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January 3, 2023

Via Electronic Mail & Hand Delivery

Mr. Steve Kahl
Executive Director
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480
ndpsc@nd.gov

In re: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Lateral Pipeline Project
McKenzie County
Case No. PU-17-483
Our File No. 072530-000018

Dear Mr. Kahl:

Enclosed for filing are eight copies of the following:

1) ONEOK Rockies Midstream, L.L.C.'s Application for Amendment to Corridor Certificate No. 203 and Route Permit No. 213;

2) ONEOK Rockies Midstream, L.L.C.'s filing check in the amount of $60,000;

3) Publication Map;

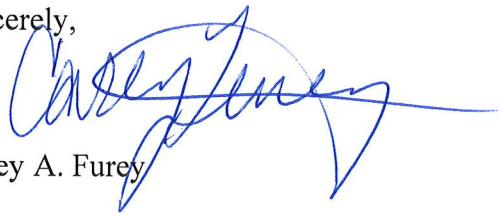
4) Notice of Appearance; and

5) Affidavit of Service by Mail pertaining to serving McKenzie County Auditor with Application.

We are also enclosing an electronic version of the application and a USB drive containing the GIS files for your convenience.

Please feel free to call should you have any questions. Thank you.

Sincerely,



Casey A. Furey

CAF/lh
enc.

cc: Wade Mann (via email)
McKenzie County Auditor (via U.S. Mail)
Michael Dailey (via email)
Rachel Grant (via email)
Maddy Krumwiede (via email)
Paul Hartzheim (via email)

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

In the Matter of the Application of ONEOK Rockies Midstream, L.L.C. for Amendment to Corridor Certificate No. 203 and Route Permit No. 213 for an approximately 4-Mile Long, 12-Inch NGL Pipeline in McKenzie County, North Dakota	Case No. PU-17-483 Case No. PU-23-___

AFFIDAVIT OF SERVICE BY MAIL

STATE OF NORTH DAKOTA)
)§
COUNTY OF BURLEIGH)

Lisa Herberholz, being first duly sworn on oath, deposes and says: That she is a citizen of the United States over the age of eighteen years and not a party to, nor interested in, the above entitled action.

That on the 3rd day of January, 2023, this affiant did deposit in the United States Post office at Bismarck, North Dakota, a true and correct copy of the following document:

APPLICATION FOR AMENDMENT TO CORRIDOR CERTIFICATE NO. 203 AND ROUTE PERMIT NO. 213

That the document with postage prepaid was mailed, directed to the persons to be served at their last known post office address as follows:

Erica Johnsrud
McKenzie County Auditor
201 5th St. NW, Suite 543
Watford City, ND 58854

To the best of affiant's knowledge, the addresses above given were the actual post office addresses of the parties intended to be served.

Lisa Herberholz

Subscribed and sworn to before me this 3rd day of January, 2023.

LESLIE SHELDON
Notary Public
State of North Dakota
My Commission Expires Sept 17, 2023

(S E A L)

Leslie Sheldon
Notary Public
Burleigh County, North Dakota
My Commission Expires:_____

ONEOK Rockies Midstream, L.L.C.

Cherry Creek Extension Pipeline Project

Case No. PU-17-483

North Dakota Public Service Commission

Application for Amendment to

Corridor Certificate No. 203 and Route Permit No. 213

December 2022

Prepared by:

merjent

Table of Contents

TABLES

FIGURES

ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effect
API	American Petroleum Institute
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
bpd	barrels per day
CFR	Code of Federal Regulations
dbh	diameter at breast height
ERW	Electric Resistance Welded
ESA	Endangered Species Act
EI	Environmental Inspector
F	Fahrenheit
FBE	Fusion Bond Epoxy
GIS	Geographical Information System
Guidelines	Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines
HDD	Horizontal Directional Drill
ICBM	Intercontinental Ballistic Missile
IPaC	Information, Planning, and Conservation System
MBTA	Migratory Bird Treaty Act
Merjent	Merjent, Inc.
MBbl/d	thousand barrels per day
MMBl	million barrels
MMcf/d	million cubic feet per day
MP	milepost
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDDA	North Dakota Department of Agriculture
NDDEQ	North Dakota Department of Environmental Quality
NDGFD	North Dakota Game and Fish Department
NDGS	North Dakota Geological Survey
NDIC	North Dakota Industrial Commission
NDPSC/Commission	North Dakota Public Service Commission
NDSHPO	North Dakota State Historic Preservation Office
NDDWR	North Dakota Department of Water Resources
NGL(s)	Natural Gas Liquids
NWP	Nationwide Permit
OBP	ONEOK Bakken Pipeline, L.L.C.
ONEOK	ONEOK Rockies Midstream, L.L.C.
Pipeline	Cherry Creek Pipeline
PEM	Palustrine Emergent Wetland
Psig	Pounds per square inch gauge
Project	ONEOK Cherry Creek Extension Pipeline
Route	Cherry Creek Extension Pipeline route
ROW	right-of-way
SPCC	Spill Prevention, Control, and Countermeasure
Survey Area	129.05-acre survey area
Study Area	1-mile-wide study area centered on the Route
SWPPP	Stormwater Pollution Prevention Plan

USACE	U.S. Army Corps of Engineers
USDOD	U.S. Department of Defense
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USNPS	U.S. National Park Service
WAWSA	Western Area Water Supply Authority

LIST OF EXHIBITS

[1] Project shapefiles submitted to North Dakota Public Service Commission electronically.

INTRODUCTION

ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximately 4-mile-long pipeline extension of its existing 12-inch-diameter Cherry Creek Pipeline (Pipeline). The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Creek Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline and/or OBP's Garden Creek 10-inch Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant and Antelope Creek Junction in McKenzie County.

On April 30, 2018, the North Dakota Public Service Commission (NDPSC or Commission) issued Findings of Fact and Conclusions of Law and Order granting Certificate of Corridor Compatibility (Certificate) No. 203 and Route Permit No. 213 for the Pipeline (Case No. PU-17-483). Construction of the Pipeline was completed in August 2018.

Since construction of the Pipeline, ONEOK has determined a need for additional transportation of products between Lonesome Creek Gas Plant and OBP's pipelines at Antelope Creek Junction. The Project would extend the Pipeline outside its Certificated Corridor; therefore, ONEOK is requesting an amendment to the Pipeline Certificate No. 203 and Route Permit No. 213. ONEOK hereby submits to the NDPSC a request to amend Certificate No. 203 and Route Permit No. 213 and documentation to support the proposed amendment in accordance with North Dakota Century Code Sections 49-22.1-06 and 49-22.1-07. In addition, it should be noted that the Project Route will be wholly located within the NDPSC Certificated Corridor for OBP's Lonesome Creek Pipeline (Case No. PU-15-137) and the NDPSC Certificated Site for ONEOK's Lonesome Creek Gas Plant (Case No. PU-14-218). However, portions of the Project workspace and the requested Corridor amendment extend outside the Lonesome Creek Pipeline Certificated Corridor.

ONEOK plans to begin construction in April 2023 or upon receipt of necessary approvals. Construction would take approximately 4-6 months. The Project is anticipated to be completed and in-service in the fourth quarter of 2023.

1.0 DESCRIPTION OF FACILITY IMPROVEMENTS

ONEOK is proposing to construct the Project, an approximately 4-mile-long pipeline extension of its existing 12-inch-diameter Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Creek Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline and/or OPB's Garden Creek 10-inch Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant and Antelope Creek Junction in McKenzie County (see Exhibit A). ONEOK will invest approximately $12 million in North Dakota to develop this Project.

1.1 PURPOSE AND NEED OF THE FACILITY

The purpose of the Project is to provide take-away capacity for Y-grade NGLs (a mixture of ethane, propane, butanes, iso-butane mix, pentanes, and natural gasoline). Construction of the proposed Project would provide firm, reliable service of a maximum of 160,000 barrels of NGLs per day (bpd) and would provide a critical link between ONEOK's Lonesome Creek Gas Plant and existing NGL pipeline systems for delivery to facilities in the Mid-Continent and Gulf Coast for additional processing prior to distribution to various markets. Initially the Project will increase the flow rate of the Cherry Creek Pipeline from 50,000 bpd to an anticipated 70,000 bpd, with the ability to carry a maximum of 160,000 bpd at its maximum design flow rate.

1.2 PREFERRED LOCATION OF FACILITY

The Project will be located entirely in McKenzie County, North Dakota, originating at the Lonesome Creek Gas Plant in Township 150N, Range 101W, Section 36 moving generally east and south, terminating in Township 149N, Range 100W, Section 8 at Antelope Creek Junction to tie into OBP's existing pipeline system. The proposed Project is approximately 4.0 miles in length and will be co-located (parallel and within 100 feet) with OBP's Lonesome Creek Pipeline for its entire length between Lonesome Creek Gas Plant and Antelope Creek Junction. ONEOK is proposing a pipeline route (Route) equivalent to the pipeline centerline plus 20 feet on either side (40 feet total width) to allow for minor shifts during construction. The environmental studies and analysis of exclusion and avoidance areas described in Sections 4.0, 6.0, and 7.0 consider the Route as 40-feet-wide. Project location maps that depict the pipeline Route, Lonesome Creek Gas Plant, and Antelope Creek Junction are provided in Exhibit B. The Townships, Ranges, and Sections crossed by the Project Route are presented in Table 1.2-1 below (generally following the Project Route from north to south):

TABLE 1.2-1
Public Land Survey System: Project Location Summary

Township	Range	Section(s) Crossed by Route
150 North	101 West	36
150 North	100 West	31-32
149 North	100 West	5, 8

The Project is located in Alex Township (milepost [MP] 0.0 – 0.4), Arnegard Township (MP 0.4 – 1.9), and an unorganized township (MP 1.9 – 4.0) in McKenzie County, North Dakota, and does not cross any municipal or city boundaries. Contact information for McKenzie County Board of Commissioners and Township officers is included in Section 5.1.

1.3 PREFERRED LOCATION OF CORRIDOR

ONEOK and its affiliates own and operate several assets throughout the region. The operation of these assets is conducted in a manner to maximize the overall value of the NGLs, which benefits regional stakeholders (i.e., producers, royalty owners, and the State) through direct payments and tax revenues. The Corridor amendment requested for the Project and described in this application provides ONEOK with the opportunity to use existing pipeline corridors and minimize landowner and environmental impacts. ONEOK requests that the Corridor described in this application be certificated by the NDPSC.

Selection of the proposed Corridor and Route entailed a program that evaluated several geographic information system (GIS) data layers for the Project area. Information relative to high consequence areas (e.g., populated areas, wetlands, waterbodies, areas of cultural significance or high probability, public lands) and other unfavorable constructability or operational features were evaluated to avoid and minimize proximity and potential impacts on these features. Features for favorable constructability or operations, such as existing rights-of-way (ROW) for pipelines, roads, etc., were also evaluated to maximize co-location.

After selection of a preliminary location for routing the pipeline, ONEOK developed a 1-mile-wide study area centered on the Route (Study Area) for analysis and agency consultation (see Sections 5.0 and 6.0 for more detail). The shortest route that accomplished the desired impact avoidance and minimization while maximizing co-location efforts served as the baseline for developing the proposed Study Area, Corridor, and Route. This baseline was then evaluated for environmental, engineering, construction, and ROW considerations.

ONEOK worked with engineering and environmental firms to develop and refine the Route and Corridor within the Study Area. Environmental field surveys were conducted in summer and fall of 2022 to identify sensitive resources and to further refine the Route (see Section 4.0). The Corridor described in this application is approximately 94.8 acres and follows the proposed Route along a generally 170-foot-wide corridor where environmental surveys were conducted. In a few isolated areas, the Corridor is slightly wider than 170 feet to allow extra temporary workspace for horizontal directional drills (HDDs), unique crossings, or safety and constructability reasons.

Several factors were considered in selecting the pipeline Route, including:

- Human – choosing a route to minimize impacts and ensure public safety;
- Environmental – choosing a route to minimize disturbances to biological and cultural resources; and
- Constructability – considering terrain and obstacles such as roads, waterbodies, and other utilities to achieve safe and efficient construction.

A Project overview map is included as Exhibit B.1. The location of the Project Corridor and Route is depicted on the aerial maps in Exhibits B.2 – B.3 and has also been filed with NDPSC in electronic shapefile format. A black and white map suitable for publication is provided as Exhibit B.4.

1.4 SIZE AND TYPE OF FACILITY

1.4.1 SIZE

The Project pipeline specifications are the following:

- 12.75-inch outside diameter steel pipe
    - 0.250-inch wall thickness, Electric Resistance Welded (ERW), American Petroleum institute (API) 5L X-60, coated with 14-16 Mils Fusion Bond Epoxy (FBE) (standard)
    - 0.281-inch wall thickness, ERW, API 5L X-60, coated with 14-16 Mils FBE and 30-40 mils Abrasion Resistant Overlay (road crossings, bores, and HDDs)
- Maximum operating pressure: 1,480 pounds per square inch gauge (psig)
- Initial estimated throughput: approximately 70,000 barrels per day (bpd)
- Maximum design flow rate: 160,000 bpd
- Maximum operating temperature: 120 degrees Fahrenheit (F)
- Normal operating conditions: 100 degrees F at 1,480 psig

1.4.2 TYPE

The proposed Project is a Y-grade NGL transmission pipeline. The steel pipeline will meet applicable U.S. Department of Transportation (USDOT) regulations as outlined in 49 Code of Federal Regulations (CFR) Part 195.

1.4.3 LENGTH

The Project is approximately 4.0 miles in length and is located in McKenzie County, North Dakota.

1.4.4 ABOVEGROUND FACILITIES

The Project will also involve work within the existing and previously developed footprint of ONEOK's Lonesome Creek Gas Plant, which was previously sited under NDPSC Case No. PU-14-218. This work includes performing a hot tap to connect the existing Cherry Creek Pipeline to the new Cherry Creek Extension Pipeline, of which approximately 1,500 feet will be located within the Lonesome Creek Gas Plant boundary. The new Cherry Creek Extension Pipeline will change the terminus of the existing Pipeline and divert the flow of NGLs that currently flow into the Lonesome Creek Gas Plant to the Antelope Creek Junction.

In addition, ONEOK will install an aboveground mainline valve which will also serve as a new tie-in point to the existing Lonesome Creek Meter Site, located within the Lonesome Creek Gas Plant boundary, for NGLs leaving the Lonesome Creek Gas Plant. Modifications within the existing Lonesome Creek Meter Site will include repurposing existing piping, demolishing existing filter skid, demolishing existing leak

detection skid, and installing new piping to the Cherry Creek Extension Pipeline mainline valve. Following construction, the disturbed areas will be graveled and fenced.

To accommodate the new pipeline connection and flow, a new trap (pig receiver), two leak detection skids, and two control valves will be installed/modified within the footprint of the existing Antelope Creek Junction site. The site will not increase in size. Following construction, the disturbed areas will be graveled and fenced. Refer to Exhibit A for engineering documents and the maps in Exhibit B for locations of aboveground facilities.

1.5 DESCRIPTION OF SITE PREPARATION, CONSTRUCTION, AND RECLAMATION PROCEDURES

Pipeline construction occurs in a linear fashion and, at any one time during the Project, any of the following activities may occur. The typical sequence of construction and restoration activities for the Project is as follows:

- Staking the workspace boundaries and utilities;
- Clearing of construction area;
- Installing temporary erosion and sediment controls;
- Grading and stump removal, if necessary;
- Segregation of topsoil, where necessary;
- Pipe delivery, bending, and welding;
- Trenching;
- Pipe installation;
- Backfilling excavations;
- Cleanup and final grading;
- Soil compaction treatment, where necessary;
- Stone removal, where necessary;
- Final restoration; and
- Upon final stabilization, removal of temporary erosion and sediment controls.

Construction activities at the Lonesome Creek Gas Plant will involve minimal grading, hydrovac excavation, and installation of a new valve site and facility piping. Upon completion of construction activities, the site will be graveled and stabilized. New fencing will be added around the area of the new facility improvements. At Antelope Creek Junction, the new equipment will be installed within the existing facility fence line, and workspace restabilized with gravel to match the existing site conditions.

ONEOK is developing a series of plans as described in Section 8.0 to provide procedures to be followed during construction and through final stabilization of the Project. All construction and reclamation efforts will occur in accordance with Order provisions. Additionally, ONEOK will comply with all applicable permit conditions and environmental, civil, or landowner agreements.

1.6 LANDOWNER NOTIFICATION, LAND ACQUISITION, AND COMPENSATION

Prior to conducting field surveys, ONEOK reviewed courthouse records for the purpose of identifying current landowners along the Route. ONEOK contacted landowners to introduce the Project and to obtain permission to conduct surveys.

ONEOK is in the process of negotiating easement agreements with landowners to give the company the right to construct, operate, and maintain the Project along a specified portion of each landowner's property in return for monetary compensation. ONEOK will obtain a permanent pipeline easement with an additional temporary easement during construction or for any future repairs. As of this filing, ONEOK has acquired a majority of the easements along the Project, and anticipates having all easements acquired by early 2023. When applicable, ONEOK will offer additional compensation for damages resulting from pipeline construction, such as the loss of crops.

The refinement of the Route includes adjustments made per landowner requests. ONEOK, at all times, negotiates in good faith and necessary easement conditions and restrictions are presented and discussed.

2.0 SCHEDULE

2.1 OBTAINING CERTIFICATE OF CORRIDOR COMPATIBILITY

ONEOK seeks approval of its requested Amendment to Certificate No. 203 by March 1, 2023.

2.2 OBTAINING ROUTE PERMIT

ONEOK seeks approval of its requested Amendment to Route Permit No. 213 by March 1, 2023.

2.3 COMPLETING ROW ACQUISITION

ONEOK anticipates completing ROW acquisition in early 2023.

2.4 STARTING CONSTRUCTION

ONEOK plans to begin construction on the Project upon receipt of regulatory approval and applicable permits in April 2023.

2.5 COMPLETING CONSTRUCTION

Completion of construction is anticipated to occur in the third quarter of 2023.

2.6 TESTING OPERATIONS

Testing of the pipeline and facilities is expected to be conducted in the second quarter during HDD construction and/or third quarter of 2023 for final testing of the pipeline before being placed in service.

2.7 COMMENCING OPERATIONS

The in-service date for the Project is anticipated to be in the fourth quarter of 2023.

3.0 ALTERNATIVES

3.1 ALTERNATIVES TO THE PROPOSED FACILITY

Construction of the proposed Project is capable of providing a maximum design capacity of 160,000 bpd of NGLs on the pipeline extension. The product would be delivered along the Project pipeline from the ONEOK Lonesome Creek Gas Plant to OBP's Demicks Lake Pipeline, and/or OBP's Garden Creek Pipeline, for delivery to facilities in the Mid-Continent and Gulf Coast regions for additional processing prior to distribution to various markets.

ONEOK identified and evaluated several Project alternatives; however, none of these alternatives effectively satisfied the Project needs and objectives. These alternatives included the No-Action Alternative, the Trucking Alternative, and the Rail Alternative.

3.1.1 No Action Alternative

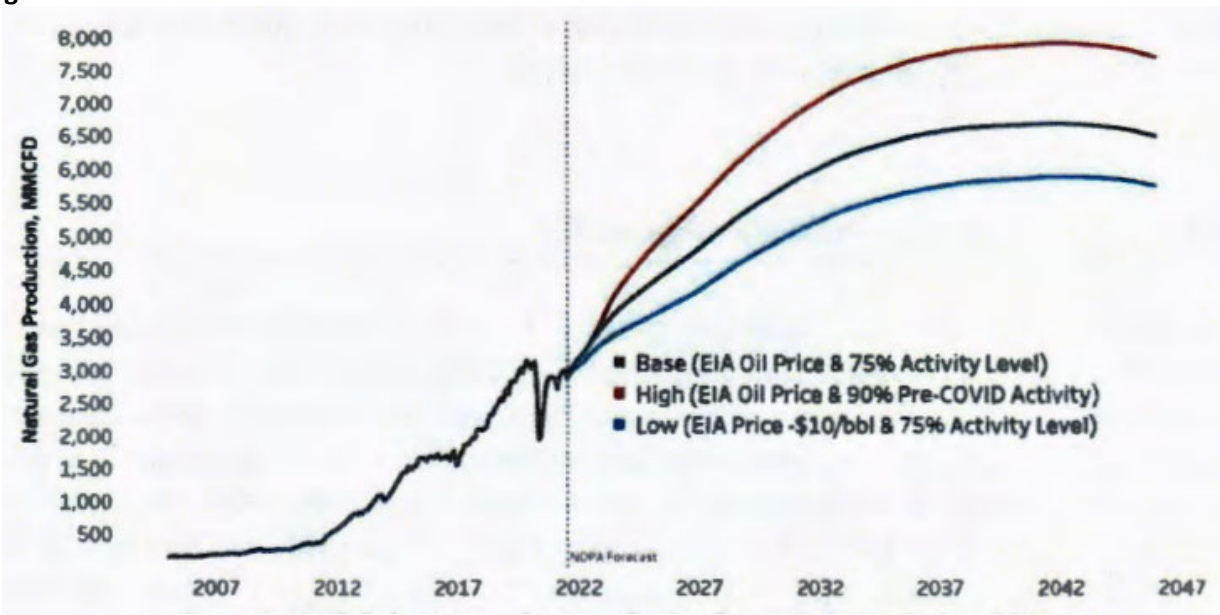
The primary objective of the Project is to provide additional, new, reliable transportation capacity to OBP's existing NGL transmission system by fourth quarter 2023. Under the No-Action Alternative, the Project would not be built, and the environmental impacts associated with construction and operation of the proposed Project would not occur.

Within the region, NGL production from the Williston Basin has increased from 250 million cubic feet per day (MMcf/d) in 2011 to almost 3,000 MMcf/d presently, and is projected by the North Dakota Industrial Commission (NDIC) to continue to increase to over 6,000 MMcf/d by 2047 (see Figure 3.1.1-1; NDIC, 2021). Thus, development of solutions for gas gathering, processing, and take-away infrastructure are needed. Historically, gathering, processing, and pipeline constraints have held back production growth in the Williston Basin region.

The state of North Dakota set a target of 74 percent gas capture in 2014, with an increased target every year since then. The most recent gas capture target rate was 91 percent capture by Q4 2020 (NDIC, 2018). The natural gas gross capture rate for Bakken production was 94 percent in July 2022 (Kringstad, 2022), which exceeds the Q4 2020 goal. Flaring percentages from 2017 to 2022 are presented on Figure 3.1.1-2. For the industry to continue to meet or exceed future gas capture targets as production projections increase, additional investments in gas gathering, processing, and transmission will be required for the short and long term.

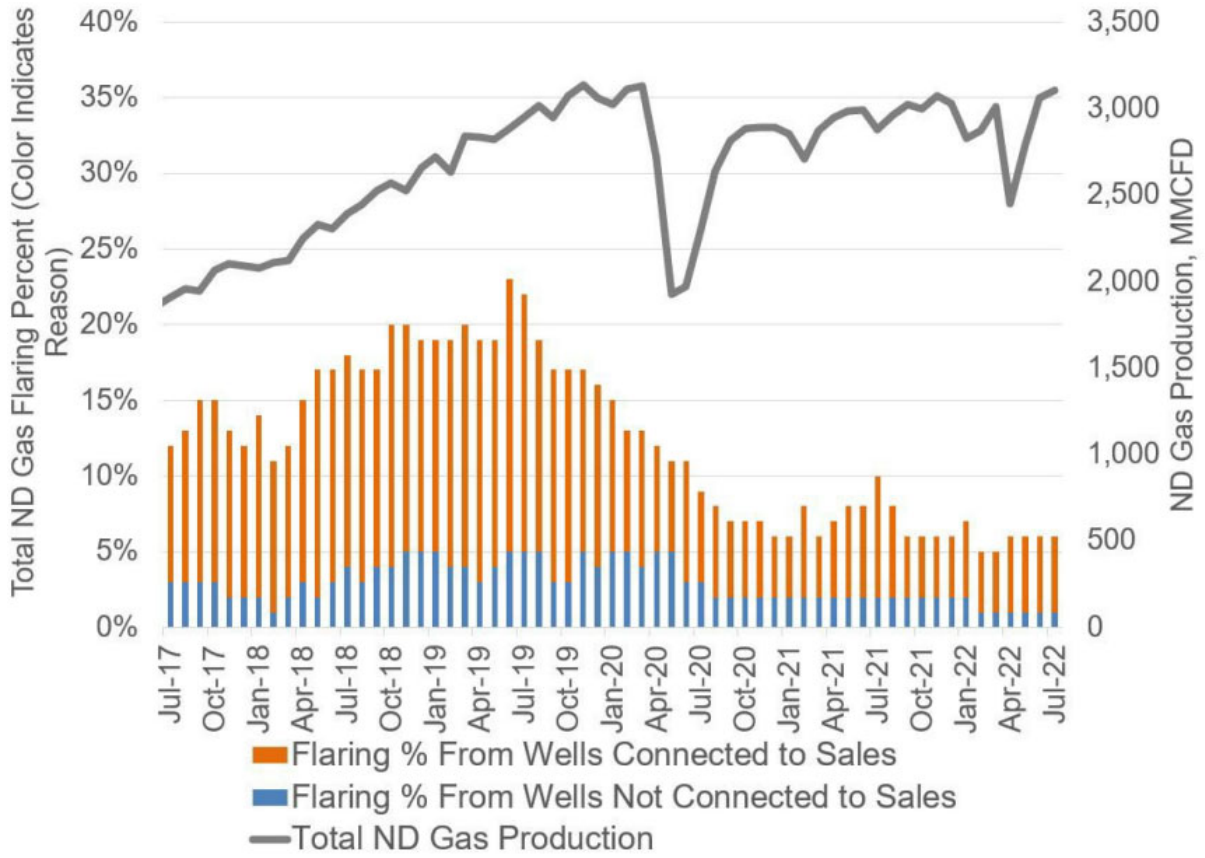
The No Action Alternative would not provide additional, new, reliable transportation capacity to OBP's existing NGL transmission system, limiting regional transport capacity for safe and reliable transmission of NGL products to markets. The No Action Alternative does not meet the commercial needs of ONEOK and does not serve the industry and public at-large. For these reasons, ONEOK rejected the No Action Alternative.

Figure 3.1.1-1 North Dakota Natural Gas Production Forecast



Source: NDIC, 2021

Figure 3.1.1-2 North Dakota Flaring Percentages



Source: Kringstad, 2022

3.1.2 Truck Transportation Alternative

A Trucking Alternative was reviewed and eliminated due to the volumes of NGLs to be transported. The maximum design capacity for the proposed Project will be equal to an estimated 160,000 barrels, or 6.72 million gallons of NGLs per day. The average load for an NGL truck is approximately 10,000 gallons per truck. Thus, it would require 672 trucks per day to be loaded at various plant locations in the region, an average of 28 trucks per hour each day. Similarly, it would require these 672 trucks per day to be unloaded (i.e., transloaded) at a railcar facility, fractionation facility for further processing, or another pipeline terminal every day.

This level of truck activity is not logistically feasible as it would cause significant amounts of heavy vehicle traffic for the area's residents, as well as additional wear and tear on local infrastructure. Further, any disruption in the trucking capacity due to seasonal load restrictions on roads, inclement weather, or road repairs could result in a plant shutdown and flaring of natural gas production. The Trucking Transportation Alternative is additionally constrained by the road network in the rural area of the Project. For these reasons, ONEOK rejected the Trucking Transportation Alternative.

3.1.3 Rail Transportation Alternative

A Rail Transportation Alternative would require the design and construction of railcar loading and offloading facilities, lateral service lines, and ancillary facilities necessary to support the requisite volumes of NGLs, requiring land acquisition and permanent conversion of agricultural land to industrial. Use of rail would require a completely different project design than that currently proposed for the Project. This alternative would also require a third-party rail operator.

Based on the maximum design capacity of the Project pipeline, approximately 224 railcars carrying 30,000 gallons of NGL each would need to be loaded and transported via rail on a daily basis under the Rail Transportation Alternative. While rail tanker cars are a vital part of the short-haul distribution network for NGLs, pipelines provide a more reliable, safe, and economical alternative for the large volumes to be transported and long distances to markets covered by the Project. As such, the Rail Transportation Alternative is not considered a viable alternative and was rejected.

4.0 ENVIRONMENTAL STUDIES

The Findings of Fact, Conclusions of Law and Order issued for the Pipeline on April 30, 2018, concluded that the location, construction, and operation of the Pipeline would produce only minimal adverse effects on the environment and were compatible with environmental preservation and the efficient use of resources. ONEOK would comply with the Commission's Order, conditions and criteria of the Certificate and Route Permit, and the applicable statutes, rules, regulations, standards, and permits of state or federal agencies for the construction of the Project. Additionally, ONEOK would comply with any additional requirements brought forth from the NDPSC upon review and approval of this amendment request.

ONEOK sponsored natural resources field surveys and cultural resources investigations for the Project in 2022. The natural resources survey and cultural resources investigations cover all areas within the 94.8-acre requested Corridor described in this application. The results of these environmental investigations are summarized below.

4.1 CULTURAL RESOURCE INVENTORY

Merjent, Inc. (Merjent) was contracted by ONEOK to conduct a Class I literature review and a Class III cultural resources inventory of a 103.8-acre Area of Potential Effect (APE) associated with the Project. The 94.8-acre Corridor described in this application falls entirely with the APE that was studied for cultural resources.

Based on the Class I literature review completed for the Project, the majority of the APE was previously surveyed for cultural resources in 2015 for OBP's Lonesome Creek Pipeline. The Class I review identified one previously documented archaeological isolated find within the APE; however, the isolated find was originally recommended as not eligible for listing on the National Register of Historic Places, with no further work recommended. The 2015 survey report was submitted to the North Dakota State Historic Preservation Office (NDSHPO) in association with OBP's Lonesome Creek NGL Pipeline on February 10, 2015. In a February 24, 2015 response, NDSHPO concurred with the report and a "No Significant Sites" affected determination (see Appendix C of the Lonesome Creek Pipeline application, Case No. PU-15-137, Docket No. 1).

In September and October 2022, Merjent conducted a Class III field investigation of approximately 10.6 acres within the Project's APE that had not been previously surveyed. During this survey, no archaeological resources were identified and Merjent recommended a determination of *No Historic Properties Affected* for the Project, and that no further archaeological work is warranted.

On behalf of ONEOK, Merjent submitted the Class I and Class III Report for the Project (see redacted report in Exhibit C.1) with the NDSHPO on November 18, 2022 and requested concurrence that no historic properties will be affected by the Project, and no further cultural resource work is warranted. The report documented the full APE, using data from the 2015 survey, as well as areas covered during the 2022 surveys. On November 22, 2022, the NDSHPO responded that it found Merjent's report acceptable and concurred with its recommendation of *no significant sites affected*. A copy of NDSHPO's response is included in Exhibit D.

ONEOK understands that details and locations of cultural resources are considered confidential by the NDSHPO. Therefore, a public version of Merjent's report redacting sensitive information is included in Exhibit C.1.

4.2 NATURAL RESOURCE INVENTORY

Merjent was contracted by ONEOK to conduct field surveys for water resource delineation, threatened and endangered species habitat identification, tree and shrub inventory, and a noxious weeds review. Field surveys were conducted within a 129.05-acre survey area (Survey Area) on September 27-28 and October 21, 2022. The 94.8-acre Corridor described in this application falls entirely with the natural resources Survey Area.

4.2.1 Wetland and Waterbody Inventory

The water resource delineation was conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual and the USACE March 2010 Regional Supplement: Great Plains Region (Version 2.0) (USACE 2010). The routine approach with onsite inspection was used, including the standard multi-parameter approach (vegetation, hydrology, and soils) for wetland identification. An area is considered to be a wetland if hydrophytic vegetation, wetland hydrology, and hydric soils are all present.

Four palustrine emergent (PEM) wetlands are located within the Corridor; however, only one is directly crossed by the Route at MP 3.5. ONEOK will install the pipeline across the wetland at MP 3.5 via HDD method. One additional wetland will be temporarily impacted by the Project workspace at MP 0.9; however, the pipeline centerline does not intersect the wetland. Temporary workspace impacts of the wetland at MP 0.9 will be conducted in compliance with USACE's Nationwide Permit 12 (NWP 12) and the wetland will be restored to its pre-construction contours and conditions.

In addition, one unnamed intermittent stream will be crossed near MP 2.5, and the pipeline will be installed via HDD beneath the stream feature. ONEOK will implement appropriate minimization and mitigation measures at these features, which may include avoidance (e.g., workspace modification or HDD) or use of construction mats and other best management practices (BMPs) to minimize impacts when working in or around wetlands and waterbodies.

Additional information can be found in the Natural Resources Survey Report in Exhibit C.2, and Section 8.0 includes information regarding additional minimization measures. Mapping of wetlands and waterbodies is also displayed on the Selection Criteria maps in Exhibit B.3.

4.2.2 Federally Protected Species Review

Evaluations were also conducted to determine the potential for occurrences of federally listed threatened, endangered, proposed, and candidate species as defined in the Endangered Species Act (ESA; 16 U.S.C. 1531 et seq.). A review of the U.S. Fish and Wildlife Service (USFWS) Endangered Species Information for Planning and Consultation (IpaC) website was conducted to determine the potential for listed species and critical habitat that may be present in McKenzie County, North Dakota (see Table 4.2.2-1) (USFWS 2022).

TABLE 4.2.2-1
Federally Listed Species Potentially Present in the McKenzie County[a]

Scientific Name	Common Name	Federal Status
Myotis septentrionalis	Northern long-eared bat	Threatened
Charadrius melodus	Piping plover	Threatened
Calidris canutus rufa	Rufa red knot	Threatened
Grus americana	Whooping crane	Endangered
Hesperia dacotae	Dakota skipper	Threatened
Danaus plexippus	Monarch butterfly	Candidate[b]

[a] Information for Planning and Consultation (IpaC). USFWS website. Available at: https://ecos.fws.gov/ipac/. Accessed October 2022.

[b] The USFWS has determined that listing the monarch butterfly is warranted but precluded; as such, the species becomes a candidate for listing. Candidate species are not protected under the Endangered Species Act.

This review confirmed designated critical habitat is not present within the Survey Area or in the vicinity of the proposed Project. The nearest designated critical habitat (for piping plover) is associated with Lake Sakakawea, approximately 14.5 miles north of the Project. As such, proposed Project activities will have no impact on designated critical habitat.

The field surveys conducted in September and October 2022 reviewed the Corridor for potentially suitable threatened and endangered species habitat. A summary of these results as related to each listed species is provided in the following sections and a copy of the Natural Resources Report is included as Exhibit C.2.

4.2.2.1 Northern Long-Eared Bat

The northern long-eared bat was listed as a federally threatened species in May 2015, with an interim 4(d) rule; the USFWS finalized the 4(d) rule effective February 16, 2016. On March 23, 2022, the USFWS published a proposed rule reclassifying the northern long-eared bat as an endangered species, citing the devastating effects of white nose syndrome on the species across its range. On November 30, 2022, the USFWS published a final rule to the federal register, listing the species as endangered. This listing goes into effect on January 30, 2023, nullifying the 4(d) rule for the species and the associated Programmatic Biological Opinion and streamlined consultation framework associated with the threatened listing will no longer apply.

Field surveys determined that potentially suitable habitat for northern long-eared bats may be present in some portions of the Project Survey Area. Using additional desktop review of areas outside the Survey Area concluded that suitable habitat for the northern long-eared bat (generally defined as live trees and/or snags at least 3 inches diameter at breast height (dbh) that have exfoliating bark, cracks, crevices, and/or cavities in stands of trees at least ten acres in size) is present along the wetland crossing at MP 3.5. Common tree species in this area include green ash (*Fraxinus pennsylvanica*) and cottonwood (*Populus deltoides*). The Project pipeline will be installed via HDD beneath the wooded area at MP 3.5, avoiding impacts on to suitable NLEB habitat during construction.

During operation of the pipeline, to assist with aerial surveillance, ONEOK may need to clear a small amount of trees within the suitable habitat near MP 3.5, and within a smaller stand of trees (less than 10 acre stand) at MP 2.5. If tree clearing occurs, ONEOK will avoid unauthorized take of northern long-eared

bats by conducting clearing of suitable habitat between November 1 and March 31, while bats are in hibernation and not present on the landscape. If tree clearing cannot be completed during this timeframe or ONEOK opts to conduct tree clearing during construction of the pipeline, ONEOK will conduct surveys to determine presence/probable absence per the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines (Guidelines).

In a December 8, 2022 response, USFWS recommended minimizing impacts to riparian, forested or wooded areas that could be utilized by NLEB, and avoiding clearing of trees larger than 3-inch dbh during the NLEB active season (March 31 to November 1). ONEOK will install the Project pipeline using the HDD method in wooded areas minimizing impacts to only the tree clearing necessary for aerial surveillance during operation of the pipeline. Impacts to NLEB will be further avoided by conducting tree clearing outside the active season, and/or conducting surveys per the Guidelines (and receiving a negative result) prior to tree clearing during the active season. By implementing these measures, Project activities will not result in unauthorized take of northern long-eared bats. Refer to Section 5.0 and Exhibit D.24 for more information on consultation with USFWS with respect to this species, and Section 4.3 for information on tree mitigation.

4.2.2.2 Piping Plover

In the Northern Great Plains, piping plovers nest on the unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars, where they forage at the water's edge. None of the wetlands identified in the Survey Area appear to support surface water retention features. Suitable foraging and nesting habitat for piping plover is not present in the Survey Area and no impacts are anticipated.

4.2.2.3 Whooping Crane and Rufa Red Knot

Suitable migratory stopover habitat for whooping cranes and rufa red knots is present in McKenzie County. If a whooping crane or red knot is sighted within the construction workspace, or if the USFWS notifies ONEOK of a whooping crane or red knot sighting within one mile of the Project, ONEOK will suspend construction activities and work will not resume until the birds have left the area. Any whooping crane or red knot sightings would be immediately reported to the USFWS and the North Dakota Game and Fish Department (NDGFD). As part of pre-construction activities, ONEOK will conduct environmental training with contractors and construction crews, providing them information on proper identification of these species and correct procedures regarding a sighting. With these conservation measures in place, Project activities will not result in unauthorized take of whooping cranes or rufa red knots.

4.2.2.4 Dakota Skipper

USFWS-designated Dakota skipper critical habitat is not present within the Study Area; however, potentially suitable Dakota skipper habitat is present in a portion of the Project Corridor. Five areas of potential Type B habitat (totaling 1.87 acres within the Corridor) were identified during the field survey. Four of the areas are located in grazed rangeland; the other area is in an ungrazed fallow area. These areas are considered low quality potential habitat due to their small size, fragmented or disjunctive nature, and because of the encroachment of non-native grasses.

In order to prevent impacts to potentially suitable habitat and individuals, ONEOK will use the HDD method to install the pipeline under delineated habitat. Ground disturbing activities such as vehicle/equipment traffic, digging, grading, trenching, soil compaction, etc. will be avoided within the

Dakota skipper habitat areas above the HDD; only foot traffic will be permitted in these areas. By implementing these measures, project activities will not result in unauthorized take of Dakota skippers.

In a December 6, 2022 response, USFWS agreed with this analysis and additionally confirmed that there are no known Dakota skipper populations near the Project. See the Natural Resources Report (Exhibit C.2) for further details and Section 5.0 and Exhibit D.24 for more information on consultation with USFWS with respect to this species.

4.2.2.5 Monarch Butterfly

On December 17, 2020, the USFWS published the result of their 12-month review of the monarch butterfly and determined that listing the species under the ESA was *warranted but precluded* (USFWS, 2020). The species is now a candidate for listing; however, Candidate species are not protected under the ESA. With the exception of work within Lonesome Creek Gas Plant, the pipeline right-of-way will be returned to preconstruction conditions; therefore, impacts on any potential habitat is anticipated to be short-term during construction and loss of habitat for monarchs post-construction is not anticipated. In the response received from USFWS, they noted that monarch is a Candidate species, and concurred with the consultation approach (see Exhibit D.24).

4.2.3 Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA), which prohibits the taking of any migratory bird, or a part, nest, or eggs of any such bird, except under the terms of a valid permit issued pursuant to federal regulations. The MBTA prohibits the "take" of individual birds, their eggs and chicks, and active nests. For purposes of the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, wound, kill, trap, capture, or collect" (50 Code of Federal Regulations [CFR] 10.12). The USFWS clarified in a final rule published October 4, 2021, that incidental take is prohibited under the MBTA (USFWS, 2021).

Should clearing and grading activities occur during the nesting season (April 15 to July 31), ONEOK would develop and implement a Migratory Bird Conservation and Compliance Plan. The plan would outline best management practices (BMPs) to be implemented to avoid and minimize take of migratory birds.

4.2.4 Bald and Golden Eagle Protection Act

Bald and golden eagles are protected by both the MBTA and the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA prohibits the take of a bald or golden eagle adults, juveniles, or chicks, including their parts, nests, or eggs, without a permit. Take is defined by BGEPA as to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. BGEPA also addresses impacts resulting from human-induced alterations occurring around previously used nesting sites.

No eagles, raptors, or nests were observed in during the natural resources surveys conducted in fall 2022 for the Project (Merjent, 2022). Details regarding the results of field surveys are provided in the Natural Resources Report included in Exhibit C.2. In addition, ONEOK consulted with the NDGFD to inquire if the agency has any historical records of eagle nests within one mile of the Project. In a November 29, 2022 response, NDGFD did not identify any known eagle nests within one mile of the Project (see Section 5.0 and Exhibit D for more information).

4.3 TREE/SAPLING/SHRUB INVENTORY

As described in the Natural Resources Report (see Exhibit C.2) (Merjent, 2022), the majority of the Project Corridor consists of agricultural fields, rangeland, and naturally vegetated drainageways.

Three non-clonal tree species were observed during field surveys: green ash (*Fraxinus pennsylvanica)*, Russian olive (*Eleagnus angustifolia*), and American elm (*Ulmus americanus*). Four clonal species were observed during surveys: Fireberry hawthorn (*Crataegus chrysocarpa*), Quaking aspen (*Populus tremuloides*), Buffalo berry (*Shepherdia argentea*), and Chokecherry (*Prunus virginiana*). Of the non-clonal trees noted during the field survey, only one species (green ash, 18 trees) is located within the Project Corridor. Three shrubby areas have overlapping populations of multiple species, with total shrubby areas totaling 0.8 acre within the Corridor.

The inventory and replacement requirements designated in the Tree and Shrub Mitigation Specifications required by the Commissions' Order issued for the Pipeline will be followed for this Project. A Tree and Shrub Mitigation Plan will be developed and submitted to the NDPSC for review and approval based on the actual number of trees and shrubs removed during construction of the Project.

4.4 NOXIOUS WEEDS INVENTORY

The Federal Noxious Weed Act of 1974 established a federal program to control the spread of noxious weeds. The U.S. Secretary of Agriculture was given the authority to declare plants "Noxious Weeds" and limit the interstate spread of such plants without a permit. North Dakota law (North Dakota Century Code [NDCC] Section 4.1-47-02) requires every person to do all things necessary and proper to control the spread of noxious weeds and makes it illegal for any person to distribute, sell, or offer a noxious weed within the state.

The North Dakota Department of Agriculture (NDDA) identifies 13 species of noxious weeds and invasive species listed in the state (NDDA, 2021). In addition to the NDDA noxious weed and invasive species list, county weed boards may develop a list of additional weeds for enforcement within their jurisdiction. McKenzie County has designated four additional species as noxious weeds. The 2022 Natural Resources Report (see Exhibit C.2) confirmed that the presence of invasive species was very low across the entire Survey Area. Two populations of Canada thistle (*Cirsium arvense*) were detected during the September survey (Merjent, 2022).

ONEOK will use BMPs to minimize the potential introduction and/or spread of invasive species and noxious weeds within the Project Corridor during construction activities and the revegetation timeframe. ONEOK would decrease the potential for the establishment of undesirable species by minimizing the time duration between final grading and permanent seeding. ONEOK will implement a Noxious Weed Management Plan (see Exhibit F.5), incorporating county-level requirements (see Section 5.0 and Exhibit D.29) and will comply with landowner agreements regarding noxious weeds.

5.0 AGENCY NOTIFICATIONS AND PERMITTING

In November 2022, ONEOK submitted consultation requests and Project notification letters to federal, state, and local agencies listed under North Dakota Administrative Code (NDAC) 69-06-01-05. Letters and/or emails were submitted with accompanying maps of the Project, displaying the Project centerline and one-mile-wide Study Area.

A summary of these consultations is provided in Table 5.0-1 and copies of the consultation letters and responses are included as Exhibit D. Responses that are pending will be filed with the Commission upon receipt.

TABLE 5.0-1
Summary of Agency Correspondence [a]

NDAC 69-06-01-05 [b]	Agency	Submittal Date	Response Date	Summary of Response
1	Aeronautics Commission	11/18/22	Pending	
2	Attorney General	11/18/22	Pending	
3	United States Department of Agriculture	11/21/22	Pending	
4	State Department of Health	11/21/22	Pending	
5	Department of Human Services	11/21/22	Pending	
6	Department of Labor and Human Rights	11/18/22	Pending	
7	Department of Career and Technical Education	11/18/22	Pending	
8	Department of Commerce	11/18/22	Pending	
9	Energy Infrastructure and Impact Office	11/18/22	Pending	

TABLE 5.0-1
Summary of Agency Correspondence [a]

NDAC 69-06-01-05 [b]	Agency	Submittal Date	Response Date	Summary of Response
10	North Dakota Game and Fish Department – managed lands	11/19/22	12/14/22	NDGFD's primary concern is the possible disturbance of native prairie and wooded draws, and requested appropriate precautions be taken to protect any wetlands that cannot be avoided. Lastly, the NDGFD stated that aerial surveys for raptor nests should be completed before construction begins and that a 0.5-mile buffer be implemented around active eagle nests (known occupied within the past 5 years). NDGFD stated they do not believe the Project will have significant adverse effects on wildlife or wildlife habitat by implementing the appropriate recommendations. ONEOK has avoided prairies, wetlands, and wooded areas to the extent possible. ONEOK does not intend to perform aerial raptor surveys prior to construction as 2022 field surveys did not identify any nests in the area and further consultation with NDGFD's Wildlife and Conservation Division did not identify any known eagle nest locations in the Project's study area. ONEOK will conduct pre-construction migratory bird and raptor nest surveys in 2023 and if nests are identified, they will be monitored for activity and buffers applied, if needed.
10	North Dakota Game and Fish Department – eagle nest	11/21/22	11/29/22	No known bald or golden eagles within the Study Area. The nearest known eagle nest is more than 5 miles from Project.
11	Industrial Commission	11/18/22	Pending	
12	Governor's Office	11/21/22	Pending	
13	Department of Transportation	11/21/22	Pending	
14	North Dakota State Historic Preservation Office	11/17/22	11/22/22	NDSHPO responded that it found Merjent's report acceptable and concurred with its recommendation of no significant sites affected.
15	Indian Affairs Commission	11/18/22	Pending	
16	Job Service North Dakota	11/21/22	Pending	
17	North Dakota Department of Trust Lands – School/Surface Trust	11/21/22	11/23/22	No North Dakota Trust Lands were identified within the proposed Study Area.
17	North Dakota Department of Trust Lands – Minerals Management	11/21/22	Pending	

TABLE 5.0-1
Summary of Agency Correspondence [a]

NDAC 69-06-01-05 [b]	Agency	Submittal Date	Response Date	Summary of Response
18	North Dakota Parks and Recreation Department	11/21/22	Pending	
19	Natural Resources Conservation Service	11/19/22	11/29/22	Agency response noted the Farmland Protection Policy Act (FPPA) does not apply as this Project, as the Project is not supported by federal funding. The agency provided guidelines for minimizing wetland impacts for Projects that fall under the FPPA program; however, this does not apply to this Project. Nonetheless, ONEOK has developed numerous plans addressing minimizing impacts to and restoration of wetlands. Please refer to Sections 4.2.1 and 8.0 and Exhibit F for more information.
20	State Water Commission (now known as North Dakota Department of Water Resources)	11/21/22	Pending	
21	United States Department of Defense	11/21/22	Pending	
22	United States Fish and Wildlife Service	11/21/22 12/30/22	11/28/22 12/8/22	11/28/22 – Agency requested Natural Resources Report; submitted to USFWS on 11/30/22. 12/8/22 – USFWS responded noting: • Recommended HDD of pipeline beneath NLEB habitat and avoiding removal of trees 3-inch dbh during the NLEB active season. • Agreed with the analysis for Dakota skipper, and confirmed no known populations near the Project. • Report any sightings of whooping cranes to the USFWS office. • Concurred with the consultation approach for Monarch butterfly as it is a Candidate species. • No known eagle nests in the vicinity of the Project.
23	United States Army Corps of Engineers (USACE)	11/21/22	Pending	
24	Federal Aviation Administration	11/21/22	Pending	
25	County Commission McKenzie County Board of Commissioners	11/19/22	Pending	

TABLE 5.0-1
Summary of Agency Correspondence [a]

NDAC 69-06-01-05 [b]	Agency	Submittal Date	Response Date	Summary of Response
25	County Commission McKenzie County Planning and Zoning	11/19/23	Pending	
25	County Commission McKenzie County Water Resource District	11/19/22	11/23/22	McKenzie County Water Resource District owns and operates a rural water distribution line within the Project Corridor. ONEOK will coordinate with the Water Resource District to avoid impacts to this water line.
25	County Commission McKenzie County Weed Control Board	11/19/22	11/21/22 12/7/22	As requested by the County, ONEOK submitted the requested County Weed Management Plan and ONEOK's Noxious Weed Plan and Revegetation Plan on 12/6/22 and 12/7/22, respectively. The Weed Management Plan was approved by the County on 12/7/22.
26	North Dakota Transmission Authority	11/18/22	Pending	
27	North Dakota Pipeline Authority	11/18/22	Pending	
28	North Dakota Department of Environmental Quality	11/18/22	11/29/22	Agency response did not identify any NDDEQ lands in or adjacent to the Project. NDDEQ provided general recommendations on minimizing disturbance to waters of the state, spill prevention, solid waste management and leak detection. In addition, NDDEQ noted that projects disturbing one or more acres are required to have a permit to discharge stormwater, and local officials can be consulted to see if any local stormwater ordinances or permits are required. The State of North Dakota recognizes the federal construction stormwater exemption for oil and natural gas projects. As such, ONEOK does not intend to apply for coverage under the NDDEQ's General Permit NDR11-0000; however, ONEOK developed and will implement a Project-specific Stormwater Pollution Prevention Plan (SWPPP) to prevent pollutant runoff from the construction site from entering waters of the State. ONEOK has been in consultation with county/local agencies and has not identified any local stormwater permitting requirements. In addition, ONEOK has developed several plans to minimize dust, noise, and impacts on waters of the state, as well as to address spill control and response, and control of construction-related stormwater. Please refer to Section 8.0 and Exhibit F for more information.
29	North Dakota Geological Survey	11/18/22	11/28/22	No additional geologic concerns with the proposed project. No landslide areas intersecting the pipeline corridor.
30	North Dakota Forest Service	11/19/22	Pending	

TABLE 5.0-1
Summary of Agency Correspondence [a]

NDAC 69-06-01-05 [b]	Agency	Submittal Date	Response Date	Summary of Response
31	Federal Bureau of Land Management	11/19/22	Pending	
32	Military Aviation and Installation Assurance Siting Clearinghouse	11/21/22	Pending	
33	Twentieth Airforce Ninety-First Missile Wing	11/19/22	Pending	
34	Minot Air Force Base	11/19/22	11/21/22	No Minot Air Force Base assets were identified in the Project area.
35	Grand Forks Air Force Base	11/21/22	12/1/22	Air Force staff contacted ONEOK via phone and confirmed the Grand Forks Air Force Base has no installations that would be affected by the Project. In addition, Air Force staff wanted to ensure notification had been submitted to Minot Air Force Base (see Item 34, above).
N/A	North Dakota Department of Agriculture	11/18/22	Pending	
N/A	Western Area Water Supply Authority (WAWSA)	11/19/22	11/23/22	WAWSA does not own or operate any water transmission pipeline within the 1-mile of the ONEOK Project corridor; however, the McKenzie County Water Resource District owns and operates a rural water distribution line within the Project corridor (see above).

[a] **Full copies of agency consultations are included in Exhibit D.**
[b] https://www.ndlegis.gov/information/acdata/pdf/69-06-01.pdf

5.1 LOCAL INFORMATION

The Project is not located within the boundary of any cities. The proposed Project lies within McKenzie County, and crosses Alex and Arnegard Townships. Alex and Arnegard Townships do not conduct their own zoning. Contact information for each of the local officials is provided below.

Alex Township
Jay Lewis (Chairman)
2731 138th Ave NW
Alexander, ND 58831
(701) 570-3387
lewis5farms@gmail.com

Arnegard Township
Jeremy Olson (Supervisor)
P.O. Box 692
Arnegard, ND 58835
(701) 651-7486
jeremy_olson@hotmail.com

McKenzie County Board of Commissioners
Howdy Lawlar (Chairperson)
3104 127th Avenue NW
Watford City, ND 58854
(701) 421-1088
hlawlar@co.mckenzie.nd.us

5.2 PERMITTING

ONEOK has identified several permits and authorizations which will be required for the Project. These permits are summarized in Table 5.2-1. ONEOK will file copies of each permit with the Commission upon receipt.

TABLE 5.2-1
Permit and Approval Summary

Agency	Permit / Approval	Resource	Status
USACE	Nationwide Permit (NWP 12) Utility Line Activities	Waters of the U.S.	As currently designed, the Project is eligible to utilize NWP 12, and a Pre-Construction Notification will not be required.
NDPSC	Amended Certificate of Corridor Compatibility and Route Permit	Siting of Project Corridor / Route	Application submitted December 2022.
NDSHPO	Cultural Resources Consultation (Section 106-National Historic Preservation Act)	Cultural Resources eligible for listing on National Register of Historic Places	Class III Cultural Resources Report submitted to NDSHPO in November 2022. NDSHPO responded on November 22, 2022 accepting the report, and concurring that no significant sites will be affected by the Project.
North Dakota Department of Environmental Quality (NDDEQ) – Division of Water Quality	General Permit for Temporary Dewatering / Hydrostatic Testing NDG07-0000	Waters of the State / Trench Dewatering / Hydrostatic Discharge	Applicability to be determined pending finalization of the hydrostatic testing plan. If required, an application will be submitted at least 30 days prior to discharge activities.
NDDEQ – Division of Water Quality	North Dakota Pollution Discharge Elimination System (NDPDES) General Stormwater Permit NDR11-0000	Waters of the State / Construction Stormwater	North Dakota recognizes the federal Clean Water Act Section 402(l)(2), which exempts oil and natural gas projects from obtaining construction stormwater permit coverage. As such, ONEOK is not currently planning on securing this permit; however, ONEOK has developed a Stormwater Pollution Prevention Plan (SWPPP) which will be utilized during construction activities.
NDDEQ – Division of Water Quality	Section 401 Water Quality Certification	Waters of the State - Water Quality	Concurrent with NWP 12; automatically granted for projects eligible for coverage under NWP 12.
McKenzie County Weed Control Board	Weed Management Plan Approval	State- and County-listed Noxious Weeds	The County approved of ONEOK's Weed Management Plan on December 7, 2022. The issued Weed Management Permit is included in Exhibit D.29.
McKenzie County Road Department / Engineer	Road / Section Line Crossing Permits	Crossing of Public Roads and Section Lines	To be obtained prior to construction

6.0 CRITERIA

In accordance with North Dakota Administrative Code § 69-06-08-02, ONEOK evaluated the location of the Project in relation to the NDPSC's siting criteria for transmission facilities. No exclusion or avoidance areas are crossed by the Project Route; however, one Avoidance Area is located within the requested Project Corridor (see Table 6.2-1).

This assessment was conducted based on available GIS data, natural resource and cultural resource investigations, and agency consultations (see Section 5.0). As discussed in Section 4.0, no protected cultural or natural resources would be impacted by the Project, and the analysis with respect to the remaining selection criteria remains largely consistent with the information set forth in Section 7.3 of the original Consolidated Application for Certificate of Corridor Compatibility and Route Permit for the Pipeline, (PU-17-483; Docket No. 1).

Based on an assessment of the Project's potential to impact exclusion and avoidance areas, ONEOK has concluded that the proposed Corridor adjustments described in this application do not alter the conclusion that minimal adverse impacts would result from the location, construction, and operation of the Project, as set forth in Conclusions of Law Item #4 of the Commission's Order (PU-17-483; Docket No. 80).

The following sections identify and discuss the presence or absence of siting criteria within the Project Corridor and Route. The Route analyzed for exclusion and avoidance areas was equivalent to the Project pipeline centerline plus 20 feet on either side (40 feet total width). Where siting criteria are identified, the location of each is shown on the maps in Exhibits B.2 – B.3. The Project Corridor and pipeline centerline GIS data is also being provided with this application in electronic form.

6.1 EXCLUSION AREAS

A summary table of NDPSC-designated exclusion areas located within the Project Study Area, requested Corridor amendment, and crossed by the proposed Project Route is provided in Table 6.1-1 below.

TABLE 6.1-1
Exclusion Areas

Exclusion Area	Located within Study Area	Located within Project Corridor	Crossed by Project Route	Administering Agency
National Parks	No	No	No	National Park Service (USNPS)
National Memorial Parks	No	No	No	USNPS
National Historic Sites and Landmarks	No	No	No	USNPS
National Natural Landmarks	No	No	No	USNPS
National Wilderness Areas	No	No	No	USNPS and U.S. Forest Service (USFS)
National Monuments	No	No	No	USNPS and State Historical Society
State Parks	No	No	No	State Park Service
State Historic Sites	No	No	No	NDSHPO
State Monuments	No	No	No	NDSHPO
State Historical Markers	No	No	No	NDSHPO
State Archaeological Sites	No	No	No	NDSHPO
State Nature Preserves	No	No	No	State Park Service

TABLE 6.1-1
Exclusion Areas

Exclusion Area	Located within Study Area	Located within Project Corridor	Crossed by Project Route	Administering Agency
County Parks and Recreation Areas, Municipal Parks, and Parks under other Governmental Jurisdictions	No	No	No	Various
Areas Critical to the Life Stages of Threatened or Endangered Animal or Plant Species	No	No	No	USFWS
Areas Where Animal or Plant Species Unique or Rare to the State would be Irreversibly Damaged	No	No	No	Various
Areas Within 1,200 Feet of an Intercontinental Ballistic Missile (ICBM) Facility	No	No	No	Department of Defense (USDOD)
Areas Within 30 Feet of Direct Line of ICBM Launch Facility	No	No	No	USDOD

6.2 AVOIDANCE AREAS

A summary table of NDPSC-designated avoidance areas located within the Project Study Area, Corridor, and Route is provided in Table 6.2-1 below. A description of avoidance areas located within the Project's Study Area are included in the following sections.

TABLE 6.2-1
Avoidance Areas

Avoidance Area	Located within Study Area	Located within Project Corridor	Crossed by Project Route	Administering Agency
National Historic Districts	No	No	No	State Historic Society
National Wildlife Areas	No	No	No	USFWS
National Wild, Scenic, or Recreational Rivers	No	No	No	State Heritage Conservation Recreation Service
National Wildlife Refuges	No	No	No	USFWS
National Grasslands	No	No	No	USFS
State Wild, Scenic or Recreational Rivers	No	No	No	State of North Dakota Legislative Assembly
State Game Refuges	No	No	No	NDGFD
State Game Management and Management Areas	No	No	No	NDGFD
State Forests	No	No	No	State Forest Service
State Forest Management Lands	No	No	No	State Forest Service
State Grasslands	No	No	No	State Park Service
Historical Resources which are not specifically designated as Exclusion or Avoidance Areas	No	No	No	State and County Historical Society
Areas which are Geologically Unstable	Yes	No	No	North Dakota Geological Survey (NDGS)
Within 500 Feet of a Residence, School, or Place of Business	Yes	Yes[1]	Yes[1]	Landowner

TABLE 6.2-1
Avoidance Areas

Avoidance Area	Located within Study Area	Located within Project Corridor	Crossed by Project Route	Administering Agency
Reservoirs	No	No	No	USACE and North Dakota Department of Water Resources (NDDWR)
Municipal Water Supplies	No	No	No	NDDWR
Water Sources for Organized Rural Water Districts	No	No	No	NDDWR
Irrigated Land	N/A	N/A	N/A	Per NDAC 69-06-08-02(2)(h); this criterion shall not apply to an underground transmission facility.
Areas of Recreational Significance but not designated exclusion areas	No	No	No	Various

[1] One residence is located within 500 feet of the Project Route and Corridor; the residence itself is outside the Corridor. A Landowner Waiver has been obtained and is included in Exhibit E.

6.2.1 Areas which are Geologically Unstable

Based on a review of publicly available data from North Dakota Geological Survey (NDGS), ONEOK has identified some isolated landslide deposits within the Project Study Area; however, none of these areas are within the Corridor or crossed by the Route. The closest landslide deposit is located approximately 700 feet west of the Route near MP 2.2 (see Exhibit B.2). Based on a November 28, 2022 response, NDGS did not identify any additional geologic concerns and did not identify any landslide areas intersecting the Project. Please refer to Section 5.0 and Exhibit D for more information.

6.2.2 Areas Within 500 Feet of a Residence, School, or Place of Business

Based on a review of aerial photography as well as discussions with landowners, ONEOK has identified one occupied residence within 500 feet of the Route near MP 2.2 (see Exhibit B.2). ONEOK has secured a landowner waiver for this property (see Exhibit E).

6.3 SELECTION CRITERIA

The North Dakota Administrative Code (NDAC) 69-06-08-02.3 specifies selection criteria considered in designating a pipeline corridor or route. These criteria are used to determine whether adverse effects from the location, construction, and maintenance of the facility will be at an acceptable minimum, or whether these effects will be managed and maintained at an acceptable minimum.

The selection criteria that were considered for the Project include:

- Agricultural Production;
- Family Farms and Ranches;
- Land Suitable for Irrigation;
- Surface Drainage and Groundwater Flow Patterns;
- Sound Sensitive Areas;
- Visual Effects;

- Extractive and Storage Resources;
- Wetlands, Woodlands, and Wooded Areas;
- Communication or Electric Control Facilities;
- Human Health and Safety;
- Animal Health and Safety; and
- Plant Life.

6.3.1 Agricultural Impacts

6.3.1.1 Family Farms and Ranches

ONEOK will negotiate easements with all affected landowners. The majority of the land crossed by the Project can be characterized as either agricultural or ranchland. Once construction is complete, the land will be restored to its pre-construction contours and land use. ONEOK will provide settlements to landowners for crop loss resulting from Project construction. The Project will have no permanent impacts on lifestyle or farm/ranch operations once construction is completed.

6.3.1.2 Lands Suitable for Irrigation

This section is not applicable to buried pipelines (NDAC 69-06-08-02(2)(h)).

6.3.1.3 Surface Drainage and Groundwater

Care will be taken throughout the construction process to minimize environmental impacts, including modification of drainage patterns. During restoration, those areas that were disturbed during construction will be restored, the local topography will be restored to its original contours, vegetation will be reestablished. Impacts are anticipated to be minimal and temporary. Minor localized changes to surface drainage may occur where trench or slope breakers are required. In these areas, the general drainage characteristics of surface water will be the same; however, it may be directed off the Project ROW to minimize scour or erosion on steep slopes. BMPs will be implemented in accordance with the Project-specific Storm Water Pollution Prevention Plan (SWPPP), which will be modeled after the North Dakota Department of Environmental Quality (NDDEQ) Construction Stormwater General Permit requirements.

Well data has been recorded by the North Dakota Department of Water Resources (NDDWR). There are no wells within the Project Study Area; however, based on a review of data for wells within 4 miles of the Project, groundwater is generally located at least 20 feet below the surface. The required tie-in excavations for the proposed Project are not anticipated to reach these depths; as such, no impact to groundwater is anticipated. If groundwater is encountered during construction activities, it will be dewatered in accordance with ONEOK's construction plans (see Section 8.0) and applicable state and/or local permits.

6.3.2 Sound-sensitive land uses

With the exception of one occupied structure near MP 2.2, there are no other known noise-sensitive receptors located within 500 feet of the Project. The Project is located in a rural setting away from major population centers. Construction will take place over a period of approximately 4 to 6 months; however, no one area will have ongoing daily activity, as construction will progress from one area of the Route into

the next. Construction activities at any given point along the Project are generally limited to daylight hours. The use of heavy equipment or trucks will be the primary noise generating activity during construction and excavation. The level of impact may vary by equipment type, duration of construction activity, and the distance between the noise source and the receptor. Once constructed and in-service, normal pipeline operations are not audible. Construction and operation of the Project is expected to comply with applicable noise requirements and local ordinances.

6.3.3 Visual Effect Adjacent Areas

With the exception of additional infrastructure at the mainline valve and within the previously developed footprints of the Lonesome Creek Gas Plant and Antelope Creek Junction, all Project workspaces will be returned to their original land uses with no long-term visual impacts. No designated Scenic Byways or Backways or federal, state, or local recreation areas are present within the Study Area of the Project. Oil and natural gas development is common in the general Project area.

6.3.4 Extractive and Storage Resources

The Project will help in meeting the state of North Dakota's goals to increase the capture of natural gas and reduce flaring. This Project will not affect any known extractive or storage resources. Impacts on future extractive development would not constitute a substantial loss of resource availability because of the narrow, linear nature of the pipeline ROW relative to the expanse of areas with resource potential. Based on a review of publicly available data, there are no known abandoned mines within the Project Study Area.

6.3.5 Wetlands, Woodlands, and Wooded Areas

As described in Section 4.2, ONEOK commissioned field surveys to identify and record the locations of wetlands, waterbodies and wooded areas along Project Route. The vast majority of the Route crosses agricultural lands; however, isolated wetlands and patches of trees and shrubs are present. ONEOK will implement construction measures to avoid or minimize impacts to these features where possible. A Tree and Shrub Mitigation Plan accounting for actual tree/shrub impacts during construction will be filed with the NDPSC for approval, and in compliance with Order requirements. Additional mitigation measures are detailed in Section 8.0 and detailed survey results can be found in Exhibit C.2.

6.3.6 Radio and TV Reception and Other Communication or Electronic Facilities

Based on review of publicly available information, no radio and television receptors are located within the Project Corridor. Locations of antenna and microwave structures located with the Study Area are displayed on the Selection Criteria maps in Exhibit B.3. The proposed Project is a buried, underground utility. No impacts on television or radio reception or communication or electronic control facilities are anticipated to occur as a result of the Project.

6.3.7 Human Health and Safety

During construction, residences and businesses in proximity to construction activities will be exposed to short-term increases in construction-related noise and dust. The construction ROW, access roads, and

spoil piles near residential and commercial areas will be watered down as needed to control fugitive dust emissions during construction. Following construction, measures to stabilize and revegetate the ROW will be taken promptly to minimize further dust emissions. Heavy construction equipment required for pipeline installation will generate unavoidable short-term increases in sound levels. Increases in noise levels due to equipment operation will be limited to the period of active construction and will primarily be avoided during night-time hours (i.e., 10pm – 7am). Twenty-four-hour construction activities are generally limited to completing tasks that commenced during the day and when ceasing to complete could jeopardize the installation. This largely applies to some phases of HDDs, various bores, and occasional aboveground facility construction.

Actual installation of the pipeline and all construction and testing records will be subject to inspection. All below ground pipe installed along the Project will be externally coated with a fusion-bonded epoxy to resist corrosion, and cathodic protection for the pipeline will also be installed within the Project Corridor. Once installed, internal inspections will be conducted on the pipeline at regular intervals using in-line inspection technology. The pipeline will undergo hydrostatic testing at a minimum of 1.25 times the maximum allowable operating pressure to ensure its integrity and will be placed into service only after successful completion and commissioning to verify compliance with all construction standards and requirements.

The USDOT's pipeline standards are published in Part 195 of Title 49 of the CFR. The regulations are intended to ensure adequate protection of the public and to prevent accidents and failures. Part 195 addresses hazardous liquid pipeline safety issues, specifying material selection and qualification, minimum design requirements, construction, pressure testing, operations, maintenance, protection from internal, external, and atmospheric corrosion, and integrity management of the pipeline for the life of the facility.

ONEOK will ensure that a public education and outreach program is developed to promote public awareness of pipelines and pipeline safety in accordance with USDOT requirements. Proper signage and warnings at road and highway crossings, railroad crossings, navigable rivers, and other locations will alert the public to the presence of underground lines and to provide information, contact numbers, and emergency data.

6.3.8 Animal Health and Safety

Wildlife which could potentially enter or inhabit the Project area are common and are generally mobile. The local wildlife inhabitants would be displaced by the Project without a measurable impact to the viability of these populations. A summary of field surveys conducted with respect to natural resources is included in Section 4.2 and consultations with state and federal agencies related to protected species are provided in Section 5.0. Impacts on the majority of animal species will be short-term and temporary, and the construction workspace will be restored to its pre-construction conditions following installation of the pipe.

6.3.9 Plant Life

The majority of the Project Route crosses cultivated cropland and rangeland. Field surveys did not identify any protected or endangered plant species. All areas disturbed by construction of the Project will be revegetated in accordance with applicable agency standards and landowner requests. In addition, ONEOK will complete tree and shrub mitigation per NDPSC guidelines.

6.4 POLICY CRITERIA

6.4.1 LOCATION AND DESIGN

The Project facilities are being sited in accordance with North Dakota Energy Conversion and Transmission Facility Siting Act (NDCC Chapter 49-22.1). The location has been selected to avoid and minimize environmental and human impacts while meeting the purpose and need of the Project.

The Project will be constructed and operated according to all applicable regulations and the Project will meet or exceed state and federal safety requirements and will be designed in accordance with 49 CFR Part 195. All persons and firms providing service to ONEOK are required to conduct their work in compliance with environmental conditions, permit authorizations, and applicable regulations and will be held accountable for their actions.

6.4.2 TRAINING AND UTILIZATION OF IN-STATE LABOR

Initial construction of the Project will require approximately 50 workers in North Dakota. ONEOK does not anticipate any new permanent employees will be required when the Project is operational.

6.4.3 ECONOMIES OF CONSTRUCTION AND OPERATION

ONEOK will invest approximately $12 million in North Dakota to develop this Project. Once constructed and in-service, the continued costs of maintenance and operation of the Project are expected to be minimal.

6.4.4 USE OF CITIZEN COORDINATING COMMITTEES

ONEOK has established and maintains good relationships with local residents through its long-term regional presence operating various assets in the area. Through these relationships, ONEOK has maintained several grassroots communication channels to inform local residents regarding the developments associated with the Project. ONEOK will continue to maintain contact with local government officials. Through these contacts, Project-related information will be exchanged and should concerns arise, ONEOK will work with officials to resolve those issues.

6.4.5 COMMITMENT OF PORTION OF TRANSMITTED PRODUCT FOR USE IN STATE

The proposed Project will deliver NGLs to OBP’s existing Demicks Lake Pipeline and/or OPB's existing Garden Creek Pipeline. The Project will allow for the delivery of additional NGLs from the Bakken and Three Forks production areas to facilities in the Mid-Continent and Gulf Coast regions. The NGLs will be processed into commercial products prior to distribution to various markets to meet the existing need for agriculture and the petrochemical and plastics industries, as well as for refining and home heating throughout the United States.

6.4.6 LABOR RELATIONS

ONEOK maintains positive labor relations with its staff and contract workforce and does not anticipate encountering any adverse labor relations on this Project. Additionally, the labor market in the region is generally supportive of the oil and gas industry. ONEOK is an equal opportunity employer committed to diversity and inclusion.

6.4.7 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT

ONEOK is committed to protecting the environment during all phases of construction of the Project. Before construction, environmental field surveys of the Project were conducted to identify wetlands, streams, threatened and endangered species habitat, cultural resources, agricultural or forested areas, and special land-use designations. No unique biological or cultural resources were identified during field surveys or desktop reviews that could not otherwise be avoided or impacts mitigated. Once the Project is operational, ongoing monitoring and maintenance activities will be implemented to ensure safe operation.

6.4.8 COORDINATION OF FACILITIES

As noted previously, the Project originates at ONEOK's Lonesome Creek Gas Plant and will terminate at Antelope Creek Junction. From that location, NGLs will be transported to the Mid-Continent and Gulf Coast for additional processing.

ONEOK owns and operates several gas processing plants in North Dakota (Stateline I and II, Garden Creek I, II and III, Bear Creek I and II, Lonesome Creek, Grasslands, and Demicks Lake I and II) and is currently constructing its Demicks Lake III Gas Processing Plant. ONEOK provides takeaway capacity via pipeline for the NGLs produced at the plants. Coordination of the proposed Project with existing facilities is anticipated to be seamless, as the proposed Project will provide additional takeaway transportation capacity of NGLs in North Dakota.

6.4.9 MONITORING IMPACTS

ONEOK has established and maintained positive landowner and community relationships throughout the region through its open communication and commitment to corporate citizenship standards that are based on integrity. ONEOK monitors landowner concerns through its ROW department and responds to all reasonable requests. In a similar manner, ONEOK monitors community concerns and responds to all reasonable concerns brought to its attention by local community leaders. ONEOK will select a contractor for construction of the Project and will coordinate the oversight responsibilities for construction activities with this contractor throughout the Project. Environmental responsibilities will be coordinated in the same manner.

During operation, pipeline control personnel provide 24-hour electronic surveillance of ONEOK pipeline operations. In addition, ONEOK uses a number of inspection methods and processes to mitigate corrosion and minimize the potential for third-party damage to the pipelines. These include regular ROW patrols, inspections of cathodic protection equipment, and coordination with the State One-Call Centers to mark the pipeline or to be present during excavation to ensure the public's safety and the integrity of the pipeline.

ONEOK designs, constructs, operates, and maintains its pipeline systems to ensure safety and reliability. If a leak were detected, the company has the ability to stop the flow of product through the pipeline remotely from its control center. The Project pipeline will be equipped with remote valves that can be operated from this control center.

6.4.10 USING EXISTING AND PROPOSED ROWS AND CORRIDORS

The Project Route is entirely co-located (parallel and within 100 feet) with OBP's Lonesome Creek Pipeline, which eliminates the need for creating a new pipeline corridor and potentially impacting new landowners. Also, as noted in the Introduction section of this Application, the majority of the proposed Corridor for this Project overlaps with the previously NDPSC-certificated Lonesome Creek Pipeline Corridor (NDPSC Case No. PU-15-137) and NDPSC-Certificated Site for ONEOK's Lonesome Creek Gas Plant (Case No. PU-14-218).

6.4.11 OTHER EXISTING OR PROPOSED TRANSMISSION FACILITIES

ONEOK, Inc. is a leading midstream service provider and owner of one of the nation's premier NGL systems, connecting NGL supply in the Rocky Mountain, Mid-Continent, and Permian regions with key market centers and an extensive network of natural gas gathering, processing, storage, and transportation assets. The company owns and operates:

- 9,120 miles of natural gas liquids gathering pipelines with operating capacity of 1,790 MBbl/d, including 6,330 miles of FERC-regulated pipelines with operating capacity of 1,490 MBbl/d;
- 4,350 miles of natural gas liquids distribution pipelines with operating capacity of 1,150 MBbl/d, including 4,180 miles of FERC-regulated pipelines with operating capacity of 1,080 MBbl/d;
- 8 NGL fractionators with combined operating capacity of 920 MBbl/d (includes interests in our proportional share of operating capacity), including 520 MBbl/d in the Mid-Continent region and 400 MBbl/d in the Gulf Coast region;
- 6 NGL storage facilities with operating storage capacity of 30 MMBbl; and
- 8 NGL product terminals.

7.0 OTHER FACTORS CONSIDERED

7.1 EXISTING PLANS FOR OTHER DEVELOPMENTS IN THE VICINITY

Based on a review of publicly available data and consultation with several local, state, and federal agencies (see Section 5.0), ONEOK is currently not aware of any proposed developments in the vicinity of the Project. The Project is located in a sparsely populated rural area. The closest city to the proposed Project is Arnegard, North Dakota, approximately 5.5 miles to the northeast. Based on a review of the scope and location of present and foreseeable projects, ONEOK believes that this Project is not in conflict with any known or proposed developments planned in the area.

7.2 TRANSMISSION TECHNOLOGIES AND SYSTEMS DESIGNED TO MINIMIZED ADVERSE ENVIRONMENTAL EFFECTS

The Project design is consistent with existing pipeline technologies. A variety of measures will be taken to avoid, minimize, or mitigate impacts on sensitive resources, including implementing trenchless construction (i.e., HDD, bores), narrowing ROW widths, rerouting, and route deviations, etc. Trenchless techniques avoid the need for open cut trenches, thereby minimizing environmental impacts and eliminating ground-level surface hazards in sensitive areas along the Route. BMPs will be used to minimize impacts from clearing, trenching, and reclamation of the construction ROW. Potential impacts on environmentally sensitive areas will be either avoided through rerouting, HDDs/bores, or by protecting sites during construction.

Mitigation measures are also discussed in Section 8.0 of this application and draft Project Plans are provided in Exhibit F. The Project does not include new energy conversion or transmission technologies that are expressly designed to minimize adverse environmental effects.

7.3 BENEFICIAL USES OF WASTE ENERGY FROM A PROPOSED ENERGY CONVERSION FACILITY

The Project does not involve new energy conversion facilities; as such, the potential for beneficial uses of waste energy from a proposed energy conversion facility does not apply to the Project.

7.4 UNAVOIDABLE ADVERSE DIRECT AND INDIRECT ENVIRONMENTAL EFFECTS

Unavoidable adverse direct and indirect environment effects will be temporary, short-term, and will be minimized to the extent practicable. The Project has been co-located and will run parallel to the existing OBP Lonesome Creek Pipeline for its entire length. ONEOK will implement measures to mitigate potential impacts on resources such as vegetation, wildlife, agricultural, transportation, and noise levels. Refer to Section 8.0 for a complete description of mitigation measures.

7.5 CORRIDOR OR ROUTE ALTERNATIVES DEVELOPED THAT MINIMIZE ADVERSE EFFECTS

A description of the alternatives analyzed during Project design is presented in Section 3.0 of this application. The Project Corridor and Route have been designed based on landowner engagement, stakeholder outreach, civil surveys, environmental surveys, and constructability analysis, among other considerations.

7.6 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF NATURAL RESOURCES IF DESIGNATED

The Project was designed to fully co-locate the pipeline with the existing OBP Lonesome Creek Pipeline. This design minimizes irreversible or irretrievable commitments of natural resources due to conversion from greenfield to industrial uses and optimizing existing fragmentation. Generally, all areas impacted by pipeline construction will return to previous land use. In isolated areas, long-term vegetation impacts will result from converting wooded areas to herbaceous/scrub shrub areas to comply with federal pipeline regulations. This conversion of vegetation ensures the safety and integrity of the pipeline and facilitates aerial inspections of the pipeline.

The Project will not result in an irreversible and irretrievable commitment of natural resources.

7.7 DIRECT AND INDIRECT ECONOMIC IMPACTS OF THE FACILITY

Estimated total spending for construction of the Project is $12 million. This estimate includes: construction of the pipeline, engineering, and real estate services; easement payments; mitigation payments; and other support services. Construction outputs for the Project include employment, labor income, and production spending. The Project is expected to employ approximately 50 workers for construction activities. These economic impacts will be realized during construction in 2023, and throughout operations and maintenance annually, starting in late 2023.

North Dakota imposes taxes on sales, use, gross receipts and lodging, and individual income. Local governments may impose taxes on the same tax bases; however, most unincorporated areas do not impose local option sales taxes. The Project will contribute directly and indirectly to tax bases at the state and local levels.

Construction of this Project would provide firm, reliable service for an initial anticipated throughput of up to 160,000 bpd of NGLs and provide a critical transportation link between ONEOK's Lonesome Creek Gas Plant, and OBP's existing NGL pipeline system(s) for delivery to facilities in the Mid-Continent and Gulf Coast for additional processing prior to distribution to various markets.

7.8 EXISTING PLANS FOR OTHER DEVELOPMENTS IN THE VICINITY

To date, none of the local, state, or federal agencies ONEOK consulted for this Project have identified any projects or developments in the Project area. Based on a review of the scope and location of present and foreseeable projects, ONEOK is not aware of any known or proposed developments planned in the area.

7.9 RECYCLING OF CONVERSION BYPRODUCTS AND EFFLUENTS

Recycling of conversion byproducts and effluents is not applicable to this type of project.

7.10 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT

ONEOK is committed to conducting its business in compliance with all applicable environmental laws and regulations. These laws, regulations, and standards are designed to safeguard the environment, human health, wildlife, and natural resources.

ONEOK will conduct its activities with the objectives of providing a healthful and safe workplace for its employees and preventing accidents and environmental incidents. All persons and firms providing service to ONEOK are required to conduct their work in compliance with all environmental conditions, permit authorizations, and applicable regulations and will be held accountable for their actions in that regard.

7.11 ENERGY CONSERVATION THROUGH USE OF A PRIMARY ENERGY SOURCE OR RAW MATERIAL

ONEOK is committed to energy conservation through management of energy costs and energy usage in the operations of the Project.

7.12 NON-RELOCATION OF RESIDENTS

No residents will be relocated as a result of the Project.

7.13 DEDICATION OF AN AREA ADJACENT TO THE FACILITY FOR LAND USE SUCH AS RECREATION, AGRICULTURE, OR WILDLIFE MANAGEMENT

ONEOK does not own property adjacent to the proposed Project suitable for recreation, agricultural, or wildlife management purposes. The current land use of properties adjacent to the Project is primarily agricultural/range land (see Exhibits B.2 – B.3 and Exhibit C.2).

The Project will result in the development of a buried pipeline and other industrial type ancillary facilities. No new land ownership is being acquired for the Project. Therefore, no areas are proposed adjacent to the Project to be dedicated to recreation or wildlife management. Agricultural land will be returned to its original land use following installation of the pipeline.

7.14 SECONDARY USES OF APPROPRIATE ASSOCIATED FACILITIES FOR RECREATION AND THE ENHANCEMENT OF WILDLIFE

The Project will result in the development of a buried pipeline and other industrial type ancillary facilities. As such, these developments are not typically suitable for recreational or wildlife application.

7.15 PROBLEMS RAISED BY FEDERAL, STATE, AND LOCAL AGENCIES

In November 2022, ONEOK provided Project-specific notification to various federal, state, and local agencies. Through this notification process, these agencies have the opportunity to identify possible

sensitive environmental resources within the study area and any related agency concerns. Section 5.0 of this application summarizes the consultations that have taken place to date and a complete record of these agency communications is provided in Exhibit D. ONEOK is actively working with federal, state, and local agencies and will address problems that are raised. ONEOK will continue to file agency responses with the Commission as they are received.

8.0 MITIGATION MEASURES

ONEOK is in the process of finalizing several Project control plans that would be used during construction activities to minimize and mitigate impacts to environmental resources. Drafts of the plans listed above are included in Exhibit F. Substantive changes to these plans are not anticipated prior to construction. These plans include the following, which would be incorporated into contract documents and enforced by ONEOK:

- **Stormwater Pollution Prevention Plan (SWPPP):** Construction stormwater management and erosion/sediment control.
- **Spill Prevention, Control, and Countermeasure (SPCC) Plan:** Spill prevention and BMPs, with details on spill response and notification procedures in the event of a spill.
- **HDD Inadvertent Release Control and Mitigation Contingency Plan***:* Provides measures to minimize the potential for release of drilling mud during HDD operations. Establishes procedures and responsibilities for containment/cleanup in the event of an inadvertent release.
- **Unanticipated Discoveries Plan:** Response measures to be followed in the event of a discovery of cultural resources or human remains during construction.
- **Noxious Weed Plan***:* Measures to control the spread of invasive and noxious weeds.
- **Dust Control Plan:** Control of fugitive dust caused by construction activities/soil exposure.
- **Revegetation Plan:** Describes revegetation and permanent restoration of disturbed ROW. Appropriate seed mixes will be incorporated into this plan. This plan also addresses control of noxious and invasive weeds.

In addition, given that the Project will be constructed during the migratory nesting season in North Dakota (generally April 15 – July 31), ONEOK is in the process of developing a Migratory Bird Conservation and Compliance Plan, which will be finalized prior to construction.

To further comply with permits, plans, obligations, and commitments, ONEOK would employ one or more Environmental Inspectors (EIs) during construction of the Project. The EI(s) would be responsible for monitoring construction activities and would provide reports to ONEOK staff.

9.0 BIBLIOGRAPHY

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10.0 QUALIFICATIONS OF PREPARERS

Kolton Burge
Project Manager
ONEOK, Inc.
Degree: B.S. Construction Engineering, Oklahoma State University

Mr. Burge has been managing pipeline projects as well as facility connections in various regions which ONEOK operates over the past 6 years. As project manager for the Cherry Creek Extension Pipeline Project, Mr. Burge manages and coordinates activities of the project team to execute the Project. Mr. Burge is responsible for oversight of the entire planning, siting, construction, and restoration process. He is tasked with meeting the commercial objectives and schedule of the project while maintaining strict compliance with all federal, state, and local regulations.

Rachel Grant
Environmental Project Manager
ONEOK, Inc.
Degrees: M. A. Psychology, University of Oklahoma
B.A. Communication Studies, Saint Mary's College

Ms. Grant has been managing environmental and regulatory compliance for 12 years and has been managing pipeline related projects in various regions which ONEOK operates for the past 4 years. As environmental project manager for the Cherry Creek Extension Pipeline Project, Ms. Grant manages and coordinates all survey, permitting, and compliance activities to maintain compliance with all federal, state, and local regulations. She is responsible for the environmental oversight for the entire planning, siting, construction, and restoration process.

