) have not had any permit revoked under the environmental laws of any state or the United States; or e) have not otherwise demonstrated through clear and convincing evidence of previous actions that I lack the necessary good character and competency to reliably carry out the obligations imposed by law upon me. I also certify that this application does not substantially duplicate an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Further;

"I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct."

Dated this 13 day of October, 20 26 .

Bleau LaFave, VP - Planning, Development & Asset Management

Applicant (print)

Applicant (signature)

Subscribed and sworn before me this 13 day of October, 2026 .

Notary Public (signature)

My commission expires: October 16, 2028

(SEAL)

COLLEEN M MCDONALD
Notary Public
for the State of Montana
Residing at:
Butte, Montana
My Commission Expires:
October 16, 2028

PLEASE ATTACH ANY ADDITIONAL INFORMATION NECESSARY TO DISCLOSE ALL FACTS AND DOCUMENTS PERTAINING TO SDCL 1-41-20 (1) (a) THROUGH (e). ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB-5

2. Manufacturer: Solar Turbines | Manufacture date: TBD

3. Model number: Titan 350

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Simple Cycle Combustion Turbine

5. Maximum designed operating rate (name plate):

		million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or	Approximately 37,000 (average ambient temperature, site conditions)	kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | ✓ | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Multipollutant Catalyst System

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770760.92	feet	539727.93	meters
Y- Coordinate or Northing:	16506339.14	feet	5031132.17	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	90.00	feet	27.43	meters
Exit Stack Diameter	11.00	feet	3.35	meters
Exit Stack Temperature	858	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Control Device

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit, Minor Operating Permit, or the General Permits.

(please complete shaded areas)

Describe the miscellaneous control device and how it works:

Multipollutant Catalyst System

Equipment and processes served by this baghouse (please list all equipment and processes):

	Equipment and Processes
1.	Solar Turbines Titan 350 Combustion Turbine – HUB-5
2.	
3.	
4.	
5.	

Manufacturer Information:

Manufacturer?	TBD		
Manufacturer date?	TBD	Installation date?	TBD
Manufacturer's designed control efficiency?	NOx: 67%; CO: 60%; VOC: 50%	%	

Miscellaneous Control Device Operation and Maintenance:

Pressure drop across control unit?		Inches water (minimum)		inches water (maximum)
Inlet Temperature?	829	Fahrenheit (minimum)	994	Fahrenheit (maximum)
Outlet Temperature?	763.6	Fahrenheit (minimum)	844.4	Fahrenheit (maximum)

Describe maintenance of control unit (use of visual inspections, maintenance schedule, etc.):

Maintenance schedule per manufacturer specification

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting: [1]	1770760.92	feet	or	539727.93	meters
Y- Coordinate or Northing: [1]	16506339.14	feet	or	5031132.17	meters
Base Elevation of Stack: [1]	1292.00	feet	or	393.80	meters
Stack Height:	90.00	feet	or	27.43	meters
Exit Stack Diameter	11.00	feet	or	3.35	meters
Exit Stack Temperature	794.04	degrees Fahrenheit			

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

[1] - Portable asphalt plants, rock crushers, or concrete plants do not have to provide the requested information in these categories.

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc):	HUB-6		
2. Manufacturer:	Solar Turbines	Manufacture date:	TBD
3. Model number:	Titan 350		

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Simple Cycle Combustion Turbine

5. Maximum designed operating rate (name plate):

		million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or	Approximately 37,000 (average ambient temperature, site conditions)	kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? ☐ Yes ☑ No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Multipollutant Catalyst System

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770630.42	feet	539688.15	meters
Y- Coordinate or Northing:	16506339.86	feet	5031132.39	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	90.00	feet	27.43	meters
Exit Stack Diameter	11.00	feet	3.35	meters
Exit Stack Temperature	858	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Control Device

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit, Minor Operating Permit, or the General Permits.

(please complete shaded areas)

Describe the miscellaneous control device and how it works:

Multipollutant Catalyst System

Equipment and processes served by this baghouse (please list all equipment and processes):

	Equipment and Processes
1.	Solar Turbines Titan 350 Combustion Turbine – HUB-6
2.	
3.	
4.	
5.	

Manufacturer Information:

Manufacturer?	TBD		
Manufacturer date?	TBD	Installation date?	TBD
Manufacturer's designed control efficiency?	NOx: 67%; CO: 60%; VOC: 50%	%	

Miscellaneous Control Device Operation and Maintenance:

Pressure drop across control unit?		Inches water (minimum)		inches water (maximum)
Inlet Temperature?	829	Fahrenheit (minimum)	994	Fahrenheit (maximum)
Outlet Temperature?	763.6	Fahrenheit (minimum)	844.4	Fahrenheit (maximum)

Describe maintenance of control unit (use of visual inspections, maintenance schedule, etc.):

Maintenance schedule per manufacturer specification

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting: [1]	1770630.42	feet	or	539688.15	meters
Y- Coordinate or Northing: [1]	16506339.86	feet	or	5031132.39	meters
Base Elevation of Stack: [1]	1292.00	feet	or	393.80	meters
Stack Height:	90.00	feet	or	27.43	meters
Exit Stack Diameter	11.00	feet	or	3.35	meters
Exit Stack Temperature	794.04	degrees Fahrenheit			

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
	and/or			
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

[1] - Portable asphalt plants, rock crushers, or concrete plants do not have to provide the requested information in these categories.

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB-7

2. Manufacturer: Solar Turbines | Manufacture date: TBD

3. Model number: Titan 350

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Simple Cycle Combustion Turbine

5. Maximum designed operating rate (name plate):

		million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or	Approximately 37,000 (average ambient temperature, site conditions)	kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | ✓ | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Multipollutant Catalyst System

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770499.89	feet	539648.37	meters
Y- Coordinate or Northing:	16506340.62	feet	5031132.62	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	90.00	feet	27.43	meters
Exit Stack Diameter	11.00	feet	3.35	meters
Exit Stack Temperature	858	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Control Device

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit, Minor Operating Permit, or the General Permits.

(please complete shaded areas)

Describe the miscellaneous control device and how it works:

Multipollutant Catalyst System

Equipment and processes served by this baghouse (please list all equipment and processes):

	Equipment and Processes
1.	Solar Turbines Titan 350 Combustion Turbine – HUB-7
2.	
3.	
4.	
5.	

Manufacturer Information:

Manufacturer?	TBD		
Manufacturer date?	TBD	Installation date?	TBD
Manufacturer's designed control efficiency?	NOx: 67%; CO: 60%; VOC: 50%	%	

Miscellaneous Control Device Operation and Maintenance:

Pressure drop across control unit?		Inches water (minimum)		inches water (maximum)
Inlet Temperature?	829	Fahrenheit (minimum)	994	Fahrenheit (maximum)
Outlet Temperature?	763.6	Fahrenheit (minimum)	844.4	Fahrenheit (maximum)

Describe maintenance of control unit (use of visual inspections, maintenance schedule, etc.):

Maintenance schedule per manufacturer specification

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting: [1]	1770499.89	feet	or	539648.37	meters
Y- Coordinate or Northing: [1]	16506340.62	feet	or	5031132.62	meters
Base Elevation of Stack: [1]	1292.00	feet	or	393.80	meters
Stack Height:	90.00	feet	or	27.43	meters
Exit Stack Diameter	11.00	feet	or	3.35	meters
Exit Stack Temperature	794.04	degrees Fahrenheit			

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
	and/or			
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

[1] - Portable asphalt plants, rock crushers, or concrete plants do not have to provide the requested information in these categories.

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB-8

2. Manufacturer: Solar Turbines | Manufacture date: TBD

3. Model number: Titan 350

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Simple Cycle Combustion Turbine

5. Maximum designed operating rate (name plate):

		million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or	Approximately 37,000 (average ambient temperature, site conditions)	kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | ✓ | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Multipollutant Catalyst System

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770763.26	feet	539728.64	meters
Y- Coordinate or Northing:	16506755.51	feet	5031259.08	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	90.00	feet	27.43	meters
Exit Stack Diameter	11.00	feet	3.35	meters
Exit Stack Temperature	858	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Control Device

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit, Minor Operating Permit, or the General Permits.

(please complete shaded areas)

Describe the miscellaneous control device and how it works:

Multipollutant Catalyst System

Equipment and processes served by this baghouse (please list all equipment and processes):

	Equipment and Processes
1.	Solar Turbines Titan 350 Combustion Turbine – HUB-8
2.	
3.	
4.	
5.	

Manufacturer Information:

Manufacturer?	TBD		
Manufacturer date?	TBD	Installation date?	TBD
Manufacturer's designed control efficiency?	NOx: 67%; CO: 60%; VOC: 50%	%	

Miscellaneous Control Device Operation and Maintenance:

Pressure drop across control unit?		Inches water (minimum)		inches water (maximum)
Inlet Temperature?	829	Fahrenheit (minimum)	994	Fahrenheit (maximum)
Outlet Temperature?	763.6	Fahrenheit (minimum)	844.4	Fahrenheit (maximum)

Describe maintenance of control unit (use of visual inspections, maintenance schedule, etc.):

Maintenance schedule per manufacturer specification

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting: [1]	1770763.26	feet	or	539728.64	meters
Y- Coordinate or Northing: [1]	16506755.51	feet	or	5031259.08	meters
Base Elevation of Stack: [1]	1292.00	feet	or	393.80	meters
Stack Height:	90.00	feet	or	27.43	meters
Exit Stack Diameter	11.00	feet	or	3.35	meters
Exit Stack Temperature	794.04	degrees Fahrenheit			

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second

and/or

Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

[1] - Portable asphalt plants, rock crushers, or concrete plants do not have to provide the requested information in these categories.

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB-9

2. Manufacturer: Solar Turbines | Manufacture date: TBD

3. Model number: Titan 350

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Simple Cycle Combustion Turbine

5. Maximum designed operating rate (name plate):

		million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or	Approximately 37,000 (average ambient temperature, site conditions)	kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | ✓ | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Multipollutant Catalyst System

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770632.77	feet	539688.87	meters
Y- Coordinate or Northing:	16506756.23	feet	5031259.30	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	90.00	feet	27.43	meters
Exit Stack Diameter	11.00	feet	3.35	meters
Exit Stack Temperature	858	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Control Device

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit, Minor Operating Permit, or the General Permits.

(please complete shaded areas)

Describe the miscellaneous control device and how it works:

Multipollutant Catalyst System

Equipment and processes served by this baghouse (please list all equipment and processes):

	Equipment and Processes
1.	Solar Turbines Titan 350 Combustion Turbine – HUB-9
2.	
3.	
4.	
5.	

Manufacturer Information:

Manufacturer?	TBD		
Manufacturer date?	TBD	Installation date?	TBD
Manufacturer's designed control efficiency?	NOx: 67%; CO: 60%; VOC: 50%	%	

Miscellaneous Control Device Operation and Maintenance:

Pressure drop across control unit?		Inches water (minimum)		inches water (maximum)
Inlet Temperature?	829	Fahrenheit (minimum)	994	Fahrenheit (maximum)
Outlet Temperature?	763.6	Fahrenheit (minimum)	844.4	Fahrenheit (maximum)

Describe maintenance of control unit (use of visual inspections, maintenance schedule, etc.):

Maintenance schedule per manufacturer specification

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting: [1]	1770632.77	feet	or	539688.87	meters
Y- Coordinate or Northing: [1]	16506756.23	feet	or	5031259.30	meters
Base Elevation of Stack: [1]	1292.00	feet	or	393.80	meters
Stack Height:	90.00	feet	or	27.43	meters
Exit Stack Diameter	11.00	feet	or	3.35	meters
Exit Stack Temperature	794.04	degrees Fahrenheit			

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

[1] - Portable asphalt plants, rock crushers, or concrete plants do not have to provide the requested information in these categories.

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB-10

2. Manufacturer: Solar Turbines | Manufacture date: TBD

3. Model number: Titan 350

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Simple Cycle Combustion Turbine

5. Maximum designed operating rate (name plate):

		million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or	Approximately 37,000 (average ambient temperature, site conditions)	kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | ✓ | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Multipollutant Catalyst System

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770502.24	feet	539649.08	meters
Y- Coordinate or Northing:	16506756.96	feet	5031259.52	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	90.00	feet	27.43	meters
Exit Stack Diameter	11.00	feet	3.35	meters
Exit Stack Temperature	858	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second

and/or

Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Control Device

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit, Minor Operating Permit, or the General Permits.

(please complete shaded areas)

Describe the miscellaneous control device and how it works:

Multipollutant Catalyst System

Equipment and processes served by this baghouse (please list all equipment and processes):

	Equipment and Processes
1.	Solar Turbines Titan 350 Combustion Turbine – HUB-10
2.	
3.	
4.	
5.	

Manufacturer Information:

Manufacturer?	TBD		
Manufacturer date?	TBD	Installation date?	TBD
Manufacturer's designed control efficiency?	NOx: 67%; CO: 60%; VOC: 50%	%	

Miscellaneous Control Device Operation and Maintenance:

Pressure drop across control unit?		Inches water (minimum)		inches water (maximum)
Inlet Temperature?	829	Fahrenheit (minimum)	994	Fahrenheit (maximum)
Outlet Temperature?	763.6	Fahrenheit (minimum)	844.4	Fahrenheit (maximum)

Describe maintenance of control unit (use of visual inspections, maintenance schedule, etc.):

Maintenance schedule per manufacturer specification

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting: [1]	1770502.24	feet	or	539649.08	meters
Y- Coordinate or Northing: [1]	16506756.96	feet	or	5031259.52	meters
Base Elevation of Stack: [1]	1292.00	feet	or	393.80	meters
Stack Height:	90.00	feet	or	27.43	meters
Exit Stack Diameter	11.00	feet	or	3.35	meters
Exit Stack Temperature	794.04	degrees Fahrenheit			

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

[1] - Portable asphalt plants, rock crushers, or concrete plants do not have to provide the requested information in these categories.

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB-11

2. Manufacturer: Solar Turbines | Manufacture date: TBD

3. Model number: Titan 350

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Simple Cycle Combustion Turbine

5. Maximum designed operating rate (name plate):

		million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or	Approximately (average ambient temperature, site conditions)	kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | ✓ | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Multipollutant Catalyst System

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770371.74	feet	539609.31	meters
Y- Coordinate or Northing:	16506757.71	feet	5031259.75	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	90.00	feet	27.43	meters
Exit Stack Diameter	11.00	feet	3.35	meters
Exit Stack Temperature	858	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Control Device

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit, Minor Operating Permit, or the General Permits.

(please complete shaded areas)

Describe the miscellaneous control device and how it works:

Multipollutant Catalyst System

Equipment and processes served by this baghouse (please list all equipment and processes):

	Equipment and Processes
1.	Solar Turbines Titan 350 Combustion Turbine – HUB-11
2.	
3.	
4.	
5.	

Manufacturer Information:

Manufacturer?	TBD		
Manufacturer date?	TBD	Installation date?	TBD
Manufacturer's designed control efficiency?	NOx: 67%; CO: 60%; VOC: 50%	%	

Miscellaneous Control Device Operation and Maintenance:

Pressure drop across control unit?		Inches water (minimum)		inches water (maximum)
Inlet Temperature?	829	Fahrenheit (minimum)	994	Fahrenheit (maximum)
Outlet Temperature?	763.6	Fahrenheit (minimum)	844.4	Fahrenheit (maximum)

Describe maintenance of control unit (use of visual inspections, maintenance schedule, etc.):

Maintenance schedule per manufacturer specification

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting: [1]	1770371.74	feet	or	539609.31	meters
Y- Coordinate or Northing: [1]	16506757.71	feet	or	5031259.75	meters
Base Elevation of Stack: [1]	1292.00	feet	or	393.80	meters
Stack Height:	90.00	feet	or	27.43	meters
Exit Stack Diameter	11.00	feet	or	3.35	meters
Exit Stack Temperature	794.04	degrees Fahrenheit			

Exit Stack Velocity and/or Flow Rate:

Velocity:	93.81	feet per second	28.59	meters per second
		and/or		
Flow Rate:	534910.79	actual cubic feet per minute	252.45	actual cubic meters per second

[1] - Portable asphalt plants, rock crushers, or concrete plants do not have to provide the requested information in these categories.

COPY

Air Quality Permit Application Form

Generators and Fire Pumps

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (e.g. Generator #1, Fire Pump #1, etc.): HUB_EDG01
2. Manufacturer: TBD
3. Model number: TBD
4. Type (e.g. compression ignition, spark ignition, fire pump, etc.)

Compression ignition

5. Maximum designed operating rate (name plate):

		horsepower with generator efficiency:	
or	800	mechanical kilowatts with generator efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

	Natural gas			Propane
✓	Distillate oil	Sulfur content	0.0015	Weight percent
	Residual oil	Sulfur content		Weight percent
	Other (e.g. coal, wood, etc.)			

7. Is the unit equipped with a non-settable clock? ✓ Yes ☐ No
8. Manufacture date? TBD

If the manufacture date is prior to July 11, 2005, skip to Question #11

9. Will the unit operate more than 100 hours per year? ☐ Yes ✓ No

If yes proceed to Question #10, if no skip to Question #11.

10. If the generator operates more than 500 hours per year and the manufacture date is after to July 11, 2005, will crankcase emissions be controlled? **(If this is for a fire pump engine, skip Question #10 and proceed to Question #11)**

☐ Yes ☐ No If yes, please explain:

11. Does the emergency generator or fire pump operate less than 500 hours per year? ✓ Yes ☐ No

12. What is the displacement of the unit in liters? 27.03
13. How many cylinders does the unit have? 12

COPY

14. Please list the Manufacturer Guaranteed Emission Rates or Tier Emission Standards and attach supporting documentation in **g/KW-hr or g/HP-hr**. (circle the units reported for emissions)

NMHC + NO_X	See Section 2 in application.	NO_X	See Section 2 in application.
HC		CO	
PM		Tier (if applicable)	

15. Has a stack test been conducted (check appropriate box)? [ ] Yes [✓] No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

Stack Information: If this application is a renewal, contact the air program to determine if we already have this information.

X- Coordinate or Easting:	1770489.43	feet	539645.18	meters
Y- Coordinate or Northing:	16506137.04	feet	5031070.57	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	12.83	feet	3.91	meters
Exit Stack Diameter	0.83	feet	0.25	meters
Exit Stack Temperature	947.8	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity: 181.61 feet per second 55.36 meters per second

and/or

Flow Rate: 5943.3 actual cubic feet per minute 2.80 actual cubic meters per second

COPY

Air Quality Permit Application Form

Generators and Fire Pumps

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (e.g. Generator #1, Fire Pump #1, etc.): HUB_EDG02
2. Manufacturer: TBD
3. Model number: TBD
4. Type (e.g. compression ignition, spark ignition, fire pump, etc.)

Compression ignition

5. Maximum designed operating rate (name plate):

		horsepower with generator efficiency:	
or	1250	mechanical kilowatts with generator efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

	Natural gas			Propane
✓	Distillate oil	Sulfur content	0.0015	Weight percent
	Residual oil	Sulfur content		Weight percent
	Other (e.g. coal, wood, etc.)			

7. Is the unit equipped with a non-settable clock? ✓ Yes ☐ No
8. Manufacture date? TBD

If the manufacture date is prior to July 11, 2005, skip to Question #11

9. Will the unit operate more than 100 hours per year? ☐ Yes ✓ No

If yes proceed to Question #10, if no skip to Question #11.

10. If the generator operates more than 500 hours per year and the manufacture date is after to July 11, 2005, will crankcase emissions be controlled? **(If this is for a fire pump engine, skip Question #10 and proceed to Question #11)**

☐ Yes ☐ No If yes, please explain:

11. Does the emergency generator or fire pump operate less than 500 hours per year? ☐ Yes ✓ No

12. What is the displacement of the unit in liters? 32.1
13. How many cylinders does the unit have? 12

COPY

14. Please list the Manufacturer Guaranteed Emission Rates or Tier Emission Standards and attach supporting documentation in **g/KW-hr or g/HP-hr**. (circle the units reported for emissions)

NMHC + NO_X	See Section 2 in application	NO_X	See Section 2 in application
HC		CO	
PM		Tier (if applicable)	

15. Has a stack test been conducted (check appropriate box)? ☐ Yes ☑ No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

Stack Information: If this application is a renewal, contact the air program to determine if we already have this information.

X- Coordinate or Easting:	1770492.32	feet	539646.058	meters
Y- Coordinate or Northing:	16506591.80	feet	5031209.18	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	12.833	feet	3.91	meters
Exit Stack Diameter	1.08	feet	0.33	meters
Exit Stack Temperature	806.6	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity: 180.92 feet per second 55.14 meters per second

and/or

Flow Rate: 10005.8 actual cubic feet per minute 4.72 actual cubic meters per second

COPY

Air Quality Permit Application Form

Generators and Fire Pumps

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (e.g. Generator #1, Fire Pump #1, etc.): HUB_FP1
2. Manufacturer: TBD
3. Model number: TBD
4. Type (e.g. compression ignition, spark ignition, fire pump, etc.)

Fire pump

5. Maximum designed operating rate (name plate):

	250	horsepower with generator efficiency:	
or		mechanical kilowatts with generator efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

	Natural gas			Propane	
✓	Distillate oil	Sulfur content	0.0015	Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Other (e.g. coal, wood, etc.)				

7. Is the unit equipped with a non-settable clock? ✓ Yes ☐ No
8. Manufacture date? TBD

If the manufacture date is prior to July 11, 2005, skip to Question #11

9. Will the unit operate more than 100 hours per year? ☐ Yes ✓ No

If yes proceed to Question #10, if no skip to Question #11.

10. If the generator operates more than 500 hours per year and the manufacture date is after to July 11, 2005, will crankcase emissions be controlled? **(If this is for a fire pump engine, skip Question #10 and proceed to Question #11)**

☐ Yes ☐ No If yes, please explain:

11. Does the emergency generator or fire pump operate less than 500 hours per year? ✓ Yes ☐ No
12. What is the displacement of the unit in liters? 8.9
13. How many cylinders does the unit have? 6

COPY

14. Please list the Manufacturer Guaranteed Emission Rates or Tier Emission Standards and attach supporting documentation in **g/KW-hr or g/HP-hr**. (circle the units reported for emissions)

NMHC + NO_X	See Section 2 in application	NO_X	See Section 2 in application
HC		CO	
PM		Tier (if applicable)	3

15. Has a stack test been conducted (check appropriate box)? ☐ Yes ☑ No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

Stack Information: If this application is a renewal, contact the air program to determine if we already have this information.

X- Coordinate or Easting:	1770418.18	feet	539623.46	meters
Y- Coordinate or Northing:	16506459.81	feet	5031168.95	meters
Base Elevation of Stack:	1292.00	feet	393.90	meters
Stack Height:	15.00	feet	4.57	meters
Exit Stack Diameter	0.5	feet	0.15	meters
Exit Stack Temperature	705.2	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity: 125.44 feet per second 38.23 meters per second

and/or

Flow Rate: 1477.8 actual cubic feet per minute 0.70 actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Process

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB_DPH01

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Dew Point Heater

5. Maximum designed operating rate (name plate):

	7	million Btus per hour heat input
or		horsepower
or		kilowatts

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? ☐ Yes ✓ No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770800.52	feet	539740.00	meters
Y- Coordinate or Northing:	16505973.98	feet	5031020.87	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	15	feet	4.57	meters
Exit Stack Diameter	2.25	feet	0.69	meters
Exit Stack Temperature	190	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	18.19	feet per second	5.54	meters per second

and/or

Flow Rate:	4338.30	actual cubic feet per minute	2.05	actual cubic meters per second

COPY

Air Quality Permit Application Form

Miscellaneous Process

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): HUB_DPH02

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Dew Point Heater

5. Maximum designed operating rate (name plate):

	9	million Btus per hour heat input
or		horsepower
or		kilowatts

6. Check the appropriate box(es) for primary and secondary fuels:

✓	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? ☐ Yes ✓ No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	1770816.81	feet	539744.96	meters
Y- Coordinate or Northing:	16505973.92	feet	5031020.85	meters
Base Elevation of Stack:	1292.00	feet	393.80	meters
Stack Height:	15	feet	4.57	meters
Exit Stack Diameter	2.67	feet	0.81	meters
Exit Stack Temperature	190	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	17.26	feet per second	5.26	meters per second
		and/or		
Flow Rate:	5784.40	actual cubic feet per minute	2.73	actual cubic meters per second

COPY

Air Quality Permit Application

Insignificant Activities

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

Please list all equipment and processes that are considered an Insignificant Activity:

	Equipment and Processes	Exemption #
1.	500 Gallon Diesel Fuel Storage Tank for Fire Pump	7
2.	2,000 Gallon Diesel Fuel Storage Tank for Emergency Generator	7
3.	2,000 Gallon Diesel Fuel Storage Tank for Emergency Generator	7
4.	HVAC and Comfort Heating Equipment (ranging from 105,000 MMBtu/hr to 814,000 MMBtu/hr, total 35 units including 5 electric units) – see 'Exempt Heaters and HVAC Equipment' in PTE Inventory.	4
5.		
6.		
7.		
8.		
9.		
10.		

Insignificant Activity Exemptions

1. One or more incinerators of less than 100 pounds per hour combined burning capacity that combust municipal or household waste;
2. A mobile internal combustion engine, including engines in autos, trucks, tractors, airplanes, locomotives, and boats;
3. Laboratory equipment used exclusively for chemical or physical analysis;
4. A device or apparatus that has a heat input capability of not more than 3,500,000 Btus per hour;
5. An air conditioning or ventilating system not designed to remove air pollutants from equipment;
6. Routine housekeeping or plant upkeep activities such as painting buildings, retarring roofs, or paving parking lots;
7. A unit that has the potential to emit two tons or less per year of any criteria pollutant before the application of control equipment. A unit may not be considered insignificant if a state or federal limit is applicable to the unit; and
8. A unit that has the potential to emit two tons or less per year of any hazardous air pollutant. However, the hazardous air pollutant emissions from the unit must be included in determining if the source is a major or minor source.

A unit can not be considered insignificant if a state or federal limit is applicable to the unit.

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc):	MS-MUA-001		
2. Manufacturer:	TBD	Manufacture date:	TBD
3. Model number:	TBD		

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Direct Gas-fired Make-up Air Unit

5. Maximum designed operating rate (name plate):

	0.732	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? Yes [ ] No [X]

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	TBD	feet		meters
Y- Coordinate or Northing:	TBD	feet		meters
Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): MS-MUA-002

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Direct Gas-fired Make-up Air Unit

5. Maximum designed operating rate (name plate):

	0.732	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

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Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	TBD	feet		meters
Y- Coordinate or Northing:	TBD	feet		meters
Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): MS-HWH-001

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Hot Water Heater

5. Maximum designed operating rate (name plate):

	0.12	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	TBD	feet		meters
Y- Coordinate or Northing:	TBD	feet		meters
Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): MS-UH-001

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): MS-UH-002

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): MS-UH-003

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): MS-UH-004

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): WTB-MUA-001

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Direct Gas-fired Make-up Air Unit

5. Maximum designed operating rate (name plate):

	0.814	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	TBD	feet		meters
Y- Coordinate or Northing:	TBD	feet		meters
Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): WTB-MUA-002

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Direct Gas-fired Make-up Air Unit

5. Maximum designed operating rate (name plate):

	0.814	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

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Stack Information: If this application is a renewal, contact the air program. We may have this information.

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Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): WTB-HWH-001

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Hot Water Heater

5. Maximum designed operating rate (name plate):

	0.199	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

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Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	TBD	feet		meters
Y- Coordinate or Northing:	TBD	feet		meters
Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): WTB-UH-001

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): WTB-UH-002

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

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Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): WTB-UH-003

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? Yes | X | No

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Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

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Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
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Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): WTB-UH-004

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
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	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

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Exit Stack Velocity and/or Flow Rate:

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): ES-HWH-001

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Hot Water Heater

5. Maximum designed operating rate (name plate):

	0.199	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): AB-AHU-001

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Air Handling Unit

5. Maximum designed operating rate (name plate):

	0.30	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): AB-AHU-002

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Air Handling Unit

5. Maximum designed operating rate (name plate):

	0.30	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

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Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): AB-AHU-003

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Air Handling Unit

5. Maximum designed operating rate (name plate):

	0.20	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

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Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): AB-AHU-004

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Air Handling Unit

5. Maximum designed operating rate (name plate):

	0.20	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): AB-HWH-001

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Hot Water Heater

5. Maximum designed operating rate (name plate):

	0.199	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-001

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

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Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-002

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-003

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-004

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-005

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-006

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-007

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	N/A	feet		meters
Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

COPY

Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-UH-008

2. Manufacturer: Reznor | Manufacture date: TBD

3. Model number: UDX100

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Gas-fired Unit Heater

5. Maximum designed operating rate (name plate):

	0.105	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

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Y- Coordinate or Northing:	N/A	feet		meters
Base Elevation of Stack:	N/A	feet		meters
Stack Height:	N/A	feet		meters
Exit Stack Diameter	N/A	feet		meters
Exit Stack Temperature	N/A	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	N/A	feet per second		meters per second
		and/or		
Flow Rate:	N/A	actual cubic feet per minute		actual cubic meters per second

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-MUA-001

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Direct Gas-fired Make-up Air Unit

5. Maximum designed operating rate (name plate):

	2.33	million Btus per hour heat input	
or		horsepower with boiler efficiency:	
or		kilowatts with boiler efficiency:	

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas				Propane	
	Distillate oil	Sulfur content			Weight percent	
	Residual oil	Sulfur content			Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal	
Coal sulfur content		Weight percent	Coal ash content		Weight percent	
	Other (please specify)					

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

COPY

Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	TBD	feet		meters
Y- Coordinate or Northing:	TBD	feet		meters
Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

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Air Quality Permit Application Form

Boiler Turbine or Furnace

This form is to be submitted, if necessary, along with the Title V (Part 70) Operating Permit or Minor Operating Permit.

(please complete shaded areas)

1. Facility identification (i.e., Boiler #1, Unit #1, etc): EH-MUA-002

2. Manufacturer: TBD | Manufacture date: TBD

3. Model number: TBD

4. Type (i.e., steam boiler, simple cycle combustion turbine, generator, etc.)

Direct Gas-fired Make-up Air Unit

5. Maximum designed operating rate (name plate):

	2.33	million Btus per hour heat input
or		horsepower with boiler efficiency:
or		kilowatts with boiler efficiency:

6. Check the appropriate box(es) for primary and secondary fuels:

X	Natural gas			Propane	
	Distillate oil	Sulfur content		Weight percent	
	Residual oil	Sulfur content		Weight percent	
	Bituminous Coal		Subbituminous Coal		Lignite Coal
Coal sulfur content		Weight percent	Coal ash content		Weight percent
	Other (please specify)				

7. Has a stack test been conducted (check appropriate box)? | | Yes | X | No

If a stack test has been conducted, please attach a copy of the most recent stack test report to this application. If the Department already has a copy of the most recent stack test, please specify the date of most recent stack test.

Date of most recent stack test:

Control Equipment: If applicable, types of air pollution control equipment (Examples: baghouse, cyclone, wet scrubber, electrostatic precipitator, thermal oxidizer, miscellaneous control device, etc.).

N/A

Please complete the appropriate air quality permit application form for each type of control equipment that controls air emissions from this operation.

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Stack Information: If this application is a renewal, contact the air program. We may have this information.

X- Coordinate or Easting:	TBD	feet		meters
Y- Coordinate or Northing:	TBD	feet		meters
Base Elevation of Stack:	TBD	feet		meters
Stack Height:	TBD	feet		meters
Exit Stack Diameter	TBD	feet		meters
Exit Stack Temperature	TBD	degrees Fahrenheit		

Exit Stack Velocity and/or Flow Rate:

Velocity:	TBD	feet per second		meters per second
		and/or		
Flow Rate:	TBD	actual cubic feet per minute		actual cubic meters per second

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Appendix B
Potential to Emit Calculations

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Potential Criteria Air Pollutant Emissions Summary

NorthWestern Energy - Hub City Energy Park

These tables summarize NorthWestern Energy's Hub City Energy Park Project Potential to Emit values for all unit emissions in tons per year.

Assumptions		
Units 1-3		
Number of Units	3	units
Steady State Operation Hours of CTG Units 1-3	4,000	hours/year/CTG
Number of Startup and Shutdowns per CTG for Units 1-3	260	SUSD/year/CTG
Units 4-7		
Number of Units	4	units
Steady State Operation Hours of CTG Units 4-7	4,000	hours/year/CTG
Number of Startup and Shutdowns per CTG for Units 4-7	217	SUSD/year/CTG

Emissions Summary	VOC	NO_X	CO	SO_2 [3]	PM	PM_{10}	$PM_{2.5}$	CO_2e	H_2SO_4	NH_3	Total HAPs
	tpy										
New Emissions Sources											
Titan 350 Solar Natural Gas Combustion Turbine - *Units 1-3*	9.04	28.51	33.14	3.32	15.71	15.71	15.71	289,362	1.64	32.39	0.93
Titan 350 Solar Natural Gas Combustion Turbine Startup and Shutdown - *Units 1-3*	4.26	8.83	70.71	0.13	0.87	0.87	0.87	--	--	--	--
Titan 350 Solar Natural Gas Combustion Turbine - *Units 4-7*	12.05	38.02	44.18	4.43	20.94	20.94	20.94	383,356	2.19	43.18	1.24
Titan 350 Solar Natural Gas Combustion Turbine Startup and Shutdown - *Units 4-7*	4.74	9.83	78.69	0.15	0.97	0.97	0.97	--	--	--	--
Diesel Fire Pump - 250 hp	0.0041	0.08	0.07	1.10E-04	0.004	0.004	0.004	11.63	--	--	4.56E-04
Diesel Emergency Engine - 800 kW	0.032	0.60	0.34	7.23E-04	0.020	0.020	0.020	65	--	--	1.73E-03
Diesel Emergency Engine - 1250 kW	0.049	0.94	0.53	1.13E-03	0.031	0.031	0.031	99	--	--	2.63E-03
Natural Gas Dew Point Heater - 7 MMBtu/hr	0.17	1.59	2.66	0.019	0.24	0.24	0.24	3,588	--	--	5.99E-02
Natural Gas Dew Point Heater - 9 MMBtu/hr	0.22	2.04	3.42	0.024	0.31	0.31	0.31	4,613	--	--	7.70E-02
New Exempt Emissions Sources											
2,000 Gallon Diesel Storage Tank for 800 kW Emergency Engine	0.0017	--	--	--	--	--	--	--	--	--	--
2,000 Gallon Diesel Storage Tank for 1250 kW Emergency Engine	0.0017	--	--	--	--	--	--	--	--	--	--
500 Gallon Diesel Storage Tank for Fire Pump	5.84E-04	--	--	--	--	--	--	--	--	--	--
Heaters and HVAC Equipment	0.28	5.03	4.10	0.030	0.38	0.38	0.38	7,201	--	--	0.095
Total PTE - New Emission Sources	**30.85**	**95.46**	**237.85**	**8.11**	**39.47**	**39.47**	**39.47**	**688,295**	**3.83**	**75.57**	**2.40**
Major Source Threshold [1]	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**75,000**	**7**	**N/A**	**25**
New Project - Major Source?	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**N/A**	**No**
Existing Emissions Sources											
Unit 2A and 2B	11.5	80.0	190.5	1.1	27.5	27.5	27.5	88,495	--	--	0.7
Emergency Generators	0.0	0.4	0.7	0.0	0.0	0.0	0.0	21	--	--	--
Heaters	0.0	1.2	0.7	0.0	0.1	0.1	0.1	1,013	--	--	--
Road Emissions	--	--	--	--	0.1	0.1	0.0	--	--	--	--
Fuel Oil Tank	0.2	--	--	--	--	--	--	--	--	--	--
Fugitive Leak	0.1	--	--	--	--	--	--	4	--	--	--
2x16.5 MW Natural Gas Titan	7.3	19.4	39.0	1.9	2.8	2.8	2.8	69,819	--	--	4.6
Dew Point Heater	0.0	0.1	0.1	0.0	0.0	0.0	0.0	1,159	--	--	--
Existing Facility PTE [2]	**19.2**	**101.1**	**230.9**	**3.0**	**30.5**	**30.5**	**30.4**	**158,991**	**0.00**	**--**	**5.30**
Post Project PTE	**50.1**	**196.6**	**468.7**	**11.1**	**70.0**	**70.0**	**69.9**	**847,286**	**3.8**	**--**	**7.70**

Notes:

(1) Prevention of Significant Deterioration major threshold from 40 Code of Federal Regulations Part 52, Subpart A (52.21).

(2) Existing emission sources calculations from Table 3-1. of NorthWestern AGS AQ Modification Application_8_24.pdf.

(3) SO_2 emission rate during startup and shutdown are assumed to be equal to emission rate during normal operations.

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Potential Hazardous Air Pollutant Emissions Summary

NorthWestern Energy - Hub City Energy Park

These tables summarize NorthWestern Energy's Hub City Energy Park Project HAP emissions in tons per year.

HAP Emission Summary

Pollutant	Titan 350 Solar Natural Gas Combustion Turbine U1-3	Titan 350 Solar Natural Gas Combustion Turbine U4-7	Diesel Fire Pump - 250 hp	Diesel Emergency Engine - 800 kW	Diesel Emergency Engine - 1250 kW	Natural Gas Dew Point Heater - 7 MMBtu/hr	Natural Gas Dew Point Heater - 9 MMBtu/hr	Diesel Tanks (1)	Heaters and HVAC Equipment	Total HAP
	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)
1,3-Butadiene	5.31E-04	7.04E-04	--	--	--	--	--	--	--	1.24E-03
2-Methylnaphthalene	--	--	--	--	--	7.61E-07	9.78E-07	--	--	1.74E-06
3-Methylchloranthrene	--	--	--	--	--	5.71E-08	7.34E-08	--	--	1.30E-07
7,12-Dimethylbenz(a)anthracene	--	--	--	--	--	5.07E-07	6.52E-07	--	--	1.16E-06
Acenaphthene	--	--	1.01E-07	1.85E-06	2.82E-06	5.71E-08	7.34E-08	--	--	4.90E-06
Acenaphthylene	--	--	3.60E-07	3.65E-06	5.57E-06	5.71E-08	7.34E-08	--	--	9.71E-06
Acetaldehyde	4.94E-02	6.55E-02	5.45E-05	9.96E-06	1.52E-05	--	--	--	--	0.11
Acrolein	7.91E-03	1.05E-02	6.57E-06	3.12E-06	4.75E-06	--	--	--	--	0.018
Anthracene	--	--	1.33E-07	4.86E-07	7.42E-07	7.61E-08	9.78E-08	--	--	1.53E-06
Benz(a)anthracene	--	--	1.19E-07	2.46E-07	3.75E-07	5.71E-08	7.34E-08	--	--	8.71E-07
Benzene	1.48E-02	1.96E-02	6.63E-05	3.07E-04	4.68E-04	6.66E-05	8.56E-05	--	1.06E-04	0.036
Benzo(b)fluoranthene	--	--	7.04E-09	4.39E-07	6.69E-07	5.71E-08	7.34E-08	--	--	1.25E-06
Benzo(a)pyrene	--	--	1.34E-08	1.02E-07	1.55E-07	3.80E-08	4.89E-08	--	--	3.57E-07
Benzo(g,h,i)perylene	--	--	3.48E-08	2.20E-07	3.35E-07	3.80E-08	4.89E-08	--	--	6.77E-07
Benzo(k)fluoranthene	--	--	1.10E-08	8.62E-08	1.31E-07	5.71E-08	7.34E-08	--	--	3.59E-07
Chrysene	--	--	2.51E-08	6.05E-07	9.23E-07	5.71E-08	7.34E-08	--	--	1.68E-06
Dibenzo(a,h)anthracene	--	--	4.14E-08	1.37E-07	2.09E-07	3.80E-08	4.89E-08	--	--	4.74E-07
Dichlorobenzene	--	--	--	--	--	3.80E-05	4.89E-05	--	6.06E-05	1.48E-04
Ethylbenzene	3.95E-02	5.24E-02	--	--	--	--	--	--	--	9.19E-02
Fluoranthene	--	--	5.41E-07	1.59E-06	2.43E-06	9.51E-08	1.22E-07	--	--	4.78E-06
Fluorene	--	--	2.08E-06	5.06E-06	7.72E-06	8.88E-08	1.14E-07	--	--	1.51E-05
Formaldehyde	5.40E-01	7.16E-01	8.39E-05	3.12E-05	4.76E-05	2.38E-03	3.06E-03	--	3.79E-03	1.27E+00
Hexane	--	--	--	--	--	5.71E-02	7.34E-02	--	9.09E-02	0.22
Indeno(1,2,3-cd)pyrene	--	--	2.67E-08	1.64E-07	2.50E-07	5.71E-08	7.34E-08	--	--	5.70E-07
Naphthalene	1.61E-03	2.13E-03	6.03E-06	5.14E-05	7.84E-05	1.93E-05	2.49E-05	--	3.08E-05	3.95E-03
PAH	2.72E-03	3.60E-03	--	--	--	--	--	--	--	6.32E-03
Phenanthrene	--	--	2.09E-06	1.61E-05	2.46E-05	5.39E-07	6.93E-07	--	--	4.41E-05
Propylene	--	--	1.83E-04	1.10E-03	1.68E-03	--	--	--	--	2.97E-03
Propylene Oxide	3.58E-02	4.75E-02	--	--	--	--	--	--	--	8.33E-02
Pyrene	--	--	3.40E-07	1.47E-06	2.24E-06	1.59E-07	2.04E-07	--	--	4.41E-06
Toluene	1.61E-01	0.21	2.91E-05	1.11E-04	1.69E-04	1.08E-04	1.39E-04	--	1.72E-04	0.37
Xylenes	7.91E-02	0.10	2.03E-05	7.63E-05	1.16E-04	--	--	--	--	0.18
Arsenic	--	--	--	--	--	6.34E-06	8.15E-06	--	--	1.45E-05
Beryllium	--	--	--	--	--	3.80E-07	4.89E-07	--	--	8.70E-07
Cadmium	--	--	--	--	--	3.49E-05	4.48E-05	--	--	7.97E-05
Chromium	--	--	--	--	--	4.44E-05	5.71E-05	--	--	1.01E-04
Cobalt	--	--	--	--	--	2.66E-06	3.42E-06	--	--	6.09E-06
Manganese	--	--	--	--	--	1.20E-05	1.55E-05	--	--	2.75E-05
Mercury	--	--	--	--	--	8.24E-06	1.06E-05	--	--	1.88E-05
Nickel	--	--	--	--	--	6.66E-05	8.56E-05	--	--	1.52E-04
Selenium	--	--	--	--	--	7.61E-07	9.78E-07	--	--	1.74E-06
Lead	--	--	--	--	--	1.59E-05	2.04E-05	--	--	3.62E-05
Total Project (tpy)	**0.93**	**1.24**	**4.56E-04**	**1.73E-03**	**2.63E-03**	**5.99E-02**	**7.70E-02**	**2.02E-06**	**9.51E-02**	**2.40**
									Existing Facility HAPs	**5.30**
									Post Project PTE	**7.70**

Notes:

(1) All VOC losses estimated for diesel tank emissions assumed to be HAP emissions. No speciation of emissions was calculated.

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

Titan 350 Solar Natural Gas Combustion Turbine - Criteria Emissions Simple Cycle

Highest Case Controlled Emissions

Pollutant	Single Turbine Pollutant Concentrations [1]	Single CTG Hourly Emission Rate	Performance Margin	Single CTG Hourly Emission Rate with Margins
	(ppmvd @ 15% O2)	(lb/hr) [1] [2]	% [3]	(lb/hr)
H_2SO_4 [4]	--	0.273	--	0.273
VOC	1.5	1.25	20%	1.51
NOx	3.0	4.32	10%	4.75
CO	6.0	5.26	5%	5.52
SO_2 [4]	--	0.55	--	0.55
PM [5]	--	2.38	10%	2.62
PM_{10}	--	2.38	10%	2.62
$PM_{2.5}$	--	2.38	10%	2.62
NH_3	10	5.40	--	5.40

Notes:

(1) Vendor provided emission rates for 100% load, inlet air evaporative cooling off and maximum power output.

(2) Maximum turbine emission rate from turbine operating scenarios selected for each pollutant.

(3) Performance margins for steady state operations determined in discussion with NorthWestern Energy and comparison to similar units.

(4) H_2SO_4 and SO_2 emission rates based on natural gas sulfur content of 0.5 g S/100 scf.

(5) PM, PM_{10}, $PM_{2.5}$ emission rate based on vendor provided guaranteed value of 0.006 lb/MMBtu.

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

Titan 350 Solar Natural Gas Combustion Turbine - Startup & Shutdown Criteria Emissions Simple Cycle

Assumptions - per CTG unit	Value [1]	Units
Startup Duration	30	minutes
Startup Duration	0.5	hours
Shutdown Duration	7	minutes
Shutdown Duration	0.12	hours
Startup and Shutdown Duration per Event per Unit	0.62	hours

Notes:

(1) Startup and shutdown durations based on vendor provided data.

	Emission Rate (pound per event per unit)					
Initial Startup/Shutdown	**VOC**	**NO_x**	**CO**	**SO_2 [1]**	**$PM_{10}/PM_{2.5}$ [2]**	**Reference [3]**
Startup Emission Data	6.40	14.67	101.71	--	1.86	Vendor provided SUSD rates, considering catalyst warm-up time.
Shutdown Emission Data	4.53	7.98	79.59	--	0.36	

Notes:

(1) SO_2 startup and shutdown emissions were assumed equal to steady state operations.

(2) PM emissions conservatively assumed to represent PM_{10} and $PM_{2.5}$ emissions.

(3) CO_2 and HAP emissions from startup and shutdown emissions were assumed equal to steady state operations, and therefore not included in this table.

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

Titan 350 Solar Natural Gas Combustion Turbine HAP and GHG Emissions Simple Cycle

Turbine Information	Value	Units
Control System Efficiency for Organic HAPs	50%	--
Maximum Turbine Fuel Heat Input	396.0	MMBtu/hr

Notes
(1) Control efficiency calculated from VOC reduction provided by vendor.

HAP Emissions

Hazardous Air Pollutant	Emission Factor [1] (lb/MMBtu)	HAP Emissions [2] Maximum (lb/hr)
1,3-Butadiene	4.30E-07	8.51E-05
Acetaldehyde	4.00E-05	7.92E-03
Acrolein	6.40E-06	1.27E-03
Benzene	1.20E-05	2.38E-03
Ethylbenzene	3.20E-05	6.34E-03
Formaldehyde	--	8.66E-02
Naphthalene	1.30E-06	2.57E-04
PAH	2.20E-06	4.36E-04
Propylene Oxide	2.90E-05	5.74E-03
Toluene	1.30E-04	2.57E-02
Xylenes	6.40E-05	1.27E-02
	Total HAP Emissions	**0.15**

Notes:

(1) HAP emissions factors from AP-42 Table 3.1-3, except Formaldehyde. Formaldehyde emissions provided by vendor.
(2) Controlled emissions, excluding Formaldehyde emissions, assume control efficiency from multipollutant catalyst system. Formaldehyde based on vendor provided emission rate.

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Natural Gas GHG Emission Factors and Conversions [1]			Source
CO_2	53.06	kg/MMBtu	40 CFR 98.33 Table C-1
CH_4	1.00E-03	kg/MMBtu	40 CFR 98.33 Table C-2
N_2O	1.00E-04	kg/MMBtu	40 CFR 98.33 Table C-2
Natural Gas Heating Value [2]	967	MMBtu/scf	Natural Gas Data
Conversion	1.102	ton/tonne	--
	0.0010	tonne/kg	--

Notes:
(1) GHG emissions factors from 40 CFR 98, Tables A-1, C-1, C-2. Global Warming Potentials from 40 CFR 98 Subpart A, Table A-1.
(2) 967 MMBtu/scf based on minimum tariff heating value.

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	28	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	265	40 CFR 98 Subpart A, Table A-1

GHG Emissions

Greenhouse Gas	GHG Emissions (tons/hr)
CO_2	2.32E+01
CH_4	4.36E-04
N_2O	4.36E-05
CO_2e	2.32E+01

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

Diesel Emergency Fire Pump

Fire Pump Information	Value	Units
Number of Units	1	Units
Annual Hours of Operations	100	hrs/year
Fuel Usage	39	L/hr
Generator Rating	250	hp
Generator Rating	186	kW
Heat Input	1.42	MMBtu/hr

Notes:
(1) Diesel fire pump power rating, hours of operation, fuel usage, and heat input based on vendor data.
(2) 100 hours of emergency operation per SDNAR recommendation for emergency equipment.

Criteria Pollutant Emissions

Criteria Pollutant	Emission Factor per Fire Pump [1] (g/kWh)	Fire Pump Hourly Emissions (lb/hr)	Fire Pump Annual Emissions (tpy)
VOC	0.20	0.08	4.11E-03
NO_X [2]	3.80	1.56	0.08
CO	3.50	1.438	0.07
SO_X [3]	--	2.19E-03	1.10E-04
PM	0.20	0.08	4.11E-03
PM_{10}	0.20	0.08	4.11E-03
$PM_{2.5}$	0.20	0.08	4.11E-03

Notes:
(1) VOC, NOx, and CO emission factors based on EPA Tier 3 nonroad diesel engine emission standards for engine power of 175 ≤ kW < 300. PM emission factors based on EPA Tier 2 nonroad diesel engines as PM standards were not adopted for Tier 3 engines.
(2) Non-methane hydrocarbon (NMHC) and nitrogen oxide (NOx) emission factor breakdown assumed as 5% NMHC and 95% NOx, per California Air Resources Board (CARB 2011).
(3) SO_x emissions based on conversion of all fuel sulfur into SO_2.

Ultra-Low Sulfur Diesel	15	ppm sulfur
	32.06	g/mol S
	64.07	g/mol SO_2
Conversions	7.10	lb/gal density diesel
	3.79	L/gal
	73.1	lb/hr fuel use

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HAP Emissions

Hazardous Air Pollutant	Emission Factor[1] (lb/MMBtu)	Fire Pump Emissions (lb/hr)	Fire Pump Emissions (tpy)
Benzene	9.33E-04	1.33E-03	6.63E-05
Toluene	4.09E-04	5.81E-04	2.91E-05
Xylenes	2.85E-04	4.05E-04	2.03E-05
Formaldehyde	1.18E-03	1.68E-03	8.39E-05
Acetaldehyde	7.67E-04	1.09E-03	5.45E-05
Acrolein	9.25E-05	1.31E-04	6.57E-06
Naphthalene	8.48E-05	1.21E-04	6.03E-06
Propylene	2.58E-03	3.67E-03	1.83E-04
Acenaphthylene	5.06E-06	7.19E-06	3.60E-07
Acenaphthene	1.42E-06	2.02E-06	1.01E-07
Fluorene	2.92E-05	4.15E-05	2.08E-06
Phenanthrene	2.94E-05	4.18E-05	2.09E-06
Anthracene	1.87E-06	2.66E-06	1.33E-07
Fluoranthene	7.61E-06	1.08E-05	5.41E-07
Pyrene	4.78E-06	6.79E-06	3.40E-07
Benz(a)anthracene	1.68E-06	2.39E-06	1.19E-07
Chrysene	3.53E-07	5.02E-07	2.51E-08
Benzo(b)fluoranthene	9.91E-08	1.41E-07	7.04E-09
Benzo(k)fluoranthene	1.55E-07	2.20E-07	1.10E-08
Benzo(a)pyrene	1.88E-07	2.67E-07	1.34E-08
Indeno(1,2,3-cd)pyrene	3.75E-07	5.33E-07	2.67E-08
Dibenzo(a,h)anthracene	5.83E-07	8.29E-07	4.14E-08
Benzo(g,h,i)perylene	4.89E-07	6.95E-07	3.48E-08
Total Toxic Emissions (HAPs + Other Toxics)		**9.12E-03**	**4.56E-04**

Notes:
(1) HAP and Other Toxic Emission Factors from AP-42, Section 3.3, Tables 3.3-2 diesel industrial engines [less than 600 horsepower (hp)].

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GHG Emissions

Source Name	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
250 hp Diesel Fire Pump	11.59	4.70E-04	9.40E-05	11.63

Diesel Fuel GHG Emission Factors and Conversions			Source
CO_2	73.96	kg/MMBtu	40 CFR 98.33 Table C-1
CH_4	3.00E-03	kg/MMBtu	40 CFR 98.33 Table C-2
N_2O	6.00E-04	kg/MMBtu	40 CFR 98.33 Table C-2
Default HHV	0.1380	MMBtu/gal	40 CFR 98.33 Table C-1
Density of Distillate #2	7.3	lbs/gallon	AP-42 Appendix A
Conversion	1.1023	ton/tonne	--
	0.0010	tonne/kg	--
	32	MW Sulfur	--
	64	MW SO_2	--

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	28	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	265	40 CFR 98 Subpart A, Table A-1

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

800 kW Diesel Emergency Engine

Engine Information	Value	Units
Number of Units	1	Units
Generator Rating	800	kW
Engine Rating	1,192	hp
Annual Hours of Operations	100	hrs/yr
Fuel Usage	57.3	gal/hr
Heat Input	7.91	MMBtu/hr

Notes:

(1) Diesel generator power rating and fuel usage based on vendor data. Conversion from kW to bhp accounts for generator and mechanical losses.

(2) 100 hours of emergency operation per SDNAR recommendation for emergency equipment.

Criteria Pollutant Emissions

Criteria Pollutant	Emission Factor per Engine [(1)] (g/hp-hr)	Engine Hourly Emissions (lb/hr)	Engine Annual Emissions (tpy)
VOC	0.24	0.631	0.0315
NO_X	4.56	11.98	0.60
CO	2.60	6.83	0.34
SO_x [(3)]	1.21E-05	0.014	7.23E-04
PM	0.15	0.39	0.0197
PM_{10}	0.15	0.39	0.0197
$PM_{2.5}$	0.15	0.39	0.0197

Notes:

(1) VOC, NOx, CO, and PM emission factors based on EPA Tier 2 nonroad diesel engine emission standards for engine power > 560 kWh.

(2) Non-methane hydrocarbon (NMHC) and nitrogen oxide (NOx) emission factor breakdown assumed as 5% NMHC and 95% NOx, per California Air Resources Board Policy (June 2004).

(3) SO_x Emission Factor from AP-42 Table 3.4-1 for diesel fuel and is in units of lb/hp-hr.

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HAP Emissions

Hazardous Air Pollutant	Emission Factor (lb/MMBtu)	Engine Emissions (lb/hr)	Engine Emissions (tpy)
Benzene	7.76E-04	6.14E-03	3.07E-04
Toluene	2.81E-04	2.22E-03	1.11E-04
Xylenes	1.93E-04	1.53E-03	7.63E-05
Formaldehyde	7.89E-05	6.24E-04	3.12E-05
Acetaldehyde	2.52E-05	1.99E-04	9.96E-06
Acrolein	7.88E-06	6.23E-05	3.12E-06
Naphthalene	1.30E-04	1.03E-03	5.14E-05
Propylene	2.79E-03	2.21E-02	1.10E-03
Acenaphthylene	9.23E-06	7.30E-05	3.65E-06
Acenaphthene	4.68E-06	3.70E-05	1.85E-06
Fluorene	1.28E-05	1.01E-04	5.06E-06
Phenanthrene	4.08E-05	3.23E-04	1.61E-05
Anthracene	1.23E-06	9.73E-06	4.86E-07
Fluoranthene	4.03E-06	3.19E-05	1.59E-06
Pyrene	3.71E-06	2.93E-05	1.47E-06
Benz(a)anthracene	6.22E-07	4.92E-06	2.46E-07
Chrysene	1.53E-06	1.21E-05	6.05E-07
Benzo(b)fluoranthene	1.11E-06	8.78E-06	4.39E-07
Benzo(k)fluoranthene	2.18E-07	1.72E-06	8.62E-08
Benzo(a)pyrene	2.57E-07	2.03E-06	1.02E-07
Indeno(1,2,3-cd)pyrene	4.14E-07	3.27E-06	1.64E-07
Dibenzo(a,h)anthracene	3.46E-07	2.74E-06	1.37E-07
Benzo(g,h,i)perylene	5.56E-07	4.40E-06	2.20E-07
Total Toxic Emissions (HAPs + Other Toxics)		**3.45E-02**	**1.73E-03**

Notes:

(1) HAP and Other Toxic Emission Factors from AP-42, Section 3.4, Tables 3.4-3 and 3.4-4 for large stationary diesel engines [greater than 600 horsepower (hp)].