Paul Hartzheim, M.S.
Senior Environmental Analyst
Merjent, Inc.
Degrees: M.S., Water Resources Science, University of Minnesota - Twin Cities
B.S., Environmental Science, University of Minnesota - Twin Cities

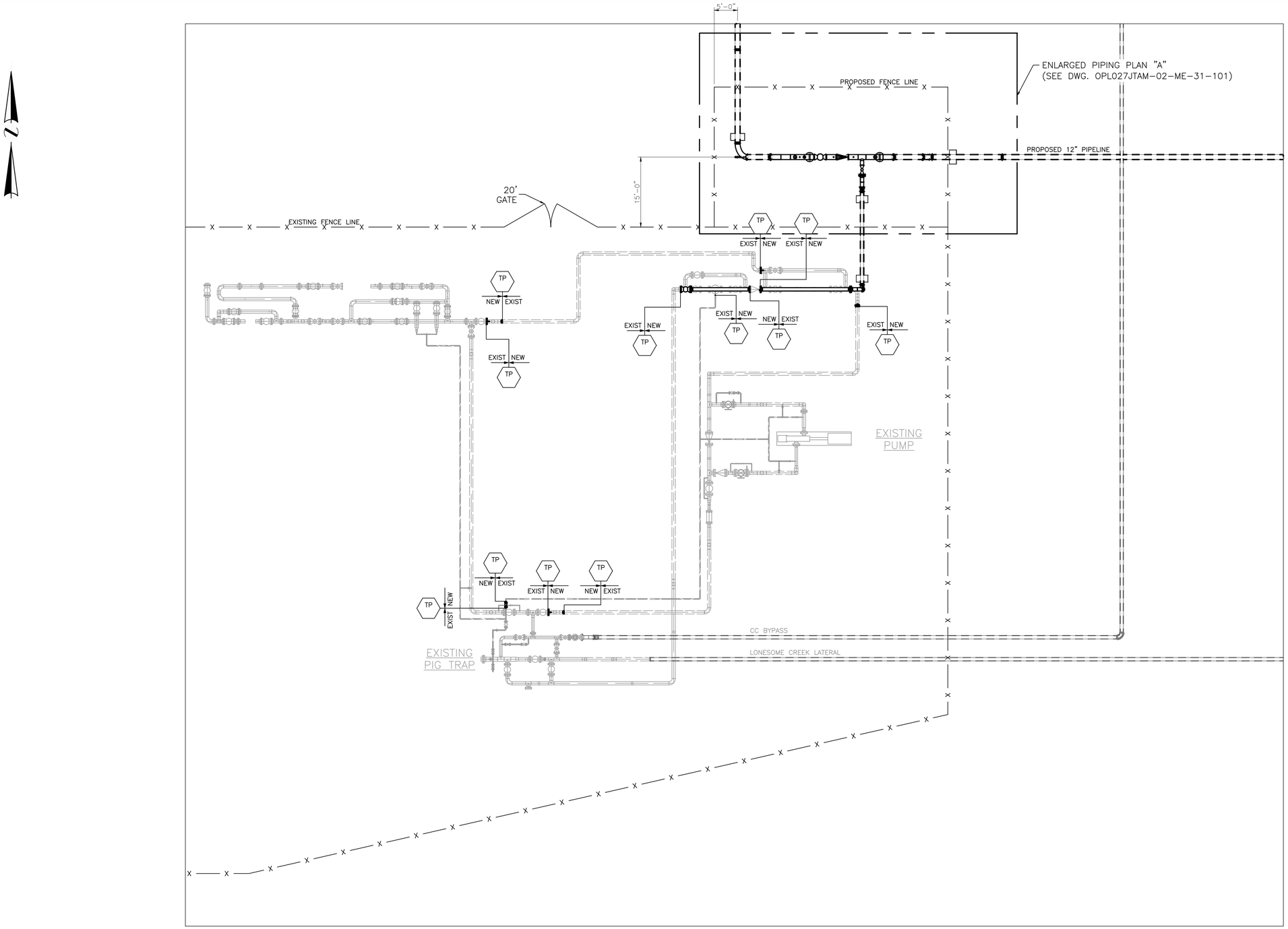
Mr. Hartzheim is a senior environmental analyst and project manager with over 15 years of environmental consulting experience serving the pipeline and renewables industries. He has served as project manager, deputy project manager, and resource specialist on numerous projects in over 20 states. Mr. Hartzheim's responsibilities have included preparation of federal, state, and local permit applications; state public utility commission filings; construction and industrial SWPPPs; National Pollutant Discharge Elimination System applications; soil erosion and sediment control plans; and environmental mitigation plans, as well as coordination of state and federal agency consultations. Mr. Hartzheim has also assisted in data collection, interpretation, and analysis; developing and conducting environmental training modules; and coordinating and managing field survey efforts and EIs.

Maddy Krumwiede
Project Manager/Senior Environmental Analyst
Merjent, Inc.
Degrees: M.B.A., North Dakota State University
B.S. Civil Engineering, North Dakota State University

Ms. Krumwiede is a senior environmental analyst and project manager with 11 years of experience in the water resources and environmental regulation fields. Her experience in the environmental field includes project management; interpretation and analysis of project-related data/maps to evaluate permit needs and form strategies during the planning stages of projects; coordinating environmental field surveys; conducting environmental training; performing compliance inspections; and EI coordination. Ms. Krumwiede has a variety of permitting experience, including preparation of federal, state, and local permit applications; National Pollutant Discharge Elimination System applications and SWPPPs; preparation of Environmental Assessments; and coordination with local, state, and federal units of government.

Exhibit A

Engineering Documents



ISSUED FOR PERMIT

J|TAM ENGINEERING
TEXAS FIRM: F-18825

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B	10/20/22	ISSUED FOR REVIEW	DD	CR					
C	10/26/22	ISSUED FOR REVIEW	DD	CR					
D	11/17/22	ISSUED FOR REVIEW	DD	CR					
E	12/12/22	ISSUED FOR PERMIT	DD	CR					

DWG. NO.	REFERENCE DRAWINGS
02-ME-31-101	PIPING PLOT PLAN

ONEOK BAKKEN PIPELINE
A SUBSIDIARY OF ONEOK PARTNERS

PIPING PLOT PLAN
LONESOME CREEK METER SITE #657
CHERRY CREEK EXTENSION INDEX #XXXXX

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AP.: CR	CAD#:		

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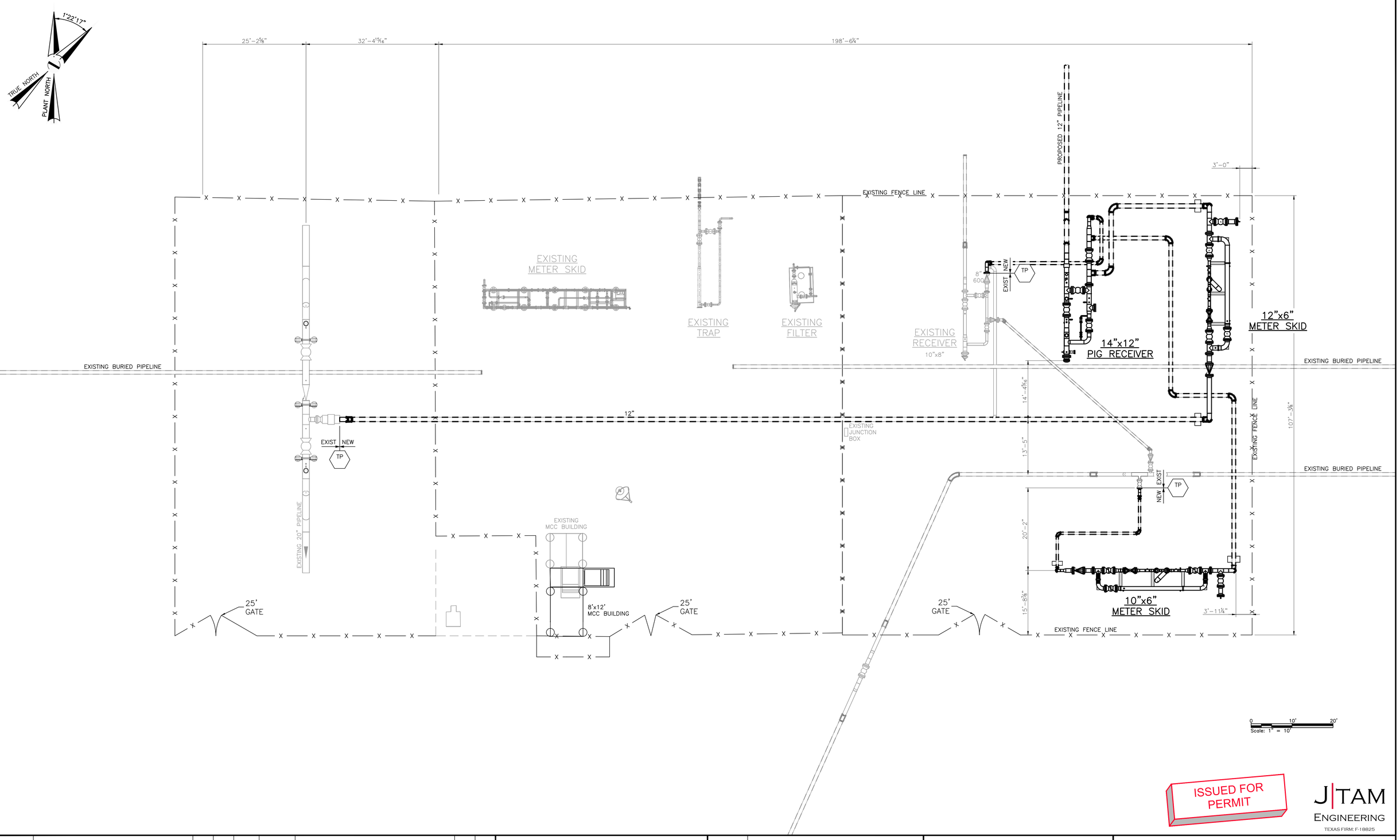

ISSUED FOR PERMIT

J|TAM ENGINEERING
TEXAS FIRM: F-18825

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B	10/06/22	ISSUED FOR REVIEW	DD	CR					
C	10/26/22	ISSUED FOR REVIEW	DD	CR					
D	11/17/22	ISSUED FOR REVIEW	DD	CR					
E	12/12/22	ISSUED FOR PERMIT	DD	CR					

DWG. NO.	REFERENCE DRAWINGS

ONEOK BAKKEN PIPELINE
A SUBSIDIARY OF ONEOK PARTNERS

PIPING PLOT PLAN
ANTELOPE CREEK JUNCTION SITE #792
CHERRY CREEK EXTENSION INDEX #XXXXX

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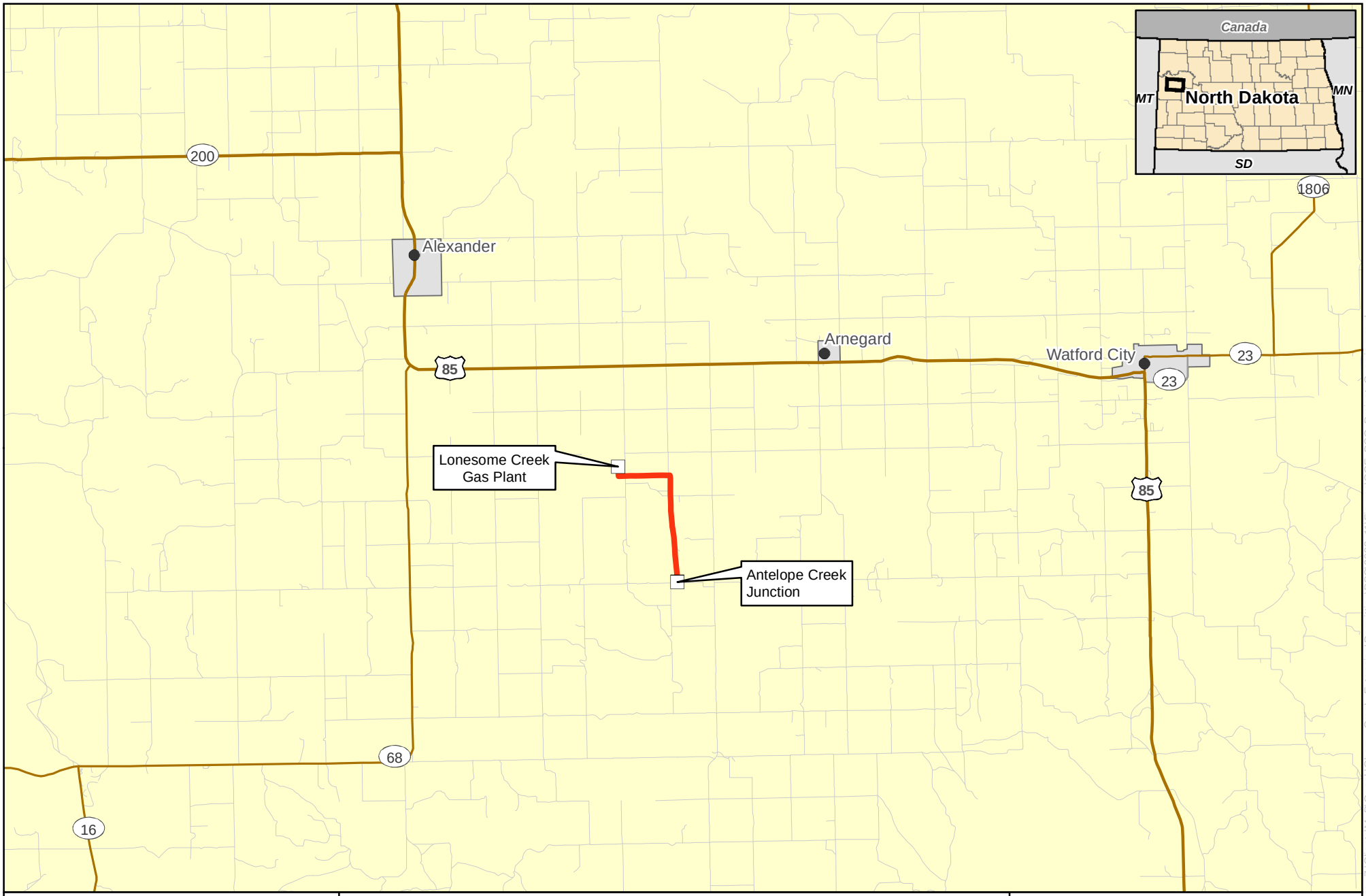
Exhibit B
Project Maps

B.1: Project Overview Map
B.2: Avoidance and Exclusion Map
B.3: Selection Criteria Map
B.4 Black and White Overview Map



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1 inch = 3 miles

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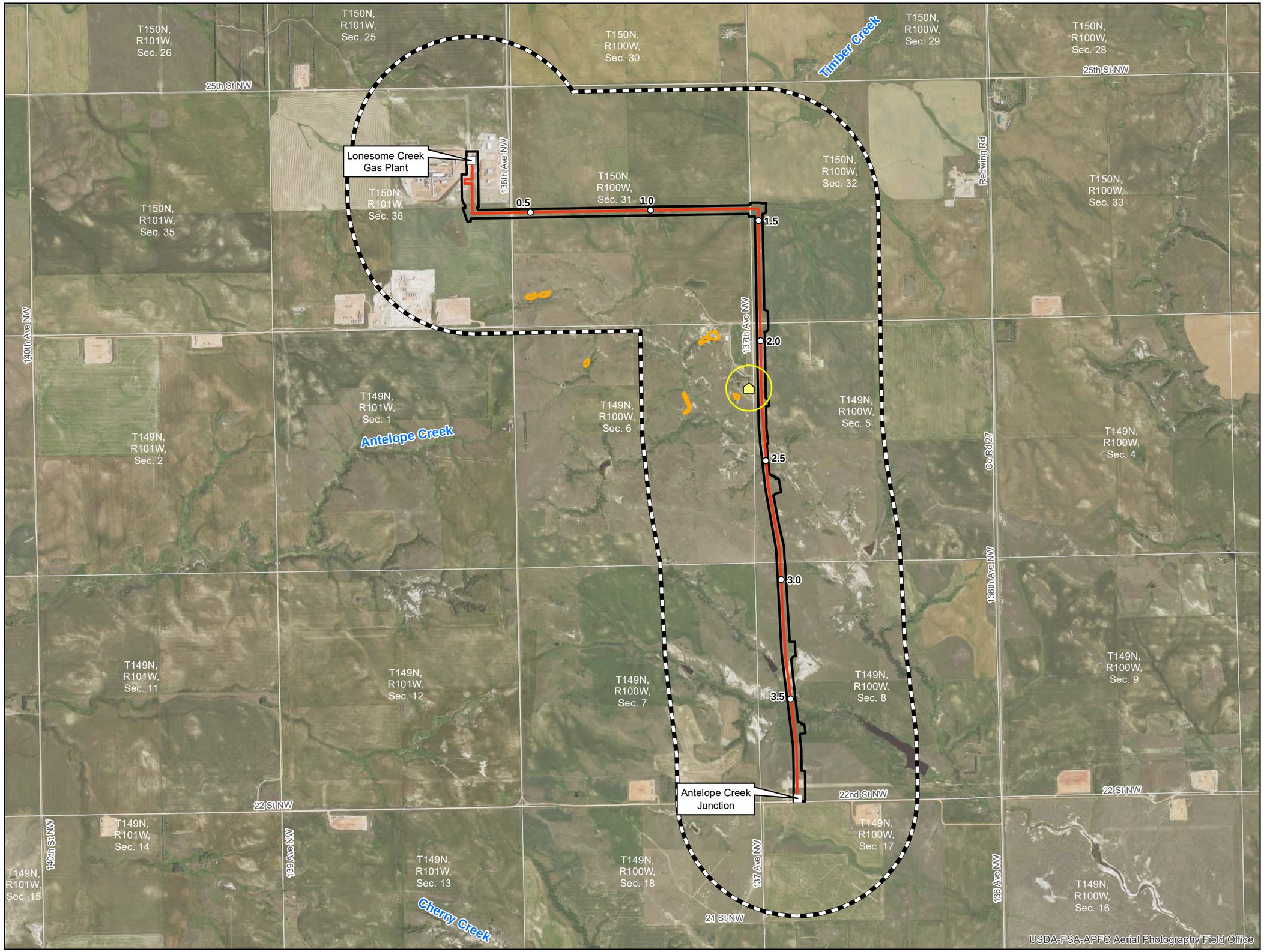
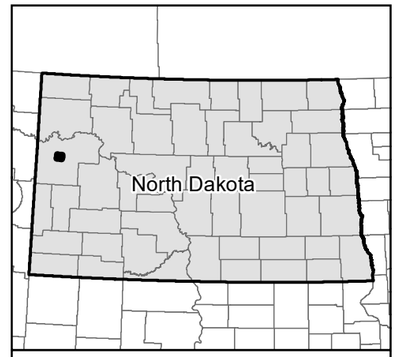
Exhibit B.1
ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Location Map

Proposed Route

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Permitting\PSC\2022_11\Figures\CCE_PSC_Project_Overview.mxd

Date: (11/30/2022)





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1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

- Milepost
- Centerline: Co-located
- Project Corridor
- 1-Mile Study Area
- Section Boundary

Avoidance Areas

- Occupied Structure within 500' of Route
- Occupied Structure (500' Buffer)
- Landslide Deposits

*No exclusion areas within vicinity of Project

Exhibit B.2
ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension
Pipeline Project

Avoidance and Exclusion Maps

McKenzie County, ND

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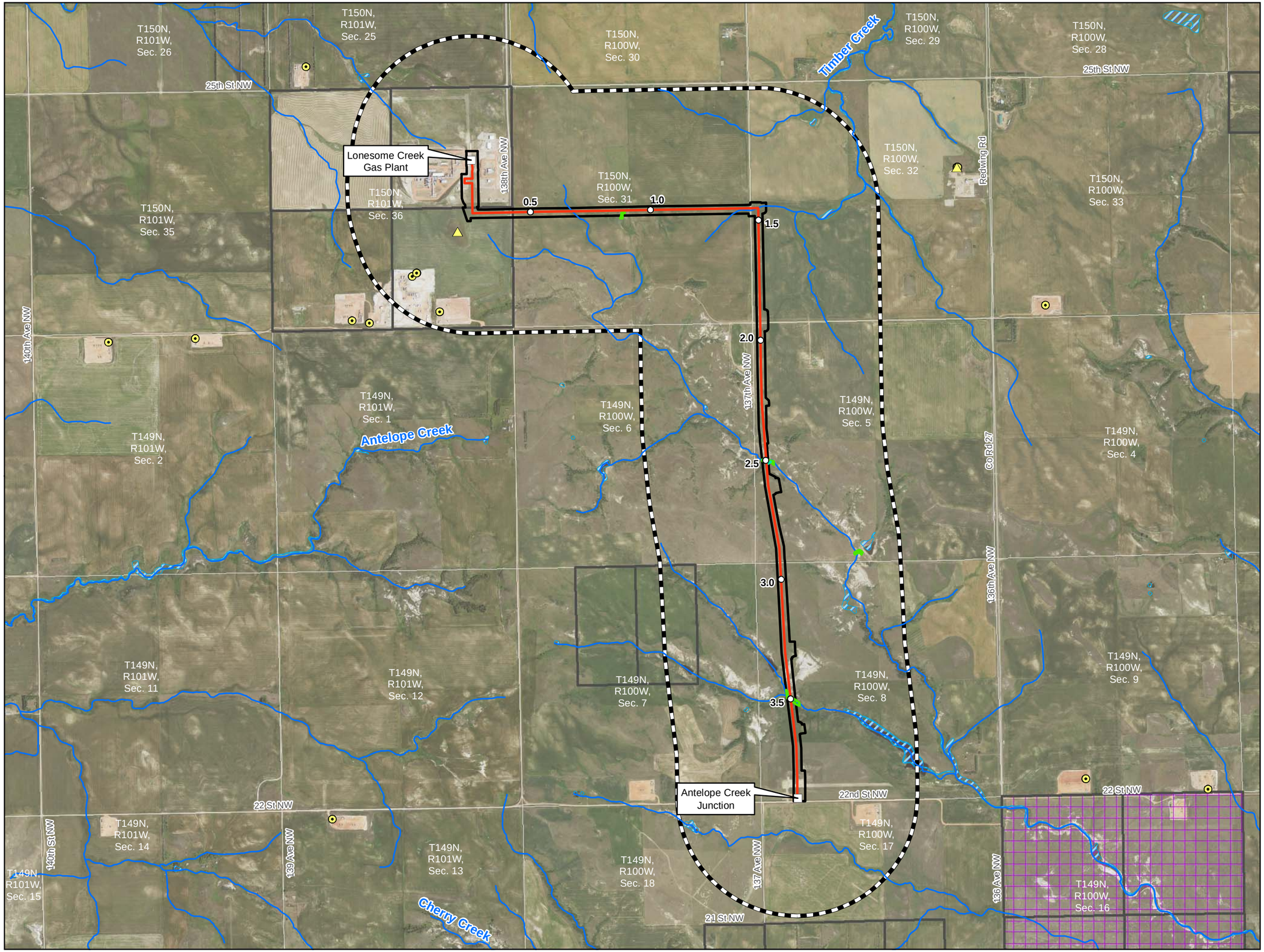
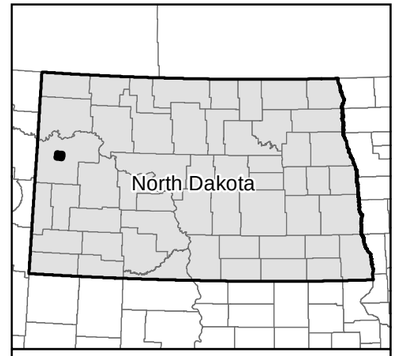
11/30/2022

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Permitting\PSC\2022_11\Figures\CCE_PSC_Avoidance_Exclusion_Area_Map_Book_Nov2022.mxd

Date: (11/30/2022)





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1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

- Milepost
- Centerline: Co-located
- Project Corridor
- 1-Mile Study Area
- Section Boundary
- Antenna Structures
- Microwave Stations
- Field Delineated Waterbody
- Field Delineated Wetland
- NDDTL - Mineral Trust Land
- NDDTL - School Trust Land
- NWI Wetland
- NHD Flowline

Exhibit B.3
ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project

Selection Criteria Maps

McKenzie County, ND

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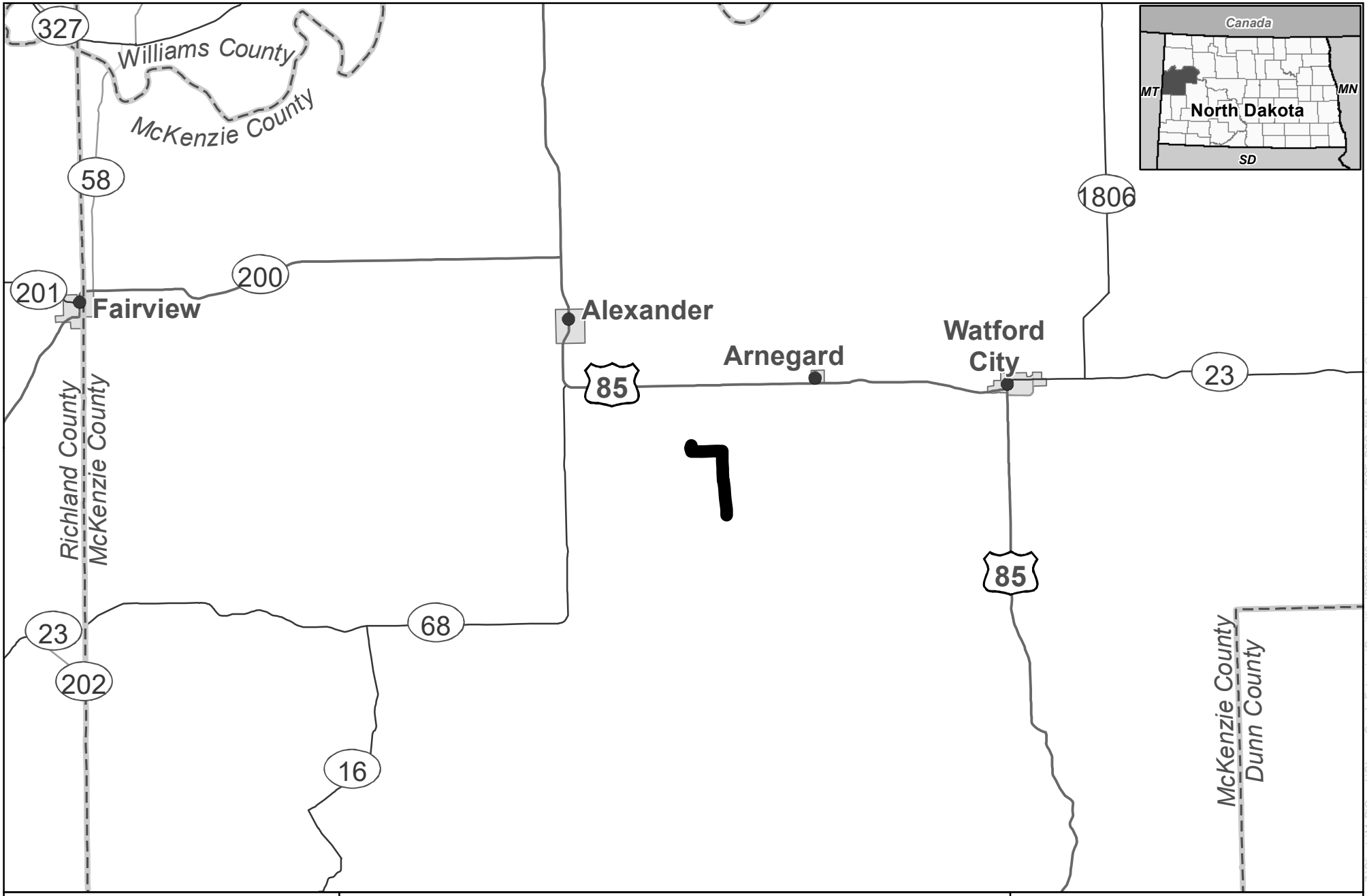
11/30/2022

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Permitting\PSC\2022_11\Figures\CCE_PSC_Selection_Criteria_Map_Book_Nov2022.mxd
Date: (11/30/2022)


327
Williams County
McKenzie County
58
201
Fairview
200
Richland County
McKenzie County
Alexander
Arnegard
Watford City
85
1806
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For Environmental Review Purposes Only
Exhibit B.4
ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Location Map
Proposed Route
Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Permitting\PSC\2022_11\Figures\CCE_PSC_BW_Project_Overview.mxd
Date: (12/5/2022)

Exhibit C
Environmental Surveys

C.1: Class I and Class III Cultural Resources Inventory (Redacted)

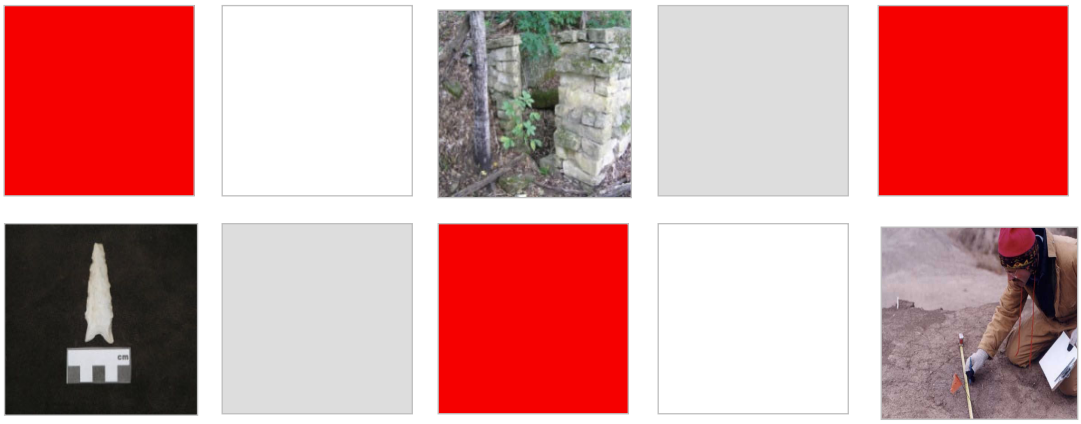
MANUSCRIPT DATA RECORD FORM

1. Manuscript Number: [SHPO assigns]
2. SHPO Reference #:
3. Author(s): Damien Reinhart, Angela Julin
4. Title: Addendum: A Class I and Class III Cultural Resources Inventory of the Cherry Creek Pipeline Extension Project, McKenzie County
5. Report Date: November 17, 2022
6. Number of Pages: 29
7. Type – I, T, E, O: I

   I=Inventory; T=Formal Testing; E=Excavation; O=Other
8. List formally tested or excavated sites (not probes):
9. Acres: 10.59
10. List the legal description* and study unit. For study unit assignment, use the township tables in the *State Plan*, http://history.nd.gov/hp/stateplan_arch.html.
    Study Units: LM, CB, KN, HE, SM, GA, JA, GR, NR, SR, SO, SH, YE

*For *inventory*, *formal testing* and *excavation* projects, *list the CLASS III legal locations only*.

County	Township	Range	Section	Study Unit
MZ	149N	100W	5, 8	LM
	150N	100W	32	GA



ONEOK Rockies Midstream, L.L.C.

Addendum: A Class I and Class III Cultural Resource Inventory of the Cherry Creek Pipeline Extension Project

McKenzie County, North Dakota

PREPARED BY

Merjent, Inc.
1 Main Street SE, Suite 300
Minneapolis, Minnesota 55414

Damien Reinhart, M.A.
Angela Julin, M.A.

Damien Reinhart, M.A.
Principal Investigator

November 2022

TABLE OF CONTENTS

LIST OF TABLES

LIST OF PHOTOS

APPENDICES

ACRONYM LIST

APE	Area of Potential Effect
CFR	Code of Federal Regulations
cmbs	centimeters below ground surface
GIS	Geographic Information System
GLO	General Land Office
GSV	Ground Surface Visibility
Merjent	Merjent, Inc.
NDPSC	North Dakota Public Service Commission
NGL	Natural Gas Liquids
NRHP	National Register of Historic Places
Project	Cherry Creek Pipeline Extension Project
ONEOK	ONEOK Rockies Midstream, L.L.C.

EXECUTIVE SUMMARY

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. As part of its Cherry Creek Pipeline Extension Project (Project), ONEOK is proposing to construct an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

The majority of the Project's 103.80-acre Area of Potential Effect (APE) has been previously surveyed with a determination of No Historic Properties Effected (MS #15719 and #15910). Seven temporary work areas, or corridor expansions areas (Survey Areas 1 through 7) and one access road did not fall within a previously conducted survey boundary and are the focus of the following report.

This addendum includes the results of subsequent Class III investigation of seven Survey Areas encompassing 10.59 additional acres within the expanded APE surveyed on September 29 and October 18, 2022. During the survey, no archaeological resources were identified. Merjent recommends a determination of No Historic Properties Affected for the Project. No further archaeological work is recommended for the Project as planned.

1.0 PROJECT DESCRIPTION

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. As part of its Cherry Creek Pipeline Extension Project (Project), ONEOK is proposing to construct an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Temporary workspaces for staging and construction as well as access roads will support Project activities. A majority of the Project's 103.80-acre Area of Potential Effect (APE) has been previously surveyed. Seven temporary work areas, or corridor expansions areas (Survey Areas 1 through 7) and one access road, encompassing a total of 10.59 acres, did not fall within a previously conducted survey boundary. These areas were surveyed in 2022 and are the focus of this report (see Figure 1 in Appendix A). Access to the APE will be achieved from public roads, or via the temporary two-track access road, a portion of which extends through grassland pasture areas before reaching the corridor.

Table 1.0-1 provides a summary of sections included in the 2022 cultural survey.

TABLE 1.0-1

List of Township/Range/Sections within the Current Survey Areas

Township	Range	Section(s)
149N	100W	5, 8
150N	100W	32

Three previous Class III Intensive Cultural Resource Inventory investigations have been conducted to support the current Project, the results of that which are detailed in, *Addendum to A Class I and Class III Cultural Resource Inventory of the Lonesome Creek NGL Pipeline, McKenzie County, North Dakota, to Allow for a Pipeline Alignment Reroute by Jolene Schleicher (MS #15910), A Class I and III Cultural Resource Inventory of the Lonesome Creek Pipeline, McKenzie County, North Dakota by Jolene Schleicher (MS #15719), and A Class I and Class III Cultural Resource Inventory of the Cherry Creek to Lonesome Creek Pipeline, McKenzie County, North Dakota by Carolyn Riordan and Jolene Schleicher (MS #15917)*. The following addendum includes the results of subsequent Class III investigation of seven Survey Areas and one access road encompassing 10.59 additional acres within the expanded APE surveyed on September 29 and October 18, 2022.

A literature review conducted on August 31, 2022, identified one previously recorded cultural resource within the expanded APE, but outside the areas subjected to Class III pedestrian survey. The previously recorded resource is prehistoric isolated find 32MZx1487, two lithic flakes, which is located in an area of the currently proposed project that will have a horizontal directional bore. The isolated find was recommended as not eligible for listing on the NRHP during initial recordation and no further work was recommended. During the current survey, no archaeological resources were identified. Merjent recommends a determination of No Historic Properties Affected. No further archaeological work is recommended for the Project as planned.

2.0 ENVIRONMENTAL AND CULTURAL BACKGROUND

The expanded APE falls within the Little Missouri Study Unit and Garrison Study Unit.

2.1 TOPOGRAPHY

Survey Areas 3, 4, 5, and 7 contain natural grassland, shrubs, trees, and occasional exposed buttes. Survey Areas 1, 2, and 6 are gently to moderately rolling and are composed of active agricultural fields. A butte is located south of the proposed temporary access road.

2.2 SOILS

Soils in the northern and southern ends of the APE consisted of silty clays loams and fine sandy loams, while soils in the center of the APE consisted of Cabba-Badland Complex loams that are formed on hills, escarpments, and sedimentary plains from weathered sedimentary stone.

2.3 CURRENT AND HISTORICAL LAND USE

Historic General Land Office (GLO) maps from 1902 were also reviewed and no evidence of the built environment was identified within the APE (see Figure 2 in Appendix A).

Previous disturbance adjacent to the survey areas, is mostly related to an existing, buried natural gas pipeline, with agricultural disturbances within some of the Survey Areas. The APE appears to have been used historically for agriculture and the grazing of cattle. The east end of the proposed temporary access road follows an existing two-track road between harvested agricultural fields.

2.4 VEGETATION

Vegetation in Survey Areas 3, 4, and 5 consisted of mixed grass pasture that allowed for an average bare ground surface visibility (GSV) of 40 to 75 percent, with some exposed soils showing a GSV of 100 percent. Extra care was taken to slowly survey these areas to examine the exposed ground surface. Each obviously undisturbed, level area with slope less than 20 percent was examined with particular attention to any stones that were visible on the surface.

Survey Areas 1, 2, and 6 consisted of harvested agricultural fields that allowed for a bare GSV of 75 to 100 percent between rows. Survey Area 7 yielded 85 to 100 percent GSV. The proposed temporary access road transitions from harvested agricultural fields to taller, mixed grass pasture. The access road afforded 50 to 100 percent GSV.

3.0 CLASS I LITERATURE REVIEW

Merjent completed a Class I literature review of the ND SHPO files on August 31, 2022. Sixteen previously recorded sites are within 1 mile of the Project location (see Table 3.0-1). One previously identified prehistoric isolated find, 32MZx1487, is on the edge of the APE in a previously surveyed area. The isolated find, consisting of two lithic flakes, was recommended as not eligible for listing on the National Register of Historic Places and no further work was recommended for the resource. None of the previously recorded sites or isolated finds are located within the currently inventoried areas.

TABLE 3.0-1

Previously Identified Archaeological and Historic Sites within 1 Mile of the Project Location

Site Number	Site Type
32MZ00624	Pre-contact Middle Archaic cultural material scatter
32MZ00930	Pre-contact lithic scatter
32MZ00931	Pre-contact stone feature and cultural material scatter
32MZ00932	Pre-contact stone feature and cultural material scatter
32MZ01551	Pre-contact stone features and Historic machinery dump
32MZ01557	Historic and Architectural farm site
32MZ01561	Historic-WAPA transmission line
32MZ02203	Historic dump and cultural material scatter
32MZ02818	Historic cultural material scatter
32MZ02819	Historic dump, foundation, and well pump
32MZX0258	Pre-contact isolated find-projectile point
32MZX1130	Historic isolated find-stoneware fragments
32MZX1385	Historic isolated find-farm equipment
32MZX1450	Pre-contact isolated find-projectile point
32MZX1487	Pre-contact isolated find - lithics
32MZX1790	Pre-contact isolated find - lithics

Six previous inventories (MS Nos. 012263, 015379, 015719, 015910, 015917 and 018246) encompass most of the expanded APE. Six temporary work areas, or corridor expansions areas, were identified by Merjent archaeologists as not previously inventoried for cultural resources.

The search results indicate that 24 previous cultural resource inventories were conducted within 1 mile of the Project location between 1976 and 2021 (see Table 3.0-2). Inventories were conducted primarily in support of oil and gas activities, road projects, and rural water systems.

TABLE 3.0-2

Previous Inventories within 1 Mile of the Project Location

Manuscript no.	Title	Author	Year
000268	L. W. Veigel & Co. P.C., Project No. CRS 933(2), McKenzie County, Negative Declaration Survey Report	(Dill, Christopher L. - Primary Author)	1976

TABLE 3.0-2

Previous Inventories within 1 Mile of the Project Location

Manuscript no.	Title	Author	Year
002532	Cultural Resource Survey of the Proposed Lateral "B" Pipeline for the ND System in McKenzie Co., ND	(Ecol. & Environment, Inc. - Primary Author)	1982
003455	Archeology of the Northern Border Pipeline, North Dakota: Vol. 2, Pts. 1-3 Survey and Background Information, McIntosh, Emmons, Morton, Stark, Mercer, Dunn, McKenzie, & Williams Co., ND	(Gregg, Michael L. - Contributing Author) ;(Root, Matthew J. - Primary Author)	1983
004316	The Red Wing Creek Extension Cultural Resources Inventory, McKenzie Co., ND (U-W#1010)	(Borchert, Jeani L. - Primary Author)	1987
004724	A Cultural Resources Inventory of the Proposed Northern Border Connection Pipeline McKenzie County, North Dakota Vol. I & II	(Floodman, Mervin G - Primary Author)	1988
004750	A Cultural Resources Inventory of the Proposed Northern Border Connection Pipeline, Survey of Re-Routes McKenzie County, North Dakota	(Floodman, Mervin G - Primary Author)	1989
008884	Williston to Charlie Creek: A Cultural Resource Inventory Along the Western Area Power Administration 115KV Transmission Line From the Williston Substation to the Charlie Creek Substation, Williams and McKenzie Counties, ND	(Fandrich, Blain - Primary Author)	2004
009076	McKenzie County Water Resource District Phase II: Results of the Class II and III Cultural Resource Inventory of a Regional Water System in Portions of McKenzie Co., ND, Within the Little Missouri River, Yellowstone River & Garrison Study Units	(Morrison, John G. - Primary Author)	2002
012263	A Class I and Class III Cultural Resource Inventory of the Bear Paw Energy Natural Gas Liquids Garden Creek Pipeline, Private Lands, McKenzie Co., ND.	(Cooper, Judith R. - Contributing Author) ;(Lechert, Stephanie - Contributing Author) ;(Riordan, Carolyn - Primary Author) ;(Slessman, Scott A. - Contributing Author)	2011
013318	Addendum to: Basin's Lonesome Creek Station: A Class III Cultural Resource Inventory in McKenzie County, North Dakota	(Bailly, Danielle - Primary Author) ;(Bluemle, William J. - Contributing Author)	2012
014984	E3 Environmental, LLC's Lonesome Creek Gas Plant: A Class III Cultural Resource Inventory in McKenzie County, North Dakota	(France, Elizabeth L. - Primary Author) ;(Wulffen, Jennifer - Contributing Author)	2014
015289	A Class III Cultural Resources Inventory at the Buffalo Wallow Central Tower Site, NESE Sec 36, T150N, R101W, McKenzie County, North Dakota	(Molyneaux, Brian L. - Primary Author) ;(Morrison, John G. - Contributing Author)	2014
015379	A Class III Cultural Resource Inventory of the Caliber Natural Gas Liquids Project, McKenzie County, North Dakota	(Omvig, Jeremy - Contributing Author) ;(Pfertsh, Jack E. -	2014

TABLE 3.0-2

Previous Inventories within 1 Mile of the Project Location

Manuscript no.	Title	Author	Year
		Contributing Author) ;(Redman, Kimberly L. - Primary Author)	
015658	Merjent's TransCanada Rawson Meter Station Project: A Class III Cultural Resource Inventory in McKenzie County, North Dakota	(Barg, Diana M. - Primary Author)	2014
015719	A Class I and Class III Cultural Resource Inventory of the Lonesome Creek NGL Pipeline, McKenzie County, North Dakota	(Schleicher, Jolene - Primary Author)	2015
015910	Addendum to A Class I and Class III Cultural Resource Inventory of the Lonesome Creek NGL Pipeline, McKenzie County, to Allow for a Pipeline Alignment Reroute	(Schleicher, Jolene - Primary Author)	2015
015917	A Class I and Class III Cultural Resource Inventory of the Cherry Creek to Lonesome Creek Pipeline, McKenzie County, North Dakota	(Riordan, Carolyn - Primary Author) ;(Schleicher, Jolene - Contributing Author)	2015
016144	A Class I and Class III Cultural Resource Inventory of the Garden Creek Loop NGL Pipeline Project, McKenzie County, North Dakota	(Riordan, Carolyn - Contributing Author) ;(Wandler, Cole B. - Primary Author)	2015
017322	System I Expansion Tobacco Garden Area Water Supply: Class III Cultural Resource Inventory, McKenzie County, North Dakota	(Morrison, John G. - Contributing Author) ;(Rohe, Chris M. - Primary Author)	2016
017678	Merjent ONEOK Pipeline Conversion: A Class III Cultural Resource Inventory in McKenzie and Williams Counties, North Dakota	(Bostyan, Dierdre - Contributing Author) ;(Kaiser, Amie - Primary Author)	2017
018246	Demicks Lake Pipeline: A Class III Cultural Resource Survey in McKenzie County, North Dakota	(Means, Daan - Primary Author)	2019
018287	Addendum to Demicks Lake Pipeline: A Class III Cultural Resource Survey in McKenzie County, North Dakota	(Bostyan, Dierdre - Primary Author)	2018
018916	A Class I and Class III Intensive Cultural Resource Inventory for the County Road 27 Improvements Project in McKenzie County, North Dakota	(Brooks, Brittany - Primary Author)	2020
019415	Caliber North Dakota LLC Residue Pipeline Project: A Class III Inventory in McKenzie County, North Dakota	(Hull, Matthew - Primary Author)	2021

4.0 FIELD METHODS

Throughout all stages of this investigation, Merjent applied industry (cultural resource management) best practices and adhered to the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 CFR 44716), the *North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects* (SHSND 2020).

The general objective of a Class III survey is to identify archaeological resources within the Project that are at least 50 years old. Archaeological resource types considered for this investigation included both Pre-Contact and Historic-Period archaeological sites that could provide information about land use. Such sites could be evident in artifacts or features on or below current surfaces. The focus of this investigation was to understand what sites have been identified in or near the Project (archival review and agency coordination), and if any unknown resources could be positively identified within the Project (field reconnaissance). If an archaeological site were to be identified in the Project during field reconnaissance, as much data would be collected to provide a basic understanding of the site's eligibility for inclusion on the National Register of Historic Places (NRHP) and provide recommendations for further work.

Merjent archaeologist Damien Reinhart served as the Principal Investigator, advising ONEOK, directing all aspects of Merjent's work, and conducting agency coordination.

Cultural resource inventory generally consisted of standard Class III methods as outlined in SHSND (2020). Mr. Reinhart conducted field reconnaissance September 27, 2022. Archaeologists located the survey area utilizing Geographic Information System data in conjunction with a Trimble Geo7X series Global Positioning System unit, supplemented with aerial photograph-based paper maps.

Mr. Reinhart took photographs and recorded ground surface and subsurface conditions on standard field forms. Field forms, photograph logs, and all archival materials are on file at Merjent's office in Minneapolis, Minnesota.

5.0 CLASS III SURVEY RESULTS

The Class III Intensive Cultural Resource Inventory was completed on September 29 and October 18, 2022 (see Figure 3 in Appendix A). The pedestrian survey was conducted with serpentine transects spaced no more than 15 meters apart to cover each of the seven Survey Areas (see Photos 5.0-1 to 5.0-9). The GSV was generally above 50 percent and, in many instances, 100 percent; hence, no shovel tests were excavated.

Minimal survey limitations included several steep slopes near Survey Areas 3, 4, 5, and 7 as well as a wooded drainage immediately north of Survey Area 6. Survey Areas 1, 2, and 6 afforded excellent GSV as the landscape consisted of harvested agricultural fields. Survey Areas 3, 4, 5, and 7 consisted of mixed grass pastures with lower GSV; however, an abundance of exposed soils, eroded surfaces, and grazed areas yielded greater GSV. At the time of survey, the skies were partly cloudy, with no rain.

Representative photographs of the survey areas are included on the following pages.

Photo 5.0-1. Overview of Survey Area 1, Facing West.

Photo 5.0-2. Overview of Survey Area 2, Facing South.

Photo 5.0-3. Overview of Survey Area 3, Facing North.

Photo 5.0-4. Overview of Survey Area 4, Facing West.

Photo 5.0-5. Overview of Survey Area 5, Facing South.

Photo 5.0-6. Overview of Survey Area 6, Facing Southwest.

Photo 5.0-7. Overview of Survey Area 7, Facing South.

Photo 5.0-8. Overview of Access Road, Facing East from Western Extent.

Photo 5.0-9. Overview of Access Road from Eastern Extent, Facing West.

6.0 SUMMARY AND RECOMMENDATIONS

This addendum includes the results of subsequent Class III investigation of seven Survey Areas encompassing 10.59 additional acres within the expanded Project APE surveyed on September 29 and October 18, 2022. A literature review conducted on August 31, 2022, identified one previously recorded cultural resource within the expanded APE. The previous resource, 32MZx1487, consisted of a prehistoric isolated find of two lithic flakes. The resource is in an area of the proposed expansion that has been disturbed and will be constructed with a horizontal directional bore. The isolated find was previously recommended as not eligible for listing on the NRHP, and no further work is recommended for the resource. No archaeological resources were identified during the Class III survey of areas that had not previously been subjected to inventory. Merjent recommends a determination for the project of, No Historic Properties Affected. No further archaeological work is recommended for the Project as planned.

7.0 REFERENCES CITED

Riordan, Carolyn, and J. Schleicher. 2020. A Class I and Class III Cultural Resource Inventory of the Cherry Creek to Lonesome Creek Pipeline, McKenzie County, North Dakota.

Schleicher, Jolene. 2015. A Class I and Class III Cultural Resource Inventory of the Lonesome Creek NGL Pipeline, McKenzie County, North Dakota.

Schleicher, Jolene. 2015. Addendum to A Class I and Class III Cultural Resource Inventory of the Lonesome Creek NGL Pipeline, McKenzie County, to Allow for a Pipeline Alignment Reroute.

State Historical Society of North Dakota. 2020. North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects, Revised Edition. State Historical Society of North Dakota, Archaeology and Historic Preservation Division, Bismarck.

Appendix A

Figures

Location information intentionally removed to protect sensitive cultural data

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N W E S

Figure 1.1: Project Location and Previous Cultural Resources

ONEOK

Cherry Creek PL Extension Project

McKenzie County, North Dakota

- Project APE
- 2022 Survey Area
- One-Mile Buffer
- SHPO Site
- SHPO Site
- Previous Survey
- Quad Map
- Township Boundary

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure1_24k_Topo.mxd

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Figure 1.2: Project Location and Previous Cultural Resources

ONEOK

Cherry Creek PL Extension Project

McKenzie County, North Dakota

- Project APE
- 2022 Survey Area
- One-Mile Buffer
- SHPO Site
- SHPO Site
- Previous Survey
- Quad Map
- Township Boundary

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure1_24k_Topo.mxd

Date: (11/10/2022)

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Figure 2.1: 1901-1902 GLO Map

ONEOK

Cherry Creek PL Extension Project

McKenzie County, North Dakota

Project APE

2022 Survey Area

One-Mile Buffer

Township Boundary

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure2_GLO.mxd

Date: (11/10/2022)

Location information intentionally removed to protect sensitive cultural data

Contains Privileged Information - Do Not Distribute

0 1,000 2,000 Feet

1:24,000

N W E S

merjent

For Environmental Review Purposes Only

Figure 2.2: 1901-1902 GLO Map
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

Project APE
2022 Survey Area
One-Mile Buffer
Township Boundary

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure2_GLO.mxd

Date: (11/10/2022)

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For Environmental Review Purposes Only

N W E S

Figure 3.1: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

Project APE
Section Boundary
SHPO Site
Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

Location information intentionally removed to protect sensitive cultural data

Contains Privileged Information - Do Not Distribute

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For Environmental Review Purposes Only

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Figure 3.2: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

Project APE
2022 Survey Area
Section Boundary
Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

Location information intentionally removed to protect sensitive cultural data

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For Environmental Review Purposes Only

N W E S

Figure 3.3: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

- Project APE
- 2022 Survey Area
- SHPO Site
- Section Boundary
- Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

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Figure 3.4: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

Project APE
2022 Survey Area
Section Boundary
Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

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N W E S

Figure 3.5: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

Project APE
2022 Survey Area
Section Boundary
Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

Location information intentionally removed to protect sensitive cultural data

Contains Privileged Information - Do Not Distribute

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For Environmental Review Purposes Only

N W E S

Figure 3.6: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

Project APE
2022 Survey Area
Section Boundary
Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

Location information intentionally removed to protect sensitive cultural data

Contains Privileged Information - Do Not Distribute

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For Environmental Review Purposes Only

N W E S

Figure 3.7: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

- Project APE
- 2022 Survey Area
- SHPO Site
- Section Boundary
- Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

Location information intentionally removed to protect sensitive cultural data

Contains Privileged Information - Do Not Distribute

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For Environmental Review Purposes Only

N W E S

Figure 3.8: Survey Results
ONEOK
Cherry Creek PL Extension Project
McKenzie County, North Dakota

Project APE
Section Boundary
Previous Survey

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Cultural\002_MXDs\002_ClassIII_Report\CherryCr_Cultural_ClassIII_Figure3_SurveyResults.mxd

Date: (11/10/2022)

C.2: Natural Resources Report

CHERRY CREEK EXTENSION

McKenzie County, North Dakota

ONEOK Rockies Midstream, L.L.C.

Natural Resources Report

Prepared by:

merjent

November 2022

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYM LIST

ESRI	Environmental Systems Research Institute
FWS	Fish & Wildlife Service
GIS	Geographical Information Systems
GPS	Global Positioning System
Merjent	Merjent, Inc.
NHD	National Hydrography Dataset
NRCS	National Resource Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High-Water Mark
ONEOK	ONEOK Rockies Midstream, L.L.C.
PEM	Palustrine Emergent Wetlands
USACE	United States Army Corps of Engineers
USDA	United States. Department of Agriculture
USGS	United States Geological Survey
WETS	NRCS Climate Analysis for Wetlands Tables

1.0 INTRODUCTION

Merjent, Inc. (Merjent) performed a wetland and other water delineations for the ONEOK Rockies Midstream, L.L.C. (ONEOK) Cherry Creek Extension Project (Project) in McKenzie County, North Dakota. ONEOK provided Merjent 129.05-acre survey area to complete wetland and other water delineations (Figure 1). Other waters include, but are not limited to, streams, ponds, and lakes. The field survey was conducted on September 27-28 and October 21, 2022. Concurrently, Merjent completed a field review of potentially suitable habitat for federally protected species including species protected under the Endangered Species Act (ESA) and bald and golden eagle nests. Surveys also identified invasive species in the survey area, and included a tree and shrub inventory.

This natural resources report outlines the wetland and other natural resources delineation investigation, methodology, and findings as completed by Merjent. This report has been compiled by the following staff that are trained and experienced in wetland delineation methodologies, habitat and species assessments, and applicable regulations. This report will be used to support future maintenance activity, planning, and permitting.

- **Chris Firkus, MS – Senior Analyst; Field Manager**

  Mr. Christopher Firkus is a senior analyst specializing in environmental field surveys, permitting, and project management in the Upper Midwest. Mr. Firkus has over eleven years of experience serving Oil & Gas, Transmission, Transportation, and Development sectors. On behalf of his clients, Mr. Firkus works with environmental permitting agencies to streamline the permitting process and ensure an appropriate timeline is maintained. Mr. Firkus coordinates and conducts field surveys and desktop reviews of threatened and endangered species surveys, habitat assessments, wetland delineations, cultural resources, and contaminated land investigations.

- **Andy Kranz – Environmental Consultant; Field Lead**

  Mr. Andy Kranz is a botanist specializing in threatened and endangered species surveys and wetland and waterbody delineation and determination. He has over 15 years of botanical experience in the Midwest, including rare plant survey, vegetation monitoring, and plant community classification and mapping, and is a Minnesota Department of Natural Resources qualified surveyor for endangered and threatened vascular plants. He has over six years of experience conducting wetland delineations and wildlife habitat assessments in the Midwest, Great Plains, and the Southern United States. Mr. Kranz also has over seven years of experience in prairie and woodland restoration consulting and implementation.

- **Adam Weishair – Environmental Consultant; Field Lead**

  Mr. Adam Weishair is an environmental technician specializing in wetland delineations and environmental surveys in the Upper Midwest. Mr. Weishair has three years of experience serving Oil & Gas, Transmission, Transportation, and Development sectors, and 4 years of experience conducting field surveys for the Fish and Wildlife Service (FWS) and the National Park Service. Mr. Weishair has conducted field surveys and desktop reviews of threatened and endangered species surveys, grassland assessments, wetland delineations, cultural resources, and Phase I environmental site assessments.

- **Rachel Mortensen – Environmental Consultant; Report Author**

  Ms. Rachel Mortensen is an environmental consultant with over two years of experience in environmental consulting, focusing on wetland, prairie, and forest habitat management, wetland mitigation banks, and invasive species management. Ms. Mortensen has developed vegetation establishment plans and wetland delineation reports in support of projects throughout the Midwest.

- **Preston Rye – Environmental Analyst; GIS Analyst**

  Preston Rye is a Geographical Information Systems (GIS) Consultant with over four years of experience in environmental consulting, focusing on utility, transportation, and government clients. His expertise includes developing maps and performing spatial analysis for permitting and other client needs; creating and/or managing project data; publishing and hosting ArcGIS Online services and applications; training staff on the use of ESRI software; and supporting field staff by setting up survey maps and processing field data. Mr. Rye has worked on electric/gas transmission, solar, and wetland delineation projects throughout the U.S.

2.0 METHODS

2.1 DESKTOP REVIEW

Desktop resources were used to identify potential natural resources within the survey area. Sources of information consulted prior to field investigation include:

- United States Geological Survey (USGS) Topographical Map (Figure 2; USGS, 2021)
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey Database for McKenzie County, North Dakota (Figure 3; Soil Survey Staff, NRCS, USDA, 2022)
- National Wetlands Inventory (NWI) FWS, 2021; Figure 4)
- USGS National Hydrography Dataset (NHD; Figure 4)
- Environmental Systems Research Institute (ESRI) Basemap 2016 Aerial Imagery (Figures 3-5)
- Google Earth™ Aerial Imagery (multiple years)

2.2 FIELD INVESTIGATION METHODOLOGY

Merjent performed wetlands delineations based on the methodology described in the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE, 2010). Merjent identified other waters in accordance with the USACE Jurisdictional Determination Form Instructional Guidebook (USACE-Unites States Environmental Protection Agency, 2007).

Prior to the field work, Merjent reviewed background information to establish the potential location of natural resources within the survey area. On September 27-28 and October 21, 2022, the surveyors walked the survey area with the specific intent of determining wetland boundaries. The surveyor sampled data points during this time at locations within or near the wetland areas to document soil characteristics, evidence of hydrology, and dominant vegetation. The surveyor identified vegetative community boundaries according to the Cowardin Classification System (Cowardin et al., 1979).

2.2.1 Naming Protocol

Features identified in associated figures and appendices are named in the following manner:

- Wetlands (w01, w02, etc.)
- Streams (s01, s02, etc.)
- Data points (dp01, dp02, etc.)
- Invasive species (i01, i02, etc.)
- Dakota Skipper Potential Suitable Habitat (dh01, dh02, etc.)
- Photo points (pp01, pp02, etc.)

2.2.2 Site Photographs

Photographs provided in Appendix A provide a visual representation of wetland communities and boundaries, as well as general site conditions, at the time of inspection. Photos are geospatially referenced by their associated photo point location and presented with direction taken (e.g., “pp01

view west," "pp02 view northeast"). Photo point locations are depicted on the wetland delineation figure (Figure 3).

2.2.3 Delineation Data Sheets

Wetland delineation data sheets are the written documentation of how representative data points meet or do not meet each of the wetland criteria. Plant species nomenclature follows the Regional Wetland Plant List (USACE, 2020). Hydric soils are identified using the methods outlined in Field Indicators of Hydric Soils in the United States, Version 8.2 (USDA-NRCS, 2018).

2.2.4 Survey of Wetlands and Other Waters Boundary

Merjent surveyed all data point locations, wetland boundaries, and the ordinary high-water mark (OHWM) of other waters using Global Positioning System (GPS) technology capable of sub-meter accuracy. While these surveys provide reasonably accurate spatial data, they do not provide the same level of accuracy as a professional land survey. Wetland boundaries were not flagged during the field survey.

2.2.5 Previous Site Review

Merjent is not aware of a previous wetland delineation performed at this site.

3.0 RESULTS AND DISCUSSION

3.1 DESKTOP REVIEW

3.1.1 Topography

The Project area is located in a landscape with varied topography (Figure 2; USGS, 2021). The northern portion of the survey area is generally less steep than the central and southern areas of the survey area. Two primary drainages are evident near the middle of the route and further south.

3.1.2 Soil Survey

The NRCS soil map of the survey area (Figure 3) identifies twenty-one soil types, none of which are classified as hydric (Table 1; Soil Survey Staff, NRCS, USDA, 2022).

3.1.3 Mapped Wetlands and Other Waters

The NWI/NHD map (Figure 4) indicated two wetlands or other waters within the survey area (Table 2). Both features are considered riverine.

3.1.4 Current, Historic, and High-Resolution Aerial Imagery

Merjent reviewed multiple sources of historic aerial imagery to evaluate the survey area for wetland signatures. Based on this review, possible wetland signatures are present in the low-lying land within the Project area. Saline soils are evident in areas, and wetlands are likely along riparian zones.

3.1.5 Recent Climatic Conditions and Precipitation Data

The NRCS Climate Analysis for Wetlands (WETS) Tables define the normal range for monthly precipitation over a representative period of time (USDA, no date). Merjent compared recent precipitation data with historic precipitation data from a 30-year dataset (1993-2022) from a nearby WETS weather station (Watford City, ND) to determine if normal hydrologic and climatic conditions were present on-site during field delineations. When compared, the observed precipitation data from three months prior to the field delineations indicated drier than normal precipitation conditions at the time of the September field delineation, and normal precipitation conditions at the time of the October field delineation (Table 3A, Table 3B).

3.2 FIELD INVESTIGATION – GENERAL UPLANDS

Based on the field survey and review of desktop resources, it is our professional opinion that five wetlands and one stream exist within the survey area (Tables 4 and 5, Figure 5).

The survey area consists primarily of agricultural fields, rangeland, and naturally vegetated drainage ways.

The majority of the upland areas within the survey area are planted crop fields, hay fields, or rangeland.

The uplands are dominated by non-native grasses including smooth brome (*Bromus inermis*) and intermediate wheatgrass (*Thinopyrum intermedium*). Native species include prairie dropseed

(*Sporobolus heterolepis*), western snowberry (*Symphoricarpos occidentalis*), and little bluestem (*Schizachyrium scoparium*).

3.3 FIELD INVESTIGATION – WETLANDS

Merjent identified five palustrine emergent (PEM) wetlands totaling 1.16 acres within the Project area according to Cowardin et al. (1979) classification (Figure 5, Table 4). Summaries of these features are provided below, and more detailed information for associated data points are found in the wetland determination data forms in Appendix B.

3.3.1.1 Wetland w01

Wetland w01 (0.16 acre) is a PEM wetland located in a low-lying area within an agricultural field. Datapoint dp01 was recorded to document conditions. The canopy and sapling/shrub stratum are absent. The herb stratum is dominated by fox-tail barley (*Hordeum jubatum*). The herb stratum has been disturbed by mowing, and most of the vegetation has senesced. The soil profile met the hydric soil indicator for Redox Dark Surface (F6). Observed indicators of hydrology include Presence of Reduced Iron (C4) and Geomorphic Position (D2).

3.3.1.2 Wetland w02

Wetland w02 (0.04 acre) is a PEM wetland located in a riparian corridor associated with stream s01 (see Section 3.4). Datapoint dp03 was recorded to document conditions. The canopy and sapling/shrub stratum are absent. The herb stratum is dense throughout with freshwater cord grass (*Spartina pectinata*). The soil profile met the hydric soil indicator for Redox Dark Surface (F6). Observed indicators of hydrology include Geomorphic Position (D2) and FAC-neutral Test (D5).

3.3.1.3 Wetland w03

Wetland w03 (0.12 acre) is a PEM wetland located in a riparian corridor associated with stream s01 (see Section 3.4). Datapoint dp05 was recorded to document conditions. The canopy and sapling/shrub stratum are absent. The herb stratum is dense throughout with freshwater cord grass and creeping wild rye (*Elymus repens*). The soil profile met the hydric soil indicator for Redox Dark Surface (F6). Observed indicators of hydrology include Geomorphic Position (D2) and FAC-neutral Test (D5).

3.3.1.4 Wetland w04

Wetland w04 (0.62 acre) is a PEM wetland located in a linear, low-lying area between agricultural fields. The feature is associated with an NHD feature; however no defined bed or bank were observed. Datapoint dp06 was recorded to document conditions. The canopy and sapling/shrub stratum are absent. The herb stratum is dense throughout with freshwater cord grass and rough bent (*Agrostis scabra*). The soil profile met the hydric soil indicator for Depleted Matrix (F3). Observed indicators of hydrology include Surface Soil Cracks (B6), Geomorphic Position (D2), and FAC-neutral Test (D5).

3.3.1.5 Wetland w05

Wetland w05 (0.22 acre) is a saline PEM wetland located in a slight depression along the access road. Datapoint dp08 was recorded to document conditions. The canopy and sapling/shrub

stratum are absent. The herb stratum is dense throughout with freshwater cord grass and reed canary grass (*Phalaris arundinacea*). The soil profile met the hydric soil indicator for Depleted Dark Surface (F7). Observed indicators of hydrology include Salt Crust (B11), Surface Soil Cracks (B6), Geomorphic Position (D2), and FAC-neutral Test (D5).

3.3.2 Naturally Problematic and Significantly Disturbed Datapoints

No data points were determined to be significantly disturbed or naturally problematic.

3.4 FIELD INVESTIGATION – WATERWAYS AND OTHER WATERS

Merjent determined that one stream exists within the survey area (Figure 5, Table 5). The feature has a discontinuous bed and bank, and it was dry at time of survey.

3.4.1 Other Resources Identified

No other water resources were identified within the survey area. Impoundments for cattle ponds are common throughout the rangeland and some are close to the survey area.

3.5 HABITAT ASSESSMENT – FEDERALLY PROTECTED SPECIES

Prior to beginning survey, Merjent reviewed the USFWS Information for Planning and Consultation (IPaC) website for a list of USFWS Endangered Species Act (ESA) threatened, endangered, proposed, and candidate species and designated critical habitat that may be present within the survey area (USFWS 2022).

In this review, six species were considered: Northern Long-eared Bat (*Myotis septentrionalis*; NLEB), Piping Plover (*Charadrius melodus*), Rufa Red Knot (*Calidris canutus rufa*), Whooping Crane (*Grus americana*), Dakota Skipper (*Hesperia dacotae*), and Monarch Butterfly (*Danaus plexippus*; Candidate).

Merjent also surveyed for eagle nests in and near the survey area. Surveys were performed from within the survey area, but also considered areas outside the survey area within line of sight.

3.5.1 Northern Long-eared Bat

Per the USFWS, suitable habitat for NLEB is defined as a tract of wooded habitat over 10 acres in size which contains traditional uneven-aged forest structure with understory and trees with loose or flaking bark that can provide roosting habitat, and which is connected by wooded travel corridor to larger tract of roosting or foraging habitat.

Unsuitable northern long-eared bat habitat includes areas with individual trees, fence rows, or small wooded lots (less than 10 acres) that are greater than 1,000 feet from forested/wooded areas; trees found in highly developed urban areas (e.g., street trees, trees in someone's yard or business); and a pure stand of less than 3-inch diameter at breast height trees that are not mixed with larger trees.

Stands of trees are present along both linear drainages. Common species include green ash (*Fraxinus pennsylvanica*) and cottonwood (*Populus deltoides*) . The northern riparian area is sparsely vegetated with mature trees, with discontinuous patches along immediately adjacent

extents. The southern riparian area is denser and more continuous, and it likely exceeds 10 acres in total, continuous extent.

3.5.2 Piping Plover

In the Northern Great Plains, Piping Plovers nest on the unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars, where they forage at the water's edge. None of the wetlands identified in the survey area appear to support surface water retention features. Suitable foraging and nesting habitat for Piping Plover is not present in the Project area.

3.5.3 Rufa Red Knot

Rufa Red Knot migrates through the area, foraging in a variety of wetland habitats, but do not nest nearby. Wetland and waterway areas within the survey area may provide suitable migratory habitat.

3.5.4 Whooping Crane

Whooping Crane migrates through the area, foraging in a variety of herbaceous habitats, but do not nest nearby. Potential migratory habitat is present throughout rangeland and agricultural fields.

3.5.5 Dakota Skipper

Dakota Skipper utilizes two types of prairie habitat: mesic tall grass prairie (Type A) and dry short grass prairie (Type B). Type A habitat is not present in the survey area, and it is generally uncommon in the region due to loss to agriculture.

Five areas of potential Type B habitat were identified during the field survey for a total of 2.66 acres (Table 6; Figure 6). The areas are dominated by non-native grasses such as crested wheatgrass (*Thinopyrum cristatum*), though little bluestem, purple coneflower (*Echinacea angustifolia*), and prairie sagewort (*Artemisia frigida*) are found in all five Type B habitat areas. Four of the areas are located in grazed rangeland; the other area is in an ungrazed fallow area. It is our professional opinion that these areas are low quality potential habitat due to encroachment by non-native grasses. These areas are also small and disjunct.

3.5.6 Monarch Butterfly

Monarch butterflies require milkweed (*Asclepias* spp.) during the larval stage. Adult monarch butterflies are nectar generalists and can feed on a wide variety of flowering plants. Common milkweed grows in a variety of habitats and disperses readily across the landscape. Therefore, potential for common milkweed, and consequently potential suitable habitat for the monarch butterfly, is present within the survey area.

3.5.7 Eagle Nests

Suitable eagle nesting habitat is not present in the survey area, and no eagle nests were identified in or near the survey area.

3.6 FIELD INVESTIGATION – INVASIVE SPECIES

Survey for invasive species focused on both state- and McKenzie County-listed noxious weeds. Observations of invasive species across the entire survey area were very low. Two populations of Canada thistle (*Cirsium arvense*) were detected during the September survey (Table 7). The locations of the Canada thistle populations can be seen in Figure 5.

3.7 FIELD INVESTIGATION – TREES AND SHRUBS

All woody species were marked within the survey area. Non-clonal species were marked with a GPS point, while clonal species were mapped using polygons to map outer extents of populations. Clonal species are those that grow laterally underground, creating a patchwork of emerging stems to create a stand that is considered a single individual. Woody species are overwhelmingly concentrated near drainage ways intersecting the survey area.

Three non-clonal species were observed, green ash, Russian olive (*Eleagnus angustifolia*), and American elm (*Ulmus americanus*). One small Russian olive was marked with a diameter at breast height (DBH) of 3 inches. Green ash was the most commonly observed tree. 39 green ash were marked, ranging from 2-15” DBH. Two American elm were marked measuring 5 and 9” DBH.

Four clonal species were observed, fireberry hawthorn (*Crataegus chrysocarpa*), quaking aspen (*Populus tremuloides*), buffalo berry (*Shepherdia argentea*), and chokecherry (*Prunus virginiana*). Three shrubby areas have overlapping populations of multiple species, with total shrubby areas total 1.5 acres.

4.0 SUMMARY AND CONCLUSION

Merjent performed natural resource surveys for the ONEOK Cherry Creek Extension Project in McKenzie County, ND.

Based on the field survey and review of desktop resources, it is our professional opinion that five wetlands totaling 1.16 acres and one stream exist within the 129.05-acre survey area. Minor populations of invasive species are present. Low quality Dakota Skipper habitat is present near both drainage ways. Woody species are predominately confined to drainageways. No eagle nests were observed. This report represents our best professional judgment based on recent field conditions and our local knowledge and experience.

5.0 DISCLAIMER

The natural resources identified in this report may be subject to regulation by federal, state, and/or local jurisdiction. These authorities may require a professional land survey of the delineated boundaries to verify impacts for regulatory purposes.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of the assessment. They cannot apply to site changes of which Merjent is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to the natural processes or human impacts at the Project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of Merjent.

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Table 1

Mapped Soils Units

Mapped Soil Units			
Symbol	**Description**	**Hydric Soil Unit?**	**Acres**
E0447B	Daglum-Belfield complex, 0 to 6 percent slopes	No	5.36
E0515B	Rhoades-Daglum complex, 0 to 6 percent slopes	No	3.28
E0559B	Dogtooth-Janesburg complex, 0 to 6 percent slopes	No	0.36
E0913C	Moreau-Wayden silty clays, 6 to 9 percent slopes	No	2.72
E1025B	Regent-Savage silty clay loams, 3 to 6 percent slopes	No	3.72
E1333C	Vebar-Cohagen fine sandy loams, 6 to 9 percent slopes	No	13.03
E1355D	Vebar-Flasher-Tally complex, 9 to 15 percent slopes	No	4.06
E2120B	Farnuf loam, 2 to 6 percent slopes	No	4.4
E2213B	Golva silt loam, 2 to 6 percent slopes	No	1.98
E2213C	Golva silt loam, 6 to 9 percent slopes	No	1.49
E2641C	Reeder-Werner loams, 6 to 9 percent slopes	No	2.15
E2737C	Chama-Cabba-Sen silt loams, 6 to 9 percent slopes	No	16.73
E2741D	Cabba-Chama-Sen silt loams, 9 to 15 percent slopes	No	15.04
E2819B	Reeder-Farnuf loams, 3 to 6 percent slopes	No	4.21
E2913B	Chama-Sen-Cabba silt loams, 3 to 6 percent slopes	No	9.43
E3107F	Cabba-Badland complex, 6 to 70 percent slopes	No	17.32
E3527B	Williams-Bowbells loams, 3 to 6 percent slopes	No	4.05
E3639C	Zahl-Williams-Cabba complex, 6 to 9 percent slopes	No	0.04
E3703C	Dooley-Zahl complex, 6 to 9 percent slopes	No	12.24
E3703D	Dooley-Zahl complex, 9 to 15 percent slopes	No	4.93
E4190F	Cabba-Chama-Havrelon, occasionally flooded complex, 2 to 70 percent slopes	No	2.5
		Total	**129.05**

Note: Source: Soil Survey Staff, NRCS, USDA, 2022

Table 2

Mapped Wetlands

Mapped Wetlands and Other Waters		
NWI Code	**Description**	**Acres**
R4SBC	Riverine, Intermittent; Stream Bed, Seasonally Flooded	0.81
R5UBH	Riverine, Unknown Perennial; Unconsolidated Bottom, Permanently Flooded	0.08
	Total:	**0.89**

[1] Source: Cowardin et al., 1979

Table 3

WETS Analysis

TABLE 3A

WETS Analysis – September 2022

	Long-term rainfall records (1993-2022)								
Watford City, ND	**Month**	**<30%**	**Mean**	**>30%**	**Actual**	**Condition**	**Condition Value[a]**	**Weight**	**Value X Weight**
3rd Prior Month	Jul	1.66	2.77	3.36	1.43	Dry	1	1	1
2nd Prior Month	Aug	0.91	1.41	1.69	0.34	Dry	1	2	2
1st Prior Month	Sep	0.54	1.37	1.66	0.19	Dry	1	3	3
								Sum:	**6**
								Conditions on Site[b]:	**Dry**

[a] 1 = Dry; 2 = Normal; 3 = Wet

[b] If sum equals: 6 to 9 = prior period has been drier than normal; 10 to 14 = prior period has been normal; 15 to 18 = prior period has been wetter than normal

TABLE 3B

WETS Analysis – October 2022

	Long-term rainfall records (1993-2022)								
Watford City, ND	**Month**	**<30%**	**Mean**	**>30%**	**Actual**	**Condition**	**Condition Value[a]**	**Weight**	**Value X Weight**
3rd Prior Month	Aug	0.91	1.41	1.69	0.34	Dry	1	1	1
2nd Prior Month	Sep	0.54	1.37	1.66	0.19	Dry	1	2	2
1st Prior Month	Oct	0.64	1.07	1.3	2.14	Wet	3	3	9
								Sum:	**12**
								Conditions on Site[b]:	**Normal**

[a] 1 = Dry; 2 = Normal; 3 = Wet

[b] If sum equals: 6 to 9 = prior period has been drier than normal; 10 to 14 = prior period has been normal; 15 to 18 = prior period has been wetter than normal

Table 4

Wetlands

Wetlands			
Feature ID	**Cowardin**	**Acres**	**Sq Ft**
w01	PEM	0.16	6,795
w02	PEM	0.04	1,867
w03	PEM	0.12	5,436
w04	PEM	0.62	26,957
w05	PEM	0.22	9,613
	Total:	**1.16**	**50,668**

Table 5

Waterways

Waterways				
Feature ID	**Cowardin**	**Substrate**	**Regime**	**OHWM***
s01	R6	Silt, Clay, Mud	Ephemeral	3
*Ordinary High Water Mark Width (feet)				

Table 6

Dakota Skipper Habitat

Dakota Skipper Habitat					
Feature ID:	**dh01**	**dh02**	**dh03**	**dh04**	**dh05**
Non-native Cover	50-75%	25-50%	25-50%	25-50%	6-25%
Graminoid Cover	50-75%	25-50%	25-50%	50-75%	51-75%
Forb Cover	6-25%	6-25%	6-25%	6-25%	6-25%
Tree/Shrub Cover	0%	0-1%	0%	0%	0%
Percent Exposed	6-25%	25-50%	25-50%	26-50%	1-5%
Grazing	Yes	Yes	Yes	Yes	No
Land Use	Rangeland	Rangeland	Rangeland	Rangeland	Fallow
Amorpha canescens					
Andropogon gerardii					
Anemone patens					
Artemisia frigida	2-5%	2-5%	0-1%	2-5%	1-5%
Astragalus adsurgens					
Astragalus crassicarpus					
Bouteloua curtipendula	0-1%	2-5%	0-1%		
Calylophus serrulatus					
Campanula rotundifolia					
Dalea candida					
Dalea purpurea					
Echinacea angustifolia	0-1%	0-1%	2-5%	2-5%	1-5%
Erigeron spp.					
Gaillardia aristata					
Geum triflorum					
Hesperostipa comata			2-5%	0-1%	
Hesperostipa spartea					
Hypoxis hirsuta					
Juniperus horizontalis					
Liatris aspera					
Liatris ligulistylis					
Liatris punctata		0-1%			
Lilium philadelphicum					
Packera plattensis					
Pascopyrum smithii					
Ratibida columnifera		0-1%		0-1%	
Rudbeckia hirta					
Schizachyrium scoparium	2-5%	2-5%	5-25%	2-5%	6-25%
Sisyrinchium montanum					
Solidago canadensis					
Sorghastrum nutans					
Sporobolus heterolepis					
Symphyotrichum sericeum		0-1%			
Zigadenus elegans					
Zizia aptera					

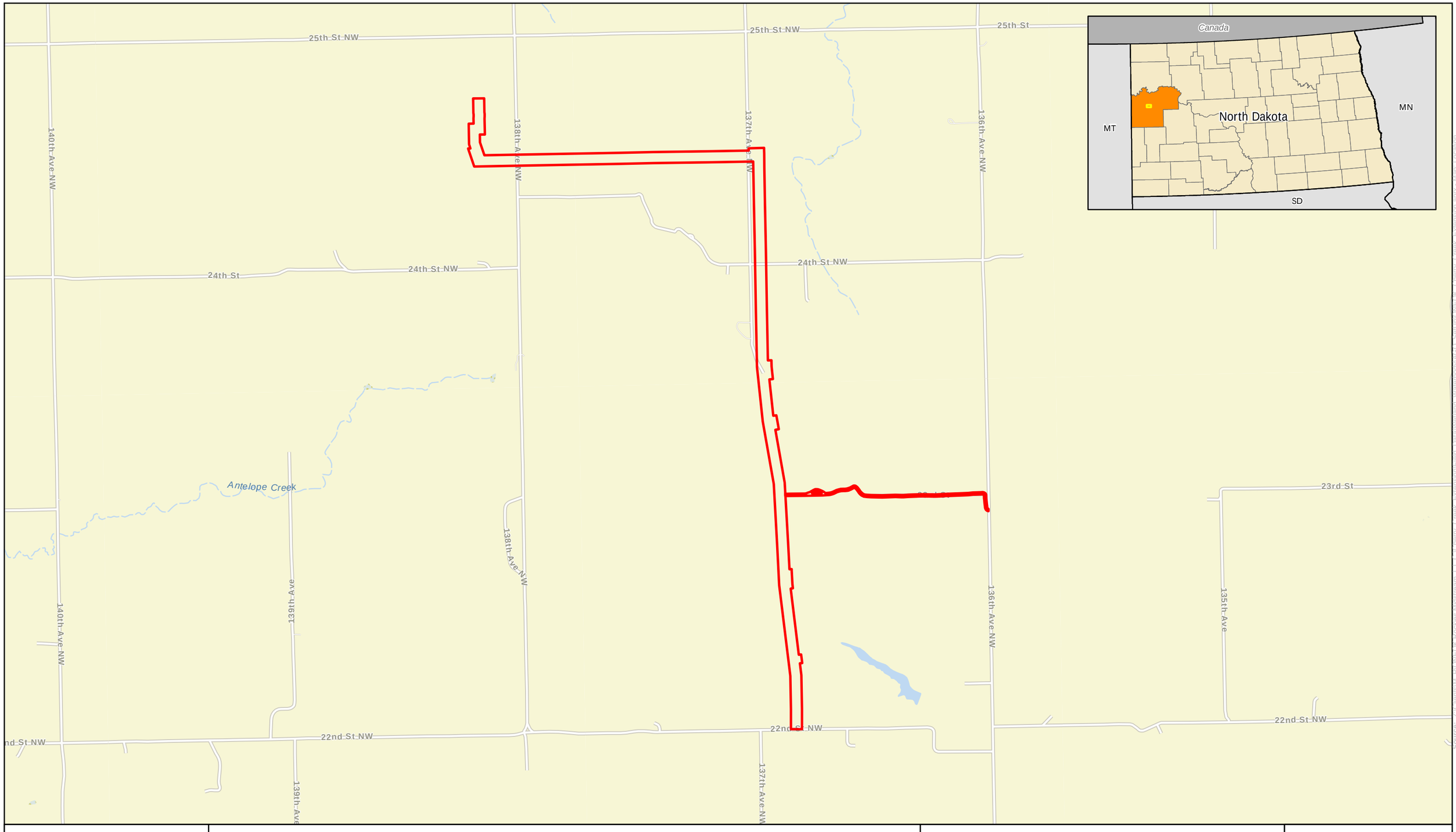
Table 7

Invasive Species

Invasive Species				
Feature ID	**Species**	**Density**	**Estimated Count**	**Acres**
i1	*Cirsium arvense*	Rare	0-5	0.02
i2	*Cirsium arvense*	Rare	0-5	0.07

Figure 1

Project Location



0 1,000 2,000
Feet

4

For Environmental Review Purposes Only

Location
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area

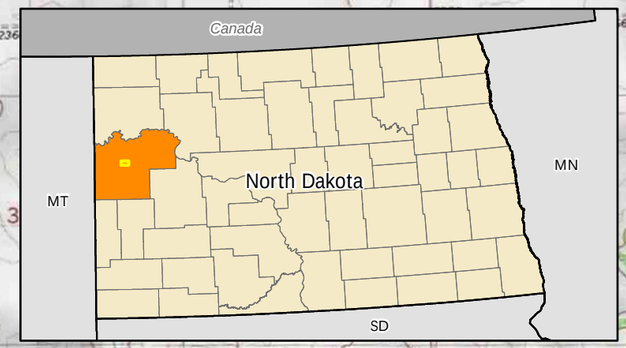
merjent

Source: Z:\Clients\M_PIONEOK Rockies Midstream LLC\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\PIONEOK_Cherry_Creek_Extension.aprx - Map: Location

Date: (10/31/2022)

Figure 2

Topography



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Feet

4

For Environmental Review Purposes Only

Topography
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area

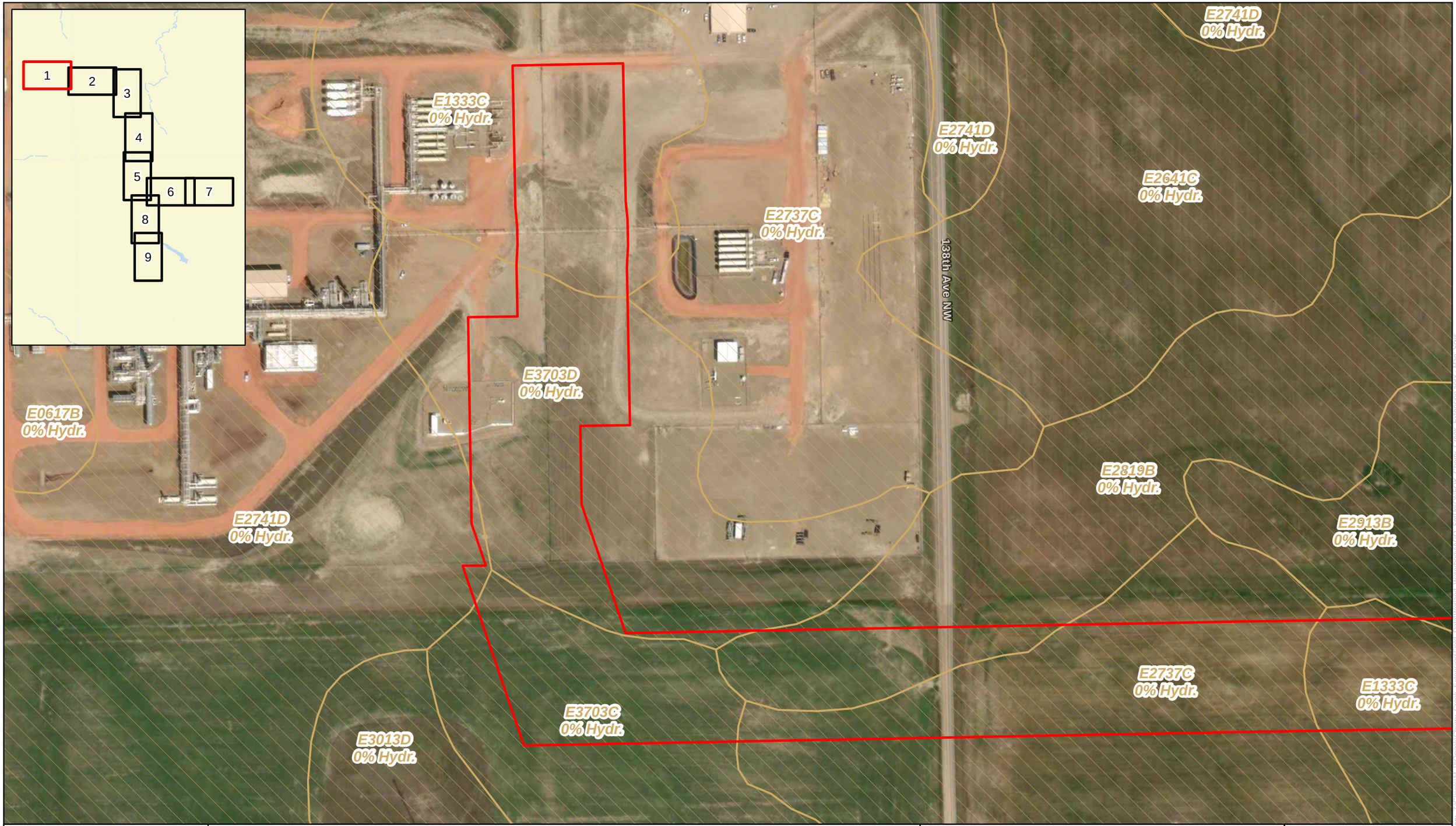
merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Exten

Date: (10/31/2022)

Figure 3

Soils



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Feet

4

For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\ONEOK_Cherry_Creek_Ex...aprx - Map: Soils
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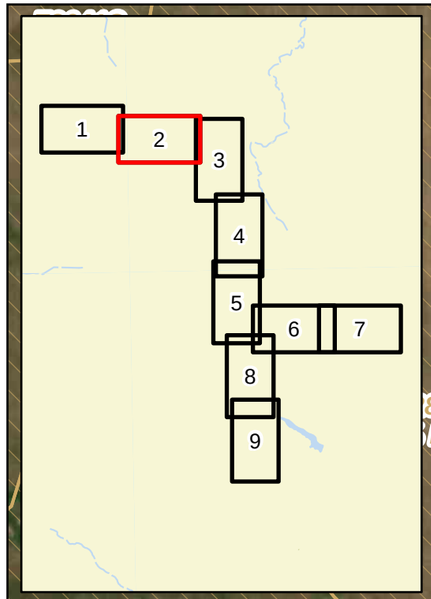


E2819B
0% Hydr.

E2819B
0% Hydr.

E2741D
0% Hydr.

819B
Hydr.

E2737C
0% Hydr.

E2737C
0% Hydr.

E2913B
0% Hydr.

E1355D
0% Hydr.

E2120B
0% Hydr.

E1333C
0% Hydr.

E3703D
0% Hydr.

E2737C
0% Hydr.

E3609F
0% Hydr.

E1333C
0% Hydr.

0 100 200
Feet

4

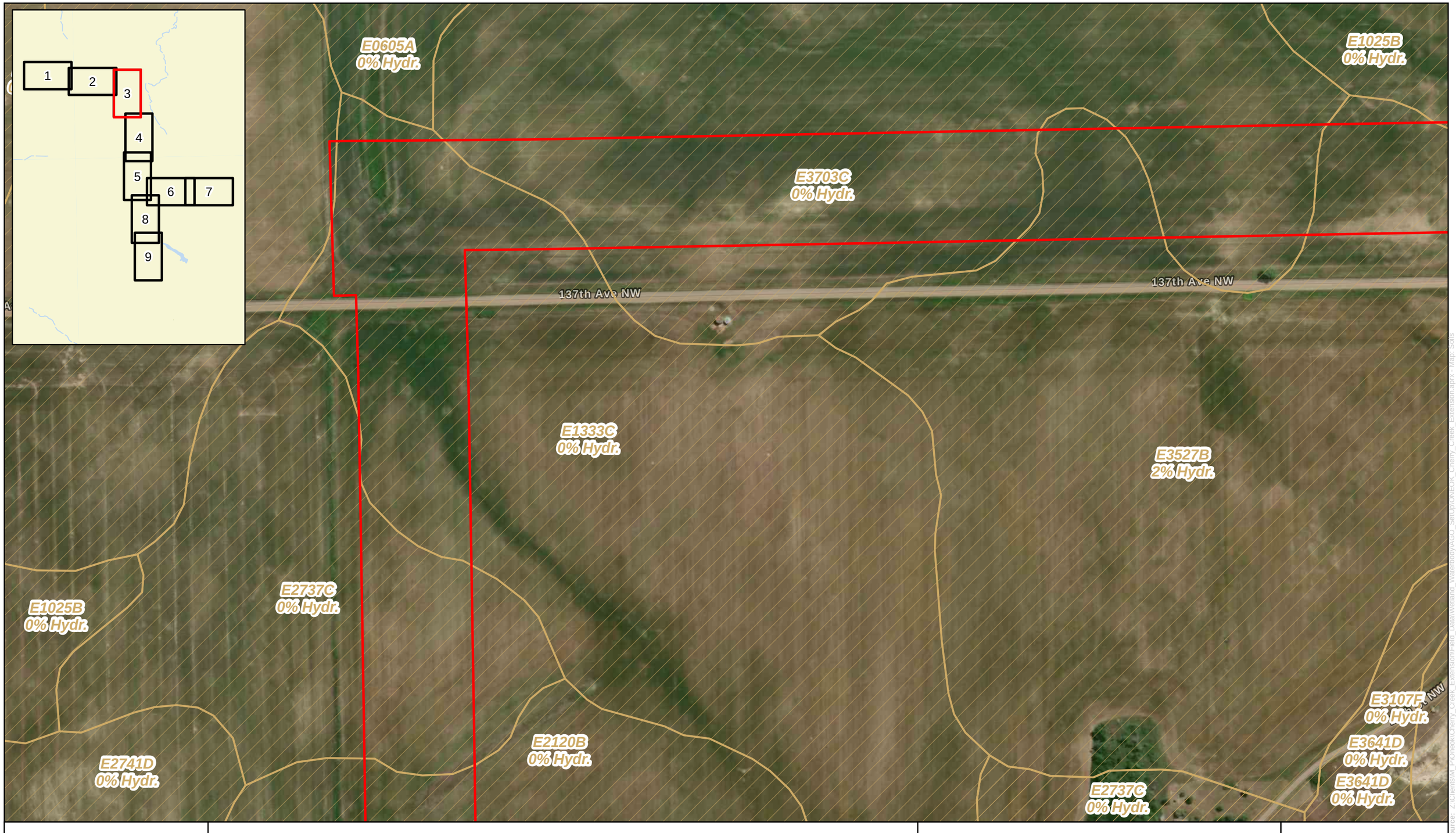
For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACOE_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Soils
Date: (10/31/2022)



0 100 200
Feet

For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ArcGIS_Set\P\ONEOK_Cherry_Creek_Extension.aprx - Map: Soils

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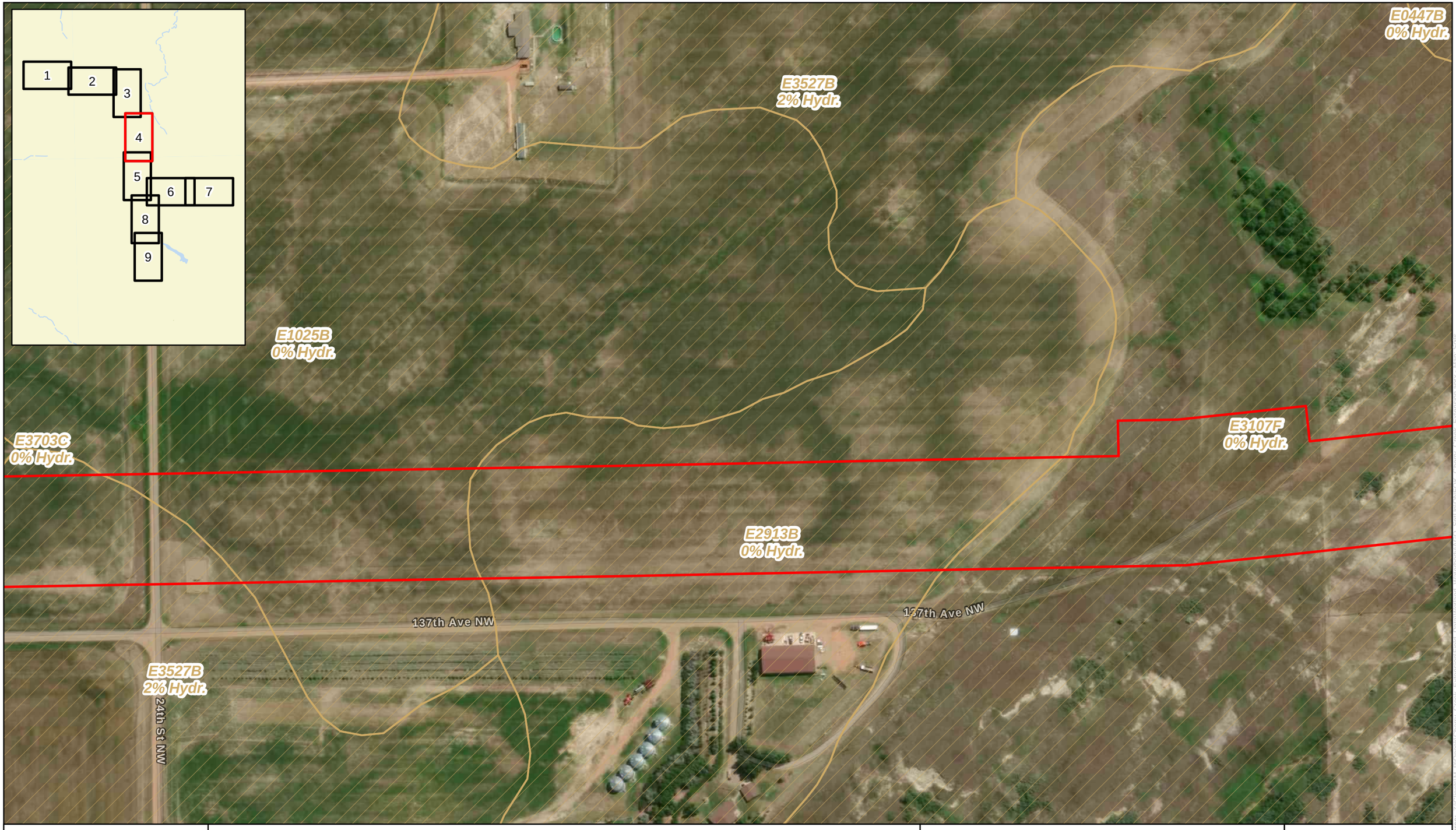

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Feet

4

For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Soils

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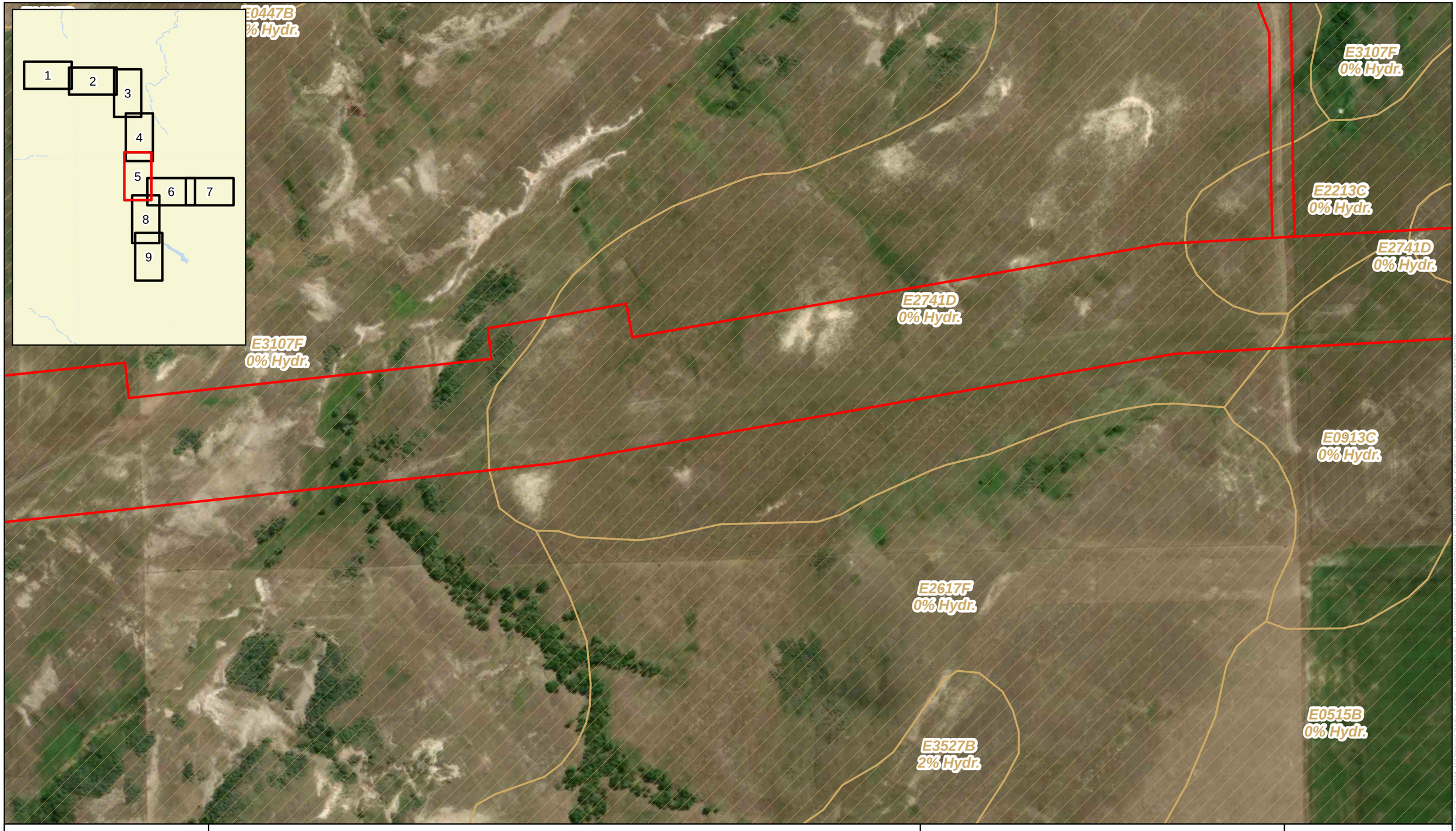

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Feet

4

For Environmental Review Purposes Only

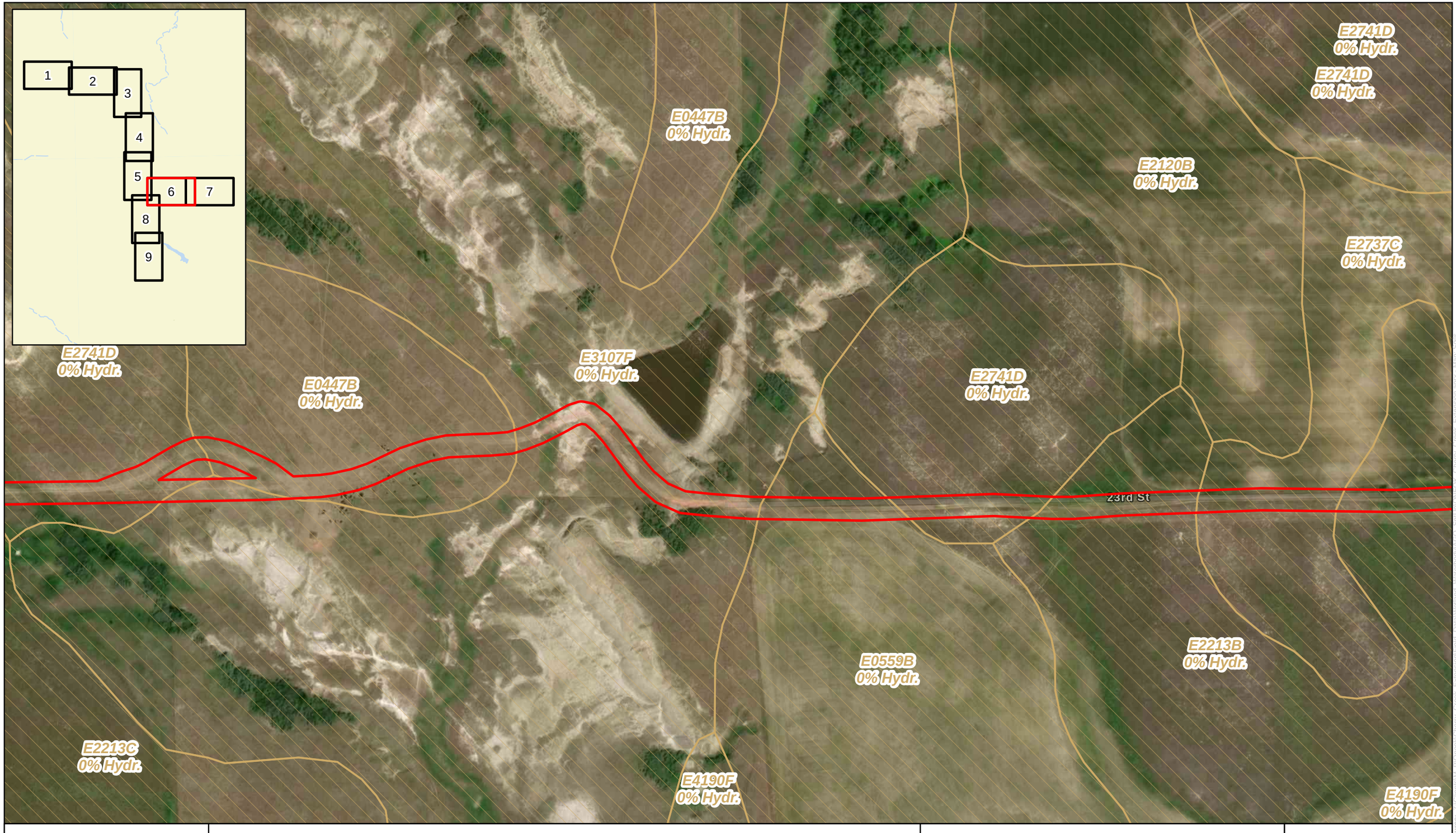
SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Soils

Date: (10/31/2022)



0 100 200
Feet

4

For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

Source: Z:\Clients\M_P\ONeok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Soils

Date: (10/31/2022)

0 100 200
Feet

4

For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Soils

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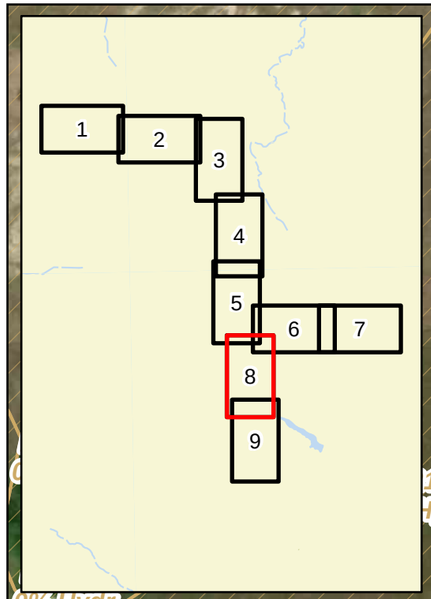

E3107F
0% Hydr.

E0447B
0% Hydr.

E2601C
0% Hydr.

E2741D
0% Hydr.

E4190F
0% Hydr.

13C
Hydr.

0% Hydr.

E2737C
0% Hydr.

E2913B
0% Hydr.

E3107F
0% Hydr.

E0913C
0% Hydr.

E0515B
0% Hydr.

0 100 200
Feet

4

For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

merjent

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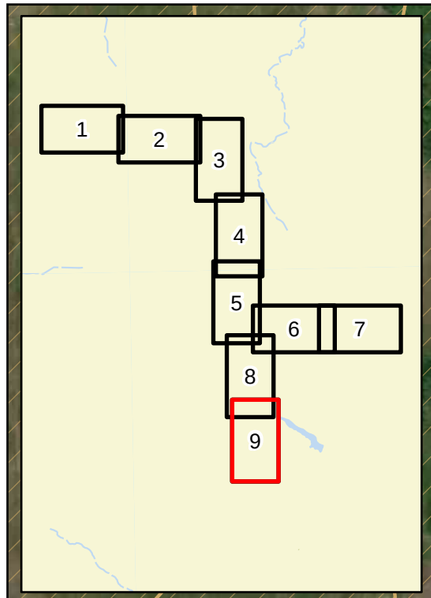

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0% Hydr.

E1865B
0% Hydr.

E1865B
0% Hydr.

E1333B
0% Hydr.

E2737C
0% Hydr.

E4190F
0% Hydr.

E2641C
0% Hydr.

E2913B
0% Hydr.

E0447B
0% Hydr.

22nd St NW

E2741D
0% Hydr.

E0617B
0% Hydr.

E3107F
0% Hydr.

E2913B
0% Hydr.

E0515B
0% Hydr.

E2120B
0% Hydr.

0 100 200
Feet

4

For Environmental Review Purposes Only

SSURGO Soil Type
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Non-Hydric Soil
Hydric Soil

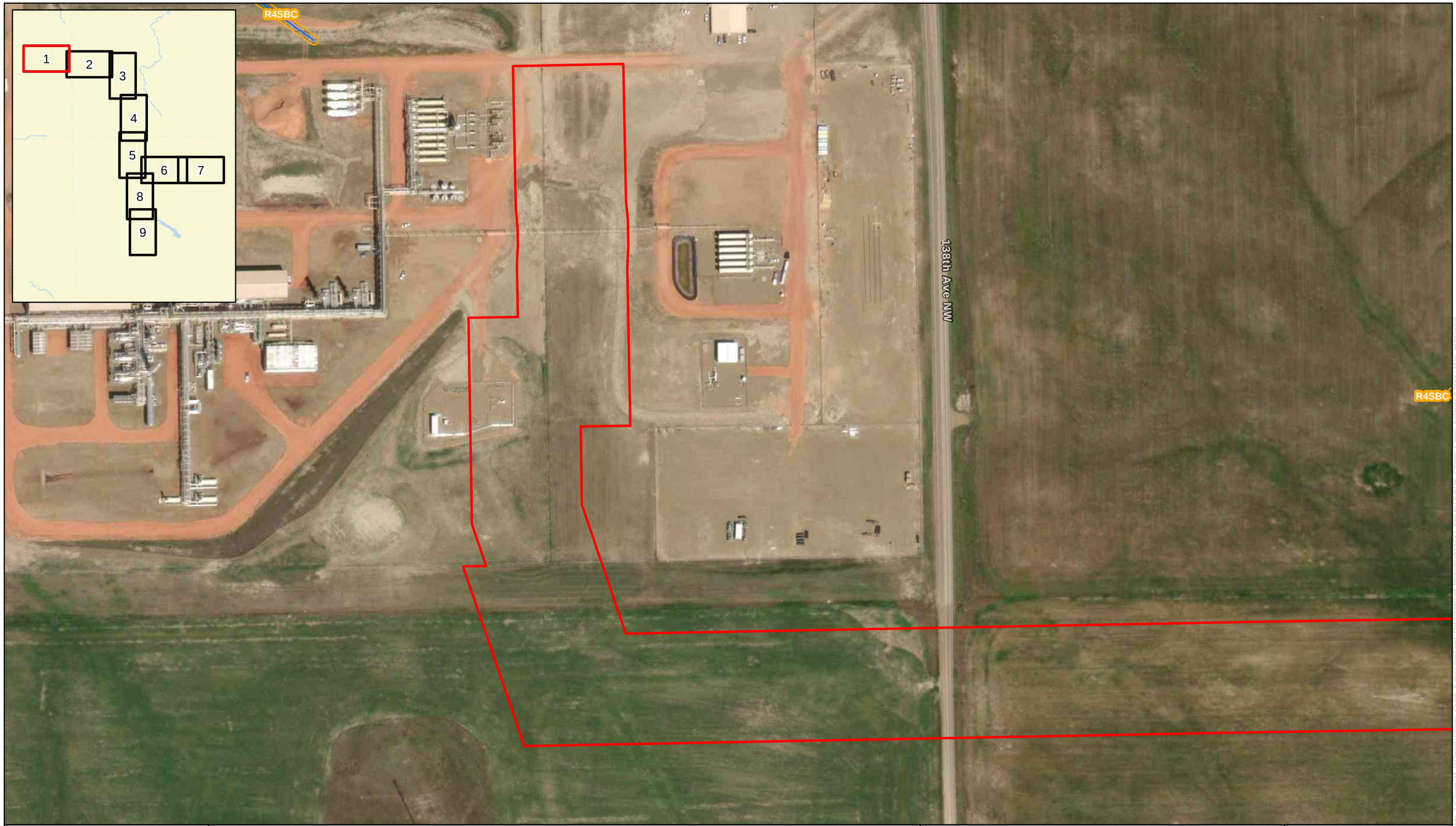
merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Soils

Date: (10/31/2022)

Figure 4

Hydrology



0 100 200
Feet

For Environmental Review Purposes Only

4

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterbody (NHD)
Mapped Waterway (NHD)
Mapped Wetland (NWI)

merjent

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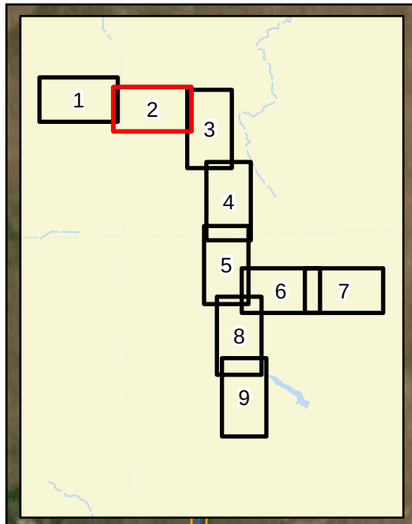

R4SBC

0 100 200
Feet

4

For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterway (NHD)
Mapped Waterbody (NHD)
Mapped Wetland (NWI)

merjent

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ArcGIS_Set\p\ONEOK_Cherry_Creek_E
Date: (10/31/2022)

0 100 200
Feet

For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterway (NHD)
Mapped Waterbody (NHD)
Mapped Wetland (NWI)

merjent

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Date: (10/31/2022)

0 100 200
Feet

For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterway (NHD)
Mapped Waterbody (NHD)
Mapped Wetland (NWI)

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\ONEOK_Cherry_Creek_E...aprx - Map: Hydrology
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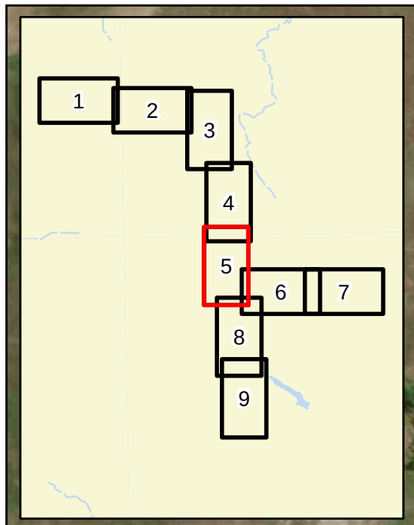


R4SBC

R5UBH

R4SBC

0 100 200
Feet

For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterbody (NHD)
Mapped Waterway (NHD)
Mapped Wetland (NWI)

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Hydrology
Date: (10/31/2022)

0 100 200
Feet

4

For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterway (NHD)
Mapped Waterbody (NHD)
Mapped Wetland (NWI)

merjent

Source: Z:\Clients\M_P\ONeok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\ONEOK_

Date: [10/31/2022]

0 100 200
Feet

4

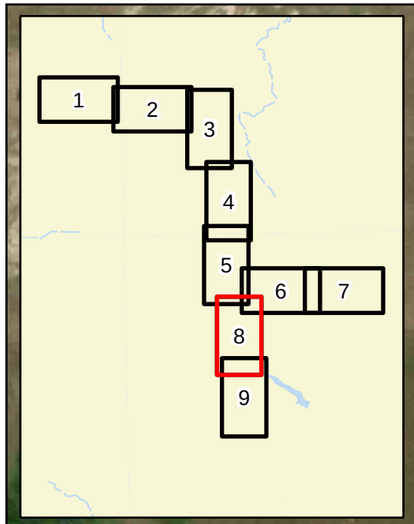
For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterbody (NHD)
Mapped Waterway (NHD)
Mapped Wetland (NWI)

merjent

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Hydrology
Date: (10/31/2022)



R4SBC

R5UBH

R4SBC

0 100 200
Feet

For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Mapped Waterway (NHD)
Mapped Waterbody (NHD)
Mapped Wetland (NWI)

merjent

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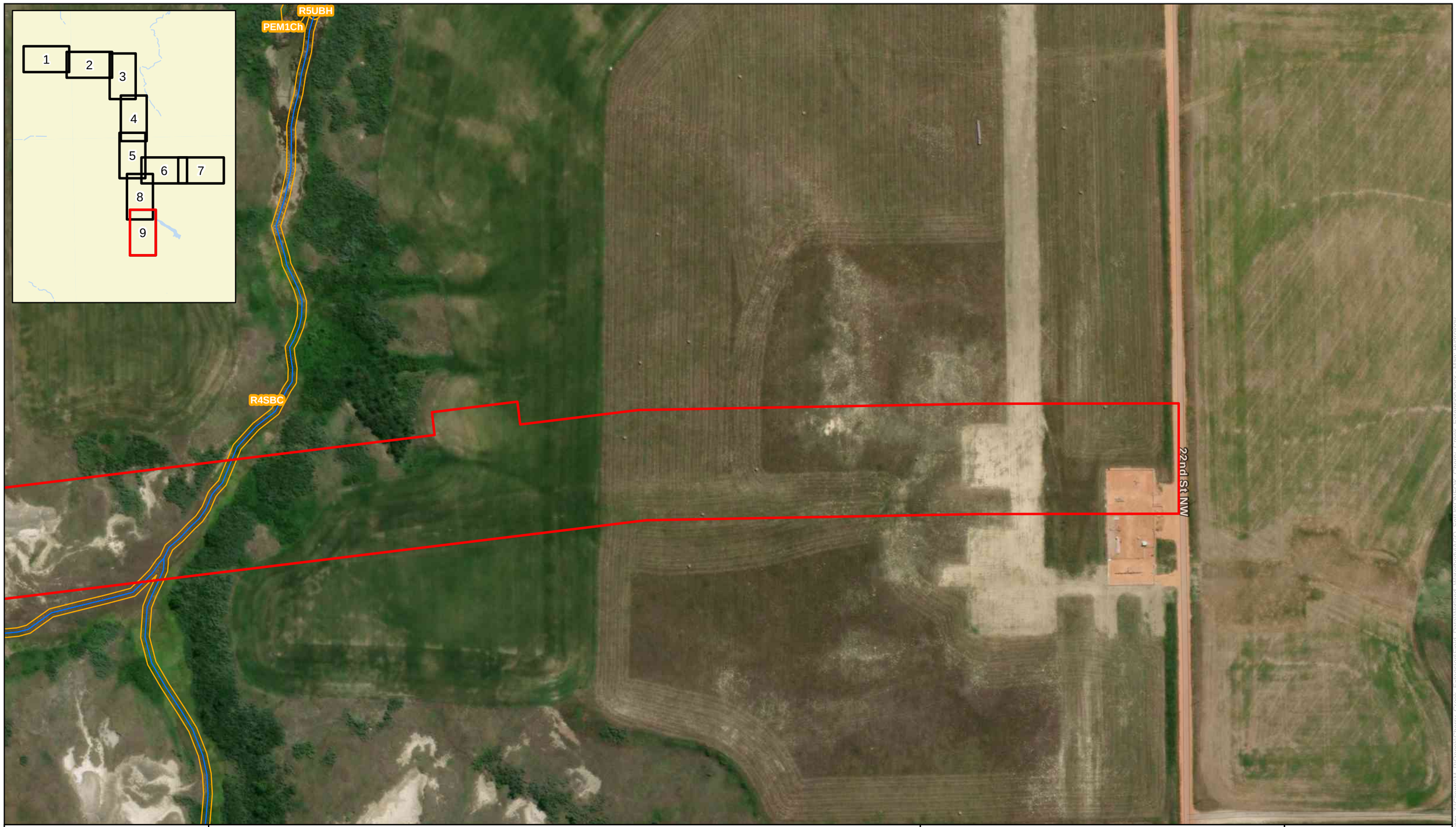


0 100 200
Feet

For Environmental Review Purposes Only

Hydrology
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

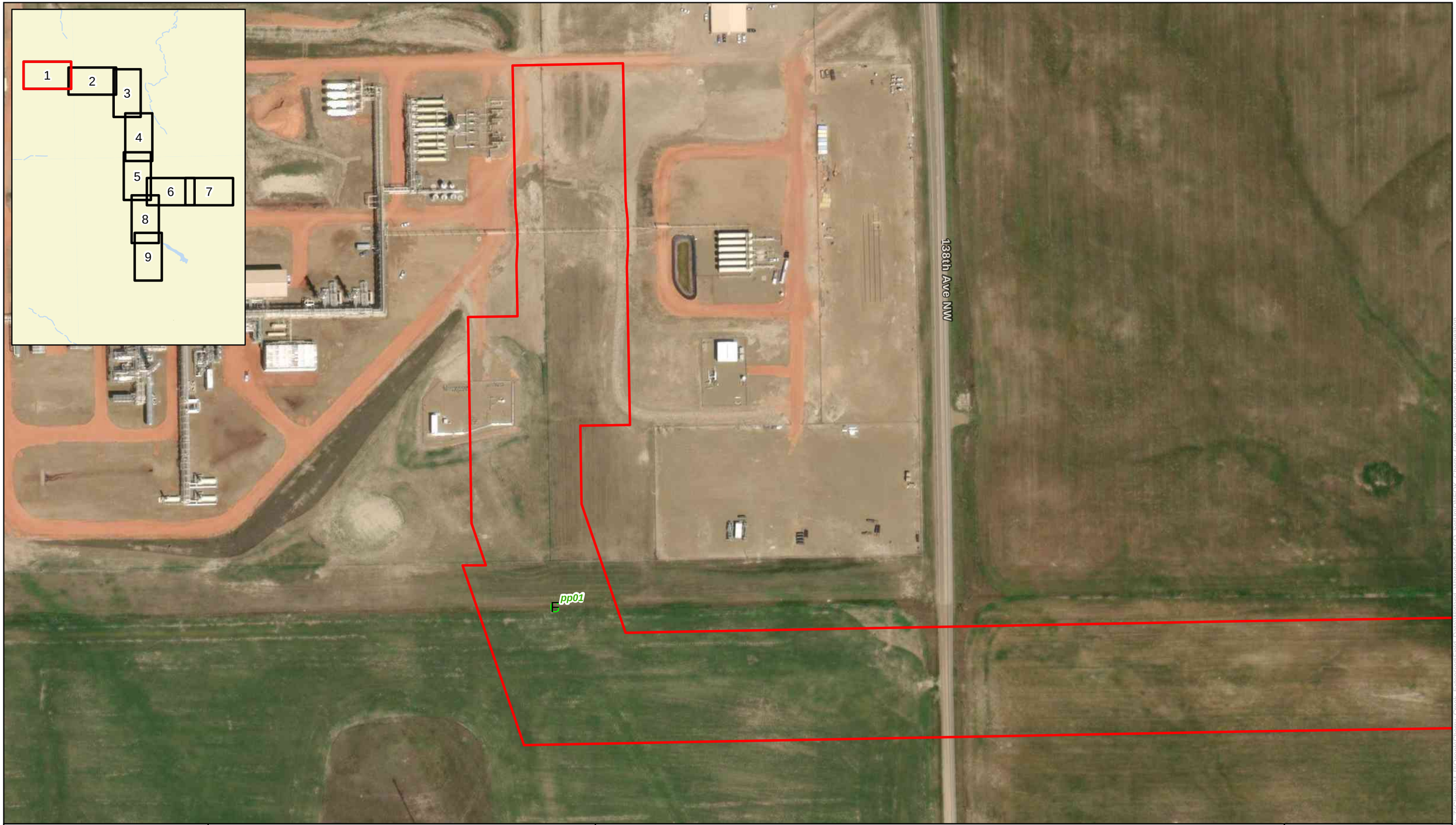
Survey Area
Mapped Waterbody (NHD)
Mapped Waterway (NHD)
Mapped Wetland (NWI)

merjent

Source: Z:\Clients\M_P\ONeok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Hydrology
Date: [10/31/2022]

Figure 5

Wetland Delineation



0 100 200
Feet

4

For Environmental Review Purposes Only

Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Photo Point
Wetland Data Point
Delineated Waterway
Delineated Wetland (PEM)
Invasive Species (Cirsium arvense)

Non-Clonal Species
Ulmus americana
Elaeagnus angustifolia
Fraxinus pennsylvanica

Clonal Species
Crataegus chrysocarpa
Shepherdia argentea
Prunus virginiana
Populus tremuloides

merjent

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ArcGIS_Setup\ONEOK_Cherry_Creek_Ex
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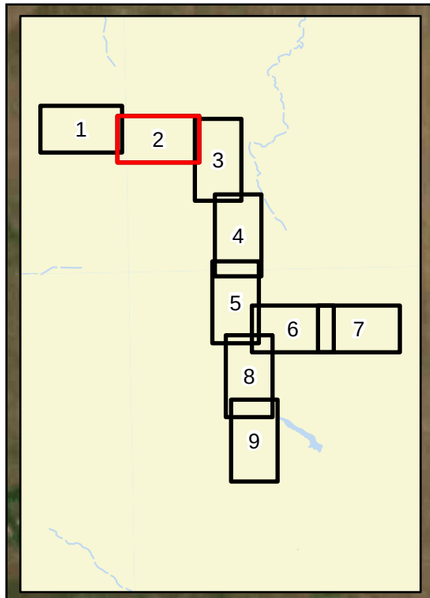

pp02
pp03
dp02
dp01
pp04
wv01
pp05
pp06
pp07

0 100 200
Feet

4

For Environmental Review Purposes Only

Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Photo Point
Wetland Data Point
Delineated Waterway
Delineated Wetland (PEM)
Invasive Species (Cirsium arvense)

Non-Clonal Species
Ulmus americana
Elaeagnus angustifolia
Fraxinus pennsylvanica

Clonal Species
Crataegus chrysocarpa
Shepherdia argentea
Prunus virginiana
Populus tremuloides

merjent

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Date: (11/3/2022)

0 100 200
Feet

For Environmental Review Purposes Only

Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

- Survey Area
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merjent

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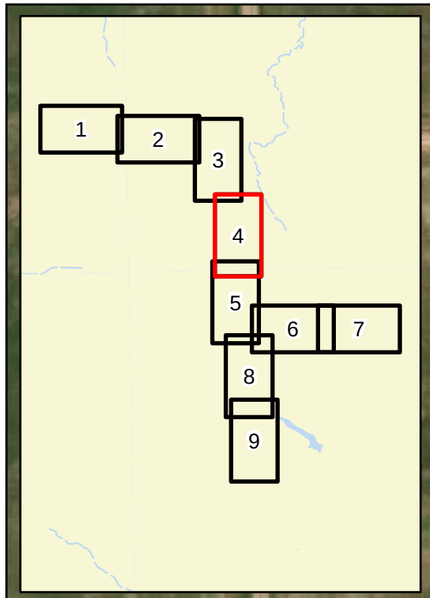

pp11
pp12
pp13
pp14
pp15
pp16
137th Ave NW
137th Ave NW
24th St NW

0 100 200
Feet

4

For Environmental Review Purposes Only

Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

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merjent

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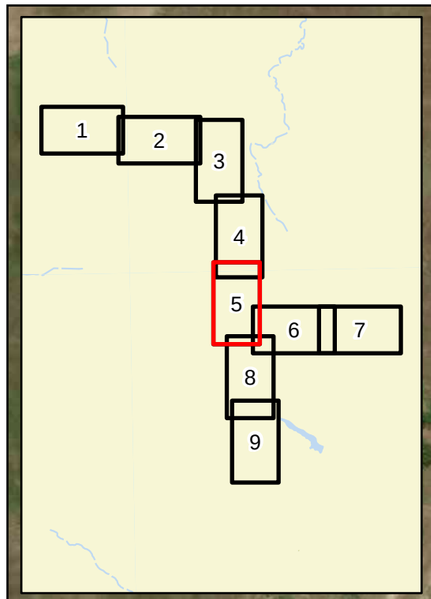

pp34
pp33
pp32
pp21
w03
pp19
dp05
pp16
pp20
pp17
s01
dp04
pp18
dp03
w02
pp15

0 100 200
Feet

4

For Environmental Review Purposes Only

Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

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Prunus virginiana
Populus tremuloides

merjent

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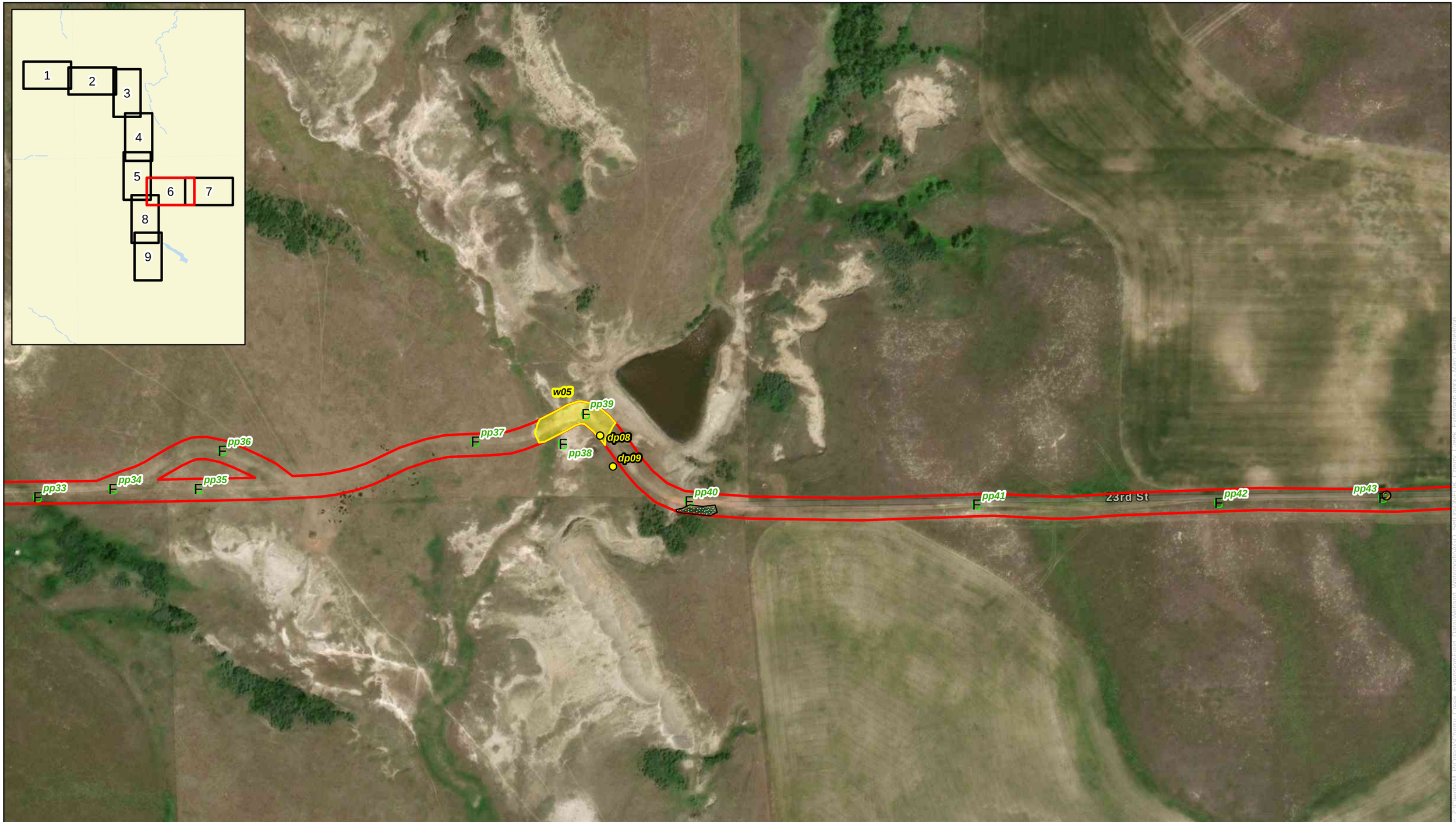

0 100 200
Feet

For Environmental Review Purposes Only

4

Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area
Photo Point
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merjent

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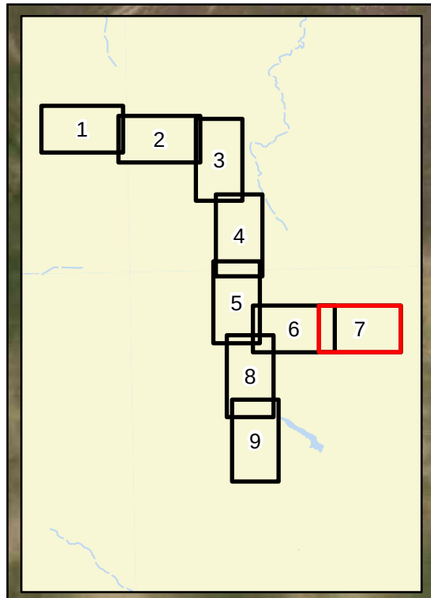
Date: (11/3/2022)



136th Ave NW

pp42
pp43
pp44
23rd St
pp45
pp46
23rd St
136th Ave NW

0 100 200
Feet

4

For Environmental Review Purposes Only

Natural Resources
Cherry Creek Extension
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McKenzie County, North Dakota

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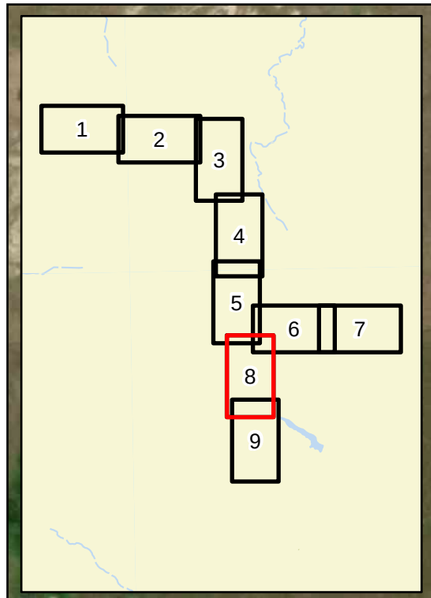
merjent

Source: Z:\Clients\M_P\ONeok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map Delineation

Date: (11/3/2022)



pp22
pp23
pp24
pp25
pp26
dp06
dp07
w04
i02

0 100 200
Feet

For Environmental Review Purposes Only

Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

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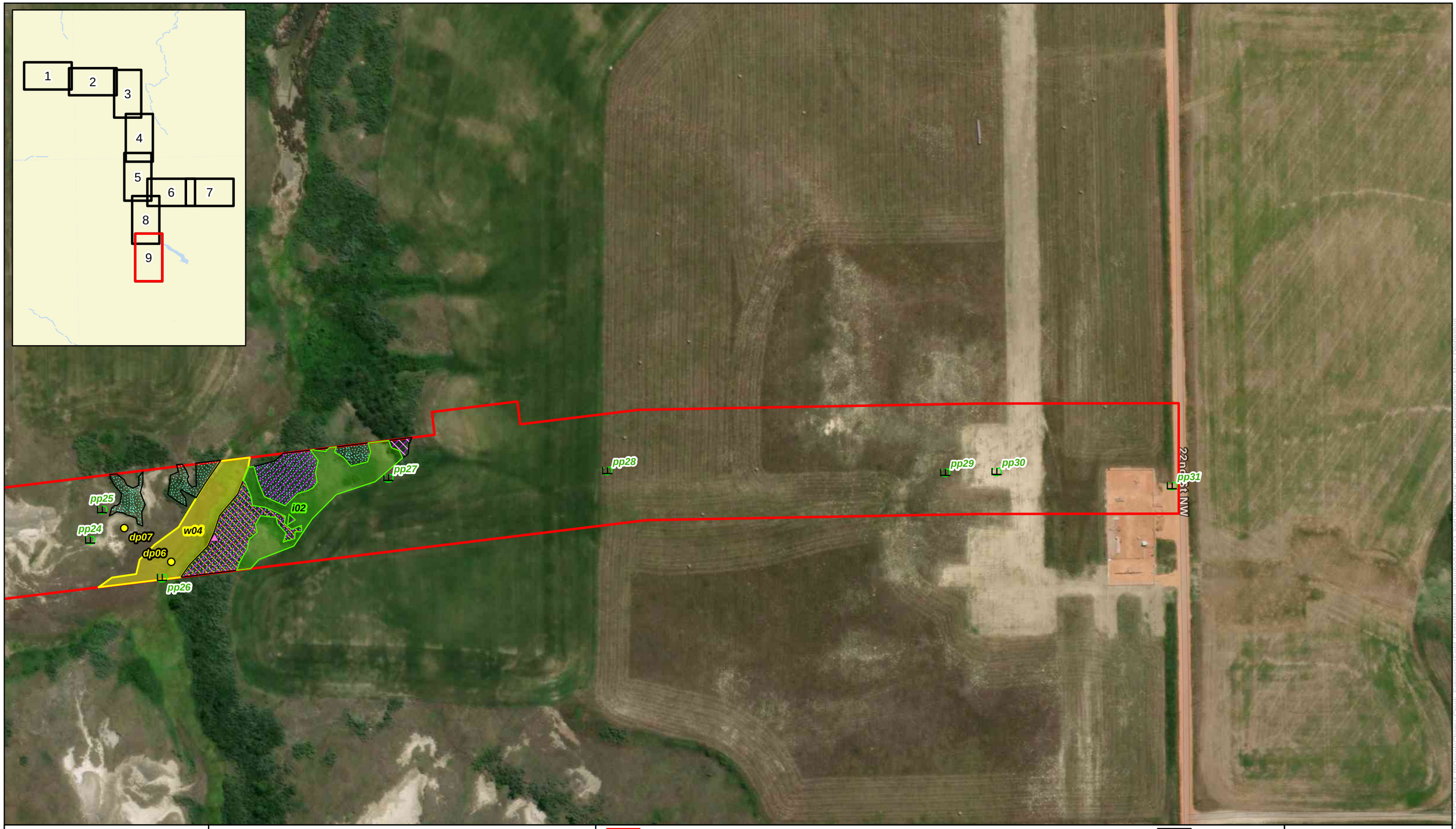
Populus tremuloides

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: Delineation
Date: (11/3/2022)



0 100 200
Feet

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Natural Resources
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

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- Prunus virginiana
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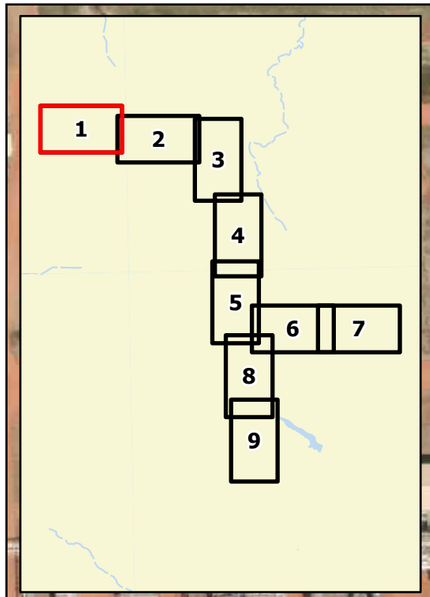
merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ArcGIS_Set\pt\ONEOK_Cherry_Creek_Extension.aprx - Map Delineation

Date: (11/3/2022)

Figure 6

Dakota Skipper Potential Suitable Habitat



138th Ave NW

0 100 200
Feet

N
W E
S

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

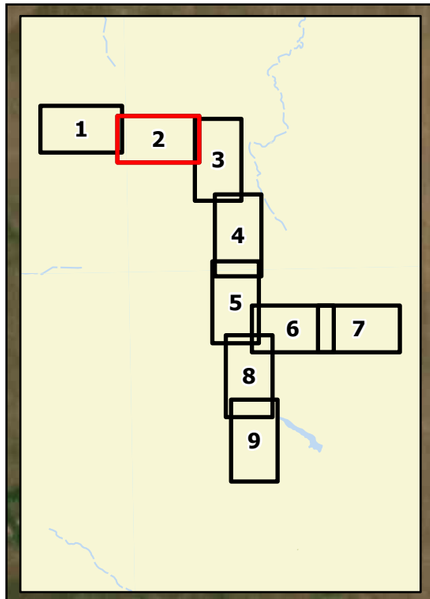
Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Ex

Date: (11/7/2022)



0 100 200
Feet

N
W E
S

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

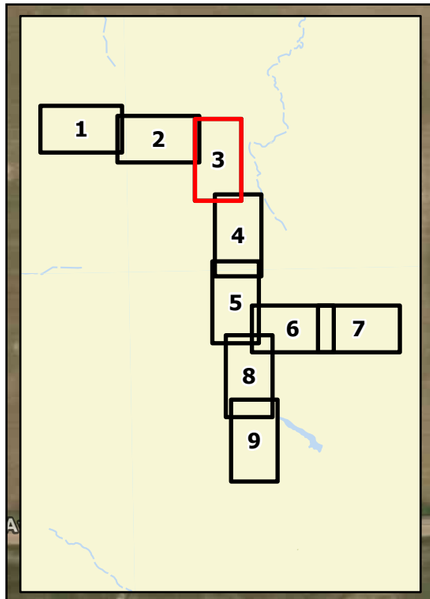
Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_ExtensionField_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: DASK

Date: (11/7/2022)



137th Ave NW

137th Ave NW

24th St NW

0 100 200
Feet

N E S W

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

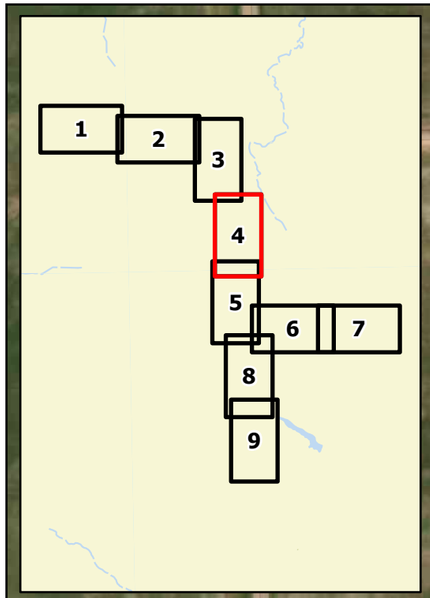
Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ACO_Setup\ONEOK_Cherry_Creek_extension.aprx - Map: DASK

Date: (11/7/2022)



dh03

dh02b

dh01

dh02a

137th Ave NW

137th Ave NW

24th St NW

0 100 200

Feet

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

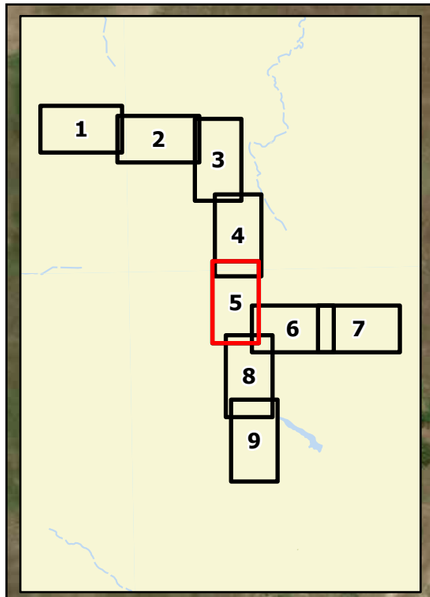
Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\AGO_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: DASK

Date: (11/7/2022)



dh04

dh03

dh02b

dh02a

0 100 200

Feet

N E S W

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

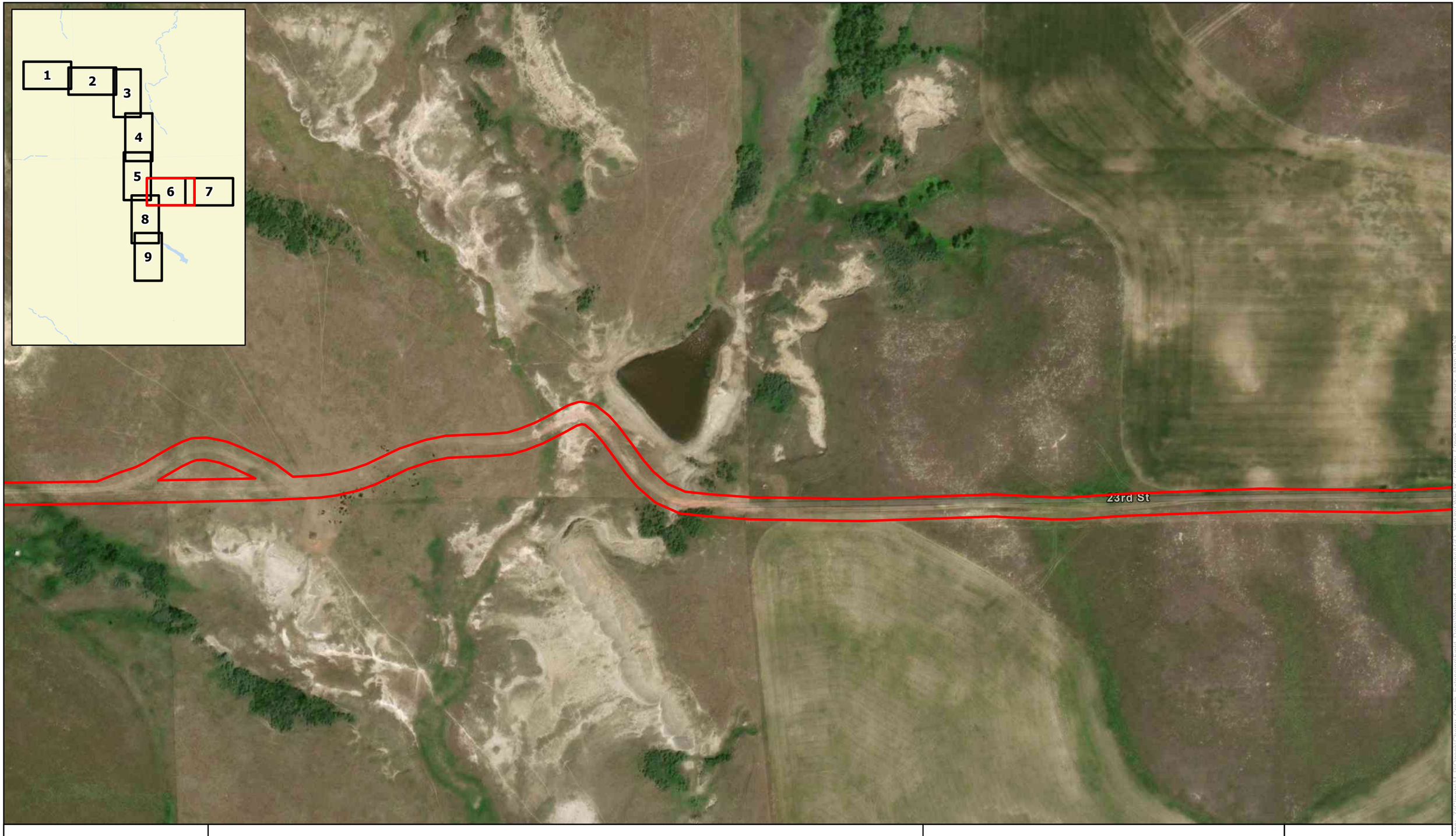
Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ArcGIS_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: DASK

Date: (11/7/2022)



0 100 200
Feet

N
W E
S

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ArcGIS_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map: DASK

Date: (11/7/2022)

0 100 200
Feet

N
W E
S

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

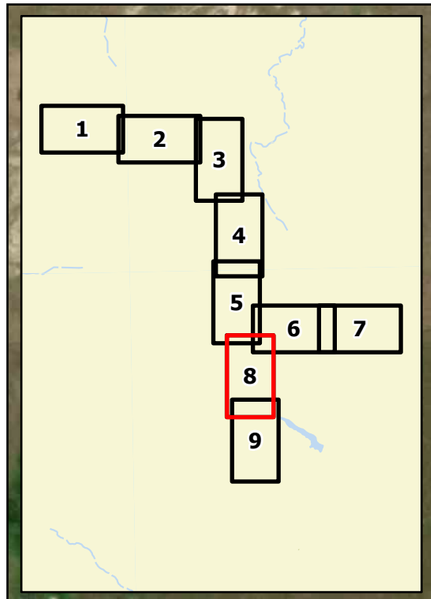
Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

Source: Z:\Clients\M_P\ONeok\Cherry_Creek_Extension\Field_Data\Wetland_Waterbody\ArcGIS_Setup\ONEOK_Cherry_Creek_Extension.aprx - Map1 DASK

Date: (11/7/2022)



0 100 200
Feet

N E S W

For Environmental Review Purposes Only

Dakota Skipper Potential Suitable Habitat
Cherry Creek Extension
ONEOK Rockies Midstream, L.L.C.
McKenzie County, North Dakota

Survey Area

Dakota Skipper Potential Suitable Habitat

merjent

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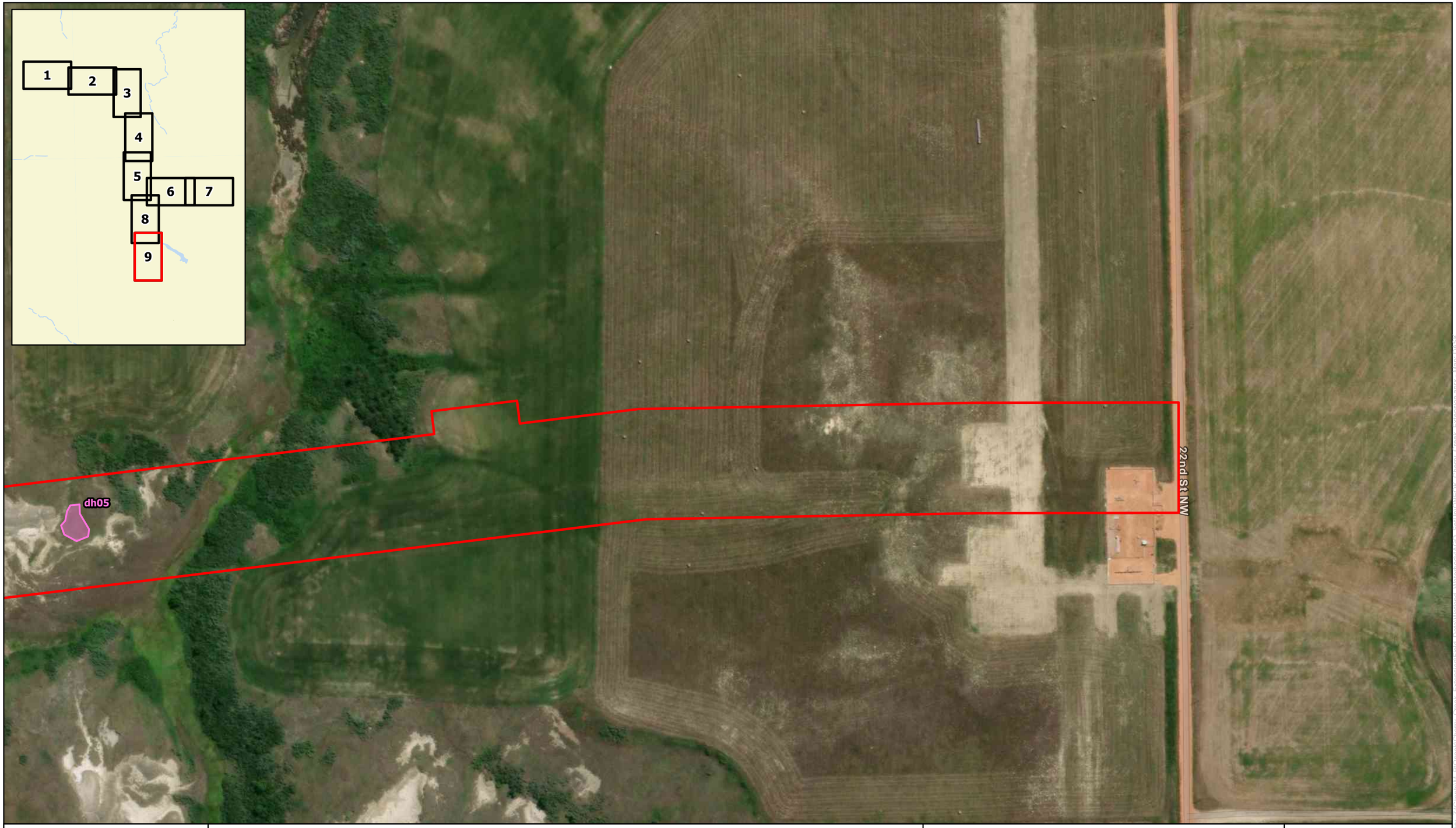
Date: (11/7/2022)



0 100 200
Feet

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merjent

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Date: (11/7/2022)

Appendix A

Survey Photograph

Photograph pp01 view North

Photograph pp01 view South

Photograph pp01 view Southeast

Photograph pp02 view East

Photograph pp02 view Northeast

Photograph pp02 view Southwest

Photograph pp02 view West

Photograph pp03 view East

Photograph pp03 view North

Photograph pp03 view West

Photograph pp04 view Southwest

Photograph pp05 view North

Photograph pp05 view South

Photograph pp05 view West

Photograph pp06 view Southwest

Photograph pp07 view Northwest

Photograph pp07 view Southeast

Photograph pp08 view East

Photograph pp08 view Southwest

Photograph pp09 view East

Photograph pp09 view Southeast

Photograph pp10 view East

Photograph pp10 view South

Photograph pp10 view West

Photograph pp11 view East

Photograph pp11 view West

Photograph pp12 view East

Photograph pp12 view North

Photograph pp12 view South

Photograph pp12 view West

Photograph pp13 view South

Photograph pp14 view Northeast

Photograph pp15 view Southeast

Photograph pp16 view Southeast

Photograph pp16 view West

Photograph pp17 view Southeast

Photograph pp17 view Southwest

Photograph pp18 view Northwest

Photograph pp18 view Southeast

Photograph pp18 view Southwest

Photograph pp19 view Southwest

Photograph pp20 view East

Photograph pp20 view North

Photograph pp20 view South

Photograph pp20 view West

Photograph pp21 view East

Photograph pp21 view North

Photograph pp21 view South

Photograph pp21 view West

Photograph pp22 view East

Photograph pp22 view North

Photograph pp22 view South

Photograph pp22 view West

Photograph pp23 view East

Photograph pp23 view North

Photograph pp23 view South

Photograph pp23 view West

Photograph pp24 view Northeast

Photograph pp25 view Southeast

Photograph pp26 view East

Photograph pp26 view North

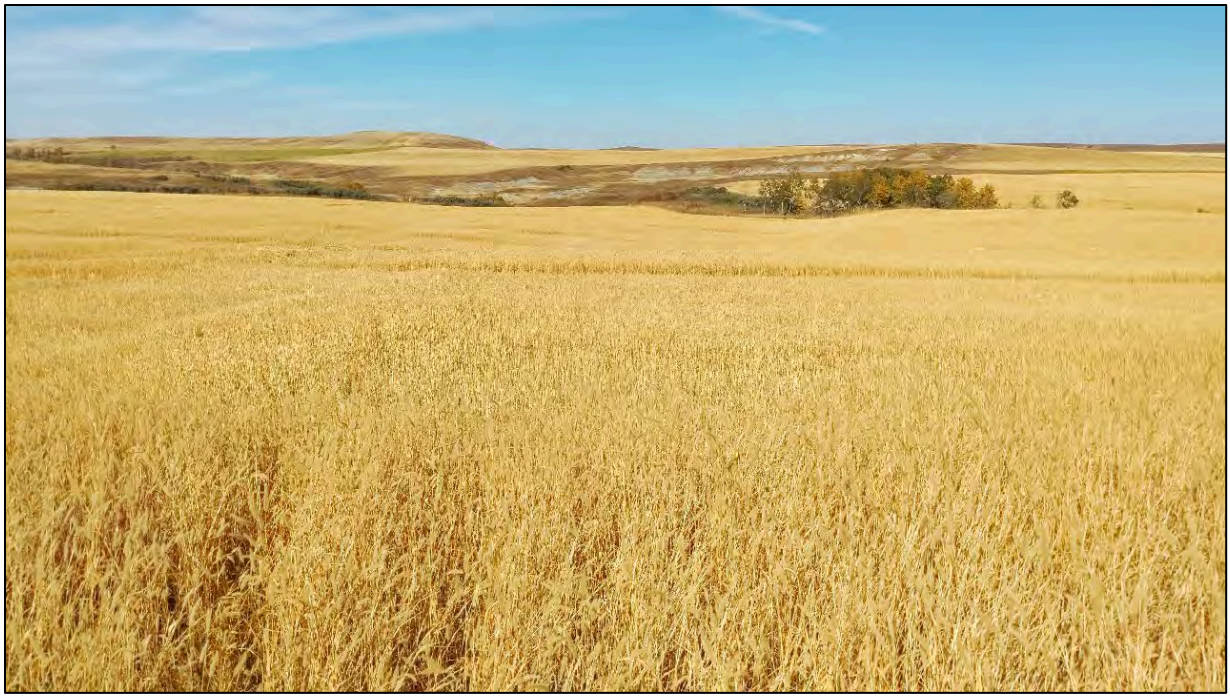
Photograph pp26 view South

Photograph pp27 view North

Photograph pp27 view Southeast

Photograph pp27 view Southwest

Photograph pp28 view East



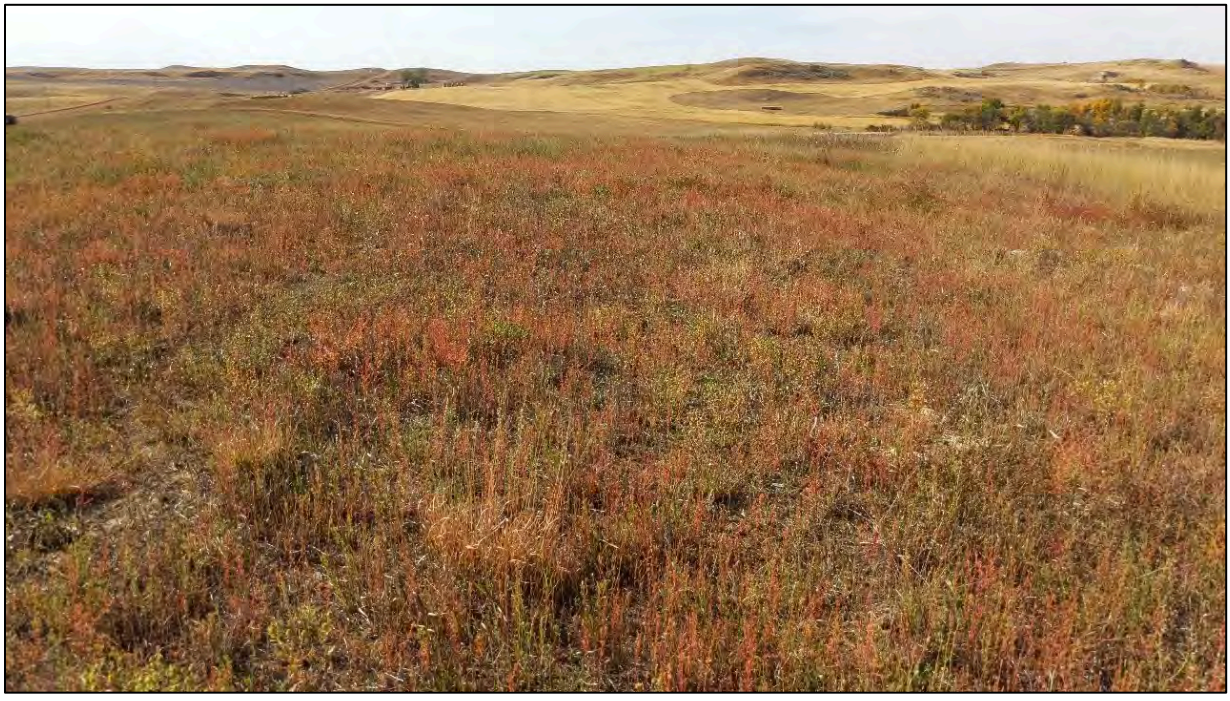
Photograph pp28 view North

Photograph pp28 view South

Photograph pp28 view West

Photograph pp29 view East

Photograph pp29 view North



Photograph pp29 view West

Photograph pp30 view South

Photograph pp31 view East

Photograph pp32 view East

Photograph pp32 view North

Photograph pp32 view South

Photograph pp32 view West

Photograph pp33 view East

Photograph pp33 view North

Photograph pp33 view South

Photograph pp33 view West

Photograph pp34 view East

Photograph pp34 view North

Photograph pp34 view South

Photograph pp34 view West

Photograph pp35 view North

Photograph pp35 view South

Photograph pp35 view West

Photograph pp36 view East

Photograph pp36 view North

Photograph pp36 view South

Photograph pp36 view West

Photograph pp37 view East

Photograph pp37 view North

Photograph pp37 view South

Photograph pp37 view West

Photograph pp38 view East

Photograph pp38 view North

Photograph pp38 view South

Photograph pp38 view West

Photograph pp39 view East

Photograph pp39 view North

Photograph pp39 view South

Photograph pp39 view West

Photograph pp40 view North

Photograph pp40 view South

Photograph pp40 view West

Photograph pp41 view East

Photograph pp41 view North

Photograph pp41 view South

Photograph pp41 view West

Photograph pp42 view East

Photograph pp42 view North

Photograph pp42 view South

Photograph pp42 view West

Photograph pp43 view North

Photograph pp44 view East

Photograph pp44 view North

Photograph pp44 view South

Photograph pp44 view West

Photograph pp45 view East

Photograph pp45 view North

Photograph pp45 view South

Photograph pp45 view West

Photograph pp46 view East

Photograph pp46 view North

Photograph pp46 view South

Photograph pp46 view West

Appendix B

Wetland Determination Data Forms –

Great Plains Region

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension			Date:	09/27/22
Applicant:	ONEOK			County:	McKenzie
Investigators:	Andy Kranz	Subregion (MLRA or LRR):	MLRASYM	State:	North Dakota
Soil Unit:	Chama-Cabba-Sen silt loams, 6 to 9 percent slopes	NWI Classification:	N/A	Wetland ID:	w01
Landform:	Toeslope	Local Relief:	Concave	Sample Point:	**dp01**
Slope (%):	3 - 7%	Latitude: 47.768195	Longitude: -103.53053	Datum:	1983 HAR
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)			☐Yes ☑ No	Community ID:	
Are Vegetation ☑ Soil ☐ or Hydrology ☐ignificantly disturbed?		Are normal circumstances present?		Section:	31
Are Vegetation ☑ Soil ☐ or Hydrology ☐aturally problematic?		☑ Yes ☐No		Township:	150N
				Range:	100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	Hydric Soils Present?	Yes
Wetland Hydrology Present?	Yes	Is This Sampling Point Within A Wetland?	**Yes**

Remarks: WETS analysis of antecedent precipitation conditions indicates drier than normal conditions at the time of the survey.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☑ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☑ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth: _____	(in.)
Water Table Present?	Yes	☐	Depth: _____	(in.)
Saturation Present?	Yes	☐	Depth: _____	(in.)

Wetland Hydrology Present? Y

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture	Remarks
15	Hue_10YR	2/1	90	Hue_5YR	3/4	10	C	M	CL	
24	Hue_10YR	3/1	95	Hue_5YR	3/4	5	C	M	CL	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☑ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____ **Hydric Soil Present?** Y

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension Wetland ID: w01 Sample Point **dp01**

VEGETATION

Tree Stratum (Plot size: 30 ft)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 15 ft)

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Herb Stratum (Plot size: 5 ft)

1.	*Hordeum jubatum*	20	Y	FACW
2.				
3.				
4.				
5.				
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
	Total Cover =	20		

Woody Vine Stratum (Plot size: 30 ft)

1.				
2.				
3.				
5.				
4.				
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***100.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	20	x 2 =	40
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	20 (A)		40 (B)

Prevalence Index = B/A = ***2.000***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is > 50%

X Prevalence Index is ≤ 3.0 *

_____ Morphological Adaptations (Explain) *

_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Y

Remarks:

Additional Remarks:

40% total cover at this datapoint; remaining species unidentified due to dormancy.

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension			Date:	09/27/22
Applicant:	ONEOK			County:	McKenzie
Investigators:	Andy Kranz	Subregion (MLRA or LRR):	MLRASYM	State:	North Dakota
Soil Unit:	Chama-Cabba-Sen silt loams, 6 to 9 percent slopes	NWI Classification:	N/A	Wetland ID:	
Landform:	Backslope	Local Relief:	Convex	Sample Point:	**dp02**
Slope (%):	8 - 15%	Latitude: 47.768092	Longitude: -103.530782	Datum:	1983 HARN
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)			☐ Yes ☑ No	Community ID:	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ ignificantly disturbed?		Are normal circumstances present?		Section:	31
Are Vegetation ☐ Soil ☐ or Hydrology ☐ aturally problematic?		☑ Yes ☐ No		Township:	150N
				Range:	100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	No	Hydric Soils Present?	No
Wetland Hydrology Present?	No	Is This Sampling Point Within A Wetland?	**No**

Remarks: WETS analysis of antecedent precipitation conditions indicates drier than normal conditions at the time of the survey.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth: _____	(in.)
Water Table Present?	Yes	☐	Depth: _____	(in.)
Saturation Present?	Yes	☐	Depth: _____	(in.)

Wetland Hydrology Present? N

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture	Remarks
14	Hue_10YR	3/3	100						SIL	
24	Hue_2.5YR	5/3	100						SIC	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____ **Hydric Soil Present?** N

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension | Wetland ID: 0 | Sample Point **dp02**

VEGETATION

Tree Stratum (Plot size: 30 ft)

Species Name	% Cover	Dominant	Ind.Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Total Cover = 0

Sapling/Shrub Stratum (Plot size: 15 ft)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Total Cover = 0

Herb Stratum (Plot size: 5 ft)

1.	#N/A
2.	#N/A
3.	
4.	
5.	
6	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

Total Cover = 0

Woody Vine Stratum (Plot size: 30 ft)

1.	
2.	
3.	
5.	
4.	

Total Cover = 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***N/A*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	0 (A)		0 (B)

Prevalence Index = B/A = ***NA***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
_____ Dominance Test is > 50%
_____ Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? N

Remarks:

Additional Remarks:

Bromus inermis - 40%
Thinopyrum intermedium - 40%

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension			Date:	09/27/22
Applicant:	ONEOK			County:	McKenzie
Investigators:	Andy Kranz	Subregion (MLRA or LRR):	MLRASYM	State:	North Dakota
Soil Unit:	Cabba-Badland complex, 6 to 70 percent slopes	NWI Classification:	N/A	Wetland ID:	w02
Landform:	Depression	Local Relief:	Concave	Sample Point:	**dp03**
Slope (%):	0 - 2%	Latitude: 47.7531028	Longitude: -103.5182841	Datum:	1983 HARN
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)				☐Yes ☑ No	Community ID:
Are Vegetation ☐ Soil ☐ or Hydrology ☐ignificantly disturbed?		Are normal circumstances present?			Section: 5
Are Vegetation ☐ Soil ☐ or Hydrology ☐aturally problematic?		☑ Yes ☐No			Township: 149N
					Range: 100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes
Wetland Hydrology Present? Yes
Hydric Soils Present? Yes
Is This Sampling Point Within A Wetland? **Yes**

Remarks: WETS analysis of antecedent precipitation conditions indicates drier than normal conditions at the time of the survey.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☑ D2 - Geomorphic Position
- ☑ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present? Yes ☐ Depth: _____ (in.)
Water Table Present? Yes ☐ Depth: _____ (in.)
Saturation Present? Yes ☐ Depth: _____ (in.)

Wetland Hydrology Present? Y

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture	Remarks
14	Hue_10YR	2/1	90	Hue_5YR	3/4	10	C	M	CL	
24	Hue_10YR	3/4	90	Hue_5YR	3/4	10	C	M	C	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☑ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension Wetland ID: w02 Sample Point **dp03**

VEGETATION

Tree Stratum (Plot size: 30 ft)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 15 ft)

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Herb Stratum (Plot size: 5 ft)

1.	*Spartina pectinata*	80	Y	FACW
2.	*Hordeum jubatum*	10	N	FACW
3.	*Elymus repens*	10	N	FACU
4.				
5.				
6				#N/A
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
	Total Cover =	100		

Woody Vine Stratum (Plot size: 30 ft)

1.				
2.				
3.				
5.				
4.				
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***100.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	90	x 2 =	180
FAC spp.	0	x 3 =	0
FACU spp.	10	x 4 =	40
UPL spp.	0	x 5 =	0
Total	100 (A)		220 (B)

Prevalence Index = B/A = ***2.200***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
X Dominance Test is > 50%
X Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Y

Remarks:

Additional Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension			Date:	09/27/22
Applicant:	ONEOK			County:	McKenzie
Investigators:	Andy Kranz	Subregion (MLRA or LRR):	MLRASYM	State:	North Dakota
Soil Unit:	Cabba-Badland complex, 6 to 70 percent slopes	NWI Classification:	N/A	Wetland ID:	
Landform:	Shoulder	Local Relief:	Convex	Sample Point:	**dp04**
Slope (%):	8 - 15%	Latitude: 47.7530112	Longitude: -103.5180681	Datum:	1983 HARN
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)			☐Yes ☑ No	Community ID:	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ignificantly disturbed?		Are normal circumstances present?		Section:	5
Are Vegetation ☐ Soil ☐ or Hydrology ☐aturally problematic?		☑ Yes ☐No		Township:	149N
				Range:	100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	No	Hydric Soils Present?	No
Wetland Hydrology Present?	No	Is This Sampling Point Within A Wetland?	**No**

Remarks: WETS analysis of antecedent precipitation conditions indicates drier than normal conditions at the time of the survey.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes ☐	Depth: _____	(in.)	**Wetland Hydrology Present?** N
Water Table Present?	Yes ☐	Depth: _____	(in.)	
Saturation Present?	Yes ☐	Depth: _____	(in.)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture	Remarks
10	Hue_10YR	2/2	100						L	
24	Hue_10YR	3/1	60	Hue_7.5YR	4/6	30	C	M	L	
				Hue_10YR	5/1	10	D	M		

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____ **Hydric Soil Present?** N

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension | Wetland ID: 0 | Sample Point **dp04**

VEGETATION

Tree Stratum (Plot size: 30 ft)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Total Cover = 0

Sapling/Shrub Stratum (Plot size: 15 ft)

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Total Cover = 0

Herb Stratum (Plot size: 5 ft)

1.	*Cirsium arvense*	5		FACU
2.				
3.				
4.				
5.				
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Total Cover = 5

Woody Vine Stratum (Plot size: 30 ft)

1.				
2.				
3.				
5.				
4.				

Total Cover = 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***N/A*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	5	x 4 =	20
UPL spp.	0	x 5 =	0
Total	5 (A)		20 (B)

Prevalence Index = B/A = ***4.000***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
_____ Dominance Test is > 50%
_____ Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? N

Remarks:

Additional Remarks:

Sapling/shrub: *Symphoricarpos occidentalis* - 20%
Herb: *Bromus inermis* - 80%, *Sporobolis heterolepis* - 5%

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension			Date:	09/27/22
Applicant:	ONEOK			County:	McKenzie
Investigators:	Andy Kranz	Subregion (MLRA or LRR):	MLRASYM	State:	North Dakota
Soil Unit:	Cabba-Badland complex, 6 to 70 percent slopes	NWI Classification:	N/A	Wetland ID:	w03
Landform:	Depression	Local Relief:	Concave	Sample Point:	**dp05**
Slope (%):	0 - 2%	Latitude: 47.7530518	Longitude: -103.5176853	Datum:	1983 HARN
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)			☐Yes ☑ No	Community ID:	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ignificantly disturbed?		Are normal circumstances present?		Section:	5
Are Vegetation ☐ Soil ☐ or Hydrology ☐aturally problematic?		☑ Yes ☐No		Township:	149N
				Range:	100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	Hydric Soils Present?	Yes
Wetland Hydrology Present?	Yes	Is This Sampling Point Within A Wetland?	**Yes**

Remarks: WETS analysis of antecedent precipitation conditions indicates drier than normal conditions at the time of the survey.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☑ D2 - Geomorphic Position
- ☑ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth: _____	(in.)
Water Table Present?	Yes	☐	Depth: _____	(in.)
Saturation Present?	Yes	☐	Depth: _____	(in.)