GHG Emissions

Source Name	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
800 kW Diesel Emergency Engine	64.47	2.61E-03	5.23E-04	64.68

Diesel Fuel GHG Emission Factors and Conversions			Source
CO_2	73.96	kg/MMBtu	40 CFR 98.33 Table C-1
CH_4	3.00E-03	kg/MMBtu	40 CFR 98.33 Table C-2
N_2O	6.00E-04	kg/MMBtu	40 CFR 98.33 Table C-2
Default HHV	0.1380	MMBtu/gal	40 CFR 98.33 Table C-1
Density of Distillate #2	7.3	lbs/gallon	AP-42 Appendix A
Conversion	1.1023	ton/tonne	--
	0.0010	tonne/kg	--
	32	MW Sulfur	--
	64	MW SO_2	--

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	28	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	265	40 CFR 98 Subpart A, Table A-1

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

1,250 kW Diesel Emergency Engine

Engine Information	Value	Units
Number of Units	1	Units
Generator Rating	1,250	kW
Engine Rating	1,863	hp
Annual Hours of Operations	100	hrs/yr
Fuel Usage	87.4	gal/hr
Heat Input	12.06	MMBtu/hr

Notes:
(1) Diesel generator power rating and fuel usage based on vendor data. Conversion from kW to bhp accounts for generator and mechanical losses.
(2) 100 hours of emergency operation per SDNAR recommendation for emergency equipment.

Criteria Pollutant Emissions

Criteria Pollutant	Emission Factor per Engine [(1)] (g/hp-hr)	Engine Hourly Emissions (lb/hr)	Engine Annual Emissions (tpy)
VOC	0.24	0.985	0.0493
NO_X	4.56	18.72	0.94
CO	2.6	10.68	0.53
SO_x [(3)]	1.21E-05	0.023	0.0011
PM	0.15	0.62	0.031
PM_{10}	0.15	0.62	0.031
$PM_{2.5}$	0.15	0.62	0.031

Notes:
(1) VOC, NOx, CO, and PM emission factors based on EPA Tier 2 nonroad diesel engine emission standards for engine power > 560 kWh.
(2) Non-methane hydrocarbon (NMHC) and nitrogen oxide (NOx) emission factor breakdown assumed as 5% NMHC and 95% NOx, per California Air Resources Board Policy (June 2004).
(3) SO_x Emission Factor from AP-42 Table 3.4-1 for diesel fuel and is in units of lb/hp-hr.

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HAP Emissions

Hazardous Air Pollutant	Emission Factor (lb/MMBtu)	Engine Emissions (lb/hr)	Engine Emissions (tpy)
Benzene	7.76E-04	9.36E-03	4.68E-04
Toluene	2.81E-04	3.39E-03	1.69E-04
Xylenes	1.93E-04	2.33E-03	1.16E-04
Formaldehyde	7.89E-05	9.52E-04	4.76E-05
Acetaldehyde	2.52E-05	3.04E-04	1.52E-05
Acrolein	7.88E-06	9.50E-05	4.75E-06
Naphthalene	1.30E-04	1.57E-03	7.84E-05
Propylene	2.79E-03	3.37E-02	1.68E-03
Acenaphthylene	9.23E-06	1.11E-04	5.57E-06
Acenaphthene	4.68E-06	5.64E-05	2.82E-06
Fluorene	1.28E-05	1.54E-04	7.72E-06
Phenanthrene	4.08E-05	4.92E-04	2.46E-05
Anthracene	1.23E-06	1.48E-05	7.42E-07
Fluoranthene	4.03E-06	4.86E-05	2.43E-06
Pyrene	3.71E-06	4.47E-05	2.24E-06
Benz(a)anthracene	6.22E-07	7.50E-06	3.75E-07
Chrysene	1.53E-06	1.85E-05	9.23E-07
Benzo(b)fluoranthene	1.11E-06	1.34E-05	6.69E-07
Benzo(k)fluoranthene	2.18E-07	2.63E-06	1.31E-07
Benzo(a)pyrene	2.57E-07	3.10E-06	1.55E-07
Indeno(1,2,3-cd)pyrene	4.14E-07	4.99E-06	2.50E-07
Dibenzo(a,h)anthracene	3.46E-07	4.17E-06	2.09E-07
Benzo(g,h,i)perylene	5.56E-07	6.71E-06	3.35E-07
Total Toxic Emissions (HAPs + Other Toxics)		**5.26E-02**	**2.63E-03**

Notes:

(1) HAP and Other Toxic Emission Factors from AP-42, Section 3.4, Tables 3.4-3 and 3.4-4 for large stationary diesel engines [greater than 600 horsepower (hp)].

GHG Emissions

Source Name	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
1,250 kW Diesel Emergency Engine	98.33	3.99E-03	7.98E-04	98.65

Diesel Fuel GHG Emission Factors and Conversions			Source
CO_2	73.96	kg/MMBtu	40 CFR 98.33 Table C-1
CH_4	3.00E-03	kg/MMBtu	40 CFR 98.33 Table C-2
N_2O	6.00E-04	kg/MMBtu	40 CFR 98.33 Table C-2
Default HHV	0.1380	MMBtu/gal	40 CFR 98.33 Table C-1
Density of Distillate #2	7.3	lbs/gallon	AP-42 Appendix A
Conversion	1.1023	ton/tonne	--
	0.0010	tonne/kg	--
	32	MW Sulfur	--
	64	MW SO_2	--

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	28	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	265	40 CFR 98 Subpart A, Table A-1

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

7 MMBtu/hr Dew Point Heater

Heater Information	Value	Units
Heat Input	7.0	MMBtu/hr
Natural Gas Heating Value	967	BTU/scf
Maximum Natural Gas Usage	7,239	scf/hr
Maximum Natural Gas Usage	7.24E-03	(10^6scf/hr)
Maximum Natural Gas Usage	61,320	MMBtu/yr
Annual Hours of Operations	8,760	hrs/yr
Total Number of Heaters	1	Units

Notes:
(1) Dew point heater heat input provided by NorthWestern based on vendor data.

Criteria Pollutant - Potential Emissions

Pollutant	Natural Gas 7 MMBtu/hr Dew Point Heater		
	Emission Factor ($lb/10^6$ scf)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)
NOx	50	0.36	1.59
CO	84	0.61	2.66
PM_{10}	7.6	0.055	0.24
$PM_{2.5}$	7.6	0.055	0.24
SO_2	0.6	0.0043	0.019
VOC	5.5	0.040	0.17

Notes:
(1) Natural gas criteria emission factors from AP-42, Tables 1.4-1 and 1.4-2. For NOx and CO, combustor type is assumed to be small boilers with low NOx burners < 100 MMBtu/hr.

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HAP Emissions

Pollutant	Emission Factor ($lb/10^6$ scf)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)
2-Methylnaphthalene	2.4E-05	1.74E-07	7.61E-07
3-Methylchloranthrene	1.8E-06	1.30E-08	5.71E-08
7,12-Dimethylbenz(a)anthracene	1.6E-05	1.16E-07	5.07E-07
Acenaphthene	1.8E-06	1.30E-08	5.71E-08
Acenaphthylene	1.8E-06	1.30E-08	5.71E-08
Anthracene	2.4E-06	1.74E-08	7.61E-08
Benz(a)anthracene	1.8E-06	1.30E-08	5.71E-08
Benzene	2.1E-03	1.52E-05	6.66E-05
Benzo(a)pyrene	1.2E-06	8.69E-09	3.80E-08
Benzo(b)fluoranthene	1.8E-06	1.30E-08	5.71E-08
Benzo(g,h,i)perylene	1.2E-06	8.69E-09	3.80E-08
Benzo(k)fluoranthene	1.8E-06	1.30E-08	5.71E-08
Chrysene	1.8E-06	1.30E-08	5.71E-08
Dibenzo(a,h)anthracene	1.2E-06	8.69E-09	3.80E-08
Dichlorobenzene	1.2E-03	8.69E-06	3.80E-05
Fluoranthene	3.0E-06	2.17E-08	9.51E-08
Fluorene	2.8E-06	2.03E-08	8.88E-08
Formaldehyde	7.5E-02	5.43E-04	2.38E-03
Hexane	1.8E+00	1.30E-02	5.71E-02
Indeno(1,2,3-cd)pyrene	1.8E-06	1.30E-08	5.71E-08
Naphthalene	6.1E-04	4.42E-06	1.93E-05
Phenanthrene	1.7E-05	1.23E-07	5.39E-07
Pyrene	5.0E-06	3.62E-08	1.59E-07
Toluene	3.4E-03	2.46E-05	1.08E-04
Arsenic	2.0E-04	1.45E-06	6.34E-06
Beryllium	1.2E-05	8.69E-08	3.80E-07
Cadmium	1.1E-03	7.96E-06	3.49E-05
Chromium	1.4E-03	1.01E-05	4.44E-05
Cobalt	8.4E-05	6.08E-07	2.66E-06
Manganese	3.8E-04	2.75E-06	1.20E-05
Mercury	2.6E-04	1.88E-06	8.24E-06
Nickel	2.1E-03	1.52E-05	6.66E-05
Selenium	2.4E-05	1.74E-07	7.61E-07
Lead	5.0E-04	3.62E-06	1.59E-05
Total Toxic Emissions (HAPs + Other Toxics)		**1.37E-02**	**5.99E-02**

Notes:
(1) Natural Gas HAP Emission Factors from AP-42, Tables 1.4-2, 1.4-3 and 1.4-4.

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GHG Emissions

Source	Max Annual Fuel Consumption (MMBtu)	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
7 MMBtu/hr Natural Gas Dew Point Heater	61,320	3,586	1.62E-06	0.0068	3,588

Natural Gas GHG Emission Factors and Conversions			Source
CO_2	53.06	kg/MMBtu	40 CFR 98.33, Table C-1
CH_4	0.001	kg/MMBtu	40 CFR 98.33, Table C-2
N_2O	0.0001	kg/MMBtu	40 CFR 98.33, Table C-2
Conversion	1.1023	ton/ tonne	--

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	28	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	265	40 CFR 98 Subpart A, Table A-1

COPY

New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

9 MMBtu/hr Dew Point Heater

Heater Information	Value	Units
Heat Input	9.0	MMBtu/hr
Natural Gas Heating Value	967	BTU/scf
Maximum Natural Gas Usage	9,307	scf/hr
Maximum Natural Gas Usage	9.31E-03	(10^6scf/hr)
Maximum Natural Gas Usage	78,840	MMBtu/yr
Annual Hours of Operations	8,760	hrs/yr
Total Number of Heaters	1	Units

Notes:
(1) Dew point heater heat input provided by NEW based on vendor data.

Criteria Pollutant - Potential Emissions

Pollutant	Natural Gas 9 MMBtu/hr Dew Point Heater		
	Emission Factor ($lb/10^6$ scf)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)
NOx	50	0.47	2.04
CO	84	0.78	3.42
PM_{10}	7.6	0.071	0.31
$PM_{2.5}$	7.6	0.071	0.31
SO_2	0.6	0.01	0.02
VOC	5.5	0.05	0.22

Notes:

(1) Natural gas criteria emission factors from AP-42, Tables 1.4-1 and 1.4-2. For NOx and CO, combustor type is assumed to be small boilers with low NOx burners < 100 MMBtu/hr.

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HAP Emissions

Hazardous Air Pollutant	Natural Gas 9 MMBtu/hr Dew Point Heater		
	Emission Factor ($lb/10^6$ scf)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)
2-Methylnaphthalene	2.4E-05	2.23E-07	9.78E-07
3-Methylchloranthrene	1.8E-06	1.68E-08	7.34E-08
7,12-Dimethylbenz(a)anthracene	1.6E-05	1.49E-07	6.52E-07
Acenaphthene	1.8E-06	1.68E-08	7.34E-08
Acenaphthylene	1.8E-06	1.68E-08	7.34E-08
Anthracene	2.4E-06	2.23E-08	9.78E-08
Benz(a)anthracene	1.8E-06	1.68E-08	7.34E-08
Benzene	2.1E-03	1.95E-05	8.56E-05
Benzo(a)pyrene	1.2E-06	1.12E-08	4.89E-08
Benzo(b)fluoranthene	1.8E-06	1.68E-08	7.34E-08
Benzo(g,h,i)perylene	1.2E-06	1.12E-08	4.89E-08
Benzo(k)fluoranthene	1.8E-06	1.68E-08	7.34E-08
Chrysene	1.8E-06	1.68E-08	7.34E-08
Dibenzo(a,h)anthracene	1.2E-06	1.12E-08	4.89E-08
Dichlorobenzene	1.2E-03	1.12E-05	4.89E-05
Fluoranthene	3.0E-06	2.79E-08	1.22E-07
Fluorene	2.8E-06	2.61E-08	1.14E-07
Formaldehyde	7.5E-02	6.98E-04	3.06E-03
Hexane	1.8E+00	1.68E-02	7.34E-02
Indeno(1,2,3-cd)pyrene	1.8E-06	1.68E-08	7.34E-08
Naphthalene	6.1E-04	5.68E-06	2.49E-05
Phenanthrene	1.7E-05	1.58E-07	6.93E-07
Pyrene	5.0E-06	4.65E-08	2.04E-07
Toluene	3.4E-03	3.16E-05	1.39E-04
Arsenic	2.0E-04	1.86E-06	8.15E-06
Beryllium	1.2E-05	1.12E-07	4.89E-07
Cadmium	1.1E-03	1.02E-05	4.48E-05
Chromium	1.4E-03	1.30E-05	5.71E-05
Cobalt	8.4E-05	7.82E-07	3.42E-06
Manganese	3.8E-04	3.54E-06	1.55E-05
Mercury	2.6E-04	2.42E-06	1.06E-05
Nickel	2.1E-03	1.95E-05	8.56E-05
Selenium	2.4E-05	2.23E-07	9.78E-07
Lead	0.0005	4.65E-06	2.04E-05
Total Toxic Emissions (HAPs + Other Toxics)		**1.76E-02**	**7.70E-02**

Notes:
(1) Natural Gas HAP Emission Factors from AP-42, Tables 1.4-2, 1.4-3 and 1.4-4.

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GHG Emissions

Source	Max Annual Fuel Consumption (MMBtu)	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
9 MMBtu/hr Natural Gas Dew Point Heater	78,840	4,611	0.00	0.01	4,613

Natural Gas GHG Emission Factors and Conversions			Source
CO_2	53.06	kg/MMBtu	40 CFR 98.33, Table C-1
CH_4	0.001	kg/MMBtu	40 CFR 98.33, Table C-2
N_2O	0.0001	kg/MMBtu	40 CFR 98.33, Table C-2
Conversion	1.1023	ton/ tonne	--

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	28	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	265	40 CFR 98 Subpart A, Table A-1

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

Exempt Diesel Storage Tanks

Tank Specs

Tank ID	Met. Data City	Met. Data State	Site Name	Tank Type	Shell Length (ft)	Tank Diameter (ft)	Max. Liquid Level (ft)	Min. Liquid Level (ft)	Throughput in gal.	Number of turnovers	Is Insulated	Is Heated	Heating cycles
DG-TNK-001	Aberdeen	SD	AGS	Horizontal Tank	20.3	4.9	3.00	0	730,000	365	No	No	N/A
DG-TNK-002	Aberdeen	SD	AGS	Horizontal Tank	20.3	4.9	3.00	0	730,000	365	No	No	N/A
FP-TNK-001	Aberdeen	SD	AGS	Horizontal Tank	16.2	3.9	1.92	0	182,500	365	No	No	N/A

Fuel Specs

Tank ID	Product	Bulk Liquid Temperature (deg F)	Avg. Liquid Surface Temp. (deg F)	Min. Liquid Surface Temp. (deg F)	Max. Liquid Surface Temp. (deg F)	Avg. Total Vapor Pressure (psia)	Min. Total Vapor Pressure (psia)	Max. Total Vapor Pressure (psia)	Molecular Weight Liquid (lb/lb-mole)	Molecular Weight Vapor (lb/lb/-mole)
DG-TNK-001	Diesel	47.0	51.4	41.8	61.1	0.0049	0.0035	0.0067	188	130
DG-TNK-002	Diesel	47.0	51.4	41.8	61.1	0.0049	0.0035	0.0067	188	130
FP-TNK-001	Diesel	47.0	51.4	41.8	61.1	0.0049	0.0035	0.0067	188	130

Emissions

Tank ID	Estimated VOC standing losses (lbs/y)	Estimated VOC working losses (lbs/y)	Total estimated VOC emissions (lbs/y)	Total estimated VOC emissions (tpy)
DG-TNK-001	0.57	2.88	3.45	0.0017
DG-TNK-002	0.57	2.88	3.45	0.0017
FP-TNK-001	0.29	0.88	1.17	0.00058
Total Diesel Tank Emissions (lbs)	**1.4**	**6.6**	**8.1**	**4.04E-03**
Total Diesel Tank Emissions (tons)	**7.12E-04**	**3.32E-03**	**4.04E-03**	**2.02E-06**

Notes:

(1) Emissions estimated using EPA TANKS 5.3.

(2) Throughput for the fire pump tank and emergency engine tanks are based on 1 turnover per day (500 gallons per day and 2,000 gallons per day respectively).

(3) Fire pump tank fuel tank is based on black shell finish and non insulated. Estimates are based on good tank conditions. Dimensions based on CAT C27 Fuel Tank Base for 600 gallon tank.

(4) For rectangular base tanks, tank diameter was determined by calculating an effective diameter for the tank area. Maximum liquid level was assumed to be the tank height.

(5) Emergency engines fuel tank based on black shell finish and non insulated. Estimates are based on good tank conditions. Dimensions based on CAT C27 Fuel Tank Base for 2,000 gallon tank.

(6) Equations based AP-42 Chapter 7.1.

(7) All VOC emissions assumed to be HAPs.

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New Emission Sources - Potential to Emit Calculations

NorthWestern Energy - Hub City Energy Park

Exempt Heaters and HVAC Equipment

Location (Building)	Equipment Description [1]	Rated Heat Input per Unit (Btu/hr)	Number at Location	Total Heat Input [2] (MMBtu/hr)
Maintenance Shop/Warehouse/Locker Rooms/Showers	Direct Gas-fired MUA (6,750 CFM)	732,000	2	1.46
	Gas-fired Hot Water Heater	120,000	1	0.12
	Reznor UDX-100 Gas Unit Heater	105,000	4	0.42
Water Treatment Building	Direct Gas-fired MUA (7,500 CFM)	814,000	2	1.63
	Gas-fired Hot Water Heater	199,000	1	0.20
	Reznor UDX-100 Gas Unit Heater	105,000	4	0.42
Heated/Enclosed Safety Shower/Eyewash Station	Electric Heater	Elec Heat	1	0.00
	Gas-fired Hot Water Heater	199,000	1	0.20
Power Distribution Center	Air Handling Unit (3,000 CFM)	Elec Heat	2	0.00
Administration/Control Building	Air Handling Unit (5,000 CFM) (Admin Area)	300,000	2	0.60
	Air Handling Unit (3,000 CFM) Control Room	200,000	2	0.40
	Gas-fired Hot Water Heater	199,000	1	0.20
Substation Control House	Air Handling Unit (2,000 CFM)	Elec Heat	2	0.00
Power Island Engine Hall	Reznor UDX-100 Gas Unit Heater	105,000	8	0.84
	Direct Gas-fired MUA (21,500 CFM)	2,330,000	2	4.66
		Total	**35**	**11.15**

Notes:
(1) Emissions have been estimated for prime units only.
(2) All emission units are exempt from permitting as heat input is below 3.5 MMBtu/hr, per SD SDAR 74:36:04:03.

Heaters Information	Value	Units
Operating Schedule	8,760	hrs/yr
Heat Content of Fuel	967	Btu/scf
Total Heat Input	11.15	MMBtu/hr
HI (>0.3 MMBtu)	10.43	MMBtu/hr
HI (<0.3 MMBtu)	0.72	MMBtu/hr
Potential Fuel Usage	0.012	MMscfh
Fuel Use (>0.3 MMBtu)	0.011	MMscfh
Fuel Use (<0.3 MMBtu)	0.001	MMscfh

Criteria Pollutant Emissions

Criteria Pollutant Emissions	Emission Factor (lb/MMscf)	Total Emissions (lb/hr)	Total Emissions (tpy)
CO (> 0.3 MMBtu)	84	0.906	3.97
CO (< 0.3 MMBtu)	40	0.030	0.13
CO Total	-	0.936	4.10
NOx (> 0.3 MMBtu)	100	1.079	4.73
NOx (< 0.3 MMBtu)	94	0.070	0.31
NOx Total	-	1.148	5.03
$PM/PM_{10}/PM_{2.5}$	7.6	0.088	0.38
SO_2	0.6	0.007	0.03
VOC, non-methane	5.5	0.063	0.28

Notes:
(1) Emission factors, from AP-42, Section 1.4 Tables 1.4-1, 1,4-2. Residential Furnace emissions factors in Table 1.4-1 for CO and NOx used for heaters less than 0.3 MMBtu. Small uncontrolled boiler emission factors in Table 1.4-1 used for heaters greater than 0.3 MMBtu/hr.
(2) Assume PM_{10} and $PM_{2.5}$ = 100% of total particulate

HAP Emissions

Hazardous Air Pollutant	Emission Factor (lb/MMscf)	Total Emissions (lb/hr)	Total Emissions (tpy)
Benzene	0.002	2.42E-05	1.06E-04
Dichlorobenzene	0.001	1.38E-05	6.06E-05
Formaldehyde	0.075	8.65E-04	3.79E-03
Naphthalene	6.10E-04	7.03E-06	3.08E-05
Hexane	1.80	0.021	0.091
Toluene	3.40E-03	3.92E-05	1.72E-04
Total			**0.095**

Notes:
(1) Emission factors, from AP-42, Section 1.4-3.
(2) While the combustion of natural gas will result in additional HAPs, emissions from those HAPs are expected to be less than 0.00001 TPY. Therefore, those HAP emissions have not be speciated.

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GHG Emissions

Emission Source	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions	CO_2e Emissions (tpy)
Natural Gas Heaters and HVAC Equipment	7,195	0.11	0.01	7,201

Notes:
(1) GHG emissions factors from 40 CFR 98, Tables A-1, C-1, C-2. Global Warming Potentials from 40 CFR 98 Subpart A, Table A-1.

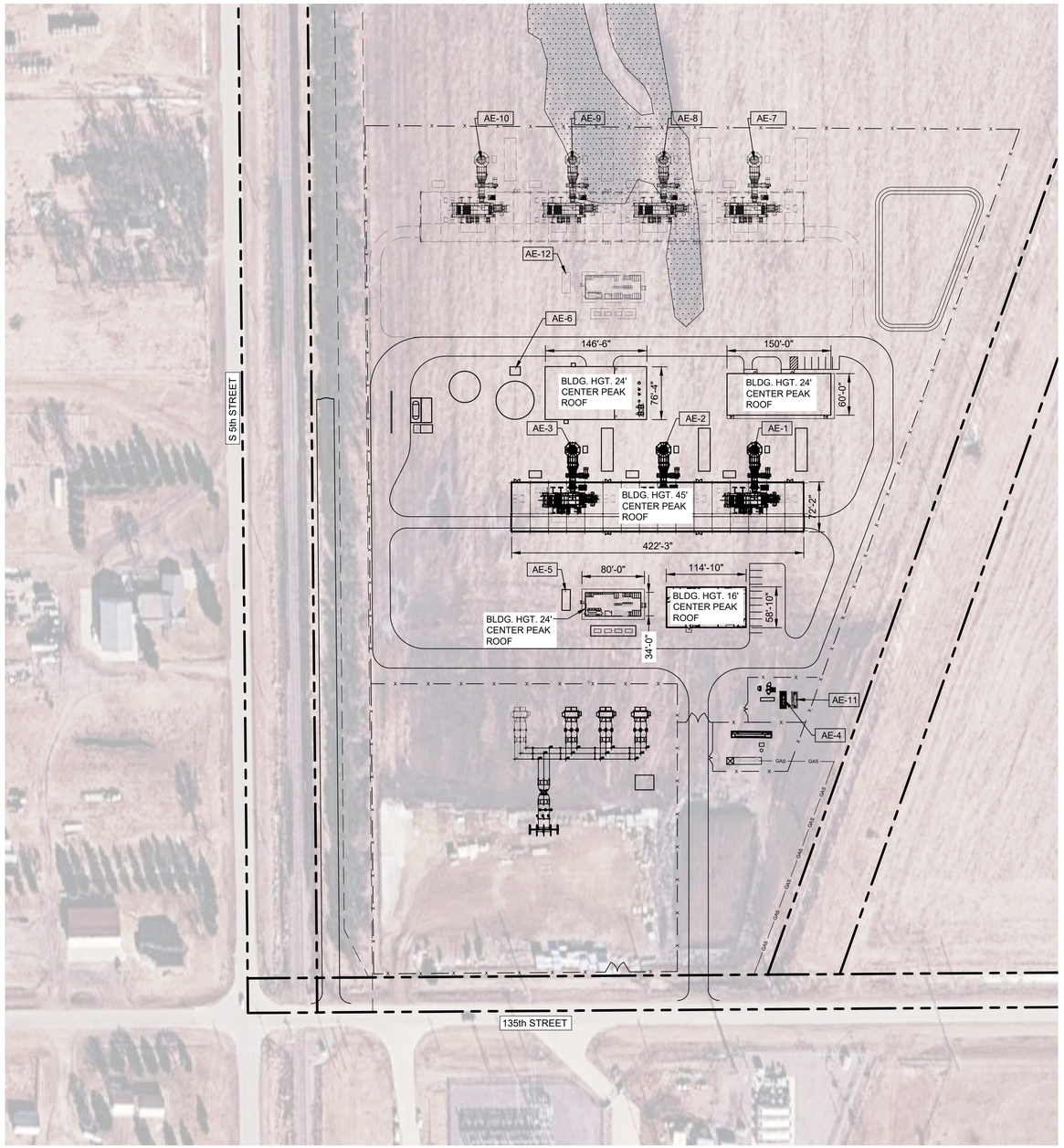
Natural Gas GHG Emission Factors and Conversions			Source
CO_2	66.83	kg/MMBtu	40 CFR 98.33 Table C-1
CH_4	1.00E-03	kg/MMBtu	40 CFR 98.33 Table C-2
N_2O	1.00E-04	kg/MMBtu	40 CFR 98.33 Table C-2
Natural Gas Heating Value	967	MMBtu/scf	40 CFR 98 Subpart C, Table C-1
Conversion	1.1023	ton/tonne	--
	0.0010	tonne/kg	--

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	28	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	265	40 CFR 98 Subpart A, Table A-1

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Appendix C
Facility Plot Plan

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AIR EMISSION SOURCES (COMBUSTION SOURCES)				
NO	NAME	STATE PLANE COORDINATES		ELEVATION
		E	N	
AE-1	CT EXHAUST STACK 1	2,355,504 ft. E	586,666 ft. N	+80 ft.
AE-2	CT EXHAUST STACK 2	2,355,373 ft. E	586,666 ft. N	+80 ft.
AE-3	CT EXHAUST STACK 3	2,355,241 ft. E	586,666 ft. N	+80 ft.
AE-4	DEW POINT HEATER	2,355,547 ft. E	586,306 ft. N	+15 ft.
AE-5	EMERGENCY DIESEL GENERATOR	2,355,232 ft. E	586,462 ft. N	+10 ft.
AE-6	DIESEL-FIRED FIRE PUMP	2,355,159 ft. E	586,784 ft. N	+15 ft.
AE-7	CT EXHAUST STACK 4 (FUTURE)	2,355,504 ft. E	587,084 ft. N	+80 ft.
AE-8	CT EXHAUST STACK 5 (FUTURE)	2,355,373 ft. E	587,084 ft. N	+80 ft.
AE-9	CT EXHAUST STACK 6 (FUTURE)	2,355,241 ft. E	587,084 ft. N	+80 ft.
AE-10	CT EXHAUST STACK 7 (FUTURE)	2,355,110 ft. E	587,084 ft. N	+80 ft.
AE-11	DEW POINT HEATER (FUTURE)	2,355,563 ft. E	586,305 ft. N	+15 ft.
AE-12	EMERGENCY DIESEL GENERATOR (FUTURE)	2,355,232 ft. E	586,917 ft. N	+10 ft.