Wetland Hydrology Present? Y

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture	Remarks
8	Hue_10YR	2/1	85	Hue_7.5YR	4/6	15	C	M	L	
24	Hue_10YR	2/1	70	Hue_7.5YR	4/6	15	C	M	L	
				Hue_10YR	5/1	15	D	M		

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☑ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____ **Hydric Soil Present?** Y

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension Wetland ID: w03 Sample Point **dp05**

VEGETATION

Tree Stratum (Plot size: 30 ft)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 15 ft)

1.	20	Y	
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Cover =	20		

Herb Stratum (Plot size: 5 ft)

1.	*Spartina pectinata*	70	Y	FACW
2.	*Elymus repens*	30	Y	FACU
3.				
4.				
5.				
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
Total Cover =	100			

Woody Vine Stratum (Plot size: 30 ft)

1.	
2.	
3.	
5.	
4.	
Total Cover =	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***33.3%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	70	x 2 =	140
FAC spp.	0	x 3 =	0
FACU spp.	30	x 4 =	120
UPL spp.	0	x 5 =	0
Total	100 (A)		260 (B)

Prevalence Index = B/A = ***2.600***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
_____ Dominance Test is > 50%
X Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Y

Remarks:

Additional Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension			Date:	09/27/22
Applicant:	ONEOK			County:	McKenzie
Investigators:	Andy Kranz	Subregion (MLRA or LRR):	MLRASYM	State:	North Dakota
Soil Unit:	Cabba-Badland complex, 6 to 70 percent slopes	NWI Classification:	N/A	Wetland ID:	w04
Landform:	Toeslope	Local Relief:	Concave	Sample Point:	**dp06**
Slope (%):	3 - 7%	Latitude: 47.7388169	Longitude: -103.5164878	Datum:	1983 HARN
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)			☐Yes ☑ No	Community ID:	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ignificantly disturbed?		Are normal circumstances present?		Section:	8
Are Vegetation ☐ Soil ☐ or Hydrology ☐aturally problematic?		☑ Yes ☐No		Township:	149N
				Range:	100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	Hydric Soils Present?	Yes
Wetland Hydrology Present?	Yes	Is This Sampling Point Within A Wetland?	**Yes**

Remarks: WETS analysis of antecedent precipitation conditions indicates drier than normal conditions at the time of the survey.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☑ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☑ D2 - Geomorphic Position
- ☑ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth: _____	(in.)
Water Table Present?	Yes	☐	Depth: _____	(in.)
Saturation Present?	Yes	☐	Depth: _____	(in.)

Wetland Hydrology Present? Y

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

	Matrix			Mottles						
Depth (In.)	Color (Moist)		%	Color (Moist)		%	Type	Location	Texture	Remarks
1	Hue_10YR	6/1	100						SICL	
24	Hue_10YR	4/1	95	Hue_5YR	4/6	5	C	M	SICL	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☑ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____ **Hydric Soil Present?** Y

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension Wetland ID: w04 Sample Point **dp06**

VEGETATION

Tree Stratum (Plot size: 30 ft)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 15 ft)

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Herb Stratum (Plot size: 5 ft)

1.	*Spartina pectinata*	40	Y	FACW
2.	*Agrostis scabra*	40	Y	FAC
3.	*Hordeum jubatum*	10	N	FACW
4.				
5.				
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
	Total Cover =	90		

Woody Vine Stratum (Plot size: 30 ft)

1.				
2.				
3.				
5.				
4.				
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***100.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	50	x 2 =	100
FAC spp.	40	x 3 =	120
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	90 (A)		220 (B)

Prevalence Index = B/A = ***2.444***

Hydrophytic Vegetation Indicators:

	Rapid Test for Hydrophytic Vegetation
X	Dominance Test is > 50%
X	Prevalence Index is ≤ 3.0 *
	Morphological Adaptations (Explain) *
	Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Y

Remarks:

Additional Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension			Date:	09/27/22
Applicant:	ONEOK			County:	McKenzie
Investigators:	Andy Kranz	Subregion (MLRA or LRR):	MLRASYM	State:	North Dakota
Soil Unit:	Cabba-Badland complex, 6 to 70 percent slopes	NWI Classification:	N/A	Wetland ID:	
Landform:	Footslope	Local Relief:	Convex	Sample Point:	**dp07**
Slope (%):	8 - 15%	Latitude: 47.7391049	Longitude: -103.5161698	Datum:	1983 HARN
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)				☐Yes ☑ No	Community ID:
Are Vegetation ☑ Soil ☐ or Hydrology ☐ignificantly disturbed?		Are normal circumstances present?		Section:	8
Are Vegetation ☐ Soil ☐ or Hydrology ☐aturally problematic?		☑ Yes ☐No		Township:	149N
				Range:	100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	No	Hydric Soils Present?	No
Wetland Hydrology Present?	No	Is This Sampling Point Within A Wetland?	**No**

Remarks: WETS analysis of antecedent precipitation conditions indicates drier than normal conditions at the time of the survey.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:

- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:

- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth: _____	(in.)
Water Table Present?	Yes	☐	Depth: _____	(in.)
Saturation Present?	Yes	☐	Depth: _____	(in.)

Wetland Hydrology Present? N

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture	Remarks
24	Hue_5Y	7/1	100						SI	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]

- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____ **Hydric Soil Present?** N

Remarks: Parent material color.

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension Wetland ID: 0 Sample Point **dp07**

VEGETATION

Tree Stratum (Plot size: 30 ft)

Species Name	% Cover	Dominant	Ind.Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Cover = 0			

Sapling/Shrub Stratum (Plot size: 15 ft)

1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Cover = 0			

Herb Stratum (Plot size: 5 ft)

1.	80	Y	#N/A
2.	5	N	#N/A
3.			#N/A
4.			
5.			
6			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
Total Cover = 85			

Woody Vine Stratum (Plot size: 30 ft)

1.	
2.	
3.	
5.	
4.	
Total Cover = 0	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***0.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	0 (A)		0 (B)

Prevalence Index = B/A = ***NA***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
_____ Dominance Test is > 50%
_____ Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? N

Remarks:

Additional Remarks:

Bromus inermis - 80%
Ratibida columnifera - 5%

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension		Date: 10/21/22
Applicant:	ONEOK		County: McKenzie
Investigators:	Adam Weishair	Subregion (MLRA or LRR): MLRASYM	State: North Dakota
Soil Unit:	Cabba-Badland complex, 6 to 70 percent slopes	NWI Classification: N/A	Wetland ID: w05
Landform:	Depression	Local Relief: Concave	Sample Point: **dp08**
Slope (%):	0 - 2%	Latitude: 47.7473928 Longitude: -103.5097893 Datum: 1983 HARN	Community ID:
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☑ Yes ☐ No	Section: 5
Are Vegetation ☐ Soil ☐ or Hydrology ☐ ignificantly disturbed?		Are normal circumstances present?	Township: 149N
Are Vegetation ☐ Soil ☐ or Hydrology ☐ aturally problematic?		☑ Yes ☐ No	Range: 100 Dir: W

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	Hydric Soils Present?	Yes
Wetland Hydrology Present?	Yes	Is This Sampling Point Within A Wetland?	**Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☑ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☑ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☑ D2 - Geomorphic Position
- ☑ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes ☐	Depth:	(in.)
Water Table Present?	Yes ☐	Depth:	(in.)
Saturation Present?	Yes ☐	Depth:	(in.)

Wetland Hydrology Present? Y

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

	Matrix			Mottles						
Depth (In.)	Color (Moist)		%	Color (Moist)		%	Type	Location	Texture	Remarks
8	Hue_10YR	3/2	70	Hue_2.5Y	6/2	30	D	M	SIC	
16	Hue_10YR	3/3	85	Hue_2.5Y	6/2	15	D	M	SIC	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☑ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: Depth:

Hydric Soil Present? Y

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension Wetland ID: w05 Sample Point **dp08**

VEGETATION

Tree Stratum (Plot size: 30 ft)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Total Cover = 0

Sapling/Shrub Stratum (Plot size: 15 ft)

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Total Cover = 0

Herb Stratum (Plot size: 5 ft)

1.	*Spartina pectinata*	45	Y	FACW
2.	*Phalaris arundinacea*	15	Y	FACW
3.				
4.				
5.				
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Total Cover = 60

Woody Vine Stratum (Plot size: 30 ft)

1.				
2.				
3.				
5.				
4.				

Total Cover = 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***100.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	60	x 2 =	120
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	60 (A)		120 (B)

Prevalence Index = B/A = ***2.000***

Hydrophytic Vegetation Indicators:

	Rapid Test for Hydrophytic Vegetation
X	Dominance Test is > 50%
X	Prevalence Index is ≤ 3.0 *
	Morphological Adaptations (Explain) *
	Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Y

Remarks:

Additional Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	Cherry Creek Extension	Date:	10/21/22
Applicant:	ONEOK	County:	McKenzie
Investigators:	Adam Weishair	State:	North Dakota
Subregion (MLRA or LRR):	MLRASYM		
Soil Unit:	Cabba-Badland complex, 6 to 70 percent slopes	NWI Classification:	N/A
Landform:	Backslope	Local Relief:	Convex
Slope (%):	3 - 7%	Wetland ID:	
Latitude:	47.7471994	Sample Point:	**dp09**
Longitude:	-103.5096756	Community ID:	
Datum:	1983 HARN	Section:	5
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)	☑ Yes ☐ No	Township:	149N
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed?	Are normal circumstances present?	Range:	100 Dir: W
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?	☑ Yes ☐ No		

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? No
Wetland Hydrology Present? No
Hydric Soils Present? No
Is This Sampling Point Within A Wetland? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth: _____	(in.)
Water Table Present?	Yes	☐	Depth: _____	(in.)
Saturation Present?	Yes	☐	Depth: _____	(in.)

Wetland Hydrology Present? N

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture	Remarks
16	Hue_10YR	3/2	100						SIL	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR F, G, H)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Muck Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ F21 - Red Parent Material
- ☐ F22 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____

Hydric Soil Present? N

Remarks:

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: Cherry Creek Extension Wetland ID: 0 Sample Point **dp09**

VEGETATION

Tree Stratum (Plot size: 30 ft)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 15 ft)

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Herb Stratum (Plot size: 5 ft)

1.	*Schizachyrium scoparium*	50	Y	FACU
2.	*Pascopyrum smithii*	25	Y	FACU
3.				
4.				
5.				
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
	Total Cover =	75		

Woody Vine Stratum (Plot size: 30 ft)

1.				
2.				
3.				
5.				
4.				
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***0.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	75	x 4 =	300
UPL spp.	0	x 5 =	0
Total	75 (A)		300 (B)

Prevalence Index = B/A = ***4.000***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
_____ Dominance Test is > 50%
_____ Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? N

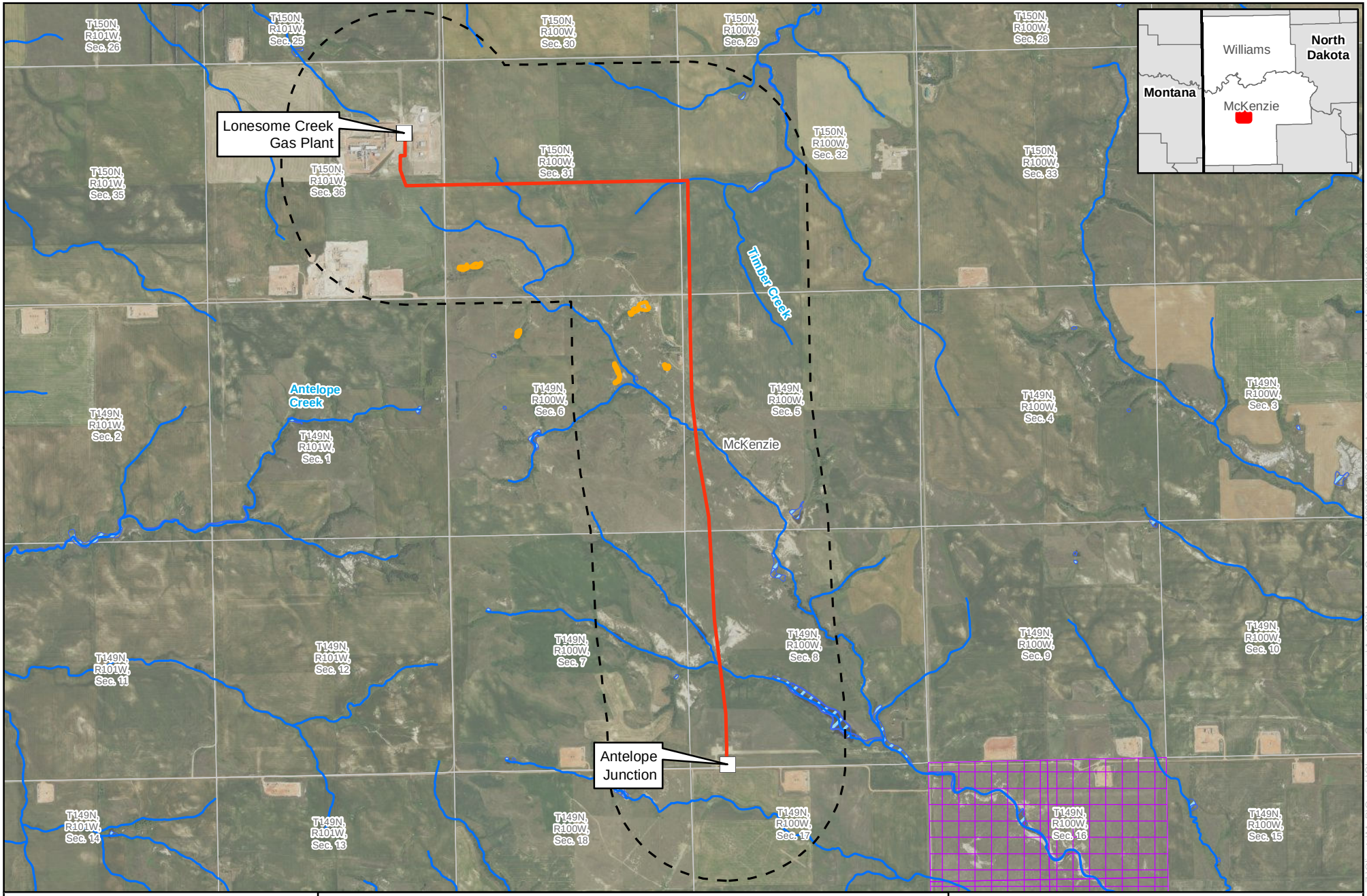
Remarks:

Additional Remarks:

Bromus inermis - 15%
Echinacea angustifolia - 10%

Exhibit D
Agency Consultations

Project Maps
(Included in all Consultations)



0 0.25 0.5 Miles

1 inch = 0.55 miles

N W E S

merjent

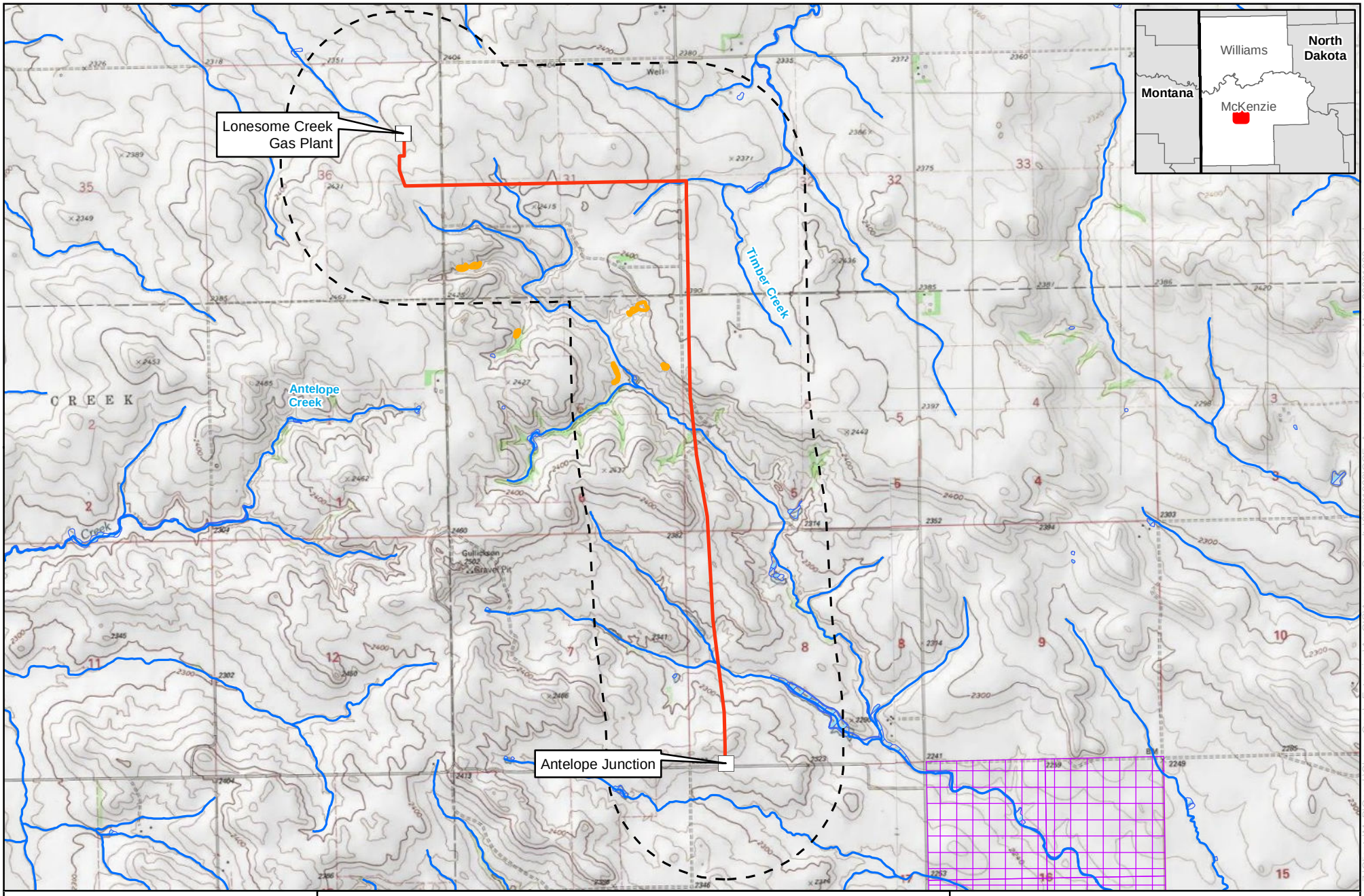
For Environmental Review Purposes Only

ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Map - Aerial Imagery
McKenzie County, ND

- Centerline
- 1-Mile Study Area
- NDDTL - School Trust Land
- Section Boundary
- NHD Flowline
- NWI Wetland
- Landslide Deposits

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\ArcGIS\Agency_Consults\20221028\CCE_Agency_Consult_Aerial_Map_20221028.mxd

Date: (11/3/2022)



0 0.25 0.5 Miles

1 inch = 0.55 miles

N W E S

merjent

For Environmental Review Purposes Only

ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Map - Topographic
McKenzie County, ND

- Centerline
- 1-Mile Study Area
- NDDTL - School Trust Land
- NHD Flowline
- NWI Wetland
- Landslide Deposits

Source: Z:\Clients\M_P\Oneok\Cherry_Creek_Extension\ArcGIS\Agency_Consults\20221028\CCE_Agency_Consult_Topo_Map_20221028.mxd

Date: (11/3/2022)

D.1
Aeronautics Commission

November 18, 2022

Mr. Kyle Wanner
Director
North Dakota Aeronautic Commission
PO Box 5020
Bismarck, ND 58502

Via email: kcwanner@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Wanner,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
150 North	100 West	31-32
149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Mr. Kyle Wanner

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.2
Attorney General

November 18, 2022

Mr. Drew Wrigley
Attorney General
State of North Dakota
600 East Boulevard Avenue, Dept. 125
Bismarck, ND 58505-0040

Via email: ndag@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Wrigley,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Mr. Drew Wrigley

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.3
United States Department of Agriculture

November 21, 2022

Ms. Mary Svenningsen
State Executive Director
U.S. Department of Agriculture
North Dakota Farm Service Agency
1025 28th Street South
Fargo, ND 58103

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Svenningsen,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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149 North	101 West	1

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 21, 2022
Ms. Mary Svenningsen

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.4
State Department of Health

November 21, 2022

Dr. Nizar Wehb
Health Officer
North Dakota Department of Health
600 East Boulevard Avenue, Dept. 301
Bismarck, ND 58505-0200

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Dr. Wehb,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
150 North	100 West	31-32
149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 21, 2022
Dr. Nizar Wehb

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.5
Department of Human Services

November 21, 2022

Mr. Christopher Jones
Executive Director
North Dakota Department of Human Services
600 East Boulevard Avenue, Dept. 325
Bismarck, ND 58505

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Jones,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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Tulsa, OK 74103
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November 21, 2022
Mr. Christopher Jones

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.6
Department of Labor and Human Rights

November 18, 2022

Ms. Kathy Kulesa, Interim Commissioner of Labor
North Dakota Department of Labor and Human Rights
600 E. Boulevard Avenue
Department 406, Room 107
Bismarck, ND 58505

Via email: labor@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Kulesa,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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November 18, 2022
Ms. Kathy Kulesa

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.7
Department of Career and Technical Education

November 18, 2022

State of North Dakota
Department of Career and Technical Education
600 East Boulevard Avenue, Dept. 270
Bismarck, ND 58505

Via email: cte@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Sir or Madame,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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November 18, 2022
State of North Dakota
Department of Career and Technical Education

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.8
Department of Commerce

November 18, 2022

Mr. James Leiman
Commissioner
North Dakota Department of Commerce
1600 East Century Avenue #2
Bismarck, ND 58503

Via email: jleiman@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Leiman,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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November 18, 2022
Mr. James Leiman

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.9
Energy Infrastructure and Impact Office

November 18, 2022

North Dakota Energy Infrastructure & Impact Office
1707 North 9th Street
Bismarck, ND 58501

Via email: energyimpact@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Sir or Madame,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.10

North Dakota Game and Fish Department

(managed lands)

From: Schumacher, John D.
To: rachel.grant@oneok.com
Cc: Maddy Krumwiede
Subject: EXTERNAL: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project
Date: Wednesday, December 14, 2022 16:15:36
Attachments: image001.jpg
image002.png
image004.jpg
image.png
NDGF_Lands_ONEOK_Cherry Creek_2022-11-19.pdf

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, LLC

RE: Cherry Creek Extension Project

ONEOK is proposing to construct an approximate 4-mile pipeline extension of its existing 12-inch diameter Cherry Creek NGL Pipeline, originating at ONEOK's existing Lonesome Creek Gas Plant and terminating at an existing pipeline junction in McKenzie County, North Dakota. The ND Game and Fish Department has review this project for wildlife concerns.

A primary concern with pipeline projects is the possible disturbance of native prairie and wooded draws associated with construction of the pipeline and access roads. Avoidance of native prairie areas reduces impacts to several grassland species including many of the species of conservation priority. We ask that work within these areas be avoided to the extent possible, every effort be made to prevent destruction of woody vegetation, and disturbed areas be reclaimed to pre-project conditions.

The National Wetland Inventory indicates various wetlands, primarily associated with intermittent streams, within the proposed project corridor. Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patterns, and above-ground appurtenances should not be placed in wetland areas. Unavoidable destruction or degradation of wetland acres should be mitigated in kind.

Aerial surveys should be conducted for raptor nests before construction begins. We recommend that a ½-mile construction buffer be implemented around active eagle nest sites (known occupied within the past 5 years). Ms. Sandra Johnson, Conservation Biologist, may be contacted at 701-328-6327 for additional information on golden eagle nest sites in the state.

We do not believe this project will have significant adverse effects on wildlife or wildlife habitat provided these recommendations are implemented where appropriate during project construction.

J.D. Schumacher
Resource Biologist

701.328.6321 • jdschumacher@nd.gov • gf.nd.gov

From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Saturday, November 19, 2022 10:48 AM
To: Link, Greg W. <glink@nd.gov>
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>
Subject: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Mr. Link,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Cherry Creek Extension Pipeline Project (Project). The Project involves the construction of an approximately 4-mile-long pipeline extension of ONEOK's existing Cherry Creek NGL Pipeline and modifications at ONEOK's Lonesome Creek Gas Plant in McKenzie County, North Dakota. As noted in the consultation letter, the Project will require an amendment of ONEOK's existing North Dakota Public Service Commission Corridor Certificate and Route Permit (Case No. PU-17-483), which ONEOK is planning to file in December 2022. Due to the Project schedule, we are respectfully requesting an expedited review of this material to the extent possible.

If you have any questions or need any additional information, please contact me directly or Rachel Grant of ONEOK at 918-588-7601 or Rachel.Grant@oneok.com

Sincerely,

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

2022 Merjent Food Drive

Please help us feed thousands of hungry people. Donate to Second Harvest Food Bank.

November 19, 2022

Greg Link
Division Chief
North Dakota Game and Fish Department, Conservation and Communication Division
100 North Bismarck Expressway
Bismarck, ND 58501-5095

Via email: glink@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Link,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK respectfully submits this request for Project review to the North Dakota Game and Fish Department (NDGFD) for presence or absence of sensitive species, game refuge or game management lands, Private Land Open to Sportsmen ("PLOTS") lands, and projects under the direction of these programs. Based on review of publicly available data, there are no known NDGFD-managed lands in the vicinity of the Project. ONEOK has also sent a consultation request to Ms. Sandra Johnson of NDGFD regarding historic eagle nest data. Natural resource surveys for the Project were completed in summer/fall of 2022; a copy of the Natural Resources Report is available upon request.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Cherry Creek Extension Pipeline Project Location – PLSS Sections		
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If you have comments regarding the Project, we are requesting responses within 30 days. We appreciate your assistance with this request and look forward to your timely review. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.11

North Dakota Game and Fish Department

(eagle nests)

From: Johnson, Sandra K. <sajohnson@nd.gov>
Sent: Tuesday, November 29, 2022 13:46
To: Maddy Krumwiede
Cc: Rachel.grant@oneok.com; Paul Hartzheim; Andrea Sampson
Subject: EXTERNAL: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Hi Maddy,
There are no known bald or golden eagle nests within the study area. The closest known eagle nest (golden eagle) is more than 5 miles south of the southern end of the centerline.
Let me know if you have any questions.
Thanks,
Sandy

Sandra Johnson
Conservation Biologist

(701) 328-6382 • sajohnson@nd.gov • gf.nd.gov

NORTH Dakota | Game and Fish
Be Legendary.℠

From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Monday, November 21, 2022 1:50 PM
To: Johnson, Sandra K. <sajohnson@nd.gov>
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>; Andrea Sampson <andrea.sampson@merjent.com>
Subject: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Hi Sandra – I meant to send maps with the email below. Please see updated attachment, including Project Overview maps to go with the consultation request for the ONEOK Cherry Creek Extension Pipeline project.

Have a happy Thanksgiving!
Maddy

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

From: Maddy Krumwiede
Sent: Monday, November 21, 2022 1:36 PM
To: sajohnson@nd.gov
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>; Andrea Sampson <andrea.sampson@merjent.com>
Subject: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Ms. Johnson,

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Sincerely,

Maddy Krumwiede

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

2022 Merjent Food Drive

Please help us feed thousands of hungry people. Donate to Second Harvest Food Bank.

November 21, 2022

Sandra Johnson
Conservation Biologist
North Dakota Game and Fish Department, Conservation and Communication Division
100 North Bismarck Expressway
Bismarck, ND 58501-5095

Via email: sajohnson@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Johnson,

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Natural resource surveys for the Project were completed in summer/fall of 2022. No eagle nests were noted within the Project area during surveys. A copy of the Natural Resources Report is available upon request.

ONEOK respectfully submits this request to the North Dakota Game and Fish Department (NDGFD) for current eagle nest data within a 1-mile study area of the Project. A Project notification letter was also sent to Mr. Greg Link requesting review for presence or absence of sensitive species, game refuge or

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

game management lands, Private Land Open to Sportsmen ("PLOTS") lands, and projects under the direction of these programs.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

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If you have comments regarding the Project, we are requesting responses within 30 days. We appreciate your assistance with this request and look forward to your timely review. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc. at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)
Project Shapefiles (provided electronically)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.12
Industrial Commission

November 18, 2022

Justin Kringstad
North Dakota Industrial Commission Pipeline Authority
600 East Boulevard Ave. Dept. 405
Bismarck, ND 58505-0840

Via email: jjkringstad@ndpipelines.com

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Kringstad,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Justin Kringstad

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.13
Governor’s Office

November 21, 2022

North Dakota Office of the Governor
600 East Boulevard Avenue
Bismarck, ND 58505

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Sir or Madam,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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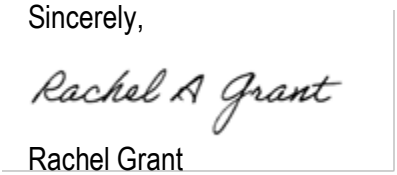
Sincerely,



Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.14
Department of Transportation

November 21, 2022

North Dakota Department of Transportation
District 7-Williston
605 Dakota Parkway West
Williston, ND 58802-0698

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Sir or Madam,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.15
North Dakota State Historic Preservation Office

November 22, 2022

Rachel Grant
ONEOK Inc.
100 West Fifth St
Tulsa, OK 74103

ND SHPO Ref: 23-0069 Cherry Creek Pipeline Extension in portions of [T149N R100W Sections 5, 8, T150N R100W Sections 31-32, and T150N R101W Section 36] in McKenzie County, North Dakota

Dear Rachel,

We reviewed ND SHPO Ref: 23-0069 Cherry Creek Pipeline Extension in portions of [T149N R100W Sections 5, 8, T150N R100W Sections 31-32, and T150N R101W Section 36] in McKenzie County, North Dakota. There are no significant sites affected.

Please also note that our current State Archeologist is Andrew Robinson.

Thank you for the opportunity to review this project under North Dakota cultural resources consultation. This letter does not serve as federal agency consultation or SHPO consultation for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, (36 CFR Part 800), or the National Environmental Policy Act, as amended, (42 U.S.C. §§ 4321- 4347).

If you have any questions, please contact Lorna Meidinger, Lead Historic Preservation Specialist at lbmeidinger@nd.gov or (701) 328-2089.

Sincerely,

for William D. Peterson, PhD
Director, State Historical Society of North Dakota

23-0069

November 22, 2022

Kevin Mieras
Merjent, Inc.
1 Main Street SE, Ste 300
Minneapolis, MN 55414

ND SHPO Ref: 23-0069 Cherry Creek Pipeline Extension in portions of [T149N R100W Sections 5, 8, T150N R100W Sections 31-32, and T150N R101W Section 36] in McKenzie County, North Dakota

Dear Kevin,

We received ND SHPO Ref: 23-0069 "A Class I and Class III Cultural Resources Inventory of the Cherry Creek Pipeline Extension Project, McKenzie County" in portions of [T149N R100W Sections 5, 8, and T150N R100W Section 32] and find this Merjent, Inc. report by Damien Reinhart and Angela Julin acceptable. We will add it to our Manuscript Collection.

Thank you for the opportunity to review this report. Please be advised that acceptance of this report does not constitute concurrence with the determinations therein. If you have any questions, please contact either Andrew Robinson, State Archeologist at (701) 328-3575 or andrewrobinson@nd.gov or Lorna Meidinger, Lead Historic Preservation Specialist at (701) 328-2089 or lbmeidinger@nd.gov.

Sincerely,

for William D. Peterson, PhD
State Historic Preservation Officer
(North Dakota)

Cc: Rachel Grant

23-0069

November 17, 2022

Dr. Andrew Clark
Chief Archaeologist
State Historical Society of North Dakota
612 East Boulevard Avenue
Bismarck, ND 58505

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Pipeline Extension Project
McKenzie County, North Dakota
Request for Cultural Review of NDPSC-Regulated Project

Dear Dr. Clark:

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. As part of its Cherry Creek Pipeline Extension Project (Project), ONEOK is proposing to construct an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

The pipeline portion of the Project follows an existing pipeline corridor and is located in Sections 5 and 8 of Township 149N, Range 100W; Sections 31 and 32 of Township 150N, Range 100W; and Section 36 of Township 150N, Range 101W in McKenzie County, North Dakota. The Lonesome Creek Gas Plant is located at the northern end of the pipeline in Section 36 of Township 150N, Range 101W. Work at the existing Lonesome Creek Gas Plant will take place within the existing footprint of the facility, in areas entirely disturbed by previous construction.

The Project's Area of Potential Effect (APE) is defined as an approximately 170-foot-wide corridor associated with the new pipe centerline and construction workspaces. The APE has a few "bump-out" locations that deviate from this corridor, in areas where additional temporary workspace or staging may be required. In addition, the APE includes an existing east-west trending two-track access road which may be used to provide temporary access during construction activities.

The Project APE consists of a total of 103.80 acres. Land cover within the Project's APE is composed of agricultural fields, grasslands, existing road and pipeline rights-of-way, and the Lonesome Creek Gas Plant. The majority of the Project APE is located within areas previously surveyed for cultural resources in 2015 (MS #15719 and #15910). Six

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

temporary work areas, or corridor expansions areas (Survey Areas 1 through 7) and one access road, encompassing a total of 10.59 acres were surveyed in 2022. These areas did not fall within a previously conducted survey boundary and are the focus of the enclosed Class III Cultural Resources report.

Ground disturbing activities may include installation of temporary access; vegetation clearing; grading; topsoil segregation; pipeline installation through traditional trench excavation and horizontal directional drill; backfill; topsoil replacement; rough and final grading; and seeding, as required. ONEOK is also proposing to install miscellaneous piping within the previously disturbed footprint of the Lonesome Creek Gas Plant. With the exception of work at Lonesome Creek Gas Plant, all areas will be returned to preconstruction contours upon Project completion.

ONEOK contracted with Merjent, Inc. (Merjent) to conduct a Class I and III investigation for the Project in 2022. The Class I literature review completed for the Project found one previously documented archaeological isolated find (32MZx1487) within the APE; however, the isolated find was within a previously surveyed area and was originally recommended as not being eligible for the National Register of Historic Places, with no further work recommended. During the 2022 Class III inventory, no cultural resources were identified. The Manuscript Data Record Form and Class I and III archaeological survey report are attached. Also enclosed for your review and comment is a copy of ONEOK's Plan for Unanticipated Discovery of Historic Properties or Human Remains During Construction (UDP) for the Project.

Merjent recommends that no further cultural resources work is warranted, and that no historic properties will be affected by the Project. ONEOK agrees with these recommendations and is seeking your review and concurrence. Responses to this correspondence will be included with ONEOK's application to amend the Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (PU-17-483).

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact ONEOK's environmental consultant, Damien Reinhart of Merjent at 701-997-5577 or by email at damien.reinhart@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Class I Literature Review and Class III Cultural Resource Inventory and Figures
UDP

cc: Maddy Krumwiede, Damien Reinhart, and Paul Hartzheim, Merjent

D.16
Indian Affairs Commission

November 18, 2022

Nathan Davis, Executive Director
North Dakota Indian Affairs Commission
600 East Boulevard Avenue
1st Floor Judicial Wing, Rm. 117
Bismarck, ND 58505

Via email: nathan.davis@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Davis,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Mr. Nathan Davis

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.17
Job Service North Dakota

November 21, 2022

Mr. Patrick Bertagnolli
Executive Director
Job Service of North Dakota
PO Box 5507
Bismarck, ND 58506-5507

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Bertagnolli,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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www.oneok.com

November 21, 2022
Mr. Patrick Bertagnolli

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.18

North Dakota Department of Trust Lands

- School/Surface Trust

From: Spangelo, Kayla M. <kspangelo@nd.gov>
Sent: Wednesday, November 23, 2022 09:31
To: Maddy Krumwiede; -Info-DTL Surface
Cc: Rachel.grant@oneok.com; Paul Hartzheim; Papalichev, Elvedina; DUPPONG, SHARI
Subject: EXTERNAL: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project
Attachments: NDDTLS_ONEOK_Cherry Creek_2022-11-21.pdf

Hello,

There are no NDDTL managed surface tracts within the proposed project boundary per the received letter (attached).

Please let me know if you have any questions.

Thank you,

Kayla Spangelo
Natural Resources Professional - Rights of Ways

701.328.1916 • kspangelo@nd.gov • land.nd.gov • 1707 N 9th St • Bismarck, ND 58501

NORTH Dakota | Trust Lands
Be Legendary.™

From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Monday, November 21, 2022 1:15 PM
To: -Info-DTL Surface <dtlsurface@nd.gov>
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>
Subject: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Mr. Stegmiller,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Cherry Creek Extension Pipeline Project (Project). The Project involves the construction of an approximately 4-mile-long pipeline extension of ONEOK's existing Cherry Creek NGL Pipeline and modifications at ONEOK's Lonesome Creek Gas Plant in McKenzie County, North Dakota. As noted in the consultation letter, the Project will require an amendment of ONEOK's existing North Dakota Public Service Commission Corridor Certificate and Route Permit (Case No. PU-17-483), which ONEOK is planning to file in December 2022. Due to the Project schedule, we are respectfully requesting an expedited review of this material to the extent possible.

If you have any questions or need any additional information, please contact me directly or Rachel Grant of ONEOK at 918-588-7601 or Rachel.Grant@oneok.com

Sincerely,

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

2022 Merjent Food Drive

Please help us feed thousands of hungry people. Donate to Second Harvest Food Bank.

November 21, 2022

Joseph Stegmiller
Surface Division Director
North Dakota Department of Trust Lands School/Surface Trust
1707 North 9th Street
Bismarck, ND 58501

Via email: dtlSurface@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Stegmiller,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK respectfully submits this Project information to request review of a 1-mile-wide study area surrounding the Project for School Trust Lands. Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Cherry Creek Extension Pipeline Project Location – PLSS Sections		
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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.19

North Dakota Department of Trust Lands
-Minerals Management

November 21, 2022

David Shipman
Minerals Division Director
North Dakota Department of Trust Lands Minerals Management
1707 North 9th Street
Bismarck, ND 58501

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Shipman,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

ONEOK respectfully submits this Project information to request review of a 1-mile-wide study area surrounding the Project for Mineral Trust Lands. Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Cherry Creek Extension Pipeline Project Location – PLSS Sections		
Township	**Range**	**Sections within 1-mile-wide Study Area**
150 North	101 West	25, 36
150 North	100 West	31-32
149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.20
North Dakota Parks and Recreation Department

November 21, 2022

Kathy Duttenhefner
Natural Resources Management Coordinator
North Dakota Parks and Recreation Department
604 E. Boulevard Ave. Dept 750
Bismarck, ND 58505

Via email: kgduttenhefner@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Duttenhefner,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

ONEOK respectfully submits this letter requesting Project review from the North Dakota Parks and Recreation Department (NDPR) of the North Dakota Natural Heritage Inventory system and for presence or absence of state parks, recreation areas, natural areas, and land and water conservation fund projects. Based on review of publicly available information, ONEOK is not aware of any specific NDPR interests in the vicinity of the Project. Natural resource surveys for the Project were completed in summer/fall of 2022; a copy of the Natural Resources Report is available upon request.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
150 North	100 West	31-32
149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

If you have comments regarding the Project, we are requesting responses within 30 days. We appreciate your assistance with this request and look forward to your timely review. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)
Project Shapefiles (provided electronically)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.21
Natural Resource Conservation Service

USDA

United States Department of Agriculture

Natural Resources
Conservation Service

Bismarck State Office
PO Box 1458
Bismarck, ND
58502-1458

Voice 701.530.2000
Fax 855-813-7556

November 29, 2022

Rachel A. Grant
ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103

Dear Ms. Grant:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated November 19, 2022 concerning constructing the Cherry Creek Extension Pipeline Project in McKenzie County, North Dakota. NRCS has a major responsibility with the Farmland Protection Policy Act (FPPA) in documenting conversion of farmland (i.e., Prime, Statewide Importance and/or Local Importance) to non-agricultural use. It appears the Cherry Creek Extension Pipeline Project is not supported by federal funding; therefore, FPPA does not apply and no further action is needed.

The Wetland Conservation Provisions of the 1985 Food Security Act, as amended, provide that if a USDA participant converts a wetland for the purpose or to have the effect of making agricultural production possible, loss of USDA benefits could occur. NRCS has developed the following guidelines for the installation of permanent structures where wetlands occur. If these guidelines are followed the impacts to the wetland will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements:

- Disturbance to the wetland must be temporary.
- No drainage of wetland is allowed (temporary or permanent).
- Mechanized landscaping necessary for installation is kept to a minimum and preconstruction contours are maintained.
- Temporary side cast material must be placed in such a manner not to be dispersed in the wetland.
- All trenches must be backfilled to the original wetland bottom elevation.

NRCS recommends that impacts to wetlands be avoided.

If you have additional questions pertaining to FPPA, please contact Wade Bott, State Soil Scientist, NRCS, Bismarck, North Dakota, at (701) 530-2021.

Sincerely,

WADE BOTT Digitally signed by WADE BOTT
Date: 2022.11.29 10:02:19 -06'00'

WADE D. BOTT
State Soil Scientist

Helping People Help the Land

November 19, 2022

Nicole Darrington
U.S.D.A. Natural Resource Conservation Service
Watford City Field Office
109 5th Street SW, Box 583
Watford City, ND 58854

Via email: nicole.darrington@usda.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Darrington,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 19, 2022
Ms. Nicole Darrington

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.22

State Water Commission (North Dakota Department of Water Resources)

November 21, 2022

John Paczkowski
State Engineer
North Dakota State Water Commission
900 East Boulevard
Bismarck, ND 58505

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Paczkowski,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 21, 2022
Mr. John Paczkowski

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.23
United States Department of Defense

November 21, 2022

Mr. Loyd Austin III
Secretary of Defense
United States Department of Defense
1000 Defense Pentagon
Washington, D.C. 20301-1000

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Austin,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 21, 2022
Mr. Loyd Austin III

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.24
Unites States Fish and Wildlife Service

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, North Dakota 58501
(701) 250-4481, ndfieldoffice@fws.gov

In Reply Refer To:
ONEOK Cherry Creek Extension

December 8, 2022

ONEOK Rockies Midstream, L.L.C.
Ms. Rachel Grant
Environmental Specialist
100 W. Fifth Street, MD 6-1
Tulsa, OK 74103

Dear Ms. Grant:

Thank you for your letter dated November 21, 2022, requesting comments concerning Cherry Creek Extension Pipeline Project (Project), a 4- mile pipeline extension of ONEOK's existing 12-inch diameter Cherry Creek NGL Pipeline. The Project is proposed in McKenzie County, southwest of Watford City, North Dakota.

The U.S. Fish and Wildlife Service (FWS) would offer the following comments and recommendations to the Project under the authority of and in accordance with the Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq*.), the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250), and the Migratory Bird Treaty Act (MBTA).

Thank you for using the FWS Information for Planning and Consultation (IPaC) website accessed on October 2022 to assist with planning the Project. The FWS concurs that the species list for the Project is current and accurate but encourages participants to access the webpage and request updated listing every 90 days to stay current with all listings.

The FWS announced the Northern Long-eared Bat (NLEB) will be reclassified as endangered effective January 30, 2023. The FWS encourages ONEOK to avoid and minimize impacts to all riparian, forested or wooded areas that could be utilized as NLEB habitat. Horizontal directional drilling (HDD) of the pipeline to avoid disturbance to these areas is recommended. If it is determined that trees larger than 3-inch diameter at breast height (dbh) must be removed for project construction, we recommend avoidance of the active season for NLEB from March 31-November 1.

The Natural Resources Survey Report prepared for the Project identified potential Type B habitat for the Dakota skipper (DASK) in the proposed Project area. However, the vegetation was invaded with introduced grasses, lacked the requisite forbs needed for nectaring, and were isolated, disjunct patches of prairie. The FWS agrees with the analysis and can confirm there are no known Dakota skipper populations near the Project.

The proposed project site has been found to be in a corridor that may contain a high-level of whooping crane (*Grus americana*) suitable habitat. The period of concern for the whooping crane correlates with either the spring or fall migration period, March 15-May 15, and September 10-November 15. If construction were to occur during this timeframe and whooping cranes were to occupy the area within 1 mile of construction, then construction activity could cause whooping cranes to be disturbed and leave the area. If this were to occur, it would most likely occur first thing in the morning, as whooping cranes overnight in one area before continuing the next morning. Disturbance, such as flushing the cranes, stresses them at critical times of the year, including migration. If any whooping cranes do stopover, sightings within a mile of the project should also be reported to this office as soon as possible.

Both the piping plover and the Rufa red knot were identified in the IPaC review for the Project. The FWS analysis confirms habitat is lacking for the piping plover, and Rufa red knot at this project location and in the larger action area.

As indicated in your letter the Monarch butterfly was found warranted but precluded in the 12-month review process by the FWS and is now a Candidate species. The FWS concurs with the consultation approach as outlined in your letter referenced above.

Eagles and migratory birds have protections under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). The BGEPA prohibits take which is defined as, "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" (50 CFR 22.3). Disturb is defined in regulations 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) 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." The MBTA makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell birds listed as migratory birds, including eagles. The statute grants full protection to any bird parts including feathers, eggs, and nests. There are no known eagle nests within the vicinity of the Project. However, the FWS recommends avoiding construction from May 1 to July 15 to avoid impacts to eagles and migratory birds.

We appreciate the opportunity to provide comments and your efforts to ensure the conservation of listed species and their habitat. If you have any questions on these comments, please contact Tim Zachmeier (Timothy_Zachmeier@fws.gov) of my staff at (701) 355-8504 or myself at (701) 355-8512.

Sincerely,

Drew N. Becker
North Dakota Field Office Supervisor

From: Andrea Sampson
Sent: Wednesday, November 30, 2022 8:39 AM
To: Zachmeier, Timothy P
Cc: Rachel.Grant@oneok.com; Paul Hartzheim
Subject: RE: EXTERNAL: Fw: [EXTERNAL] ONEOK Cherry Creek Extension Pipeline: Consultatiosten request - NDPSC project

Good morning, Tim –

Since the Natural Resources Report file is so big, I've saved a version on my OneDrive for you to review/download:
Cherry Creek Extension Natural Resources Report_Rev 0_2022-11-23.pdf

Let me know if you have any issues accessing the file, or if you have any questions as you review.

Thank you for your help on this Project –

Andrea

Andrea Sampson, MS
Senior Analyst
612.924.3977 direct
612.226.1331 mobile
andrea.sampson@merjent.com

Merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

From: Zachmeier, Timothy P <timothy_zachmeier@fws.gov>
Sent: Monday, November 28, 2022 2:53 PM
To: Andrea Sampson <andrea.sampson@merjent.com>
Cc: Rachel.Grant@oneok.com
Subject: EXTERNAL: Fw: [EXTERNAL] ONEOK Cherry Creek Extension Pipeline: Consultatiosten request - NDPSC project

Andrea

Thank you for the opportunity to comment on this project. Could you please forward a copy of the Natural Resources Report that was mentioned in your cover letter and any shapefiles that may accompany that report? Once the report is received I may have additional follow up questions concerning the project.

I look forward to receiving the report and assisting with your project.

Thank you in advance.

Respectfully,

Tim Zachmeier
Fish and Wildlife Service Biologist
Bismarck Ecological Service
701-319-9328

From: Becker, Drew N <Drew_Becker@fws.gov> on behalf of NDfieldoffice, FW6 <NDfieldoffice@fws.gov>
Sent: Monday, November 21, 2022 4:35 PM
To: Hauge, Stephanie A <stephanie_hauge@fws.gov>; Zachmeier, Timothy P <timothy_zachmeier@fws.gov>
Subject: Fw: [EXTERNAL] ONEOK Cherry Creek Extension Pipeline: Consultatiosten request - NDPSC project

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From: Becker, Drew N <Drew_Becker@fws.gov>
Sent: Monday, November 21, 2022 9:15 PM
To: NDfieldoffice, FW6 <NDfieldoffice@fws.gov>
Subject: Fw: [EXTERNAL] ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Drew Becker
North Dakota Field Office Supervisor
U.S. Fish and Wildlife Service
3425 Miriam Avenue
Bismarck, North Dakota 58501
Office 701-355-8512
Cell 701-319-0127
drew_becker@fws.gov

Our Mission is to w*ork with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people.*

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Monday, November 21, 2022 1:31 PM
To: Becker, Drew N <Drew_Becker@fws.gov>
Cc: Rachel.grant@oneok.com <rachel.grant@oneok.com>; Paul Hartzheim <paul.hartzheim@merjent.com>; Andrea Sampson <andrea.sampson@merjent.com>
Subject: [EXTERNAL] ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Mr. Becker,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Cherry Creek Extension Pipeline Project (Project). The Project involves the construction of an approximately 4-mile-long pipeline extension of ONEOK's existing Cherry Creek NGL Pipeline and modifications at ONEOK's Lonesome Creek Gas Plant in McKenzie County, North Dakota. As noted in the consultation letter, the Project will require an amendment of ONEOK's existing North Dakota Public Service Commission Corridor Certificate and Route Permit (Case No. PU-17-483), which ONEOK is planning to file in December 2022. Due to the Project schedule, we are respectfully requesting an expedited review of this material to the extent possible.

If you have any questions or need any additional information, please contact me directly or Rachel Grant of ONEOK at 918-588-7601 or Rachel.Grant@oneok.com

Sincerely,

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

November 21, 2022

Mr. Drew Becker
U.S. Fish and Wildlife Service
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

Sent via email: drew_becker@fws.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Becker,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference; Table 1 below identifies the Public Land Survey System locational information for the Project.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
150 North	100 West	31-32
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149 North	101 West	1

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK has completed environmental field surveys (cultural and biological resources) of the route and facilities. The majority of the land use is agricultural cropland, interspersed with isolated areas of trees,

shrubs, wetlands and a stream. The Natural Resources Report summarizes the field findings and is available upon request.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022. Merjent, Inc. (Merjent), has been contracted by ONEOK to assist with the environmental review of the Project area, completion of regulatory applications, and consultations with other agencies.

The regulation of the Project under NDPSC and not a federal agency means that consultations under Section 7 of the Endangered Species Act (ESA) are not required; however, while there is no federal nexus driving ESA Section 7 consultations, Section 9 of the ESA also prohibits the unlawful take of threatened or endangered species. Merjent, has reviewed the route for the potential to impact federally listed species in order to inform the NDPSC process.

This letter is intended to introduce you to the Project, request confirmation of the threatened and endangered species identified within the Project area (see Table 2) and solicit comments on the species and their habitats that may occur in McKenzie County. We would also appreciate your review and comments regarding migratory birds and eagles as they relate to the proposed construction activities.

Table 2
USFWS Federally Listed Threatened and Endangered Species
Potentially Present in McKenzie County, North Dakota[1]

Scientific Name	Common Name	Status
Myotis septentrionalis	Northern long-eared bat	Threatened
Charadrius melodus	Piping plover	Threatened
Calidris canutus rufa	Red knot	Threatened
Grus americana	Whooping crane	Endangered
Hesperia dacotae	Dakota skipper	Threatened
Danaus plexippus	Monarch butterfly	Candidate[2]

[1] Information for Planning and Consultation (IPaC). USFWS website. Available at https://ecos.fws.gov/ipac/.Accessed October 2022.
[2] The USFWS has determined that listing the monarch butterfly is warranted but precluded; as such, the species becomes a candidate for listing. Candidate species are not protected under the Endangered Species Act.

Field surveys conducted September 27-28 and October 21, 2022 determined that potentially suitable habitat for northern long-eared bats may be present in some portions of the Project area. A small amount of tree clearing will be necessary in the naturally vegetated drainage way at the southern end of the Project. ONEOK will avoid unauthorized take of northern long-eared bats by conducting clearing of suitable habitat between November 1 and March 31 while bats are in hibernation and not present on the landscape. If tree clearing cannot be completed during this window, ONEOK would conduct surveys to

determine presence/probable absence per the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines.

Marginally suitable Dakota skipper habitat is present in a portion of the Project area. Surveys to determine individual presence/probable absence of Dakota skipper have not been completed, and presence of the species is assumed. In order to prevent impacts to potentially suitable habitat and individuals, ONEOK will utilize horizontal directional drill (HDD) methods under delineated habitat. Ground disturbing activities such as vehicle/equipment traffic, digging, grading, trenching, soil compaction, etc. will be avoided within the Dakota skipper habitat areas above the HDD; only foot traffic will be permitted in these areas.

In addition, suitable migratory stopover habitat for whooping cranes and red knots is also present in the vicinity of the Project; ONEOK will train crews to identify these species and will inform the USFWS if birds are identified within 1 mile of the Project area.

Piping plovers nest on the unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars, where they forage at the water's edge. None of the wetlands identified in the survey area appear to support surface water retention features. Suitable foraging and nesting habitat for piping plover is not present in the Project area.

On December 17, 2020, the USFWS published the result of their 12-month review of the monarch butterfly and determined that listing the species under the Endangered Species Act (ESA) was *warranted but precluded*. The species meets the criteria for listing as an endangered or threatened species, but the USFWS cannot currently implement the listing due to limited staff and/or funding and because there are other listing actions with a higher priority. The species is now a candidate for listing; it is expected the species will be proposed for listing in November 2023. Project activities are expected to be complete in October 2023. If there is a change in the schedule associated with listing the species under the ESA, ONEOK will request technical assistance from the USFWS ND ESFO to ensure Project activities will not result in unauthorized take of monarch butterflies.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

Should you have any questions or require additional information, please contact Andrea Sampson of Merjent at 612-226-1331 or andrea.sampson@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)
Project Shapefiles (provided electronically)

cc: Maddy Krumwiede, Andrea Sampson, and Paul Hartzheim, Merjent

D.25
United States Army Corps of Engineers

November 21, 2022

Benjamin N. Soiseth
State Program Manager
U.S. Army Corps of Engineers
Omaha District
3319 University Street
Bismarck, ND 58504

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Soiseth,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
150 North	100 West	31-32
149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 21, 2022
Mr. Benjamin Soiseth

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.26
Federal Aviation Administration

November 21, 2022

U.S. Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Sir or Madame,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

December 5, 2022

Sean Doyle
Deputy Regional Administrator
U.S. Federal Aviation Administration
Great Lakes Regional Office
2300 East Devon Avenue
Des Plaines, IL 60018

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Doyle,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Cherry Creek Extension Pipeline Project Location – PLSS Sections		
Township	**Range**	**Sections within 1-mile-wide Study Area**
149 North	101 West	1

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.27

County Commissions

McKenzie County Board of Commissioners

McKenzie County Planning and Zoning

November 19, 2022

Howdy Lawlar
Chair
McKenzie County Board of Commissioners
201 5th St NW, Ste. 543
Watford City, ND 58854

Sandee Kimpel
Director
McKenzie County Planning and Zoning
1300 12th Street SE, Suite 214
Watford City, ND 58854

Via email: skimpel@co.mckenzie.nd.us; hlawlar@co.mckenzie.nd.us

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Kimpel and Mr. Lawlar,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

ONEOK respectfully submits this Project information to request review for current or future development projects in the vicinity of the Project, and local ordinances or permits that may be applicable to the Project.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

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149 North	101 West	1

If you have comments regarding the Project, we are requesting responses within 30 days. We appreciate your assistance with this request and look forward to your timely review. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.28

County Commissions

McKenzie County Water Resource District

From: Weston McGruder <Weston.McGruder@AE2S.com>
Sent: Wednesday, November 23, 2022 08:44
To: Maddy Krumwiede
Cc: Madsen, Tami; Monson, Jacob; jshaffer@co.mckenzie.nd.us; Julius Wakam
Subject: EXTERNAL: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project
Attachments: WAWSA_ONEOK_Cherry Creek_2022-11-19.pdf; MCWRD 2.0-inch Water Line.kmz

Good morning Maddy,

I am responding to your below and attached correspondence on behalf of Western Area Water Supply Authority (WAWSA) and their member entity McKenzie County Water Resource District (MCWRD). WAWSA does not own or operate any water transmission pipeline within the 1-mile ONEOK Project corridor. MCWRD does own and operate a rural water distribution line within the Project corridor. MCWRD has a 2.0-inch potable drinking water line that runs east and west along the boundaries of Sections 5 and 8 and Sections 6 and 7 of Township 149N Range 100W. Attached is a mapping grade .kmz file of MCWRD's waterline within the Project corridor. Please reach out or pass along Jeff Shaffer (jshaffer@co.mckenzie.nd.us) and Julius Wakam (Jwakam@co.mckenzie.nd.us) emails if additional information is needed about the MCWRD waterline.

Thanks

Weston

Weston McGruder, PE
Project Manager

Weston.Mcgruder@ae2s.com

Office: 701.774.3080
Mobile: 701.320.4838

1102 Main Street
Williston, ND 58801

From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Saturday, November 19, 2022 11:11 AM
To: Western Area Water Supply Authority <waws@wawsp.com>
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>
Subject: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Mr. Brostuen,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Cherry Creek Extension Pipeline Project (Project). The Project involves the construction of an approximately 4-mile-long pipeline extension of ONEOK's existing Cherry Creek NGL Pipeline and modifications at ONEOK's Lonesome Creek Gas Plant in McKenzie County, North Dakota. As noted in the consultation letter, the Project will require an amendment of ONEOK's existing North Dakota Public Service Commission Corridor Certificate and Route Permit (Case No. PU-17-483), which ONEOK is planning to file in December 2022. Due to the Project schedule, we are respectfully requesting an expedited review of this material to the extent possible.

If you have any questions or need any additional information, please contact me directly or Rachel Grant of ONEOK at 918-588-7601 or Rachel.Grant@oneok.com

Sincerely,

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

2022 Merjent Food Drive

Please help us feed thousands of hungry people. Donate to Second Harvest Food Bank.

giving

November 19, 2022

Jeff Shaffer
Director, Water Resource District
McKenzie County Public Works
1300 12th Street SE, Suite 128
Watford City, ND 58854

Via email: jshaffer@co.mckenzie.nd.us

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Shaffer,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

ONEOK respectfully submits this request to the McKenzie County Water Resource District to solicit comments on the following:

- Locations of any county-regulated drains, ditches, and/or other drainage features,
- Any special requirements, restrictions, or specifications regarding constructing pipelines across or under county-regulated drainage features,
- Any local ordinances related to drainage, and
- Any permits issued through your office which may be applicable to the Project, and a summary of the permit process and anticipated timeframes.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Project overview maps showing the Project pipeline and facilities and a 1-mile-wide study area are enclosed for your reference, and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
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149 North	101 West	1

If you have comments regarding the Project, we are requesting responses within 30 days. We appreciate your assistance with this request and look forward to your timely review. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.29

County Commissions

McKenzie County Weed Control Board

McKENZIE COUNTY

Sir/Madame,
After review of your noxious weed containment plan, I have found that it meets all North Dakota and McKenzie County Weed Law requirements.

PLEASE PRINT AND ATTACH THIS EMAIL TO YOUR C.U.P. TO SHOW YOU HAVE COMPLIED WITH STATE AND COUNTY WEED LAW FOR ERADICATION AND CONTAINMENT OF McKenzie COUNTY NOXIOUS WEEDS.

Also, remember that your property will be periodically and randomly inspected for compliance with your proposed form of weed control – so please be diligent in your efforts to help us with this problem.

Thank you for helping in our continuing efforts to keep McKenzie County noxious weed free.

Sincerely,

Amber Higgins

McKenzie County Weed Officer
Office 701-842-4131
Fax 701-842-4731

McKenzie County
Weed Management Plan

Purpose: **This is a simplified weed management template that is specifically designed for small properties/areas.** It is designed to assist in controlling noxious weeds by documenting areas at risk whether it be currently infested or could possibly become infected in the future. This weed management template is also to assist in coordinating efforts between McKenzie County Weed Control and landowners/operators/developers to accomplish noxious weed control goals in McKenzie County. A copy of this weed management plan will be kept on file with McKenzie County Weed Control as well as with all parties involved in the ownership and/or management of the property.

Date: 12/6/22

Circle or Check One: **PRIVATE** ☐ **COMMERCIAL** ☑

Name of Landowner: ONEOK Rockies Midstream, L.L.C.

Name of Party Responsible for Weed Control if Different than Landowner: Kolton Burge, Project Manager

Address of Responsible Party: 100 West Fifth Street, Tulsa, OK 74103

Phone Number: 918-764-5179 **Email Address:** Kolton.Burge@oneok.com

Approximate Size of Property: Survey area ~130 acres; area of disturbance ~50 acres

Legal Description of Property:

Quarter Section Select **Section** Select **Township** Select **Range** Select

See enclosed mapset.

Purpose of Property: ONEOK is proposing to construct an approximately 4-mile extension of its existing Cherry Creek Pipeline in McKenzie County.

Surface Movement for Commercial Construction Purposes: Circle or check one

Scoria ☐ **Manure** ☐ **Dirt** ☐ **Sand** ☐ **Gravel** ☐

Construction ☑ **Other** ☐

1.0 Management Goals:

Management goals describe the purpose/use of the property and what you are trying to achieve. Having clear management goals is key to developing a weed management plan. (The minimum amount required by North Dakota and McKenzie County Weed Law is to mow noxious weeds to prevent them from going to seed. Another management goal may be to restore an area with native vegetation. Management goals might also include preventing contamination and/or spread of noxious weeds due to mining or storage of construction materials by a yearly or bi-yearly application of herbicide.)

Please list your management goals as they apply to this property:

1. Manage ground-clearing to prevent the spread of any weeds that may be present, 2. Ensure vehicles/equipment are properly cleaned to prevent weed transfer, 3. Conduct post-construction seeding with weed-free/native seed, 4. Ensure seed growth and prevent growth of weeds 5. Post-construction monitoring, 6. Additional mechanical or herbicide treatment, as needed.

2.0 Weed Control Objectives:

Knowing which weed species occur on your property and where they are located is very important in developing control priorities. Weed species vary considerably in the threat that they pose to the resource values of the property. In addition, weed species vary greatly in their susceptibility to control measures. Thus, weed species that pose the greatest threat to achieving the management goals for the property and which can be most easily controlled are the highest priority for management. To create weed control objectives for your weed management plan, first search your property for weeds (if you have not already done so).

3.0 Weed Control Objectives – 3-year plan

1st Year Weed Control Objective: Weed surveys were conducted Sept. 2022; demarcate populations for identification; mechanical/herbicide treatment, as needed; confirm eradication; prevent weed transfer; post-construction restoration; regular monitoring/treatments, as needed.

2nd Year Weed Control Objective: Rapid reclamation and revegetation with native, weed-free seed/mulch; continued monitoring; on-going communication/collaboration with landowners; mechanical/herbicide treatment as needed.

3rd Year Weed Control Objective: All land will revert to pre-construction conditions; monitor for weed infestations during operations and maintenance surveys; mechanical/herbicide treatments as necessary; ongoing communication/collaboration with landowners.

ONEOK's Revegetation and Weed Management Plans are incorporated by reference and available upon request.

4.0 Evaluating Weed Control:

After you have created weed control objectives and have began to control the priority weed species on your property, you should evaluate the results of your control methods. This requires follow-up visits to the areas where weeds were controlled and a re-assessment of the size and density of an infestation. (For example, compare the size of the infestation after a growing season has elapsed to the size before control actions were initiated.) In most cases, the elimination of an infestation will take several years with multiple treatments per year to kill the plants and eliminate the bank of weed seeds in the soil.

ND Law 4.1-47. Control of noxious weeds.

Each Person shall do all things necessary and proper to control the spread of noxious weeds.

In signing this document, I understand that I will be responsible for noxious weed control on the property listed above.

Responsible Party Signature: _____ Date 12-6-22

McKenzie County
Weed Board Approval: Amber Huggins Date 12-7-2022

Please allow 48 hours for review of this plan prior to receiving confirmation of approval.

Paul Hartzheim

From: Paul Hartzheim
Sent: Wednesday, December 7, 2022 6:44 PM
To: 'Amber Higgins'
Cc: 'Burge, Kolton L.'; 'Grant, Rachel A.'; Maddy Krumwiede
Subject: RE: EXTERNAL: RE: ONEOK Rockies Midstream, LLC - Cherry Creek Extension Pipeline Project: Weed Management Plan for review
Attachments: approval.docx; cherry creek pipeline.pdf; IFP_Cherry_Creek_Extension_Weed_Plan_2022-12-05_Rev0.pdf; IFP_Cherry_Creek_Extension_Revegetation_Plan_2022-12-05_Rev 0.pdf

Hi Amber,

Thanks for the quick review and approval of the McKenzie County Weed Control Plan. As requested, please see ONEOK's Weed Control and Revegetation Plans attached for your files. The plans will also be filed with the North Dakota Public Service Commission (PSC) as part of ONEOK's application, which it plans to submit in the near future.

In addition, your approval cover letter states that the approved Weed Plan should be attached to a McKenzie County Conditional Use Permit (CUP). As this project will be sited by the North Dakota PSC, we understand county-level CUP permitting is not required. The Weed Plan will be incorporated into ONEOK's contractor documents.

Thanks again for your assistance and let us know if you have any questions or need any more information.

Regards,
Paul Hartzheim

Paul Hartzheim, MS
612.746.1618 direct
612.845.1641 mobile
paul.hartzheim@merjent.com

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

From: Amber Higgins <Amhiggins@co.mckenzie.nd.us>
Sent: Wednesday, December 7, 2022 7:44 AM
To: Paul Hartzheim <paul.hartzheim@merjent.com>
Subject: EXTERNAL: RE: ONEOK Rockies Midstream, LLC - Cherry Creek Extension Pipeline Project: Weed Management Plan for review

Good morning!

I have reviewed you Weed Plan application, and attached you will find your approval letter and signed Weed Plan, please print off both attachments and staple together! If you have any questions or concerns feel free to reach out to me!

Also I would appreciate a copy of your Revegetation and Weed Plan.

Also wanted to update you, we will no longer be able to be reached on mcweed@restel.net. If you would be so kind to update our email to weedcontrol@co.mckenzie.nd.us

Amber Higgins#
P fNhq}lh#Frxqw|#Z hhg#R iilfhu#
Skrqh0#:340;7507464#
Id{#0:340;757:64#
Fhoo0#:34093<0<955#
amhiggins@co.mckenzie.nd.us

From: Paul Hartzheim <paul.hartzheim@merjent.com>
Sent: Tuesday, December 6, 2022 2:24 PM
To: Amber Higgins <Amhiggins@co.mckenzie.nd.us>
Cc: Grant, Rachel A. <Rachel.Grant@oneok.com>; Burge, Kolton L. <Kolton.Burge@oneok.com>; Maddy Krumwiede <maddy.krumwiede@merjent.com>
Subject: ONEOK Rockies Midstream, LLC - Cherry Creek Extension Pipeline Project: Weed Management Plan for review

Good afternoon Amber,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached McKenzie County Weed Management Plan for your review and approval. If you need a hard copy of the attached, please let us know and we will get one in the mail.

If you have any questions or need any additional information, please contact me or Rachel Grant of ONEOK at 918-588-7601. If possible, please provide the permit approval via email when available.

Regards,

Paul Hartzheim, MS
612.746.1618 direct
612.845.1641 mobile
paul.hartzheim@merjent.com

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

ONEOK

December 6, 2022

Ms. Amber Higgins
McKenzie County Weed Board
201 5th Street NW, Suite 699
Watford City, ND 58854
mcweed@restel.net

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
McKenzie County Weed Management Plan for Review/Approval

Dear Ms. Higgins,

As you may recall, ONEOK Rockies Midstream, L.L.C. (ONEOK) submitted a notification package to your office on November 19, 2022 requesting comment on its proposed Cherry Creek Extension Pipeline Project (Project). In a November 21, 2022 email response, you provided a copy of the McKenzie County Weed Management Plan template and requested that the form be completed for the Project and submitted for your review and approval.

With this submittal, ONEOK respectfully provides a copy of its McKenzie County Weed Management Plan and a mapset displaying the Project route. As noted in this Plan, we have also incorporated ONEOK's Revegetation and Weed Management Plans (Plans) by reference and these additional Plans are available upon request. These Plans will be incorporated into ONEOK's contractor construction specifications and adherence to the McKenzie County Weed Management Plan and Plans will be enforced by ONEOK and its environmental inspectors during Project construction and restoration.

We appreciate your review of this material. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

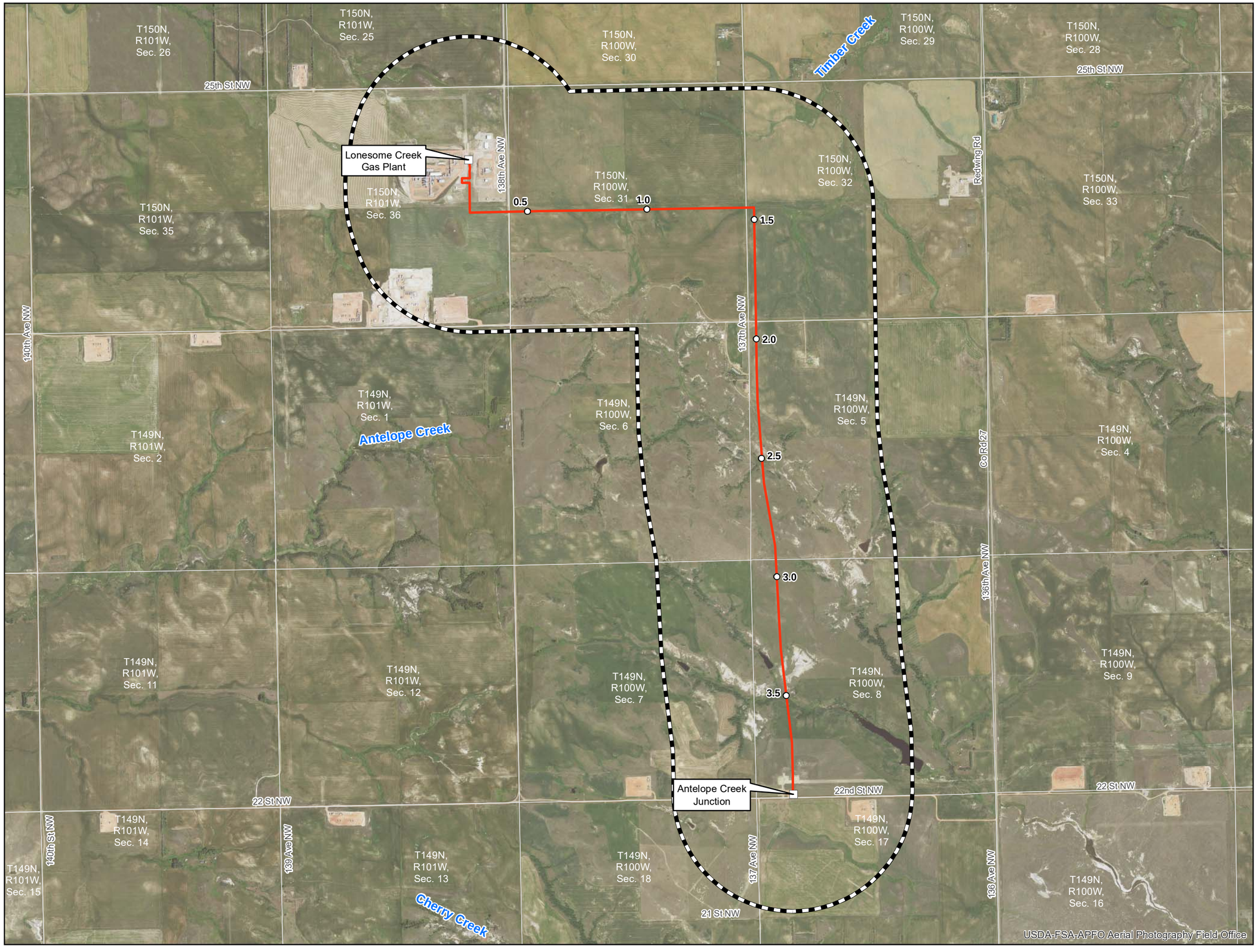
Rachel A Grant

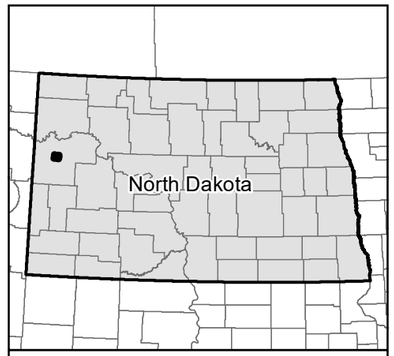
Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures : Project Overview Map
McKenzie County Weed Management Plan

CC: Maddy Krumwiede and Paul Hartzheim, Merjent
Amber Higgins, McKenzie County Weed Board (via email at mcweed@restel.net)

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N
W E
S

- Milepost
- Centerline
- Study Area
- Section Boundary

ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project

Overview Map

McKenzie County, ND

merjent

For Environmental Review Purposes Only

11/30/2022

Source: Z:\Clients\M_P\ONEOK\Cherry_Creek_Extension\Permitting\PSC\2022_11\Figures\CCE_PSC_Avoidance_Exclusion_Area_Map_Book_Nov2022.mxd
Date: (11/30/2022)

McKenzie County
Weed Management Plan

Purpose: **This is a simplified weed management template that is specifically designed for small properties/areas.** It is designed to assist in controlling noxious weeds by documenting areas at risk whether it be currently infested or could possibly become infected in the future. This weed management template is also to assist in coordinating efforts between McKenzie County Weed Control and landowners/operators/developers to accomplish noxious weed control goals in McKenzie County. A copy of this weed management plan will be kept on file with McKenzie County Weed Control as well as with all parties involved in the ownership and/or management of the property.

Date: 12/6/22

Circle or Check One: PRIVATE ☐ **COMMERCIAL** ☑

Name of Landowner: ONEOK Rockies Midstream, L.L.C.

Name of Party Responsible for Weed Control if Different than Landowner: Kolton Burge, Project Manager

Address of Responsible Party: 100 West Fifth Street, Tulsa, OK 74103

Phone Number: 918-764-5179 **Email Address:** Kolton.Burge@oneok.com

Approximate Size of Property: Survey area ~130 acres; area of disturbance ~50 acres

Legal Description of Property:

Quarter Section Select **Section** Select **Township** Select **Range** Select

See enclosed mapset.

Purpose of Property: ONEOK is proposing to construct an approximately 4-mile extension of its existing Cherry Creek Pipeline in McKenzie County.

Surface Movement for Commercial Construction Purposes: Circle or check one

Scoria ☐ **Manure** ☐ **Dirt** ☐ **Sand** ☐ **Gravel** ☐

Construction ☑ **Other** ☐

1.0 Management Goals:

Management goals describe the purpose/use of the property and what you are trying to achieve. Having clear management goals is key to developing a weed management plan. (The minimum amount required by North Dakota and McKenzie County Weed Law is to mow noxious weeds to prevent them from going to seed. Another management goal may be to restore an area with native vegetation. Management goals might also include preventing contamination and/or spread of noxious weeds due to mining or storage of construction materials by a yearly or bi-yearly application of herbicide.)

Please list your management goals as they apply to this property:

1. Manage ground-clearing to prevent the spread of any weeds that may be present, 2. Ensure vehicles/equipment are properly cleaned to prevent weed transfer, 3. Conduct post-construction seeding with weed-free/native seed, 4. Ensure seed growth and prevent growth of weeds 5. Post-construction monitoring, 6. Additional mechanical or herbicide treatment, as needed.

2.0 Weed Control Objectives:

Knowing which weed species occur on your property and where they are located is very important in developing control priorities. Weed species vary considerably in the threat that they pose to the resource values of the property. In addition, weed species vary greatly in their susceptibility to control measures. Thus, weed species that pose the greatest threat to achieving the management goals for the property and which can be most easily controlled are the highest priority for management. To create weed control objectives for your weed management plan, first search your property for weeds (if you have not already done so).

3.0 Weed Control Objectives – 3-year plan

1st Year Weed Control Objective: Weed surveys were conducted Sept. 2022; demarcate populations for identification; mechanical/herbicide treatment, as needed; confirm eradication; prevent weed transfer; post-construction restoration; regular monitoring/treatments, as needed.

2nd Year Weed Control Objective: Rapid reclamation and revegetation with native, weed-free seed/mulch; continued monitoring; on-going communication/collaboration with landowners; mechanical/herbicide treatment as needed.

3rd Year Weed Control Objective: All land will revert to pre-construction conditions; monitor for weed infestations during operations and maintenance surveys; mechanical/herbicide treatments as necessary; ongoing communication/collaboration with landowners.

ONEOK's Revegetation and Weed Management Plans are incorporated by reference and available upon request.

4.0 Evaluating Weed Control:

After you have created weed control objectives and have began to control the priority weed species on your property, you should evaluate the results of your control methods. This requires follow-up visits to the areas where weeds were controlled and a re-assessment of the size and density of an infestation. (For example, compare the size of the infestation after a growing season has elapsed to the size before control actions were initiated.) In most cases, the elimination of an infestation will take several years with multiple treatments per year to kill the plants and eliminate the bank of weed seeds in the soil.

ND Law 4.1-47. Control of noxious weeds.

Each Person shall do all things necessary and proper to control the spread of noxious weeds.

In signing this document, I understand that I will be responsible for noxious weed control on the property listed above.

Responsible Party Signature: _____ Date 12-6-22

McKenzie County
Weed Board Approval: _____ Date _____

Please allow 48 hours for review of this plan prior to receiving confirmation of approval.

From: Amber Higgins <Amhiggins@co.mckenzie.nd.us>
Sent: Monday, November 21, 2022 08:33
To: Maddy Krumwiede
Subject: EXTERNAL: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project
Attachments: Weed Management Plan - fillable.pdf

Maddy-

Good morning, thank you for the information regarding the Oneok pipeline. Please fill out the attached Weed Management Plan and send it back to our office for approval. If you have any questions or concerns please call our office!

Amber Higgins
McKenzie County Weed Officer
Phone- 701-842-4131
Fax -701-8424731
Cell- 701-609-9622
amhiggins@co.mckenzie.nd.us

From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Saturday, November 19, 2022 10:40 AM
To: Amber Higgins <Amhiggins@co.mckenzie.nd.us>
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>
Subject: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Ms. Higgins,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Cherry Creek Extension Pipeline Project (Project). The Project involves the construction of an approximately 4-mile-long pipeline extension of ONEOK's existing Cherry Creek NGL Pipeline and modifications at ONEOK's Lonesome Creek Gas Plant in McKenzie County, North Dakota. As noted in the consultation letter, the Project will require an amendment of ONEOK's existing North Dakota Public Service Commission Corridor Certificate and Route Permit (Case No. PU-17-483), which ONEOK is planning to file in December 2022. Due to the Project schedule, we are respectfully requesting an expedited review of this material to the extent possible.

If you have any questions or need any additional information, please contact me directly or Rachel Grant of ONEOK at 918-588-7601 or Rachel.Grant@oneok.com

Sincerely,

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

merjent.
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

2022 Merjent Food Drive

Please help us feed thousands of hungry people. Donate to Second Harvest Food Bank.

giving

November 19, 2022

Amber Higgins
Weed Control Officer
McKenzie County Weed Control Board
PO Box 930
Watford City, ND 58854

Via email: Amhiggins@co.mckenzie.nd.us

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Higgins,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

Natural resource surveys were completed during summer/fall of 2022, and locations of noxious weeds were documented. ONEOK respectfully submits this Project information to request review of the Project, and guidance and/or recommendations for weed control, pesticide use, and non-chemical treatment options. Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Cherry Creek Pipeline Extension Project Location – PLSS Sections		
Township	**Range**	**Sections within 1-mile-wide Study Area**
150 North	101 West	25, 36
150 North	100 West	31-32
149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

If you have comments regarding the Project, we are requesting responses within 30 days. We appreciate your assistance with this request and look forward to your timely review. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.30
North Dakota Transmission Authority

November 18, 2022

Ms. Karlene Fine
Executive Director
North Dakota Industrial Commission Transmission Authority
600 East Boulevard Ave. Dept. 405
Bismarck, ND 58505-0840

Via email: kfine@nd.gov; ndicinfo@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Ms. Fine,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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149 North	101 West	1

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Ms. Karlene Fine

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.31
North Dakota Pipeline Authority

November 18, 2022

Justin Kringstad
North Dakota Industrial Commission Pipeline Authority
600 East Boulevard Ave. Dept. 405
Bismarck, ND 58505-0840

Via email: jjkringstad@ndpipelines.com

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Kringstad,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Justin Kringstad

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.32
Department of Environmental Quality

NORTH Dakota | Environmental Quality

Be Legendary.™

November 29, 2022

RECEIVED

DEC 12 2022

ONEOK ENVIRONMENTAL

Rachel Grant
Environmental Manager
ONEOK Rockies Midstream, L.L.C
100 West Fifth Street
Tulsa, OK 74103

Re: Project Code: PU-15-137, Cherry Creek Extension Pipeline Project in McKenzie County

Dear Ms. Grant:

The North Dakota Department of Environmental Quality has reviewed the information concerning the above-referenced project received at the department on November 18, 2022 with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

2. Projects disturbing one or more acres are required to have a permit to discharge stormwater runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the stormwater permit may be obtained from the department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local stormwater management considerations are addressed.

   A temporary discharge permit may also be required if using water to hydrostatically test the pipeline.

3. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is available from the department's Division of Waste Management at (701) 328-5166.

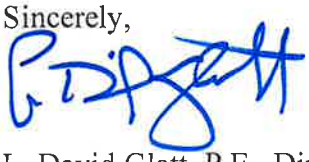
4. Projects that involve construction of pipelines should select locations that minimize the potential for impacts to human health and the environment during and after construction by avoiding, when possible, source water protection areas and sensitive surface and groundwater environments. Additionally, when possible, pipeline routes should select areas with natural barriers to both surface and ground waters. Human health and the environment should be further protected by developing a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup. Proper surveillance and monitoring for early detection of leaks should be required.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,



L. David Glatt, P.E., Director
North Dakota Department of Environmental Quality

LDG:csc
Attach.

Construction and Environmental Disturbance Requirements

The following are the minimum requirements of the North Dakota Department of Environmental Quality for projects that involve construction and environmental disturbance in or near waters of the State of North Dakota. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect waters of the state. All projects must be constructed to minimize the loss of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion and sediment loss using erosion and sediment controls. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, and land resources must be prohibited against compaction, vegetation loss and unnecessary damage.

Surface Waters

All construction must be managed to minimize impacts to aquatic systems. Follow safe storage and handling procedures to prevent the contamination of water from fuel spills, lubricants, and chemicals. Stream bank and stream bed disturbances must be contained to minimize silt movement, nutrient upsurges, plant dislocations, and any physical chemicals, or biological disruption. The use of pesticides or herbicides in or near surface waters is allowed under the department's pesticide application permit with notification to the department.

Fill Material

Any fill material place below the ordinary high-water mark must be free of topsoil, decomposable materials, and persistent synthetic organic compounds; including, but not limited to, asphalt, tires, treated lumber, and construction debris. The department may require testing of fill material. All temporary fills must be removed. Debris and solid waste must be properly disposed or recycled. Impacted areas must be restored to near original condition.

November 18, 2022

Mr. David Glatt, PE
Director
North Dakota Department of Environmental Quality
4201 Normandy Street
Bismarck, ND 58503-1324

Via email: dglatt@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Glatt,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Mr. David Glatt, PE

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.33
North Dakota Geological Survey

From: Anderson, Fred J. <fjanderson@nd.gov>
Sent: Monday, November 28, 2022 14:36
To: Rachel.Grant@oneok.com
Cc: Maddy Krumwiede
Subject: EXTERNAL: ONEOK Rockies Midstream, LLC: Cherry Creek Extension Pipeline Project - NDGS Review Comments

Dear Ms. Grant,

I reviewed the project notification and request for review letter of November 18, 2022 today and would not note any additional geologic concerns with the proposed project at this time.

I also reviewed the proposed pipeline centerline and existing corridor against our landslide and geologic maps along with recent aerial imagery and did not see any landslide areas intersecting the existing pipeline corridor as well.

Please feel free to contact our offices at any time if there are any additional questions or comments.

Regards,

Fred J. Anderson
Geologist, North Dakota Geological Survey

701.328.8000 (Survey Main Office) • 701.328.8037 (Office Direct) • fjanderson@nd.gov • www.dmr.nd.gov/ndgs

NORTH Dakota | Mineral Resources
Be Legendary.

701.328.8020 (Front Office) • oilandgasinfo@nd.gov • www.dmr.nd.gov • 600 E Boulevard Ave, Dept. 405 • Bismarck, ND 58505

November 18, 2022

Lynn Helms
Director
North Dakota Geological Survey
600 East Boulevard Ave
Bismarck, ND 58505

Via email: lhelms@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Helms,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate and Route Permit for the Cherry Creek NGL Pipeline (NDPSC Case No. PU-17-483). The Cherry Creek Extension Pipeline will be located within the corridor of OBP's Lonesome Creek Pipeline, previously sited in NDPSC Case No. PU-15-137. ONEOK plans to file a request with the NDPSC to amend the Cherry Creek NGL Pipeline Corridor Certificate and Route Permit in December 2022.

ONEOK respectfully submits this Project information to the North Dakota Geological Survey (NDGS) to request review of the 1-mile-wide study area centered on the Project for any NDGS interests or concerns. As part of our desktop review, ONEOK did not identify any abandoned mines (North Dakota Geographical Information System Data Portal), nor landslide deposit areas (North Dakota Geological Survey Landslide Maps) crossed by the Project centerline.

Project overview maps showing the Project pipeline and facilities in relation to landslide deposit data are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

Table 1
Cherry Creek Extension Pipeline Project Location – PLSS Sections

Township	Range	Sections within 1-mile-wide Study Area
150 North	101 West	25, 36
150 North	100 West	31-32
149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.34
North Dakota Forest Service

November 19, 2022

Thomas Claeys
State Forester
North Dakota Forest Service
307 1st Street East
Bottineau, ND 58318-1100

Via Email: Thomas.claeys@ndsu.edu; forest@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Claeys,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 19, 2022
Mr. Thomas Claeys

ONEOK respectfully submits this letter as notification of the proposed Project. If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.35
Federal Bureau of Land Management

November 19, 2022

Mr. Loren Wickstrom
Field Manager
Bureau of Land Management, North Dakota Field Office
99 23rd Avenue West, Suite A
Dickinson, ND 58601

Via email: lwickstr@blm.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Wickstrom,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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November 19, 2022
Mr. Loren Wickstrom

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.36

Military Aviation and Installation Assurance Siting Clearinghouse

November 21, 2022

Military Aviation and Installation Assurance Siting Clearinghouse
3400 Defense Pentagon, Room 5C646
Washington, DC 20301-3400

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Sir or Madame,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.37
Twentieth Airforce Ninety-First Missile Wing
Minot Air Force Base

From: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK
To: Maddy Krumwiede
Subject: EXTERNAL: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project
Date: Monday, November 21, 2022 7:58:16 AM

Maddy,

The Minot AFB has no assets in the project area. Have a great day

Cy Munos
Cable Affairs Officer
91 MMXS/MMXSFK
Minot AFB ND
701-723-6053
701-720-8274

-----Original Message-----
From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Saturday, November 19, 2022 11:07 AM
To: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>
Subject: [URL Verdict: Neutral][Non-DoD Source] ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Mr. Munos,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Cherry Creek Extension Pipeline Project (Project). The Project involves the construction of an approximately 4-mile-long pipeline extension of ONEOK's existing Cherry Creek NGL Pipeline and modifications at ONEOK's Lonesome Creek Gas Plant in McKenzie County, North Dakota. As noted in the consultation letter, the Project will require an amendment of ONEOK's existing North Dakota Public Service Commission Corridor Certificate and Route Permit (Case No. PU-17-483), which ONEOK is planning to file in December 2022. Due to the Project schedule, we are respectfully requesting an expedited review of this material to the extent possible.

If you have any questions or need any additional information, please contact me directly or Rachel Grant of ONEOK at 918-588-7601 or Rachel.Grant@oneok.com <mailto:Rachel.Grant@oneok.com>

Sincerely,

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com <mailto:maddy.krumwiede@merjent.com>

1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com <http://www.merjent.com/>

2022 Merjent Food Drive

Please help us feed thousands of hungry people. Donate <https://nam12.safelinks.protection.outlook.com/?url=http%3A%2F%2Fsupport.2harvest.org%2Fgoto%2FMerjenerous&data=05%7C01%7Cmaddy.krumwiede%40merjent.com%7Ce965c47743124dafbd2b08dac7efaefd%7C1cc8bd10ce8b4c0ab3f7bcd338132bc0%7C0%7C0%7C638042129521267453%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=MD4ezne%2FcTpBlaJFPBzjGP0aQdHOANX37ZS9js6YRFo%3D&reserved=0> to Second Harvest Food Bank.

November 19, 2022

Mr. Cy Munos
Cable Affairs Officer
Minot Air Force Base
Twentieth Airforce, Ninety-first Missile Wing
91 MMXS/MMXSFK
Minot, ND 58705

Via email: cy.munos@us.af.mil

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Munos,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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ONEOK respectfully submits a request for Project review from the U.S. Department of Defense, Air Force Cable Affairs regarding the location of intercontinental ballistic missiles and launch facilities within a 1-mile-wide study area surrounding the Project. Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.38
Grand Forks Air Force Base

Telephone Log

Date:
12/1/2022

To:
Rachel Grant

Company:
ONEOK

Phone Number:

From:
Robert Greene, Environmental Protection Specialist (NEPA Manager)

Agency:
Grand Forks Air Force Base

Phone Number:
701-747-4664

Subject:
ONEOK Cherry Creek Extension Pipeline Project Agency Consultation

Robert Greene contacted Rachel Grant with ONEOK in regard to a letter sent to Grand Forks Air Force Base on November 21, 2022 from Merjent regarding notification of the Cherry Creek Extension Pipeline Project. Mr. Greene confirmed that Grand Forks Air Force Base has no installations that would be affected by the Project. Additionally, he wanted to ensure that notification has also been sent to Minot Air Force Base to confirm no conflict there.

November 21, 2022

Grand Forks Air Force Base
Public Affairs Services
757 Tukegee Amn. Blvd.
Building 418, East Entrance
Grand Forks Air Force Base ND, 58205

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Sir or Madame,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.39
North Dakota Department of Agriculture

November 18, 2022

Doug Goehring
Agriculture Commissioner
North Dakota Department of Agriculture
600 E Boulevard Avenue, Dept 602
Bismarck, ND 58505-0020

Via Email: ndda@nd.gov

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Goehring,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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November 18, 2022
Mr. Doug Goehring

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Sincerely,

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Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

D.40
Western Area Water Supply Authority

From: Weston McGruder <Weston.McGruder@AE2S.com>
Sent: Wednesday, November 23, 2022 08:44
To: Maddy Krumwiede
Cc: Madsen, Tami; Monson, Jacob; jshaffer@co.mckenzie.nd.us; Julius Wakam
Subject: EXTERNAL: RE: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project
Attachments: WAWSA_ONEOK_Cherry Creek_2022-11-19.pdf; MCWRD 2.0-inch Water Line.kmz

Good morning Maddy,

I am responding to your below and attached correspondence on behalf of Western Area Water Supply Authority (WAWSA) and their member entity McKenzie County Water Resource District (MCWRD). WAWSA does not own or operate any water transmission pipeline within the 1-mile ONEOK Project corridor. MCWRD does own and operate a rural water distribution line within the Project corridor. MCWRD has a 2.0-inch potable drinking water line that runs east and west along the boundaries of Sections 5 and 8 and Sections 6 and 7 of Township 149N Range 100W. Attached is a mapping grade .kmz file of MCWRD's waterline within the Project corridor. Please reach out or pass along Jeff Shaffer (jshaffer@co.mckenzie.nd.us) and Julius Wakam (Jwakam@co.mckenzie.nd.us) emails if additional information is needed about the MCWRD waterline.

Thanks

Weston

Weston McGruder, PE
Project Manager

Weston.Mcgruder@ae2s.com

Office: 701.774.3080
Mobile: 701.320.4838

1102 Main Street
Williston, ND 58801

From: Maddy Krumwiede <maddy.krumwiede@merjent.com>
Sent: Saturday, November 19, 2022 11:11 AM
To: Western Area Water Supply Authority <waws@wawsp.com>
Cc: Rachel.grant@oneok.com; Paul Hartzheim <paul.hartzheim@merjent.com>
Subject: ONEOK Cherry Creek Extension Pipeline: Consultation request - NDPSC project

Mr. Brostuen,

On behalf of ONEOK Rockies Midstream, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Cherry Creek Extension Pipeline Project (Project). The Project involves the construction of an approximately 4-mile-long pipeline extension of ONEOK's existing Cherry Creek NGL Pipeline and modifications at ONEOK's Lonesome Creek Gas Plant in McKenzie County, North Dakota. As noted in the consultation letter, the Project will require an amendment of ONEOK's existing North Dakota Public Service Commission Corridor Certificate and Route Permit (Case No. PU-17-483), which ONEOK is planning to file in December 2022. Due to the Project schedule, we are respectfully requesting an expedited review of this material to the extent possible.

If you have any questions or need any additional information, please contact me directly or Rachel Grant of ONEOK at 918-588-7601 or Rachel.Grant@oneok.com

Sincerely,

Maddy Krumwiede, PMP
612.924.3973 direct
612.554.7169 mobile
maddy.krumwiede@merjent.com

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414
612.746.3660
www.merjent.com

2022 Merjent Food Drive

Please help us feed thousands of hungry people. Donate to Second Harvest Food Bank.

giving

November 19, 2022

Chris Brostuen
Chair
Western Area Water Supply Authority
PO Box 2343
Williston, ND 58802

Via email: waws@wawsp.com

RE: ONEOK Rockies Midstream, L.L.C.
Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Mr. Brostuen,

Two subsidiaries of ONEOK, Inc., ONEOK Rockies Midstream, L.L.C. (ONEOK) and ONEOK Bakken Pipeline, L.L.C. (OBP) own and operate natural gas liquids (NGL) assets in North Dakota. ONEOK is proposing to construct the Cherry Creek Extension Pipeline Project (Project), an approximate 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Junction) in McKenzie County, North Dakota, where ONEOK will deliver NGLs into OBP's Demicks Lake Pipeline. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant in McKenzie County. Construction of the Project is scheduled to begin in April 2023 and will be completed in approximately 4-6 months.

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It is our understanding that the Western Area Water Supply Authority (WAWSA) facilitates a regional approach to water needs of rural residents, communities, and industries in the region, and may also have relevant information regarding rural water supply systems and projects. ONEOK respectfully submits this Project notification to request a review of the 1-mile-wide study area for WAWSA-administered or managed Projects. Project overview maps showing the Project pipeline and facilities are enclosed for your reference and a table displaying Public Land Survey System (PLSS) locational information is included below.

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100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

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149 North	100 West	5-6, 7-8, 17-18
149 North	101 West	1

If you have comments regarding the Project, we are requesting responses within 30 days. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, Inc., ONEOK's environmental consultant, at 612-924-3973 or maddy.krumwiede@merjent.com, or myself at 918-588-7601 or Rachel.Grant@oneok.com.

Sincerely,

Rachel A Grant

Rachel Grant
Environmental Project Manager
ONEOK Rockies Midstream, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent, Inc.

Exhibit E
Occupied Structure/Landowner Waiver

RE: Cherry Creek Extension Pipeline Project
Project Notification and Request for Review

Dear Roger and Kay Thompson,

Please review the attached site map noting the proposed location of an underground pipeline and associated facilities that are included in the Cherry Creek Extension Pipeline application that ONEOK Rockies Midstream, L.L.C. (ONEOK) intends to file with the North Dakota Public Service Commission. The Project involves the construction of approximately 4 miles of 12-inch-diameter steel pipeline in McKenzie County, North Dakota.

The attached site map indicates that the Project will be located within 500 feet of your residence or business. By signing below you are confirming that you have no objection to the Project, or the future operation and maintenance of the pipeline. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

As Agent for ONEOK Rockies Midstream, L.L.C.
896 25th Street SE, Sidney, MT 59270
Office (406) 433-8507

Executed this 05 day of 12, 2022.

DocuSigned by:
Roger T
1962F0A07F074B0...

Roger or Kay Thompson

DocuSign

Certificate Of Completion

Envelope Id: 1D2358829DC1453785948B008AF61E1E
Status: Completed
Subject: Complete with DocuSign: NDWM.HTL.0019.00-PSC Waiver 3.9.2020_Thompson.docx
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Document Pages: 1
Signatures: 1
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12/5/2022 10:48:30 AM
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Fallon.Sanford@oneok.com
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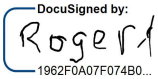
Signer Events	Signature	Timestamp
Roger and Kay Thompson budspump@yahoo.com Security Level: Email, Account Authentication (None)	DocuSigned by:  1962F0A07F074B0... Signature Adoption: Drawn on Device Using IP Address: 174.199.44.206 Signed using mobile	Sent: 12/5/2022 10:56:44 AM Resent: 12/5/2022 2:59:15 PM Viewed: 12/5/2022 4:52:42 PM Signed: 12/5/2022 4:53:08 PM

Electronic Record and Signature Disclosure:
Accepted: 12/5/2022 11:30:13 AM
ID: a5a49cef-16b1-4f53-824c-7988bb40bd63

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp

Carbon Copy Events	Status	Timestamp

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	12/5/2022 10:56:44 AM
Certified Delivered	Security Checked	12/5/2022 4:52:42 PM
Signing Complete	Security Checked	12/5/2022 4:53:08 PM
Completed	Security Checked	12/5/2022 4:53:08 PM

Payment Events	Status	Timestamps

Electronic Record and Signature Disclosure

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If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact Real Estate Services:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: debora.ajenblit@oneok.com

To advise Real Estate Services of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at debora.ajenblit@oneok.com and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

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ii. send us an email to debora.ajenblit@oneok.com and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

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To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

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- You can access and read this Electronic Record and Signature Disclosure; and
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- Until or unless you notify Real Estate Services as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by Real Estate Services during the course of your relationship with Real Estate Services.

Exhibit F
Construction Plans

F.1 Stormwater Pollution Prevention Plan (SWPPP)

Cherry Creek Extension Pipeline Project

STORMWATER POLLUTION PREVENTION PLAN

ISSUED FOR PERMITTING (IFP)

November 2022

REVISION INDEX

Revision	Date	Affected Pages	Description
Initial	November 2022	Global	Development of new SWPPP

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

ATWS	Additional Temporary Workspace
BMP	Best Management Practices
EI	Environmental Inspector
General Permit	North Dakota National Pollutant Discharge Elimination System Stormwater Discharge from Construction Activities General Permit
NDDEQ	North Dakota Department of Environmental Quality
NGL	Natural Gas Liquids
ONEOK	ONEOK Rockies Midstream, L.L.C.
NOI	Notice of Intent
Project	Cherry Creek Extension Pipeline Project
SPCC Plan	Spill Prevention, Control, and Countermeasure Plan
SWPPP/Plan	Stormwater Pollution Prevention Plan

PLANS INCORPORATED BY REFERENCE

The following plans are incorporated by reference. Refer to most recent version of the plan for implementation.	
Spill Prevention, Control, and Countermeasure Plan	This plan identifies specific preventive measures and practices that will be employed during construction of the project to reduce the likelihood of an accidental release of a hazardous or regulated material. This includes the details for the project's protocols and procedures related to training, release response equipment, equipment storage and inspection, regulated materials storage and handling, refueling area restrictions, equipment maintenance restrictions, spill response, chain of communication, as well as notification and reporting requirements.
Dust Control Plan	This plan identifies requirements associated with the application of dust suppressants along the right-of-way (ROW) and access roads, limitations associated with dust-generating activities during high winds, implementation of speed limits and vehicle access limitations on access roads and along the ROW and use of best management practices along the ROW to control fugitive dust emissions.
Revegetation Plan	This plan describes procedures to be followed during the revegetation of areas disturbed as a result of constructing the project and specifically applies to all areas of perennial vegetation disturbed by construction.
Horizontal Directional Drill Inadvertent Return Control Plan	This plan describes procedures to be followed during an inadvertent return of drilling material. This includes the details for the project's protocols and procedures related to training and appropriate response and notifications to an inadvertent release.
Weed Management Plan	This plan describes procedures and requirements associated with known noxious weed locations. Environmental Inspectors and ONEOK will work with the contractor to determine when appropriate measures will be implemented at known and newly discovered locations.

1 INTRODUCTION

ONEOK Rockies Midstream, L.L.C. (ONEOK), a subsidiary of ONEOK, Inc., is committed to meeting or exceeding applicable federal, state, and local environmental requirements during the planning, construction, and operation of the Cherry Creek Extension Pipeline Project (Project).

Per EPA regulations 40 CFR 122.26(c)(1)(iii), the operator of an existing or new discharge composed entirely of stormwater from an oil or gas exploration, production, processing, or treatment operation, or transmission facility is not required to obtain Permit coverage in accordance with paragraph (c)(1)(i) of this section, unless the facility:

(A) Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at any time since November 16, 1987; or

(B) Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or

(C) Contributes to a violation of a water quality standard.

As North Dakota acknowledges the U.S. Environmental Protection Agency's (EPA) exemption and items A, B, and C above are not applicable to this Project, ONEOK does not intend to submit a Notice of Intent (NOI) to obtain coverage from the North Dakota Department of Environmental Quality (NDDEQ) under the National Pollutant Discharge Elimination System (NPDES) program for construction stormwater. Although formal permit coverage will not be secured, ONEOK has prepared this Stormwater Pollution Prevention Plan (SWPPP) using the requirements of the NDDEQ NPDES Authorization to Discharge Stormwater Associated with Construction Activities General Permit (General Permit/Permit) as a guide. The General Permit is located in Appendix A for reference.

By implementing the industry best management practices (BMPs) described in this SWPPP to control erosion and prevent sediment from violating surface water quality standards, construction stormwater discharges from the construction site are not anticipated to be contaminated with substances that could result in discharge of a reportable quantity (e.g., oil sheen) and are not anticipated to violate a water quality standard (e.g., sediment discharges violating a water quality criteria or causing loss of fishing resources). Procedures for reportable quantities are detailed in the Project Spill Prevention, Control, and Countermeasure (SPCC) Plan.

As part of the Project, ONEOK is proposing to construct an approximately 4-mile pipeline extension of its existing 12-inch-diameter Cherry Creek NGL Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Creek Junction) in McKenzie County, North Dakota. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant.

This SWPPP details relevant site information and the implementation sequence for construction activities that require BMPs for the purpose of minimizing erosion and sediment loss from the area of ground disturbance as a result of construction activities. In addition, this SWPPP describes general construction practices and BMPs to be implemented by ONEOK or its contractor(s) during construction of the pipeline to minimize impacts to the environment during the installation of the pipeline and the restoration of areas disturbed by construction activities. This SWPPP will be implemented during the entire construction phase of the Project, beginning with initial ground disturbance through restoration and final stabilization of disturbed areas. This document will be kept onsite during active construction activities.

Construction of the pipeline facilities will generally use 75-foot-wide construction right-of-way (ROW) comprised of both permanent and temporary ROW easements. During construction, temporary work areas alongside the permanent easement will be necessary to accommodate temporary storage of trench spoil; areas needed to string, weld, and install the pipeline; and movement and operation of construction equipment. Additional workspaces may be required in areas of rocky soils, steep slopes, and rugged terrain and for staging areas, truck turnarounds, utility crossovers, and utility, road, railroad, waterbody, and wetland crossings. Only the permanent easement (50 feet) will be required for the operation of the pipeline.

1.1 SWPPP ADMINISTRATION

Copies of ONEOK's SWPPP will be available at ONEOK's construction management field offices located along the pipeline route. The official SWPPP and inspection records will be maintained at ONEOK's corporate office located in Tulsa, Oklahoma. ONEOK and its contractors will be responsible for implementation of this SWPPP including installation, inspection, maintenance, and repair of BMPs. ONEOK will provide copies of this SWPPP upon request from any federal, state, or local government officials.

ONEOK will employ one or more full-time EIs to ensure appropriate BMPs are employed throughout construction where necessary to minimize erosion. The EI(s) will be on-site during construction activities to document compliance with this SWPPP. All inspections will be documented and recorded to demonstrate compliance with this SWPPP. Inspection related documents may be stored in an electronic database or similar method due to the scope of the Project and the number of anticipated inspectors. ONEOK and its contractor are responsible for developing, implementing, maintaining, and revising this SWPPP. ONEOK will be responsible for ensuring this SWPPP and related plans and drawings are available at the Project field offices throughout construction; providing EIs to monitor performance and ensure compliance with this SWPPP and related plans; and providing training to construction personnel about Project sediment and pollution control measures. This SWPPP's Administrator is identified in Table 2.0-1.

TABLE 2.0-1
Cherry Creek Extension Pipeline Project
Administrator Contact Information

Title	Company	Contact Information
Project Manager	ONEOK	Refer to Contact List in front of this Permit Book
Environmental Project Manager	ONEOK	Refer to Contact List in front of this Permit Book
Environmental Consultant	Merjent, Inc.	Refer to Contact List in front of this Permit Book
Environmental Inspector	To Be Determined	Refer to Contact List in front of this Permit Book

The contractor will be responsible for committing all necessary labor and equipment to implement and maintain the BMPs identified in this SWPPP and related plans; conducting additional workforce training as necessary; and performing regular inspection, maintenance, and repair of BMPs. ONEOK's EI(s) will be responsible for training staff on sediment and pollution control measures, conducting regular inspections of BMPs, and ensuring that the contractor is aware of BMP's necessitating repair or maintenance.

2 SITE DESCRIPTION

2.1 SITE LOCATION

Table 2.1-1
Cherry Creek Extension Pipeline
Legal Description of Project

Township	Range	Section(s)
150 North	101 West	36
150 North	100 West	31, 32
149 North	100 West	5, 8

2.2 AREA OF DISTURBANCE

Workspace associated with the construction and installation of pipelines requires careful planning to provide sufficient space and proper configuration to allow a safe work environment while satisfying regulatory obligations. ONEOK plans to use a 75-foot-wide construction ROW for the majority of the pipeline route, with 50 feet to be retained as permanent ROW for operation of the new pipeline. The actual breakdown of workspace within the construction ROW (e.g., spoil storage areas, equipment travel lanes) will vary depending on site-specific conditions. The workspace configuration is generally

comprised of three major elements: spoil storage, trenchline, and work area. A diagram portraying the typical ROW configuration is included in Appendix B.

Spoil Storage – Construction of pipelines requires management of spoils. Several factors ranging from soil type, depth of cover requirements, and land use must be accounted for when evaluating how much workspace will be reserved for spoil management. Topsoil will generally be stored along the outer boundary of the construction workspace. Subsoil originating from trenchline excavation will generally be stored between the topsoil and the excavated trench. A minimum of 25 feet of construction ROW is typically allocated for spoil storage.

Trenchline – A portion of the workspace will be dedicated to the trenchline. Several factors including depth of cover requirements and soil types will influence the amount of space required for the trenchline. In order to meet standard industry safety requirements and construction BMPs, the trench for this pipe diameter will be a minimum of 2 feet wide at the base and approximately 20 feet wide at the top of the trench. The balance of the remaining space remains available to heavy equipment to excavate the trench while minimizing trench wall failure.

Work Area – The work area is the largest portion of the construction workspace. This space must accommodate equipment and various construction activities. A portion of this space is dedicated to pipeline fabrication activities associated with field layout, welding, bending, coating, and testing. In addition to the space allocated to pipeline fabrication, this space is sized to allow for equipment operation and a travel lane for construction equipment and personnel to pass safely and unimpeded.

In addition to the construction ROW, ONEOK will use additional temporary workspaces (ATWS) for staging areas; truck turnarounds; and utility, road, railroad, waterbody, and wetland crossings; and in areas of rocky soils, steep slopes, and rugged terrain. These temporary workspaces will be located adjacent and contiguous to the construction ROW. These areas are shown on the Project maps included in Appendix C.

ONEOK will primarily use public roadways and private access roads to access the construction ROW. Use of private access roads may require improvements or maintenance to provide access for construction personnel and/or delivery of construction materials and equipment. Previously unimproved access roads likely to be used during construction activities, if applicable, are shown on the Project maps included in Appendix C. Prior to the commencement of Project activities, ONEOK will clearly mark the boundaries of approved work areas. Construction activities are not planned outside these areas.

The total estimated areas to be disturbed, as well as the location and approximate size of new impervious areas, are summarized in Table 2.2-1. The locations of these facilities are identified on the maps provided in Appendix C.

TABLE 2.2-1
Cherry Creek Extension Project
Estimated Area of Disturbance

	Land Disturbed by Construction (acres)	
Project Component	**Temporary Workspace**	**Permanent Land Disturbance**
Pipeline Right-of-Way	TBD upon final Project design	TBD upon final Project design
Additional Temporary Workspaces	TBD upon final Project design	TBD upon final Project design
Access Roads	TBD upon final Project design	TBD upon final Project design
Total	TBD upon final Project design	TBD upon final Project design

ONEOK will site these facilities in such a manner to minimize potential impacts on nearby wetlands and waterbodies. In general, the planned impervious areas associated with these facilities are small and not located near surface waters of the State. ONEOK does not anticipate discharge of construction stormwater from these facilities will result in a new point source to surface waters of the State. ONEOK does not plan to install permanent stormwater management systems (i.e., permanent sediment basins) within the facilities to treat stormwater which may be discharged from the sites.

Minor modifications to the pipeline route, location or size of temporary workspaces, or additional access roads may occur. These changes may result from negotiations with the landowner or the need for additional or modified workspace necessary due to site-specific factors encountered during installation of the pipeline. ONEOK will periodically update the maps located in Appendix C of this SWPPP to reflect the current footprint of the Project.

2.3 NATURE OF CONSTRUCTION ACTIVITIES

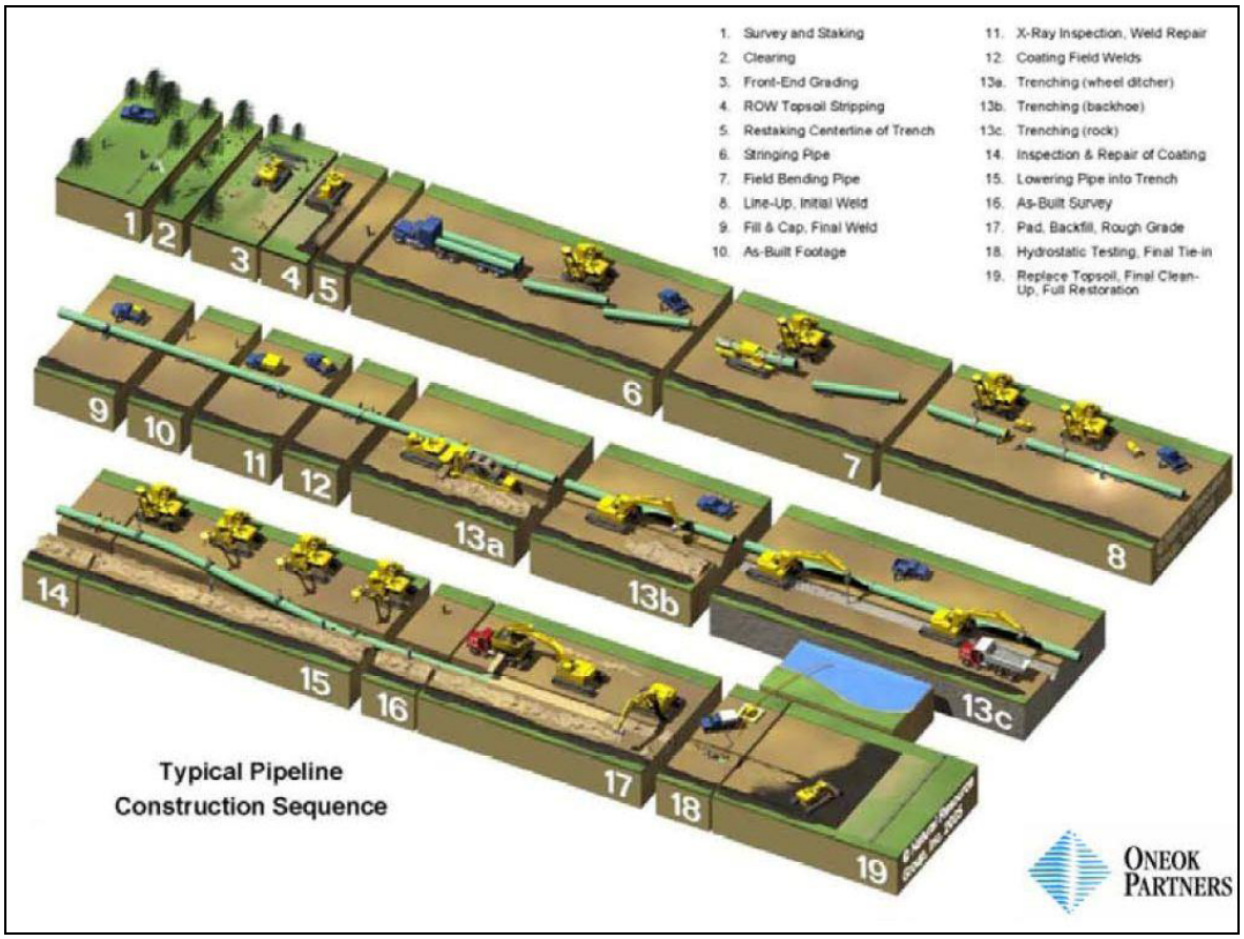
Conventional pipeline construction is composed of specific activities that make up a linear construction sequence (see Figure 2.3-1). These operations collectively include survey and staking of the ROW; clearing and grading; trenching; pipe stringing, bending, and welding; lowering the pipeline into the trench; backfilling the trench; hydrostatic testing; final tie-ins; commissioning; and ROW cleanup and restoration.

Pipeline construction activities such as clearing, grading, trench excavation, and backfilling, as well as the movement of construction equipment along the ROW, will result in soil disturbance. Clearing removes protective cover and exposes soil to the effects of wind and precipitation, which may increase the potential for soil erosion and movement of sediments into sensitive environmental areas (such as waterbodies and wetlands). Grading and equipment traffic may compact soil, reducing porosity and percolation rates, which could result in increased runoff potential.

Grading of the construction workspace and ATWS may be required in areas where the planned pipeline route crosses steep slopes. Steep slopes often need to be graded down to a gentler slope to accommodate pipe bending limitations and provide level working areas to safely operate construction equipment. In such areas, the slopes will be cut away, and, after the pipeline is installed, reconstructed as near as practicable to their original contours.

ONEOK has sized its construction workspace and ATWS to accommodate safe installation of the pipeline while minimizing the area resulting soil disturbance and ultimately requiring restoration. ONEOK assumes that the majority of the areas identified within the construction area and depicted on the maps in Appendix C will be disturbed by construction activities.

Figure 2.3-1 – Typical Pipeline Construction Sequence



2.4 SEQUENCE OF ACTIVITIES

Construction of the new pipeline will occur in the following sequence:

- Stake the workspace boundaries and utilities;
- Clearing of construction area;
- Install temporary erosion and sediment controls;
- Grade and stump removal, if necessary;
- Segregation of topsoil, where necessary;
- Pipe delivery, bending, and welding;
- Trenching;
- Pipe installation;
- Backfilling excavations;
- Cleanup and final grading;
- Soil compaction treatment, where necessary;
- Stone removal, where necessary;
- Final restoration; and
- Final stabilization.

The general sequence of construction activities is shown on Figure 2.3-1. Installation of soil erosion and sedimentation control devices will occur after clearing and before grading activities commence.

2.5 SCHEDULE

Construction of the pipeline is scheduled to begin in spring 2023. Construction of the pipeline may commence simultaneously at several locations. Construction of the pipeline will proceed in a linear fashion as described in Section 2.1, as applicable. Installation of the pipeline at select locations (e.g., valve sites) may occur separately from mainline construction spreads, if applicable. In general, ONEOK anticipates that the Project will be completed in approximately 4-6 months. Restoration of the construction ROW will commence immediately following the installation of the pipeline. ONEOK estimates that areas disturbed by the Project will reach final stabilization by the late fall 2023 or the spring of 2024.

2.6 EXISTING VEGETATION AND GROUND COVER

The predominant vegetation communities crossed by the pipeline route consists of cultivated lands and rangeland. Cultivated land includes areas that are actively involved in farming operations resulting in tilling of the soils. Such land along the pipeline route is likely to include corn, beans, sugar beets, alfalfa, and wheat. Rangeland consists of lands involved in the production of hay, those that are actively being grazed by livestock, and shortgrass and tallgrass prairies. Following completion of construction activities, actively cultivated areas and rangeland will be restored to pre-construction land use, unless otherwise requested by the landowner.

2.7 RECEIVING WATERS

Field surveys conducted on September 27-28 and October 21, 2022, identified five wetlands totaling 1.16 acres and one stream that will be crossed by the Project. The stream, an unnamed tributary to Cherry Creek, had a discontinuous bed and bank and was dry at time of survey. ONEOK will use the horizontal directional drill (HDD) method to cross the unnamed

tributary; as such, no impacts to this waterway will occur.

ONEOK will implement BMPs for erosion and sediment control as described in this SWPPP to minimize run-off of sediments from the pipeline construction ROW and reduce or eliminate any possible water quality impacts from stormwater flowing through the construction site. Erosion and sediment control BMPs are discussed in greater detail in Section 3 of this SWPPP. Additionally, construction activities and grading of the ROW are generally considered temporary disturbances and will be returned to their previous contours to the extent practicable following installation of the pipeline. Construction of the pipeline will not result in distinguishable point source discharges or new outfalls to surface waters.

An overview Project figure is included in Appendix C[1].

2.8 MUNICIPAL SEPARATE STORM SEWER SYSTEMS

No areas serviced by Municipal Separate Storm Sewer Systems are crossed by the pipeline route.

2.9 IMPAIRED AND SPECIAL WATERS

A review of the U.S. EPA WATERS GeoViewer 2.0[2] and the EPA's How's My Waterway mapper[3] determined the Project will not cross, or discharge to, any impaired or special waterbody.

3 EROSION PREVENTION AND SEDIMENT CONTROL PRACTICES

3.1 BEST MANAGEMENT PRACTICES

ONEOK requires that erosion and sediment transport is minimized. ONEOK will implement BMPs for erosion and sediment control as described in this SWPPP to minimize run-off of sediments from the pipeline construction ROW. BMPs are intended to reduce or eliminate any possible water quality impacts from stormwater flowing through the construction site. BMPs will be used to minimize erosion and sediment transport during construction and restoration of the Project. BMPs will be installed in accordance with manufacturer specifications.

Specific BMPs to be implemented are discussed in the following sections. BMPs will be designed to divert flows from exposed soils, filter runoff, or otherwise reduce sediment-laden runoff from entering surface water or stormwater conveyance systems (e.g., road ditches, grassed waterways). As stated, ONEOK plans to use a combination of BMPs during the course of the Project to provide the best prevention and control of sediment erosion during construction-related activities. ONEOK and the EIs will track the location of all structural and non-structural BMPs on the inspection reports (Appendix E) and the BMP tracking table (Appendix F).

Deficient BMPs noted during required site inspections will be addressed as soon as possible. It is the responsibility of the contractor to select BMPs appropriate to the location of the installation.

3.2 EROSION PREVENTION PRACTICES

3.3 VEGETATIVE BUFFERS

The most effective erosion control BMP is the minimization of soil disturbance. Therefore, removal of existing vegetation within the Project footprint will be avoided to the extent practicable. ONEOK will also minimize soil disturbance immediately adjacent to waterbodies until the pipeline is installed under the feature. In general, ONEOK will leave a 20-foot buffer of undisturbed herbaceous vegetation at wetland/waterbody crossings except where grading is necessary for bridge installation, if applicable.

1 Mapped waterways are depicted; however, only the southern-most waterway was field-verified. Updated alignment sheets will be included in Appendix C in the final iteration of this document.
2 https://epa.maps.arcgis.com/apps/webappviewer; accessed November 23, 2022.
3 How's My Waterway - Waterbody Report (epa.gov); accessed November 23, 2022.

3.4 EROSION CONTROL BLANKETS AND MATS

ONEOK will install erosion control blankets or mats on slopes greater than 30 percent or where necessary to minimize erosion upslope of sensitive areas (e.g., surface waters of the State). Erosion control blankets, matting, and/or rip rap appropriately designed for the expected flows will also be installed on stream banks disturbed during construction and within defined stormwater conveyances (e.g., road ditches). The contractor will select erosion control blanket products suitable to the location of installation and the duration which the product is intended to perform. Installation of erosion control mats will be in accordance with the manufacture's specifications. Figure 13 of Appendix B identifies the intended use of erosion control blankets. Installation of rip rap must be above the ordinary high water mark (OHWM) and approved by ONEOK in advance.

3.5 DUST SUPPRESSION

ONEOK's contractors will implement dust suppression BMP's as necessary to prevent nuisance conditions and to prevent significant particle or dust generation resulting from construction activities, as described in ONEOK's Dust Control Plan.

ONEOK's planned dust suppression methods include stabilization of temporary stockpiles, spraying of water on the construction ROW in areas of active construction, use of chemical suppressants (e.g., calcium chloride) on public or private roads, and enforcing a 25-mile-per-hour speed limit on unimproved roads. When opacity along dirt roads and the ROW exceeds 20 percent (objects partially obscured), construction activity will cease until dust control measures are employed. Earthwork activities will cease when sustained wind speed exceeds 30 miles per hour.

3.6 SEDIMENT CONTROL PRACTICES

Sediment Barriers

ONEOK and/or its contractors will install temporary sediment barriers during clearing and before grading where necessary and as defined in this SWPPP. In general, temporary sediment barriers will be installed at the edge of the ROW as needed, and/or in other areas determined by ONEOK to prevent sediment from entering wetlands or the unnamed stream crossed by the pipeline route or located downslope of the construction ROW. Figures 8 and 14-18 of Appendix B identify the general configuration of temporary sediment barriers to be installed at waterbodies and wetlands crossed by the pipeline route. The actual layout of the silt fence to be installed in the field by the contractor will vary in accordance with the site-specific conditions present at each waterbody location. Installation of BMPs will be overseen by ONEOK's environmental inspection staff to ensure that wetlands and the unnamed stream crossed by the route are adequately protected from runoff based upon the conditions present on either side of the crossing (e.g., slope, soil types).

Use of silt fence is preferred as the primary sediment barrier unless site-specific conditions (e.g., rocks or stony soil, sustained winds) prevent proper installation or reasonable maintenance. Temporary sediment barriers will typically be installed and maintained at side slope and downslope boundaries of the construction area adjacent to wetlands and the unnamed stream and at other locations as directed by ONEOK's inspection personnel. These locations may include the base of slopes adjacent to road ditches, stormwater conveyance systems (e.g., road ditches, grass waterways, inlets), along the edge of the approved work area, or other stormwater conveyances that are directly adjacent to the approved work area. Heavy- duty silt fence is available for locations which are subject to high stormwater flows. Velocity dissipation devices (e.g., riprap, straw bales) will be installed at discharge locations as necessary to provide a non-erosive flow velocity between the structure and receiving waterbody.

The contractor will choose and install sediment barriers in areas with high potential for sediment transport. Installation of other devices such as straw bales, fiber roles, or wattles may be approved by ONEOK where the potential for erosion is minimal.

Sediment barriers will be cleaned, repaired, and/or replaced when functionality begins to decrease (e.g., sediment reaches intolerable levels, fabric begins to tear, and/or the silt fence begins to become undermined). Repairs and/or maintenance

of sediment control devices within active construction areas will be completed as soon as possible after identification. Additional sediment barriers will be considered for locations prone to failure.

Temporary sediment barriers will be maintained until final stabilization is reached or the site has been returned to its previous function (e.g., cultivated agriculture). Final stabilization is defined as all soil-disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of 70% of the cover which is typical for undisturbed areas, unpaved areas, or areas not covered by permanent structures in the geographic location of the construction site, has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed. Once the site has reached final stabilization, the barriers will be removed and disposed of properly.

Temporary and Permanent Slope Breakers

ONEOK will install temporary and permanent earthen slope breakers within the construction ROW, where needed, to direct stormwater runoff to adjacent stabilized areas. Slope breakers will be constructed with appropriate energy-dissipation devices (e.g., temporary sediment barriers, rip-rap) to prevent erosion at their outfall. In order to maintain sheet flow and minimize rills and/or gullies, there will be no unbroken slope length of greater than 75 feet for slopes with a grade of 3:1 or greater.

Temporary slope breakers will be maintained throughout construction and will be replaced at the end of each day if disturbed by construction activities. In general, permanent slope breakers will be constructed in all non-cultivated areas, except where agreements with landowners prevent installation.

Vehicle Tracking

Sediment control BMPs will be installed to minimize soil disturbance and prevent or minimize sediment leaving the construction site. If necessary, a combination of crushed stone access pads, matting, and culverts will also be installed at ingresses and egresses to the construction site to minimize the tracking of sediments onto paved roads. If sediment is tracked onto a paved road street sweeping or scraping will be performed immediately to minimize sediment leaving the construction site. Sediment will be returned to the ROW.

4 STABILIZATION PRACTICES

Stabilization practices include temporary and permanent measures designed to prevent erosion and sediment from leaving the construction site. This includes revegetation, installation of mulch and/or erosion control blankets, and preserving natural vegetation within the construction ROW to the extent possible.

ONEOK's contractors will permanently stabilize by revegetating non-cultivated areas disturbed by construction activities to prevent and minimize erosion with the exception of sites where impervious areas will be installed, such as valve sites. ONEOK's contractor will initiate revegetation of disturbed areas as soon as soil conditions permit seedbed preparation and seed germination following installation of the pipeline, per the requirements in the Revegetation Plan, or according to the Contractor's ONEOK-approved revegetation plan.

ONEOK will also initiate temporary stabilization measures where necessary to minimize erosion. Temporary stabilization measures consist of temporary seeding and/or mulching or surface roughening. Temporary stabilization measures will be employed where erosion is likely to occur, including locations such as stream banks, road ditches, steep slopes, and areas subject to stormwater flow. Temporary stabilization measures will also be employed where completion of construction activities or where final stabilization may be delayed. ONEOK's specification for installation of mulch and temporary stabilization measures are discussed in the Revegetation Plan.

5 CONSTRUCTION SITE DEWATERING

In the event that dewatering activities are necessary, the water will be discharged to a well-vegetated upland area or suitable BMP (e.g., geotextile filter bag or straw bale dewatering structure) in a manner that does not cause erosion and does not result in heavily silt-laden water flowing into any waterbody, wetland, or stormwater sewer system (including drain tile inlets or irrigation systems). The discharged water will not (1) be in violation of the water quality standards as defined by the NDDEQ; (2) adversely affect downstream landowners; and/or (3) cause erosion or scouring at the outlet or in the receiving waterbody.

6 POLLUTION PREVENTION MANAGEMENT MEASURES

6.1 SOLID WASTE DISPOSAL AND GOOD HOUSEKEEPING

Non-hazardous wastes generated during construction will be containerized and properly disposed of off-site in compliance with state and federal requirements. Non-hazardous pipeline construction wastes include human waste, trash, pipe banding and spacers, waste from coating products, welding rods, timber skids, cleared vegetation, stumps, and rocks. All wastes not native to the construction site will be disposed off-site at a licensed waste disposal facility.

Site inspections will include surveying the site for refuse, which will be disposed of as soon as possible. The contractor will not permit paper from wrapping or coating products or lightweight items to be scattered by the wind. Upon final stabilization, all existing erosion and sediment control structures will be removed from the Project area.

The contractor will provide portable, self-contained toilets during construction operations. Wastes from these units will be collected for disposal at licensed and approved facilities. Portable toilets must be properly secured to prevent tipping by vandals or blowing over in wind events.

6.2 HAZARDOUS MATERIALS HANDLING

Secondary containment will be provided for any hazardous materials, including oil, fuels, coolants, and paint temporarily stored on the construction ROW. Safety Data Sheets for all hazardous materials will be maintained on site. All employees dealing with hazardous materials will be informed of proper handling procedures.

In the event that hazardous wastes are generated during construction activities, such wastes will be stored and disposed of in compliance with state and federal regulations. ONEOK will follow the procedures in its SPCC Plan for handling of hazardous materials such as fuels and lubricants. ONEOK does not anticipate significant volumes of hazardous materials (e.g., fuels, lubricants, fertilizer) will be stored overnight within the construction ROW.

6.3 CONCRETE WASHOUT AND RELATED WASTE

Concrete wash water has a high pH and contains high-levels of chromium which could pollute surface waters and/or groundwater. If used during Project activities, the discharge of concrete washout or uncured concrete wastes to surface waters of the State (e.g., wetlands, waterbodies, storm drains) is prohibited. ONEOK's contractor will designate concrete washout facilities where pouring of concrete is planned. The contractor will post signs to identify the washout facilities. Washout facilities may include prefabricated watertight containers or facilities constructed on site such as bermed earthen structures or sumps lined with plastic sheeting. Concrete washout facilities will be sized to accommodate the amount of concrete waste, both liquid and solid, that may be generated at the site. The structure will also be sized with adequate freeboard to prevent overflow during discharge or following precipitation events.

Concrete washout facilities will be designed and sized to promote evaporation of liquids and curing of the concrete wastes prior to disposal. Facilities constructed on site will be constructed of multiple layers of thick plastic sheeting to prevent leaks and puncturing of the barrier. Washout facilities will be covered when precipitation is imminent to prevent precipitation collecting and intermingling with wastes or prolonging the curing of solids. Concrete washout and associated wastes will be treated as a hazardous waste until all solids have cured. Once cured, concrete solids may be disposed of as

solid waste. Concrete washout facilities must be located at least 100 feet away from wetlands and waterbodies unless approved by ONEOK.

6.4 VEHICLE AND EQUIPMENT MAINTENANCE AND WASHING

Maintenance of vehicles and equipment will be conducted at contractor yards to the extent practicable. ONEOK does not anticipate that vehicle or equipment maintenance will be conducted along the construction ROW, except in situations where the equipment is immobile and cannot be transported to a yard for maintenance or repairs. All repairs or maintenance will be conducted in accordance with ONEOK's SPCC Plan, which requires maintenance or repairs to be conducted at least 100 feet from waters of the State unless an exception is approved by ONEOK. ONEOK's approval of each exception would be after consideration of the site conditions and additional measures or precautions that could be taken to contain potential pollutants. No wastes from vehicle or equipment repair or maintenance will be stored on the construction ROW.

No vehicle or equipment washing using detergents or degreasers will be performed on the construction ROW. Cleaning of equipment and vehicles may be required on the construction ROW to prevent the spread of undesirable or invasive species, as described in ONEOK's Weed Management Plan. These areas will be marked by ONEOK's EIs. ONEOK will construct equipment cleaning stations away from waters of the State. In no event will runoff from vehicle and equipment washing be allowed to enter waters of the State. ONEOK will dispose of wastes resulting from equipment washing stations in accordance with all local, state, and federal regulations.

7 CONSTRUCTION SPILL PREVENTION AND REPORTING

In the event of a spill, ONEOK will follow procedures outlined in its SPCC Plan. ONEOK will perform any necessary notifications to federal and state agencies following construction-related spills as required by permits or applicable regulations. Soils contaminated by construction related spills will be removed from the construction site in accordance with federal and state regulations. If temporary storage of contaminated soils is required on-site, stockpiled soil will be covered with plastic sheeting to prevent potential contact with stormwater.

Bulk storage of fuels and lubricants and other hazardous liquids are not expected to occur on the construction ROW. Small volumes of fuel or extra fuel tanks may occur on the ROW to support stationary pumps such as those used for dewatering and hydrostatic testing. All fuel stored on the ROW will be placed in secondary containment or be housed in dual-wall storage tanks. Stormwater that collects in secondary containment suitable for waste will be visually inspected for signs of contamination or visible sheen prior to drainage. If contamination is suspected, the stormwater will be disposed of in compliance with state and federal regulations.

The following practices will be followed during the course of the Project for spill prevention. To protect against accidental release of a lubricant, coolant, or fuel, equipment will have catch pans and absorbing pads present at all times. The contractor will have equipment and materials on site needed to prevent and/or contain an accidental spill. Equipment will be inspected each morning before work starts and during the workday to check for leaks and to repair or replace hoses or connections that are in danger of failure. ONEOK will follow the procedures in its SPCC Plan when refueling equipment and storing hazardous liquids on the ROW.

<u>Fuels and Hazardous Materials Handling</u>

- Refueling of equipment or hazardous material transfer will occur in designated areas only.
- No refueling or hazardous material transfer will occur within 100 feet of a water of the State, spring, or well.
- Hazardous materials, including oils, fuels, and lubricants, will be stored a minimum of 100 feet away from waters of the State. Construction equipment will also be staged a minimum of 100 feet away from waters of the State when parked/stored overnight.

- ONEOK's approval of each exception would be after consideration of site conditions and additional measures or precautions that could be taken to contain potential pollutants. For example, where conditions require that construction equipment (e.g., pumps used in trench dewatering) be refueled within 100 feet of waters of the State, sufficient oil and fuel containment booms and absorbent materials will be on-hand to allow for rapid containment and recovery of a spill.

8 INSPECTIONS AND MAINTENANCE

An inspection report will be prepared after each inspection (Appendix E). Records of each inspection and maintenance activities will include:

- Date of inspection;
- Name and title of person(s) conducting inspection;
- Construction phase and type of inspection being conducted;
- Scope and findings of inspection, including:
    - Locations of sediment or other pollutant discharges from the site;
    - Locations of BMPs that need to be maintained;
    - Locations of BMPs that failed to operate as designed or proved inadequate at controlling pollutants;
    - Locations where additional BMPs are needed or that were not in place at the time of the inspection;
    - Locations where BMPs are no longer necessary and have been removed;
    - Description of corrective actions taken; and
    - Documentation of any changes made to this SWPPP as a result of the inspection, including any deviation from the minimum inspection schedule as in this SWPPP.

Where an inspection does not identify any incidents of non-compliance, the report will contain a signed statement indicating that the site is in compliance with this SWPPP to the best of the signer's knowledge and belief.

8.1 INSPECTION SCHEDULES

Inspections will be conducted at least once every 14 days within areas of active construction and at least once every month for areas of the construction ROW where activities are no longer active and where the ROW has been temporarily stabilized. Inspections will also be completed in active construction areas within 24 hours after the end of any precipitation event of 0.5 inch or greater. Post-storm event construction inspections may be postponed up to 72 hours if construction activities are idle (e.g., wet weather shut down, non-working weekends/federal holidays). However, inspections must be completed before construction activities recommence. Regular inspection of inactive construction areas is not required where snow cover or frozen ground conditions exist over the ROW for an extended period and melting conditions which pose a risk of erosion do not exist. Winter conditions inspection exclusions will be documented in the inspection records (Appendix E); documentation will include dates when snow cover occurred, date when construction activities ceased, and date melting conditions began.

8.2 MAINTENANCE

ONEOK or its contractors are responsible for maintaining all erosion control measures including replacement or modification of BMPs as necessary to prevent or minimize sediments from entering waterbodies or wetlands or from leaving the construction site. All sediment control devices (e.g., silt fences, fiber rolls) will be repaired, replaced, or supplemented when they become nonfunctional or have retained sediment in amounts exceeding the manufacturer's

specifications.

If a sediment control device has failed or is determined to be no longer effective the contractor will perform maintenance or replace the device as soon as possible, or immediately in most cases, to minimize the discharge of pollutants from the construction ROW.

8.3 EROSION AND RETRIEVAL OF SEDIMENTS

Visible or measurable erosion associated with the construction of the Project, which leaves the construction ROW as a result of ineffective BMPs, is prohibited by ONEOK. If inspections identify sediment that has escaped the construction site, the off-site accumulations of sediment will be removed in a manner and at a frequency sufficient to minimize off-site impacts. Under no condition will the sediment be washed into surface waters of the State. Where a determination is made that sediment must be removed to prevent deposition within surface waters or stormwater conveyances, the sediment will be removed as soon as practicable. Recovery of sediment from sensitive resources must be approved by ONEOK prior to entry.

8.4 NON-COMPLIANCE REPORTING

ONEOK will complete inspections to ensure and document compliance with this SWPPP. Inspections documenting implementation and effectiveness of erosion and sediment control measures will be conducted in accordance with the requirements outlined in Section 8.1. If inspections identify any instances of non-compliance that may endanger human health or the environment or exceed North Dakota water quality rules and regulations, ONEOK will verbally notify the NDDEQ within 24 hours of becoming aware of the noncompliance. Within 5 days after becoming aware of a noncompliance issue, the NDDEQ will receive the following information in writing:

- A description of the noncompliance and its cause;
- The period of noncompliance, including exact dates and times; or if not identified, the anticipated time the noncompliance is expected to continue; and
- Additional measures being taken to reduce, eliminate, and prevent recurrences of the non-complying discharge or other cause of noncompliance.

8.5 UPDATING THE SWPPP

ONEOK will maintain and update this SWPPP to reflect current conditions whenever there is a change in site design or construction methods which require the implementation of new or revised BMPs, or which may have a significant effect on the potential for the discharge of pollutants. The SWPPP will also be amended to improve any observed deficiencies associated with treatment of stormwater discharges.

Changes to this SWPPP will be made prior to changes in site conditions or for responsive SWPPP changes (e.g., changes to BMP's made in the field) within 72 hours after the change in BMP installation and/or implementation occurs at the site. Access to an electronic copy of this SWPPP and General Permit will be readily available to applicable personnel at the Project site. Updates to this SWPPP will be provided to construction personnel, as needed.

9 EMPLOYEE TRAINING

All ONEOK and construction personnel working on the Project will receive an environmental orientation session prior to accessing the construction ROW. The environmental orientation will provide an overview of the erosion and sediment control measures to be implemented during construction activities, construction-related spill prevention, clean-up, and reporting and good housekeeping practices to implement on the construction ROW. Supervisory personnel (e.g., construction foremen, craft inspectors) will attend a more thorough environmental training session which will provide a detailed overview of the regulatory permits required for the Project and specific erosion and sediment control measures to

be implemented during construction. A training log will be maintained as Appendix G.

ONEOK's EIs will oversee compliance with this SWPPP and ONEOK's environmental permits and regulations specific to the Project. The EIs will be experienced in the application of erosion and sediment control BMPs and knowledgeable of the contents and requirements of this SWPPP and other environmental procedures applicable to the Project. The EIs will conduct additional training sessions with specific construction crew as necessary to properly implement this SWPPP. These additional training sessions will focus on maintaining compliance with permits and regulations and will be conducted prior to construction activities in sensitive areas, changing of seasons, or similar when use of erosion and sediment control measures may be modified.

10 CONSTRUCTION STORMWATER NOTICE OF TERMINATION

This section is not applicable unless ONEOK submits an NOI for Permit coverage.

11 RETENTION OF RECORDS

ONEOK will retain copies of all inspection forms, records, and information resulting from the monitoring activities required by this SWPPP. In addition to inspection and maintenance reports, records of the construction activities conducted at the site including the dates when major grading activities occurred, when the site was temporarily or permanently seeded, and when temporary or permanent stabilization was reached will be recorded and maintained as part of this SWPPP.

Appendix A

North Dakota National Pollutant Discharge Elimination System Storm Water Authorization to Discharge Stormwater Associated with Construction Activities General Permit (NDR11-0000)

Permit No: NDR11-0000
Effective Date: April 1, 2020
Expiration Date: March 31, 2025

AUTHORIZATION TO DISCHARGE UNDER THE

NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33.1-16-01 of the North Dakota Department of Environmental Quality rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

Facilities both qualifying for and satisfying the requirements identified in Part I of the permit

are authorized to discharge stormwater associated with construction activity

to waters of the state

provided all the conditions of this permit are met.

This permit and the authorization to discharge shall expire at midnight,

March 31, 2025.

Signed this 30 day of March, 2020.

Karl H. Rockeman, P.E.
Director
Division of Water Quality

BP 2019.05.29

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Table of Contents

I. PERMIT COVERAGE AND LIMITATIONS

A. Discharges Covered

1. This permit applies to all areas within the state of North Dakota, except for those areas defined as Indian Country. Construction activity located within Indian Country within the state of North Dakota must obtain a permit through the United States Environmental Protection Agency. If the construction activity is located with the jurisdiction of the state of North Dakota, and the United States Environmental Protection Agency, a permit must be obtained from both regulatory entities.

2. This permit applies to stormwater discharges associated with construction activity and small construction activity as defined in Title 40 of the Code of Federal Regulations (CFR), Parts 122.26(b)(14)(x) and (b)(15), respectively. The reference to construction activity in this permit includes both large construction activity and small construction activity as described below.

    a. Large construction activity includes clearing, grading and excavation, that disturbs land of equal to or greater than five (5) acres and includes the disturbance of less than five (5) acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five (5) acres or more.

    b. Small construction activity includes clearing, grading and excavation, that disturbs land of equal to or greater than one (1) acre, and includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater that one (1) and less than five (5) acres.

3. This permit applies to discharges of stormwater from construction activity identified in Part I(A)(1)-(2) associated with oil and gas exploration, production, processing or treatment operations, or transmission facilities resulting in the discharge of a reportable quantity for which notification is required pursuant to 40 CFR 110.6, 40 CFR 117.21, or 40 CFR 302.6 or contributes to a violation of a water quality standard.

4. Stormwater discharges from support activities (e.g., equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) may be covered by this permit as part of a related construction site. The support activities may only be in association with one project. If the support activity is associated with more than one project, a separate stormwater permit (Industrial or mining, extraction or paving material preparation) is required.

5. Certain non-stormwater discharges from facilities covered by this permit and meeting the requirements specified in Part II(A).

6. Stormwater discharges from construction activity covered by the previous permit, issued April 1, 2015, where a notice has been submitted to obtain coverage under this permit.

7. Projects which have obtained coverage under this permit shall amend and implement a Stormwater Pollution Prevention Plan (SWPPP) that meets the requirements of this permit within ninety (90) days of the effective date of this permit.

8. Discharges from dewatering activities related to construction activities (discharges of uncontaminated stormwater, uncontaminated groundwater, and uncontaminated surface water).

9. Local Authority. This permit does not preempt or supersede the authority of local agencies or operators of municipal separate storm sewer systems to prohibit, restrict, or control discharges of stormwater to storm sewer systems or other water courses within their jurisdiction.

B. Discharges Not Covered

1. Stormwater discharges associated with industrial activity from any source other than construction activities described in Part I(A).

2. Post-construction discharges from industrial activity that originate from the site after construction activities have been completed at the site. Industrial and post-construction stormwater discharges may need to be covered by a separate stormwater permit.

3. The placement of fill into waters of the state requiring local, state, or federal authorizations (such as U.S. Army Corps of Engineers Section 404 permits).

4. This permit does not substitute for obligations under the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), Wild and Scenic Rivers Act, or National Historic Preservation Act (NHPA), it is the permittees responsibility to ensure the project and resulting discharges comply with the respective requirements.

5. Discharges to waters for which there is a total maximum daily load (TMDL) allocation are not covered unless you develop a Stormwater Pollution Prevention plan (SWPPP) that is consistent with the assumptions and requirements in the approved TMDL. To be eligible for coverage under this general permit, the SWPPP must incorporate the conditions applicable to the discharge necessary for consistency with the assumptions, allocations and requirements of the TMDL. If a specific numeric wasteload allocation has been established that would apply to discharges from construction activity, the permittee must incorporate that allocation into the SWPPP and implement necessary steps to meet that allocation. Information about TMDL allocations may be found at the following website: deq.nd.gov/WQ.

6. Stormwater discharges that the department determines will cause or have the reasonable potential to cause or contribute to a violation of the standards for quality for waters of the state (North Dakota Administrative Code [NDAC] 33.1-16-02.1).

7. Discharges from hydrostatic testing, well points, water line disinfection, treatment of refined petroleum contaminated groundwater or surface water, treatment of crude oil contaminated groundwater or surface water, and oil and gas production water.

8. Discharges of wash water using detergents, wastewater, and sanitary waste.

C. Obtaining Coverage and Authorization Effective Date

1. To obtain authorization under this general permit for stormwater discharges you must submit a complete notice of intent (NOI) and develop a SWPPP in accordance with Part II(C) of this permit. A SWPPP must be in place as a condition of the permit and a copy of the SWPPP must be retained by the permittee.

2. Permit coverage will become effective seven (7) days after you submit a complete NOI unless otherwise notified by the department (based on the department receipt date).

3. Upon the effective date of permit coverage, permittees are authorized to discharge stormwater from eligible activities under the terms and conditions of this permit.

D. Notice of Intent Process

1. Applicants must use a NOI form or electronic NOI to complete the application. The NOI form or electronic NOI can be found at: deq.nd.gov/WQ. Submission of data contained within the NOI must be in compliance with the electronic reporting requirements found in 40 CFR 127.

2. NOI Content and Conditions.

   a. The owner, or owner jointly with the operator (usually the general contractor), shall submit a completed NOI for this permit. The owner is responsible for compliance with all terms and conditions of this permit. The operator has day to day supervision of construction activities and is jointly responsible with the owner for compliance with the permit conditions as they pertain to the construction activities delegated to the operator.

   b. The NOI shall contain, at a minimum, the following information:

      1) Owner name, mailing address, and phone number;
      2) Project contact name, phone number, and e-mail address;
      3) Project/site name;
      4) Project/site location (street address; section, township, range) and county;
      5) Project/site latitude and longitude;
      6) A brief description of the construction activity;
      7) The anticipated start date and the anticipated completion date for the project (if known);
      8) The estimated total area of the site and the total area of disturbance in acres;
      9) The name of receiving water(s), or the name of the municipal storm sewer system and receiving water; and
      10) The signature of the applicant(s), owner (and operator if co-applicants) signed in accordance with the Signatory Requirements in Part IV(A)(6) of this permit.

   c. A SWPPP (Part II(C)) for the project must be prepared and available for review, upon request, by the department at the time of application. Permittees are not required to submit the SWPPP with the NOI unless otherwise notified by the department.

3. For residential construction activity occurring within a common plan of development (such as a subdivision) subject to the permit requirements, coverage may be obtained by the following:

   a. The owner of the lot(s) shall submit one NOI for all of the owner's construction activity within the common plan of development, or

   b. The operator, such as a homebuilder who may represent one or more lot owners, shall submit one NOI for all of the operator's construction activity within the common plan of development. Additional phases of the common plan of development may be included under the initial NOI and permit coverage.

      In addition, a SWPPP must be developed and implemented for the permittee's activities within the common plan of development. Additional phases of the common plan of development may be included provided the SWPPP is amended to include the additional area or phases.

4. For construction activity associated with oil and gas exploration, production, processing, treatment operations, or transmission facilities, which discharge contaminated stormwater, an NOI may be submitted for individual project sites or for an area of operations such as well field or by county.

E. Notice of Termination (NOT)

1. Permittees wishing to terminate coverage under this permit must submit a Notice of Termination (NOT) signed in accordance with Part IV(A)(6) of this permit. Submission of data contained within the NOT must be in compliance with the electronic reporting requirements found in 40 CFR 127. Compliance with the conditions of this permit is required until a NOT is submitted to the department.

2. Permittees may only submit a NOT after one of the following conditions have been met:

   a. Final stabilization (Part II(E)) has been achieved on all portions of the site for which the permittee is responsible.

   b. Another owner/operator/permittee has assumed control in accordance with the transfer provisions (Part I(F)) over all areas of the site that have not achieved final stabilization.

   c. For residential construction only, a NOT is not required for each lot that is sold, transferred, or has achieved final stabilization. The permittee must modify the SWPPP to indicate that permit coverage is no longer required for that lot. The SWPPP shall indicate the reason why coverage is no longer needed and the date the lot was sold, transferred, or achieved final stabilization. In order to terminate coverage, all lots under the control of the owner or operator must be sold, transferred, or achieved final stabilization (Part II(E)).

F. Transfer of Ownership or Control

1. When the owner or operator of a construction project changes, the new owner or operator must submit a written request for permit transfer/modification within fourteen (14) days of assuming control of the site or commencing work on-site, or of the legal transfer, sale or closing on the property; except as provided in Part I(F)(2). Late submittals will not be rejected; however the department reserves the right to take enforcement for any unpermitted discharges or permit noncompliance. For stormwater discharges from construction activities where the owner or operator changes, the new owner or operator can implement the original SWPPP created for the project or develop and implement their own SWPPP. Permittees shall ensure either directly or through coordination with other operators that their SWPPP meets all terms and conditions of this permit and that their activities do not interfere with another party's SWPPP.

2. A permit transfer/modification request is not required for the legal transfer, sale or closing on a property between permittees covered by this permit. Examples include the sale of a property parcel from a developer to a builder, or the transfer of an easement from a developer to a local government authority. If the new party is not covered by this permit at the time of transfer or sale, then the new owner/operator must submit a completed NOI within fourteen (14) days of assuming control of the site.

II. STORMWATER DISCHARGE REQUIREMENTS

A. Prohibition of Non-Stormwater Discharges

The discharge of wastewater is not authorized by this permit. The following sources of non-stormwater discharges are allowed if they are not a significant source of pollution and are identified in the SWPPP: fire-fighting activity, fire hydrant flushing, potable water line flushing, equipment wash down without detergents or hazardous cleaning products, uncontaminated foundation drains, springs, surface water, lawn watering, chemical treatment of stormwater, and air conditioning condensate. Impervious surface wash water may not be directed into any surface water or storm drain inlet unless appropriate pollution prevention measures have been implemented. Non-stormwater discharges may not come into contact with oil and grease deposits or any other toxic or hazardous materials (unless cleaned up using dry clean-up methods). The SWPPP must include a description of the pollution prevention measures to be implemented while non-stormwater discharges are occurring.

B. Releases in Excess of Reportable Quantities

This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302, nor the reporting requirements found in NDAC 33.1-16-02.1. Any release which meets any reporting requirement shall be reported to the department in accordance with Part IV(A)(7).

C. Stormwater Pollution Prevention Plans

All permittees shall implement a SWPPP for any construction activity requiring this permit until final stabilization is achieved. The SWPPP and revisions are subject to review by the department. The objectives of the SWPPP are to identify potential sources of sediment and other sources of pollution associated with construction activity, and to ensure practices are implemented and maintained to reduce the contribution of pollutants in stormwater discharges from the construction site to waters of the state and storm sewer systems. Stormwater management documents developed under other regulatory programs may be included or incorporated by reference in the SWPPP or used in whole as a SWPPP if it meets the requirements of this part. A partially complete SWPPP is acceptable when it clearly identifies the item(s) to be completed, the person(s) responsible for completing the item(s) and the deadline for completing the item(s). The SWPPP must be completed prior to the start of construction (or the applicable construction phase).

The SWPPP may identify more than one permittee and may specify the responsibilities of each permittee by task, area, and/or timing. Permittees may coordinate and prepare more than one SWPPP to accomplish this. However, in the event there is a requirement under the SWPPP for which responsibility is ambiguous or is not included in the SWPPP, each permittee shall be responsible for implementation of that requirement. Each permittee is responsible for assuring that their activities do not render another permittee's controls ineffective.

The SWPPP must incorporate the requirements provided in Appendix 1 and shall include the following information.

1. **Site Description**. Each SWPPP shall provide a description of the construction activity and potential sources of pollution as indicated below:

    a. A description of the overall project and the type of construction activity;

    b. Estimates of the total area of the site and the total area that is expected to be disturbed by excavation, grading, grubbing, or other activities during the life of the project;

c. A proposed timetable/schedule, or chart, of activities that includes major phases/stages, BMP implementation, BMP removal, disturbances, and stabilization for major portions of the site;

d. A description of the soil within the disturbed area(s);

e. The name of the surface water(s) and municipal storm sewer system at or near the disturbed area that will receive stormwater runoff from the project site; and

f. A site map which indicates the following items as applicable (more than one (1) map may be needed). If an item is not applicable, provide rationale describing why the item is not applicable to the construction activity:

1) Location of project;
2) Project boundaries;
3) Areas of ground disturbance during each phase/stage of the project;
4) Areas where disturbance will not occur, such as avoidance areas (e.g. wetlands, critical habitat, Threatened and Endangered Species, etc);
5) Drainage patterns including flow direction (run-on and runoff);
6) Discharge points and storm sewer system inlets which the site drains to or may be affected by the activity;
7) Location of all temporary and permanent sediment and erosion controls during each particular phase;
8) Location of any stormwater conveyances such as retention ponds, detention ponds, ditches, pipes, swales, stormwater diversions, culverts, and ditch blocks;
9) Location of potential sources of pollution (e.g. portable toilets, trash receptacles, etc.) or areas were potential sources of pollution cannot be located;
10) Location of soil stockpiles;
11) Identify steep slopes;
12) Surface waters, including an aerial extent of wetlands;
13) Location of surface water crossings;
14) Locations where stormwater is discharged to surface waters;
15) Location of dewatering discharge points;
16) Locations where chemical treatment of stormwater will be performed, including discharge points;
17) Fueling locations and storage, vehicle and equipment maintenance areas, designated wash water collection site, lubricant and chemical storage, paint storage, material storage, staging areas, and debris collection area;
18) Location of any impervious surfaces upon completion of construction; and
19) Where included as part of the project, the site maps for off-site concrete/asphalt batch plants, equipment staging areas, borrow sites or excavated fill material disposal sites. Site maps must show items 1 through 18 of this section.

g. Projects that discharge stormwater which flows to a water body listed as impaired under section 303(d) of the Federal Clean Water Act due to sediment, suspended solids or turbidity must identify the water body and impairment in the SWPPP. The department's 303(d) list may be found at the following website under Integrated Reports: deq.nd.gov/WQ

h. For water bodies which have a TMDL, the SWPPP must describe and conform to the Waste Load Allocations (WLA) of the water body. Information about TMDL allocations may be found at the following website: deq.nd.gov/WQ

2. **Narrative.** The SWPPP must include a narrative description of the selected operational controls and sediment and erosion controls as outlined in Part II(C)(3), Part II(C)(4), and Appendix 1 of this permit. When applicable, a description of the requirements for any additional environmental regulations and local requirements related to the project, as it relates to waters of the state, must also be included or incorporated by reference (e.g. The Wild and Scenic Rivers Act, The National Historic Preservation Act, The Endangered Species Act, Fish and Wildlife Coordination Act, National Environmental Policy Act, Section 404 of the Clean Water Act, etc.).

   The narrative shall describe at a minimum:

   a. The installation, removal (if applicable), and maintenance requirements of selected Best Management Practices (BMPs) for each phase/stage of construction activity;
   b. The rationale for the selection of all BMPs (the design should be included where appropriate);
   c. Whether selected BMPs are temporary or permanent;
   d. Any descriptions of infeasibility or explanations as required in Part II of this permit.

3. **Operational Controls**. The SWPPP shall describe the BMPs used in day to day operations on the project site that reduce the contribution of pollutants in stormwater runoff.

   a. The SWPPP must identify a person knowledgeable and experienced in the application of erosion and sediment control BMPs who will oversee the implementation of the SWPPP, and the installation, inspection, and maintenance of the erosion and sediment control BMPs before and during construction until a NOT is filed or the permit is transferred. A knowledgeable and experienced person is someone who meets the requirements of Part II(C)(3)(e) of this permit.

   b. The owner shall develop a chain of responsibility with all operators on the site to ensure that the SWPPP will be implemented and stay in effect until the construction project is complete, the entire site has undergone final stabilization, and a NOT has been submitted to the department.

   c. The SWPPP must include a description of good housekeeping practices used to maintain a clean and orderly site. The SWPPP shall describe how litter, debris, chemicals and parts will be handled to minimize exposure to stormwater. The SWPPP also shall describe what measures will be used to reduce and remove sediment tracked off site by vehicles or equipment. In addition, the SWPPP shall describe methods which will be used to reduce the generation of dust that could be discharged in stormwater from the project.

   d. The SWPPP shall describe spill prevention and response procedures where potential spills can occur. Specific handling procedures, storage requirements, spill containment, cleanup procedures, and disposal must be identified. Storage structures for petroleum products and other chemicals shall have adequate leak and spill protection to prevent any spilled materials from entering waters of the state or storm sewer systems.

      The potential discharge of hazardous substances in stormwater discharges shall be minimized by including measures detailed in the SWPPP to prevent and respond to releases of hazardous substances. If a reportable quantity release occurs, the SWPPP shall be revised to prevent the reoccurrence of such a release.

   e. The SWPPP shall outline how employees and responsible parties shall be trained on the implementation of the SWPPP. Training must be provided at least annually, as new employees or responsible parties are hired, or as necessary to ensure compliance with the SWPPP and the general permit. Employees and responsible parties include individuals who are responsible for design, installation, maintenance, and repair of stormwater controls and conducting inspections.

1) On-site personnel must understand the requirements of this permit as it pertains to their role in implementing the SWPPP. On-site personnel must know:

   a. The purpose of the SWPPP, requirements of the SWPPP, and how the SWPPP will be implemented;

   b. The location of all BMPs identified in the SWPPP; and

   c. Correct installation, function, maintenance, and removal (if applicable) of BMPs identified in the SWPPP.

2) Personnel responsible for performing site inspections must understand when inspections must be conducted (Part III(A)), what must be inspected (Part II(C)(7)), how to record findings, and when to initiate and properly document corrective actions.

3) Maintenance personnel must understand when maintenance must be performed on BMPs in order to maintain properly functioning BMPs and what needs to be recorded for corrective actions/maintenance records in accordance with Part III(A)(5) of this permit.

f. The SWPPP must describe how concrete grindings and slurry will be managed. Wastewater from concrete washout, cleanout or washout from stucco, paint, joint compound, and other building materials shall not be discharged to waters of the state, storm sewer systems, or curb and gutter systems.

   1) Wash water must be collected in leak-proof containers or leak-proof pits. Containers or pits must be designed and maintained so that overflows cannot occur due to inadequate sizing, precipitation events, or snowmelt.

g. The SWPPP shall describe any dewatering activities planned at the site. Dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) related to the permitted activity must be managed with appropriate BMPs, such that the discharge does not adversely affect the receiving water. The following conditions apply to dewatering activities:

   1) Dewatering is limited to uncontaminated stormwater, surface water, and groundwater that may collect on-site and those sources identified in Part II(A), if they are not a significant source of pollution. A separate permit must be obtained to discharge water from other sources such as hydrostatic testing of pipes, tanks, or other similar vessels; disinfection of potable water lines; pump testing of water wells; and the treatment of refined petroleum contaminated groundwater or surface water.

   2) The permittee(s) must operate the discharge to minimize the release of sediment and provide adequate BMPs where necessary to minimize erosion due to the discharge. Discharges must not lead to the deposition of sediment within stormwater conveyance systems or surface waters. Discharges must not cause or potentially cause a visible plume within a surface water body.

   3) When dewatering, utilize structures or BMPs which allow for draw down to occur from the surface of the water, unless infeasible. If infeasible, documentation must be provided in the SWPPP. In addition, you must describe what BMP(s) will be used in its place.

4) Chemical treatment of dewatering activities for sediment removal must be conducted in accordance with the chemical manufacturer's specifications. Treatment chemicals must be appropriately selected for the anticipated soil particle size and characteristics of the stormwater (pH, turbidity, flow rate of stormwater flowing into the chemical treatment system, etc.). A description of the chemical treatment process must be included in the SWPPP. Permittees shall ensure the selection and management of chemicals minimize the potential for harmful effects in the discharge. The following information must be included in the SWPPP.

   a. Material Safety Data Sheet/Safety Data Sheet (MSDS/SDS);
   b. Proposed water additive discharge concentration;
   c. Discharge frequency (i.e., number of hours per day and number of days per year);
   d. Monitoring point for product discharge;
   e. Type of removal treatment, if any, that the water additive receives prior to discharge;
   f. Product function (e.g., coagulant, flocculant, etc.);
   g. A 48-hour LC_{50} or EC_{50} for a North American freshwater planktonic crustacean (*Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.); and
   h. Results for a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean).

5) Local authorities may require specific BMPs for discharges affecting their storm sewer system.

4. **Erosion and Sediment Controls**. Erosion and sediment controls and stabilization requirements must be implemented for each major phase of site activity (e.g., clearing, grading, building, and landscaping phases). A description of the erosion and sediment controls and site stabilization methods must be provided in accordance with Part II(C)(2) of this permit. Erosion and sediment controls, and site stabilization must conform to the requirements provided in Appendix 1. The description and implementation of controls shall address the following minimum components:

   a. The selection of erosion and sediment controls, and site stabilization shall consider the following:

      1) The expected amount, frequency, intensity, and duration of precipitation events. Permittees may state that selected erosion and sediment controls and site stabilization methods are industry standards;

      2) The nature of stormwater run-on and runoff from the site as well as changes during, and as a result of, construction activity. This includes changes to impervious surfaces, slopes, seasonal changes, and drainage features on-site;

      3) Channelized flow must be handled in order to minimize erosion at outlets and to minimize impacts to downstream receiving waters;

      4) Soil types (wind and water erodibility, and settling time); and

      5) Seasonal conditions.

   b. Sediment basins, or an appropriate combination of equivalent sediment controls such as smaller sediment basins and/or sediment traps, silt fences, fiber logs, vegetative buffer strips, berms, etc., are required for all down slope boundaries of the disturbance area and for those side slope boundaries as may be appropriate for site conditions.

c. Temporary or permanent erosion protection and stabilization (such as cover crop planting or mulching) must be initiated immediately, as described in Appendix 1(A), for all exposed soil areas where activities have been completed or temporarily ceased.

d. All control measures must be properly selected, installed and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee must replace or modify the control for site situations. Corrective actions must be made prior to the next anticipated rainfall event or within 24 hours of discovery (whichever comes first) or as soon as field conditions allow. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.

   The permittee may deviate from the manufacturer's specifications and erosion and sediment control requirements in Appendix 1 if they provide justification for the deviation and document the rationale for the deviation in the SWPPP. Any deviation must provide equivalent erosion and sediment control.

e. If sediment escapes from the site, off-site accumulations of sediment must be removed in a manner and frequency sufficient to minimize off-site impacts as outlined in Appendix 1(B). The SWPPP must be modified to prevent further sediment deposition off site.

f. Stormwater controls are expected to withstand and function properly during precipitation events of up to the 2-year, 24-hour storm event. Visible erosion and/or off-site sediment deposition from such storm events should be minimal. The 2-year, 24-hour rainfall event in North Dakota ranges from about 1.76 inches in the west to 2.50 inches in the east (NOAA Atlas 14, Volume 8, Version 2, Midwestern States 2013).

g. For projects that discharge stormwater which flows to a water body for which there is a TMDL allocation the SWPPP must be consistent with the assumptions, allocations, and requirements in the approved TMDL. If a TMDL specifies certain BMPs or controls to meet a WLA applicable to the project's discharges, the BMPs or controls must be incorporated into the SWPPP. Information about TMDL allocations may be found at the following website: deq.nd.gov/WQ

5. **Stormwater Management**. The SWPPP must identify permanent practices incorporated into the project to control pollutants in stormwater discharges occurring after construction operations have been completed.

   a. Identify stormwater ponds; flow reduction methods; infiltration of runoff on-site; sequential systems which combine several practices or other post-construction stormwater management features.

   b. Identify velocity / energy dissipation devices placed at discharge locations and appropriate erosion protection for outfall channels and ditches.

   c. Maintenance for on-site stormwater management features is the responsibility of the permittee until the NOT is submitted or the feature is accepted by the party responsible for long term maintenance.

   d. The design, installation and use of stormwater management features must comply with applicable local, state or federal requirements.

6. **Maintenance**. The SWPPP shall describe preventative maintenance practices used to ensure the proper operation of erosion and sediment control devices and equipment used or stored on site. All erosion and sediment control measures and other protective measures identified in the SWPPP must be maintained in effective operating condition. The SWPPP must indicate, as appropriate, the maintenance or clean out interval for sediment controls. If site inspections, required in Part III of this permit, identify BMPs that are not operating effectively, maintenance shall be arranged and accomplished in accordance to Appendix 1 or as soon as practicable.

7. **Inspections**. The SWPPP must provide for site inspections as outlined in Part III. The permittee shall ensure that personnel conducting site inspections are familiar with permit conditions and the proper installation and operation of control measures. Inspectors must be knowledgeable in their role of the SWPPP, as outlined in Part II(C)(3)(e) of this permit. The erosion and sediment control measures and stabilized areas identified in the SWPPP shall be observed to ensure they are operating correctly and in serviceable condition. Inspections shall include areas used for storage of materials, permanent stormwater control measures, vehicle maintenance areas, and dewatering activities. These areas shall be inspected for evidence of, or the potential for, pollutants entering a drainage system. If necessary, the plan shall be revised based on the observations and deficiencies noted during the inspection.

8. **SWPPP Review and Revisions**.

    a. The SWPPP shall be signed in accordance with the Signatory Requirements, Part IV(A)(6), and retained on-site for the duration of activity as outlined in Part III(B). The owner, or owner jointly with the operator (usually the general contractor), shall sign the SWPPP.

    b. The permittee shall make the SWPPP available upon request to the department, EPA, or, in the case of discharges to a municipal storm sewer system, the operator of the municipal system.

    c. The permittee shall amend the SWPPP whenever there is a change in design, construction, operation, maintenance, or BMPs. The SWPPP shall be amended if the plan is found to be ineffective in controlling pollutants present in stormwater. The SWPPP shall include a description of the amendment process.

D. Local Requirements

All stormwater discharges must comply with the requirements, policies, or guidelines of municipalities and other local agencies as applicable to the construction site. Any discharges to a storm sewer, ditch or other water course under the jurisdiction of a municipality must comply with any specific conditions or BMPs required by the municipality or agency.

E. Final Stabilization

The permittee(s) must ensure final stabilization of the site. Permittees should submit a NOT within 30 days after final stabilization has been achieved, or another owner/operator (permittee) has assumed control according to Part I(F) for all areas of the site that have not undergone final stabilization. Final stabilization can be achieved in one of the following ways.

1. All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent of the pre-existing cover over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;

a. All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;

b. All temporary erosion prevention and sediment control BMPs (such as silt fence) must be removed as part of the site final stabilization; and

c. The permittee(s) must remove all sediment from conveyances and temporary sedimentation basins that will be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed into basins, conveyances or drainage ways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.

2. For areas of the state where the average annual rainfall is less than 20 inches, all soil disturbing activities at the site have been completed and erosion control measures (e.g., degradable rolled erosion control product) and stabilization methods are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years and achieve 70 percent of the pre-existing vegetative cover within three (3) years without active maintenance. Sites must meet the criteria outlined in items 1(a), (b), and (c) above.

3. Disturbed areas on land used for agricultural purposes that are restored to their pre-construction agricultural use are not subject to these final stabilization criteria. If the construction activity removed standing crop, the area must be restored in accordance with the landowner.

   Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to waters of the state, and areas which are not being returned to their pre-disturbance use must meet the final stabilization criteria in (1) or (2) above.

4. For residential construction only, final stabilization may be achieved when soil is stabilized (see Appendix 1(A)(3)) and down gradient perimeter control for individual lots has been implemented and the residence has been transferred to the homeowner. Additionally, the permittee must distribute a “homeowner fact sheet” to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization. The permittee also must demonstrate that the homeowner received the fact sheet.

III. SELF MONITORING AND REPORTING

A. Inspection and Maintenance Requirements

1. Inspections shall be performed by or under the direction of the permittee at least once every 14 calendar days and within 24 hours after any storm event of greater than 0.25 inches of rain per 24-hour period. Rainfall inspections do not take the place of the scheduled once every 14-calendar day inspection unless the rainfall inspection occurs on the same day as the once every 14-calendar day inspection. Inspections are only required during normal working hours. The permittee shall use a rain gauge on-site or utilize the nearest National Weather Service precipitation gauge station. Rain gauge locations or stations must be representative of the site.

   a. “Within 24 hours after any storm event greater than 0.25 inches rain per 24-hour period” means that you are required to conduct an inspection within 24 hours once a storm event has produced 0.25 inches, even if the storm event is still continuing. If there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more rain, you are required to conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

2. There may be times when a site inspection may not be practical at the specified time. Adverse climatic conditions, such as flooding, high winds, tornadoes, electrical storms, site access constraints, etc., may prohibit inspections. The permittee must include a description of why the inspection(s) could not be performed at the designated time in the next inspection record. If an inspection is delayed due to adverse weather conditions or rain events outside normal working hours, an inspection must be conducted during the next working day, or as conditions allow.

3. Some erosion and sediment control measures may require more frequent inspection based on location (e.g., sensitive areas or waters of the state) or as a result of recurring maintenance issues. Erosion or sediment control measures found in need of maintenance between inspections must be repaired or replaced with appropriate measures as soon as practicable. Erosion and sediment control measures which require more frequent inspection based on location or as a result of recurring maintenance issues must be identified in the SWPPP.

4. All inspections conducted during construction must be recorded. These records (or reports) must be retained in accordance with Part III(B). Records (or reports) of each inspection activity shall include:

    a. Date of inspections;

    b. Name of person(s) conducting inspections;

    c. Findings of inspections, including recommendations and schedule for corrective actions;

    d. Date and amount of all rainfall events greater than 1/4 inch (0.25 inches) in 24 hours;

    e. Documentation that the SWPPP has been amended when changes are made to BMPs in response to inspections; and

    f. Signature of person(s) conducting the inspection or other means used to verify an inspector (e.g., work order or preventative maintenance schedule completion).

5. Corrective actions (maintenance activities) performed during construction must be recorded and these records must be retained in accordance with Part III(B). Records for maintenance activity shall include:

    a. Best Management Practice corrected;

    b. Date of corrective action;

    c. Name of person(s) performing corrective actions;

    d. Corrective actions taken; and

    e. Corrective actions/maintenance records shall be signed or use another means to verify corrective actions/maintenance were completed (e.g., work order or preventative maintenance schedule completion).

6. Completed areas that have been stabilized but do not meet the 70 percent perennial vegetative cover criteria for final stabilization may be inspected once per month. Inspections may be suspended for parts of the construction site that meet final stabilization requirements of Part II(E) of this permit. The SWPPP must update to identify any areas which meet this condition.

7. Inspections may be suspended where earthwork has been suspended due to frozen ground conditions. The required inspections and maintenance must resume as soon as runoff occurs or the ground begins to thaw at the site. The permittee must record freeze/thaw and runoff dates as part of the inspection records.

8. Dewatering activities shall be inspected daily. The inspection must include the dewatering site, areas where BMPs are being implemented and the discharge location. A record (or report) shall be maintained to document the inspections of the dewatering operation and actions taken to correct any problems that may be identified. Records shall contain at a minimum:

    a. Date of inspections;

    b. Name of person(s) conducting inspections;

    c. Approximate volume of water discharged;

    d. Findings of the inspection, including recommendations and schedule for corrective actions;

    e. Corrective actions taken (including dates and party completing maintenance activities);

    f. Documentation that the SWPPP has been amended when changes are made to the dewatering activity in response to inspections; and

    g. Signature of person(s) conducting inspections and maintenance or other means used to verify an individual (e.g., work order or preventative maintenance schedule completion).

B. Records Location

A copy of the completed and signed NOI, coverage letter from the department, SWPPP, site inspection records, corrective actions/maintenance records, and this general permit shall be kept at the site of the construction activity in a field office, trailer, shed, vehicle that is on-site during normal working hours, or other reasonable on-site location. If the site does not have a reasonable on-site location, then the documents must be retained at a readily available alternative location; preferably with the individual responsible for overseeing the implementation of the SWPPP. Electronic copies of records are acceptable if the records can be accessed on-site. If the site is inactive, then the documents may be stored at a local office. Permittees should avoid using personal electronic devices for storing electronic records.

IV. STANDARD CONDITIONS

A. COMPLIANCE RESPONSIBILITIES BP 2019.05.29

1. **Duty to Comply**
   The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. **Proper Operation and Maintenance**
   The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. If necessary to achieve compliance with the conditions of this permit, this shall include the operation and maintenance of backup or auxiliary systems.

3. **Planned Changes**
The department shall be given advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance. Any anticipated facility expansions, production increase, or process modifications which might result in new, different, or increased discharges of pollutants shall be reported to the department as soon as possible. Changes which may result in a facility being designated a "new source" as determined in 40 CFR 122.29(b) shall also be reported.

4. **Duty to Provide Information**
The permittee shall furnish to the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the department, upon request, copies of records required to be kept by this permit. When a permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or any report, it shall promptly submit such facts or information.

5. **Records Retention**
All records and information (including calibration and maintenance) required by this permit shall be kept by the permittee for at least three years from the date that permit coverage expires or is terminated or longer if requested by the department or EPA.