1. STATE PLANE COORDINATES ARE ZONE 4001 "SOUTH DAKOTA NORTH" AND ARE APPROXIMATE.
2. ELEVATIONS ARE PRELIMINARY, APPROXIMATE AND ASSUMED SITE BASE GRADE ELEVATION IS 1292 ft.

NOTES:

1. FOR ALL SLOPED ROOFS, A ROOF SLOPE OF 4/12 CAN BE USED.

N

AIR EMISSIONS PLAN

SCALE: 1"=100'

100 50 0 100 200 300

ISSUE	DATE	DESCRIPTION	DRAWN	ENGINEER	CHECKED	APPROVED
3	09/23/2026	REVISED	CMW	MAH	CTS	CTS
2	06/05/2026	REVISED	J_B	BBC	CTS	JWB
1	05/07/2026	PRELIMINARY BUILDING SIZES ADDED FOR INFORMATION	J_B	BBC	CTS	JWB
0	04/13/2026	FOR BID	J_B	BBC	CTS	JWB

PRELIMINARY
NOT FOR CONSTRUCTION

NorthWestern Energy

NORTHWESTERN ENERGY
HUB CITY ENERGY PARK

AIR EMISSIONS LOCATION PLAN

FILENAME M1003.dwg
SCALE AS NOTED

SHEET
10450080-0GA-M1003

Scott Leigh

From: Babcock, Sady <Sady.Babcock@northwestern.com>
Sent: Tuesday, October 27, 2026 2:44 PM
To: 'Williams, Teresa'
Subject: RE: New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy

Teresa,

Josh will be the contact for now until we fill Blaine's position. In addition, Bleau will be the responsible official for the foreseeable future. As you may or may not know we are going through a merger with Black Hills Energy and if approved by the Montana Public Service Commission (Hearing today) we will most likely be updating the Responsible Official and perhaps the contacts for this project. We will keep you posted. SB

From: Williams, Teresa <Teresa.Williams@state.sd.us>
Sent: Tuesday, October 27, 2026 12:32 PM
To: Babcock, Sady <Sady.Babcock@northwestern.com>
Subject: [EXTERNAL] RE: New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy

CAUTION: This Email is from an EXTERNAL source outside of NorthWestern Energy.
The Original Sender of this email is Teresa.Williams@state.sd.us.
Are you expecting the message? Is this different from the message sender displayed above?
Do not click on links or open attachments unless you are sure you recognize the sender and you know the contents are safe.
If you believe the email to be malicious and/or phishing email, please use the **Report Phish** button.

You're welcome, I was just looking at it, and it looks like none of those contacts are listed for NorthWestern Energy.

Is Josh Follman the new Blaine Snyder and Bleau LaFave the new responsible official instead of you?

Have a great day,

Teresa Williams, Program Assistant
DANR – AQ
523 East Capital Ave. Pierre SD 57501
Phone: 605-773-2278
Danr.sd.gov

From: Babcock, Sady <Sady.Babcock@northwestern.com>
Sent: Tuesday, October 27, 2026 1:27 PM
To: Williams, Teresa <Teresa.Williams@state.sd.us>
Subject: RE: [EXT] New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy

Thanks Teresa! SB

From: Williams, Teresa <Teresa.Williams@state.sd.us>
Sent: Tuesday, October 27, 2026 12:26 PM
To: Babcock, Sady <Sady.Babcock@northwestern.com>
Subject: [EXTERNAL] RE: New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy

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Hi Sady,

I have received the air quality construction application and payment for the Hub City Energy Park in Aberdeen South Dakota.

Have a great day,

Teresa Williams, Program Assistant
DANR – AQ
523 East Capital Ave. Pierre SD 57501
Phone: 605-773-2278
Danr.sd.gov

From: Rombough, Kyrik <Kyrik.Rombough@state.sd.us>
Sent: Tuesday, October 27, 2026 1:04 PM
To: Williams, Teresa <Teresa.Williams@state.sd.us>
Subject: FW: [EXT] New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy

Teresa:

Please handle

Thanks

Kyrik

From: Babcock, Sady <Sady.Babcock@northwestern.com>
Sent: Tuesday, October 27, 2026 12:46 PM
To: Rombough, Kyrik <Kyrik.Rombough@state.sd.us>; Weber, Connor <Connor.Weber@state.sd.us>; Brakke, Ashley <Ashley.Brakke@state.sd.us>; Olmstead, Samantha <Samantha.Olmstead@state.sd.us>
Cc: Follman, Joshua <Joshua.Follman@northwestern.com>; Sorensen, Benjamin <Benjamin.Sorensen@northwestern.com>; Edwards, Miranda <Miranda.Edwards@northwestern.com>
Subject: RE: [EXT] New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy

Hi Kyrik,

I wanted to follow up to make sure you received the hard copy of our air quality permit application, along with the permit fee, that was sent via U.S. Mail.

Could you please confirm receipt and let me know if any additional information is needed to support your review?

Thank you for your time, and I look forward to hearing from you. SB

Sady Babcock
Director – Environmental, Lands & Permitting, Hydro Compliance
Sady.Babcock@northwestern.com
O 406-497-3148
C 406-565-2461



From: Babcock, Sady
Sent: Thursday, October 15, 2026 3:14 PM
To: Rombough, Kyrik <Kyrik.Rombough@state.sd.us>; 'Weber, Connor' <Connor.Weber@state.sd.us>; 'Brakke, Ashley' <Ashley.Brakke@state.sd.us>; 'samantha.olmstead@state.sd.us' <samantha.olmstead@state.sd.us>
Cc: Follman, Joshua <Joshua.Follman@northwestern.com>; Sorensen, Benjamin <Benjamin.Sorensen@northwestern.com>; Edwards, Miranda <Miranda.Edwards@northwestern.com>
Subject: New Source Review Minor Construction Permit Application_NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy

Kyrik et al,

Attached find a New Source Review Minor Construction Permit application for the proposed Hub City Energy Park at 440 SW 135th Street in Aberdeen, South Dakota. The application requests authorization to construct and initially operate the project's proposed combustion turbines and associated auxiliary equipment. The original hard-copy application and check for the permit fee have been sent via the US Postal Service.

We are requesting a construction permit specific to Hub City Energy Park. Thank you for consideration of our application and let us know if additional information is needed to complete your review. SB

Sady Babcock
Director – Environmental, Lands & Permitting, Hydro Compliance
Sady.Babcock@northwestern.com
O 406-497-3148
C 406-565-2461

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Scott Leigh

From: Williams, Teresa <Teresa.Williams@state.sd.us>
Sent: Tuesday, November 3, 2026 10:33 AM
To: benjamin.sorensen
Subject: [EXTERNAL] Application

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If you believe the email to be malicious and/or phishing email, please use the **Report Phish** button.

Hey Ben,

I am sorry I thought I had sent you a message stating we had received the air quality construction application for Northwestern – Hub City Energy Park in Aberdeen.

We received on October 22, 2026, it has not yet been assigned to a permit writer.

Have a great day,

Teresa Williams, Program Assistant
DANR – AQ
523 East Capital Ave. Pierre SD 57501
Phone: 605-773-2278
Danr.sd.gov

SOUTH DAKOTA GAME, FISH, PARKS (SD GFP)

- 8/31/26 – Letter from NorthWestern to SD GFP
- 9/2/26 – NorthWestern (via HDR) Natural Heritage Program Data Request
- 9/3/26 – Email from SD GFP to NorthWestern
- 9/8/26 – SD GFP Environmental Review Tool (ERT) Results
- 9/21/26 – Email from NorthWestern (via HDR) to SD GFP for Environmental Review
- 10/9/26 – Letter from SD GFP for Project Site Clearance
- 10/15/26 – Email Correspondence between SD GFP and NorthWestern (via HDR) regarding Eagle Nest Data (not required)

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

October 9, 2026

Emma Koeckeritz
HDR inc.
51 North Broadway Suite 300
Fargo ND 58102

RE: Northwestern Energy Aberdeen Generating Station III
Brown County, South Dakota

Dear Emma or whom it may concern,

The South Dakota Department of Game, Fish and Parks (GFP) reviewed the proposed three-unit, 131-megawatt simple-cycle combustion turbine facility in Brown County by searching the South Dakota Nongame Conservation Database. This database tracks species at risk, including those legally designated as threatened, endangered, or rare. No occurrences of threatened, endangered, or rare species were identified within the immediate project area. One green heron (*Butorides virescens*) record was documented outside the project area; based on the project scope, we do not anticipate impacts to this species. Please note that many areas in South Dakota have not been comprehensively surveyed, and absence of a species in the database does not preclude its presence.

GFP met virtually with HDR and Northwestern Energy on October 9, 2026, to discuss the project and potential mitigation strategies. We recommend following all guidance provided in the South Dakota Environmental Review Tool report, as well as the mitigation strategies discussed during the meeting, including:

- If any tree removal is necessary, it should occur outside the northern long-eared bat (*Myotis septentrionalis*) maternity season (May 15–August 31). If the U.S. Fish and Wildlife Service provides different dates, please follow their guidance, as they have jurisdiction over federally listed species.

Based on the information provided, no significant impacts to fish and wildlife resources are anticipated.

If you have any questions, please feel free to contact me at 605-394-6052.

Sincerely,

Mandy Pearson
Senior Wildlife Biologist
4130 Adventure Trail
Rapid City, SD 57702
mandy.pearson@state.sd.us

Brazeal, Alex

From: Weidler, John <John.Weidler@state.sd.us>
Sent: Thursday, October 15, 2026 4:27 PM
To: Koeckeritz, Emma
Cc: Pearson, Mandy; Brazeal, Alex
Subject: Re: Data Request

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Emma,

I went ahead and took a quick glance at that township, range, and section, and we don't have any bald eagle nests on record there. So there's really no need to send a check, or if you already sent it you could go ahead and cancel it.

Thanks,

J.M. Weidler | *Nongame Conservation Biologist*
South Dakota Game, Fish and Parks
4500 S Oxbow Ave | Sioux Falls, SD 57106
O: 605.362.2719 |C: 605.305.6511 | john.weidler@state.sd.us

From: Koeckeritz, Emma <emma.koeckeritz@hdrinc.com>
Sent: Monday, October 12, 2026 9:34 AM
To: Weidler, John <John.Weidler@state.sd.us>
Cc: Pearson, Mandy <Mandy.Pearson@state.sd.us>; Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Subject: RE: [EXT] Data Request

Hi John,

Sorry for the late response. Alex Brazeal (who is cc'd on this email) will send you the check for the data.

Thanks!

Emma Koeckeritz
D 701-552-9946

hdrinc.com/follow-us

From: Weidler, John <John.Weidler@state.sd.us>
Sent: Monday, September 28, 2026 11:35 AM
To: Koeckeritz, Emma <emma.koeckeritz@hdrinc.com>
Cc: Pearson, Mandy <Mandy.Pearson@state.sd.us>
Subject: Re: Data Request

You don't often get email from john.weidler@state.sd.us. Learn why this is important

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Emma,

Here is your invoice for the data. Please mail a check to the address attached. Once we have that I can process this request.

Thanks,

J.M. Weidler | *Nongame Conservation Biologist*
South Dakota Game, Fish and Parks
4500 S Oxbow Ave | Sioux Falls, SD 57106
O: 605.362.2719 |C: 605.305.6511 | john.weidler@state.sd.us

From: Koeckeritz, Emma <emma.koeckeritz@hdrinc.com>
Sent: Thursday, September 24, 2026 1:21 PM
To: Weidler, John <John.Weidler@state.sd.us>
Cc: Pearson, Mandy <Mandy.Pearson@state.sd.us>
Subject: RE: [EXT] Data Request

Hi John,

Attached are the signed data use agreement and a KMZ of our area of interest. Let me know if you need anything else!

Thanks,

Emma Koeckeritz
D 701-552-9946

hdrinc.com/follow-us

From: Weidler, John <John.Weidler@state.sd.us>
Sent: Monday, September 21, 2026 12:01 PM
To: Koeckeritz, Emma <emma.koeckeritz@hdrinc.com>
Cc: Pearson, Mandy <Mandy.Pearson@state.sd.us>
Subject: Data Request

You don't often get email from john.weidler@state.sd.us. Learn why this is important

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Emma,

We received your request for bald eagle nest data. Please sign and email back this data use agreement and then I will send you an invoice. If you could also send a shapefile or kmz of the area you're interested in that would be great.

Thanks,

J.M. Weidler | *Nongame Conservation Biologist*
South Dakota Game, Fish and Parks
4500 S Oxbow Ave | Sioux Falls, SD 57106
O: 605.362.2719 |C: 605.305.6511 | john.weidler@state.sd.us



UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

- 8/31/26 – Letter from NorthWestern to USACE
- 9/3/26 – Letter from USACE to NorthWestern
- 9/22/26 – Jurisdictional Determination (JD) Request from NorthWestern (via HDR) to USACE
    - Wetland Delineation Report
    - Engineering Form 6247
- 9/25/26 – USACE receipt confirmation of NorthWestern JD Request
- 10/13/26 – NorthWestern (via HDR) JD Request Status
- 10/19/26 – NorthWestern (via HDR) Shapefiles for Study Area
    - Shapefiles
- 10/22/26 – USACE Approved Jurisdictional Determination (AJD) Response
    - AJD Letter
    - AJD Memorandum for Record
    - Request for Appeal Form
- 10/22/26 – NorthWestern (via HDR) Confirmation of AJD Response
- 10/28/26 – NorthWestern (via HDR) and USACE Correspondence regarding AJD Letter
    - Revised AJD Letter

Scott Leigh

From: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Sent: Tuesday, October 13, 2026 3:19 PM
To: Carlberg, Hadden J CIV USARMY CENWO (USA)
Cc: joshua.follman@northwestern.com; Lucostic, Seamus; benjamin.sorensen; Scott Leigh; Shuler, Carrie
Subject: NWO-2026-01237-PIE; AJD Request for NWPS Hub City Energy Park

Hello Hadden,

I would like to take the opportunity to reach out and ask for a status on this AJD request. The Project team is aware of State requirements to consult with SD DANR on any aquatic resources determined to be non-jurisdictional by USACE and will use the information that you provide to guide that consultation.

Is there any additional information that I can provide, or Project details that I could clarify to aid in your review?

Thank you,

Alex T. Brazeal
Environmental Project Manager
HDR
3231 Greensboro Drive, Suite 200
Bismarck, ND 58503
C 701.934.7830
D 701.557.9731

alex.brazeal@hdrinc.com
hdrinc.com/follow-us

Scott Leigh

From: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Sent: Monday, October 19, 2026 3:28 PM
To: Carlberg, Hadden J CIV USARMY CENWO (USA)
Cc: Scott Leigh
Subject: RE: NWO-2026-01237-PIE; AJD Request for NWPS Hub City Energy Park
Attachments: 20261019_JD_Request_Hub_City_Energy_Park.zip

Hi Hadden,

No problem. Please see the attached shapefiles for delineated wetlands and study area boundary.

If you have any issues with the spatial files or any questions arise, please don't hesitate to reach out again.

Thank you!

Alex T. Brazeal
C 701.934.7830

hdrinc.com/follow-us

From: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Sent: Friday, October 16, 2026 3:23 PM
To: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Subject: RE: NWO-2026-01237-PIE; AJD Request for NWPS Hub City Energy Park

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Alex,

I was wondering if you could send over the shapefiles/KML for the Study Area and all delineated Wetlands? This will help expedite our review. I am in the middle of my review and hope to have it completed by the end of next week. If I can get those files, I may be able to get it out sooner. Let me know if you have any questions or concerns! Thanks,

V/R,
Hadden J. Carlberg, MNR
Project Manager
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
701-989-6431

From: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Sent: Tuesday, October 13, 2026 3:03 PM
To: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Subject: [Non-DoD Source] RE: NWO-2026-01237-PIE; AJD Request for NWPS Hub City Energy Park

Hadden,

Thank you for the quick response! Please let me know if any questions do arise during your review.

Sincerely,

Alex T. Brazeal
C 701.934.7830

hdrinc.com/follow-us

From: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Sent: Tuesday, October 13, 2026 3:01 PM
To: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Subject: RE: NWO-2026-01237-PIE; AJD Request for NWPS Hub City Energy Park

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon Alex,

I have not started my review of this project as there were permits ahead of this. I have this scheduled to start Thursday or Friday this week. It should be a quick review based on the minimal number of resources and I hope to have it completed by the end of next week. Let me know if you have any further questions or concerns. Thanks,

V/R,
Hadden J. Carlberg, MNR
Project Manager
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
701-989-6431

From: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Sent: Tuesday, October 13, 2026 2:19 PM
To: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Cc: Follman, Joshua <joshua.follman@northwestern.com>; Lucostic, Seamus <seamus.lucostic@northwestern.com>; Sorensen, Benjamin <benjamin.sorensen@northwestern.com>; Scott Leigh <scott.leigh@aionenergyllc.com>; Shuler, Carrie <carrie.shuler@hdrinc.com>
Subject: [Non-DoD Source] NWO-2026-01237-PIE; AJD Request for NWPS Hub City Energy Park

Hello Hadden,

I would like to take the opportunity to reach out and ask for a status on this AJD request. The Project team is aware of State requirements to consult with SD DANR on any aquatic resources determined to be non-jurisdictional by USACE and will use the information that you provide to guide that consultation.

Is there any additional information that I can provide, or Project details that I could clarify to aid in your review?

Thank you,

Alex T. Brazeal
Environmental Project Manager
HDR
3231 Greensboro Drive, Suite 200
Bismarck, ND 58503
C 701.934.7830
D 701.557.9731

alex.brazeal@hdrinc.com
hdrinc.com/follow-us

Scott Leigh

From: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Sent: Thursday, October 22, 2026 10:56 AM
To: Brazeal, Alex
Cc: joshua.follman@northwestern.com; Lucostic, Seamus; benjamin.sorensen; Scott Leigh; carrie.shuler@hdrinc.com; SD Regulatory Mailbox
Subject: Response to AJD Request ICO NWO-2026-01237-PIE (Hub City Energy Park - City of Aberdeen; Brown County)
Attachments: NWO-2026-01237-PIE_AJD-Letter.pdf; NWO-2026-01237-PIE_AJD-MFR_pre-2015_jurisdiction_post-Sackett.pdf; NWO-2026-01237-PIE_Appeal-Form.pdf

You don't often get email from hadden.j.carlberg@usace.army.mil. Learn why this is important

Good Morning Alex,

Our office, working with the South Dakota Regulatory Office, has reviewed the request submitted on behalf of NorthWestern Energy (copied to this email) for an Approved Jurisdictional Determination (AJD) for the proposed Hub City Energy Park project. Please see the attached letter and supporting documents. Thank you,

V/R,
Hadden J. Carlberg, MNR
Project Manager
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
701-989-6431

****

Check out our new Nation-wide **Recommended Minimum Standards for Aquatic Resource Delineation Reports!**

Please Note: In our aim to improve efficiency, the North Dakota Regulatory Office prefers that all submissions and requests be sent electronically to the *NEW* **Regulatory Request System (RRS)** or to: CENWO-OD-RND@usace.army.mil instead of a hard copy by mail. Please split large attachments (>25 MB) into multiple emails if needed. We will continue to accept and issue paper documents that meet our file requirements upon request in order to accommodate those with limited computer access.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY BRANCH
28563 POWERHOUSE ROAD
PIERRE, SD 57501

October 22, 2026

SUBJECT: NWO-2026-01237-PIE– Hub City Energy Park – Approved Jurisdictional Determination

Alex Brazeal
HDR Engineering, Inc.
3231 Greensboro Drive, Suite 200
Bismarck, ND 58503

Dear Mr. Brazeal:

This letter is in response to the request received on September 23, 2026 submitted on behalf of NorthWestern Energy for an approved jurisdictional determination for the proposed Hub City Energy Park project. The site is located in Section 25 of Township 123 North, Range 64 West, Aberdeen, Brown County, South Dakota. This request has been assigned the Corps Regulatory File Number referenced above. Please reference this file number on any correspondence to us or to other interested parties when referencing this project or concerning this request.

The U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged and fill material into waters of the United States under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344) and structures or work in, over, and under navigable waters of the United States under Section 10 of the Rivers and Harbors Act (RHA) (33 U.S.C. 403). The implementing regulations for these Acts are published in the Code of Federal Regulations at 33 CFR parts 330-332.

Based on our evaluation of the information provided and other available information, we have determined the following resources are non-jurisdictional: **W-1, W-2, W-3, W-4, W-5, W-6a, and W-6b**. The attached approved jurisdictional determination provides rationale for why these aquatic resources do not meet the definition of waters of the United States. Based on this determination, a Department of the Army permit **is not** required for the discharge of dredged or fill material into these aquatic resources.

This determination does not eliminate requirements to obtain any other applicable federal, state, tribal, or local permits.

Attached to this letter is the approved jurisdictional determination for your project site. This jurisdictional determination is valid for a 5-year period from the date of this letter, until **October 22, 2026**, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a *Notification of Administrative Appeal Options and Process and Request for Appeal* (NAO-RFA) form. If you

request to appeal this determination, you must submit a completed NAO-RFA form to the address listed on the form.

For an NAO-RFA to be accepted by the Corps, the Corps must determine that it is completed, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the NAO-RFA. Should you decide to submit an NAO-RFA form, it must be received at the Division Office by **December 21, 2026**. It is not necessary to submit an NAO-RFA form to the Division Office if you do not object to the determination in this letter.

In the event that you disagree with this approved jurisdictional determination, and you have **new information** not considered in the original determination, you may request reconsideration of this determination by contacting this office prior to initiating an appeal. To request this reconsideration based upon new information, you must submit the new information to this office so that it is received within 60 days of the date of the NAO-RFA.

Further information regarding the Omaha District Regulatory Program can be obtained by visiting our website at https://www.nwo.usace.army.mil/Missions/Regulatory-Program/.

If you have any questions concerning this jurisdictional determination, please contact the South Dakota Regulatory Office at the above address, by phone at 605-224-8531, or by email at SDRegulatoryMailbox@usace.army.mil and reference file number **NWO-2026-01237-PIE**.

Sincerely,

Benjamin N. Soiseth
Chief, North Dakota Branch

Enclosures
1. Approved Jurisdictional Determination for NWO-2026-01237-PIE
2. NOA-RFA Form

cc:
NorthWestern Energy (J Follman; S. Lucostic; B. Sorensen)
Aion Energy (S. Leigh)
HDR, Inc. (C. Shuler)

The Omaha District, South Dakota Regulatory Office is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at https://regulatory.ops.usace.army.mil/customer-service-survey. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, OMAHA DISTRICT
SOUTH DAKOTA REGULATORY BRANCH
28563 POWERHOUSE ROAD
PIERRE, SD 57501

CENWO-RGP October 20, 2026

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023) ,[1] NWO-2026-01237-PIE, Hub City Energy Park, MFR 1 of 1 [2]

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[3] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[4] For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),[5] the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of "waters of the United States" found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 "Revised Definition of 'Waters of the United States,'" as

---

[1] While the Supreme Court's decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

[2] When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, interstate water, or territorial seas that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).

[3] 33 CFR 331.2.

[4] Regulatory Guidance Letter 05-02.

[5] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in this state due to litigation.

1. SUMMARY OF CONCLUSIONS.

    a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

        i. W-1 – wetland; is not a Water of the United States
        ii. W-2 – wetland; is not a Water of the United States
        iii. W-3 – ditch/wetland; is not a Water of the United States
        iv. W-4 – ditch/wetland; is not a Water of the United States
        v. W-5 – ditch/wetland; is not a Water of the United States
        vi. W-6a – ditch/wetland; is not a Water of the United States
        vii. W-6b – ditch/wetland; is not a Water of the United States

2. REFERENCES.

    a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).

    b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).

    c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008)

    d. *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023)

    e. 2008 Rapanos Guidance

    f. US Army-EPA Joint Memo "Memorandum to the Field between the U.S. Department of the Army, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency Concerning the Proper Implementation of "Continuous Surface Connection" under the Definition of "Waters of the United States" under the Clean Water Act"" (March 2025)

3. REVIEW AREA. Review area is approximately (~)175 acres adjacent to the city of Aberdeen, Brown County, South Dakota in Section 25, Township 123 N, Range 64 W. Project is centered at Latitude 45.260297° N, Longitude -98.294587° W; A map showing the review area and wetland boundaries is attached.

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. N/A. [6]

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS N/A.

6. SECTION 10 JURISDICTIONAL WATERS[7]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10. N/A [8]

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

   a. TNWs (a)(1): N/A

   b. Interstate Waters (a)(2): N/A

   c. Other Waters (a)(3): N/A

---

[6] This MFR should not be used to complete a new stand-alone TNW determination. A stand-alone TNW determination for a water that is not subject to Section 9 or 10 of the Rivers and Harbors Act of 1899 (RHA) is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established.

[7] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

[8] This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

d. Impoundments (a)(4): N/A

e. Tributaries (a)(5): N/A

f. The territorial seas (a)(6): N/A

g. Adjacent wetlands (a)(7): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").[9] Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water. N/A

b. Describe aquatic resources and features within the review area identified as "generally not jurisdictional" in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance. N/A

c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A

d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in "*SWANCC*," would have been jurisdictional based solely on the "Migratory Bird Rule." Include the size of the aquatic resource or feature, and how it was determined to be an "isolated water" in accordance with *SWANCC*. N/A

f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more

[9] 51 FR 41217, November 13, 1986.

categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court's decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

W-1 (~3.70 acres) and W-2 (~23.94 acres) were identified in the delineation report as depressional wetlands. W-3 (~0.58 acres), W-4 (~0.82 acres), W-5 (~0.34 acres), W-6a (~0.42 acres), and W-6b (~0.43 acres) were identified in the delineation report as wetlands that have formed within excavated ditches (W-3 and W-4 are part of a historic railway, while W-5, W-6a, and W-6b are roadside ditches).

Utilizing the best available data (see Section 9), the Corps assessed wetlands W-1 and W-2 and we have determined that these wetlands are depressional, palustrine emergent wetlands that do not possess a continuous surface connection to (abut) any TNWs, IWs, or RPTs of such waters, as per the March 2025 U.S. Army-EPA Memo to the Field (see Section 2.f above).

The 2008 Rapanos Guidance states that "*Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are generally not waters of the United States*". The Corps assessed wetlands W-3 through W-6b and determined that these wetlands are palustrine emergent wetlands which have formed within the confines of a man-made drainage ditches which were constructed in uplands and do not have relatively permanent flows, as standing or flowing surface water was observed within only very small portions of the ditches per a review of the best available aerial imagery. However, these ditches do not meet the definition of ditches under the 2008 Rapanos Guidance as they do not drain only uplands, as W-2 drains into W-6b (then into W-6a and W-5) and a open-water wetland outside the review area (as noted in the delineation report) drains into W-3, which drains then into W-4, which then drains into the roadside ditch network. It was also determined, per a review of aerial imagery and wetland data, along with elevation and topographic data, that none of these ditches possess a continuous surface connection to (abut) any Traditional Navigable Waters (TNWs), Interstate Waters (IWs), or relatively permanent tributaries (RPTs) of such waters.