6. **Signatory Requirements**
All applications, reports, or information submitted to the department shall be signed and certified.

   All permit applications shall be signed by a responsible corporate officer for a corporation; a general partner or the proprietor for a partnership or sole proprietorship; or a principal executive officer or ranking elected official for a municipality, State, Federal, or other public agency.

   All reports required by the permit and other information requested by the department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and included in the SWPPP; and

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

   A copy of the written authorization must be submitted to the department upon request. If an authorization under 6. Signatory Requirements is no longer accurate for any reason, a new authorization satisfying the above requirements must be included in the SWPPP.

   Any person signing a document under this section shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. **Twenty-four Hour Notice of Noncompliance Reporting**
   a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The oral report shall be made the department at 701.328.5210.

   b. A written submission shall also be provided within five days of the time that the permittee became aware of the circumstances. The written submission shall contain:

      1) A description of the noncompliance and its cause;

      2) The period of noncompliance, including exact dates and times;

      3) The estimated time noncompliance is expected to continue if it has not been corrected; and

      4) Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

   Reports shall be submitted to the department at the following address:

   ND Department of Environmental Quality
   Division of Water Quality
   918 East Divide Ave
   Bismarck ND 58501-1947

   The department may waive the written report on a case by case basis if the oral report has been received within 24 hours by the department at 701.328.5210 as identified above.

8. **Bypass of Treatment Facilities**
   a. Prohibition of Bypass. Bypass is prohibited, and the department may take enforcement action against a permittee for bypass, unless:

      1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

      2) There were no feasible alternatives to the bypass. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of preventive maintenance; and

      The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the two (2) conditions listed above.

9. **Upset Conditions**
   An upset constitutes an affirmative defense to an action brought for noncompliance with erosion and sediment or site stabilization methods if the requirements of the following paragraph are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

   A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and the permittee can identify its cause(s);

   b. The permitted facility was, at the time being, properly operated;

c. The permittee submitted notice of the upset as required under 7. Twenty-four Hour Notice of Noncompliance Reporting and

d. The permittee complied with any remedial measures required under 10. Duty to Mitigate.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

10. **Duty to Mitigate**
The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee, at the department's request, shall provide accelerated or additional monitoring as necessary to determine the nature and impact of any discharge.

11. **Removed Materials**
Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner to prevent any pollutant from entering any waters of the state or creating a health hazard.

12. **Duty to Reapply**
Any request to have this permit renewed should be made fifteen days prior to its expiration date.

B. GENERAL PROVISIONS

1. **Inspection and Entry**
The permittee shall allow department and EPA representatives, at reasonable times and upon the presentation of credentials if requested, to enter the permittee's premises to inspect the construction activity and monitoring equipment, to sample any discharges, and to have access to and copy any records required to be kept by this permit.

2. **Availability of Reports**
Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the department and EPA. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

3. **Transfers**
This permit is not transferable except upon the filing of a Transfer/Modification request (Part I(F)) by the new party. The current permit holder should inform the new controller, operator, or owner of the existence of this permit and also notify the department of the possible change.

4. **New Limitations or Prohibitions**
The permittee shall comply with any effluent standards or prohibitions established under Section 306(a), Section 307(a), or Section 405 of the Act for any pollutant (toxic or conventional) present in the discharge or removed substances within the time identified in the regulations even if the permit has not yet been modified to incorporate the requirements.

5. **Permit Actions**
This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

6. **Need to Halt or Reduce Activity Not a Defense**
   It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

7. **State Laws**
   Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation preserved under Section 510 of the Act.

8. **Oil and Hazardous Substance Liability**
   Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

9. **Property Rights**
   The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

10. **Severability**
    The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

V. DEFINITIONS

"**303(d) list**" or "**section 303(d) list**" means a list of North Dakota's water quality-limited waters needing total maximum daily loads or TMDLs developed to comply with section 303(d) of the Clean Water Act. A copy of the list is available on the state's web site at: deq.nd.gov/WQ

"**Act**" means the Clean Water Act.

"**Bankfull**" means the channel is filled to the top of one or both of its banks.

"**BMP**" or "**best management practices**" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures and practices to control construction site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"**Bypass**" means the intentional diversion of waste streams from any portion of a treatment facility.

"**Common plan of development or sale**" means a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.

"**Construction activity**" means construction activity as defined in 40 CFR part 122.26(b)(14)(x) and small construction activity as defined in 40 CFR part 122.26(b)(15). This includes a disturbance to the land that results in a change in topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated stormwater runoff, leading to soil erosion and movement of sediment into surface waters or drainage systems. Examples of construction activity may include clearing, grading, filling and excavating. Construction activity includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) acre or more. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

"**Department**" means the North Dakota Department of Environmental Quality, Division of Water Quality.

"**Energy dissipation**" means methods employed at pipe outlets to prevent erosion. Examples include, but are not limited to: concrete aprons, riprap, splash pads, and gabions that are designed to prevent erosion.

"**Indian country**" means (1) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservations; (2) All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and (3) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

"**Infeasible**" means not technologically possible or not economically practicable and achievable in light of best industry practices.

"**Immediately**" means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.

"**Large construction activity**" means land disturbance of equal to or greater than five (5) acres. Large construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater that five acres.

“**Normal wetted perimeter**” means the area of a conveyance, such as a ditch, channel, or pipe that is in contact with water during flow events that are expected to occur once every year.

“**Non-stormwater discharges**” means discharges other than stormwater. The term includes both process and non-process sources. Process wastewater sources that require a separate NDPDES permit include, but are not limited to industrial processes, domestic facilities and cooling water. Non-stormwater sources that may be addressed in this permit include, but are not limited to: fire-fighting, fire hydrant flushing, potable water line flushing, equipment wash down without detergents or hazardous cleaning products, uncontaminated foundation drains, springs, surface water, lawn watering, chemical treatment of stormwater and air conditioning condensate.

“**Operator**” means the person (usually the general contractor) designated by the owner who has day to day operational control and/or the ability to modify project plans and specifications related to the SWPPP. The person must be knowledgeable in those areas of the permit for which the operator is responsible and must perform those responsibilities in a workmanlike manner.

“**Owner**” means the person or party possessing the title of the land on which the construction activities will occur; or if the construction activity is for a lease holder, the party or individual identified as the lease holder; or the contracting government agency responsible for the construction activity.

“**Permanently ceased**” means clearing and excavation within any area of your construction site that will not include permanent structures has been completed.

“**Permanent Cover**” means final stabilization. Examples include grass, gravel, asphalt, and concrete.

“**Severe property damage**” means substantial physical damage to property, damage to best management practices which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in construction.

“**Significant materials**” includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

“**Significant spills**” includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

“**Small construction activity**” means land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than one and less than five acres.

“**Stabilized**” means the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, erosion control blanket, or other material that prevents erosion from occurring. Grass seeding alone is not stabilization. Snow cover and frozen ground conditions are not considered stabilized.

“**Steep Slopes**” means slopes which are 3:1 (Horizontal:Vertical) or greater in grade.

“**Stormwater**” means stormwater runoff, snow melt runoff, and surface runoff and drainage.

"**Stormwater associated with industrial activity**" means stormwater runoff, snow melt runoff, or surface runoff and drainage from industrial activities as defined in 40 CFR 122.26(b)(14).

"**Stormwater associated with small construction activity"** means the discharge of stormwater from:

(i) Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

(ii) Any other construction activity designated by EPA or the Department, based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the state.

"**Temporarily ceased**" means clearing, grading, and excavation within any area of the site that will not include permanent structures, will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future.

"**Temporary erosion protection**" means methods employed to prevent erosion. Examples of temporary cover include; mulch, straw, erosion control blanket, wood chips, tackifiers, and erosion netting.

"**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with permit requirements because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed erosion and sediment controls or site stabilization methods, inadequate erosion and sediment controls or site stabilization methods, lack of preventive maintenance, or careless or improper operation.

"**Waters of the state**" means any and all surface waters that are contained in or flow in or through the state of North Dakota as defined in NDCC 61-28-02. This definition includes all water courses, even if they are usually dry.

Appendix 1 – Erosion and Sediment Control Requirements

Requirements for designing, implementing and maintaining erosion and sediment controls.

A. Erosion and Sediment Control Practices

1. Sites using temporary (or permanent) sediment basins must meet the following requirements:

    a. Sediment basins shall be designed for a calculated volume of runoff from a 2-year, 24-hour storm per acre drained to the basin and provides not less than 1,800 cubic feet of sediment storage below the invert of the outlet pipe from each acre drained to the basin; or

    b. Basins shall be sized to provide 3,600 cubic feet of sediment storage below the invert of the outlet pipe per acre drained to the basin if calculations are not performed.

    c. Basin outlets must be designed to avoid short-circuiting and the discharge of floating debris. Basins must be designed with the ability to allow complete basin drawdown for maintenance activities. Basins must release the storage volume in at least 24 hours. Outlet structures must be designed to withdraw water from the surface, unless not practicable. If not practicable, rationale must be provided in the SWPPP. The basin must have a stabilized emergency overflow to prevent failure of pond integrity. Energy dissipation must be provided for the basin outlet.

2. Erosion, sediment, and stabilization practices shall be provided. Erosion, sediment, and stabilization practices include such things as: silt fences, fiber logs, stabilized earth berms, vegetative buffer strips, erosion control blankets, mulch, hydro-seeding combined with mulch or tackifiers, etc.

3. All exposed soil areas must be stabilized (see definitions). Stabilization must be initiated immediately where activities have been permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding fourteen (14) calendar days. Stabilization must be completed as soon as practicable, but no later than fourteen (14) calendar days after the initiation of soil stabilization. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) are exempt from this requirement.

    a. For slopes with a grade of 3:1 or greater, stabilization must be initiated immediately once activities have been completed or temporarily ceased. Stabilization must be completed as soon as practicable, but no later than seven (7) calendar days after the initiation of soil stabilization.

4. Temporary soil stockpiles must have effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches.

5. The normal wetted perimeter of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized at least 200 linear feet from the property edge, or from the point of discharge to any surface water. Stabilization shall be completed prior to connection with a surface water. Any remaining portion of the temporary or permanent drainage ditch must be stabilized within fourteen (14) calendar days for portions which construction activities have temporarily or permanently ceased.

6. If stabilization requirements cannot be met due to circumstances beyond the control of the permittee, the permittee may comply with following:

    a. If vegetative stabilization is to be used, immediately initiate, and within 14 calendars days complete, the installation of temporary non-vegetated stabilization; or

    b. Complete all methods of initiating stabilization as soon as conditions or circumstances allow.

If any conditions in parts (a) or (b) above are encountered, the permittee must document in the SWPPP the circumstances which prevented the stabilization requirements from being met and provide a schedule in the SWPPP which will be followed in order to meet the stabilization requirements.

Permittees are responsible for implementing winter stabilization methods during frozen ground conditions if the site was not stabilized prior to the ground freezing.

7. Stream diversions, or any temporary or permanent drainage ditch or trench which will have continuous flow, shall be stabilized with appropriate controls prior to connection with any surface water. The entire area (channel and bank) of the stream diversion or temporary or permanent drainage ditch, or trench, must be appropriately stabilized to bankfull height.

8. While working in or around surface waters, sediment and erosion controls must be used above the anticipated level of the surface water. Floating silt curtain does not satisfy the down slope and side slope boundary requirements in Part II(C)(4)(b) of this permit, unless the construction activity is on or below the elevation of the surface water. Floating silt curtain must be placed as close to shore as possible. Sediment controls must be installed where exposed soils drain to the surface water immediately after construction activity along the waterline has been completed.

9. Pipe and culvert outlets must be provided with energy dissipation prior to connection with a surface water.

10. Splash pads and/or downspout extensions must be provided for roof drains to prevent erosion from roof runoff.

11. All storm drain inlets in the immediate vicinity of the construction site must be protected by appropriate BMPs during construction until all disturbed areas and stockpiles with the potential to discharge to the inlet have been stabilized. This includes storm drain inlets which may be affected by sediment tracked onto paved surfaces by vehicles or equipment.

12. Inlet protection devices are a last line of control – erosion and sediment control practices must be used on site. Inlet protection devices must conform to local ordinances or regulations. In general, inlet protection devices need to provide for adequate drainage to prevent excessive roadway flooding. Inlet protection may be removed for a particular inlet if a specific concern (i.e., street flooding/freezing, snow removal) has been identified and documented in the SWPPP. In this situation, additional erosion and sediment control practices, or stabilization methods must be used to supplement the loss of the inlet protection device to prevent sediment from entering the storm sewer system.

13. Vegetated buffers must have a minimum width of 1 foot for every 5 feet of disturbed area that drains to the buffer. The width of the buffer shall have a slope of 5 percent or less and the area draining to the buffer shall have a slope of 6 percent or less. Concentrated flows should be minimized throughout the buffer.

    Buffers shall consist of dense grassy vegetation, 3 to 12 inches tall with uniform coverage over 90 percent of the buffer. Woody vegetation shall not be counted for the 90 percent coverage. No more than 10 percent of the overall buffer may be comprised of woody vegetation.

14. A 50-foot natural buffer or equivalent erosion and sediment controls must be provided when a project is within 50 feet of a surface water and stormwater flows to the surface water. If equivalent erosion and sediment controls are used, rationale for using equivalent controls must be provided in the SWPPP.

If working within 100 feet of a surface water listed as impaired for sediment, suspended solids or turbidity, a 100-foot natural buffer or equivalent sediment and erosion controls must be provided. If equivalent erosion and sediment controls are to be used, rationale for using equivalent controls must be provided in the SWPPP.

15. Discharges from the chemical treatment of stormwater must not cause a violation of the standards of quality for waters of the state (NDAC 33.1-16-02.1). The discharge must meet the dewatering or basin draining requirements provided in Part II(C)(3)(g) of this permit.

16. Minimize the duration of exposed soils on steep slopes.

B. Maintenance Requirements for Erosion and Sediment Controls

1. All erosion prevention and sediment control BMPs must be inspected to ensure integrity and effectiveness. All nonfunctional BMPs must be repaired, maintained, or replaced with functional BMPs. Corrective actions must be made prior to the next anticipated rainfall event or within 24 hours of discovery (whichever comes first), or as soon as field conditions allow access. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.

   Permittees must investigate and comply with the following inspection and maintenance requirements:

   a. All control devices similar to, and including, silt fence or fiber rolls must be repaired, replaced, maintained or supplemented when they become nonfunctional (torn from posts, visible tears, etc.). Collected sediment must be removed as it approaches 1/2 of the above ground capacity of the control device.

   b. Fiber rolls must be replaced when 1/2 of the original above ground height of the device when it was installed has been lost as a result of flattening or other damage.

   c. Sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches 1/2 the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.

   d. Maintenance and cleaning of inlet protection devices must be performed when sediment accumulates, the filter becomes clogged, and/or performance is compromised.

2. Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment deposited by erosion. Permittees must remove all deltas and sediment deposits in surface waters, drainage ways, catch basins, and other drainage systems. Areas where sediment removal results in exposed soil must be stabilized. Removal and stabilization must take place immediately, but no more than, seven (7) calendar days after the discovery unless precluded by legal, regulatory or physical access constraints. Permittees shall use all reasonable efforts to obtain access. If precluded, removal and stabilization shall take place immediately, but no more than, seven (7) calendar days after obtaining access. Permittees are responsible for contacting all local, regional, state, and federal authorities, and receiving any applicable permits prior to conducting any work.

3. Vehicle tracking of sediment from the site must be minimized by BMPs. This may include having a designated egress with aggregate surfacing from the site or by designating off-site parking. Permittees are responsible for (or making the arrangements for) street sweeping and/or scraping if BMPs are not adequate to prevent sediment from being tracked onto the street from the site.

Construction site egress locations must be inspected for evidence of sediment being tracked offsite by vehicles or equipment onto paved surfaces. Accumulations of tracked and deposited sediment must be removed from all off-site paved surfaces by the end of the work day, shift or if applicable, within a shorter time specified by local authorities or the department.

4. If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets could be washed into storm sewers by the next rain event and/or pose a safety hazard to users of public streets). BMPs shall be used to minimize further impacts of off-site accumulations of sediment until the off-site accumulations are removed. Impervious surface wash water may not be directed into any surface water or storm drain inlet unless appropriate pollution prevention measures have been implemented.

5. Vegetative buffers must be inspected for proper distribution of flows, sediment accumulation and signs of rill formation. If a buffer becomes silt covered, contains rills, or is otherwise rendered ineffective, other control measures shall be implemented. Eroded areas shall be repaired and stabilized within 24 hours of discovery, or as soon as conditions allow access. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.

C. Operational Controls

1. Properly handle construction debris and waste materials.

   a. Debris and waste must be handled appropriately until disposal. Litter and debris shall be collected and stored to reduce the potential for wind and water to carry the materials off-site or leachate discharging from a site. Collected material shall be taken to the appropriate facility for disposal or recycling.

   b. Liquid or soluble materials including oil, fuel, paint, and any other hazardous substances must be properly stored, to prevent spills, leaks or other discharges. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of liquid or soluble material must be in compliance with applicable regulations.

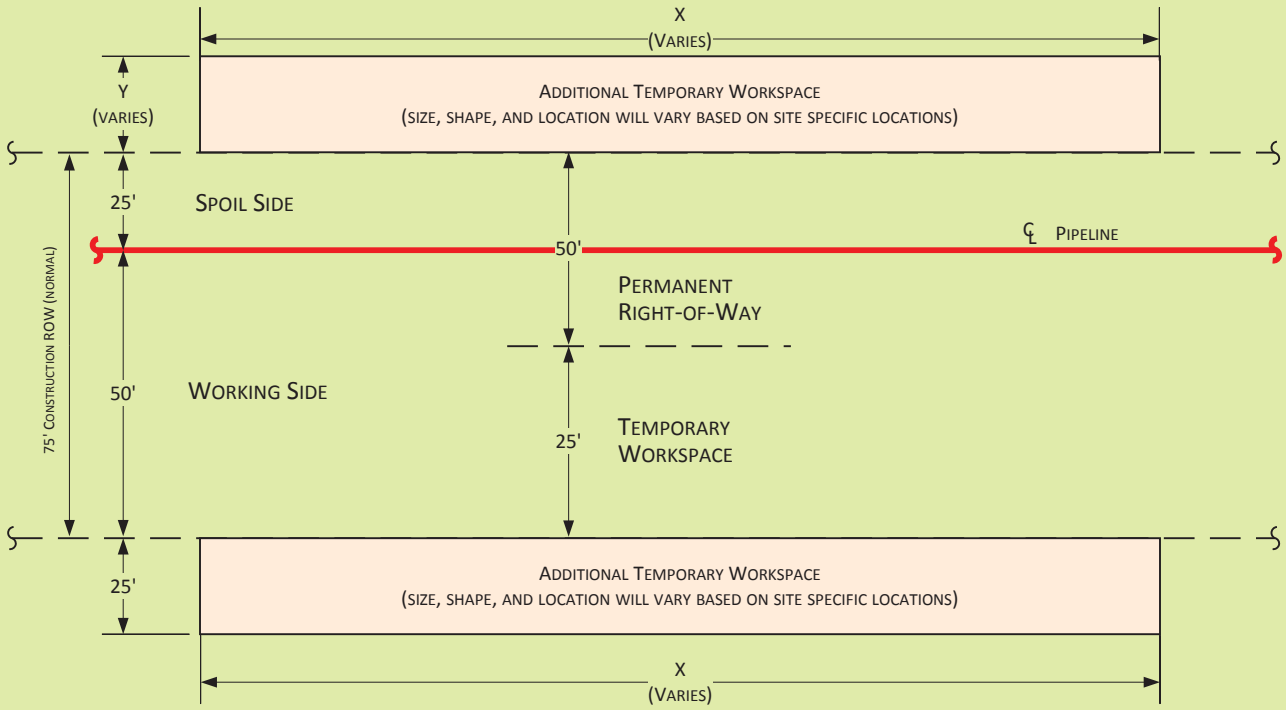
2. Wash water containments must be cleaned out (solids and liquid) before 80 percent of storage capacity is attained.

3. BMPs used in surface waters must be cleaned immediately upon removal from surface waters to prevent the transfer of aquatic nuisance species.

4. Fueling operations must be managed to minimize spills or leaks. Collected spill or leak material must be disposed in compliance with applicable regulations.

Appendix B

Construction Mitigation and Restoration and Construction Typicals



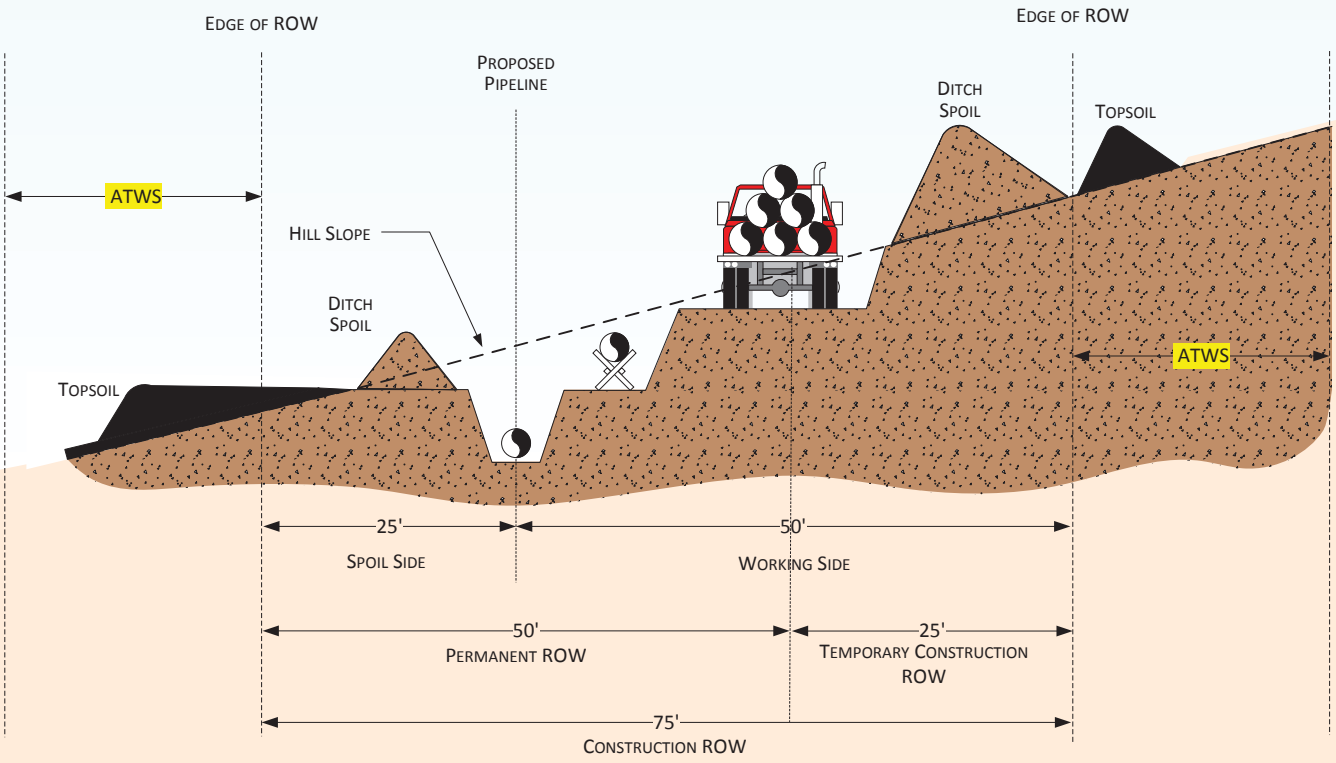
For environmental review purposes only.

ONEOK

Figure 1
Typical Construction Layout

ERM

MPLS: M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\	Fig_1_Construction_ROW.vsd	Scale: NTS	Revised: 8/20/2018	Drawn By: GIS



NOTES:

1. GRADE TO BE RESTORED AS NEAR AS PRACTICABLE TO PRECONSTRUCTION CONDITIONS DURING RESTORATION.

For environmental review purposes only.

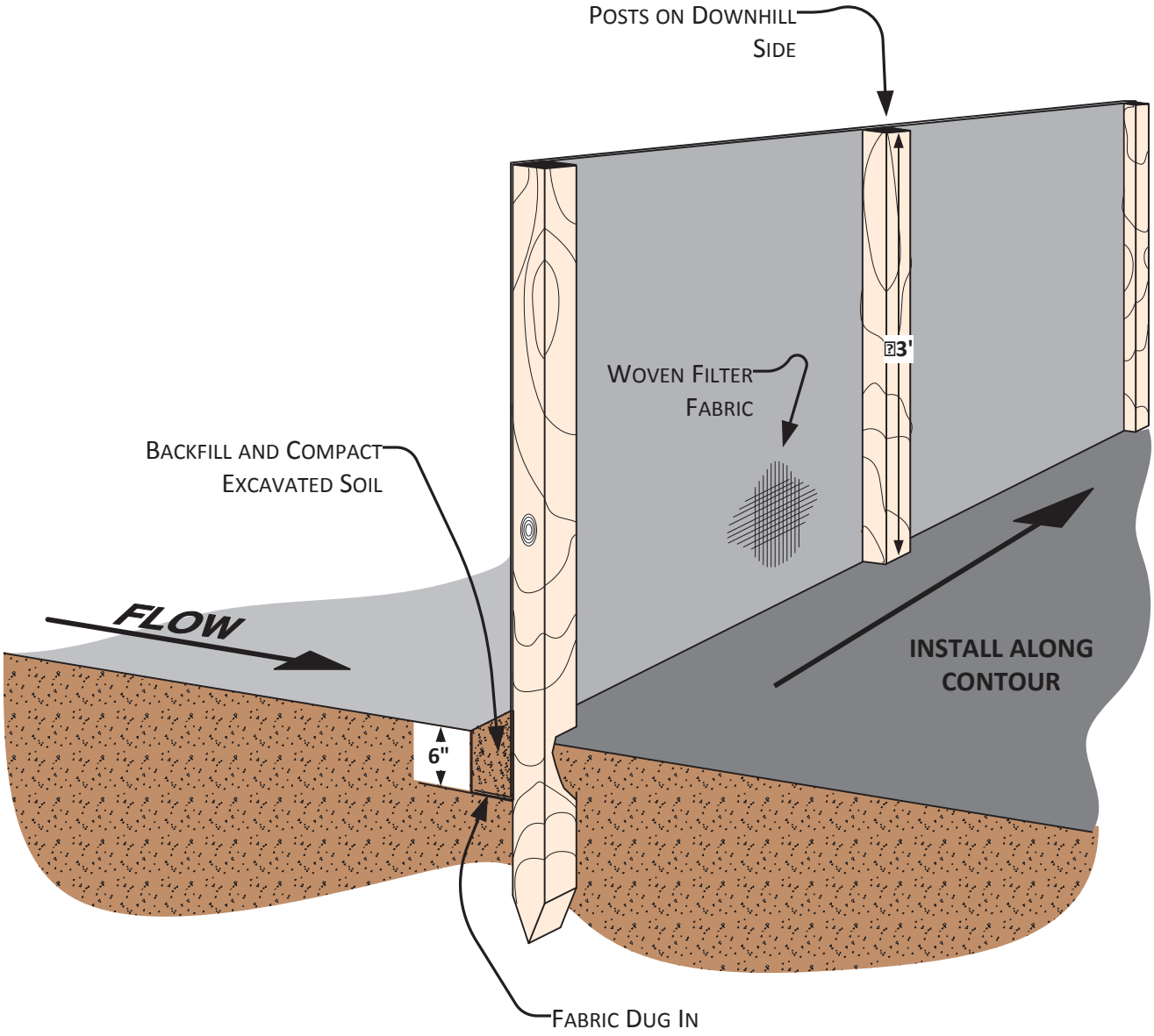
ONEOK

Figure 2

Typical Construction ROW
on Sloping Terrain

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_2_Typical_Construction_ROW_Sloping Terrain.vsd	Scale: NTS	Revised: 08/17/2018	Drawn By: RGCutting



For environmental review purposes only.

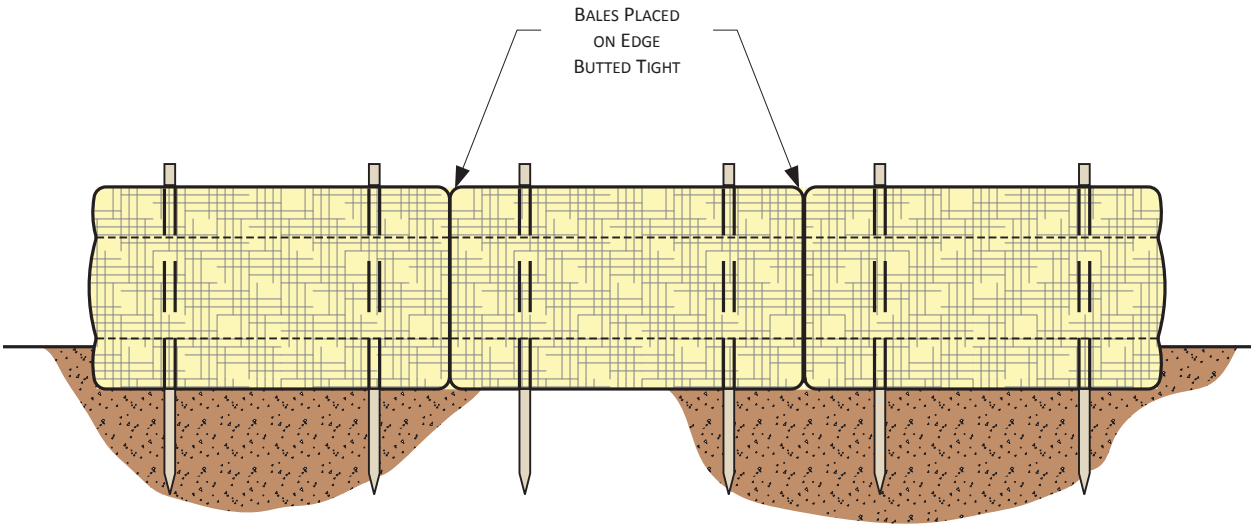
ONEOK

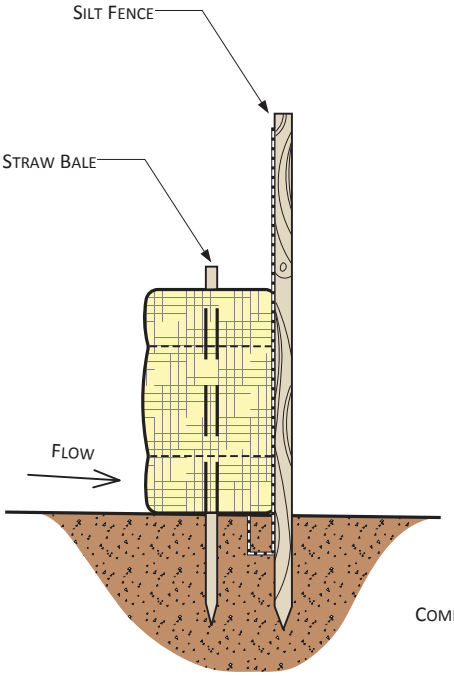
Figure 3

Typical Silt Fence Installation
(OKS-7901-ENV-01)

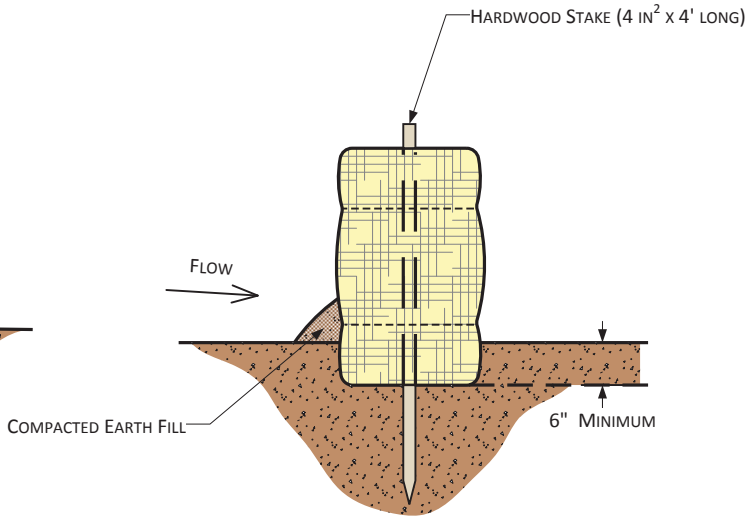
ERM

M:Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_3_Silt_Fence_Installation.vsd	Scale: NTS	Date: 5/20/2007	Revised: 08/17/2018	Drawn By: AGPeterson





Straw Bales & Silt Fence



Straw Bales Only

For environmental review purposes only.

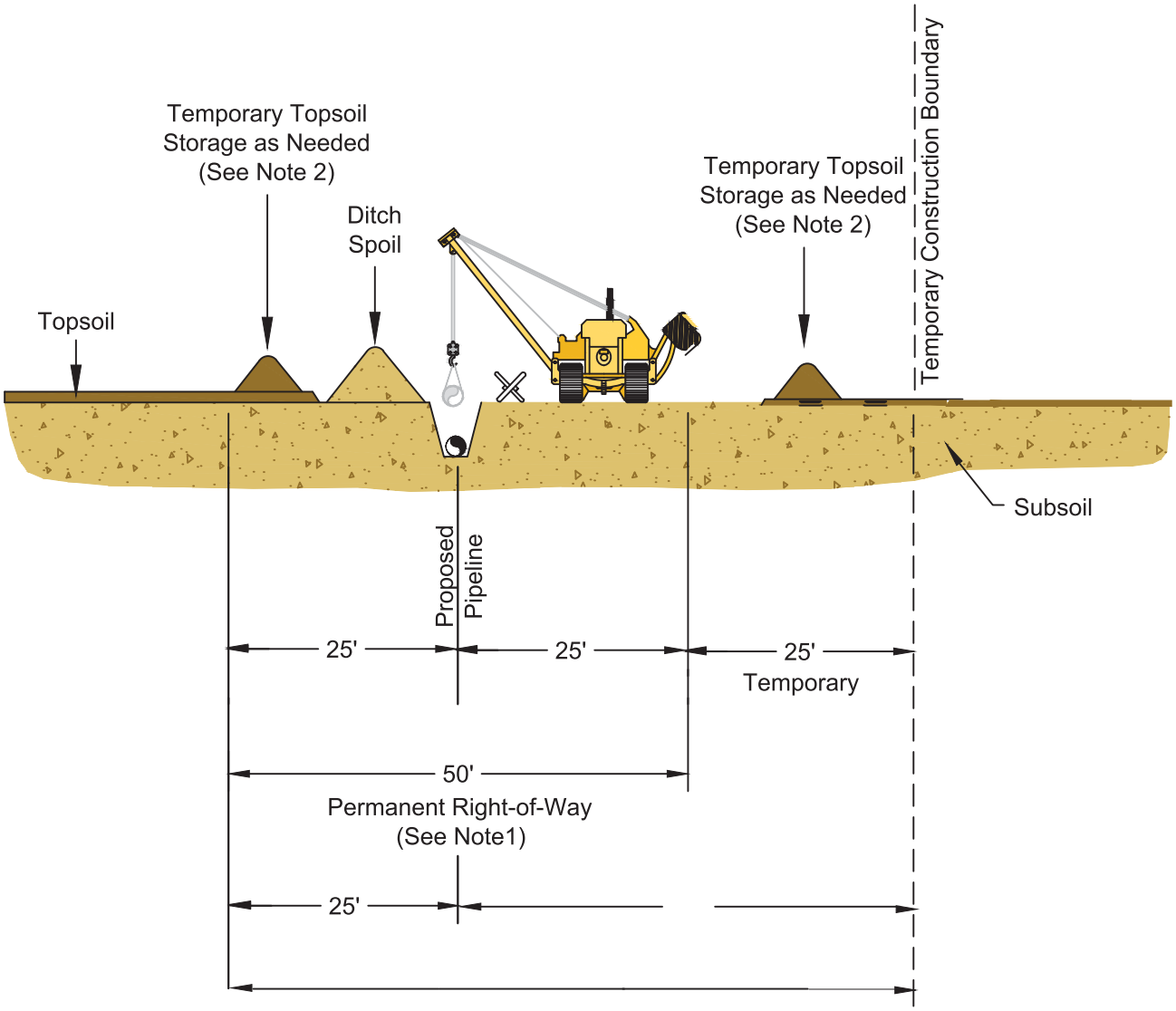
ONEOK

Figure 4

Typical Straw Bale Installation
(OKS-7901-ENV-02)

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_4_Typical_Straw_Bale.vsd	Scale: NTS	Date: 5/20/2007	Revised: 08/17/2018	Drawn By: AGPeterson



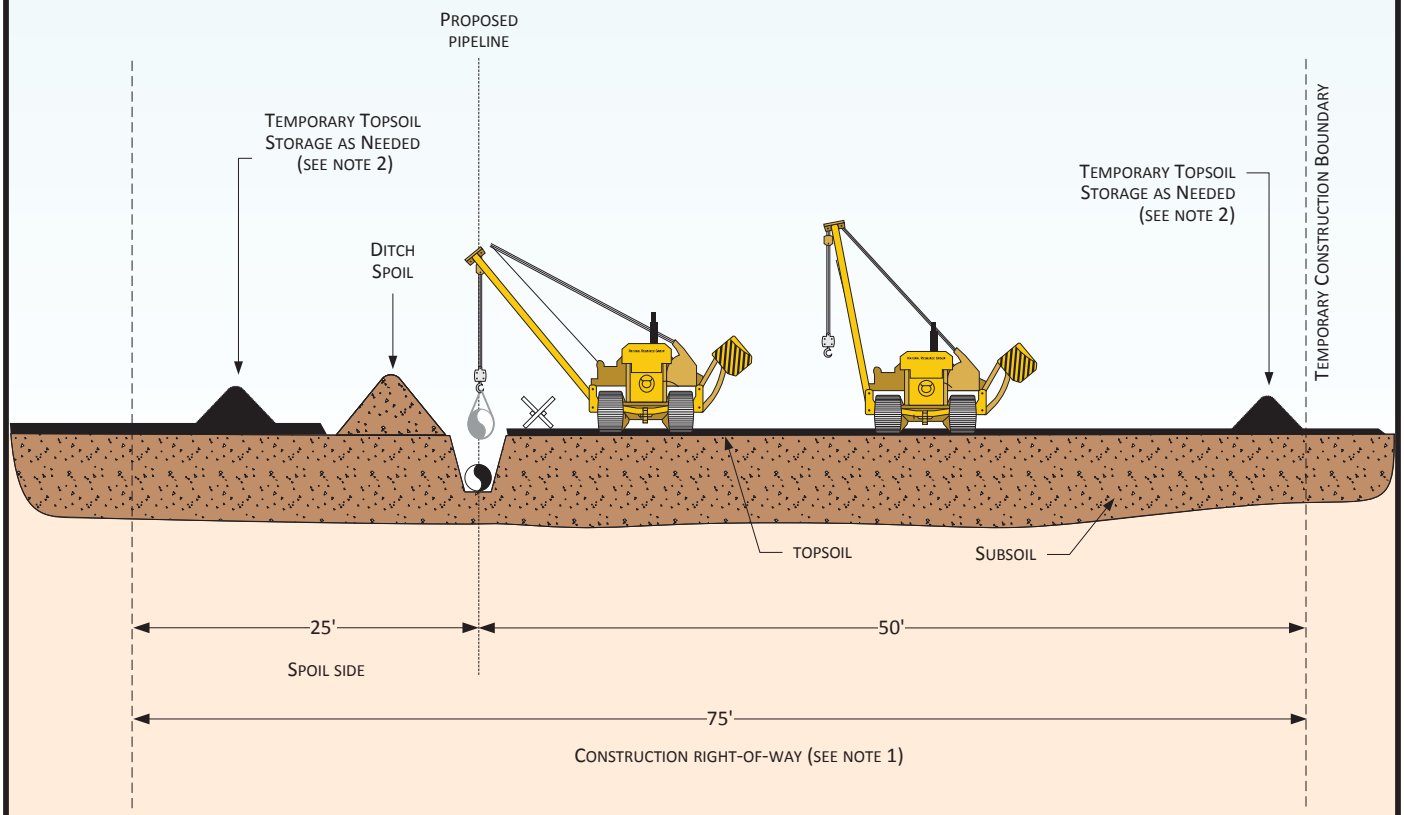
Notes:

1. Construction right-of-way will typically be 75 feet wide. The spoil side will be approximately 25 feet wide. The working side will be 50 feet wide.

2. This drawing reflects "Full Right of Way " topsoil stripping procedure. Stockpile topsoil separately from ditch spoil as shown or in other configurations approved by the company.

Figure 5
Typical Topsoil Segregation Trench
Right-of-Way
(OKS-7901-CONST-01c)

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_5_Typical_Topsoil_Segregation.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



PROFILE

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 75' WIDE. THE SPOIL SIDE WILL BE APPROXIMATELY 25' WIDE. THE WORKING SIDE WILL BE 50' WIDE.
2. THIS DRAWING REFLECTS "DITCH PLUS SPOIL" TOPSOIL STRIPPING PROCEDURE. STOCKPILE TOPSOIL SEPARATELY FROM DITCH SPOIL AS SHOWN OR IN OTHER CONFIGURATIONS APPROVED BY THE COMPANY.

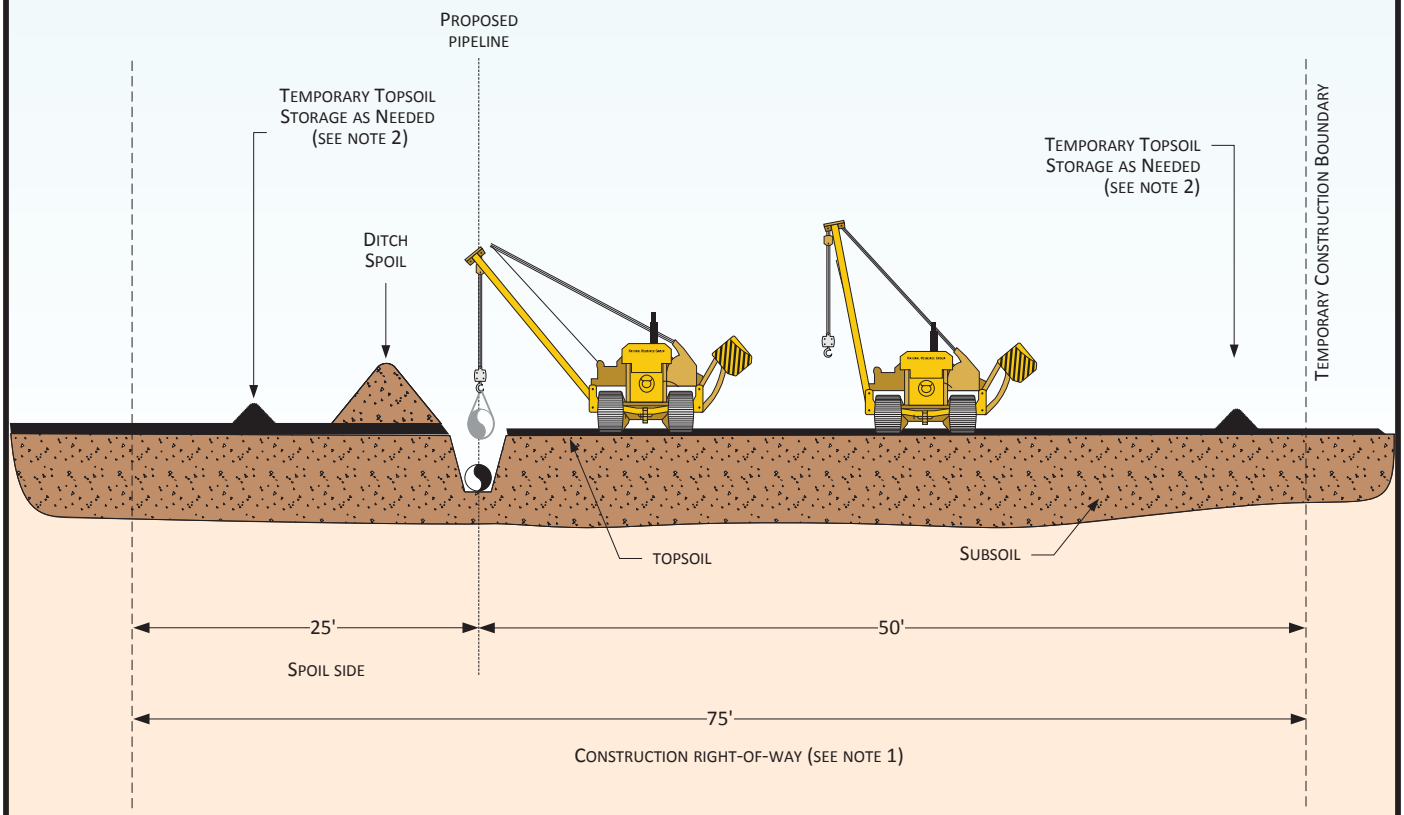
Figure 6

Typical Topsoil Segregation
Ditch Plus Spoil

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_6_Typical_Topsoil_Segregation.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



PROFILE

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 75' WIDE. THE SPOIL SIDE WILL BE APPROXIMATELY 25' WIDE. THE WORKING SIDE WILL BE 50' WIDE.
2. THIS DRAWING REFLECTS "TRENCH LINE ONLY" TOPSOIL STRIPPING PROCEDURE. STOCKPILE TOPSOIL SEPARATELY FROM DITCH SPOIL AS SHOWN OR IN OTHER CONFIGURATIONS APPROVED BY THE COMPANY.

ONEOK

Figure 7

Typical Topsoil Segregation
Trench Line Only

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_7_Typical_Topsoil_Segregation.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting

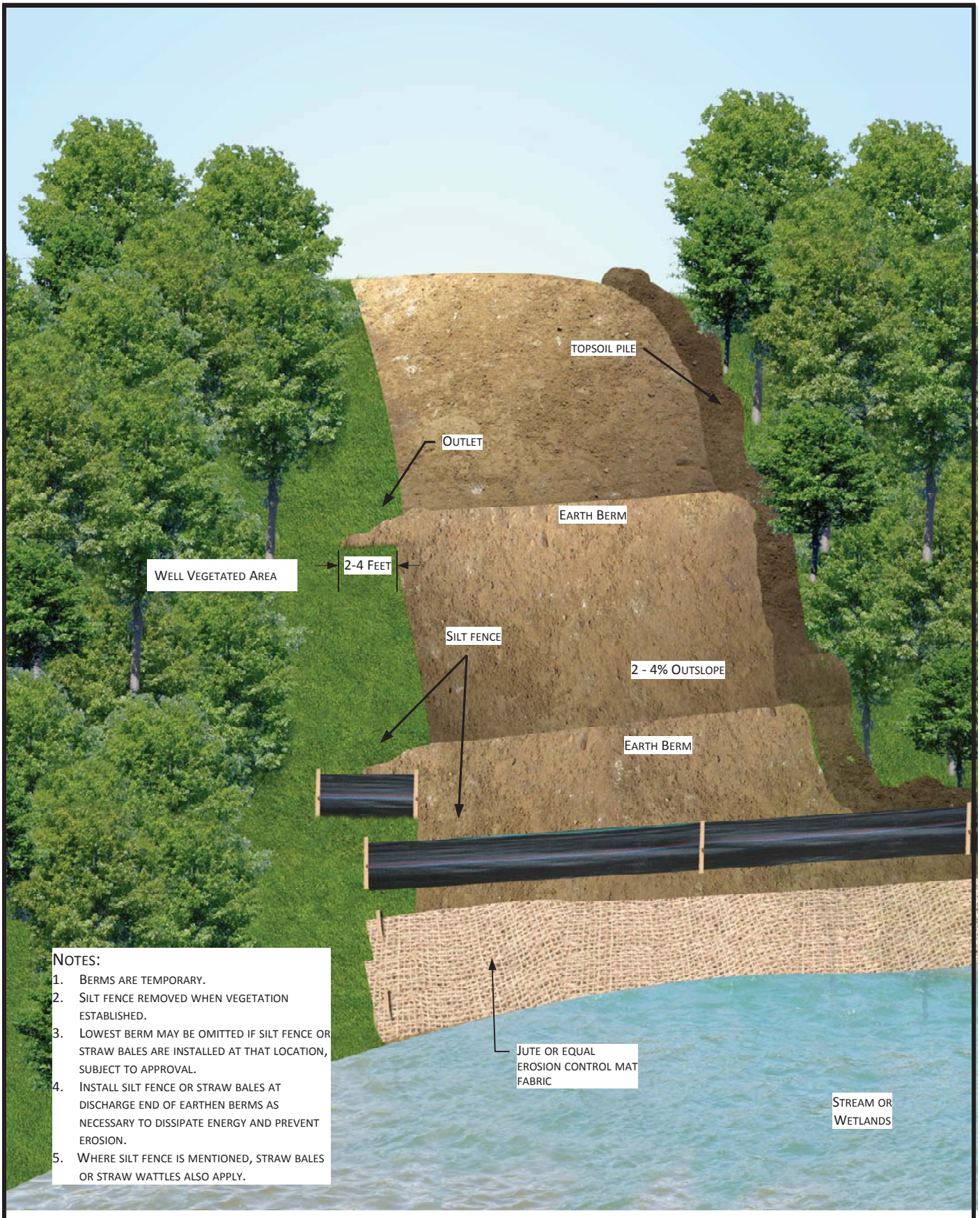


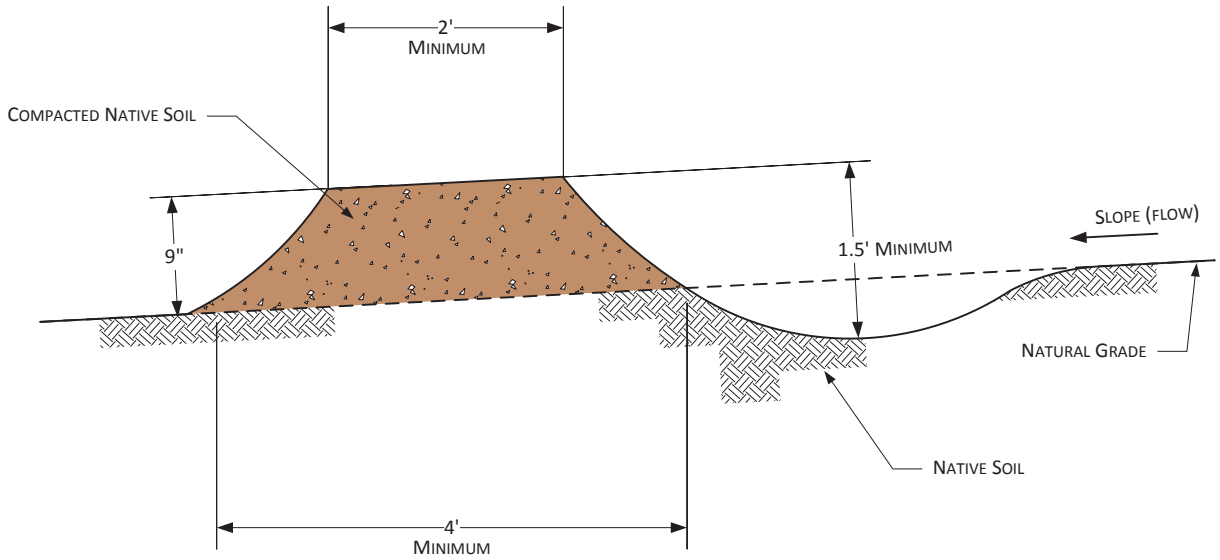
Figure 8

Typical Temporary Berms
Perspective View

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_8_Berms_Perspective_View.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



NOTES

1. BERMS SHALL BE CONSTRUCTED WITH 2 TO 4 PERCENT OUTSLOPE.
2. BERMS SHALL BE OUTLETED TO WELL VEGETATED STABLE AREAS, SILT FENCES, STRAW BALES OR ROCK APRONS.
3. BERMS SHALL BE SPACED AS DESCRIBED IN CONSTRUCTION SPECIFICATIONS.
4. ADDITIONAL INFORMATION INCLUDED ON OTHER DRAWINGS.

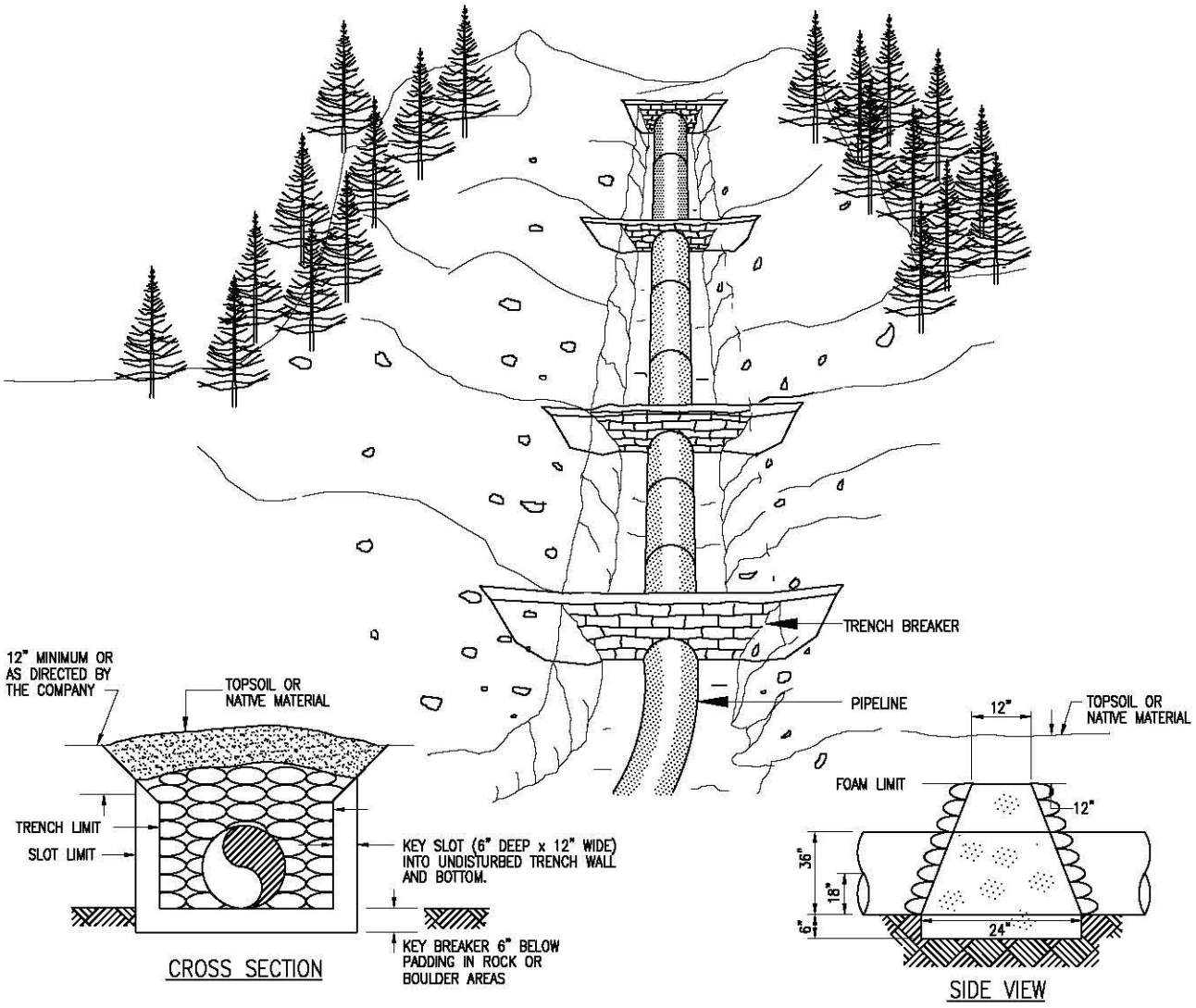
Figure 9

Typical Temporary or Permanent Berms
Elevation View

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_9_Berms_Elevation_View.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



NOTES:

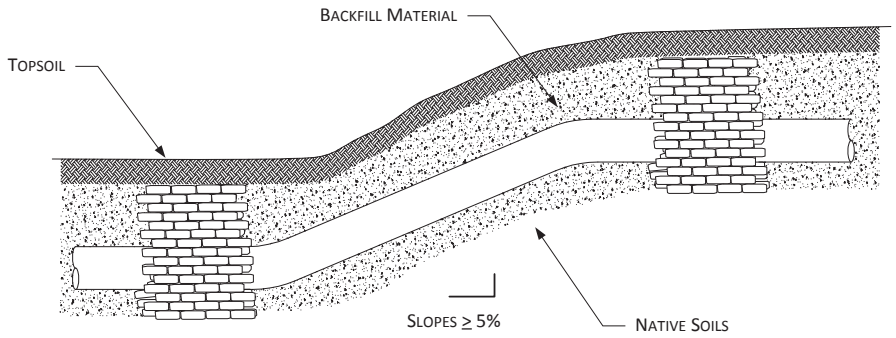
1. TRENCH BREAKERS SHALL BE INSTALLED:
   - ON SLOPES ALONG THE TRENCH LINE WHERE THE NATURAL DRAINAGE PATTERN, PROFILE, AND TYPE OF BACKFILL MATERIAL MAY RESULT IN LOSS OF BACKFILL MATERIAL OR ALTERATION OF THE NATURAL PATTERN;
   - AT THE BASE OF SLOPES ADJACENT TO WATERBODIES AND WETLANDS;
   - WHERE NEEDED TO AVOID DRAINING A WETLAND;
   - ON UPLAND SLOPES, AT THE SAME SPACING AS SLOPE BREAKERS AND UP SLOPE OF SLOPE BREAKERS;
   - IN CULTIVATED LAND AND RESIDENTIAL AREAS WHERE PERMANENT SLOPE BREAKERS ARE NOT TYP. INSTALLED, AT THE SAME SPACING AS IF PERMANENT SLOPE BREAKERS WERE REQUIRED.
2. EACH SAND BAG SHALL BE OF DIMENSION 14"X26" AND SHALL BE WOVEN POLY SPECIFICATION. EACH BAG SHALL BE FILLED TO 20" HIGH WITH 3/8" CLEAN, WASHED, AND SCREENED SAND AND FILLED TO A MINIMUM OF 55LBS.
3. BREAKER SPACING AND CONFIGURATION MAY CHANGE AS DETERMINED BY COMPANY OR SIMILARLY QUALIFIED PROFESSIONAL.
4. ALL MATERIALS SHALL BE SUPPLIED BY CONTRACTOR.
5. INSTALL ONE TRENCH BREAKER UNDER EVERY SLOPE BREAKER.

Figure 10

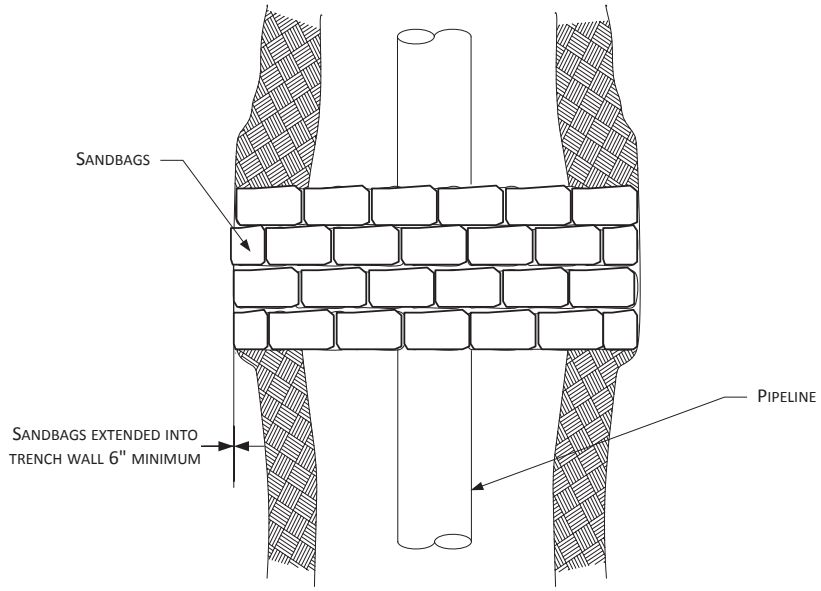
Typical Trench Breaker Perspective View

(OKS-7901-CONST-07)

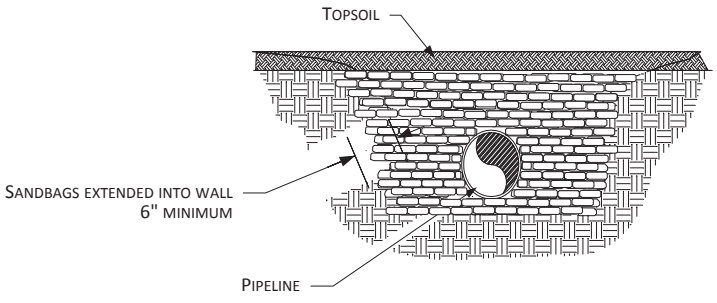
M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_5_Typical_Topsoil_Segregation.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



PROFILE VIEW
(NOT TO SCALE)



PLAN VIEW
(NOT TO SCALE)



FACE VIEW
(NOT TO SCALE)

NOTES

1. BAGS WILL NOT BE FILLED WITH TOPSOIL
2. ADDITIONAL INFORMATION INCLUDED ON OTHER DRAWINGS
3. STAGGER COURSES OF BAGS

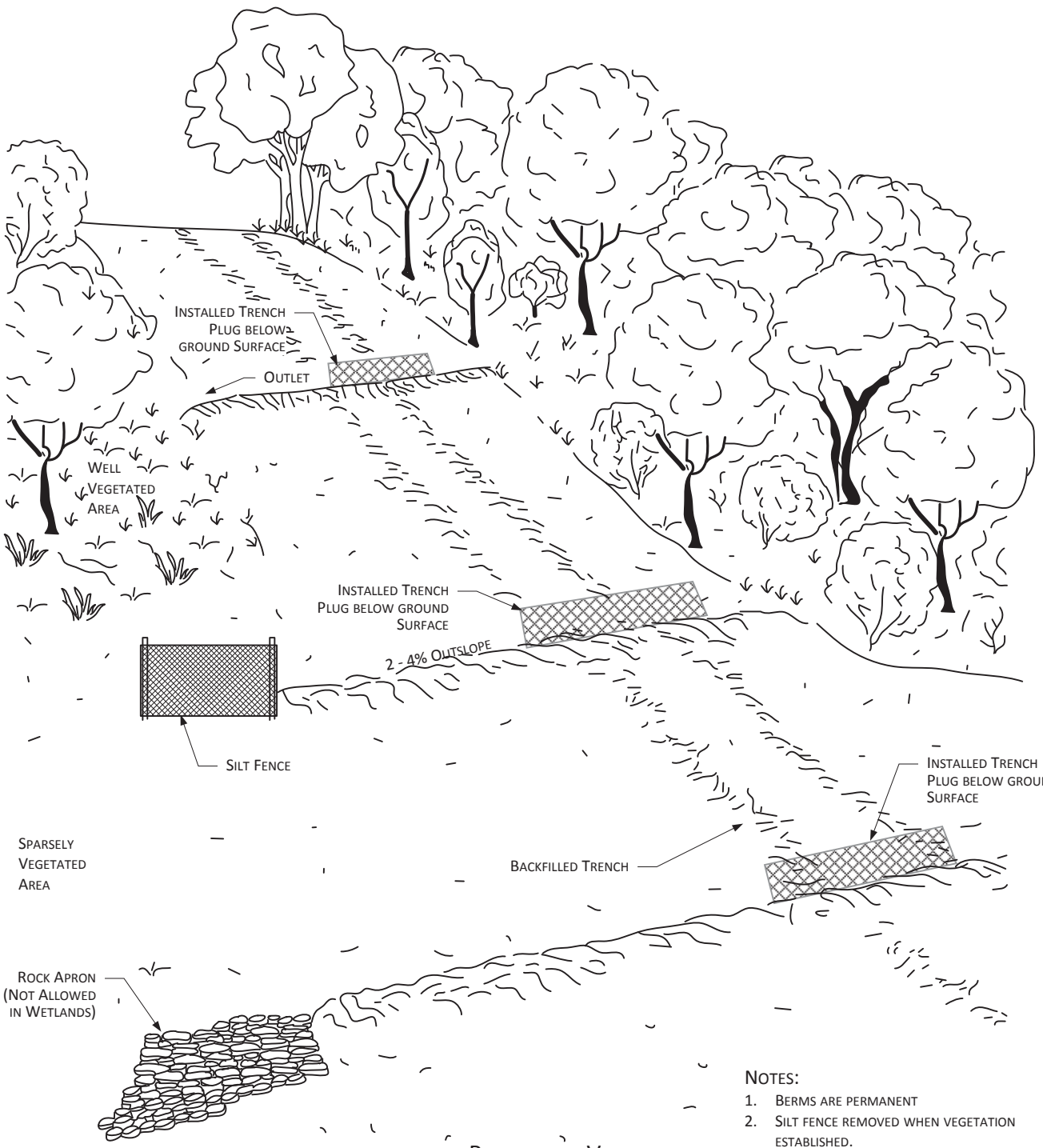
Figure 11

Typical Trench Breakers
Plan & Profile Views

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMPLLC_CMRP\Fig_11_Trench_Breaker_Plan_Profile_View.vsd	Scale: NTS	Revised: 08/17/2018	Drawn By: RGCutting



Perspective View
(not to scale)

Slope %	Approximate Spacing (ft)
5-15	300
15-30	200
>30	<100

Notes:

1. Berms are permanent
2. Silt fence removed when vegetation established.
3. Lowest berm may be omitted if silt fence or straw bales are installed at that location, subject to approval.
4. Install silt fence or straw bales at discharge end of earthen berms as necessary to dissipate energy and prevent erosion.

For environmental review purposes only.

Figure 12

Permanent Slope Breakers
Perspective View

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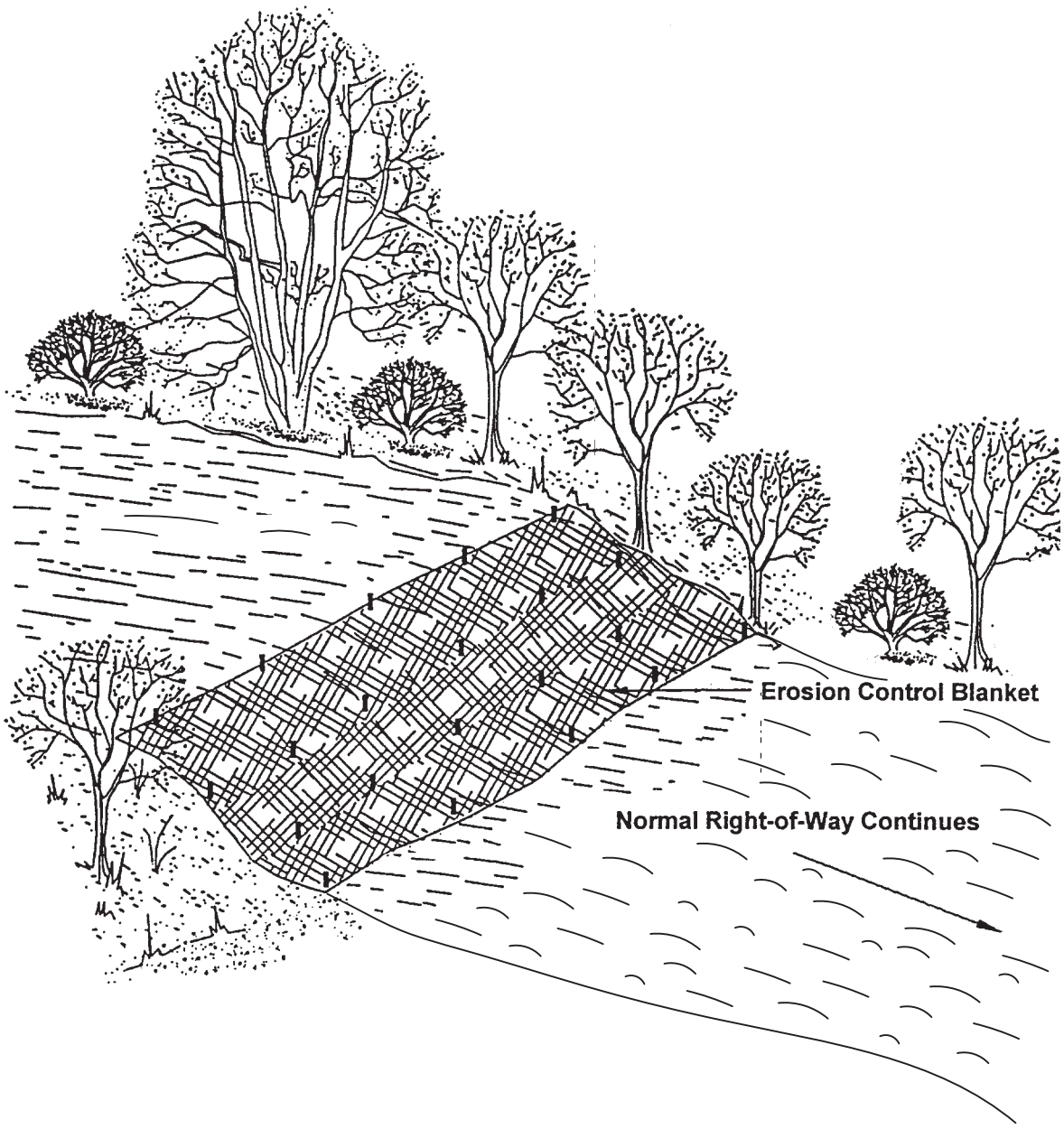
ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_12_Slope_Breakers_Perspective_View.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



NOTES

1. INSTALL EROSION CONTROL BLANKET AS PER MANUFACTURER'S SPECIFICATIONS.
2. ADDITIONAL INFORMATION INCLUDED ON OTHER DRAWINGS.

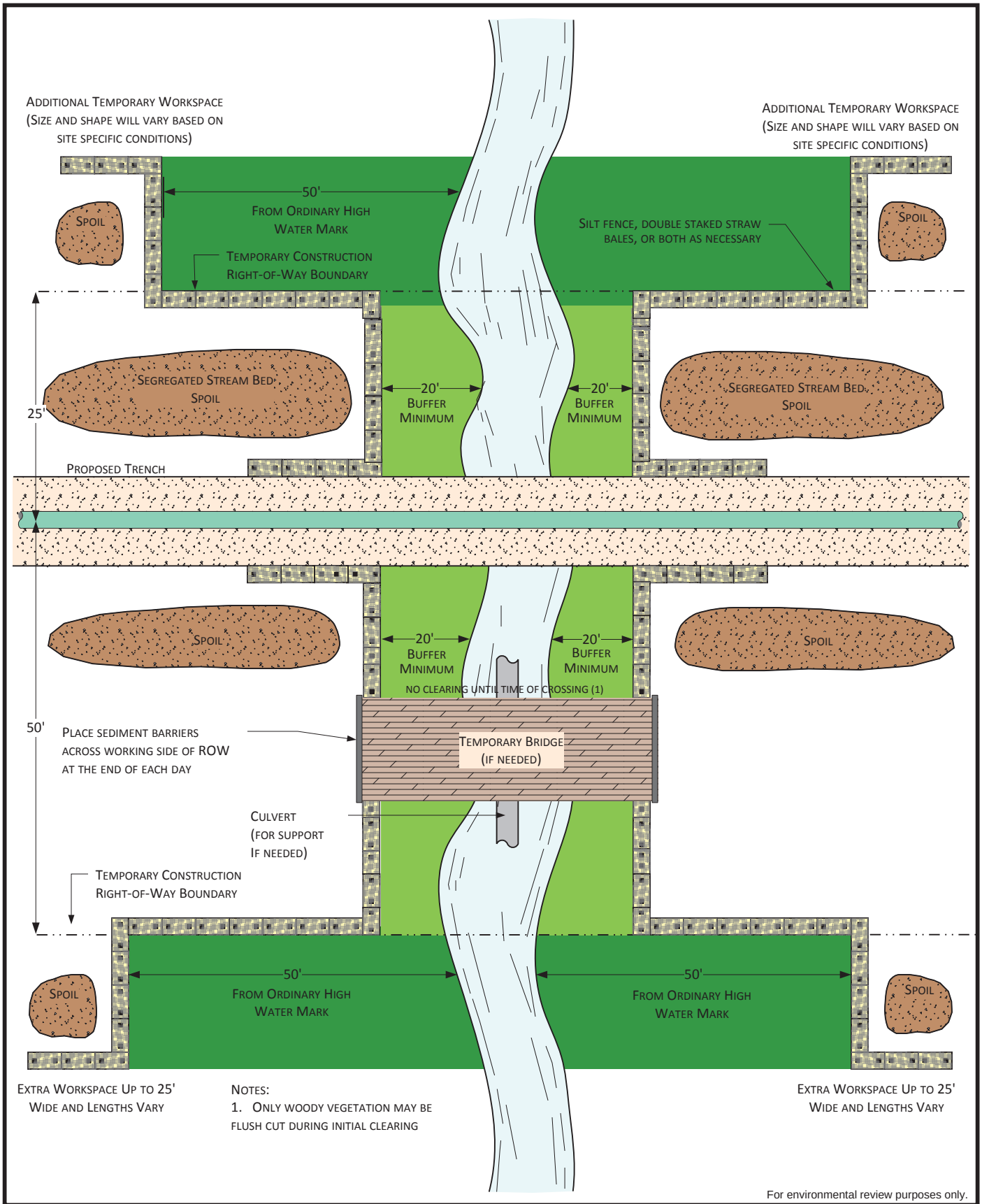
ONEOK

Figure 13

Erosion Control Blanket - Steep Slopes (≥30%)

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_13_Erosion_Control_Blanket.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



For environmental review purposes only.

Figure 14

Typical Waterbody Crossing
Open Cut - Wet Trench Method

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_14_Waterbody_Wet_Trench.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting

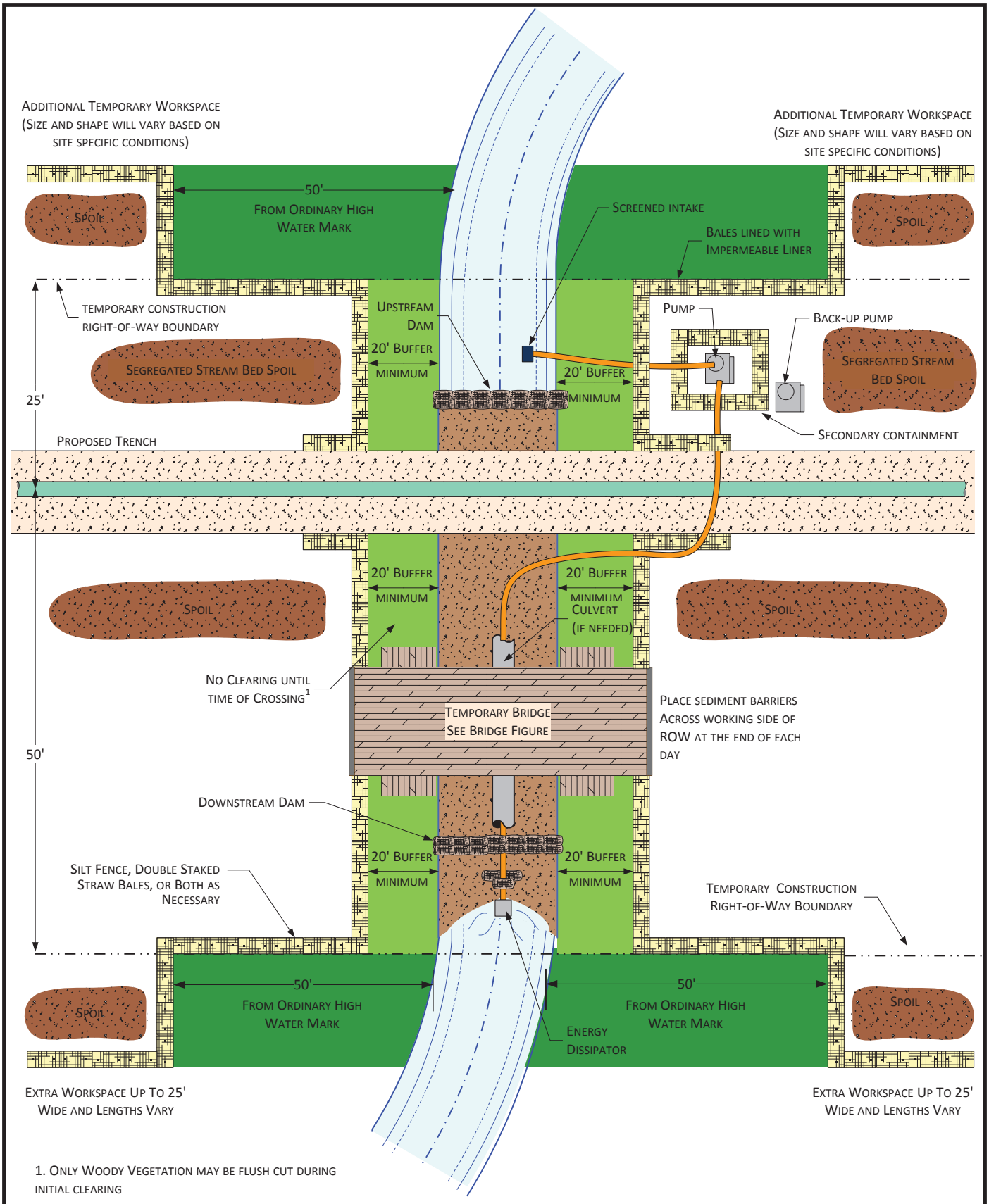
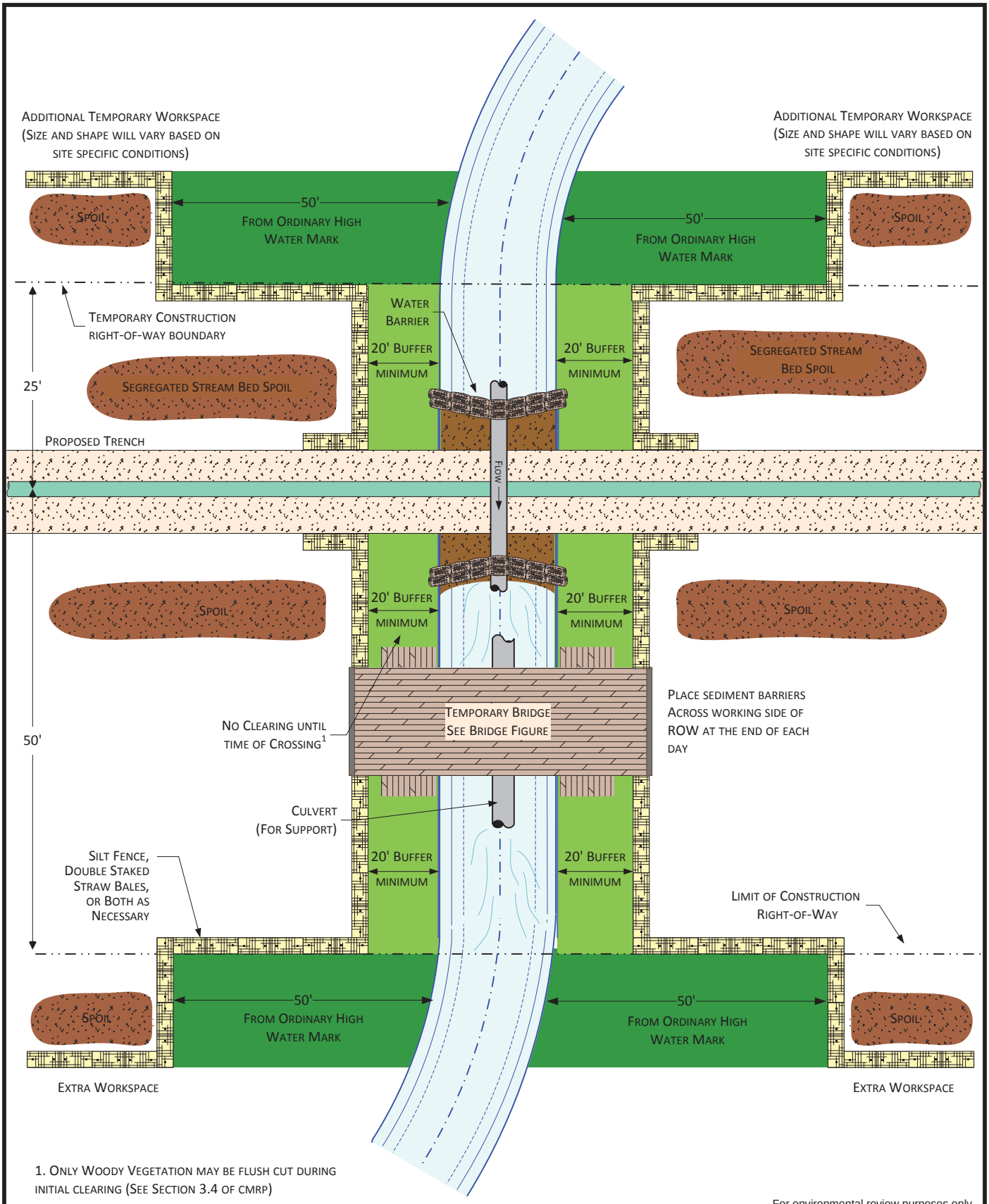


Figure 15
Typical Waterbody Crossing
Dam and Pump Method

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_15_Waterbody_Dam_Pump.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



1. ONLY WOODY VEGETATION MAY BE FLUSH CUT DURING INITIAL CLEARING (SEE SECTION 3.4 OF CMRP)

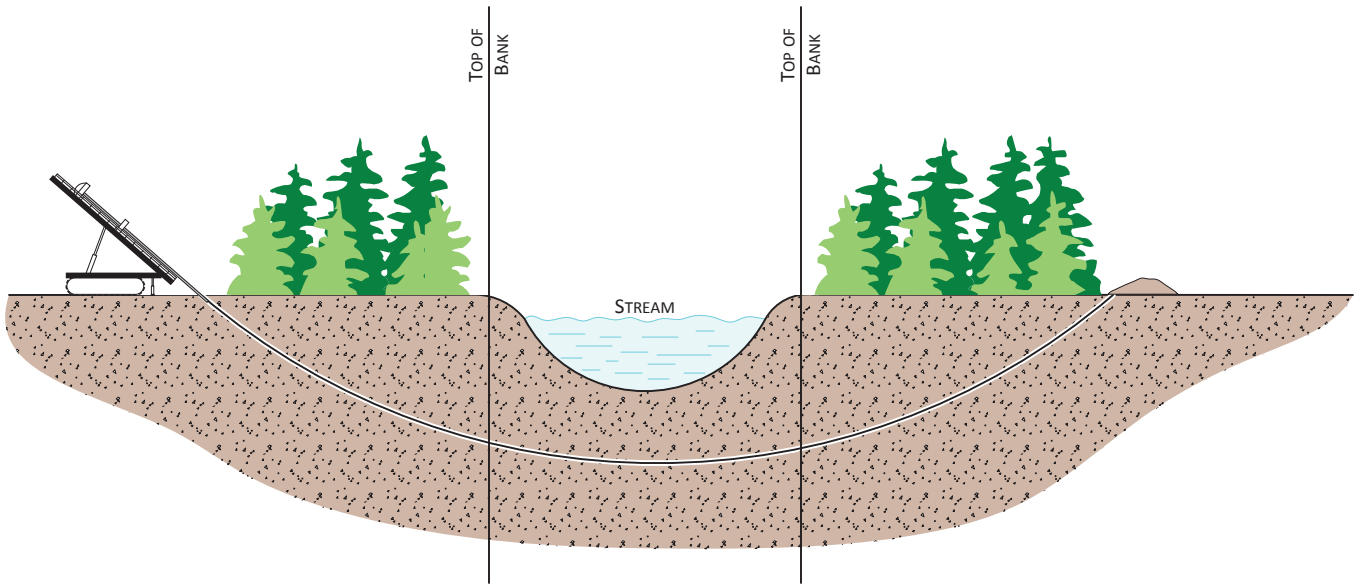
For environmental review purposes only.

Figure 16
Typical Waterbody Crossing
Flume Method

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMPR\Fig_16_Waterbody_Flume.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting



For environmental review purposes only.