In conclusion, wetlands W-1, W-2, W-3, W-4, W-5, W-6a, and W-6b were determined by us to be non-jurisdictional wetlands because they do not meet the definition of category (a)(7) wetlands under the pre-2015 regulatory regime consistent with the Supreme Court's decision in Sackett, as they do not possess a continuous surface connection to (abut) any TNWs, IWs, or RPTs of such waters inside or outside of the review area.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

   a. May 2026 Wetland Delineation Report for NorthWestern Energy – Hub City Energy Park, delineated by Alex Brazeal of HDR Engineering on April 9 and May 7, 2026.

   b. Google Earth Pro (1997-2026) Assessed October 20, 2026

   c. USACE National Regulatory Viewer (NRV) – South Dakota https://jecop.usace.army.mil/portal/apps/experiencebuilder/experience/?id=282d513d1b1040e0982c6d662e73fcb5&page=South-Dakota October 20, 2026

   d. USGS 3DEP Elevation, DEM, and Slope Data (viewed within USACE NRV) https://elevation.nationalmap.gov/arcgis/rest/services/3DEPElevation/ImageServer Assessed October 20, 2026

   e. USGS NHD Plus Data (viewed within USACE NRV) https://hydro.nationalmap.gov/arcgis/rest/services/NHDPlus_HR/MapServer Assessed October 20, 2026

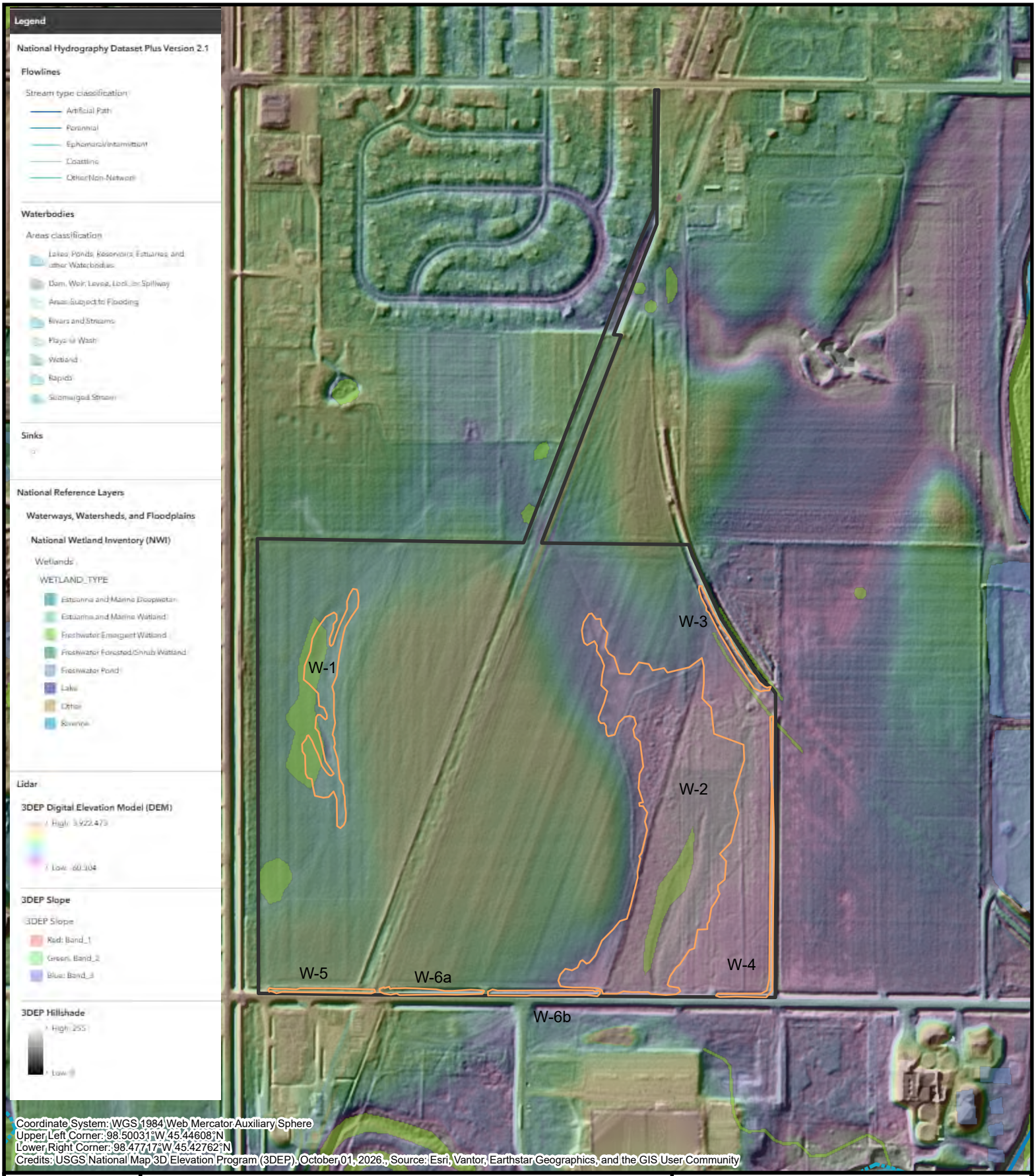
   f. USFWS NWI Wetlands (viewed within USACE NRV) https://fwspublicservices.wim.usgs.gov/wetlandsmapservice/rest/services/Wetlands/MapServer Assessed October 20, 2026

   g. GEGD Pro (2026 & Vivid) https://pro.gegd.com/ Assessed October 20, 2026

   h. EPA EnviroAtlas https://enviroatlas.epa.gov/enviroatlas/interactivemap/ October 20, 2026

10. OTHER SUPPORTING INFORMATION. N/A

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



N
W E
S

PROJECT
Project Name and Number

LEGEND

TITLE
ArcGIS Web Map

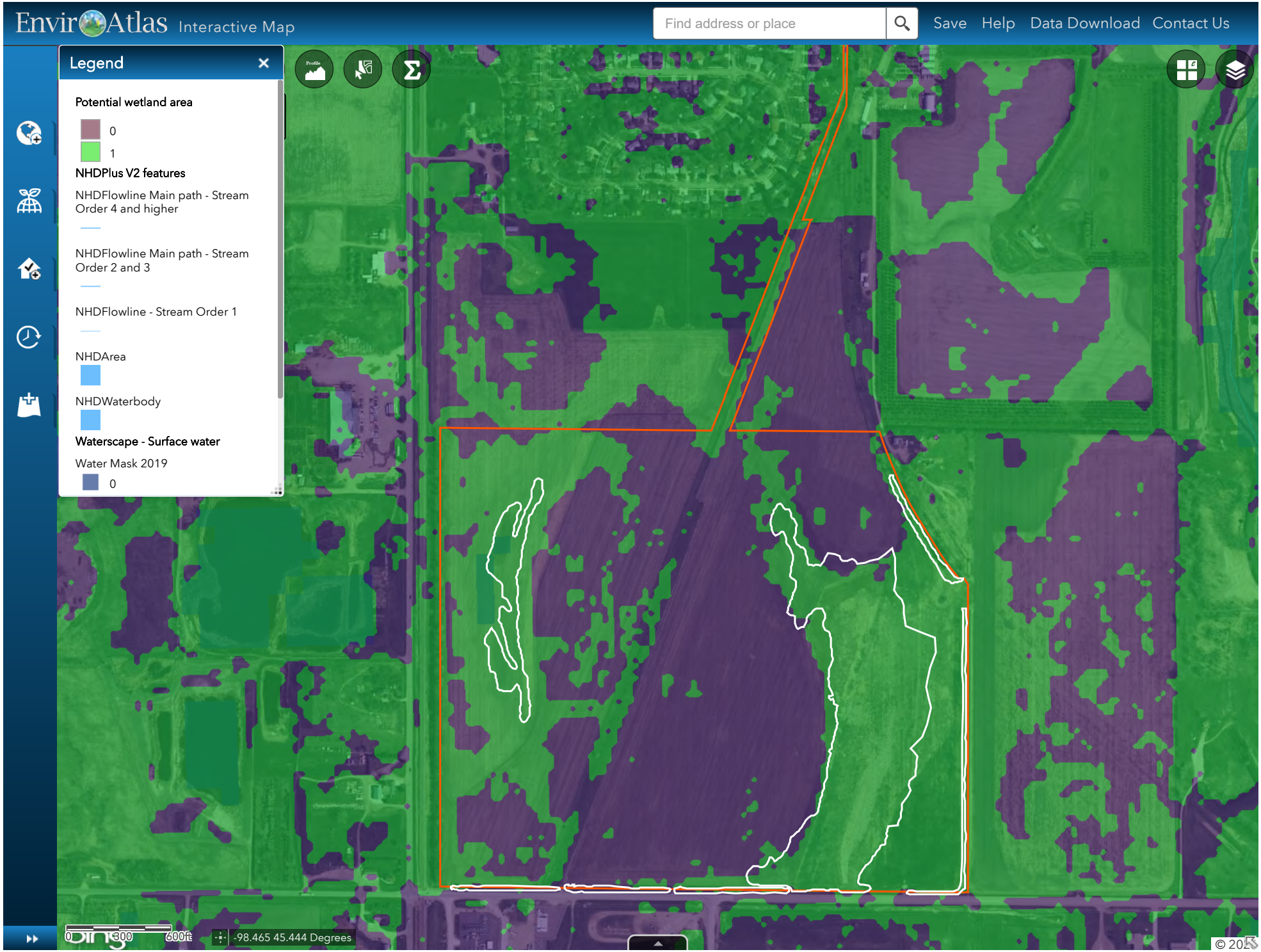
AUTHOR

FIGURE
NO. 0

0 0.13 0.25 0.5 0.75
mi

DATE
10/20/2026

REVISION
NO. 0


EnviroAtlas Interactive Map
Find address or place
Save
Help
Data Download
Contact Us
Legend
Potential wetland area
0
1
NHDPlus V2 features
NHDFlowline Main path - Stream Order 4 and higher
NHDFlowline Main path - Stream Order 2 and 3
NHDFlowline - Stream Order 1
NHDArea
NHDWaterbody
Waterscape - Surface water
Water Mask 2019
0
0
300
600 ft
-98.465 45.444 Degrees

U.S. Army Corps of Engineers (USACE)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.

Form Approved -
OMB No. 0710-0003
Expires 2027-10-31

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority The authorities for requesting this information are Sections 9, 10, 13, and 14, Rivers and Harbors Act of March 3, 1899; Section 404, Clean Water Act; and Section 103 Marine Protection Research and Sanctuaries Act of 1972.

Principal Purpose This information serves as notification to affected parties regarding the USACE administrative appeal options and process, as well as to facilitate requests for appeal of USACE decisions with which they disagree.

Routine Uses Routine uses will include: (a) To serve as notification to affected parties of the Corps administrative appeal options and process and to facilitate requests for appeal of Corps decisions with which they disagree. (b) Records may be referred to the Department of Justice for possible criminal prosecution. (c) Records may be referred to other Federal, State, and local agencies for evaluation and enforcement purposes.

Disclosure Disclosure of this information is voluntary on your part. However, failure of individual to provide requested information could result in inability to determine all pertinent information regarding a Department of the Army permit matter.

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0003, is estimated to average 1 hour per response, including 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 whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. 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.

PURPOSE: This form is used to facilitate the initiation of the administrative appeals process. The appeals process allows an affected party to pursue an administrative appeal of certain Corps of Engineers decisions with which they disagree.

Upon release, this form will also be available on the Corps website https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/

Applicant: Alex Brazeal (Agent, HDR)	File Number: NWO-2026-01237-PIE	Date: 2026-10-22

Documents Attached (*select all that apply*):		Form Reference Section:
☐	INITIAL PROFFERED PERMIT (*Standard Permit or Letter of Permission*)	A
☐	PROFFERED PERMIT (*Standard Permit or Letter of Permission*)	B
☐	PERMIT DENIAL WITHOUT PREJUDICE	C
☐	PERMIT DENIAL WITH PREJUDICE	D
☒	APPROVED JURISDICTIONAL DETERMINATION	E
☐	PRELIMINARY JURISDICTIONAL DETERMINATION	F

SECTION I

The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/ or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: *You may accept or object to the permit*

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: *You may accept or appeal the permit*

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: *Not appealable*

You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: *You may appeal the permit denial*

You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: *You may accept or appeal the approved JD or provide new information for reconsideration*

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

- RECONSIDERATION: You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: *Not appealable*

You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:		If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:	
Name:	Nathan Morey, SD Section Chief	Name:	Melinda Larsen, Regulatory Appeals Review Officer
Street Address, City, State:	US Army Corps of Engineers, SD Regulatory Office 28563 Powerhouse Road Pierre, SD 57501	Street Address, City, State:	US Army Corps of Engineers, Northwestern Division 1201 NE Lloyd Blvd, Suite 400 Portland, OR 97232
Phone:	605-645-3380	Phone:	503-726-6194
Email:	SDRegulatoryMailbox@usace.army.mil	Email:	melinda.m.larsen@usace.army.mil

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (*Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.*)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

Email address of appellant and/or agent	Telephone number
Signature of appellant or agent	Date

Scott Leigh

From: Brazeal, Alex <alex.brazeal@hdrinc.com>
Sent: Thursday, October 22, 2026 11:23 AM
To: Carlberg, Hadden J CIV USARMY CENWO (USA)
Cc: joshua.follman@northwestern.com; Lucostic, Seamus; benjamin.sorensen; Scott Leigh; Shuler, Carrie; SD Regulatory Mailbox
Subject: RE: Response to AJD Request ICO NWO-2026-01237-PIE (Hub City Energy Park - City of Aberdeen; Brown County)

Hi Hadden,

Your timely review is greatly appreciated by the Project team! We do not have any questions at this point in time, but if any arise we will be sure to reach out.

Thank you,

Alex T. Brazeal
C 701.934.7830

hdrinc.com/follow-us

From: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Sent: Thursday, October 22, 2026 9:56 AM
To: Brazeal, Alex <alex.brazeal@hdrinc.com>
Cc: Follman, Joshua <joshua.follman@northwestern.com>; Lucostic, Seamus <seamus.lucostic@northwestern.com>; Sorensen, Benjamin <benjamin.sorensen@northwestern.com>; Scott Leigh <scott.leigh@aionenergyllc.com>; Shuler, Carrie <carrie.shuler@hdrinc.com>; SD Regulatory Mailbox <SDRegulatoryMailbox@usace.army.mil>
Subject: Response to AJD Request ICO NWO-2026-01237-PIE (Hub City Energy Park - City of Aberdeen; Brown County)

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning Alex,

Our office, working with the South Dakota Regulatory Office, has reviewed the request submitted on behalf of NorthWestern Energy (copied to this email) for an Approved Jurisdictional Determination (AJD) for the proposed Hub City Energy Park project. Please see the attached letter and supporting documents. Thank you,

V/R,
Hadden J. Carlberg, MNR
Project Manager
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
701-989-6431

****

Check out our new Nation-wide **Recommended Minimum Standards for Aquatic Resource Delineation Reports!**

Please Note: In our aim to improve efficiency, the North Dakota Regulatory Office prefers that all submissions and requests be sent electronically to the *NEW* **Regulatory Request System (RRS)** or to: CENWO-OD-RND@usace.army.mil instead of a hard copy by mail. Please split large attachments (>25 MB) into multiple emails if needed. We will continue to accept and issue paper documents that meet our file requirements upon request in order to accommodate those with limited computer access.

Scott Leigh

From: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Sent: Wednesday, October 28, 2026 10:30 AM
To: Brazeal, Alex
Cc: joshua.follman@northwestern.com; Lucostic, Seamus; benjamin.sorensen; Scott Leigh; Shuler, Carrie
Subject: RE: Response to AJD Request ICO NWO-2026-01237-PIE (Hub City Energy Park - City of Aberdeen; Brown County)
Attachments: NWO-2026-01237_20261022_AJD_Letter.pdf

You don't often get email from hadden.j.carlberg@usace.army.mil. Learn why this is important

Alex,

See attached. Thanks,

V/R,
Hadden J. Carlberg, MNR
Project Manager
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
701-989-6431

From: Brazeal, Alex <alex.brazeal@hdrinc.com>
Sent: Wednesday, October 28, 2026 9:11 AM
To: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Cc: Follman, Joshua <joshua.follman@northwestern.com>; Lucostic, Seamus <seamus.lucostic@northwestern.com>; Sorensen, Benjamin <benjamin.sorensen@northwestern.com>; Scott Leigh <scott.leigh@aionenergyllc.com>; Shuler, Carrie <carrie.shuler@hdrinc.com>; SD Regulatory Mailbox <SDRegulatoryMailbox@usace.army.mil>
Subject: [Non-DoD Source] RE: Response to AJD Request ICO NWO-2026-01237-PIE (Hub City Energy Park - City of Aberdeen; Brown County)

Hi Hadden,

In reviewing the verification letter the project team spotted the effective date of October 22, 2026 (see screengrab below).

Should this date be October 22, 2031, and if so, are you able to make this edit for our project records?

> Attached to this letter is the approved jurisdictional determination for your project site. This jurisdictional determination is valid for a 5-year period from the date of this letter, until **October 22, 2026**, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a *Notification of Administrative Appeal Options and Process and Request for Appeal* (NAO-RFA) form. If you

Thank you again for your timely review and responsiveness to this request.

Sincerely,

Alex T. Brazeal
C 701.934.7830

hdrinc.com/follow-us

From: Carlberg, Hadden J CIV USARMY CENWO (USA) <Hadden.J.Carlberg@usace.army.mil>
Sent: Thursday, October 22, 2026 9:56 AM
To: Brazeal, Alex <alex.brazeal@hdrinc.com>
Cc: Follman, Joshua <joshua.follman@northwestern.com>; Lucostic, Seamus <seamus.lucostic@northwestern.com>; Sorensen, Benjamin <benjamin.sorensen@northwestern.com>; Scott Leigh <scott.leigh@aionenergyllc.com>; Shuler, Carrie <carrie.shuler@hdrinc.com>; SD Regulatory Mailbox <SDRegulatoryMailbox@usace.army.mil>
Subject: Response to AJD Request ICO NWO-2026-01237-PIE (Hub City Energy Park - City of Aberdeen; Brown County)

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Good Morning Alex,

Our office, working with the South Dakota Regulatory Office, has reviewed the request submitted on behalf of NorthWestern Energy (copied to this email) for an Approved Jurisdictional Determination (AJD) for the proposed Hub City Energy Park project. Please see the attached letter and supporting documents. Thank you,

V/R,
Hadden J. Carlberg, MNR
Project Manager
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
701-989-6431

****

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY BRANCH
28563 POWERHOUSE ROAD
PIERRE, SD 57501

October 22, 2026

SUBJECT: NWO-2026-01237-PIE– Hub City Energy Park – Approved Jurisdictional Determination

Alex Brazeal
HDR Engineering, Inc.
3231 Greensboro Drive, Suite 200
Bismarck, ND 58503

Dear Mr. Brazeal:

This letter is in response to the request received on September 23, 2026 submitted on behalf of NorthWestern Energy for an approved jurisdictional determination for the proposed Hub City Energy Park project. The site is located in Section 25 of Township 123 North, Range 64 West, Aberdeen, Brown County, South Dakota. This request has been assigned the Corps Regulatory File Number referenced above. Please reference this file number on any correspondence to us or to other interested parties when referencing this project or concerning this request.

The U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged and fill material into waters of the United States under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344) and structures or work in, over, and under navigable waters of the United States under Section 10 of the Rivers and Harbors Act (RHA) (33 U.S.C. 403). The implementing regulations for these Acts are published in the Code of Federal Regulations at 33 CFR parts 330-332.

Based on our evaluation of the information provided and other available information, we have determined the following resources are non-jurisdictional: **W-1, W-2, W-3, W-4, W-5, W-6a, and W-6b**. The attached approved jurisdictional determination provides rationale for why these aquatic resources do not meet the definition of waters of the United States. Based on this determination, a Department of the Army permit **is not** required for the discharge of dredged or fill material into these aquatic resources.

This determination does not eliminate requirements to obtain any other applicable federal, state, tribal, or local permits.

Attached to this letter is the approved jurisdictional determination for your project site. This jurisdictional determination is valid for a 5-year period from the date of this letter, until **October 22, 2031**, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a *Notification of Administrative Appeal Options and Process and Request for Appeal* (NAO-RFA) form. If you

request to appeal this determination, you must submit a completed NAO-RFA form to the address listed on the form.

For an NAO-RFA to be accepted by the Corps, the Corps must determine that it is completed, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the NAO-RFA. Should you decide to submit an NAO-RFA form, it must be received at the Division Office by **December 21, 2026**. It is not necessary to submit an NAO-RFA form to the Division Office if you do not object to the determination in this letter.

In the event that you disagree with this approved jurisdictional determination, and you have **new information** not considered in the original determination, you may request reconsideration of this determination by contacting this office prior to initiating an appeal. To request this reconsideration based upon new information, you must submit the new information to this office so that it is received within 60 days of the date of the NAO-RFA.

Further information regarding the Omaha District Regulatory Program can be obtained by visiting our website at https://www.nwo.usace.army.mil/Missions/Regulatory-Program/.

If you have any questions concerning this jurisdictional determination, please contact the South Dakota Regulatory Office at the above address, by phone at 605-224-8531, or by email at SDRegulatoryMailbox@usace.army.mil and reference file number **NWO-2026-01237-PIE**.

Sincerely,

Benjamin N. Soiseth
Chief, North Dakota Branch

Enclosures
1. Approved Jurisdictional Determination for NWO-2026-01237-PIE
2. NOA-RFA Form

cc:
NorthWestern Energy (J Follman; S. Lucostic; B. Sorensen)
Aion Energy (S. Leigh)
HDR, Inc. (C. Shuler)

The Omaha District, South Dakota Regulatory Office is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at https://regulatory.ops.usace.army.mil/customer-service-survey. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

UNITED STATES FISH AND WILDLIFE SERVICE

- 8/31/26 – Letter from NorthWestern to USFWS
- 9/16/26 – Letter (Species List) from USFWS to NorthWestern (via HDR)
- 9/18/26 – Letter (Bat Determination) from USFWS to NorthWestern (via HDR)
- 10/20/26 – NorthWestern (via HDR) email to USFWS with Habitat Memo
    - Habitat Memo (Endangered Species Act Documentation)
- 11/4/26 – USFWS Review of Project Habitat Memo – Concurrence
    - South Dakota Field Office Conservation and Consultation Guidance

Scott Leigh

From: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Sent: Tuesday, October 20, 2026 12:21 PM
To: Toso, Luke B
Cc: joshua.follman@northwestern.com; Lucostic, Seamus; benjamin.sorensen; Scott Leigh; Shuler, Carrie
Subject: NWPS Hub City Energy Park
Attachments: NWPS_Hub City Energy Park_T&E Memo.pdf

Hello Luke,

NorthWestern Energy Public Service Corporation d/b/a (NorthWestern Energy) is planning to develop the Hub City Energy Park, a new, three-unit nominal 131 megawatt (MW) gross simple cycle combustion turbine facility (Project). The Project is adjacent to the existing Aberdeen Generating Station south of Aberdeen, SD and will interconnect to the electric grid at 115 kV via a new, on-site substation and will be fed natural gas from a nearby interstate pipeline. The Project covers approximately 176 acres within Section 25, Township 123N, Range 64W in Brown County, SD.

HDR, Inc (HDR) is supporting environmental permitting for the Project including an application to the South Dakota Public Utilities Commission (SDPUC). Currently, there is no federal funding or permitting anticipated for the Project. In efforts to engage with federal and state agencies, community members and other stakeholders, the Project team is requesting a meeting with your office to discuss the Project, potential effects to federally-listed species, and gain concurrence on the proposed effect determinations.

A field habitat evaluation was completed for the Project and I have attached the technical memo which outlines methods and results for your review.

Is there a day and time in the next two weeks which works best to connect? I can follow with a Teams invite.

Thank you,

Alex T. Brazeal
Environmental Project Manager
HDR
3231 Greensboro Drive, Suite 200
Bismarck, ND 58503
C 701.934.7830
D 701.557.9731

alex.brazeal@hdrinc.com
hdrinc.com/follow-us

Memo

Date: Tuesday, July 21, 2026

Project: Hub City Energy Park

Subject: Endangered Species Act (ESA) Documentation

Introduction

NorthWestern Energy Public Service Corporation d/b/a (NorthWestern Energy) is planning to develop Hub City Energy Park; a new, three-unit nominal 131 megawatt (MW) simple cycle combustion turbine facility (Project). The Project is adjacent to the existing Aberdeen Generating Station south of Aberdeen, SD and will interconnect to the electric grid at 115 kilovolts (kV) via a new, on-site substation and will be fed natural gas from a nearby interstate pipeline. The Project covers approximately 176 acres within Section 25, Township 123N, Range 64W in Brown County, SD (Study Area; **Figure 1**).

This memorandum has been prepared to document consideration of effects to federally listed threatened and endangered species and designated critical habitats.

Methods & Results

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was used to identify species which are federally listed as threatened or endangered under the Endangered Species Act (ESA) with potential to occur within the Study Area. IPaC identified seven federally listed species with potential to occur within the Study Area (**Table 1**). No designated critical habitat is present within the Study Area (USFWS 2026[1]).

Table 1. Federally Listed Species with Potential to Occur within the Study Area.

Common Name	Scientific Name	Status
Northern long-eared bat	*Myotis septentrionalis*	Endangered
Rufa red knot	*Calidris canutus rufa*	Threatened
Whooping crane	*Grus americana*	Endangered
Dakota skipper	*Hesperia dacotae*	Threatened
Monarch butterfly	*Danaus plexippus*	Proposed Threatened
Suckley's cuckoo bumble bee	*Bombus suckleyi*	Proposed Endangered
Western regal fritillary	*Argynnis idalia occidentalis*	Proposed Threatened

According to the U.S. Geological Survey (USGS) National Land Cover Dataset (NLCD), the Study Area is primarily composed of cultivated crops (58%), followed by hay/pasture (41%),

[1]U.S. Fish and Wildlife Service. Information for Planning and Consultation tool. Accessed May 6, 2026. Available at: https://ipac.ecosphere.fws.gov/

and Developed land cover types (1%) and all other land cover types accounting for less than one percent of the Study Area (**Figure 2**; **Table 2**).[2]

Table 2. Land Cover Types within the Study Area.

Land Cover Type	Acres	Percent of Study Area
Cultivated Crops	102.3	58
Hay/Pasture	72.5	41
Developed	1.3	1
Deciduous Forest	0.3	<1
TOTAL	**176.4**	**100.00**

HDR biologists completed a field survey to evaluate, and map the extent of, any potentially suitable habitat for federally listed species within the Study Area on April 9, 2026. Additionally, HDR biologists observed suitable nesting habitat within the vicinity of the Study Area for large stick nests prior to tree leaf out. No large stick nests, or potential eagle nests were observed within the vicinity of the Study Area during the field visit.

Northern Long-eared Bat (*Myotis septentrionalis*)

Suitable habitat for this species typically requires hibernacula during the winter months and roosting habitat in the summer. When available, northern long-eared bats prefer overwintering in caves and abandoned mines, but may also utilize storm sewers, wells, or any rocky crevice with the appropriate temperature, humidity, and airflow. Summer roosting occurs under bark or in cavities/crevices of both living trees and tree snags. Suitable summer roosting and maternity habitat is defined as living or dead trees with a minimum diameter-at-breast-height (DBH) of three inches or greater and with exfoliating bark[3]. The Study Area is composed of active agricultural fields surrounding a grass-dominated depression with a small shelter belt along the southwest edge, providing a suitable but highly fragmented habitat. Due to limited suitable habitat and the Project commitment to avoid tree removal, it is anticipated that the Project will have **No Effect** the northern long-eared bat.

Rufa red knot (*Calidris canututs rufa*)

The Rufa red knot is a stocky, medium-sized shorebird with a relatively short bill and short legs. Rufa red knot is considered a very rare migrant in the Dakotas and suitable habitat is largely found along gravelly shores and bars along the Missouri River, or in alkali wetlands[4]. There is no suitable habitat present within the Study Area, and it is anticipated that the Project would have **No Effect** on rufa red knot.

Whooping crane (*Grus americana*)

[2] U.S. Geological Survey (USGS). 2023. National Land Cover Database (NLCD) 2021 Land Cover Products. Earth Resources Observation and Science Center, Sioux Falls, SD. Available at: https://doi.org/10.5066/P9JZ7AO3.
[3] USFWS. 2026. Northern Long-eared Bat. Available at: https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis.
[4] USFWS. 2026. Rufa Red Knot. Available at: https://www.fws.gov/species/rufa-red-knot-calidris-canutus-rufa.

Whooping cranes utilize a wide variety of habitats during breeding, migration, and foraging. During the migration and breeding season in the northern great plains, whooping cranes can be found in lakes and open ponds, seasonal and temporary wetlands, wet meadows, rivers, pastures, and cultivated crop fields[5]. The wetlands and cultivated agricultural fields provide suitable stopover habitat for migrating whooping cranes, however the proximity of the Project to urban areas likely prevents use by migrating whooping cranes. It is anticipated that the Project will have **No Effect** on whooping crane.

Dakota skipper (*Hesperia dacotae*)

The Dakota skipper is a small butterfly that lives in high-quality mixed and tallgrass prairie. The species experienced a decline coinciding with the conversion and degradation of its prairie habitat and was listed as threatened under the ESA in 2014. Critical habitat was designated. Dakota skipper may survive in areas where lands have some grazing or haying, and in fact, they are dependent on habitat that experiences periodic disturbance; however, Dakota skippers disappear when these disturbances become too intense[6]. The Study Area is largely cultivated agricultural field and no suitable habitat is present for the Dakota skipper. It is anticipated that the Project will have **No Effect** on Dakota skipper.

Monarch Butterfly (*Danaus plexippus*)

On December 17, 2020, the USFWS determined that the monarch butterfly warrants protection under the ESA[7]. However, due to higher-priority listing actions, it has been designated as a candidate species rather than being officially listed or proposed for listing under the ESA (USFWS 2024). Monarch butterflies are dependent upon flowering plants for nectar, and particularly, various species of milkweed (*Asclepias* spp.) are used for reproduction[8]. Milkweed was not observed during the field survey of the Study Area, however milkweed commonly occurs in the roadside ditches adjacent to the Project. Due to the generalist nature of suitable habitat for the monarch butterfly, it is anticipated that the Project would present **No Jeopardy to the continued existence of the species.**

Suckley's cuckoo bumble bee (*Bombus suckleyi*)

On December 17, 2024, Suckley's cuckoo bumble bee (*Bombus suckleyi*) was proposed for listing as an endangered species[9] (89 FR 102074). Suckley's cuckoo bumble bee occurs in diverse habitats including open meadows and prairies, farms and croplands, urban areas, boreal

[5] USFWS. 2026. Whooping Crane. Available at: https://www.fws.gov/carp/carp/carp/species/whooping-crane-grus-americana.
[6] USFWS. 2026. Dakota Skipper. Available at: https://www.fws.gov/rivers/carp/carp/carp/species/dakota-skipper-hesperia-dacotae.
[7] USFWS. December 12, 2024. Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for Monarch Butterfly and Designation of Critical Habitat. Federal Register 89, no. 239: 100662–100716.
[8] USFWS. 2026. Monarch. Available at: https://www.fws.gov/species/monarch-danaus-plexippus
[9] USFWS. December 17, 2024. Endangered and Threatened Wildlife and Plants; Endangered Species Status for Suckley's Cuckoo Bumble Bee. Federal Register 89, no. 242: 102074-102091.

forests, and montane meadows. Suckley's cuckoo bumble bee is on obligate nest parasite of social bumble bees confirmed to have usurped nests of Western bumble bee (*Bombus occiddentalis*) and Nevada bumble bees (*Bombus nevadensis*). In the early spring, hosts typically establish nests in abandoned underground rodent burrows or other dry natural hollows; because Suckley's cuckoo bumble bee is a nest parasite, these same host residence sites also serve as its habitat[10]. Suckley's cuckoo bumble bee has been historically documented in South Dakota but not recorded in the state for more than 50 years (Martens AP, 2022). [11]The Project is anticipated to pose **No Jeopardy to the continued existence of Suckley's cuckoo bumble bee.**

Western regal fritillary (*Argynnis idalia occidentalis*)

The Western regal fritillary is a large butterfly that is restricted to large expanses of disturbed/ somewhat degraded and native pastures. Ideal prairie habitat may range from dry and wet microhabitats with abundant violets. Prairie violet (*Viola pedatifida*) provide a primary food source for larvae, while adults feed on the nectar of a variety of native and non-native flower such as thistles, various late summer composites and milkweed. The species is primarily threatened by small population sizes, natural and unnatural fluctuations, conversion of prairie remnants to agriculture, pesticides and herbicides, isolation and ill-conceived prescribed burning[12]. The Project is anticipated to present **No Jeopardy to the continued existence of the western regal fritillary.**

[10] USFWS. 2024. Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*) Species Status Assessment. Version 1.0. August 2024. Alaska Region. 131 pp.

[11] Martens AP et. Al. 2022. Available at: https://gfp.sd.gov/images/WebMaps/Viewer/WAP/Website/Checklists/Bumblebees_checklist.pdf

[12] USFWS. 2023. Species Status Assessment Report for the Regal Fritillary: Eastern Subspecies (Argynnis idalia idalia) and Western Subspecies (A. i. occidentalis). Version 1.0. 288 pp.

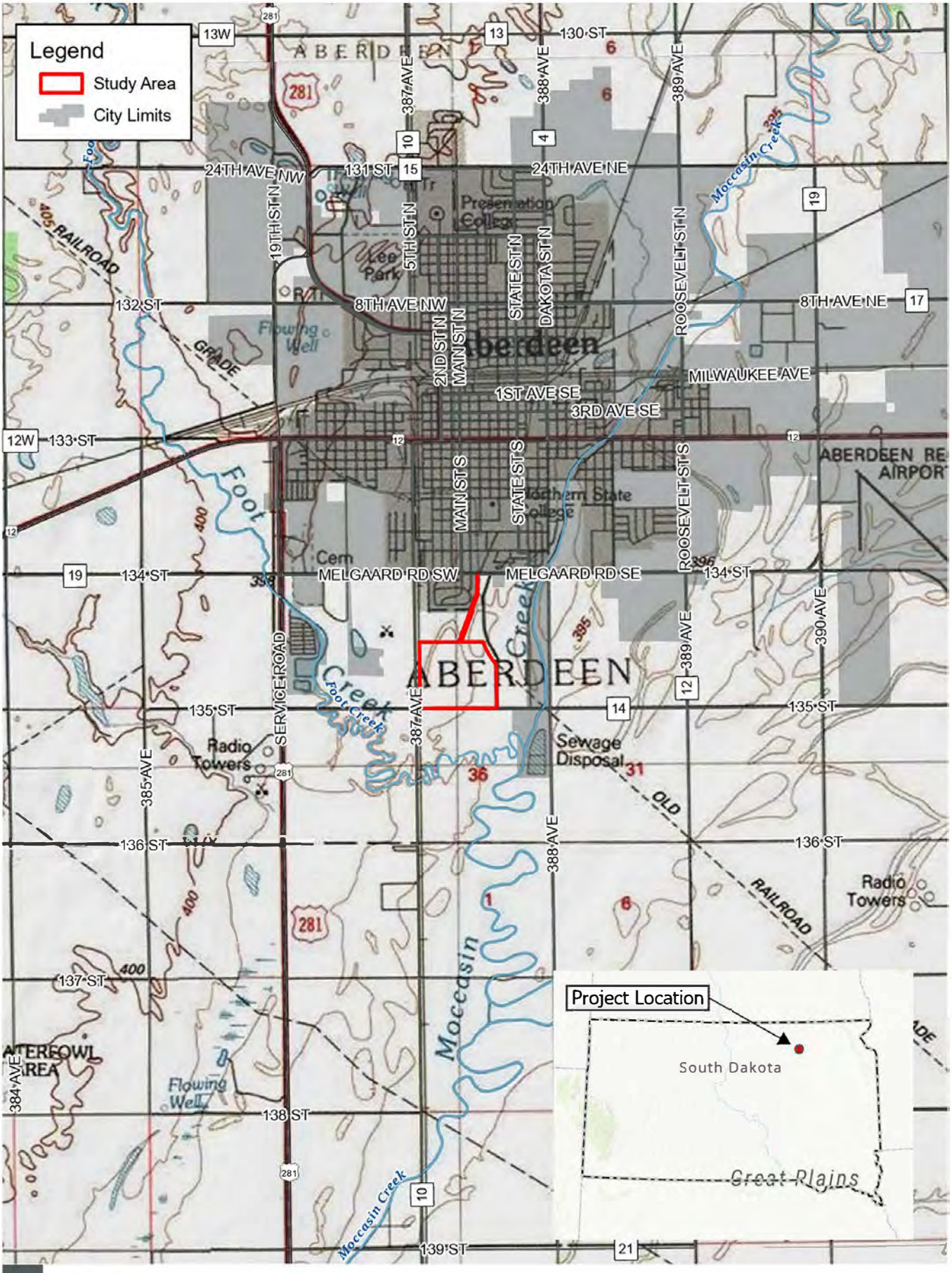
Conclusion

Based on the Project activities, and results of the IPaC determination key, a **No Effect** determination was made for Northern long-eared bat that may occur within the Study Area. The proposed Project is anticipated to have **No Effect** on all other federally listed threatened or endangered species that may occur within the Study Area. The monarch butterfly, Suckley's cuckoo bumble bee, and western regal fritillary are proposed for listing at this time, and it is anticipated that the Project poses **No Jeopardy to the continued existence of the species**. A summary of proposed effect determinations for each species with respective rationale is provided below in **Table 3**.

Table 3. Proposed Effect Determinations for Federally Listed Species with Potential to Occur within the Study Area.

Species	Suitable Habitat Present?	Proposed Determination	Proposed Determination Rationale
Northern long-eared bat	Yes	No Effect	Potential habitat within the Study Area is a small, highly fragmented shelterbelt.
Rufa red knot	No	No Effect	No inland saline lakes are present within the Study Area.
Whooping crane	Yes	No Effect	Agricultural fields may be utilized during migration. However, proximity to urban areas likely prevents use by migrating whooping cranes.
Dakota skipper	No	No Effect	The Study Area does not include suitable native prairie, or preferred nectar plant species.
Monarch butterfly	Yes	No Jeopardy	Common milkweed is a generalist plant species and persists within Study Area.
Suckley's cuckoo bumble bee	No	No Jeopardy	Species has not been recorded in South Dakota in more than 50 years.
Western regal fritillary	No	No Jeopardy	The Study Area does not include native prairie, or preferred nectar plant species.

Figure 1. Project Location

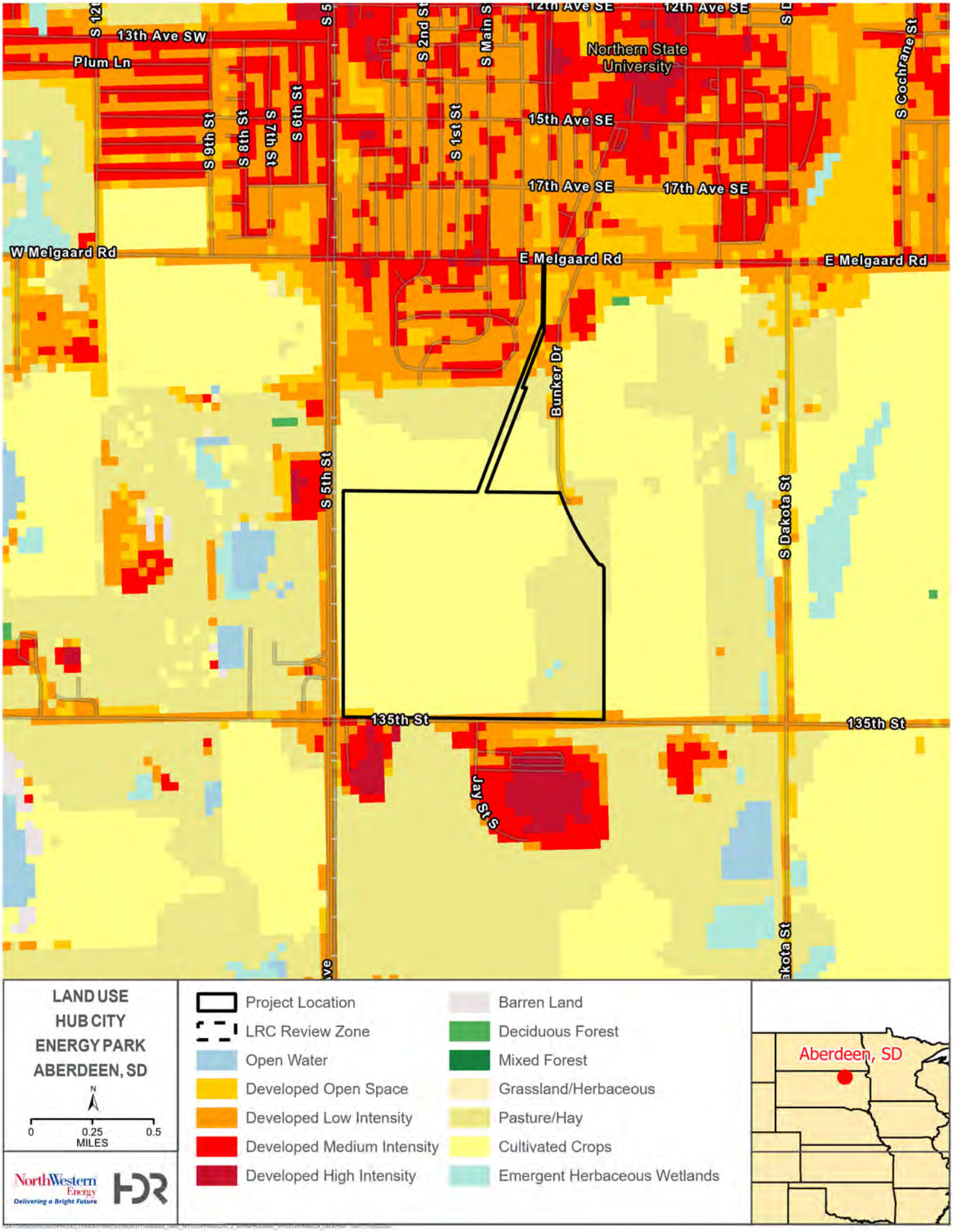


PROJECT LOCATION MAP

Hub City Energy Park, Brown County, SD

NORTHWESTERN ENERGY

Figure 2. National Land Cover Data Map


13th Ave SW
Plum Ln
S 9th St
S 8th St
S 7th St
S 6th St
S 5
S 2nd St
S Main St
S 1st St
12th Ave SE
12th Ave SE
Northern State University
S Cochrane St
15th Ave SE
17th Ave SE
17th Ave SE
W Melgaard Rd
E Melgaard Rd
E Melgaard Rd
Bunker Dr
S 5th St
S Dakota St
135th St
135th St
S Jay St
LAND USE
HUB CITY
ENERGY PARK
ABERDEEN, SD
N
0
0.25
0.5
MILES
Project Location
LRC Review Zone
Open Water
Developed Open Space
Developed Low Intensity
Developed Medium Intensity
Developed High Intensity
Barren Land
Deciduous Forest
Mixed Forest
Grassland/Herbaceous
Pasture/Hay
Cultivated Crops
Emergent Herbaceous Wetlands
Aberdeen, SD
NorthWestern Energy
Delivering a Bright Future
HDR

Attachment A: USFWS IPaC Official Species List

hdrinc.com 7350 Stockman Street, Suite A, Sioux Falls, WY 82009-6007
(307) 757-9000

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408
Phone: (605) 224-8693 Fax: (605) 224-1416
https://www.fws.gov/office/south-dakota-ecological-services

In Reply Refer To: 09/16/2026 19:57:59 UTC
Project Code: 2026-0087450
Project Name: Hub City Energy Park

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/media/endangered-species-consultation-handbook

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/law/bald-and-golden-eagle-protection-act, https://www.fws.gov/media/endangered-species-act-1, and/or https://www.fws.gov/law/migratory-bird-treaty-act-1918.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/law/migratory-birds

Please be aware that bald and golden eagles are protected under the Migratory Bird Treaty Act (16 U.S.C. §§ 703-712, as amended), as well as the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may benefit from the development of an Eagle Conservation Plan (ECP), see guidance at this website (https://www.fws.gov/node/266177). An ECP can assist developers in achieving compliance with regulatory requirements, help avoid “take” of eagles at project sites, and provide biological support for eagle permit applications. Additionally, we recommend wind energy developments adhere to our Land-based Wind Energy Guidelines for minimizing impacts to migratory

birds and bats.
We have recently updated our guidelines for minimizing impacts to migratory birds at projects that have communication towers (including meteorological, cellular, digital television, radio, and emergency broadcast towers). These guidelines can be found at:

https://www.fws.gov/media/avoiding-and-minimizing-communication-tower-impacts-migratory-birds
https://www.fws.gov/library/collections/bird-friendly-communication-tower-toolkit

According to National Wetlands Inventory maps, (available online at https://www.fws.gov/library/collections/national-wetland-inventory) wetlands exist adjacent to the proposed construction corridor. If a project may impact wetlands or other important fish and wildlife habitats, the U.S. Fish and Wildlife Service (Service), in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) and other environmental laws and rules, recommends complete avoidance of these areas, if possible. If this is not possible, attempts should be made to minimize adverse impacts. Finally if adverse impacts are unavoidable, measures should be undertaken to replace the impacted areas. Alternatives should be examined and the least damaging practical alternative selected. If wetland impacts are unavoidable, a mitigation plan addressing the number and types of wetland acres to be impacted, and the methods of replacement should be prepared and submitted to the resource agencies for review.

Please check with your local wetland management district to determine whether Service interest lands exist at the proposed project site, the exact locations of these properties, and any additional restrictions that may apply regarding these sites. The Offices are listed below. If you are not sure which office to contact, we can help you make that decision.

U.S. Fish and Wildlife Service, Huron Wetland Management District, Federal Building, Room 309, 200 4th Street SW, Huron, SD 57350; telephone (605) 352-5894. Counties in the Huron WMD: Beadle, Buffalo, Hand, Hughes, Hyde, Jerauld, Sanborn, Sully.

U.S. Fish and Wildlife Service, Lake Andes Wetland Management District, P O Box 18, Pickstown, South Dakota, 57367; telephone (605) 487-7603. Counties in the Lake Andes WMD: Aurora, Brule, Charles Mix, Davison, Douglas.

U.S. Fish and Wildlife Service, Madison Wetland Management District, P.O. Box 48, Madison, South Dakota, 57042, telephone (605) 256-2974. Counties in the Madison WMD: Bon Homme, Brookings, Clay, Deuel, Hamlin, Hanson, Hutchinson, Kingsbury, Lake, Lincoln, McCook, Miner, Minnehaha, Moody, Turner, Union, Yankton.

U.S. Fish and Wildlife Service, Sand Lake Wetland Management District, 39650 Sand Lake Drive, Columbia, South Dakota, 57433; telephone (605) 885-6320. Counties in the Sand Lake WMD: Brown, Campbell, Edmunds, Faulk, McPherson, Potter, Spink, Walworth.

U.S. Fish and Wildlife Service, Waubay Wetland Management District, 44401 134A Street, Waubay, South Dakota, 57273; telephone (605) 947-4521. Counties in the Waubay WMD: Clark, Codington, Day,

Grant, Marshall, Roberts.

You are welcome to visit our website (https//www.fws.gov/office/southdakota-ecological-services) or to contact our office/staff at the address or phone number above for more information.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408
(605) 224-8693

PROJECT SUMMARY

Project Code: 2026-0087450
Project Name: Hub City Energy Park
Project Type: Refining - Energy
Project Description: NorthWestern Energy Public Service Corporation d/b/a (NorthWestern Energy) is planning to develop Hub City Energy Park; a new, three-unit nominal 131 megawatt (MW) simple cycle combustion turbine facility (Project). The Project is adjacent to the existing Aberdeen Generating Station south of Aberdeen, SD and will interconnect to the electric grid at 115 kV via a new, on-site substation and will be fed natural gas from a nearby interstate pipeline. The Project covers approximately 176 acres within Section 25, Township 123N, Range 64W in Brown County, SD

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@45.43560775,-98.48656751707465,14z



Counties: Brown County, South Dakota

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-Eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

BIRDS

NAME	STATUS
rufa red knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

INSECTS

NAME	STATUS
Dakota Skipper *Hesperia dacotae* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1028	Threatened
Monarch butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's cuckoo bumble bee *Bombus suckleyi* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered
Western regal fritillary *Argynnis idalia occidentalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information

on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

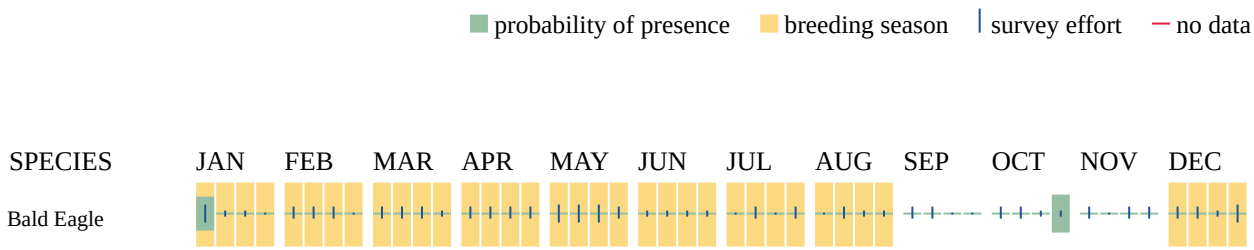
Probability of Presence (▪)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-Plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black Tern *Chlidonias niger surinamenisis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10955	Breeds Mar 1 to Jul 31
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Franklin's Gull *Leucophaeus pipixcan* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10567	Breeds May 1 to Jul 31
Golden-winged warbler *Vermivora chrysoptera* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Hudsonian Godwit *Limosa haemastica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9482	Breeds elsewhere
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds May 1 to Jul 31
Northern Harrier *Circus hudsonius* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8350	Breeds Apr 1 to Sep 15

NAME	BREEDING SEASON
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Western Grebe *Aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10669	Breeds Apr 20 to Aug 5

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

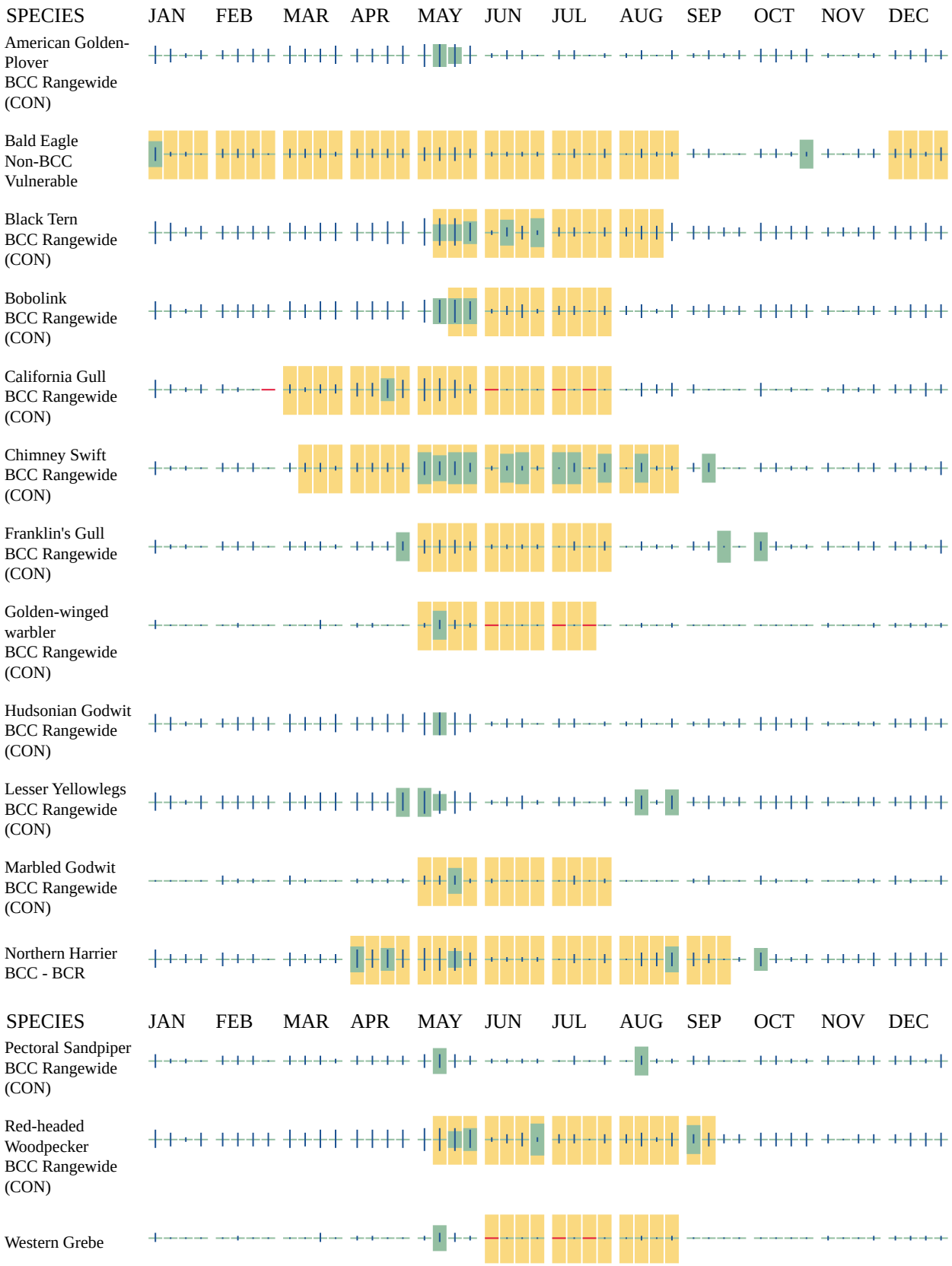
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

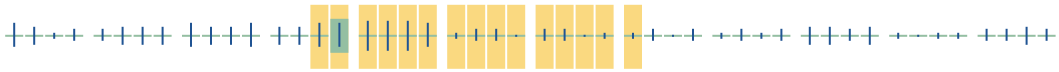
No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data


SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
American Golden-Plover BCC Rangewide (CON)
Bald Eagle Non-BCC Vulnerable
Black Tern BCC Rangewide (CON)
Bobolink BCC Rangewide (CON)
California Gull BCC Rangewide (CON)
Chimney Swift BCC Rangewide (CON)
Franklin's Gull BCC Rangewide (CON)
Golden-winged warbler BCC Rangewide (CON)
Hudsonian Godwit BCC Rangewide (CON)
Lesser Yellowlegs BCC Rangewide (CON)
Marbled Godwit BCC Rangewide (CON)
Northern Harrier BCC - BCR
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Pectoral Sandpiper BCC Rangewide (CON)
Red-headed Woodpecker BCC Rangewide (CON)
Western Grebe

BCC Rangewide (CON)

Willet
BCC Rangewide (CON)



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1C
- PEM1Cx
- PEM1A

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Alex Brazeal
Address:	3231 Greensboro Drive
Address Line 2:	Suite 200
City:	Bismarck
State:	ND
Zip:	58503
Email	alex.brazeal@hdrinc.com
Phone:	7015579731

Attachment B: USFWS Determination for the Northern Long-Eared

hdrinc.com 7350 Stockman Street, Suite A, Sioux Falls, WY 82009-6007
(307) 757-9000

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408
Phone: (605) 224-8693 Fax: (605) 224-1416

In Reply Refer To: 09/18/2026 20:26:24 UTC
Project code: 2026-0087450
Project Name: Hub City Energy Park

Federal Nexus: no
Federal Action Agency (if applicable):

Subject: Record of project representative's no effect determination with the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key for 'Hub City Energy Park'

Dear Alex Brazeal:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on September 18, 2026, for 'Hub City Energy Park' (here forward, Project). This project has been assigned Project Code 2026-0087450 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination

Northern Long-Eared Bat (*Myotis septentrionalis*)	Endangered	No effect

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Dakota Skipper *Hesperia dacotae* Threatened
- Monarch butterfly *Danaus plexippus* Proposed Threatened
- rufa red knot *Calidris canutus rufa* Threatened
- Suckley's cuckoo bumble bee *Bombus suckleyi* Proposed Endangered
- Western regal fritillary *Argynnis idalia occidentalis* Proposed Threatened
- Whooping crane *Grus americana* Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the South Dakota Ecological Services Field Office and reference Project Code 2026-0087450 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Hub City Energy Park

2. Description

The following description was provided for the project 'Hub City Energy Park':

> NorthWestern Energy Public Service Corporation d/b/a (NorthWestern Energy) is planning to develop Hub City Energy Park; a new, three-unit nominal 131 megawatt (MW) simple cycle combustion turbine facility (Project). The Project is adjacent to the existing Aberdeen Generating Station south of Aberdeen, SD and will interconnect to the electric grid at 115 kV via a new, on-site substation and will be fed natural gas from a nearby interstate pipeline. The Project covers approximately 176 acres within Section 25, Township 123N, Range 64W in Brown County, SD

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@45.43560775,-98.48656751707465,14z



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species that is not covered by an existing section 10 (a)(1)(A) Recovery Permit, exempted under section 4(d) or authorized by a section 6 cooperative agreement? **Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/ encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

   No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Note for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer ‘yes’ to this question.