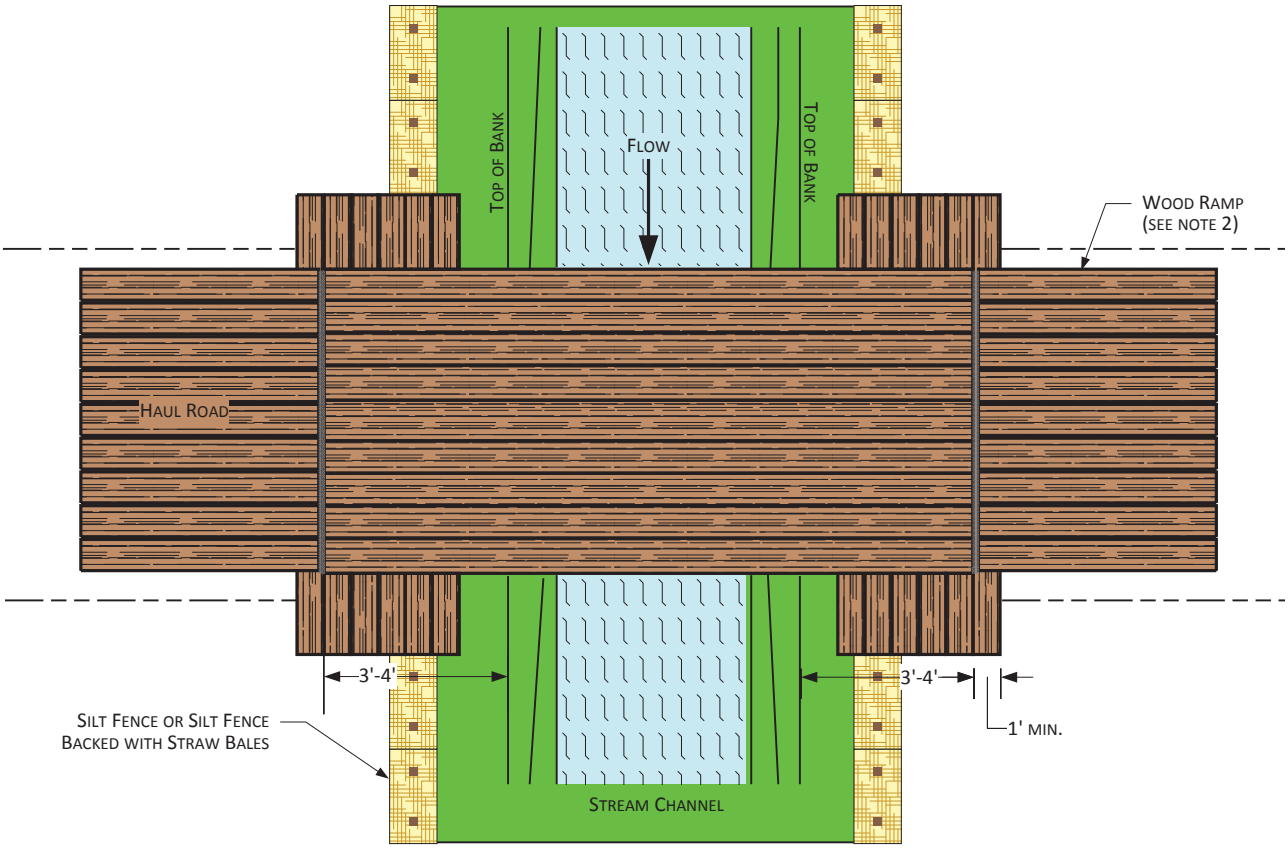
Figure 17
Typical Waterbody Crossing
Directional Drill Method

ONEOK

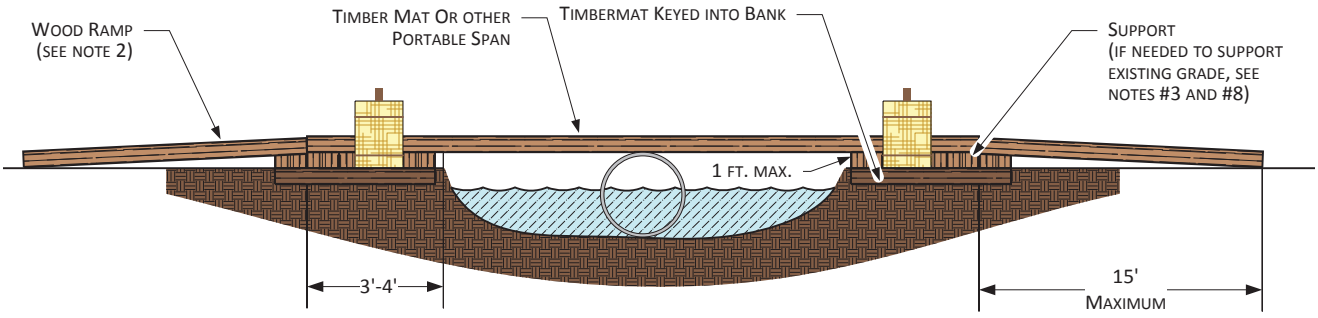
ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_17_Waterbody_Directional_Drill.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting

Plan View



Profile View



Notes:

1. Inspect bridge opening periodically and following rainfalls of over ½". Remove any debris restricting flow and deposit it at an upland site outside of floodplain.
2. If physical circumstances prohibit wood or metal ramps, earthen ramps may be used as approved.
3. Inspect bridge elevation so bridge remains supported above high bank and does not sink into bank.
4. The culvert support must be anchored to the stream bottom and may not be supported with fill.
5. The bridge must span from top of bank to top of bank.
6. Additional support must be added on top of bank and under span if initial support starts to settle.
7. Erosion and sedimentation control measures shall be inspected and maintained in accordance with the company's Environmental Mitigation Plan

For environmental review purposes only.

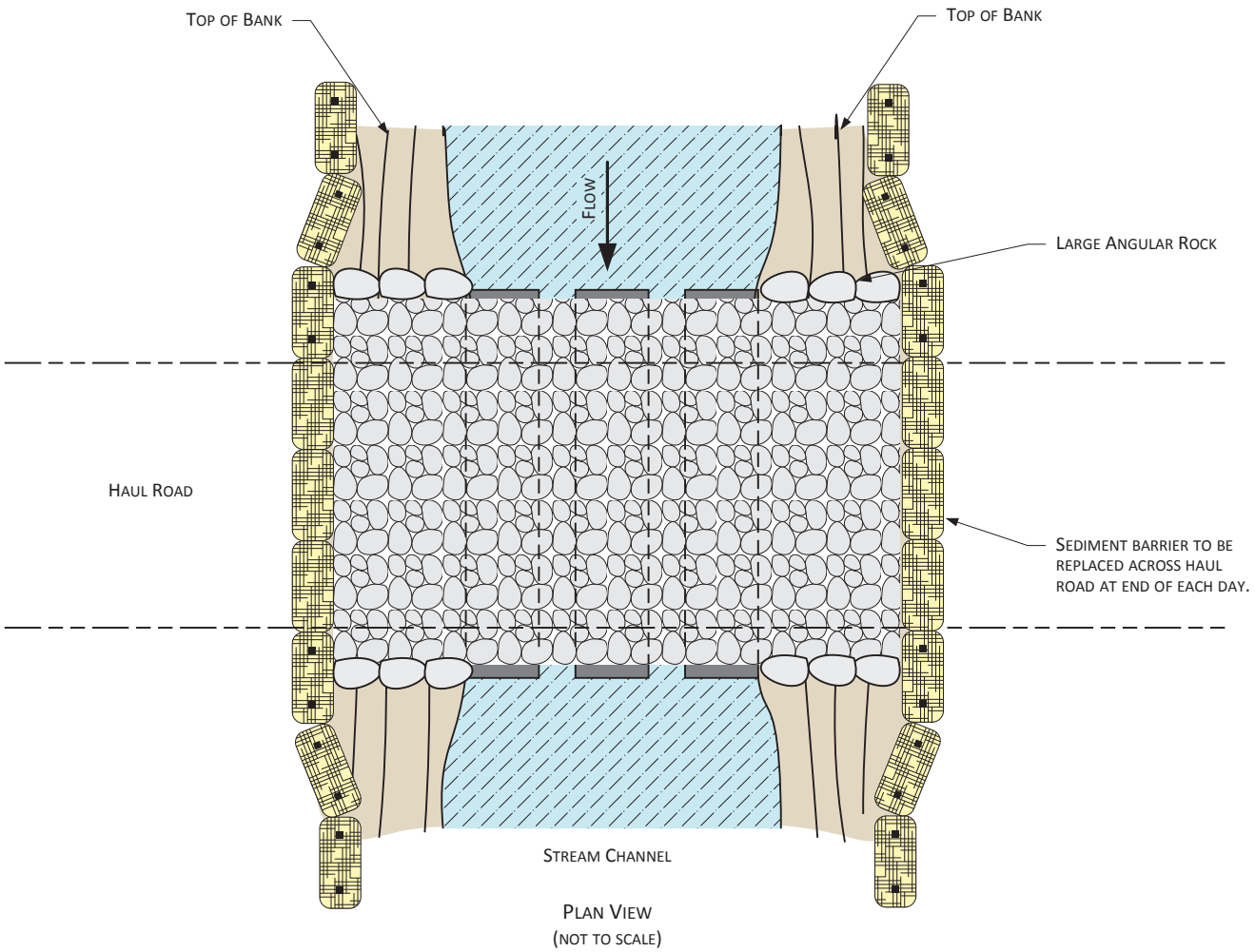
Figure 18

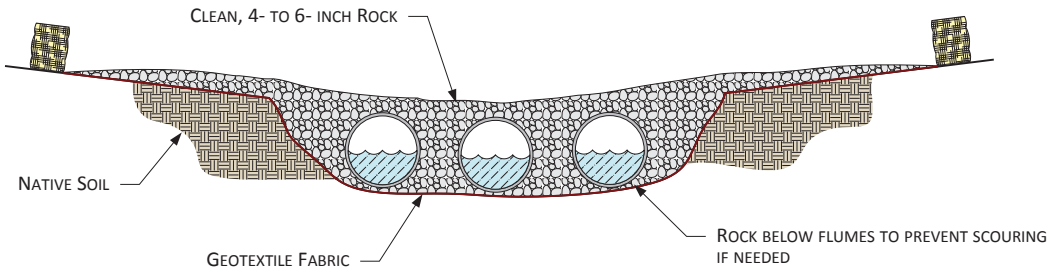
Typical Span Type Bridge
With or Without Instream Support
(OKS-7901-ENV-04)

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_18_Span_Type_Bridge.vsd	Scale: NTS	Date: 5/20/2007	Revised: 08/17/2018	Drawn By: AGPeterson





NOTES:

1. STEEL FLUME PIPE(S) SIZED TO ALLOW FOR STREAM FLOW AND EQUIPMENT LOAD.
2. STRAW BALES (OR EQUIVALENT) SHALL BE PLACED ACROSS BRIDGE ENTRANCE EVERY NIGHT.
3. ADDITIONAL INFORMATION INCLUDED ON OTHER DRAWINGS.

For environmental review purposes only.

Figure 19

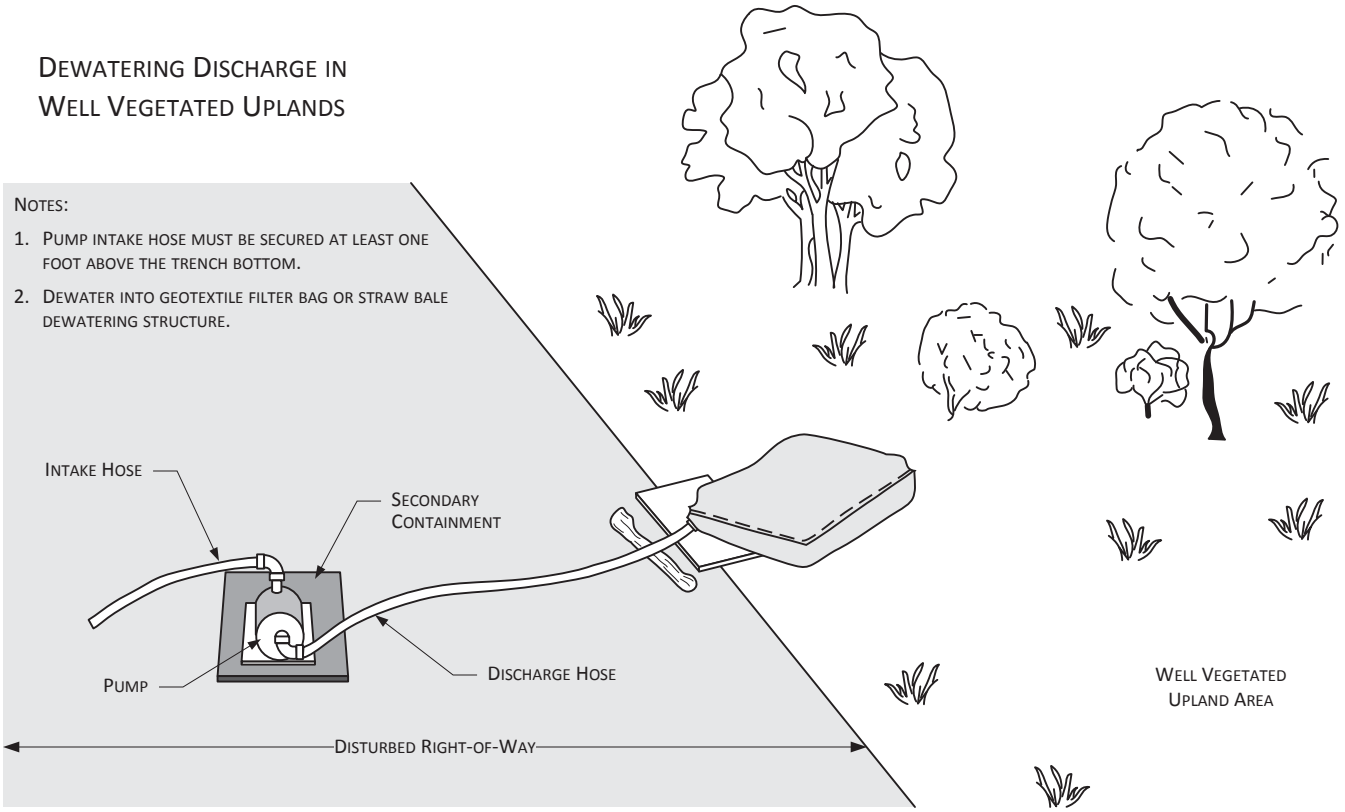
Typical Rock Flume Bridge
Method 4
(OKS-7901-ENV-03d)

ONEOK

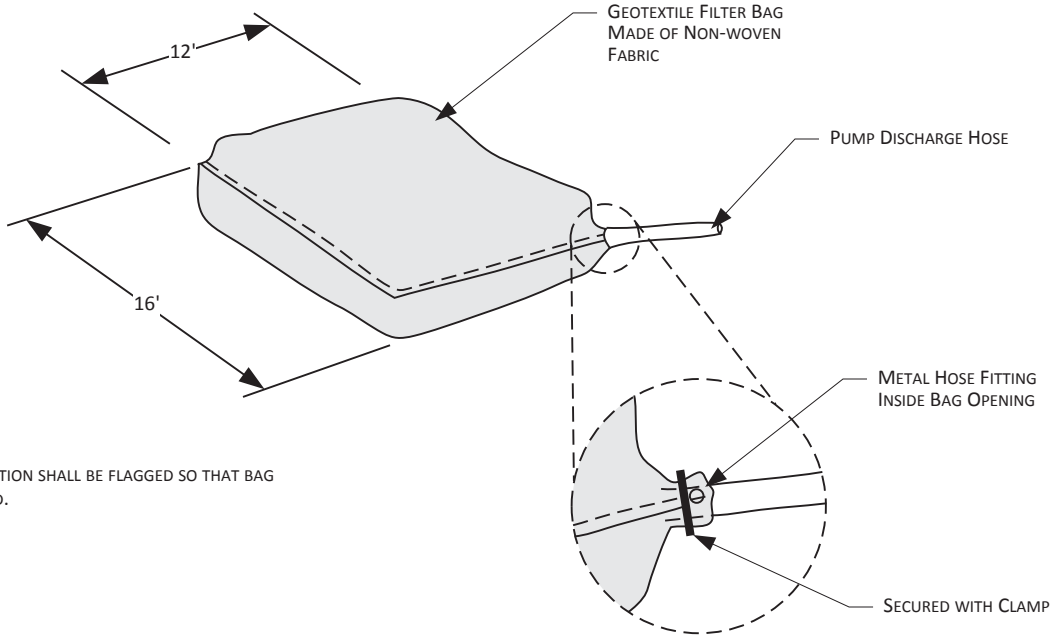
ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_19_Rock_Flume_Bridge.vsd	Scale: NTS	Date: 5/20/2007	Revised: 08/17/2018	Drawn By: AGPeterson

Dewatering Discharge in Well Vegetated Uplands



Geotextile Filter Bag



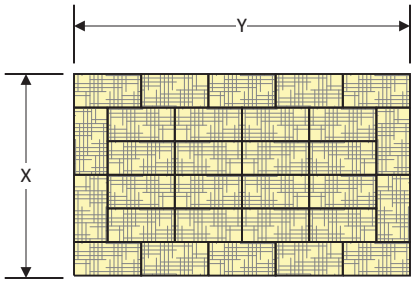
Note:

1. Filter bag location shall be flagged so that bag can be removed.

For environmental review purposes only.

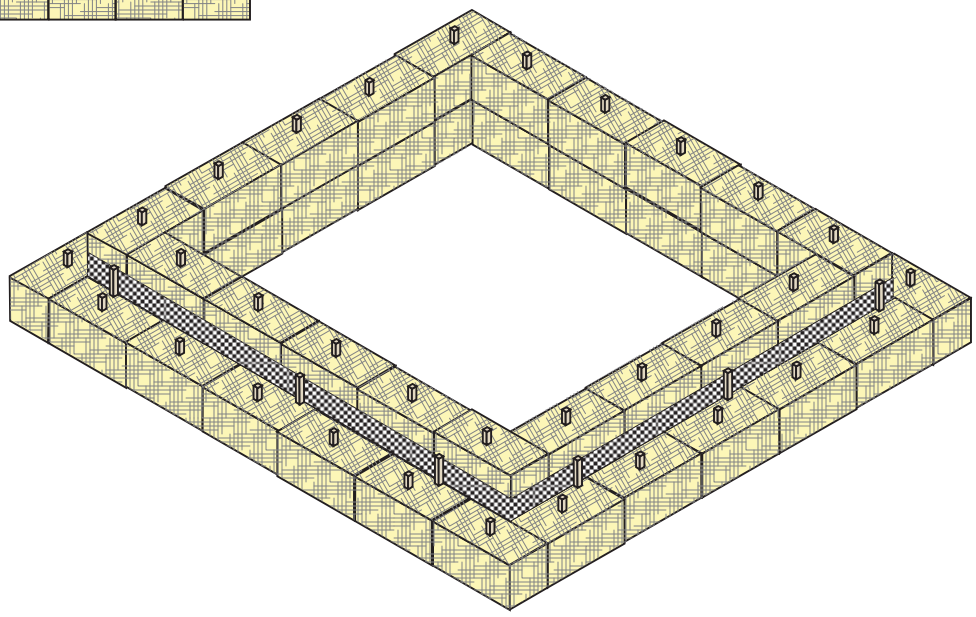
Figure 20
Typical Dewatering Measures

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_20_Dewatering_Measures.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting

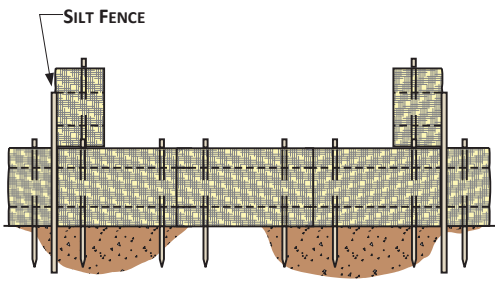


NOTES

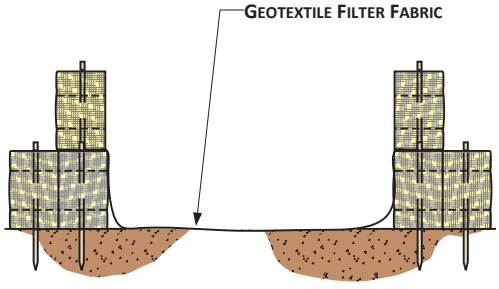
1. ARRANGE THE STRAW BALES TO THE X AND Y DIMENSIONS AS SPECIFICIED BELOW.
2. IF BOTTOM OF STRUCTURE IS NOT LINED WITH STRAW BALES (OPTION 1), LINE ENTIRE STRUCTURE WITH GEOTEXTILE FILTER FABRIC.



PERSPECTIVE VIEW



OPTION 1



OPTION 2

MINIMUM SUMP DIMENSIONS (FEET)		MAXIMUM PUMPING RATE
X	Y	GALLONS PER MINUTE
10	20	300
15	20	350
20	20	400
20	25	450
25	25	500
25	30	550
30	30	660

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Figure 21

Straw Bale Dewatering Structure
(OKS-7901-ENV-05)

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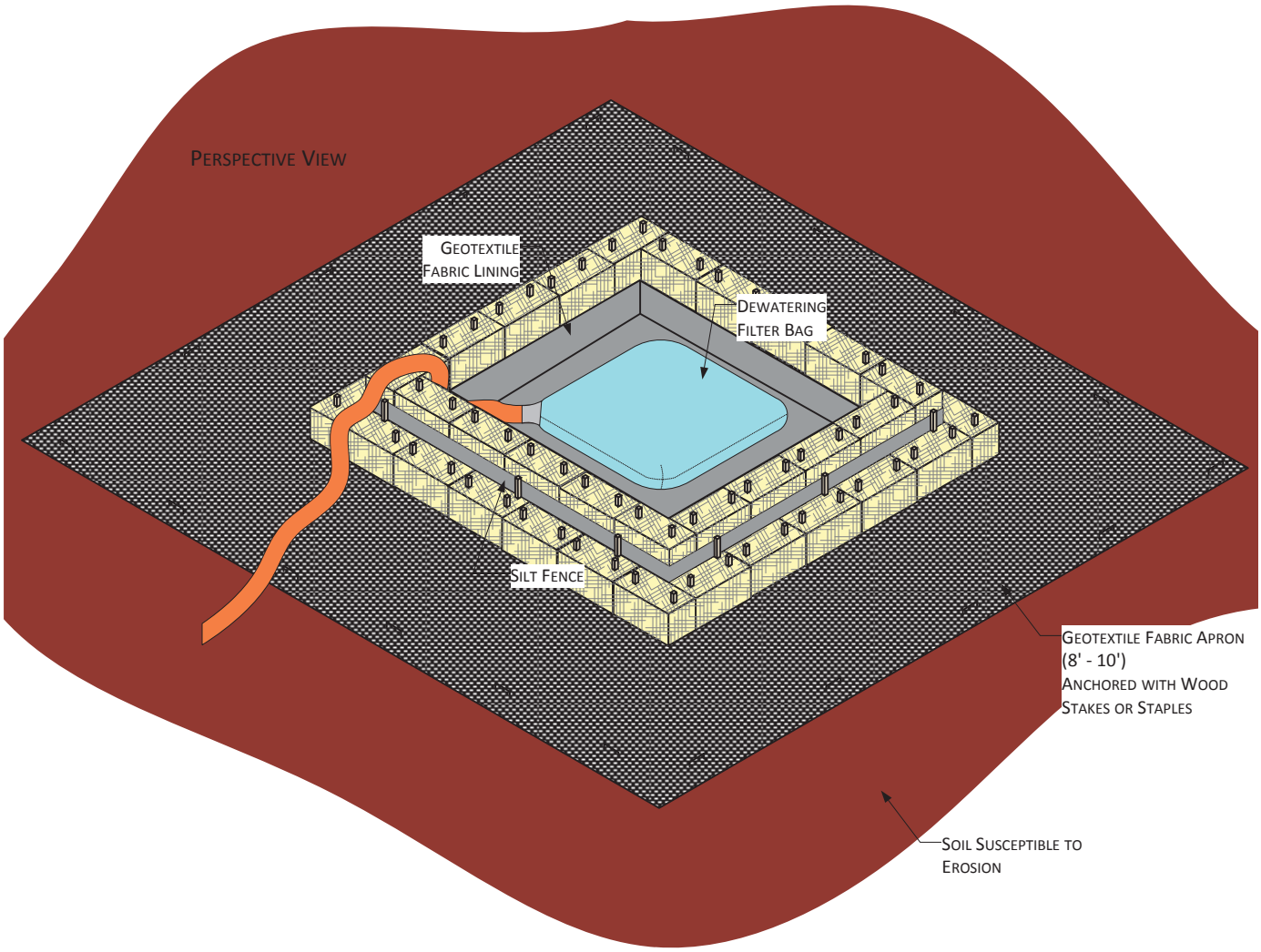
ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_21_Straw_Bale_Dewatering.vsd	Scale: NTS	Revised: 08/17/2018	Drawn By: RGCutting



Construct Dewatering Structure to accommodate anticipated pumping rates. See example below.

Example Pumping rate = 200 g.p.m.
Storage volume (c.f.) = 16 x 200 g.p.m. = 3200 c.f.
Height of straw bale structure = 3 feet (2 bales stacked) (based on height of bales, not silt fence)
Inside dimensions of structure = 33 x 33 feet square

Notes:

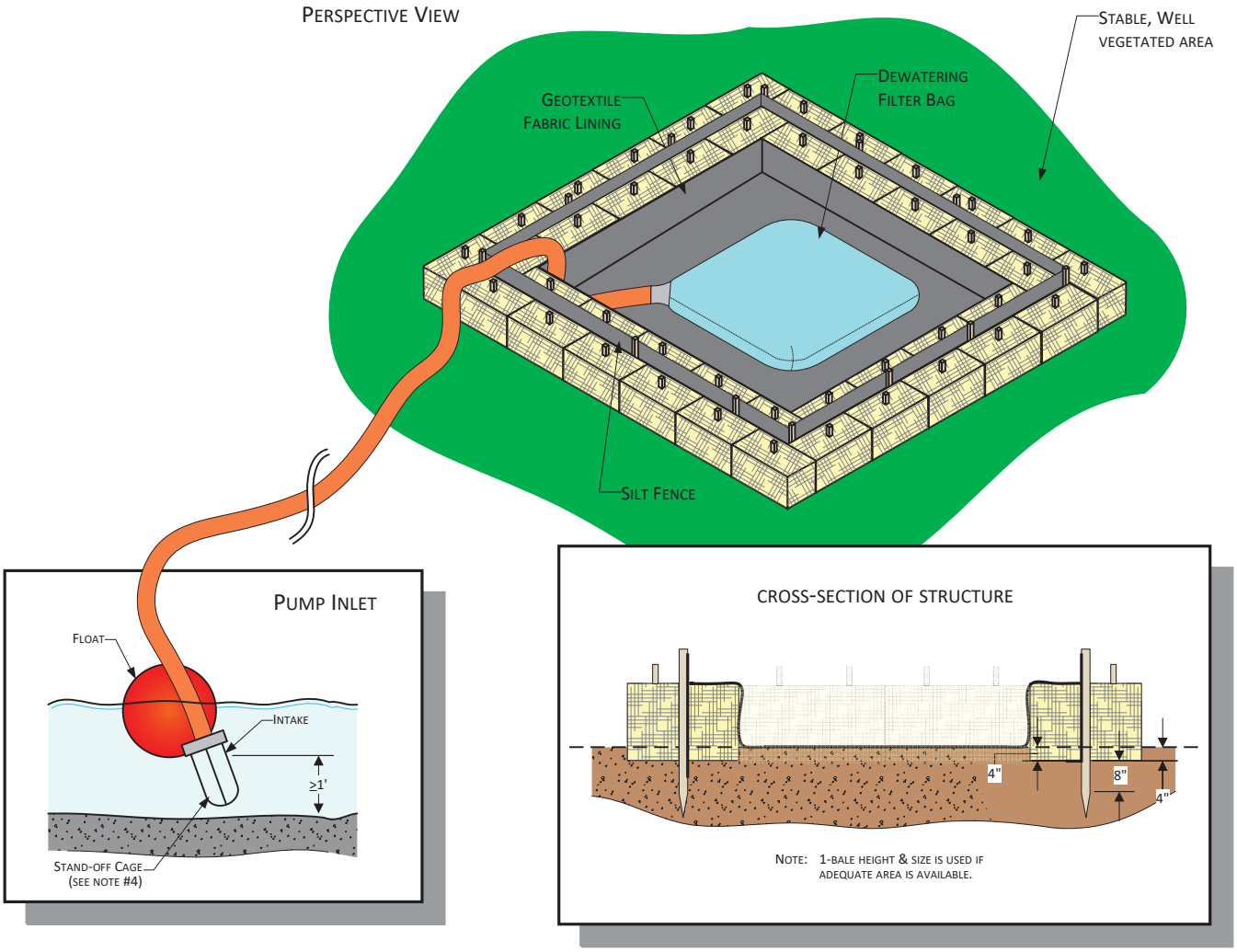
1. Silt fence ends must be wrapped to join two sections.
2. Install silt fence 2 inches above top of straw bales, and anchor a minimum of 8 inches straight down.
3. Spacing between silt fence post stakes must be 4 feet or less.
4. Dewatering intake hose supported at least 1 foot from bottom of trench being dewatered.
5. Erosion and sedimentation control measures shall be inspected and maintained in accordance with the company's upland erosion control, revegetation, and maintenance plan.

Figure 22
Straw Bale Dewatering Structure
(OKS-7901-ENV-06a)

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_22_Straw_Bale_Dewatering.vsd	Scale: NTS	Revised: 08/17/2018	Drawn By: RGCutting



CONSTRUCT DEWATERING STRUCTURE TO ACCOMMODATE ANTICIPATED PUMPING RATES. SEE EXAMPLE BELOW.

EXAMPLE PUMPING RATE = 200 G.P.M.
STORAGE VOLUME (C.F.) = 16 X 200 G.P.M. = 3200 C.F.
HEIGHT OF STRAW BALE STRUCTURE = 1.5 FEET (1 BALE) (BASED ON HEIGHT OF BALES, NOT SILT FENCE)
INSIDE DIMENSIONS OF STRUCTURE = 46 X 46 FEET SQUARE

NOTES:

1. SILT FENCE ENDS MUST BE WRAPPED TO JOIN TWO SECTIONS.
2. INSTALL SILT FENCE 2 INCHES ABOVE TOP OF STRAW BALE, AND ANCHOR A MINIMUM OF 8 INCHES STRAIGHT DOWN.
3. SILT FENCE POST STAKING MUST BE 4 FEET OR LESS.
4. DEWATERING INTAKE HOSE SUPPORTED AT LEAST 1 FOOT FROM BOTTOM OF TRENCH BEING DEWATERED.
5. USE A FILTER BAG AT THE DISCHARGE HOSE END.
6. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE COMPANY'S CMRP.

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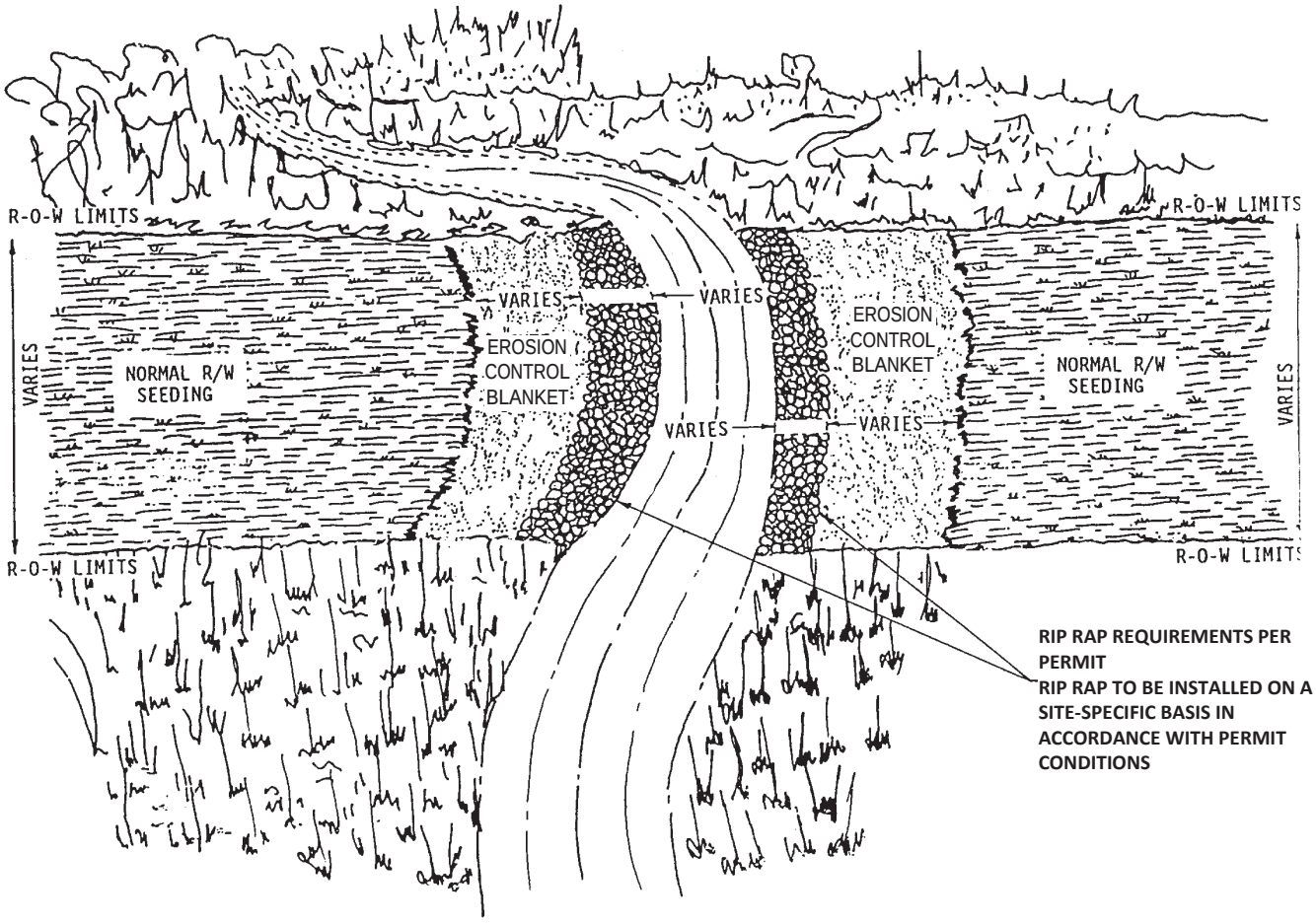
Figure 23
Straw Bale Dewatering Structure
(OKS-7901-ENV-06b)

ERM

K:_Client_Projects\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_23_Straw_Bale_Dewatering.vsd	Scale: NTS	Revised: 08/17/2018	Drawn By: RGCutting

NOTE: PLACE EROSION CONTROL BLANKET A MINIMUM OF ONE (1) FOOT UNDER RIP RAP. EXTEND JUTE BLANKET FROM MEAN HIGH WATER LEVEL TO SEVERAL FEET BEHIND HIGH BANK.



RIP RAP REQUIREMENTS PER PERMIT
RIP RAP TO BE INSTALLED ON A SITE-SPECIFIC BASIS IN ACCORDANCE WITH PERMIT CONDITIONS

For environmental review purposes only.

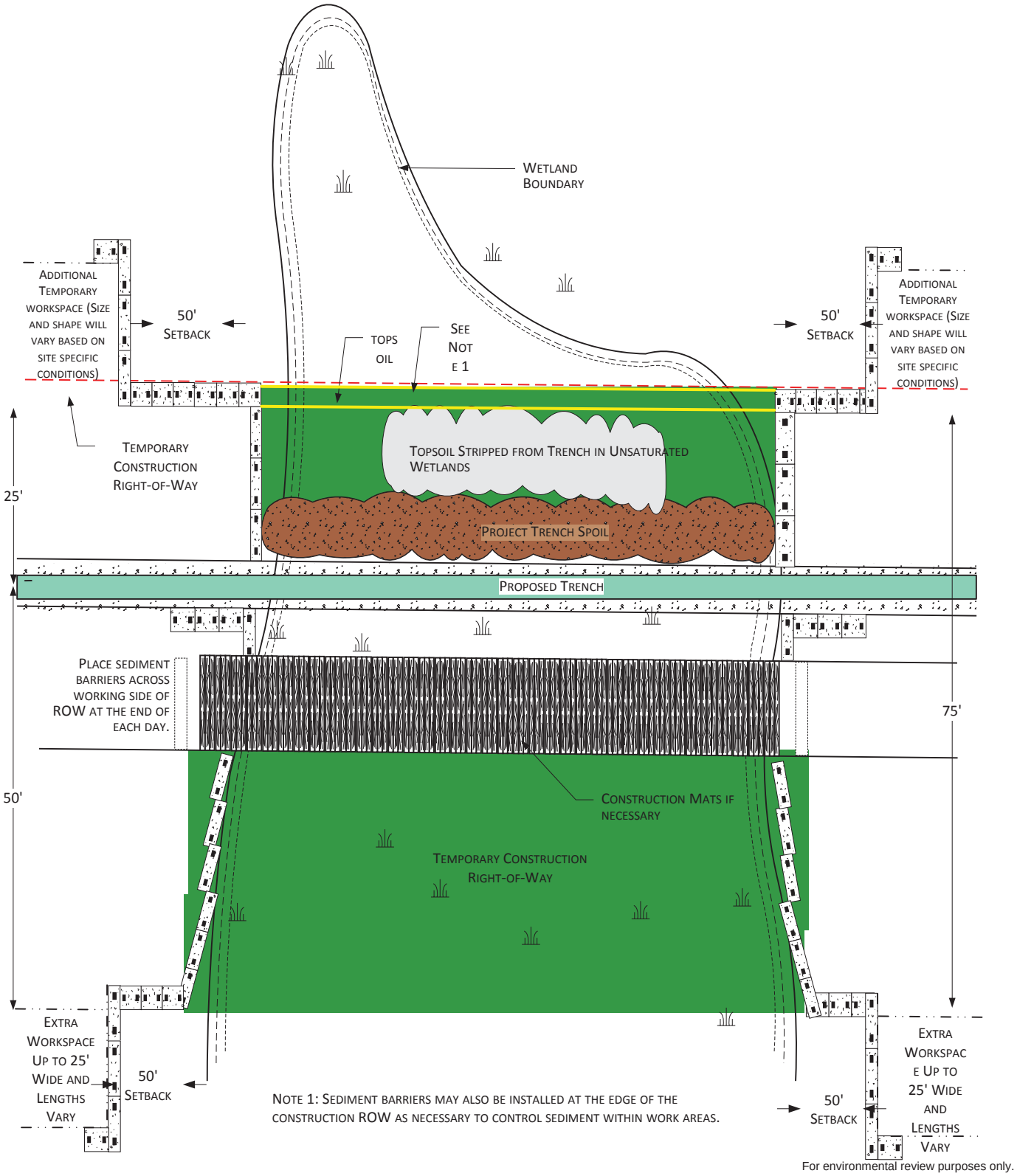
Figure 24

Typical Final Stream Bank Stabilization
Rip Rap & Erosion Control
(OKS-7901-ENV-07)

ONEOK

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_24_Stream_Bank_Stabilization.vsd	Scale: NTS	Revised: 08/17/2018	Drawn By: RGCutting



NOTE 1: SEDIMENT BARRIERS MAY ALSO BE INSTALLED AT THE EDGE OF THE CONSTRUCTION ROW AS NECESSARY TO CONTROL SEDIMENT WITHIN WORK AREAS.

For environmental review purposes only.

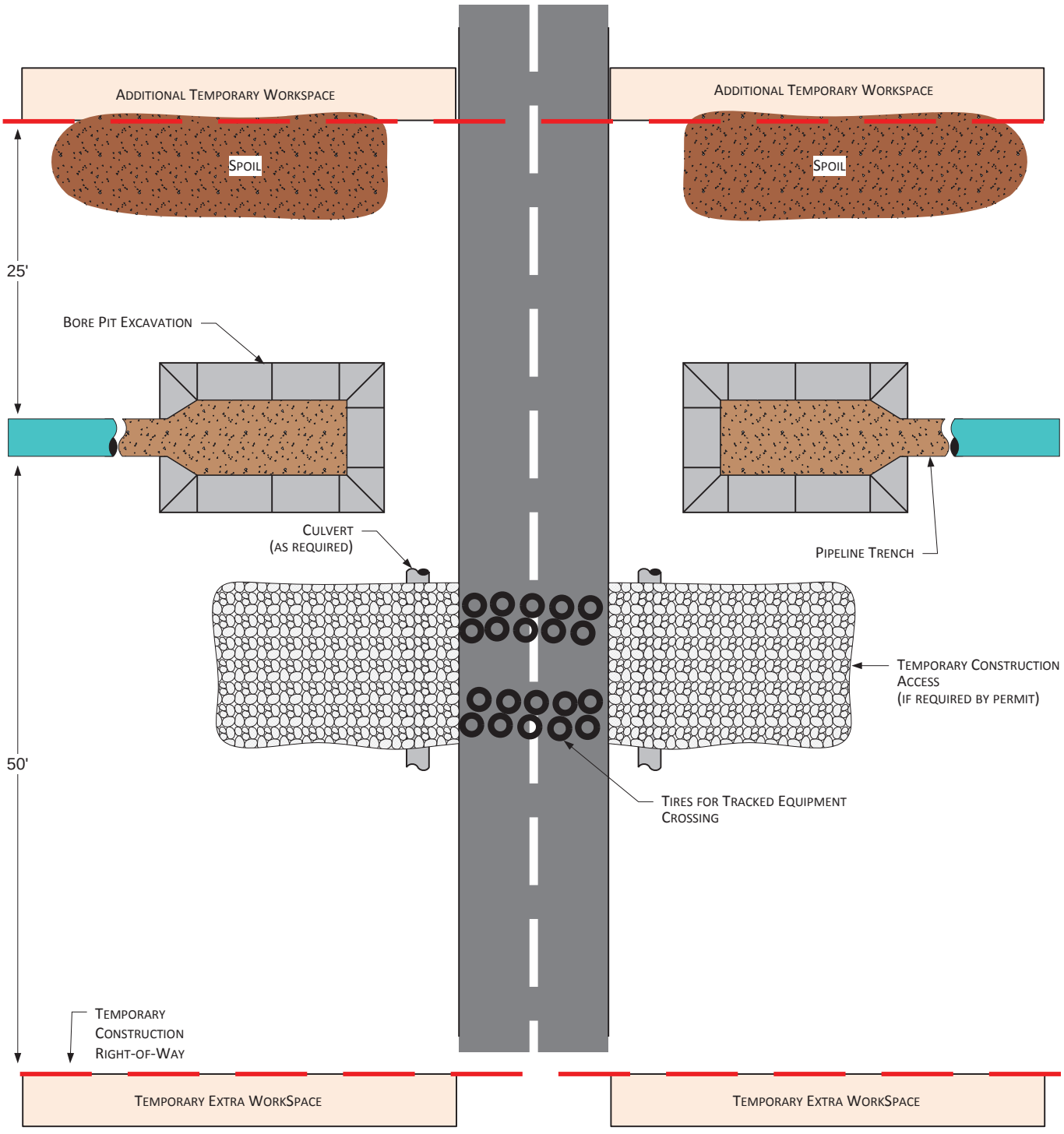
Figure 25

Typical Wetland Crossing Method
Method 5
(OKS-7901-ENV-03e)

ONEOK

ERM

K:_Client_Projects\M-O\ONE\Niobrara\EMP\Fig_24_Wetland_Crossing.vsd	Scale: NTS	Revised: 0820/2018	Drawn By: RGCutting



PLAN VIEW

NOTES

1. PROCEDURES SHOWN IN THIS DRAWING APPLY TO IMPROVED ROADS.
2. ROADS MUST BE CLEANED AFTER EQUIPMENT CROSSES AND DIRT PLACED IN SPOIL CONTAINMENT AREAS.
3. TEMPORARY ACCESS MATERIALS MUST BE REMOVED UPON PROJECT COMPLETION.
4. ADDITIONAL INFORMATION INCLUDED ON OTHER DRAWINGS OR PERMITS.
5. CONSTRUCTION AREAS LOCATED OUTSIDE ROAD ROW.
6. INSTALL EROSION AND SEDIMENT CONTROLS AS NEEDED BASED ON SITE SPECIFIC CONDITIONS

For environmental review purposes only.

ONEOK

Figure 26
Typical Improved Road Crossing
Directional Bore Method

ERM

M:\Typicals\Clients\M-O\ONE\Elk_Creek\EMP\LLC_CMRP\Fig_26_Improved_Road_Crossing.vsd	Scale: NTS	Revised: 08/20/2018	Drawn By: RGCutting

Appendix C

Project Overview Map

(PENDING)

Appendix D

Hydrology Map

(PENDING)

Appendix E

Stormwater Inspection Form and Reports

Project Name: Cherry Creek Expansion Pipeline Project

Coverage Number: _____

Inspector (print): _____

Inspector (signature): _____ Date: _____ Time: _____

Storm Events Since Last Inspection:

Precipitation Amount: _____ Duration: _____ Date(s): _____

Precipitation Amount: _____ Duration: _____ Date(s): _____

Precipitation Amount: _____ Duration: _____ Date(s): _____

Precipitation Amount: _____ Duration: _____ Date(s): _____

Weather Conditions at time of Inspection: _____

Areas Inspected (Choose Applicable): ☐ Active area

☐ Stabilized areas with less than 70% cover

☐ Areas that have achieved final stabilization

Is there evidence of, or the potential for, pollutants entering drainage systems or waters of the state from:

- Material Storage Areas ☐ Y ☐ N
- Vehicle Maintenance Areas ☐ Y ☐ N

Records of Grading Activity Since Last Inspection

_____

_____

_____

☐ Y ☐ N ☐ N/A	Have all erosion and sediment controls and best management practices identified in the plan been installed or implemented?
☐ Y ☐ N ☐ N/A	Are erosion and sediment controls operating correctly and in serviceable condition?
☐ Y ☐ N ☐ N/A	Are erosion and sediment controls operating consistently and effectively?
☐ Y ☐ N ☐ N/A	Are there any devices similar to silt fence or fiber rolls where sediment has reached more than 1/3 the height of the device? (Removal and repairs must be made within 24 hours.)
☐ Y ☐ N ☐ N/A	Are there any sediment basins where collected sediment has reduced the storage capacity by 1/2? (Drainage and removal must be completed within 72 hours.)
☐ Y ☐ N ☐ N/A	Is there evidence of sediment deposits in surface waters, drainage ditches or other stormwater conveyance systems? (Removal and stabilization must be completed within 7 days unless prohibited by legal, regulatory or physical access constrains. All reasonable efforts must be made to obtain access. Once permission is granted, removal must take place within 7 days.)
☐ Y ☐ N ☐ NA	Is there evidence of sediment being tracked off-site by vehicles or equipment? (Sediment tracked or deposited on paved surfaces must be removed within 24 hours.)
☐ Y ☐ N ☐ N/A	Is there evidence of sediment depositing off-site other than in surface waters, drainage ditches and stormwater conveyance systems? (Sediment must be recovered in a manner and frequency sufficient to minimize off-site impacts – for example, sediment could wash away during the next precipitation event.)
☐ Y ☐ N ☐ NA	Is stormwater flow distributed evenly over vegetative buffers?
☐ Y ☐ N ☐ NA	Is sediment accumulating in vegetative buffers?

☐ Y ☐ N ☐ NA	Are rills forming within vegetative buffers? (If vegetative buffers are silted covered, contain rills or are otherwise rendered ineffective, other erosion and sediment controls must be implemented. Eroded areas must be repaired and stabilized.)
☐ Y ☐ N ☐ N/A	Are litter, debris, chemicals and parts being managed properly to minimize stormwater pollution?
☐ Y ☐ N ☐ N/A	Are liquid or soluble materials like oil, fuel, paint, etc., properly stored to prevent spills, leaks or other discharges?
☐ Y ☐ N ☐ N/A	Is there evidence of concrete wash water discharging to waters of the state, storm sewer systems or onto adjacent properties?
☐ Y ☐ N ☐ N/A	Is there evidence of wastewater from processing operations or sanitary facilities (i.e., portable toilets) discharging from the site? (These types of discharges are not covered by the construction general permit, NDR10-0000. They must be stopped immediately if they are not covered by another type of permit. The following non-stormwater discharges are allowable if the appropriate prevention measures are in place: fire-fighting, fire hydrant flushing, potable water line flushing, infrequent building and equipment wash down without detergents, uncontaminated foundation drains, springs, lawn watering and air conditioning condensate. Please note that discharges from temporary dewatering activities, such as hydrostatic testing or disinfection of new pipelines may require coverage under the temporary dewatering general permit, NDG07-0000.)
☐ Y ☐ N ☐ N/A	Is there evidence of wash water from tools or equipment draining to waters of the state, drainage ditches or storm sewer systems?
☐ Y ☐ N ☐ NA	Are permanent stormwater management measures (e.g., oil-water separators, rain gardens) functioning properly?

Observations / Corrective Actions:

_____

_____

_____

Corrective Actions and Schedule:

_____

_____

_____

- Are best management practices effective to minimize the discharge of sediment from the site? ☐ Y ☐ N
- Do best management practices need to be adjusted? ☐ Y ☐ N
- Are additional best management practices needed? ☐ Y ☐ N

Comments:

_____

_____

_____

List all spills, leaks or hose-breaks that have occurred since the last inspection:

-Size	-Location	-Was it reportable?	-Was it reported?
_____	_____	☐ Y ☐ N	☐ Y ☐ N
_____	_____	☐ Y ☐ N	☐ Y ☐ N
_____	_____	☐ Y ☐ N	☐ Y ☐ N

- Were Spill Prevention Procedures adequate? ☐ Y ☐ N
- What Spill Response Procedures were used?

Other Comments

_____

_____

_____

- Has the SWPP Plan been updated as a result of this inspection? ☐ Y ☐ N
- Has the Site Map been updated as a result of this inspection? ☐ Y ☐ N

Include captions and direction for all photos.

Photo 1:	Photo 2:
Photo 3:	Photo 4:
Photo 5:	Photo 6:

Appendix F

Best Management Practice Tracking Table

Appendix F - Best Management Practice Tracking Table
Cherry Creek Expansion Pipeline Project

Phase	Date Complete*	BMP Implementation Schedule
Pre Construction	_____ _____ _____ _____	➢ Mark all vegetative buffer areas to be preserved. ➢ Install silt fence or other perimeter control (prior to disturbing up-gradient areas) around the perimeter of areas to be graded. ➢ Construct gravel construction entrances or other tracking control at entrances and as necessary for accesses prior to accessing the construction areas. ➢ Install inlet protection at all stormwater inlets/culverts that potential to receive stormwater runoff from the construction site, if applicable.
During Construction	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	➢ Phase grading work as practicable to minimize the duration that any disturbed soil is exposed. ➢ Disturbed areas shall have temporary protection or permanent cover if not being actively graded and/or if not at final grade within 14 days of temporarily or permanently ceasing soil disturbance activities. ➢ Temporary erosion protection will be disc-anchored straw mulch, hydromulch, or erosion control blanket or an approved equal. ➢ Install silt fence or other perimeter control around all spoil piles within 200 feet of surface water or conveyances (such as ditches). ➢ Install silt fence or other perimeter control around downslope side of spoil piles and on spoil piles placed on slopes greater than 5 percent, if applicable. ➢ Implement dewatering BMPs as necessary for field conditions. ➢ Remove any sediment that has been tracked onto paved public streets at the end of the day or before next business day. ➢ Construction dust will be controlled through the use of water application or other approved dust palliatives. ➢ Collect and contain all construction debris. ➢ Repair silt fences, rock checks, gravel construction entrances and other erosion and sediment controls as needed. ➢ Concrete washout waste, if present, must be contained and removed from the Project area for disposal.
Post Construction	_____ _____ _____ _____	➢ Establish permanent stabilization in accordance with Section 11 of this SWPPP. ➢ Remove all silt fence and other temporary BMPs after the soils are stabilized and uniform perennial vegetation cover is 70 percent established. Repair all areas disturbed during removal of temporary BMPs. ➢ Remove, cleanup and stabilize any accumulated sediment material from the temporary sediment controls during final stabilization measures and removal of temporary BMPs. ➢ Submit NOT after final stabilization is achieved on all portions of the site for which the permittee is responsible.

** Contractor is responsible for implementing and tracking all Best Management Practices as described in the General Permit and this SWPPP.*

Appendix G

Training Log

Appendix G - Employee Training Log
Cherry Creek Expansion Pipeline Project

Training Topic: _____

Training Date: _____

Trainer Name: _____

Employee Name (printed)	Employee Signature

F.2 Spill Prevention, Control, and Countermeasure Plan

Cherry Creek Extension Pipeline Project

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

ISSUED FOR PERMITTING (IFP)

November 2022

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

ONEOK Rockies Midstream, L.L.C. (ONEOK) is committed to meeting or exceeding applicable federal, state, and local environmental requirements during the planning, construction, and operation of ONEOK's Cherry Creek Extension Pipeline Project (Project). This Spill Prevention, Control, and Countermeasure (SPCC) Plan (Plan) was developed to establish basic procedures to prevent the discharge of hazardous or regulated materials during construction of the Project. The SPCC Plan is a guideline that sets forth minimum standards for the prevention of spills (handling and storing regulated substances) and for the minimization of impacts resulting from spills of fuels, petroleum products, or other regulated substances as a result of pipeline construction should a spill occur. This document is not a complete summary of all requirements.

The provisions of this SPCC Plan will be implemented by Project personnel during the construction of the Project. The Contractor (i.e., pipeline construction general contractor) is responsible for understanding and complying with all applicable federal, state, and local requirements related to all aspects of work on the Project, including the transportation, storage, and disposal of polluting and hazardous materials. Other contractors (i.e., the reclamation contractor) are responsible for understanding and complying with applicable federal, state, and local requirements relating to their work on the Project, including the transportation, storage, and disposal of polluting and hazardous materials.

2.0 PLANNING AND PREVENTION

ONEOK's goal is to prevent spills and/or exposure to hazardous or dangerous substances during construction of the Project. The SPCC Plan is designed to reduce the likelihood of a spill, provide for prompt containment and clean up if a spill does occur, comply with applicable state and federal laws as well as other Project permit conditions throughout construction and restoration of the Project, and protect human health and the environment.

ONEOK requires its Contractors to implement proper planning and preventive measures to minimize the potential of spilling regulated substances such as fuels and petroleum products and to quickly and successfully clean up a spill, should one occur. Potential sources of construction-related spills include (but are not limited to) storage tank leaks, machinery and equipment failure, and fuel handling and transfer accidents. The Contractor will be responsible for implementing, at a minimum, the planning and prevention measures contained in this document.

2.1 ROLES AND RESPONSIBILITIES

The following roles and responsibilities have been developed by ONEOK for the Project.

2.1.1 Environmental Project Manager

The Environmental Project Manager will be a designated ONEOK Employee or a third-party Designee; refer to Contact List in front of this Permit Book for contact information.

- The Environmental Project Manager will have a Lead Environmental Inspector (EI) located on each construction spread. The Lead EI may act on the behalf of the Environmental Project Manager on certain issues that will be defined before construction is started.
- The Environmental Project Manager will promptly report spills to appropriate federal, state, and local agencies when required.
- The Environmental Project Manager will coordinate with these agencies regarding contacting additional parties or agencies. The Environmental Project Manager may request that the Contractor's Spill Coordinator assist with these additional notifications.
- The Environmental Project Manager will help direct further response actions in accordance with the U.S. Environmental Policy Agency (EPA) guidelines and assist throughout the cleanup and disposal of wastes.

- All spills defined as “Reportable Spills” (Appendices B and C) must be reported immediately to the Field Construction Manager, Environmental Project Manager, and Lead EI.

2.1.2 Lead Environmental Inspector

- The Lead EI will monitor the Contractor's compliance with the provisions of this SPCC Plan.
- The Lead EI may act on the behalf of the Environmental Project Manager on certain issues that will be defined before construction is started.
- The Lead EI is an initial point of contact of the Spill Coordinator (in addition to the Field Construction Manager) when a spill occurs and will verify information is correctly reported on the spill form and conduct a follow up inspection, if required, to ensure that the spill was properly cleaned up.

2.1.3 Field Construction Manager

- The Field Construction Manager referred to in this SPCC Plan will be a designated ONEOK employee or a third-party designee who is responsible for the management of construction activities on this Project (representing the Construction Manager for ONEOK).
- The Field Construction Manager is the initial point of contact of the Spill Coordinator (in addition to the Lead EI) when a spill occurs and determines the containment measures that may be required.
- The Field Construction Manager is responsible for documenting the general information regarding any spills such as work stoppages, injuries, fires, and the extent of exposure to workers on the site.
- The Field Construction Manager is responsible for overseeing the Contractor’s response to a spill to ensure that appropriate notifications are completed, spill response resources are allocated, and cleanup is accomplished in accordance with the SPCC Plan and applicable agency requirements.
- The Field Construction Manager is responsible for coordinating any emergency response services that may be required such as the Fire Department, the Sheriff Department, or for contacting Emergency Response Contractors.

2.1.4 Contractor Construction Superintendent

- The Contractor's Construction Superintendent is responsible for designating the Spill Coordinator and communicating who that person is to the Environmental Project Manager, Lead EI, and Field Construction manager.

2.1.5 Contractor Spill Coordinator

- A Spill Coordinator will be designated by Contractor's Construction Superintendent and employed by the Contractor.
- The Spill Coordinator is responsible for completing a Spill Report Form (Appendix A) for every spill event, regardless of the size/volume of material spilled. The completed Spill Report Form must be submitted to the Lead EI within 24 hours of the occurrence of the spill. The Spill Coordinator must then upload the spill information to ONEOK’s various data management systems (e.g., ProCore).
- The Spill Coordinator will notify the Field Construction Manager and Lead EI immediately of any spill. All spills defined as “Reportable Spills” must be reported immediately to the Field Construction Manager, Environmental Project Manager, and Lead EI. Reportable spills will be defined by federal- and state-specific guidelines. (See Appendices B and C).

- The Spill Coordinator will mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill.
- Prior to the start of construction, the Spill Coordinator must identify Emergency Response Contractors located in the area of the Project. The list of identified Emergency Response Contractors must be submitted to ONEOK for review and approval.
- The Spill Coordinator is responsible for coordinating the proper transport and disposal of contaminated media associated with the cleanup of a spill. Media will be disposed of at a state- and ONEOK-approved facility.
- The Spill Coordinator will assist the appropriate Emergency Response Contractor (Appendix H) and monitor containment activities to ensure that the actions are consistent with the requirements of this SPCC Plan.
- The Spill Coordinator will coordinate with the Environmental Project Manager regarding the need to contact additional parties or agencies. The Spill Coordinator will not contact an agency regarding a spill without authorization from the Environmental Project Manager and/or Lead EI.
- The Spill Coordinator and/or Lead EI or the Field Construction Manager, in consultation with appropriate agencies, will determine when it is necessary to evacuate spill sites to safeguard human health.

2.1.6 Authorized Personnel

- Authorized Personnel are representatives of the Contractor who are designated and properly trained to handle fuel, lubricants, or other regulated substances.
- Authorized Personnel will be familiar with the requirements of this SPCC Plan and the consequences of non-compliance.

2.1.7 Construction Personnel

- Construction Personnel are representatives of the Contractor involved with the Project.
- Construction Personnel will notify the crew foreman or Spill Coordinator immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.

2.2 TRAINING

- The Contractor will instruct construction personnel in the operation and maintenance of equipment to prevent an accidental discharge or spill of fuel, oil, and lubricants. Personnel will also be made aware of the pollution control laws, rules, and regulations applicable to their work.
- The Contractor will train construction personnel who handle fuels and other regulated substances on the proper methods to quickly and effectively contain and clean up spills that may occur, in accordance with applicable regulations.
- A spill prevention briefing will be scheduled and conducted by Contractor prior to the initiation of construction to assure adequate understanding of this SPCC Plan. The topics to be addressed at the briefing will include the following:
    - SPCC Plan contents;
    - Possible equipment failure and malfunction;
    - Precautionary measures;
    - Standard operating procedures in case of a spill;

- Location of emergency response materials;
- Refueling and maintenance restriction areas; and,
- Equipment, materials, and supplies to be maintained by Contractor and available for cleanup of a spill.

3.0 GENERAL BEST MANAGEMENT PRACTICES

The following general preventive actions and procedures will be implemented prior to and throughout construction.

3.1 TYPICAL FUELS, LUBRICANTS, AND HAZARDOUS MATERIALS MANAGEMENT

The table in Appendix G identifies fuels, lubricants, coolants, and other hazardous materials generally present on pipeline construction spreads and identifies typical total volumes, storage, and transportation methods. The Contractor must provide ONEOK with a list of fuels, lubricants, and hazardous materials and the expected quantities that will be stored and/or maintained on each construction spread. Contractors must also have appropriate Safety Data Sheets (SDS) on-site for each product, as required by the Occupational Safety and Health Administration.

3.1.1 Fuel, Lubricants, and Hazardous Material Storage Areas

- All petroleum products used by Contractor necessary for fueling and maintenance of construction equipment will be stored at a designated, well-maintained, and secured/supervised location to minimize the environmental and safety impacts associated with releases of fuel, lubricants, or hazardous substances.
- Fuel, lubricant, or hazardous materials will be stored only in the designated staging areas and equipment storage yards and will be at least 100 feet from all waterbodies, wetlands, environmentally sensitive areas, or municipal watersheds.
- Storage of potentially hazardous materials will not occur within a 150-foot radius of a private well or within a 400-foot radius of a municipal or community water supply well.
- Fuels, lubricants, waste oil, and any other regulated substances will be stored in aboveground tanks only. Storage tanks and containers must conform to all applicable industry codes (National Fire Protection Association, Unified Facilities Criteria, etc.).
- A suitable secondary containment structure must be utilized at each fuel, lubricant, and waste oil storage site. These structures must be lined with suitable plastic sheeting (seamless); provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel; and provide at least one (1) foot of freeboard.
- Secondary containment areas must not have drains. Precipitation may be drawn off as necessary. If visual inspection indicates that no spillage has occurred in the secondary containment structure, accumulated water may be drawn off and sprayed on the surrounding upland areas. If spillage has occurred in the structure, accumulated waste will be drawn off and pumped into drum storage for proper disposal.
- If earthen containment dikes are used, they will be constructed with slopes no steeper than 3:1 (horizontal to vertical) to limit erosion and provide structural stability.
- Tools and materials to stop the flow of leaking tanks and pipes will be kept on-site. Such equipment may include, but not be limited to, plugs of various sizes, tank patches, hammer, screwdriver, plastic tape, and assorted sizes of metal screws with rubber washers. Fully furbished spill kits must be located at all fuel storage areas.
- Proper signage must be installed at and adjacent to fuel storage areas to include “Fuel Storage Area – No smoking within 50 feet.”
- No hazardous or potentially hazardous materials, other than essential materials (coating, sandblasting media, etc.), essential equipment fuel (gasoline, diesel, etc.), or standard lubricants (engine oils, grease, etc.) will be

transported onto the right-of-way (ROW) or construction area without Environmental Project Manager coordination and approval.

- Construction equipment will be removed from wetlands and parked a minimum of 100 feet away from streams, wetlands, ditches, and other waterbodies at the end of each workday. Stationary equipment (e.g., pumps) or mainline construction equipment located within the 100-foot restriction zone must be placed within proper secondary containment upon approval from the Lead EI, if there are no practical upland areas available.

3.1.2 Equipment Maintenance and Lubrication Areas

- The Contractor will ensure that all equipment is free of leaks prior to use on the Project, and prior to entering or working in or near waterbodies or wetlands. The Contractor will perform, and provide documentation to ONEOK of, a pre-construction inspection and test of all equipment to ensure that it is in good repair prior to the equipment reaching the ROW.
- During construction, the Contractor will regularly (minimum of once daily) inspect hoses, pipes, valves, and tanks to ensure equipment is free of leaks. Any equipment that is leaking or in need of repair will be immediately removed from service and repaired prior to resuming use of the equipment. Buckets/containment materials and absorbent materials (as necessary) will be placed under the equipment until the leak can be repaired.
- Equipment that requires extensive repairs will be removed from the ROW until the repairs are completed or a protection plan will be developed by the Spill Coordinator and the Lead EI if the equipment cannot be moved.
- Precautionary measures will be implemented when performing equipment maintenance or repair activities including placing absorbent pads (or equivalent materials) on the ground beneath the equipment when changing crankcase oil, repairing hydraulic lines, or adding coolant to construction equipment and when appropriate for other repair activities.
- Maintenance, refueling, and lubrication of construction equipment will not be allowed within 100 feet of a waterbody, wetland boundary, environmentally sensitive area, or within a municipal watershed, except as specified in Section 3.2.
- Equipment maintenance wastes, including used oils and other fluids, will be handled and managed by properly trained personnel. All equipment maintenance waste (e.g., oils and lubricants) will be collected in proper containers within the designated storage, refueling, and lubrication areas and disposed of in accordance with Section 7.0 of this SPCC Plan. All equipment maintenance wastes will be properly disposed of at facilities permitted to receive hydrocarbon waste.

3.2 REFUELING

- Fuels will be dispensed by Authorized Personnel during daylight hours only unless otherwise approved by the Lead EI.
- Fuel dispensing operations will be attended by Authorized Personnel at all times. Personnel must be stationed at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
- During refueling, the Contractor will take appropriate measures to reduce the risk of a spill, including not overfilling fuel tanks and placing an absorbent pad under the fuel nozzle while fueling equipment. Contractor personnel will observe and control refueling at all times to prevent overfilling.
- Fuel dispensing equipment (i.e., portable gas cans, nozzles, hoses, etc.) will be of the appropriate type.
- Refueling within 100 feet of waterbodies, wetland boundaries, environmentally sensitive areas, or within a municipal watershed is not allowed without approval from the Lead EI.

- In large wetlands where no upland site is available for refueling, auxiliary fuel tanks on construction equipment are recommended.
- Refueling will not occur within a 150-foot radius of all private wells and a 400-foot radius of all municipal or community water supply wells.
- When unique conditions require refueling within the restricted zones listed above the Contractor will consult with the Lead EI to determine necessary emergency equipment that will be in place and emergency response actions that will be conducted prior to refueling activities. At a minimum, the determination will consider the environmental and/or safety risks of relocating equipment to a refuel/lubrication area verses risks involved with refuel/lubrication in place. If requested by the Contractor, the Lead EI will evaluate site-specific conditions within the restricted zone and may require implementation of additional precautionary measures prior to approval of refueling within the restricted zones. In addition, absorbent materials or other spill containment materials will be available for immediate deployment prior to commencing refueling activities.

3.3 SPILL RESPONSE EQUIPMENT

- The Contractor must maintain spill kits containing a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, commercial absorbent materials, spill containment barriers, plastic bags and/or sheeting, skimmer pumps, holding tanks, and shovels. This equipment will be located near fuel storage areas and other locations as necessary to be readily available to control foreseeable spills.
- Each construction crew will have on hand sufficient supplies of absorbent materials, barrier material, and U.S. Department of Transportation (DOT) -approved containers to allow for rapid containment and recovery of any spill which may occur.
- All fuel, and where necessary, service vehicles, will carry spill containment materials adequate to control foreseeable spills.
- The Spill Coordinator will identify the locations of spill control equipment and materials and have them readily accessible during construction activity.
- All fuel nozzles will be equipped with functional automatic shut-offs and over-flow alarms.
- Fuel trucks transporting fuel to on-site construction equipment will travel only on approved access roads.
- Suitable plastic lining materials will be available for placement below and on top of temporarily-stored contaminated soils and materials.

4.0 GENERAL SPILL RESPONSE

The following guidelines specify the procedures used to control a release, notify appropriate Project personnel, complete site cleanup activities, and document corrective actions. In the event of a spill, the Contractor will abide by all applicable federal, state, and local regulations for cleaning up the spill. Refer to the following appendices for federal and state reporting requirements:

Appendix B - Federal spill reporting requirements

Appendix C - State of North Dakota spill reporting requirements

All spills, regardless of size, will be reported to the Spill Coordinator and Lead EI. All spills will also be recorded in ONEOK's data management system.

4.1 IMMEDIATE CONTAINMENT AND CLEANUP RESPONSE

Controlling spills and releases will be accomplished by stopping or segregating the source of the release, using the required stockpiled materials to contain the spill and, if warranted, stopping operations within the affected areas.

Immediately upon learning of any fuel, oil, hazardous material, or other regulated substance spill, the person discovering the situation will:

- Identify the source of the spill;
- Deploy absorbent materials and initiate actions to contain the fluid that has spilled;
- Initiate action to eliminate the source of the spill (e.g., shut off valves, upright containers, stop pumps, etc.) to the maximum extent that is safely possible; and
- Notify the crew foreman and/or the Spill Coordinator and provide them with the following information:
    - Location and cause of the spill;
    - The type of material that has spilled; and,
    - Whether the spill has reached or is likely to reach any surface water

Personnel should only respond to a spill if they have adequate training to do so safely.

Upon learning of a spill or a potential spill the Spill Coordinator will:

- Accumulate as much information as possible as to the nature and size of the spill. This information will be recorded using the Construction Spill Report Form (see Appendix A) for documentation of the spill;
- Assess the situation and determine the need for further action which may include mobilizing additional personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill;
- Direct subsequent activities and/or further assign responsibilities to other personnel;
- Notify Project individuals as outlined in Section 2.1.5;
- If the Spill Coordinator determines that a spill is beyond the scope of on-site equipment and personnel, the Spill Coordinator will immediately notify the Environmental Project Manager and the Field Construction Manager that an Emergency Response Contractor is needed to contain and/or clean up the spill. Available Emergency Response Contractors are identified in Appendix H; and
- The Spill Coordinator will assist the Emergency Response Contractor and monitor containment procedures to ensure that the actions are consistent with the requirements of this SPCC Plan.

4.1.1 Spills Occurring in Uplands

In addition to the above measures, the following procedures will be followed for any spill occurring in an upland area:

- The source of the spill must be identified and contained immediately to the maximum extent that is safely possible;
- If a spill should occur during refueling operations, the refueling operation will be stopped until the spill can be controlled and the situation corrected;
- Absorbent material(s) will be placed over spills to minimize spreading and to reduce penetration into the soil;
- If free-standing fluid is present, actions will be taken to skim fluids and place into DOT-approved containers;

- It is the responsibility of the Contractor to ensure that spilled material, contaminated soil, and other materials associated with these releases is treated, collected, and/or disposed of in accordance with all applicable federal, state, and local agency requirements (see Sections 6.0 and 7.0 of this SPCC Plan); and
- Flowing spills must be contained and/or absorbed before reaching sensitive resource areas such as surface waters or wetlands.
    - All storm drains the spill may reach will be plugged and
    - Terrace dams or ditches will be constructed to stop the spill's flow.

4.2 SPILLS OCCURRING IN WETLANDS OR WATERBODIES

In addition to the above measures, the following conditions will apply if a spill occurs near or into a stream, wetland, or other waterbody, regardless of the size of the spill:

- For spills into streams, lakes, or other waterbodies containing standing or flowing water, regardless of size, the Spill Coordinator must apprise the Field Construction Manager, Environmental Project Manager, and Lead EI of the incident immediately.
- For spills in standing water, sorbent booms and pads will be on hand and used by the Contractor to contain and recover released materials. In addition, other spill response materials and equipment will be on hand, as appropriate for each waterbody, and used to contain and recover foreseeable spills. This may include containment booms, skimmer pumps, holding tanks, boats, and other equipment.
- If contaminated soils are present in wetlands, as much of the spill as possible will be contained and the appropriate agencies will be contacted before excavating the soil. Unless the agency deems otherwise, the contaminated soil will be excavated and temporarily placed on plastic sheeting in a bermed area at a minimum distance of 100 feet from the wetland. Contaminated soils will be covered with plastic sheeting while being stored temporarily (5 days unless otherwise approved by ONEOK) and properly disposed of as soon as possible, in accordance with this SPCC Plan (see Sections 6.0 and 7.0).

4.3 NOTIFICATIONS

- The Field Construction Manager and Lead EI will be notified of any spill and provided the necessary information by using the Construction Spill Report Form (Appendix A);
- All agency notifications will be accomplished at the direction of the Environmental Project Manager;
- If the situation warrants, the Field Construction Manager will notify appropriate local police, fire department, and/or area residents;
- Other Contractor, ONEOK, and agency notifications will be made per the SPCC Plan, or as instructed by the Environmental Project Manager; and
- The Contractor will have designated employees on-call 24 hours per day for notification of the emergency response companies referenced in Appendix H.

4.4 RECORDS

The Contractor will maintain written records of all actions taken during the course of a spill event.

5.0 REPORTABLE QUANTITY SPILL RESPONSE

The reporting, disposal, and pre-cleanup sampling requirements in this section apply to all spills of reportable quantities (Appendices B and C).

5.1 IMMEDIATE SPILL RESPONSE ACTIONS

In addition to the responses listed above, the Contractor will implement the following steps in response to any spill of fuel, oil, hazardous materials, or other regulated substance of a reportable quantity:

- Stop operation of affected equipment/area, if warranted;
- Turn off utilities to the area, if necessary;
- Cordon the area to prevent entry of unnecessary personnel or equipment. Establish a single point of ingress and egress to control access to the spill area;
- Accumulate as much information as possible as to the nature and size of the spill. Use the Construction Spill Report Form (see Appendix A) for the type of information required; and
- The Spill Coordinator and/or Field Construction Manager, in consultation with appropriate agencies, will determine when spill sites should be evacuated as necessary to safeguard human health. Evacuation parameters will include consideration for the potential of fire, explosion, and hazardous gases.

5.2 SPILL EVENT LOG ESTABLISHMENT

In addition to the Construction Spill Report Form, the Spill Coordinator will complete a Spill Event Log for reportable spills that documents all spill-related events and clean-up activities. The Spill Event Log will include the following information in the log:

- Time and date of initial notification of spill and approximate time the spill occurred.
- Start and completion time of all key activities.
- A detailed description of all activities undertaken and identification of personnel accomplishing these activities.
- Note time of all correspondence, personnel involved with the correspondence, and nature of the correspondence.

The log will be maintained by the Spill Coordinator until actions to clean up the spill are complete (within approximately 24 hours unless conditions extend the response to the emergency).

5.3 NOTIFICATIONS

The Spill Coordinator will:

- Notify the Environmental Project Manager, Lead EI, and the Field Construction Manager immediately of any reportable quantity spill and provide the necessary information by using the Construction Spill Report Form (Appendix A).
- Make other Contractor, ONEOK, and agency notifications per this SPCC Plan, or as instructed by the Environmental Project Manager. The Spill Coordinator will not contact an agency regarding a spill without authorization from the Environmental Project Manager and/or Lead EI.
- Notify local police or fire department if assistance is necessary.

5.4 REPORTABLE SPILL CONTAINMENT

In addition to the requirements listed in Section 4.0, the following procedures will also be implemented.

- All possible efforts will be made to limit the migration of the surface spill until properly equipped cleanup teams can arrive.
    - Terrace dams or ditches will be constructed to stop the spill's flow, as needed.
    - Hay, straw, sand, or other similar materials will be scattered to absorb the spill.

- Flowing spills will be contained and/or absorbed before reaching sensitive resource areas such as surface waters or wetlands.
- If free-standing fluid is present, actions will be taken to skim fluids and place into DOT-approved containers or pump into tank trucks.
- Skimmers, pumps, or available absorbent materials will be used to remove spill from water.
- If possible, a back current will be created to limit out-flow of material into open or flowing water.

6.0 CLEANUP REQUIREMENTS

6.1 GENERAL REQUIREMENTS

- All equipment will be wiped down with absorbent pads (or equivalent) where fuel, lubricants, or other materials have spilled.
- All soil within the spill area (e.g., visible traces of soil and a lateral and vertical buffer around the visible traces) will be excavated.
- All excavated material will be stored and disposed of in accordance with local, state, and federal regulations.
    - All cleanup soil and wastes will be collected in DOT-approved containers. See Appendix D for a listing of approved containers.
    - Appendix E contains guidance on how to manage the area used to temporarily store waste containers.
    - Appendix F contains guidance on inspection procedures for stored waste containers required by EPA Regulations.
- The ground will be restored to its original configuration by back-filling with clean soil.
- Cleanup requirements of a spill area will be completed within 48 hours after notification or knowledge of the spill.

6.1.1 Determination of Spill Boundaries in the Absence of Visible Traces

For spills where there are insufficient visible traces, yet there is evidence of a leak or spill, the boundaries of the spill will be determined using a statistically based sampling scheme. The Environmental Project Manager will provide sampling assistance.

6.1.2 Effect of Emergency or Adverse Weather:

Completion of cleanup may be delayed beyond 48 hours in case of circumstances including, but not limited to:

- Civil emergency;
- Adverse weather conditions;
- Lack of access to the site; and/or,
- Emergency operating conditions.

The occurrence of a spill on a weekend, after hours overtime costs, or that the spill would require the shutdown of construction activities are not acceptable reasons to delay response.

Completion of cleanup may be delayed only for the duration of the adverse conditions. If the adverse weather conditions or time lapse due to other emergencies has left insufficient visible traces, a statistically based sampling scheme to determine the spill boundaries will be developed and implemented.

6.2 REPORTABLE SPILL RECORDS

All records that document reportable spill events and corrective actions taken will be maintained in the Project files for three (3) years from the date the corrective actions were completed. Documentation and certification of area decontamination will be conducted upon completion of and during all cleanup operations. The records and certifications will be completed, as follows:

- Identification of the source of the spill (e.g., type of equipment or container).
- Location and estimated area of spill.
- Estimated quantity of material spilled.
- Estimated or actual date and time of the spill occurrence.
- The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather, the nature, and duration of the delay).
- A brief description of the spill location.
- Pre-cleanup sampling data used to establish the spill boundaries if required due to insufficient visible traces, and a brief description of the sampling methodology used to establish the spill boundaries.
- A brief description of the solid surfaces cleaned and of the wash/rinse method used.
- Approximate depth of soil excavation and the amount of soil removed.
- A certification statement signed by the Construction Director, Spill Coordinator, and the Environmental Project Manager stating the cleanup requirements have been met and the information contained in the record is true to the best of his/her knowledge.
- The estimated cost of pre- or post-cleanup and sampling by man-hours, dollars, or both.

7.0 WASTE STORAGE AND DISPOSAL

7.1 STORAGE OF CONTAMINATED MATERIALS

- All contaminated soils, solvents, rags, and other materials generated during construction will be stored in DOT-approved containers in accordance with the applicable state and federal regulations. See Appendix D for a list of DOT-approved containers.
- Containers will be labeled with required waste label(s), dated, and inventoried.
- Spent oils, lubricants, filters, etc. will be collected and disposed of, or recycled, at an approved location in accordance with state and federal regulations.
- Containers will be placed in a designated accumulation point for disposal.
- Containers may be stored at the construction site in the identified staging areas for up to 90 days from the date waste accumulation begins.
    - Appendix E contains guidance on how to manage the area used to temporarily store waste containers.
    - Appendix F contains guidance on inspection procedures for stored waste containers required by EPA Regulations.

- If it is necessary to temporarily store excavated soils on site, these materials will be placed on, and covered by, plastic sheeting or placed in properly labeled ring-top 55-gallon drums and the storage area bermed to prevent and contain runoff.
- Any hazardous or contaminated material stored on ONEOK property, or the ROW, will be properly labeled in accordance with state and federal labeling requirements.

7.2 DISPOSAL OF CONTAMINATED MATERIALS

- All contaminated soils, solvents, rags, and other materials resulting from the cleanup actions will also be properly disposed of in accordance with the applicable state and federal regulations using permitted transporters and permitted disposal facilities.
- Only licensed carriers may be used to transport contaminated material from the site to a disposal facility.
- The Contractor will recycle those wastes, such as motor oil, where there is an established recycling program available.
- All hazardous waste containers will be properly manifested prior to departure from the construction area. The Contractor will be listed as the waste generator on the waste manifest. The Contractor and ONEOK will maintain all manifest records with the Project file for at least three years after the containers were shipped for disposal.
- Appendix H of this SPCC Plan lists potential treatment and disposal facilities for contaminated materials, petroleum products, and other construction-related wastes.

APPENDIX A

CONSTRUCTION SPILL REPORT FORM

APPENDIX A
CONSTRUCTION SPILL REPORT FORM

If a spill is below the reportable quantity complete only Section 1.

If the spill exceeds the reportable quantity complete both Sections 1 and 2.

Section 1 (All Spills)

Facility Name:_____ District/Region:_____

Facility Phone Number:_____

Facility Address:_____

Date of Spill:_____ Date of Spill Discovery:_____

Time of Spill:_____ Time of Spill Discovery:_____

Location of release: _____ County/State_____

Type of material spilled and manufacturer's name:_____

Substance released to (Check all that apply): Land__ Air__ Water__ Secondary Containment__

Estimated volume of spill: _____ Estimated volume recovered:_____

Brief description of the incident including cause and corrective action:_____

_____

_____

Person Completing Form (Contact):_____ Date:____

Contact's Phone Number:_____

Section 2 (Reportable Spills)

Facility Type (well, tank, flow line, pit):_____

Spill Location: Address:_____

County:_____ Coordinates: Latitude_____ Longitude_____

PLSS: Township_____Range_____ Section_____

Additional Location Details:_____

_____

Spill medium (pavement, sandy soil, water, etc.):_____

Topography and surface conditions of spill site:_____

Soil/Geology Description:_____

Weather Conditions: Wind Direction ___ Wind Speed___ Temperature___ Precipitation_____

Proximity of spill to surface waters: _____

Did the spill reach Ground Water? _____ Yes _____ No

Did the spill reach Surface Water? _____ Yes _____ No

If so, was a sheen present? _____ Yes _____ No

Current Land Use:_____

Distance to nearest…

Surface Water _____Wetland _____Building _____Livestock_____Water Wells_____

Spill Coordinator must complete this for any spill, regardless of size, and submit the form to the Company Environmental Project Manager and Chief Environmental Inspector within 24 hours of the occurrence.

APPENDIX A
CONSTRUCTION SPILL REPORT FORM

Depth to shallowest groundwater _____

Was there a fire associated with the release? __Yes _____ No

Did the incident result in death or injury? __Yes _____ No

Was there any immediate damage observed to plants or animals? __Yes _____ No

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

How was the extent of the spill determined? _____

Current status of cleanup actions: _____

Proposed Remediation Activities: _____

Describe measures to prevent reoccurrence: _____

Did the spill occur while in transit? _____

Duration of spill occurrence? _____

Directions from nearest community: _____

Name and Title of Discoverer: _____

Name of Operator: _____

Address of Operator: _____

Operator Contact Person: _____

Is the Operator the responsible party? _____Yes _____No

If no, what is the responsible party's name and contact information? _____

_____

List all parties and agencies notified (Counties, BLM, EPA, DOT, Local, etc.)

Date	Agency	Contact	Phone Number	Response

Spill Coordinator must complete this for any spill, regardless of size, and submit the form to the Company Environmental Project Manager and Chief Environmental Inspector within 24 hours of the occurrence.

APPENDIX A
CONSTRUCTION SPILL REPORT FORM

Any additional information:_____

_____

_____

_____

_____

_____

Name/Company/Address/Phone Number for the following:

Construction Superintendent:_____

_____

Spill Coordinator:_____

_____

Environmental Project Manager:_____

_____

Person Who Reported the Spill:_____

_____

Environmental Inspector:_____

_____

Spill Coordinator must complete this for any spill, regardless of size, and submit the form to the Company Environmental Project Manager and Chief Environmental Inspector within 24 hours of the occurrence.

APPENDIX B

FEDERAL SPILL REPORTING REQUIREMENTS

PURPOSE:

This procedure identifies reportable quantities for releases of oil or hazardous substances in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, Emergency Planning and Community Right-to-Know Act (EPCRA) Section 304, the Clean Water Act (CWA), the Oil Pollution Act of 1990 (OPA 90), and the Toxic Substances Control Act (TSCA).

RESPONSIBILITY FOR ADMINISTRATION:

Contractor's Spill Coordinator is responsible for administration of this procedure.

GENERAL:

I. Reportable quantity is the quantity of a release which requires agency notification.

II. A list of Reportable Quantities (RQs) for chemicals subject to spill reporting specified by the EPA can accessed at: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-302/section-302.4 or https://www.epa.gov/system/files/documents/2022-04/list_of_lists_compiled_april-2022.pdf

III. RQs for materials are based on the chemical's constituents and concentrations. Please refer to SDS to determine the constituents and concentrations of the material that has been spilled. If the concentration of all of the constituents of a material are known, notification is required where an RQ of any constituent is exceeded. If the concentration of the constituents of a mixture is unknown, notification is required where the total amount of mixture released exceeds the RQ for the constituent with the lowest RQ.

IV. Any amount of oil spill into navigable waters is reportable. Oil spills onto land may be required to be reported, depending upon quantity spilled and state regulations. State spill requirements are detailed in Appendix C.

V. Typical materials stored on a construction spread are detailed in Appendix G.

REPORTING REQUIREMENTS:

I. If any quantity of oil or a hazardous substance is discharged into or upon the navigable waters of the United States, or adjoining shorelines; or the spill causes a sheen on a waterway (pond, lake, river, wetland, etc.) report the spill to the National Response Center (NRC) (800-424-8802). The NRC may determine that a spill report, as described in Section II below, be completed and submitted.

II. If oil is discharged in an amount greater than 1,000 gallons in one spill or if there are two discharges of 42 gallons or more of oil within a 12-month period.

A. Report the spill to the NRC (800) 424-8802.

B. Submit a written report within 60 days to the U.S. Environmental Policy Agency (EPA) Regional Administrator (Region 8) and the state agency.

C. The report to the EPA Regional Administrator and the state agency will include:

1. Name of facility;
2. Name(s) of the owner or operator of the facility;
3. Location of the facility;
4. Date and year of initial facility operation;
5. Maximum storage or handling capacity of the facility and normal daily throughput;
6. Description of facility, including maps, flow diagrams, and topographical maps;
7. A complete copy of this SPCC Plan with amendments;

8. The cause of the spill, including a failure analysis of the system or subsystem in which the failure occurred;

9. The corrective actions and/or countermeasures taken, including description of equipment repairs and replacements;

10. Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and,

11. Any additional information the EPA Regional Administrator may require pertinent to the SPCC Plan or spill event.

III. If a release of hazardous substance or extremely hazardous substance in excess of RQs listed in 40 Code of Federal Regulations 302 or a hazardous waste spill has been released into the environment the National Response Center (NRC) ((800) 424-8802), State Emergency Planning Commission (SERC) (701) 328-8100), and the McKenzie County Local Emergency Planning Commission (LEPC) (701) 444-7483) must be notified.