   No

6. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

   Automatically answered
   No

7. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

   No

8. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

   No

9. Is the action located in New England (CT, MA, ME, NH, RI, or VT)?

   No

10. Will the action cause effects to a bridge?

    Note: Covered bridges should be considered as bridges in this question.

    No

11. Will the action result in effects to a culvert or tunnel at any time of year?

    No

12. Are trees present within 1000 feet of the action area? **Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    Yes

13. Does the action include the intentional exclusion of bats from a building or building-like structure? **Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

    No

14. Does the action involve removal, modification, or maintenance of a human-made building-like structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

15. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer ‘yes’ when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

16. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer ‘yes’ when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

17. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer ‘yes’ when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

18. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

    Note: For information regarding NSF/ANSI 60 please visit https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects

    No

19. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

20. Will the action include drilling or blasting?

    No

21. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use at night)?

    No

22. Will the proposed action involve the use of herbicides or pesticides (e.g., fungicides, insecticides, or rodenticides)?

    No

23. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining. **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    No

24. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable forested northern long-eared bat or tricolored bat roosting habitat? **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    Yes

25. Will the action cause an increase in the extent of suitable forested habitat exposed to artificial lighting?

    No

26. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    No

27. Will the proposed action result in the use of prescribed fire?

    Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

    No

28. Does the action area intersect the northern long-eared bat species list area?

    Automatically answered
    Yes

29. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known NLEB hibernacula or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

30. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

31. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.Have you contacted the appropriate agency to determine if your action is within 150 feet of any documented northern long-eared bat roosts?

    Note: A document with links to Natural Heritage Inventory databases and other state-specific sources of information on the locations of northern long-eared bat roosts is available here. Location information for northern long-eared bat roosts is generally kept in state natural heritage inventory databases – the availability of this data varies by state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited.

    Automatically answered
    No

32. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities? If unsure, answer "Yes." **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines

    Yes

33. Has a presence/probable absence summer bat survey targeting the northern long-eared bat following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area?

    No

34. Do you have any documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Alex Brazeal
Address: 3231 Greensboro Drive
Address Line 2: Suite 200
City: Bismarck
State: ND
Zip: 58503
Email alex.brazeal@hdrinc.com
Phone: 7015579731

Scott Leigh

From: Toso, Luke B <luke_toso@fws.gov>
Sent: Wednesday, November 4, 2026 10:45 AM
To: Brazeal, Alex
Cc: joshua.follman@northwestern.com; Lucostic, Seamus; benjamin.sorensen; Scott Leigh; Shuler, Carrie; SouthDakotaFieldOffice, FW6
Subject: Re: [EXTERNAL] NWPS Hub City Energy Park
Attachments: SD Conservation and Consultation Guidance_SEP 2026_508.pdf

You don't often get email from luke_toso@fws.gov. Learn why this is important

Good morning Alex -

Thank you for the opportunity to review this project. I've attached our general conservation and consultation guidance for your consideration. Based on your report, we have no questions or concerns on the proposed project, and no additional consultation would be necessary with our office. If you feel you need additional technical assistance from our team, please let me know.

Thank you,

Luke

Luke Toso
Acting Field Supervisor
ND/SD Ecological Services
U.S. Fish and Wildlife Service
Text or Call: 720-793-6797

From: Brazeal, Alex <Alex.Brazeal@hdrinc.com>
Sent: Tuesday, October 20, 2026 11:20 AM
To: Toso, Luke B <luke_toso@fws.gov>
Cc: Follman, Joshua <joshua.follman@northwestern.com>; Lucostic, Seamus <seamus.lucostic@northwestern.com>; Sorensen, Benjamin <benjamin.sorensen@northwestern.com>; Scott Leigh <scott.leigh@aionenergyllc.com>; Shuler, Carrie <carrie.shuler@hdrinc.com>
Subject: [EXTERNAL] NWPS Hub City Energy Park

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Luke,

NorthWestern Energy Public Service Corporation d/b/a (NorthWestern Energy) is planning to develop the Hub City Energy Park, a new, three-unit nominal 131 megawatt (MW) gross simple cycle combustion turbine facility (Project). The Project is adjacent to the existing Aberdeen Generating Station south of Aberdeen, SD and will interconnect to the electric grid at 115 kV via a new, on-site substation and will be fed natural gas from a nearby interstate pipeline. The Project covers approximately 176 acres within Section 25, Township 123N, Range 64W in Brown County, SD.

HDR, Inc (HDR) is supporting environmental permitting for the Project including an application to the South Dakota Public Utilities Commission (SDPUC). Currently, there is no federal funding or permitting anticipated for the Project. In efforts to engage with federal and state agencies, community members and other stakeholders, the Project team is requesting a meeting with your office to discuss the Project, potential effects to federally-listed species, and gain concurrence on the proposed effect determinations.

A field habitat evaluation was completed for the Project and I have attached the technical memo which outlines methods and results for your review.

Is there a day and time in the next two weeks which works best to connect? I can follow with a Teams invite.

Thank you,

Alex T. Brazeal
Environmental Project Manager
HDR
3231 Greensboro Drive, Suite 200
Bismarck, ND 58503
C 701.934.7830
D 701.557.9731

alex.brazeal@hdrinc.com
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United States Department of the Interior
FISH AND WILDLIFE SERVICE
South Dakota Ecological Services Field Office
420 S. Garfield Ave, Suite 400
Pierre, South Dakota 57501

South Dakota Field Office Conservation and Consultation Guidance[1]

The U.S. Fish and Wildlife Service (USFWS or the "Service"), South Dakota Field Office (SDFO) have developed general conservation recommendations to avoid impacts to species protected under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (ESA), as well as other trust wildlife resources. We encourage project proponents to contact us on specific project level effects as there is flexibility in how these measures may be applied. These general recommendations are not a substitute for consultation requirements under section 7 of the ESA. For more information, contact us at southdakotafieldoffice@fws.gov or (605) 224-8693.

Species/ Type	Recommended Avoidance Area	Conservation Recommendations	Period of Concern
American Burying Beetle	Avoid soil compaction and disturbance in areas with sandy-loam soils in Tripp, Todd, Bennet, Oglala Sioux and Gregory Counties	Conduct surveys for projects with ground disturbance, survey results should be reported to SDFO	June 1 – Aug. 31
Bald Eagle	660 ft for most activities	Aerial survey recommended in the spring, before leaf-out	Jan. 15 – Aug. 31
Black Footed Ferret	Prairie dog towns within occupied range.	Avoid habitat disturbance within ferret reintroduction sites	Year-round
Dakota Skipper	250m – 500m from suitable habitat	Field surveys are recommended to identify habitat if projects are in native grasslands.	June 10 – July 25
Golden Eagle	1 mile buffer	Aerial survey recommended in the spring, before leaf-out	Jan. 1 – Aug. 31
Higgins Eye Mussel	Missouri River below Gavin's point dam	Avoid instream disturbances near known locations	
Leedy's Roseroot	Black Elk Wilderness Area	Avoid habitat during proposed development or management	
Migratory Birds		Avoid activities during the minimum migratory bird nesting season (May 1 – July 15) to reduce impacts	May 1 – July 15
Northern Long-eared Bat		Most activities conducted during the inactive period and outside a 0.50 buffer around hibernacula during the inactive period are unlikely to directly impact bats	See Table 1

[1] **Suggested Citation:** USFWS. 2026. USFWS SDFO Conservation Recommendations. U.S. Fish and Wildlife Service - South Dakota Ecological Services Field Office. Pierre, SD. Version 09/2026.

Species/ Type	Recommended Avoidance Area	Conservation Recommendations	Period of Concern
Piping Plover	0.50-mile buffer around occupied habitat during the nesting season	Avoid impacts to suitable habitat during the nesting season	Apr. 15 – Aug. 15
Pallid Sturgeon	Missouri River below Fort Randall Dam and Missouri River below Gavins Point Dam	Avoid impacts during the migration and Spawning period	Mar. 1 – June 30
Rufa Red Knot	0.5-mile no activity zone when present	Avoid similar habitats to those used by piping plover	May Sept. – Oct.
Scaleshell Mussel	Missouri River below Gavins Point Dam	Avoid instream disturbances in known locations	
Topeka Shiner	Documented streams in Eastern South Dakota	Avoid impacts to occupied streams during spawning season	May 15 – July 31
Western Prairie Fringed Orchid			June 1 – July 31
Whooping Crane	1.2-mile (2km) no activity zone when present	See species specific section for project specific recommendations	Mar. 15 – May 15 Sept. 10 – Nov. 15

Information for Planning and Consultation Tool

The Information for Planning and Consultation (IPaC) tool was designed to streamline ESA consultations and compliance, please consider using the Information for Planning and Consultation (IPaC) tool (http://ecos.fws.gov/ipac) to determine:

1) If listed species or critical habitat may be present within an action area
2) If the project and associated actions are likely to affect listed species
3) Provide minimization measures to ensure the recovery of species affected.

To learn how to use IPaC, the Service has a beta version that is intended for new users to test out the tool, along with links to helpful video demonstrations (https://ipacb.ecosphere.fws.gov/). Additionally, the SDFO website (https://www.fws.gov/office/south-dakota-ecological-services) contains guidance for the on-line project review process for projects located in South Dakota.

Consultation Guidance

Under section 7(a)(2) of the ESA, if a Federal agency authorizes, funds, or carries out a proposed action, the responsible Federal agency, or its delegated agent, is required to evaluate whether the action "may affect" listed species or critical habitat. The following bullets lay out next steps for Federal action agencies based on their effect determinations made to listed species or critical habitat from proposed actions.

- If a "*no effect*" determination is made for listed species or critical habitat, the responsibility for the "no effect" determination remains with the Federal action agency and no further consultation with the Service is necessary. The Service recommends retaining documentation of the determination in the decisional records for the action.
- If a "*may affect, not likely to adversely affect*" determination is made for listed species or critical habitat the responsible Federal action agency should reach out to the SDFO for written concurrence. For projects using determination keys, see the guidance below.
- If a "*may affect, is likely to adversely affect*" determination is made for listed species or critical habitat, the responsible Federal action agency shall request formal section 7 consultation with the SDFO.

Determination Keys

Determination keys (Dkey) are logic-based questions to help provide consistent effects analyses for standard project reviews. They are intended to provide a streamlined consultation process. When using Dkeys in IPaC, there may be several to select during the screening process:

- **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key**: Specific to these two bat species, this range-wide Dkey covers project types that may occur within the range of these species but does not include transportation projects. If these species are present in the project area, this Dkey will need to be completed.
- **FHWA, FRA, FTA Programmatic Consultation for Transportation Projects affecting IBAT, NLEB, or TCB:** Similar to the range-wide bat Dkey, this Dkey covers all transportation related projects analyzed within the programmatic consultation for projects authorized by the Federal Highway Administration, Federal Railroad

Administration, and Federal Transit Administration. If a covered bat species is present within a project area and meets this project type, this Dkey will need to be completed.

- **American Burying Beetle Consultation and 4(d) Rule Consistency:** Specific to the American Burying Beetle, this Dkey is designed to determine if the proposed action is consistent with activities excepted from prohibited take, as defined in the October 15, 2020 4(d) rule.

After completing a determination key, the resulting letter may be labeled as either a 1) Concurrence, 2) "May Affect" or MA Consistency, or 3) Consistency/Technical Assistance.

1) When a project using an IPaC Dkey generates a **Concurrence letter**, this indicates your project activities were consistent with the analysis and no additional consultation for that project is needed unless one or more of the following occurs:
   a) The scope, timing, duration, or location of the proposed project changes.
   b) New information reveals the action may affect listed species or designated critical habitat.
   c) A new species is listed, or critical habitat designated
2) When a project receives a "**May Affect**" **or MA Consistency letter** that does not further distinguish to "is likely to adversely affect" (LAA) or "not likely to adversely affect" (NLAA), this indicates the project includes additional complexities that are not covered by the analysis and consultation with the SDFO is needed. To complete consultation, contact the SDFO at southdakotafieldoffice@fws.gov and include with your email the IPaC Project number, a shapefile of the Action Area, the generated "May Affect" letter, and we can assist with processing the consultation request.
3) When a project receives a **Consistency/Technical Assistance[2] letter** it could indicate either:
   a) All effect determinations made for indicated project activities were "no effect"
      i) This letter is only being produced for federal action agency record keeping purposes. The responsibility for the "no effect" determination(s) remains with the Federal action agency and no further consultation with the Service is necessary.
   b) The user has indicated they are not the federal action agency nor are they a designated non-federal representative for the lead federal action agency
      i) Consultation with the Service is not complete. The federal action agency or its designated non-federal representative will need to log into IPaC using their agency email account and *Search by record locator* – the produced Consistency/Technical Assistance letter will have the record locator number to search for the specific project. Once the federal action agency or its designated non-federal representative certify the letter, it will produce a Concurrence letter (so long as the project activities meet the scope of the determination key analysis), meeting the ESA consultation requirement for the project.

[2] The title of this letter varies between determination keys. Some producing this letter type refer to it as a consistency letter, while other determination keys may refer to it as a technical assistance letter.

American Burying Beetle (T)

The American burying beetle (*Nicrophorus americanus;* ABB) is North America's largest carnivorous beetle measuring 2.5 to 3.6 centimeters long and is easily identified by their distinctive orange red on shiny black coloration. The ABB is an annual species, typically completing its life cycle in one calendar year. This species is nocturnal and most active when temperature exceed 60° F (15° C) from late April through September. This species is an exceptionally strong flyer with recorded movements of up to 18 miles in a single night to locate carrion.

Conservation Recommendations

- For projects located within ABB range or within the 30-mile buffer of a previous ABB detection that involve ground disturbance, conduct surveys in accordance with the USFWS most recent version of the *ABB Range-Wide Presence/Absence Survey Guidance*, survey results should be reported to SDFO at southdakotafieldoffice@fws.gov.
- Minimize soil disturbance and clearing of vegetation.
- Minimize artificial lighting. In situations where night construction work is necessary, shield direct light down to the work area and prevent light from projecting upwards, thus minimizing the potential to attract insects, including ABBs.
- Implement sediment and erosion control measures, ensure restoration of pre-existing topographic contours after ground disturbance, and restore native vegetation where possible.

Additional Information

- USFWS. American Burying Beetle. Available online at: https://www.fws.gov/species/american-burying-beetle-nicrophorus-americanus. Provides species information, interactive range maps, and other resources to aid in consultations.
- USFWS. 2022. Best Management Practices for American Burying Beetle. Available online at: https://www.fws.gov/media/best-management-practices-american-burying-beetle
- USFWS. 2018. American Burying Beetle Range-wide Survey Guidance. Available online at: https://www.fws.gov/media/american-burying-beetle-rangewide-survey-guidance-may-2018

Black Footed Ferret (E)

The black-footed ferret (*Mustela nigripes*) is a medium-sized mustelid typically weighing 1.4–2.5 pounds and measuring 19–24 inches in total length, including a 5-to-6-inch tail. It is a slender animal, with black feet, a black face mask, and a black-tipped tail. Despite significant recovery successes, it remains one of the most endangered mammals in North America. The primary reasons for why the species remains at risk are the same that nearly caused the animal's extinction: disease, loss of habitat, and related declines in prey (USFWS 2019).

Conservation Recommendations

- Avoid disturbance to prairie dog towns where black footed ferrets are present. Disturbance is defined as soil disturbance, chemical application, mammal trapping, trapping, poisoning, etc.
- Avoid night-time lighting or noise adjacent to prairie dog towns where the species is present.

Additional Information

- USFWS. Black-footed ferret (*Mustela nigripes*). Available online at: https://ecos.fws.gov/ecp/species/6953. Provides species information, interactive range maps, and other resources to aid in consultations.
- USFWS. 2019. Species Status Assessment Report for the Black-Footed Ferret (*Mustela nigripes*). Available online at: https://iris.fws.gov/APPS/ServCat/DownloadFile/169265.

Dakota Skipper (T)

The Dakota skipper (*Hesperia dacotae*) butterfly occupies remnant native prairie throughout South Dakota and can be identified when adults are in flight from approximately June 10 – July 25. A range wide survey protocol was developed in 2024 to define suitable habitat and protocols for conducting surveys (USFWS 2024). A model has also been developed by the USFWS Habitat and Population Evaluation Team (HAPET) that helps project proponents identify, at the desktop scale, if suitable habitat may be present in a particular area (Barnes et al. 2023).

Conservation Recommendations

- If suitable habitat, defined generally as intact native grassland identified during a field evaluation, is present within a particular project area, our general recommendation for reducing effects would be to maintain a 250-meter buffer between a project and suitable Dakota skipper habitat and a 500-meter buffer from occupied suitable habitat and/or designated critical habitat. A more detailed definition of suitable habitat is present in the 2024 survey protocol (USFWS 2024).

Additional Information

- USFWS. 2025. Dakota Skipper. https://www.fws.gov/species/dakota-skipper-hesperia-dacotae.
    - The official page for this species, this website provides species information, interactive range maps, and other resources to aid in consultations.
- USFWS. 2024. 2024 Dakota Skipper (*Hesperia dacotae)* Survey Protocol, Midwest and Mountain Prairie Regions. Available online at: https://www.fws.gov/sites/default/files/documents/2024-05/2024-usfws-dakota-skipper-survey-protocol.pdf
    - This survey protocol can be used to guide mapping suitable habitat, conducting occupancy surveys, and determining when a site may be absent.

- Barnes et al. 2023. Dakota Skipper Habitat Suitability Model. HAPET. Bismarck, ND. Accessible online at: https://iris.fws.gov/APPS/ServCat/Reference/Profile/159874
    - Used in concert with the official species range present in IPAC, this tool can be used to help refine where probability of suitable habitat may be present on the landscape.

Leedy's Roseroot (T)

Leedy's roseroot (*Rhodiola inegrifolia leedyi*) is a perennial member of the stonecrop (orpine) family. Plants in this family, which includes the common jade plant, have waxy leaves that enable them to tolerate periods of water stress. It is a cliffside wildflower, found today in only seven locations in three widely separated states - Minnesota, New York and South Dakota. A single population in South Dakota was confirmed in 2015 and still exists today. The population occurs in the Black Elk Wilderness area of the Black Hills National Forest approximately 7,000 feet above sea level. It is fairly difficult to access and away from areas of recreational use.

Conservation Recommendations

- Avoid conducting activities within or near occupied locations and contact the USFWS ESFO if doing work uphill of occupied habitat

Additional Information

- USFWS 2025. Leedy's Roseroot. Available online at: https://www.fws.gov/species/leedys-roseroot-rhodiola-integrifolia-ssp-leedyi. Provides species information, interactive range maps, and other resources to aid in consultations.

Northern Long-eared Bat (E)

The Northern long-eared bat (*Myotis septentrionalis;* NLEB) can be found throughout South Dakota in mixed coniferous forests, cottonwood forest, caves, and abandoned mines. Northern long-eared bats roost singly or in colonies underneath bark, in cavities, cracks, or crevices of live, dead or dying trees or snags. Habitat use varies based on life history and seasonal changes. Key definitions when assessing NLEB habitat and life stage include:

- **Habitat**
    - **Suitable summer habitat** includes forests, woodlots, fencerows, wooded riparian areas along streams and rivers, and other wooded corridors.
    - **Suitable roost trees** are live, dead or dying trees or snags ≥3 inches diameter at breast height (DBH) that have exfoliating bark, cracks, crevices, and/or cavities. Individual trees with roost characteristics within 1,000 ft of other forest or wooded habitats may also be suitable.
    - **Hibernacula**, or winter roost habitat, provide a stable microclimate of cool temperatures (32-48F), high humidity (90%), and minimal air movement. Hibernacula have been documented in caves and mines in the Black Hills of South Dakota. There is potential that other locations serve as hibernacula in South Dakota that have not yet been identified, such as limestone cliffs along the Missouri River.

- **Maternity roosts** are groups of pregnant and/or lactating females (30-50 individuals or fewer) and their young roosting in trees, or less commonly in human-made structures. Reproductive female bats will return annually to a roost tree that continues to provide proper shelter and microclimate, which is influenced by the surrounding forested habitat.

- **Seasonal bat activity periods (Table 1).**
  - The **pup season** is the timeframe during late pregnancy and when most young are born until they can fly and forage independently, which usually lasts for about three weeks.
  - **Fall swarming** occurs when individuals gather around and within a 5-mile radius of hibernacula openings This increase in activity occurs when temperatures consistent drop below 40°F and when the amount of daylight decreases.
  - **Spring staging** occurs as temperatures increase, and individuals gradually rouse from hibernation, feed on insects, and prepare to migrate to summer habitat. Bats roost near (~ 5 miles) hibernacula openings or will return underground and enter short bouts of daily torpor.

Table 1. Seasonal Bat Activity Periods (from USFWS Bat Summer Survey Guidelines)

	Inactive Period	Active Period			
South Dakota	Hibernation	Spring Staging	Summer Occupancy	Pup Season	Fall Swarming
Plains	Nov 1 – April 14	Apr 15 – May 14	Apr 15 – Sept 30	June 1 – Aug 15	Aug 16 – Oct 31
Black Hills	Oct 1 -April 30	May 1-June 1	May 1-Aug 31	June 15-Aug 31	Aug 16 – Sept 30

Conservation Recommendations

- Most activities conducted during the inactive period and outside of a 0.50-mile buffer around hibernacula are unlikely to directly impact bats.
- To determine if your project may affect NLEB, please review the ***Recommended Approach for Development Projects*** in the Service's *Northern Long-eared Bat and Tricolored Bat Voluntary Environmental Review Process for Development Projects, Version 1.1*, dated April 15, 2025. This document is intended for projects including but not limited to infrastructure development that results in the conversion or permanent removal of NLEB habitat. It provides a step-by-step approach to streamline compliance with the ESA and associated implementing regulations and provides minimum conservation measures expected for projects that are likely to adversely affect NLEB. Our intent is to provide these measures up front for regulatory predictability and consistency.
- Hibernacula
  - Avoid entering bat hibernacula during the inactive period (hibernation).
  - Avoid completely or partially blocking hibernacula opening(s) or making other changes that would affect airflow, sun exposure, humidity, or ground water flow within the hibernacula. This includes maintaining the vegetation and any other structures immediately surrounding hibernacula opening(s).

- Maintain a 0.50-mile buffer around hibernaculum opening(s) year-round. Limited exceptions include activities that are not anticipated to impact bats or hibernacula, would aid in conservation of these bats, and/or would enhance their long-term use of hibernacula or the surrounding habitat.
- Conduct prescribed fire during the inactive period (Table 1) using low to moderate intensity burns and under environmental conditions the prevent smoke from entering hibernacula. If this is not possible, conduct prescribed fire outside of the pup season using low to moderate intensity burns to minimize direct impacts to individual bats.
- Avoid disposal of woody vegetation or spoil (e.g., soil, rock, etc.) within 500 feet of known or assumed bat hibernacula opening(s) and associated sinkholes, fissures, or other karst features.
- Comply with all cave and mine closures, advisories, and regulations
  - USDA USFS, 2024. Cave Closure and Restrictions. Available at: https://www.fs.usda.gov/sites/nfs/files/r02/publication/alerts/R02_2024_02_Cave_Closures_and_Restrictions.pdf

- Spring Staging and Fall Swarming
  - Avoid removing suitable roost trees within a 5-mile radius of known or assumed bat hibernacula during spring staging and fall swarming.

- Bridges
  - When bridge and/or culvert repair, retrofit, or rehabilitation work is anticipated to occur during the active period, we recommend conducting surveys to determine bat use following the Service's standard protocols (USFWS 2024b). If the structure has evidence of use, notify the SDFO of findings and we will assist with coordinating next steps.

- Habitat Management
  - Manage forests to ensure a continual supply of snags and other suitable roost trees.
  - Minimize use of herbicides and pesticides. If application is necessary, spot treatment is preferred over aerial application.
  - Evaluate the use of outdoor lighting during the active period and seek to minimize light pollution by angling lights downward or via other light minimization or avoidance measures.
- Water
  - Avoid filling, channelizing, or degrading streams, wetlands, and other water sources.
  - Protect potential recharge areas of cave streams and other karst features that are hydrologically connected to known or assumed hibernacula.
  - Implement sediment and erosion control measures, ensure restoration of pre-existing topographic contours after ground disturbance, and restore native vegetation where possible.

- Set back equipment servicing and maintenance areas at least 300 feet from stream beds, sinkholes, fissures, or areas draining into sinkholes, fissures, or other karst or mine features.
- Avoid delivery of chemical retardant, foam, or additives to surface waters.
- Avoid backflushing pumps and charged hoses into live streams and lakes.

Additional Information

- USFWS. 2026. Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines. U.S. Fish and Wildlife Service, Region 3, Bloomington, MN. 95 pp. https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.
    - The Survey Guidelines are annually reviewed and updated by the Service in March; ensure you are using the most up to date version when planning voluntary presence/probable absence surveys.
- USFWS. 2025. Northern Long-eared Bat. https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis.
    - The Service released final tools and guidance to replace the species specific 4 (d) rule regulations on October 23, 2024, found at the above link. These resources are updated as new information become available. Please check this link periodically to ensure the most recent guidance is used.
    - "Species List Area" is mapped based on known NLEB occurrences and modeled likelihood occurrence of species presence. This area is used in IPaC when generating Official Species List. The "Species List Area" (also sometimes referred to as "AOI", "Current Range", "Consultation Range", or "Legal Range") can be found at the link above.
- USFWS. 2025. Land-based Wind Energy Voluntary Avoidance Guidance for the Northern Long-eared Bat. https://www.fws.gov/library/collections/land-based-wind-energy-voluntary-avoidance-guidance-northern-long-eared-bat.
    - The NLEB Range for wind energy projects is different from the "Species List Area".
- USFWS. 2025. Northern Long-eared Bat and Tricolored Bat Voluntary Environmental Review Process for Development Project. April 15, 2025. https://www.fws.gov/sites/default/files/documents/2025-04/nleb_tcb_consultation_guidance_version-1.1_final_.pdf.
- If you have evaluated your project through the *Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key* (NLEB/TCB) using IPaC and received a "May Affect" determination letter, this indicates your project includes some additional complexities that the NLEB/TCB determination key does not cover and additional consultation is needed. To complete the consultation process, please contact the SDFO at southdakotafieldoffice@fws.gov and include with your email the IPaC Project number, a shapefile of the Action Area, the generated "May Affect" letter, and any other pertinent information that will assist the consultation.

- See the IPaC section for more information regarding the use of IPaC and determination keys.

Pallid Sturgeon (E)

In South Dakota, the pallid sturgeon (*Scaphirhynchus albus*) is known to use habitat in the Missouri River below Fort Randall Dam to Gavins Point dam and below Gavins Point Dam. Projects that directly affect these water resources may result in effects to this species.

Conservation Recommendations

- To the extent practicable, avoid in-stream work in in the Missouri River locations referenced above from **March 1st-June 30th** during the migration and spawning season. If in-stream work is needed during these times, please coordinate with the SDFO to reduce effects to the species.
  - Spawning dates vary from year to year and state to state depending on water temperatures, dam releases, and other environmental and climatic influences; dates recommended for South Dakota may differ from adjacent states.
- For general water intakes, we recommend:
  - Designing facilities to have intake velocities less than 0.50 feet per second (fps)
  - Using intake screens sized to have a maximum mesh opening of ¼ inch
  - Using a Johnson (or Johnson Type) screen/intake if feasible.
- Construction activities within and upstream of designated segments should be designed to prevent streambank erosion and should not otherwise impact the stream channel/bank. Minimize disturbance to ground cover and vegetation within riparian areas by utilizing existing disturbed areas such as roads, trails, etc.
- A spill kit of appropriate capacity should be immediately available at all times when operating equipment near water.
- If riparian areas have been affected by flooding, restrict livestock grazing of vegetation, especially cottonwood stands, until successful regeneration of this vegetation occurs.

Additional Information

- USFWS. Pallid Sturgeon. https://www.fws.gov/species/pallid-sturgeon-scaphirhynchus-albus. Provides species information, interactive range maps, and other resources to aid in consultations.

Piping Plover (T)

The piping plover (*Charadrius melodus*) is a small shorebird that can be found on open beaches, alkali flats, and sandy areas along major rivers and wetlands in the northern Great Plains. Nesting habitat consists primarily of shorelines of alkali wetlands, shorelines of reservoirs, and unvegetated interior sandbars. Critical habitat has been designated for the piping plover along shorelines and islands of the Missouri River, including some reservoirs, along with some alkali lakes in the prairie pothole region. Piping plovers usually begin breeding in April or May, lay eggs in May, hatch in June and begin winter migration in July to September.

Conservation Recommendations

- During the piping plover nesting season from **April 15**-**August 15**, avoid direct effects to nesting habitat, which includes sand and gravel beaches, alkali flats, gravel shorelines, and river sandbars.
- If effects to suitable piping plover habitat are proposed during the nesting season, surveys are recommended to determine species presence. We recommend the following when conducting surveys:
    - If suitable habitat is present, conduct presence surveys for piping plovers within a 0.5-mile radius of the proposed project in suitable habitat.
    - Surveys should be conducted by a qualified biologist daily, starting seven (7) days prior to construction activities.
    - Conduct surveys primarily in the morning when there is adequate light to detect and identify birds. From a good vantage point, survey areas using a binoculars or spotting scope for a minimum of 20 minutes in each 0.5-mile direction. Monitoring from several different viewing areas may need to occur, moving areas until the entire 0.5-mile radius is surveyed. Focus specifically for bird movements along sandbars in the middle of the channel, along the shoreline, and on recently formed floodplain sand deposits.
    - If no birds are observed, project activities can commence with no additional surveys.
    - If birds are present foraging or nesting, contact us for recommendations to avoid effects to the species.
- If at any time, an active nest, chick or adult bird is observed within 0.5 miles of the project:
    - Do not attempt to disturb or remove the birds or nests.
    - Do not start or continue construction activity within 0.5 miles of the adult, chick, or nest until piping plovers or their nests are no longer present within 0.5 miles of the project, or it is determined by the USFWS that there is no risk for disturbance.

Additional Information

- USFWS. Piping Plover. https://www.fws.gov/species/piping-plover-charadrius-melodus. Provides species information, interactive range maps, and other resources to aid in consultations.

Rufa Red Knot (T)

The rufa red knot (*Calidris canutus rufa*) is a rare migrant that occasionally uses stopover habitat in South Dakota during its long-distance migration. This species has been documented in various aquatic habitats in South Dakota, from the Missouri River to prairie pothole wetlands.

Conservation Recommendations

- If a rufa red knot is sighted within 0.5 mile of project activities, the USFWS should be contacted at (605) 224-8693 or southdakotafieldoffice@fws.gov. In coordination with the USFWS, work may resume after the bird(s) leave the area.

Additional Information

- USFWS. Rufa Red Knot. https://www.fws.gov/species/rufa-red-knot-calidris-canutus-rufa. Provides species information, interactive range maps, and other resources to aid in consultations.

Scaleshell Mussel (E) and Higgins Eye Mussel (E)

Both the Scaleshell (*Leptodea leptodon)* and Higgins eye mussels (*Lampsilis higinsii*) inhabit similar habitat within the Missouri River, recognized from Gavin's Point Dam down to Ponca, Nebraska (Cedar & Dixon Counties in Nebraska and Clay, Union, and Yankton Counties in South Dakota). Within this reach, habitats would include stable riffles and runs with gravel and mud substrate and moderate current velocity. These mussels require good water quality and are usually found where diversity of other mussel species exist. Only the shells of these species have been found; no populations are currently known to exist in South Dakota. They are considered extirpated, although, remain protected wherever found.

Conservation Recommendations

- All outlets, bank disturbance, and/or in stream work should be designed to avoid or minimize sedimentation and stream bank erosion and should not otherwise impact steam channel/ bank form and function.
- If in river/stream work is anticipated, a presence/absence survey should be completed by a qualified biologist in the wetted channel after early coordination with the Service. Qualification of the surveyor, methods of survey, and results should be provided to the SDFO during coordination.
- Any barges or equipment that will be used in the water should be inspected and decontaminate of invasive species prior to use.
- All construction and debris should be captured and/or contained from entering suitable habitat.
- Avoid direct discharge or any materials (i.e., water, chemical, or spoil) that can negatively impact water quality below baseline.

Additional Information

- USFWS. Scaleshell. Accessible at: https://www.fws.gov/species/scaleshell-leptodea-leptodon. Provides species information, interactive range maps, and other resources to aid in consultations.
- USFWS. Higgin's Eye. Accessible at: https://www.fws.gov/species/higgins-eye-lampsilis-higginsii. Provides species information, interactive range maps, and other resources to aid in consultations.

Topeka Shiner (E)

The Topeka Shiner (*Notropis topeka*) is a small fish known to occupy numerous small streams within eastern South Dakota, and are concentrated within the Big Sioux, Vermillion, and James River watersheds. Survey efforts continue to reveal additional inhabited streams.

Conservation Recommendations

- Implement and maintain comprehensive and effective sediment/erosion controls to the greatest extent possible during and after actions that may impact Topeka shiner streams. Sediment/erosion control measures reduce the risk of additional sediment input to Topeka shiner streams during construction, and similar post-construction measures ensure vulnerable work sites are protected from erosion. Silt fences, silt curtains, geotextile fabrics, and immediate post-construction vegetation seedings are examples of methods address the risk of further degradation. Monitoring and maintenance of these measures may be needed to ensure continued effectiveness, with the goal of keeping sediments from entering the stream system.
- Avoid practices that may directly damage instream habitat. In addition to sedimentation and erosion concerns, some instream activities such as driving machinery through streams, excavating streambed materials, channelizing streams, adding fill to streams, and similar direct habitat impacts can negatively affect Topeka shiners. These practices should be avoided. However, it is beneficial to excavate streambed materials to install culverts below grade to facilitate fish passage (see recommendation below). In those situations, sediment and erosion control measures mentioned above should be installed to prevent further downstream sedimentation.
- Whenever possible, install adequately sized stream-crossing structures and repair existing damaged structures in a manner that will not inhibit long-term fish passage. Topeka shiners have a small body size (usually under 3”) and are not strong swimmers. Corrugated metal pipes have the potential to become perched above the stream, blocking Topeka shiner passage and excluding the fish from miles of otherwise suitable habitat. Other factors such as riprap installed in the streambed or high-water velocity through undersized pipes can have the same barrier effect. Installing structures greater than the bank full width, and countersinking culverts below the streambed are recommended measures. Analysis of instream morphology may be needed on a case-by-case basis to determine the appropriate countersink depth to preclude structure perching. For many culverts/watersheds, 12” or more countersunk depth may be necessary. If temporary restrictions require that undersized structures be installed above-grade or at-grade level, we recommend revisiting these structures once the temporary restriction has passed and replacing inadequate structures with appropriately designed/placed structures to facilitate fish passage. This will also reduce the risk of future flood damages to structures and subsequent repair/replacement costs.

Additional Information

- USFWS. Topeka Shiner. https://www.fws.gov/species/topeka-shiner-notropis-topeka. Provides species information, interactive range maps, and other resources to aid in consultations.

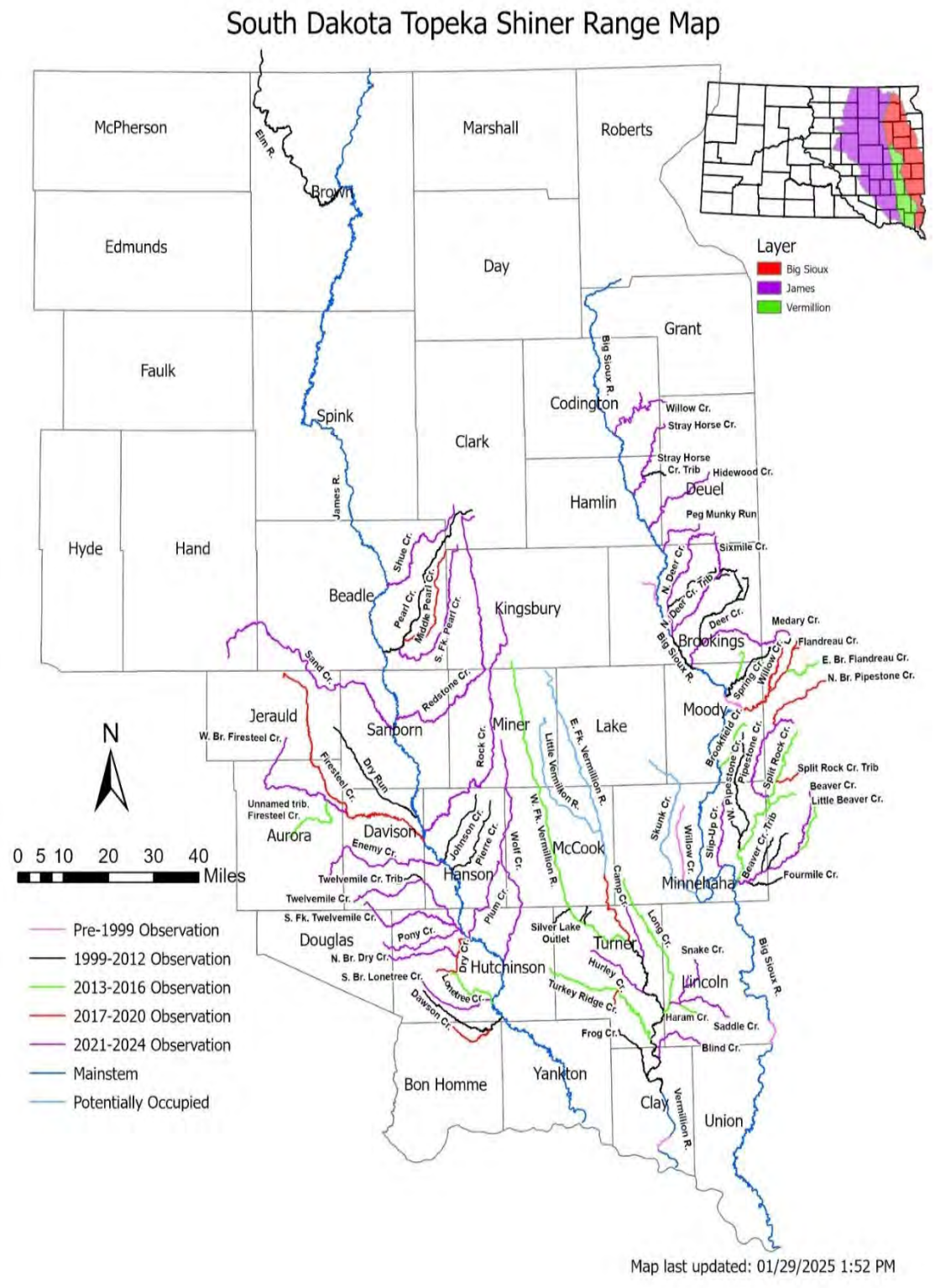


Figure 1. Topeka Shiner Range Map in South Dakota

Western Prairie Fringed Orchid (T)

The western prairie fringed orchid (*Platanthera praeclara,* WPFO) range is in southeastern South Dakota. Activities involving herbicide application, water drainage, water/wetland alteration, breaking native prairie, or burning, may have adverse effects to this species.

Conservation Recommendations

- Noxious weeds at WPFO sites should be controlled, but herbicide use at WPFO sites should be limited to spot spraying, especially during summer. Avoid insecticide use that could harm pollinators of the orchid.
- Mowing, haying, brush cutting, etc. should be avoided to the extent possible if it overlaps with the orchid's growing season (late spring through the end of July) and in the spring it should not be cut too close to the ground.
- Fire and grazing with goats and sheep should also be avoided to the extent possible if it overlaps with the growing season, although fire may be more restrictive. Studies by the Minnesota Department of Natural Resources indicate fire can damage the plant as soon as it emerges and is more than a few inches tall (as early as April), but damage is less in the fall (mid-September or after) since the chances of damaging seed capsules that have not properly dispersed is low.
- Maintain grassland habitats to promote recovery of this species.

Additional Information

- USFWS. 2025. Western Prairie Fringed Orchid. https://www.fws.gov/species/western-prairie-fringed-orchid-platanthera-praeclara. Provides species information, interactive range maps, and other resources to aid in consultations.

Whooping Crane (E)

The whooping crane (*Grus americana*) migrates through North Dakota during the **spring (March 15-May 15) and fall (September 10-November 15)**. If project activities occur when whooping cranes are within 1.2 miles (2 km), these birds may be disturbed and vacate the area. Such displacement is most likely to take place in the early morning, as whooping cranes typically stay overnight at a single location before resuming their movements at dawn. Disturbances that result in premature flushing can induce stress, cause energetic losses, and increase chances of collision with objects. Whooping cranes are also susceptible to collisions with electrical utility lines. Collisions with power lines are known to be responsible for the death of individual cranes. Wind infrastructure is believed to pose a potential risk of collision, though no whooping crane collisions with wind turbines have been documented. For these reasons, we recommend project proponents consider implementing specific conservation measures to avoid impacts to this species.

Conservation Recommendations

- If a whooping crane is sighted within 1.2 miles (2 km) of projects activities, the USFWS should be contacted at (605) 224-8693 or southdakotafieldoffice@fws.gov. In coordination with the USFWS, work may resume after the bird(s) leave the area.
- Within a 1.2-mile (2 km) buffer from proposed new construction of overhead utility lines and a 3.1-mile (5 km) buffer from a wind turbine center point, quantify potential impacts to habitat using the whooping crane habitat suitability model developed by Barnes et al. 2026 (link for geospatial dataset available below in "Additional Resources").
- For all new, replaced, or upgraded utility lines within 1.2 miles (2 km) of potentially suitable habitat, we recommend marking the lines and maintaining markers for the life of the project to ensure effectiveness to reduce the potential for strikes and possible mortality.

Additional Information

- Ellis et al. 2022. Balancing future renewable energy infrastructure siting and associated habitat loss for migrating whooping cranes. Front. Ecol. Evol. 10:931260. doi: 10.3389/fevo.2022.931260. Accessible at: https://www.frontiersin.org/journals/ecology-and-evolution/articles/10.3389/fevo.2022.931260/full.
- Barnes et al 2026. Landscape Suitability Model of US Migrating Whooping Cranes from the Aransas-Wood Buffalo Population. USFWS Habitat and Population Evaluation Team. Bismarck, ND. Accessible at: https://iris.fws.gov/APPS/ServCat/Reference/Profile/187939
- Niemuth et al. 2018. Opportunistically collected data reveal habitat selection by migrating Whooping Cranes in the U.S. Northern Plains, The Condor, 120(2), 343–356. Accessible at: https://doi.org/10.1650/CONDOR-17-80.1.
    - *Data Download*: Neimuth et al. 2018. Whooping Crane Migration through North Dakota and South Dakota. Geospatial Dataset. North Dakota, South Dakota. Accessible at: https://ecos.fws.gov/ServCat/Reference/Profile/148840.
- *Data Download:* Pearse et al. 2020. Location data for whooping cranes of the Aransas-Wood Buffalo Population, 2009-2018: U.S. Geological Survey data release. Accessible at: https://doi.org/10.5066/P9Y8KZJ9.
- *Data Request:* Contact the SDFO at southdakotafieldoffice@fws.gov to request the USFWS Whooping Crane Incidental Sightings Database information.

Bald and Golden Eagle Protection Act (BGEPA)

The Bald and Golden Eagle Protection Act protects bald or golden eagles, including their parts, nests, or eggs, from "take" unless a permit is obtained from the Service. If a bald or golden eagle is present near a proposed project, the 2024 eagle permit revisions (89 FR 9920; Feb. 12, 2024), as allowed under BGEPA, are intended to increase the efficiency and effectiveness of permitting, facilitate and improve compliance, and increase the conservation benefit for eagles for activities that are otherwise lawful. They include a new system of general permits in addition to specific permits the Service has authorized in the past.

BGEPA defines "**take**" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.

"**Disturb**" is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

General permits are an alternative approach that streamline bald eagle disturbance authorization for nine activity types (see table below). Appropriate disturbance distance may be adjusted based on landscape feature buffers, activity timing, and/or historical tolerance of the nest site and the degree to which similar activities are already occurring in proximity to the nest site. General permits are not available for golden eagles.

General Permit Activity Type	**Distance from a Bald Eagle Nest Requiring a Permit**
Building construction and maintenance	Within 660 feet
Linear infrastructure construction and maintenance (e.g., roads, rail, trails, power lines, and other utilities)	Within 660 feet
Alteration of shorelines and water bodies (e.g., shorelines, wetlands, docks, moorings, marinas, and water impoundment)	Within 660 feet
Alteration of vegetation (e.g., mowing, timber operations, and forestry practices)	Within 660 feet
Motorized recreation (e.g., snowmobiles, motorized watercraft, etc.)	Within 330 feet of an in-use nest
Nonmotorized recreation (e.g., hiking, camping, fishing, hunting, canoeing, etc.)	Within 330 feet of an in-use nest
Aircraft operation (e.g., helicopters and fixed-wing aircraft)	Within 1,000 feet of an in-use nest
Prescribed burn operations	Within 660 feet
Loud, intermittent noises (e.g., blasting)	Within ½ mile of an in-use nest

Specific permits are available for situations with high or uncertain risks to eagles that are ineligible for general permits or if an applicant is unable or unwilling to adhere to the terms and conditions of a general permit. Specific permits authorizing incidental eagle disturbance take are the only option for, but not limited to, the following, 1) golden eagle disturbance, 2) Bald eagle disturbance from activities other than the nine activity types indicated for general permit eligibility, 3) bald eagles nesting in Indian Country (as defined in 18 U.S.C. § 1151), 4) activities that may result in permanent loss of an eagle territory, and 5) reoccurring long-term disturbance.

Unlike bald eagles, whose numbers have increased in recent years, golden eagle populations appear to be slightly decreasing. These declines may be due to several factors, including their greater sensitivity to human disturbances. We recommend that your analysis consider possible effects to golden eagles if there is a nest within 1-mile of your project.

Conservation Recommendations

- For **bald eagles**, reduce disturbance by maintaining the appropriate recommended buffer distance between the activity and any active nest.
    - Landscape features, activity timing, and/or historical tolerance of the nest site to human disturbance can change the appropriate disturbance buffer distance. For assistance in determining the appropriate size and configuration of buffers or the timing of activities in the vicinity of a bald eagle nest, we encourage you to review the National Bald Eagle Management Guidelines (USFWS 2007) and contact SDFO.
- For **golden eagles**, maintain a 1-mile buffer between the activity and any active nest. If activities fall within 1-mile of an active nest, we encourage you to contact SDFO to determine if a specific permit is needed.
- Removal or destruction of any occupied or unoccupied nest requires a permit.

Eagle Disturbance Permit

If proposed activities cannot adhere to the above disturbance buffer from either an in-use ("active") or inactive eagle nest. Please visit https://www.fws.gov/story/do-i-need-eagle-take-permit to help determine if proposed activities will require a disturbance permit.

Eagle Nest Take Permit

A Nest Take Permit is **always** required for any activity that removes, relocates, destroys, or obstructs an eagle nest, even if the nest is inactive.

Additional Information

- 16 U.S.C. 668-668d. Bald and Golden Eagle Protection Act of 1940. Accessible at https://www.fws.gov/law/bald-and-golden-eagle-protection-act.
- U.S. Fish and Wildlife Service ePermits. Accessible at: https://fwsepermits.servicenowservices.com/fws.

- USFWS. Eagle Management. Accessible at: https://www.fws.gov/program/eagle-management
- USFWS. 2024. Specific Permit Tier 1 Standard Conditions. Accessible at: https://www.fws.gov/media/specific-permit-tier-1-standard-conditions-wind-energy
- USFWS. 2007. National Bald Eagle Management Guidelines. Available at: https://www.fws.gov/sites/default/files/documents/national-bald-eagle-management-guidelines_0.pdf
- Hansen et al. 2017. Human Disturbance of Breeding Golden Eagles. Accessible at: https://iris.fws.gov/APPS/ServCat/Reference/Profile/112570
- Migratory Bird Program Eagle Depredation Permit for Hazing Activities Memo. Accessible at: https://www.fws.gov/media/migratory-bird-program-eagle-hazar-and-harass-letter

Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act protects migratory birds from killing, capturing, selling, trading, and transport without prior authorization. In South Dakota, migratory birds are typically most vulnerable to development activities during the nesting season (May 1 – July 15). For projects that may impact migratory birds or if further information is needed, please contact our office for further guidance.

When Do I Need a Federal Permit?[3]

A federal permit, or other MBTA authorization, is **not needed to destroy an inactive nest**, provided the nest is fully destroyed and no parts of the nest or its contents, including, non-viable eggs or deceased birds or chicks are kept. For record keeping purposes, please document 1) photo of nest immediately prior to destruction, 2) date of nest destruction, 3) who destroyed it, and 4) statement verify the nest was completely disposed of, and no parts remain in your possession. This documentation can be retained for record keeping purposes and does not need to be submitted to the SDFO.

While the destruction of the inactive nest is not prohibited by MBTA, any unpermitted take of migratory birds, nestlings, or eggs is prohibited. As such it is the responsibility of the individual

Inactive Nest
- Nests that do not contain viable eggs or nestlings.
- Nests that are being built or tended by adult birds and contain no eggs or nestlings.
- Nests in which nestlings have fledged and are no longer dependent on the nest.
- Nests that contain non-viable eggs or nestling remains and are not being tended to by an adult bird.

In-Use Nest (i.e., Active Nest):
- Nests containing viable eggs or nestlings.
- A nest becomes in-use when the first egg is laid and remains in-use until nestlings fledge and are no longer dependent on the nest.

[3] Only applies to non-eagle nests. It is the responsibility of the individual conducting activities to determine whether there are additional protection and restrictions (e.g., ESA, state regulations) prior to destroying or relocating any migratory bird nests.

conducting activities to ensure the nest is inactive. We recommend conducting nest destructions outside of the nesting season to reduce the risk of take.

Relocation of an inactive nest requires MBTA authorization as the relocation process requires a person to collect and be in possession of the nest. For inactive nest relocations, please reach out to SDFO for more guidance.

Destruction or relocation of an in-use nest requires MBTA authorization. For in-use nest destruction or relocation, please reach out to SDFO for more guidance.

Additional Information

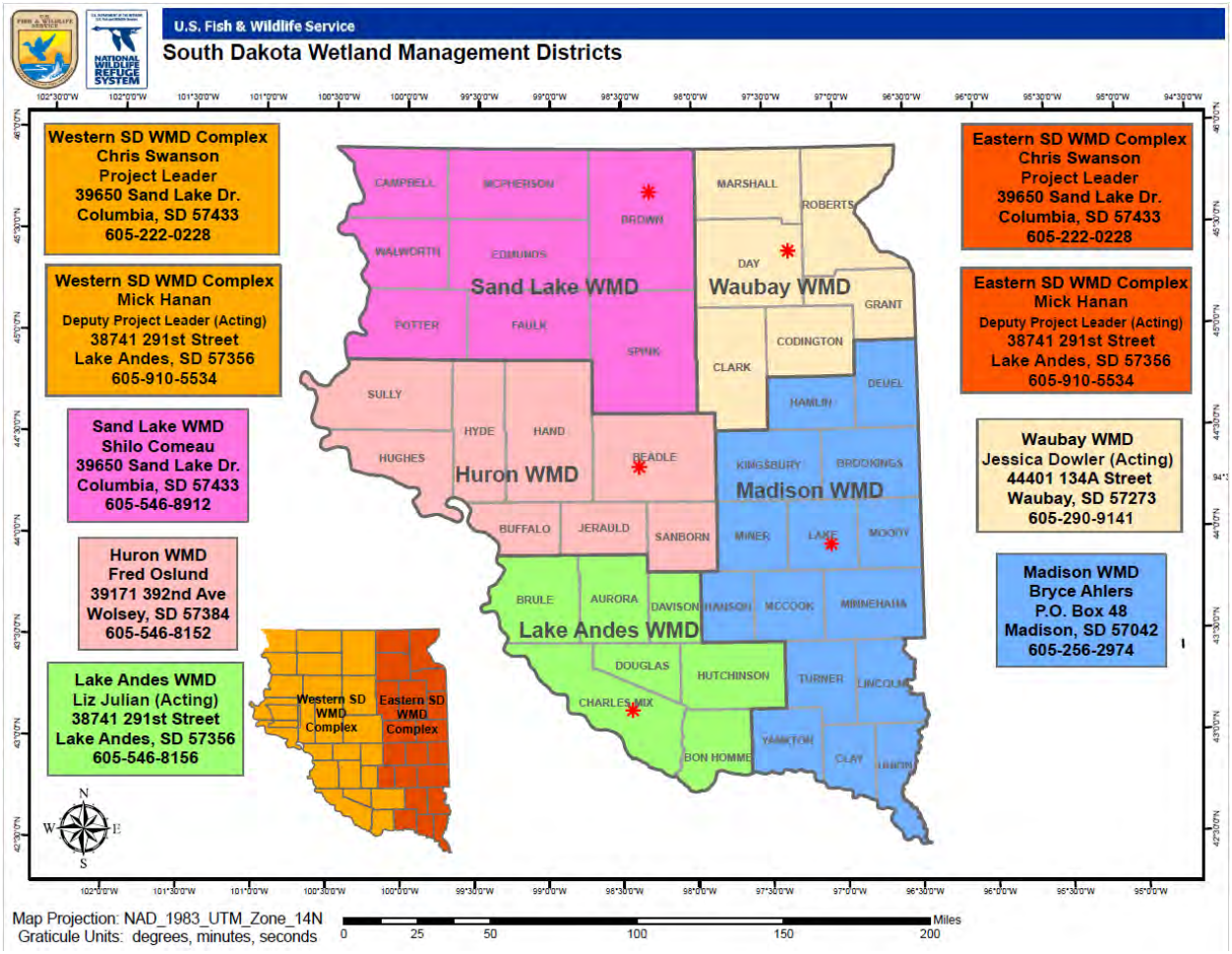
- 16 U.S.C. 703-712. Migratory Bird Treaty Act of 1918. Accessible at: https://www.fws.gov/law/migratory-bird-treaty-act-1918
    - This resource includes a complete list of species that are covered as well as not covered under MBTA.
- U.S. Fish and Wildlife Service ePermits. https://fwsepermits.servicenowservices.com/fws
- Avoiding and Minimizing Impacts to Migratory Birds, Best Practices by Industry: https://www.fws.gov/node/5233941
- USFWS. 2018. Region 6 Nest Destruction Memo: https://www.fws.gov/media/usfws-region-6-nest-destruction-memo-dated-june-2018

U.S. Fish and Wildlife Service Easement Interests

The Service may hold wetland or grassland easements within project areas that overlap within defined acquisition areas for each wetland management district; in South Dakota, these areas are concentrated in the prairie pothole region through the central portion of South Dakota. If there are specific questions related to management or easement terms, please contact the local Wetland Management Districts (WMDs) that administers the easement, with general numbers provided in the map below. If you are unsure of the local contact, please contact us and we can direct you to the responsible individual.

Additional Resources:

- USFWS. 2025. National Wildlife Refuge System and Fish Hatcheries, FWS National Realty Tracts and Acquisition Boundaries. https://experience.arcgis.com/experience/17640b43745d4b44b53fc8f57dc28ed7?org=fws


U.S. Fish & Wildlife Service
South Dakota Wetland Management Districts
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Project Leader
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Western SD WMD Complex
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Deputy Project Leader (Acting)
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Huron WMD
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Waubay WMD
Huron WMD
Madison WMD
Lake Andes WMD
Western SD WMD Complex
Eastern SD WMD Complex
CAMPBELL
MCPHERSON
BROWN
MARSHALL
ROBERTS
WALWORTH
EDMUNDS
DAY
GRANT
POTTER
FAULK
SPINK
CLARK
CODINGTON
SULLY
HAMLIN
DEUEL
HYDE
HAND
HUGHES
BEADLE
KINGSBURY
BROOKINGS
BUFFALO
JERAULD
SANBORN
MINER
LAKE
MOODY
BRULE
AURORA
DAVISON
HANSON
MCCOOK
MINNEHAHA
DOUGLAS
HUTCHINSON
TURNER
LINCOLN
CHARLES MIX
YANKTON
BON HOMME
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UNION
N
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Map Projection: NAD_1983_UTM_Zone_14N
Graticule Units: degrees, minutes, seconds
0
25
50
100
150
200
Miles