A. Contact the required agencies with the pertinent spill information.

B. Provide verbal notification of the following information:

1. Name and telephone number of reporter;

2. Name and address of facility;

3. Type of substance discharged;

4. Quantity of substance discharged;

5. Location of discharge;

6. Actions the person reporting the discharge proposes to take to contain, cleanup and remove the substances, if any; and,

7. Any other information concerning the discharge which may be requested by the Agency at the time of notification.

C. Submit a written report on the incident to the appropriate state and local agency. The report will include the following:

1. Name, address, and telephone number of the owner or operator;

2. Name, address, and telephone number of the facility and a detailed location of the spill;

3. Date, time, and type of incident;

4. Name and quantity of material(s) involved;

5. The extent of injuries, if any;

6. An assessment of actual or potential hazards to human health or the environment, where this is applicable;

7. Assessment of the scope and magnitude of the spill;

8. Description of the immediate actions that have been taken and the estimated quantity and disposition of recovered material that resulted from the incident; and,

9. Provide an implementation schedule for undertaking suggested measures to eliminate the spill.

Spill incident reports will be maintained in the Project files for a minimum period of three (3) years.

RESPONSIBILITY FOR PROCEDURE:

Address any questions to the Environmental Project Manager; refer to Contact List in front of this Permit Book for contact information.

APPENDIX C

STATE SPILL REPORTING REQUIREMENTS

These guidelines are intended to help the Environmental Project Manager determine reportable spills in the state through which the Project passes. In addition to the guidelines listed below, any substantial natural gas release which could cause an agency to initiate an unneeded emergency response should be considered reportable. The Environmental Project Manager and Spill Coordinator will maintain a copy of the latest edition of the TITLE III List of Lists.

NORTH DAKOTA

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY (NDDEQ) EMERGENCY RESPONSE at (701) 328-5210 or (800) 472-2121 (State Radio 24-Hour Hotline - valid only in North Dakota).

All releases or spills of hazardous or deleterious substances or other wastes, regardless of size, must be properly and expeditiously managed, contained, and removed to protect public health and the environment.

NDDEQ must be notified of a spill of any size that could enter a waterway (stream, river, pond, lake, shoreline, wetland, ditch). You should consider reporting any spill that cannot be cleaned up immediately or that has entered or is likely to enter a storm drain at your facility.

All releases and spills should be reported immediately to NDDEQ-Environmental Incident Reporting at:

- (800) 472-2121 (emergency, 24 hours)
- (701) 328-8020 or (701) 328-5210 (non-emergency, M-F 9-5:00)

The following types of spills must be reported:

- Releases or spills of hazardous substances in amounts that meet or exceed the reportable quantities in 40 Code of Federal Regulations (CFR) Part 302.
- Spills, overfills, and suspected releases from underground storage tanks and petroleum storage tanks (ARM 17.56.501, et seq.).
- Releases or spills of any materials that would lower the quality of groundwater below water quality standards (ARM 17.30.1045).
- Any spill or discharge of liquid or solid (not gaseous) waste which may cause pollution of waters of the State **must be reported immediately**.

Online Incident Report Form: https://www.dmr.nd.gov/dmr/oilgas/spills

APPENDIX D

DOT-APPROVED CONTAINERS

APPENDIX D
DOT-APPROVED CONTAINERS

PURPOSE:

This procedure provides a listing of containers which have been approved by the U.S. EPA for storage of contaminated materials or wastes. These drums may be ordered from drum suppliers by specification number:

I. Specification 5 - steel barrel or drum with removable head:

- A. Body seams welded;
- B. Chime (reinforced rim) reinforced;
- C. Heads closed by 12 gauge bolted ring with drop forged lugs;
- D. Marked “DOT-5.”

II. Specification 5B - steel barrel or drum with removable head:

- A. Body seams welded;
- B. Chime (reinforced rim) reinforced;
- C. Heads closed by 12 gauge bolted ring with drop forged lugs;
- D. Marked “DOT-5B.”

III. Specification 6D Overpack; cylindrical steel overpack, straight sided, for inside plastic container. Specification 6D Overpack must be used with the specification 2S of 2SL plastic container.

IV. Specification 2S - polyethylene container:

- A. No removable heads;
- B. Constructed with new polyethylene resin;
- C. Marked “DOT-2S;”
- D. Must fit snugly in overpack container (Spec. 6D).

V. Specification 2SL - molded or thermoformed polyethylene container:

- A. No removable heads;
- B. Constructed with new polyethylene resin;
- C. Marked “DOT-2SL;”
- D. Must fit snugly in overpack container (Spec. 6D).

VI. Specification 17C - single trip container, steel drum:

- A. Removable heads are authorized;
- B. Crowned head;
- C. Heads closed by 12 gauge bolted ring with drop forged lugs;
- D. Marked “DOT-17C.”

APPENDIX E

HANDLING CONTAINERS AND DRUMS

APPENDIX E
HANDLING CONTAINERS AND DRUMS

PURPOSE:

This procedure provides general requirements for the design of areas used to store containers and drums, in accordance with U.S. EPA regulations 40 Code of Federal Regulations (CFR) Part 112 and 40 CFR Part 265.170.

RESPONSIBILITY FOR ADMINISTRATION:

The Contractor's Spill Coordinator will be responsible for this procedure.

GENERAL:

I. This procedure covers container and drum storage areas storing oils and petroleum distillates and non-permitted Hazardous Waste container and drum storage areas.

II. It is not necessary to permit Hazardous Waste container and storage areas if the waste is stored for less than 90 days. Secondary containment is not required for non-permitted Hazardous Waste container and drum storage areas.

PROCEDURE:

I. All containers and drums must be stored to avoid contact with the ground and standing water and protected to prevent rupture or leakage and to facilitate inspection.

II. The areas with containers and drums in which oil and petroleum distillate are stored and have the potential to be spilled off site must be designed to contain spills and releases. Appropriate secondary containment may include dikes, berms or retaining walls sufficiently impermeable (10^{-5} centimeters per second) to contain spill oils.

III. The following applies to hazardous waste containers and drums:

A. Containers and drums holding ignitable or reactive Hazardous Waste must be stored at least 50 feet from the property line of boundary. Follow manufacturer's instructions regarding appropriate storage of product containers and drums.

B. Hazardous Waste containers and drums must be separated and protected from incompatible materials by means of dike, berm, retaining wall or other approved means. Incompatible materials are wastes which, when mixed, can produce effects which are harmful to human health and the environment, such as (1) heat and pressure, (2) fire or explosion, (3) violent reaction, (4) toxic fumes or, (5) flammable fumes.

C. Hazardous Waste containers and drums must be inspected weekly. That inspection will be documented, as per requirements listed in Appendix F.

IV. The Contractor will comply with all rules for Hazardous Waste Generators for satellite accumulation under 40 CFR 262.24(c)(1)(ii):

A. Mark each container with the words "Hazardous Waste."

B. Containers must be in good condition and kept closed except when adding or emptying waste. In addition, containers must not contain waste that is incompatible with the containers.

V. Conditionally Exempt Small Quantity Generators and Small Quantity Generators of Hazardous Waste must comply with the following:

A. Meet all conditions outlined in Procedure Section II.

B. Mark each drum or container with the words "Hazardous Waste."

C. Label each drum or container with the date it is first used and the date it is last used.

RECORDS:

Storage area inspection records must be kept with the Project files for a minimum period of three (3) years.

RESPONSIBILITY FOR PROCEDURES:

Address any questions to the Environmental Project Manager; refer to Contact List in front of this Permit Book for contact information.

APPENDIX F

INSPECTION OF WASTE DRUMS AND CONTAINERS

APPENDIX F
INSPECTION OF WASTE DRUMS AND CONTAINERS

PURPOSE:

This procedure outlines inspection requirements for waste drums and containers as required by Federal Regulations 40 Code of Federal Regulations (CFR) 262 - 265 and 40 CFR 761.

RESPONSIBILITY:

The Contractor's Spill Coordinator is responsible for implementation of this procedure.

GENERAL:

I. Drums and containers used to store hazardous substances and wastes will be inspected for leaks, malfunctions, deterioration, operator errors, and discharges which may lead to a release into the environment or a threat to human health.

II. If problems are discovered during the inspection, remedial action will be taken immediately. The action taken will be noted on the inspection report form.

PROCEDURE:

I. Each waste drum and container will be inspected, and records maintained on a Waste Container Inspection Form. Inspection records will include the date and time of the inspection, the name of the inspector, observations, and the date and nature of any problems, repairs, and remedial action.

   A. Waste drum and container storage areas will be inspected weekly for the following:

      1. Leaking containers, deterioration of containers, and deterioration of the spill containment system.

      2. Drums and containers will be properly labeled and dated.

      3. Drums and containers will be stored on pallets or drum racks.

   B. If a drum or container is leaking, the incident will be recorded on the inspection form and immediately cleaned up according to this SPCC Plan.

APPENDIX F
INSPECTION OF WASTE DRUMS AND CONTAINERS

RECORDS:

I. Inspection records will be maintained in the Project files for three (3) years from the date of inspection.

II. A report of the remedial action taken for leaks will be prepared and kept with either the original inspection forms, inspection log or in the records of the Project. These records will be maintained for three (3) years with the Project files.

RESPONSIBILITY FOR PROCEDURE:

Address any questions to the Environmental Project Manager; refer to Contact List in front of this Permit Book for contact information.

APPENDIX F
INSPECTION OF WASTE DRUMS AND CONTAINERS

WASTE CONTAINER INSPECTION FORM		
Facility: _____	Type of Container: _____	
Date	**Deficiencies Noted**	**Inspected By**

APPENDIX G

TYPICAL PETROLEUM STORAGE AND HANDLING VOLUMES ON A CONSTRUCTION SPREAD

APPENDIX G
TYPICAL PETROLEUM STORAGE AND HANDLING VOLUMES ON A CONSTRUCTION SPREAD

	Fluids	Typical Amounts	Storage	Typical Transport Mode
Fuels	Diesel	6,000-12,000 Gallons	1-3 Tanks or Tankers stored at Contractor locations 5-gallon cans, 100-gallon storage in pickups, etc.	1-3 Fuel Trucks, 1-3 "Fuel Skids"
	Military Aviation Kerosene [1]	6,000-12,000 Gallons		
	Kerosene [1]	6,000-12,000 Gallons		
	Gasoline	5,000 Gallons		
Lubricant	Engine Oil	< 500 Gallons	Bulk Storage or Retail Packaging at Contractor Yard Warehouse	1-3 "Grease" Trucks
	Transmission/ Drive Train Oil	< 500 Gallons		
	Hydraulic Oil	< 500 Gallons		
	Gear Oil	< 500 Gallons		
	Lubricating Grease	20-30 cases of 24 cans per case		
Coolants	Ethylene Glycol	100 Gallons		
	Propylene Glycol	100 Gallons		

[1] Used straight or as additives only in extremely cold weather.

APPENDIX H

EMERGENCY RESPONSE CONTRACTORS;
DISPOSAL AND TREATMENT FACILITIES

APPENDIX H
EMERGENCY RESPONSE CONTRACTORS; DISPOSAL AND TREATMENT FACILITIES

The Contractor must dispose of all wastes according to applicable state and local requirements and is responsible for complying with all interstate requirements for transporting hazardous materials across state lines. A listing of potential Emergency Spill Response Contractors and waste disposal facilities is provided below. This list was developed from state-wide databases. This list represents firms operating at the time the data base was produced. These firms are not necessarily endorsed by ONEOK. The Contractor is responsible for verifying if a contractor or facility is currently operating under appropriate permits or licenses. Selection of an Emergency Response Contractor or disposal facility is subject to approval by ONEOK. The Contractor is responsible for ensuring wastes are disposed of properly.

Spill Response Contractors

Name/ Company	Under Contract	Phone Number(s)	Location	Services Provided
Clean Harbors Environmental Services	☐ Yes ☐ No	(800) 645-8265	Locations Nationwide	24-hour Emergency Response
SWAT Consulting	☐ Yes ☐ No	(866) 610-7928	12 Sunrise Estates Rd, Watford City, ND 58854	24-hour Emergency Response
JMAC Resources	☐ Yes ☐ No	(701) 774-8511	121 48th Ave. SW Williston, ND 58801	Emergency Spill Response Hazardous Waste Transport

Waste Handling/Disposal Contractors

Name/ Company	Under Contract	Phone Number(s)	Location	Services Provided
Nuverra Environmental Solutions	☐ Yes ☐ No	(701) 842-3618	3711 4th Ave NE, Watford City, ND 58854	Petroleum Contaminated Soil disposal facility
IHD Environmental	☐ Yes ☐ No	(701) 774-8514	14070 43rd St NW, Alexander, ND 58831	Petroleum Contaminated Soil disposal facility

F.3 HDD Inadvertent Release Control and Mitigation Contingency Plan

Cherry Creek Extension Pipeline Project

HORIZONTAL DIRECTIONAL DRILLING INADVERTENT RETURN CONTROL PLAN

ISSUED FOR PERMITTING (IFP)

November 2022

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

EI(s)	Environmental Inspector(s)
ESA	Environmentally Sensitive Area
HDD	Horizontal Directional Drill
IR	Inadvertent Return
ONEOK	ONEOK Rockies Midstream, L.L.C.
PCN	Preconstruction Notification
Plan	Horizontal Directional Drilling Inadvertent Return Control Plan
Project	Cherry Creek Extension Pipeline Project

1.0 PURPOSE AND NEED

ONEOK Rockies Midstream, L.L.C. (ONEOK) has developed this Horizontal Directional Drilling Inadvertent Return Control Plan (Plan) for the Cherry Creek Extension Pipeline Project (Project). The horizontal directional drill (HDD) method will be used to install the pipeline at selected waterbody crossings and certain other features that will not be open cut/trenched and are not suitable for conducting a bore. Under optimal conditions, the HDD method involves no disturbance to the bed or bank of the waterbody being crossed or allows the highway, steep slope, or environmentally sensitive area (ESA) to be crossed without excavating between the HDD entry and exit points. However, if a natural fracture or unconsolidated area in the ground is encountered, an unexpected return of drilling fluid to the environment could occur. The objective of this Plan is to provide procedures that will minimize the potential for return of drilling fluid into sensitive resource areas such as wetlands, waterbodies, and ESAs, or onto the adjacent surface soils, and should a return occur, prescribe measures to control the extent of the return and cleanup and dispose of the drilling fluid.

2.0 DRILLING BASICS

The HDD method is a technically advanced process involving specialized equipment and skilled operators. The method involves placing a drill unit on one side of the feature to be avoided (e.g., a stream) and drilling a small-diameter pilot hole under the feature along a prescribed profile. After the pilot hole has been completed, specialized reaming tools are used to enlarge the pilot hole to accommodate the desired diameter for the pipeline. Once the properly-sized hole is established, the pipe section is pulled through the hole by the drilling rig and welded to the adjoining sections of pipe on each side of the feature.

3.0 DRILLING FLUID AND DRILLING FLUID SYSTEM

The directional drilling process uses drilling fluid consisting primarily of water and bentonite, a naturally occurring clay. Drilling fluid removes the cuttings from the bore hole, stabilizes the walls of the bore hole, and acts as a coolant and lubricant to the drill bit during the drilling process. The drilling fluid mixture consists of a small percentage of bentonite clay and inert solids generated during the drilling process from the bore hole cuttings with the remainder being water. Under certain conditions an additive may need to be mixed with the drilling fluids/mud for viscosity or lubricating reasons. Only non-hazardous additives will be used and a Safety Data Sheet (SDS) for all additives will be maintained on-site.

The drilling fluid is prepared in the mixing tank using both new and clean recycled drilling fluid. The fluid is pumped through the center of the drill pipe to the drilling tools. Return flow is through the annulus created between the wall of the drilled hole and the drill pipe. During pilot hole drilling the cuttings are returned to a small excavation at the entry point called the entry pit. From the entry pit, the returned fluid is pumped to the fluid processing equipment. Typically, shaker screens, desanders, desilters, and centrifuges process and remove increasingly finer cuttings from the drilling fluid. The cleaned fluid is recycled to the mixing tank for reuse in the borehole. The cuttings removed by the cleaning process are disposed of at a site approved to accept this type of material.

4.0 DRILLING FLUID RETURN

The primary environmental risk associated with the HDD crossing method comes from the potential for inadvertent return (IR) of drilling fluid into a waterbody, wetland, or ESA. A drilling fluid return is indicated when pressure in the drill hole is not maintained and/or a loss of circulation of drilling fluids occurs. Minimal, consistent losses of drilling fluid are common during the drilling process due to the fluid filling natural voids in layers of loose sand, gravel, or fractured rock encountered along the drilling path. Larger losses of circulating drilling fluid and a reduction in drilling pressure indicate that seepage is occurring outside of the hole.

4.1 PREVENTION

Drilling fluid returns can occur when the drilling path encounters naturally occurring fractures in bedrock or other voids in the strata that allow the pressurized drilling fluid a less resistant path to the surface. Drilling fluid returns may also be caused by

blockage of the return flow path around the drill pipe where pressurization of the drilling fluid rises above the containment capability of the overburden soil material. The following will be implemented as preventive measures to reduce the potential for a return of drilling fluid.

4.1.1 Suitable Material and Adequate Overburden

Prevention of drilling fluid seepage is a major consideration in determining the profile of the HDD crossing. A minimum 15-foot depth of cover below the bottom of a waterbody is required to provide a margin of safety against drilling fluid seepage.

The areas that present the highest potential for drilling fluid seepage are the drill entry and exit points where the overburden depth is minimal. Appropriate containment materials will be staged near the entrance and exit locations for quick deployment should an inadvertent return occur within these areas.

4.1.2 Pipeline Geometry

The geometry of the pipeline profile can affect the potential for drilling fluid seepage. In a profile which forces the pipe to make compound or excessively tight radius turns, key-seating of the drill pipe may develop, blocking the return flow to surface, allowing down-hole pressures to build up, thereby increasing the potential for drilling fluid seepage. The profiles for ONEOK's pipeline crossings minimize this potential, with very smooth and gradual vertical curves in the crossing profile, therefore affording consistent cover under the waterbody. Therefore, the potential for pressure buildup caused by pipeline geometry has been minimized.

4.1.3 Pre-construction Planning

Prior to initiating the drill, IR response equipment required by this Plan will be staged on site. All personnel working the drill site will be trained on the requirements of this Plan and, where applicable, on-site briefings about the sensitive nature of the feature being crossed will be conducted.

4.1.4 Pre-construction Measures for Environmentally Sensitive Areas

ONEOK will avoid all streams and wetlands that would trigger a Preconstruction Notification (PCN) with the U.S. Army Corps of Engineers. ONEOK will accomplish this by either routing around crossing which would require a PCN or by using an HDD or conventional bore methods to avoid the features. Locations on or immediately adjacent to the right-of-way (ROW) will have specific mitigation measures on the ESA plans.

The Project may cross ESAs using the HDD or conventional bore method. Instructions for ESA crossings are given throughout this Plan. Refer to site-specific ESA plans for further information.

Prior to construction in an ESA, the following measures will be implemented:

- ESAs will be marked with signage, exclusion fencing, or both;
- Cultural and biological surveys will be conducted of the drilling entry and exit areas, surrounding work areas, and the drilling route to ensure that there are no cultural materials present on the surface;
- Excavation of all entry and exit points will receive full-time monitoring where required by ONEOK;
- Barriers will be installed between the bore site and the sensitive resource(s) to prevent returned mud from reaching the sensitive resources;
- Ensure that all personnel understand their responsibility for timely reporting of IRs of drilling mud by conducting on-site briefings;
- Maintain necessary response equipment at an accessible location; for each wetland or waterbody crossed equipment will be available on both sides of the feature outside of the ESA; and
- Mats will only be allowed at some ESAs. The contractor will need to review the ESA plans prior to construction for restrictions.

4.1.5 Responsibility of HDD Contractor and Operator

ONEOK's HDD contractor is responsible for execution of the HDD, including actions for detecting and controlling drilling fluid seepage as well as containment and cleanup of inadvertent returns.

4.2 DETECTION AND MONITORING PROCEDURES

To determine if an IR has occurred, HDD activities will be constantly monitored on this Project. Monitoring procedures will include:

- Continuous inspection along the drill path during active drilling with mud circulation. Construction observers will be briefed on what to watch for and will be made aware of the importance of timely detection and response actions to any return of drilling mud.
- Construction observers will have appropriate operational communication equipment (e.g., radio and/or cell phone) available at all times during installation of the HDD crossing, with the ability to communicate directly with the HDD operations control center.
- Continuous examination of drilling mud pressure gauges and return flows to the surface pits. If the HDD operator realizes a sustained loss in fluid pressure or loss of circulation, the operator will immediately notify the construction observers of the assumed position of the drill head who will attempt to locate the potential return. The environmental and construction inspectors will be immediately notified of a return or potential return.
- If a return occurs in a wetland, containment of the drilling fluids and continued inspection to determine any potential for movement of returned drilling mud within the wetland, and collection of drilling mud returns at the location for future analysis, as required.
- If a return occurs in a wetland or waterbody, monitoring of the return will be documented by ONEOK. Access to edge of waterbody will be necessary so that ONEOK will keep photographs of return events on record.

5.0 NOTIFICATION PROCEDURES

Corrective action will begin immediately when monitoring indicates a return is occurring or has occurred. The Construction Inspector or ONEOK will immediately notify ONEOK's construction management personnel and Lead Environmental Inspector

(EI). In the case of an IR during the crossing of a designated ESA, wetland or waterbody, the contactor will notify the Spill Coordinator, the Environmental Manager, Lead EI, and the designated Cultural or Natural Resources Specialist (in the case of a return within an ESA).

ONEOK will notify the appropriate agencies upon discovery of an IR to an ESA, waterbody, or wetland, detailing the location and nature of the return, corrective actions being taken, and whether the return poses any threat to public health and safety.

6.0 CORRECTIVE ACTION

In the event an inadvertent drilling mud return is observed during an HDD crossing, the return will be assessed to determine the amount of drilling mud being returned and potential for the return to reach sensitive resource areas (e.g., wetlands, waterbodies, or environmentally sensitive areas). Response measures will vary based on location of IR as discussed below.

As discussed above, the greatest potential for drilling fluid seepage is during drill entry and exit where the overburden is reduced for entry and exit of drilling tools at the low approach angle. In the contingency planning for the pipeline crossings, drilling fluid seepage containment will be incorporated into the drill plan. The entry or exit locations will generally be located in upland areas on a dry land segment where drilling fluid seepage can be readily detected and contained. Containment response and clean-up equipment is required to be available at both sides of the HDD crossing location prior to the commencement of the HDD to assure a timely response in the event of an IR of drilling fluid.

Containment and response equipment may include but is not limited to:

- Silt fence;
- Plastic sheeting;
- Shovels and other appropriate hand tools;
- Squeegees;
- Pails;
- Push brooms;
- Pumps and sufficient hose;
- Mud storage tanks;
- Vacuum truck on 24-hour call (arrange for this service before drilling begins);
- Pre-filled sandbags;
- Geotextile fabric;
- One small boat (for larger rivers and open water wetlands);
- Steel box or large-diameter pipe section (or the equivalent) that, under appropriate conditions, could be used to contain an IR of drilling mud; and
- Light plant/generator.

ONEOK will address an IR immediately upon discovery. The following measures will be implemented to minimize or prevent further return, contain the return, and clean up the affected area:

Upland Return:

These measures apply to upland returns unless the return occurs adjacent to a wetland, waterbody, or ESA such as a stream bank or steep slope, where drilling mud returns could quickly reach a resource. If the return occurs adjacent to a wetland, waterbody, or ESA use the measures listed below that apply:

- Any modifications to the drilling technique or composition of drilling fluid will be determined and implemented (e.g., thickening of mud by increasing bentonite content, temporary lowering of the downhole pressures) to minimize or prevent further returns of drilling mud.
- Containment structures will be placed at the accessible affected area to prevent migration of the return.
- If the amount of the return is large enough to allow collection, the drilling mud will be collected and returned to either the drilling operations or a disposal site by hose or tanker.
- If the amount of the return is not large enough to allow collection, the returned drilling fluid will be swept, shoveled, or mixed with sand and temporarily left in place to dry. If the amount of the return is not large enough to allow for the practical physical collection from the affected area, it will be diluted with clean water.
- If not in a designated ESA, drilling operations will be reduced if the mud return cannot be effectively contained within accessible containment areas. Within a designated ESA, drilling operations will be suspended if drilling mud cannot be effectively contained.
- If public health and safety are threatened by an IR, drilling operations will be shut down until the threat is eliminated. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure.

Waterbody Return:

- If a return occurs within a waterbody, the Environmental Manager will contact the appropriate agency as soon as possible to inform them if there is a potential threat to public health and safety and explain whether the return can be corrected without incurring additional environmental impact. If necessary, drilling operations will be reduced to assess the extent of the return and to implement corrective actions.
- Drill pressures and pump volume rates will be continuously reviewed and adjusted to minimize the extent of the return.
- If the return is a single-point return accessible with a hose and truck, the return will be ‘capped’, if possible, by placing a section of pipe over the return to contain the fluid within the pipe section. With a larger return, a water-filled bladder will be placed, if possible, around the return in order to isolate it from the waterbody prior to removal. After the return is contained, the fluid will be pumped into trucks and reused or disposed of at an appropriate facility.
- If public health and safety are threatened, drilling fluid circulation pumps will be turned off. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure.
- ONEOK will assist agencies by collecting water samples, if required.
- If monitoring indicates that the intake water quality at downstream user locations is impacted to the extent that it is no longer suitable for treatment, alternative water sources (i.e., trucked or bottled water) will be provided to impacted users.

Wetland/Riparian Area Return:

- The return will be evaluated to determine if containment structures are warranted and can effectively contain the return. When making this determination, ONEOK will also consider if placement of containment structures will cause additional adverse environmental impact.
- If a return occurs within the wetland, reasonable measures, within the limitation of directional drilling technology and Contractor's capability, will be taken to re-establish drilling mud circulation.
- Any modifications to the drilling technique or composition of drilling fluid will be determined and implemented (e.g., thickening of mud by increasing bentonite content, temporary lowering of the downhole pressures) to minimize or prevent further returns of drilling mud.
- Upon completion of the drilling operations, ONEOK will consult with applicable regulatory agencies to determine any final clean-up requirements for the IR.
- If public health and safety are threatened by the IR, drilling operations will be shut down until the threat is eliminated. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure.
- ONEOK will assist regulatory agencies with any sampling they may require.

ESA Return:

- If a return occurs within an ESA, the Lead EI will be contacted immediately so that they may assess the situation. The EI will contact the Environmental Manager who will notify the appropriate agency as soon as possible to inform them of a return. The Environmental Manager will communicate whether the return can be corrected without incurring additional environmental impact. If necessary, drilling operations will be reduced to assess the extent of the return and to implement corrective actions. Depending on circumstances, federal, state, and/or local agencies may require further action.
- The return will be continuously monitored.
- The return will be evaluated to determine if containment structures are warranted and can effectively contain the return. When making this determination, ONEOK will also consider if placement of containment structures will cause additional adverse environmental impact.
- Drill pressures and pump volume rates will be continuously reviewed and adjusted as needed to minimize the extent of the return.
- If public health and safety are threatened, drilling fluid circulation pumps will be turned off. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure.
- All mitigation measures employed for returns within ESAs will be closely documented to assist with ONEOK's agency notification process.

7.0 ABANDONMENT

If corrective actions do not prevent the threat to public health and safety, or if the pipeline installation is unsuccessful, ONEOK may opt to re-drill the hole along a different alignment after receiving appropriate regulatory approvals. In this case, the following procedures will be implemented to abandon the previous drill hole.

- To seal the abandoned drill hole, thickened drilling mud and cuttings will be pumped into the hole as the drill assembly is extracted.

- Within approximately 10 vertical feet of the surface, drilling mud and cuttings will be removed, then the drill end points and any mud pits will be filled with soil, and the location graded to the original contour.
- In the case of an ESA crossing, no alternative crossing methods would be implemented without the proper notification and approvals from ONEOK.

8.0 FOLLOW-UP

After the drilling fluid seepage has been contained, the drilling contractor will try to determine the cause of the seepage. After the cause has been determined, measures will be implemented to control the factors causing the seepage and to minimize the chance of recurrence.

In some cases, the corrective measure may involve a determination that the existing hole encountered a void, which could be bypassed with a slight change in the profile. In other cases, it may be determined that the existing hole encountered a zone of unsatisfactory soil material and the hole may have to be abandoned. If the hole is abandoned, it will be filled with cuttings and drilling fluid, as described in Section 7.0.

9.0 CLEAN UP

Clean-up measures following mud returns in uplands, wetlands, and waterbodies will be implemented as determined by this Plan and in consultation with the appropriate regulatory agencies. The following measures are to be considered, as appropriate:

- Drilling mud will be cleaned up by hand using hand shovels, buckets, and soft-bristled brooms as possible without causing extensive ancillary damage to existing vegetation. Clean water washes may also be employed if deemed beneficial and feasible by the Lead EI and monitor.
- Backhoes or other mechanized earth-moving equipment will not be used to clean up drilling fluid seepage within ESAs, waterbodies, or wetlands.
- Containment structures will be pumped out and the ground surface scraped to bare topsoil without causing undue loss of topsoil or ancillary damage to existing and adjacent vegetation.
- Material will be collected in containers for temporary storage prior to removal from the site.
- Potential for secondary impact from the clean-up process will be regularly evaluated and clean-up activities terminated if physical damage to the site is deemed to exceed the benefits of removal activities in consultation with the appropriate regulatory agencies and/or field representatives.

F.4 Unanticipated Discoveries Plan

ONEOK ROCKIES MIDSTREAM, L.L.C.
CHERRY CREEK EXTENSION PROJECT

PLAN FOR UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES OR HUMAN REMAINS DURING CONSTRUCTION IN NORTH DAKOTA

DRAFT

November 2022

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

EI(s)	Environmental Inspector(s)
Merjent	Merjent, Inc.
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDIRC	North Dakota Intertribal Reinterment Committee
NDSDHCL	North Dakota State Department of Health and Consolidated Laboratories
NDSHPO	North Dakota State Historic Preservation Office
NRHP	National Register of Historic Places
ONEOK	ONEOK Rockies Midstream, L.L.C.
UDP or Plan	Unanticipated Discoveries Plan
Project	Cherry Creek Expansion Project
SHSND	State Historical Society of North Dakota

1.0 INTRODUCTION

ONEOK Rockies Midstream, L.L.C. (ONEOK) has established the following procedures to be followed by ONEOK personnel and their Contractors in the event that previously unreported and unanticipated cultural resources or human remains are found during construction of the Cherry Creek Extension Project (Project).

The identification of possibly significant cultural materials is addressed in Sections 2.0 and 3.0. The discovery of possible human remains is addressed in Section 4.0.

Prior to the commencement of construction, Environmental Inspector(s) (EIs) and Contractor personnel will receive environmental training, which will include guidance on identifying potential cultural materials and human remains. The orientation will consist of two parts. The first part will provide training in the recognition of both prehistoric and historic cultural resources and human remains and is briefly described below. The second part will provide the chain of communication and protocols that must be followed if unanticipated cultural resources or human remains are discovered during construction.

A cultural resource discovery could consist of, but is not limited to:

- Prehistoric features such as storage pit features, postmolds, hearths, occupational surfaces, middens, and anthropogenic soil horizons;
- Prehistoric artifact concentrations such as projectile points and waste flakes/debitage;
- Historic features such as trails, roads, canals, wells, cisterns, foundations, and trash pits at least 50 years in age; and
- Historic artifact concentrations such as glass bottles, tin cans (e.g., hole-in-top cans), tableware, dishware, architectural debris (e.g., bricks, mortar, window glass), hardware (e.g., square nails), and farm implements at least 50 years in age.

Evidence of a burial site could consist of, but is not limited to:

- Any human remains including articulated or disarticulated bones, teeth, hair, preserved soft tissue, etc.;
- Burial pit or grave shaft outlines in the soil;
- Headstones or footstones; and
- Coffin wood fragments and coffin hardware.

Archaeological discoveries may be classified as simple or complex. Simple archaeological discoveries consist of isolated artifacts or isolated features with minimal artifacts or diagnostic characteristics. Complex discoveries are those that entail a significant number of artifacts or features, or sensitive or unique finds such as housepits, bone beds, or human remains. Section 2.0 outlines the initial procedures for the unanticipated discovery of cultural materials. Subsequent procedures differ depending on whether potentially significant cultural materials (Section 3.0) or human remains (Section 4.0) are encountered.

2.0 UNANTICIPATED DISCOVERY OF CULTURAL MATERIALS

If a Contractor believes that he or she has uncovered any cultural resources during construction the following steps shall be taken.

1. The Contractor will cease work immediately within the area of the find to avoid disturbing the find and will immediately notify the on-site EI. No cultural material will be transported from its original location.

Environmental Inspector:	**REFER TO MASTER CONTACT SHEET**
Cell Phone Number:	**REFER TO MASTER CONTACT SHEET**
Email:	**REFER TO MASTER CONTACT SHEET**
Address:	**REFER TO MASTER CONTACT SHEET**

The EI will immediately notify ONEOK's Environmental Manager and Construction Coordinator of the find. The call will be followed up by an email notification summary to ONEOK's Environmental Manager. If the discovery is on public land, ONEOK's Environmental Manager will notify the land management agency.

ONEOK Environmental Manager:	**REFER TO MASTER CONTACT SHEET**
Phone:	**REFER TO MASTER CONTACT SHEET**
Cell Phone:	**REFER TO MASTER CONTACT SHEET**
Email:	**REFER TO MASTER CONTACT SHEET**
Address:	**REFER TO MASTER CONTACT SHEET**

ONEOK Construction Coordinator:	**REFER TO MASTER CONTACT SHEET**
Phone:	**REFER TO MASTER CONTACT SHEET**
Cell Phone:	**REFER TO MASTER CONTACT SHEET**
Email:	**REFER TO MASTER CONTACT SHEET**
Address:	**REFER TO MASTER CONTACT SHEET**

Cessation of ground-disturbing activity will encompass a sufficient area to protect the discovery itself and provide a buffer zone for adequate and safe investigation of the discovery and any other features or artifacts that may be associated with the discovery. The buffer zone will be fenced or delineated with signage by the on-site EI to prevent further disturbance by vehicle and foot traffic. A general guideline is to create a buffer of at least 100 feet (ft) around the discovery. The fenced or signed area can be larger or smaller depending on the width of the construction footprint in order to protect the discovery adequately without unnecessary hindrance to construction and allow for a passing lane, if appropriate. No fencing or signage will be installed outside of the construction footprint without prior approval from ONEOK. Construction vehicles and equipment should remain in-place and not be moved until it is determined if human remains are present.

2. The on-site EI will take photographs of the find, including photographs of artifacts, features, and general landscape in the vicinity of the find. **NOTE: DO NOT TAKE PHOTOGRAPHS OF HUMAN REMAINS.** Additionally, the EI will provide a description of the discovery and note the location by tract, milepost, and/or stationing. This information will be provided by email to ONEOK's Environmental Manager and the Cultural Resources Manager at Merjent, Inc. (Merjent). The Cultural Resource Manager will meet the Secretary of Interior's Professional Qualification Standards as described in 36 CFR 61. Following notification, construction may resume outside of the 100 ft (or greater as necessary) buffer surrounding the find.

Archaeological Consultant:	**Merjent, Inc.**
Cultural Resources Manager:	**REFER TO MASTER CONTACT SHEET**
Phone:	**REFER TO MASTER CONTACT SHEET**
Cell Phone:	**REFER TO MASTER CONTACT SHEET**
Email:	**REFER TO MASTER CONTACT SHEET**
Address:	**REFER TO MASTER CONTACT SHEET**

3. If the discovery is determined to be non-cultural and an on-site assessment is not necessary, the EI will notify the Contractor that construction may resume. The Cultural Resource Manager will submit a letter report regarding the discovery and findings to ONEOK's Environmental Manager within 5 business days.

4. If the find is confirmed to be an archaeological site, ONEOK's Environmental Manager will promptly notify the North Dakota State Historic Preservation Office, within the State Historical Society of North Dakota (SHSND), as applicable, by phone and email of the discovery.

Contact:	Andrew Clark, Chief Archaeologist State Historical Society of North Dakota Historic Preservation Office
Telephone:	701-328-3574
Email:	andrewclark@nd.gov

5. If on-site assessment of the find's significance is necessary, the Cultural Resource Manager will arrange for an Archaeologist to travel from their home office to the discovery. Mobilization will occur within one (1) day of notification.

6. During the on-site assessment, if the Archaeologist determines the find is not significant or has been completely disturbed by construction activities, the Archaeologist will document the find. If, in coordination with the appropriate State SHPO, and any public land-management agency, it is agreed that the find warrants no additional work, then the Archaeologist will notify the Cultural Resource Manager and ONEOK's Environmental Manager that construction can proceed, and the ONEOK Environmental Manager will inform the EI that construction can resume. The Archaeologist will submit a letter report regarding the discovery and findings to the Cultural Resources Manager within 5 business days for submittal to ONEOK's Environmental Manager. Additionally, the Archaeologist will submit a site form for the non-significant cultural site to the SHSND for their records according to the guidelines set forth in the *North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects* (SHSND 2020).

7. If the Archaeologist determines that the discovery represents a significant find, the Archaeologist will notify the Cultural Resources Manager the same day and the procedures in Section 3.0 of this Plan will be followed. Merjent's Cultural Resources Manager will notify ONEOK's Environmental Manager of any significant discoveries by telephone and follow up email.

8. If the Archaeologist determines that the discovery constitutes human remains, the procedures described in Section 4.0 of this Plan will be followed.

Contact:	Andrew Clark, Chief Archaeologist State Historical Society of North Dakota North Dakota State Historic Preservation Office
Telephone:	701-328-3574
Email:	andrewclark@nd.gov

3.0 DISCOVERY OF POTENTIALLY SIGNIFICANT CULTURAL MATERIALS

As discussed in Section 2.0, the on-site EI will ensure that appropriate measures have been taken to protect the discovery from further disturbance. The Cultural Resources Manager will promptly notify the ONEOK Environmental Manager of significant finds by telephone and will follow up in with an email.

1. If upon evaluation the find is recommended to be significant and continuing construction may damage more of the site, ONEOK may authorize the Cultural Resources Manager to develop a Treatment Plan to avoid, minimize, and/or mitigate the adverse effect within the construction footprint site. The Treatment Plan will be drafted in consultation with SHSND and other agencies, as applicable.

   The Cultural Resources Manager will carry out the fieldwork component of the Treatment Plan prior to construction activities resuming. All actions involving the identification, evaluation, treatment and reporting of historic properties, as defined by the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716, since amended), shall be carried out under the direct supervision of a person(s) meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology, architectural history, or history, as appropriate (36 CFR Part 61) and the *North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects* (SHSND 2020). The criteria of eligibility for listing in the National Register of Historic Places (NRHP) will be used as a guideline to determine the significance of the find.

2. If the find is determined not to be an eligible historic property in consultation with SHSND and other agencies, as applicable, then construction will resume following the completion of the fieldwork component of the Treatment Plan. ONEOK will notify the EI who will grant clearance for the Contractor to resume construction.

3. The Cultural Resources Manager will prepare a report within six (6) weeks of resuming construction describing the results of the treatment. The report will be provided to the SHSND and other agencies, as applicable.

4.0 DISCOVERY OF HUMAN REMAINS

ONEOK will treat all human remains in accordance with federal and state law as it applies to all lands North Dakota impacted by the Project, taking into account North Dakota NDAC 40-02-03, which provide for the protection of human burial sites, human remains, and burial goods. As discussed above in Section 2.0, the on-site EI will ensure that appropriate measures have been taken to protect the discovery from further disturbance. All human remains, regardless of ancestry, will be treated with dignity and respect. No photographs will be taken, nothing will be moved, and the find will be covered. If human remains are suspected, construction equipment should not be moved until the nature of the remains (i.e., human or non-human) is determined. The EI will make notifications of the discovery to the ONEOK Environmental Manager and the Cultural Resources Manager.

If it is immediately obvious that the skeletal remains found are non-human and are in association with cultural material, the procedures described in Sections 2.0 and 3.0 will be followed.

If the remains might be human, the following steps will be taken:

1. The appropriate county sheriff's office will be contacted immediately. Upon receiving notification of the discovery of human remains, a human burial, or burial goods, the local law enforcement agency will, as soon as practicable, report the receipt of such notification to the SHSND and the North Dakota State Department of Health and Consolidated Laboratories (NDSDHCL).

   McKenzie County Sheriff's Office
   Contact: McKenzie County Sheriff Matthew Johansen
   Telephone: (701) 444 - 3654
   Email: McKenzie County Sheriff
   Contact: McKenzie County Medical Examiner and Coroner
   Telephone: (701) 770-4522

2. If local authorities determine the remains are not modern or do not reflect a crime scene and/or if they otherwise relinquish their jurisdiction over the remains, the SHSND will be contacted to assist in identifying the appropriate parties to notify and to determine additional steps to be followed. The Cultural Resources Manager will assist as needed with identification efforts of the human remains. A forensic expert may be required to determine whether the remains are Native American. If the SHSND and the consulting experts determine that the unanticipated discovery consists of Native American human remains, the SHSND, as stipulated by NDCC 23-06-27, will contact the North Dakota Intertribal Reinterment Committee (NDIRC).

   Contact: Andrew Clark, Chief Archaeologist
   State Historical Society of North Dakota
   North Dakota State Historic Preservation Office
   Telephone: 701-328-3574
   Email: andrewclark@nd.gov

3. ONEOK's Environmental Manager and Merjent's Cultural Resources Manager will work with the SHSND, and Native American tribes to determine the appropriate treatment or other measures to resolve the discovery of human remains or burial goods.

   ONEOK Environmental Manager: **REFER TO MASTER CONTACT SHEET**
   Phone: **REFER TO MASTER CONTACT SHEET**
   Cell Phone: **REFER TO MASTER CONTACT SHEET**
   Email: **REFER TO MASTER CONTACT SHEET**
   Address: **REFER TO MASTER CONTACT SHEET**

   Archaeological Consultant: **Merjent, Inc.**
   Cultural Resources Manager: **REFER TO MASTER CONTACT SHEET**
   Phone: **REFER TO MASTER CONTACT SHEET**

Cell Phone:	**REFER TO MASTER CONTACT SHEET**
Email:	**REFER TO MASTER CONTACT SHEET**
Address:	**REFER TO MASTER CONTACT SHEET**

The measures to protect the remains and any associated artifacts will remain in effect until they have been fully evaluated and the appropriate treatment of the discovery (if applicable) has been completed.

4. ONEOK will notify the EI who will grant clearance for the Contractor to start work upon completion of the treatment of the discovery, and resolution of all issues.

F.5 Noxious Weed Plan

Cherry Creek Extension Pipeline Project

WEED MANAGEMENT PLAN

ISSUED FOR PERMITTING (IFP)

November 2022

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

EI	Environmental Inspector
ONEOK	ONEOK Rockies Midstream, L.L.C.
Plan	Weed Management Plan
Project	Cherry Creek Extension Pipeline Project
ROW	right-of-way
SPCC	Spill Prevention, Control, and Countermeasure Plan

1.0 INTRODUCTION

Noxious weed control practices for the ONEOK Rockies Midstream, L.L.C. (ONEOK) Cherry Creek Extension Pipeline Project (Project) are described in this Weed Management Plan (Plan) and were developed to comply with the State's Noxious Weed Law (NDCC § 4.1-47-02) which is administered by county-level Weed Control Boards. Additionally, ONEOK will develop and submit a Weed Control Plan to the McKenzie County Weed Control Board for approval prior to construction. A copy of this county-approved plan will be incorporated into this Plan as Appendix A upon receipt.

2.0 GOALS AND OBJECTIVES

This Plan prescribes methods to prevent and control the spread of noxious weeds during and following construction of the Project. ONEOK and its contractors will be responsible for implementing the methods described in this Plan.

This Plan is applicable to the construction and operation of the proposed pipeline facilities, including the pipeline right-of-way (ROW), the proposed aboveground facilities, and extra temporary workspaces disturbed during the construction and operation of the proposed facilities.

3.0 NOXIOUS WEED SPECIES LISTS

A weed is commonly defined as a plant that grows out of place. A noxious weed is any plant officially designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife, or property (Sheley, Petroff, and Borman, 1999). Noxious weeds are opportunistic plant species that readily flourish in disturbed areas, thereby preventing native plant species from establishing successive communities.

3.1 NORTH DAKOTA

Invasive species in North Dakota are controlled and regulated under North Dakota Law (NDCC § 4.1-47-02). Counties and cities have the option to add additional weeds for enforcement only in their jurisdiction.

The State of North Dakota has 13 state-listed noxious and invasive weeds:

Absinth wormwood	Leafy spurge	Russian knapweed	Palmer amaranth
Canada thistle	Musk thistle	Saltcedar	Houndstongue
Dalmatian toadflax	Purple loosestrife	Spotted knapweed	Yellow toadflax
Diffuse knapweed			

McKenzie County recognizes four additional species as invasive:

Baby's Breath	Burdock	Black Henbane	Halogeton

To comply with North Dakota Law (NDCC § 4.1-47-02), ONEOK has prepared this Plan specifying the weed management procedures to be implemented. Regulations also require that ONEOK reseed, plant, or otherwise manage the area to establish a beneficial plant cover. To this end, ONEOK has developed a Revegetation Plan that describes the methods to be used to accomplish revegetation, the time and method of seeding, fertilization practices, and recommended plant species.

4.0 NOXIOUS WEED SPECIES MANAGEMENT

This Plan is designed to:

- Treat specific infestation areas as recommended by weed districts prior to construction, pending landowner approval and seasonal limitations;
- Prevent the introduction and spread of weeds via construction equipment during construction;
- Contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas or along the construction ROW; and
- Treat infestations that may develop during operations.

4.1 IDENTIFICATION OF PROBLEM AREAS

ONEOK will work with the McKenzie County Weed Control Board and landowners to identify known locations of weed infestations in the Project area. Field surveys for invasive species were conducted on September 27-28, 2022 and identified two very small populations of Canada thistle (*Cirsium arvense*). Prior to construction, these populations will be demarcated using color-coded flagging or signage on the construction ROW. Identification of existing noxious weed locations will alert environmental inspection and construction personnel to implement weed control measures during construction.

4.2 TREATMENT MEASURES

ONEOK will implement weed control measures, pending landowner approval of specific control measures, at identified infestation areas based on McKenzie County Weed Control Board input or by the EIs. Weed control measures may include the application of herbicide, mechanical, and/or alternative methods. The weed control measure chosen will be the best method available for the time, place, and species of weed as identified through consultation with the landowner and the appropriate regulatory agencies. Should landowners not allow the use of herbicides, ONEOK will investigate potential alternative methods to be implemented, with approval by the landowners.

Herbicide application is an effective means of reducing the size of weed populations. Herbicide treatment methods will be based on species-specific and area-specific conditions (e.g., proximity to wetlands, open water, riparian areas or agricultural areas, and time of year) and will be coordinated with the local counties and regulatory agencies. Spot herbicide applications will be the preferred option. In areas of dense infestation, a broader application may be used. Pending the seasonal start of construction, preconstruction treatment of infestation areas may be conducted and will be controlled as described in Section 6.1, to minimize the impacts on the surrounding vegetation. Preconstruction applications will be completed in accordance with applicable chemical contact times (as specified by the manufacturer) in advance of clearing and grading within the construction ROW. Treatment may be restricted in areas that are not readily accessible (e.g., difficult topography, saturated/inundated soils).

Mechanical control (e.g., mowing) can also be an effective control measure specifically for annual species (i.e., not for perennial rhizomatous species). The efficacy of mechanical control measures is dependent upon proper timing to cut the vegetation prior to the maturation of seed and may require multiple treatments during the growing season.

4.3 PREVENTIVE MEASURES

The following measures will be implemented to prevent the spread of noxious weeds.

- Prior to the beginning of construction of the Project, all contractor vehicles and equipment (including timber mats) will be cleaned of soil and debris capable of transporting weed propagules. Contractor vehicles and equipment will be inspected and may require additional cleaning, if necessary, prior to mobilization to the ROW. Cleaning will be conducted using high pressure washing equipment or compressed air, and/or manually remove excess soil from the tracks, tires, and blades of equipment.
- Areas of the ROW where weed infestations are identified will be clearly marked prior to construction. In these areas, the contractor may elect to conduct full ROW topsoil stripping and will stockpile cleared vegetation and segregated topsoil along the ROW. The stockpiles will be identified as noxious weed stockpiles with signs and be maintained adjacent to the areas from which they were obtained to eliminate the transport of soil-borne noxious weed propagules to other areas along the ROW. During reclamation, the contractor will return topsoil and vegetative material to the areas from which they were obtained. Alternately, for annual weed species the contractor may elect to mow the infested area before the species begins seeding, thus eliminating the threat of spreading seeds during topsoiling and construction.
- In areas where full ROW topsoil stripping is implemented, equipment required for initial vegetation clearing and topsoil segregation will be cleaned using one of the methods described above prior to leaving the area. Once the

topsoil has been segregated, subsequent equipment will not require cleaning, as it will not come into contact with noxious weeds or the topsoil containing weed seeds and propagules. Equipment required for topsoil restoration will also be cleaned prior to moving out of an infested area identified by ONEOK.

- The contractor will ensure straw bales used to construct sediment control devices or used as mulch applications are certified weed free and obtained from approved certified sources as recommended by local and state agencies.
- The contractor will ensure seed mixes and mulching materials used for revegetation are certified weed free and obtained from approved certified sources as recommended by local and state agencies.

4.4 POST-CONSTRUCTION TREATMENT METHODS

ONEOK's objective is to comply with the requirements to prevent the spread of noxious weeds and treat areas of the ROW where weed species form a significant portion of the vegetation community in comparison to adjacent undisturbed areas. ONEOK will implement established reclamation practices to prevent the spread of noxious weeds in reclaimed construction areas and pipeline ROW.

The contractor will implement reclamation procedures immediately following construction. Rapid reclamation and revegetation will discourage the establishment of noxious weeds. In areas of severe weed infestation, as determined by ONEOK's EI(s), ONEOK may elect to delay reclamation efforts and conduct intensive weed control prior to implementing reclamation procedures where allowed by applicable laws.

The contractor will limit the use of fertilizer in reclaimed areas. Fertilizer will only be applied where specified by the jurisdictional land management agency or the property owner.

In the event noxious weed species become established in the ROW, ONEOK will make good faith efforts to control weeds within the ROW and to work with adjacent landowners to prevent the spread of the species to adjacent lands. Post-construction weed control measures may include the application of herbicide or mechanical methods, pending landowner approval. Should ONEOK receive calls from landowners concerning noxious weed on the ROW, ONEOK will work with the landowners to determine the appropriate action to control the spread of the weeds. The weed control measure chosen will be the best method available for the time, place, and species of weed as determined through consultation with the appropriate regulatory agencies. ONEOK will control noxious weed species at ONEOK-managed aboveground facility sites to prevent the spread onto adjacent properties.

Individuals wishing to report noxious weeds on the ROW should call ONEOK at (605) 642-2197, extension #5. ONEOK staff will work with the County or landowner on an appropriate treatment method.

Post-construction herbicide applications will be conducted prior to seed maturation where possible. Applications will be controlled, as described in Section 6, to minimize the impacts on the surrounding vegetation. Herbicide treatment methods will be based on species-specific and area-specific conditions (e.g., proximity to water, riparian areas or agricultural areas, and time of year) and will be coordinated with the local county and regulatory agencies. Spot herbicide applications will be the preferred option. In areas of dense infestation, a broader application will be used and a follow-up seeding program implemented according to the Revegetation Plan. The timing of subsequent revegetation efforts will be based on the persistence of the selected herbicide. ONEOK will communicate with a designated representative of each county to inform them of the location and type of treatment administered by ONEOK or its contractor.

Mechanical methods entail the use of equipment to mow weed populations for annual species (i.e., not for perennial rhizomatous species). Mechanical treatments will be conducted prior to seed maturation where required. If such a method is used, subsequent seeding will be conducted if necessary to re-establish a desirable vegetative cover that will stabilize the soils and slow the potential re-invasion of weeds.

During routine operations activities, if noxious weed species are identified that are not listed on the county or state weed lists, ONEOK will treat the affected area as quickly as possible.

ONEOK will consult with local agencies regarding the use of biological and alternate noxious weed control methods, which may be implemented through agreements with private landowners.

5.0 MONITORING

Following construction, weed infestations reported by landowners will be monitored as part of ONEOK's operations and maintenance surveys. EIs will periodically monitor the ROW in non-agricultural areas to capture revegetation growth. Should the EIs identify noxious weed populations in the ROW, they will report their findings to the ONEOK operations and maintenance division to determine the appropriate action to control the spread of the weeds. Noxious weed management will be conducted in accordance with local and state regulations.

6.0 HERBICIDE USE

6.1 HERBICIDE APPLICATION AND HANDLING

Herbicide application will be based on information gathered from consultations with local and state agencies as well as discussions with landowners. Before application, ONEOK or its contractor will obtain required permits from the local weed districts or the state agencies, and landowner approval. Herbicide application will be conducted in accordance with applicable laws and regulations by a state-licensed contractor, or via contract with the McKenzie County Weed Board if requested by the landowner.

All herbicide applications will follow United States Environmental Protection Agency label instructions. Application of herbicides will be suspended when any of the following conditions exists:

- Wind velocity exceeds 6 miles per hour during application of liquid or granular herbicides;
- Snow or ice covers the foliage of noxious weeds; or
- Precipitation is occurring or is imminent.

Vehicle-mounted sprayers (e.g., handgun, boom, and injector) may be used mainly in open areas that are readily accessible by vehicle. Hand application methods (e.g., backpack spraying) that target individual plants may be used to treat small or scattered weed populations or in rough terrain. Calibration checks of equipment will be conducted at the beginning of spraying and periodically to ensure that proper application rates are achieved.

Herbicides will be transported to the Project site daily with the following provisions:

- On-site herbicide quantities will be limited where practical;
- Concentrate will be transported in approved containers only, in a manner that will prevent tipping or spilling, and in a compartment that is isolated from food, clothing, and safety equipment;
- Mixing will be conducted in an upland area at a distance greater than 100 feet from open or flowing water and wetlands, greater than 200 feet from private wells, and greater than 400 feet from public wells. The property owner would be consulted about the presence and location of wells prior to herbicide application; and,
- All herbicide equipment and containers will be maintained as needed and inspected for leaks daily.

6.2 HERBICIDE SPILLS AND CLEANUP

ONEOK has developed a Spill Prevention, Control, and Countermeasure (SPCC) Plan that incorporates all reasonable precautions to be taken to avoid spills of all potentially hazardous materials. In the event of a spill, cleanup will be immediate and will be conducted in accordance with the SPCC Plan.

Herbicide contractors are responsible to keep spill kits in their vehicles and in herbicide storage areas to allow for quick and effective response to spills. Items to be included in the spill kit are:

- Protective clothing and gloves;
- A minimum of 20 pounds of suitable commercial adsorbent and barrier materials;
- Plastic bags and bucket;
- Shovel;
- Fiber brush and screw-in handle;
- Dustpan;
- Caution tape; and,
- Detergent.

Response to an herbicide spill will vary depending on the material spilled and the size and location of the spill. The order of priorities after discovering a spill are to protect the safety of personnel and the public, minimize damage to the environment, and conduct cleanup and remediation activities.

6.3 WORKER SAFETY AND SPILL REPORTING

All herbicide contractors will obtain and have readily available copies of the appropriate safety data sheets and the herbicide labels for the herbicides used. All herbicide spills will be reported in accordance with applicable laws and requirements. Further information regarding spill response and reporting is detailed in the SPCC Plan.

Appendix A

McKenzie County Weed Management Plan

McKenzie County
Weed Management Plan

Purpose: **This is a simplified weed management template that is specifically designed for small properties/areas.** It is designed to assist in controlling noxious weeds by documenting areas at risk whether it be currently infested or could possibly become infected in the future. This weed management template is also to assist in coordinating efforts between McKenzie County Weed Control and landowners/operators/developers to accomplish noxious weed control goals in McKenzie County. A copy of this weed management plan will be kept on file with McKenzie County Weed Control as well as with all parties involved in the ownership and/or management of the property.

Date: 12/6/22

Circle or Check One: **PRIVATE** ☐ **COMMERCIAL** ☑

Name of Landowner: ONEOK Rockies Midstream, L.L.C.

Name of Party Responsible for Weed Control if Different than Landowner: Kolton Burge, Project Manager

Address of Responsible Party: 100 West Fifth Street, Tulsa, OK 74103

Phone Number: 918-764-5179 **Email Address:** Kolton.Burge@oneok.com

Approximate Size of Property: Survey area ~130 acres; area of disturbance ~50 acres

Legal Description of Property:

Quarter Section Select **Section** Select **Township** Select **Range** Select

See enclosed mapset.

Purpose of Property: ONEOK is proposing to construct an approximately 4-mile extension of its existing Cherry Creek Pipeline in McKenzie County.

Surface Movement for Commercial Construction Purposes: Circle or check one

Scoria ☐ **Manure** ☐ **Dirt** ☐ **Sand** ☐ **Gravel** ☐

Construction ☑ **Other** ☐

1.0 Management Goals:

Management goals describe the purpose/use of the property and what you are trying to achieve. Having clear management goals is key to developing a weed management plan. (The minimum amount required by North Dakota and McKenzie County Weed Law is to mow noxious weeds to prevent them from going to seed. Another management goal may be to restore an area with native vegetation. Management goals might also include preventing contamination and/or spread of noxious weeds due to mining or storage of construction materials by a yearly or bi-yearly application of herbicide.)

Please list your management goals as they apply to this property:

1. Manage ground-clearing to prevent the spread of any weeds that may be present, 2. Ensure vehicles/equipment are properly cleaned to prevent weed transfer, 3. Conduct post-construction seeding with weed-free/native seed, 4. Ensure seed growth and prevent growth of weeds 5. Post-construction monitoring, 6. Additional mechanical or herbicide treatment, as needed.

2.0 Weed Control Objectives:

Knowing which weed species occur on your property and where they are located is very important in developing control priorities. Weed species vary considerably in the threat that they pose to the resource values of the property. In addition, weed species vary greatly in their susceptibility to control measures. Thus, weed species that pose the greatest threat to achieving the management goals for the property and which can be most easily controlled are the highest priority for management. To create weed control objectives for your weed management plan, first search your property for weeds (if you have not already done so).

3.0 Weed Control Objectives – 3-year plan

1st Year Weed Control Objective: Weed surveys were conducted Sept. 2022; demarcate populations for identification; mechanical/herbicide treatment, as needed; confirm eradication; prevent weed transfer; post-construction restoration; regular monitoring/treatments, as needed.

2nd Year Weed Control Objective: Rapid reclamation and revegetation with native, weed-free seed/mulch; continued monitoring; on-going communication/collaboration with landowners; mechanical/herbicide treatment as needed.

3rd Year Weed Control Objective: All land will revert to pre-construction conditions; monitor for weed infestations during operations and maintenance surveys; mechanical/herbicide treatments as necessary; ongoing communication/collaboration with landowners.

ONEOK's Revegetation and Weed Management Plans are incorporated by reference and available upon request.

4.0 Evaluating Weed Control:

After you have created weed control objectives and have began to control the priority weed species on your property, you should evaluate the results of your control methods. This requires follow-up visits to the areas where weeds were controlled and a re-assessment of the size and density of an infestation. (For example, compare the size of the infestation after a growing season has elapsed to the size before control actions were initiated.) In most cases, the elimination of an infestation will take several years with multiple treatments per year to kill the plants and eliminate the bank of weed seeds in the soil.

ND Law 4.1-47. Control of noxious weeds.

Each Person shall do all things necessary and proper to control the spread of noxious weeds.

In signing this document, I understand that I will be responsible for noxious weed control on the property listed above.

Responsible Party Signature: _____ Date 12-6-22

McKenzie County
Weed Board Approval: Amber Huggins Date 12-7-2022

Please allow 48 hours for review of this plan prior to receiving confirmation of approval.

F.6 Dust Control Plan

Cherry Creek Extension Pipeline Project

DUST CONTROL PLAN

ISSUED FOR PERMITTING (IFP)

November 2022

Introduction

The ONEOK Rockies Midstream, L.L.C. (ONEOK) Cherry Creek Pipeline Extension Pipeline Project (Project) will involve constructing an approximately 4-mile pipeline extension of ONEOK's existing 12-inch-diameter Cherry Creek Pipeline. The Project will originate at ONEOK's existing Lonesome Creek Gas Plant and terminate at an existing pipeline junction (Antelope Creek Junction) in McKenzie County, North Dakota. As part of the Project, ONEOK will also make facility modifications to its Lonesome Creek Gas Plant.

Construction of the Project will involve land-disturbing activities, which can increase the susceptibility of soils to erosion caused by wind and water. Wind erosion can damage the productivity of the land by reducing soil moisture, altering soil structure, and carrying away soil nutrients and topsoil. A small amount of soil loss from wind erosion occurs naturally; however, human activity, such as pipeline construction, can dramatically increase soil loss due to wind erosion (fugitive dust) and potentially create conditions that could be detrimental to air quality and safety. Fugitive dust is a type of non-point source air pollution that can cause respiratory distress for construction workers, as well as for nearby residents and wildlife. Additionally, fugitive dust can create a safety hazard by obscuring visibility for equipment operators, construction personnel, and traffic on public roads near the Project.

ONEOK has developed this Dust Control Plan (Plan) as a guide for construction and field personnel for the implementation of appropriate measures to minimize and control the generation of fugitive dust during construction activities associated with the Project. It will be the responsibility of the Project contractors, working with ONEOK's field representatives, to identify activities that are generating dust and to at all times control airborne dust levels during construction activities to acceptable levels that are in compliance with any applicable standards, including those established by the North Dakota Department of Environmental Quality (NDDEQ), local ordinances, and other regulating agencies.

Fugitive Dust Sources

ONEOK has attempted to identify the primary potential sources of fugitive dust, which may include:

- Vegetation clearing activities;
- Initial grading of topsoil and subsoil, including cut-and-fill areas on steep sideslopes;
- Excavation, temporary side casting of spoil, and backfilling;
- Blasting;
- Grading associated with reestablishing contours and restoring segregated topsoil;
- Vehicle traffic down unimproved public and private access roads;
- Vehicle and equipment travel down the Project right-of-way (ROW);
- Open-bodied trucks hauling sand, soil, gravel, or other materials; and,
- Activities at Project facilities such as material storage yards, contractor yards, parking areas, and aboveground facility locations.

ONEOK's Contractors and field representatives will identify activities that are generating fugitive dust, implement feasible dust abatement techniques or Best Management Practices (BMPs) to control dust, and maintain compliance with applicable fugitive dust regulations.

Fugitive Dust Control Measures

Dust suppression measures will be employed as necessary to control fugitive dust emissions where construction activities approach dwellings, farm buildings, commercial areas, and other areas occupied by people; where the pipeline parallels an existing road or highway; and where dust could compromise safety or become a public nuisance. This will also apply to access roads where dust raised by construction vehicles may irritate or inconvenience local residents. To minimize wind erosion and fugitive dust emissions during construction, ONEOK will implement the following reasonably available control measures:

- Disturb no more earth than required for construction to occur.
- Use dust abatement techniques (i.e., applying water or approved nontoxic chemical dust suppressants) on unpaved or un-vegetated areas or other areas susceptible to wind erosion, including the Project ROW, approved work areas, and unpaved roads, at least daily in areas of active construction. (Note: utilization of chloride-containing additives is limited to roads. Application of dust suppressants will be repeated as necessary and as determined by the Environmental Inspector(s) [EIs] or ONEOK representative).
- Water for dust control will be obtained from wells, municipal sources, and nearby rivers where the necessary water purchase agreements and permits required by federal, state, and local agencies for the procurement of water have been secured. No unapproved water sources will be used for Project activities, including dust control.
- Temporarily stockpiled soils (topsoil and spoil) will be sprayed with water or approved chemical dust suppressant to create a semi-hard protective layer to minimize wind erosion, if necessary, and as determined by the EI(s) or ONEOK representative (Note: utilization of chloride-containing additives is limited to roads and is not permitted on stockpiled soils).
- Appropriate precautions will be taken to prevent fugitive dust emissions caused by sand-blasting from reaching any residence or public building. Curtains of suitable material will be placed, as necessary, to prevent wind-blown particles from sand blasting operations from reaching any residence or public building.
- Emissions from construction equipment combustion, open burning, and temporary fuel transfer systems and associated tanks will be controlled to the extent required by state and local agencies through the permitting process.
- Project-related traffic speeds will be controlled on the construction ROW and within other Project facilities; where construction activities approach dwellings, farm buildings, commercial areas, and other areas occupied by people; where the pipeline parallels an existing road or highway; and on unpaved access roads. A speed limit of 25 mph will be followed on unimproved roads. Additional speed limit restrictions may be required by the property owner/tenant on private lands or by the county on public roads (e.g., posted speed limits).
- Speed limits will be decreased when excessive winds prevail and where sensitive areas such as public roads are adjacent to access roads or the construction ROW.
- Open-bodied trucks carrying sand, soil, gravel, or other materials will be covered where necessary to prevent such materials from being expelled.

- Construction entrance/exit access locations onto paved roads will be cleaned at a minimum of once every 48 hours, or as needed or specified by the EI(s) if materials are observed to be accumulating on the road surface.
- In construction areas adjacent to highways where dust could cause poor visibility, ONEOK will implement additional BMPs to minimize dust and potential safety issues. These additional BMPs may include applying water as close to earth-moving equipment as possible, slowing the speed of construction equipment, spacing equipment further apart, increased traffic control, or shutting down operations during high wind periods. ONEOK will coordinate with the appropriate highway authorities to ensure adequate traffic control measures are in place, including the possibility of using flaggers to control traffic if extreme low-visibility conditions develop.
- When opacity along dirt roads and the ROW exceeds 20 percent (objects partially obscured), construction activity will cease until dust control measures are employed.
- Other dust control measures, such as the use of wind fences or berms, may also be implemented as needed.

The frequency of water application will largely depend on weather conditions. Additionally, ONEOK will attempt to begin cleanup and rough grading within 72 hours after backfilling and complete cleanup within 14 days after backfilling, weather and soil conditions permitting. If seasonal or other weather conditions prevent compliance with the time frames, the contractor will stabilize the ROW and maintain erosion and sediment control measures until cleanup can be conducted. Disturbed areas will be permanently revegetated in accordance with applicable permit conditions and landowner requirements.

Regulatory Applicability

The NDDEQ is responsible for air quality management in areas of Project construction activities. This Dust Control Plan has been developed to meet the regulatory requirements of North Dakota Administrative Code Title 33, Article 15, Chapter 17. While the State of North Dakota has no specific regulations in relation to construction dust control, ONEOK and its contractors will utilize measures outlined in this Plan to minimize dust during construction and comply with NDAC Title 33, Article 15, Chapter 17.

The NDAC regulation dictates that, "No person shall cause or permit fugitive emissions from any source whatsoever, including a building, its appurtenances, or a road, to be used, constructed, altered, repaired, or demolished; or activities such as loading, unloading, storing, handling, or transporting of materials without taking reasonable precautions to prevent such emissions from causing air pollution as defined in NDAC Section 33-15-01-04."

Specifically, NDAC § 33-15-17-02 restricts emissions of fugitive particulate [dust] which:

- "Exceed the ambient air quality standards of chapter 33-15-02 at or beyond the property line of the source.
- Exceed the prevention of significant deterioration of air quality increments of chapter 33-15-15 at or beyond the property line of the source for sources subject to chapter 33-15-15.
- Exceed the restrictions on the emission of visible air contaminants of chapter 33-15-03, at or beyond the property line of the source, except as provided in section 33-15-03-04.
- Would have an adverse impact on visibility, as defined in chapter 33-15-19, on any class I federal area."

Title 33, Article 15, Chapter 17, Section 03, Subdivision 29 of the NDAC lists reasonable precautions for abating and preventing fugitive particulate [dust] emissions. Abatement and preventative fugitive particulate control measure include, but are not limited to:

(1) “Wetting down, including prewatering.

(2) Landscaping and replanting with native vegetation.

(3) Covering, shielding or enclosing the area.

(4) Paving, temporary or permanent.

(5) Treating, the use of dust palliatives and chemical stabilization.

(6) Detouring.

(7) Restricting the speed of vehicles on sites.

(8) Preventing the deposit of dirt and mud on improved streets and roads.

(9) Minimizing topsoil disturbance and reclaiming as soon as possible.”

In addition, ONEOK has developed a Stormwater Pollution Prevention Plan, which addresses the need to control dust associated with the construction of this Project.

F.7 Revegetation Plan

Cherry Creek Extension Pipeline Project

REVEGETATION PLAN

ISSUED FOR PERMITTING (IFP)

November 2022

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

This Revegetation Plan (Plan) was created to provide procedures to be followed during the revegetation of areas disturbed as a result of constructing the ONEOK Rockies Midstream, L.L.C.'s (ONEOK) Cherry Creek Extension Pipeline Project (Project). This Plan incorporates comments from the Natural Resource Conservation Service (NRCS) and/or county conservation offices in McKenzie County, North Dakota; and applicable agency permit conditions. Permit conditions, environmental and civil, or landowner agreements will take precedence over the requirements of this Plan.

1.1 Revegetation

This Plan applies to all areas of perennial vegetation disturbed by construction. ONEOK will not seed active or rotated croplands unless specifically requested to do so by the landowner or land management agency. ONEOK will coordinate with landowners to discourage livestock grazing of the construction right-of-way (ROW) during the first growing season by utilization of temporary fencing, deferred grazing (see Section 1.4), or increased grazing rotation frequency, especially in critical areas, such as sandy sites with blow-out potential.

1.1.1 Wetlands and Stream Banks

Temporary Revegetation

ONEOK's contractor will seed wetlands, excluding those inundated or farmed, and stream banks with an appropriate cover crop where necessary to prevent erosion). No fertilizer, lime, or mulch will be applied in wetlands.

Permanent Restoration

Stream banks will be seeded with the same seed mix as the adjacent upland area, except where a specific streambank seed mix was requested by a county NRCS or conservation district (see Appendix A, NRCS Herbaceous Vegetation Establishment Guide). ONEOK does not propose permanent planting or seeding in wetlands. In wetlands, the root mat/vegetative layer should be left in place during construction, except directly over the trench line. By leaving the root mat/vegetative layer intact, revegetation of the wetland to its pre-construction composition will occur naturally through native recruitment.

1.1.2 Uplands

Temporary Revegetation and Stabilization

If final grading and installation of permanent erosion control measures will not be completed in an area within 10 days after the trench is backfilled, then temporary stabilization measures will be employed. Temporary stabilization measures will also be employed where construction activity is interupted for extended periods and when seeding cannot be completed (e.g., due to seeding period restrictions).

Temporary stabilization measures will consist of surface roughening (e.g., plowing or discing to achieve a rough surface), temporary seeding, or temporary mulching. Surface roughening will predominantly be used for temporary stabilization of the soils until soil conditions permit seedbed preparation, and seed germination. Surface roughening may include equipment tracking, scarifying, imprinting, or tilling a disturbed area. These techniques are only adequate when the soils have a significant organic component. If the soils are sandy the surface roughening technique will be ineffective and will contribute to fugitive dust emissions. ONEOK's Enivironmental Inspection Team and Construction Management team must approve the use of surface roughening.

Temporary seeding and/or mulching will be employed where erosion is likely to occur, including locations such as stream banks, road ditches, steep slopes, and areas subject to storm water flow, as described in the Storm Water Pollution Prevention Plan (SWPPP). ONEOK's specification for installation of mulch and temporary stabilization is discussed in Section 4 of the SWPPP. The contractor will consult with ONEOK and the Lead Environmental Inspector (EI) if there is a need for temporary stabiliation measures.

Permanent Revegetation

All upland areas disturbed by construction activities, excluding active and rotated cropland, will be seeded within 10 days of completion of final clean up. Ideally, seeding will be done before the ground freezes. Fertilizer and pH modifying agents (e.g., lime) may be used and will be based on local soil moisture conditions, germination requirements of selected species, and adaptation of seed soil temperature.

1.1.3 Seedbed Preparation

Seeding will follow cleanup and topsoil replacement as closely as practicable. The contractor will scarify, till, disk, or harrow the seedbed as needed in order to enhance seed germination. Sites where this method is not practical (e.g., steep slopes, rocky areas) will be dozer-tracked perpendicular to the slope or otherwise left with adequate roughness, following topsoil placement, to provide micro-sites for seed germination and to reduce soil movement. If mulch was applied prior to seeding for temporary erosion control, the contractor will remove and dispose of the mulch prior to seedbed preparation to ensure that seedbed preparation equipment and seed drills do not become plugged with excess mulch; to support an adequate seedbed; and to ensure that seed incorporation or soil packing equipment can operate without becoming plugged with mulch.

1.1.4 Seeding Method

Based on site-specific conditions, seeding will be accomplished by drilling or broadcasting. A range-type drill, or similar device, will be employed on level to gently sloping areas where rock fragment content allows drilling operations. The seeder will be followed with a drag packer or roller to ensure uniform coverage of the seed and adequate compaction. Drill seeding will be done along contour lines where practical, not up and down the slope. The drill seeder will apply seed mixes with mechanisms such as seed box agitators to allow even distribution of all species in each seed mix, with an adjustable metering mechanism to accurately deliver the specified seeding rate, and with a mechanism such as depth bands to accurately place the seed at the specified depth. Planting depth will not exceed local and regional agriculture practices. Seeders will be calibrated and operated at an appropriate speed so that the specified seeding rate is planted. The row spacing on drill seeders will not exceed 8 inches, unless otherwise recommended due to growth characteristics of a certain species.

Broadcast seeding will be employed on steep (> 15 % slope) and/or rocky areas where drill seeding is not practical. Seed will be broadcast using manually-operated, cyclone-type bucket spreaders, mechanical seed spreaders or blowers, or hydroseeders. Broadcast seeding will be performed at two (2) times the rate for drill seeding. Seeds will be mixed frequently in spreader hoppers to discourage settling. Broadcast seeding may be delayed during high wind conditions if even distribution of seed is impeded.

Where possible, broadcast areas will be chained or harrowed to cover seed. On small or inaccessible areas, hand raking will be used to cover seed. On steeper slopes where tilling or harrowing are not feasible, the areas will be dozer-tracked perpendicular to the slope prior to seeding, or-otherwise left in a roughened state, to provide micro-sites for seed germination.

Hydro seeding may be used on a limited basis, where the slope is too steep, or soil conditions do not warrant conventional seeding methods. Fertilizer, where specified, may be included in the seed, virgin wood fiber, tackifier, and water mixture. When hydro-seeding, virgin wood fiber will be applied at the rate of approximately 3,000 pounds per acre on an air-dry weight basis as necessary to provide at least seventy-five (75) percent ground cover. Tackifier will consist of biodegradable, vegetable-based material and will be applied at the rate recommended by the manufacturer. The seed, mulch, and tackifier slurry will be applied so that it forms a uniform, mat-like covering of the ground.

1.1.5 Revegetation Mixtures and Rates

In cooperation with the applicable agencies and private landowners, seed mixtures have been developed for the soil types within the Project area (see Appendix A). Disturbed areas (with the exception of cultivated fields and wetlands) will be seeded in accordance with written recommendations for seed species, rates, techniques, and planting dates from the NRCS or county conservation districts (unless otherwise specified in landowner agreements) as outlined in the NRCS Herbaceous Vegetation

Establishment Guide (Appendix A). Seed included in mixtures developed in collaboration with agencies assume use of local strains or cultivars to assure seeds. Seed will be acquired from local sources that can verify appropriate cultivars are used.

Conservation Reserve Program (CRP) seed mixture will be applied to CRP lands. The property owner is responsible for identifying CRP lands crossed by the Project. All disturbed areas will be re-seeded in accordance with the specifications outlined below. The ROW will be re-seeded at the end of construction.

In some instances, seed mixtures may need to be modified as a result of limited species availability, poor seed quality, or site differences. With ONEOK approval, these modifications will be made based on site-specific conditions and requirements.

1.1.6 Seed Installation Timing

Seeding of permanent native seed mixes should not occur outside of the dormant seeding windows as described in Section 1.1.7 below, to prevent premature germination of vunerable native seedlings during the hottest and driest time of the year. Temporary stablization measures should be utilized during the summer period and prior to the winter dormant seeding date for each respective state. These dates are subject to annual and local variability across the project, but should be used as a general rule of thumb and deviation of more than a week from these dates should only be considered on a case by case basis, with the EI team's recommendations and ONEOK's approval. Replanting of alfalfa fields requires two growing season and communciation with the landowner will take place during this timeframe.

1.1.7 Dormant Seeding

Dormant seeding is most effective in restoration of disturbed areas because early spring is the most reliable period for moist soil conditions. Low temperatures and dormant vegetation during the winter months help soils retain beneficial amounts of moisture into the spring (WYRRC, 2010). Dormant seeding is conducted after soil temperatures are cool enough to prevent seed germination; generally when soil temperature at two inches below the soil surface is 40 degrees or less for a minimum of five consecutive days (NRCS, 2018). The dormant seeding timeframe in North Dakota occurs after November 1. Dormant seeding is only practicable if the soil is not frozen and snow is not present. Procedures for applying soil amendments, seedbed preparation, seeding, and mulching are the same as outlined for permanent revegetation in this Plan.

Where dormant seeding is conducted, one or more of the following temporary erosion and sediment controls will be put in place over the freshly seeded area unless the local soil conservation authority, landowner, or land managing agency specifies otherwise. The temporary measures are as follows:

- Straw mulch, at 4,000 lbs/acre, anchored;
- Hydromulch, at 1,500 to 2,000 lbs/acre; and/or
- Erosion control blanket, 1 layer on soil surface

1.2 Weed Control

Weed control practices will be implemented to limit the growth and spread of weeds and to ensure that revegetation is successful with the proposed seed mixtures in accordance with ONEOK's project-specific Weed Management Plan.

1.3 Seed Inspection

Seed Tag Inspection

Restoration contractors will collect tags from the seed used to document compliance with agency and landowner seeding requirements and provide the tags and associated records to the appropriate EI. The restoration contractor will be responsible

for inspecting seed and seed tags to ensure compliance with the above requirements. Seed purchased by the contractor will be on a "Pure Live Seed" (PLS) basis. The restoration contractor will inspect seed prior to use.

Seed tags will identify:

- Purity;
- Germination;
- Date tested;
- Total weight and PLS weight;
- Weed seed content; and,
- Suppliers name and business information.

Seed Purity

The germination and purity tests conducted by the vendor will be completed within 12 months of seed utilization. The seed tags on the seed sacks will also certify that the seed is "Noxious Weed Free". Seed rates used on the Project will be based on PLS rate, not actual weight basis.

1.4 Grazing Deferment

Excessive livestock grazing is detrimental to the germination of permanent vegetative cover over the ROW. In order to ensure that the ROW is properly restored with sufficient vegetative cover, ONEOK will develop grazing deferment plans with landowners, tenants, or other grazing permit holders that address construction timing, fence cutting and bracing, temporary fencing, cattle guard locations, and water requirements for livestock.

The NRCS recommends all range plantings are not grazed until the stand is fully established, which is a minimum of one full growing season. If, after one full growing season, the stand has not adequately established, or seedlings do not have well-developed root systems with adventitious roots above the sown seed, grazing should be deferred for a second growing season (NRCS, 2018; Appendix A).

1.5 Revegetation Monitoring

Monitoring will be conducted in compliance with the SWPPP during the construction phase as well as the post construction phase of the Project to verify adequate vegetation establishment to stabilize the soil and satisfy permit conditions.

2.0 REFERENCES

U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). April 2021. Herbaceous Vegetation Establishment Guide. Available online at: https://efotg.sc.egov.usda.gov/references/public/ND/North_Dakota_Herbaceous_Veg_Est_Guide.pdf]. Accessed November, 2022.

Wyoming Reclamation and Restoration Center (WYRRC). 2010. Successful Restoration of Severely Disturbed Lands: Seeding Essentials for Reclaiming Disturbed Lands

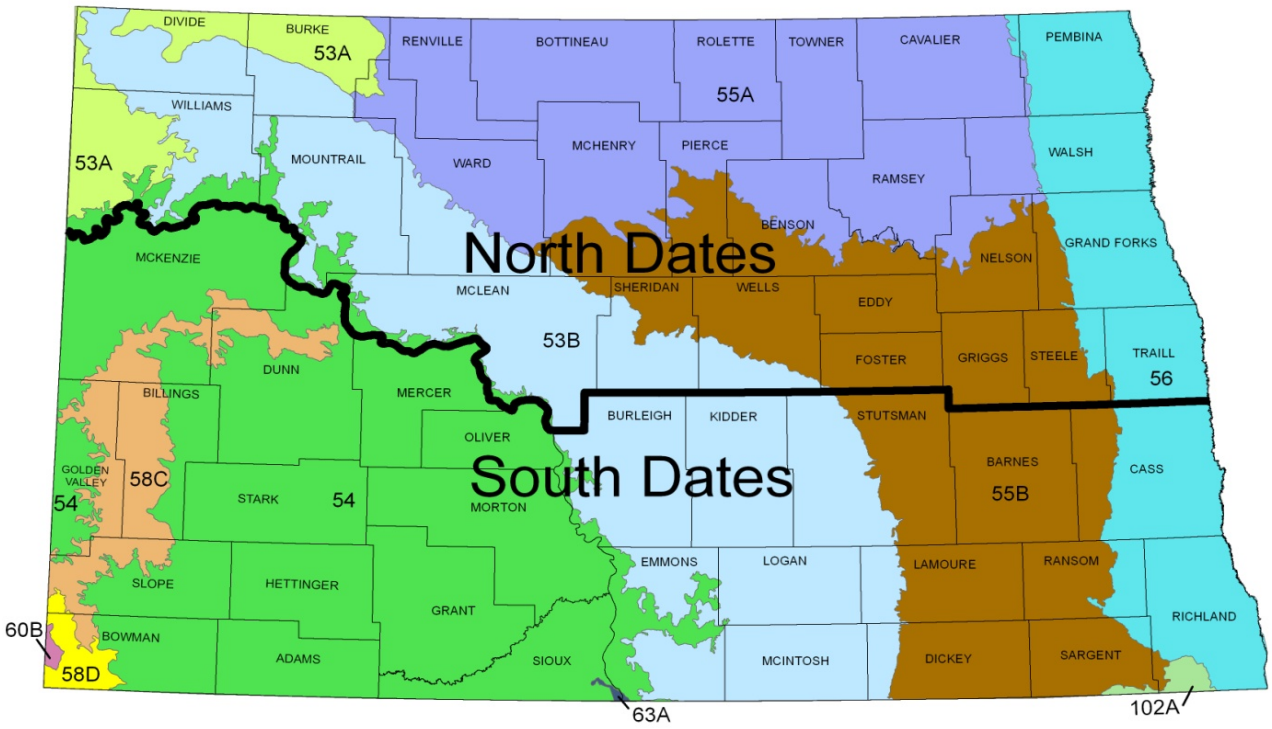
APPENDIX A

NRCS Herbaceous Vegetation Establishment Guide

Herbaceous Vegetation Establishment Guide

Part 1. Seeding Dates:

Seeding dates are based on climatic records, research, and experience; and represent optimum periods for grass and legume establishment. These dates should provide for adequate development of adventitious roots prior to stressful periods, such as hot, dry summers and cold, open winters. The following table shows recommended seeding dates by Major Land Resource Areas (MLRAs). Variation from these dates plus or minus 5 days may be made if justified by moisture and temperature conditions.



Seeding Dates		
Species Type and Season of Planting	**NORTH** (53A, N.1/2 53B, 55A, N. ½ 56, N. 1/3 55B)	**SOUTH** (58C, 58D, 54, S. ½ 53B, S. 2/3 55B, S. 56)
Cool Season Species		
Spring[3]	Prior to May 20	Prior to May 10
Late summer [1]	August 10 to September 1	August 10 to September 15
Late fall (dormant) [2, 3]	See footnote [2]	See footnote [2]
Warm Season Species		
Spring	May 10 to June 25	May 10 to June 25
Warm/Cool Season Mix		
Spring	May 1 to June 15	April 20 to June 1

[1] If legumes are part of a mixture, seed by August 25th. For winter survival, it is essential that alfalfa plants reach the 6-leaf stage prior to fall dormancy. Alfalfa requires 6-8 weeks growth after emergence to develop the 6-leaf stage.

[2] Seeding may occur once soil temperatures drop to 40º Fahrenheit for a minimum of 5 consecutive days (usually after November 1) based upon North Dakota Agriculture Weather Network http://ndawn.ndsu.nodak.edu/index.html or actual field measurements at a depth of 2 inches.

[3] Pollinator plantings consisting of forbs only (no grasses) will be seeded during the spring or dormant seeding windows. Pollinator plantings consisting of forbs and grass mixtures will be seeded during the appropriate seeding window for the grass component of the mixture.

Part 2. Seedbed Preparation:

A seedbed will be prepared that is free of competing vegetation and is not subject to excessive erosion. A firm seedbed will be provided so the seed is placed at the designed depth. **IT SHOULD BE FIRM ENOUGH SO THAT ADULT FOOTPRINTS ARE HARDLY VISIBLE**.

The presence or absence of weed populations, especially noxious weeds, will impact seedbed preparations. Each field should be evaluated for weed pressure. Seeding on fields with significant weed populations will be delayed until weeds are controlled. This may mean a protective cover crop may need to be planted.

When planning a seeding, the previous two years of herbicide application should be considered. Any potential carryover problems should be addressed by delaying seeding, establishing a cover crop, and/or changing species to be planted. If a cover crop is necessary, refer to part 6 of this tech note.

Seedbed alternatives:

No-Till Method - Seeding into standing stubble of a previous crop without further seedbed preparation. Excess straw or chaff should be removed prior to seeding. Use of harvest equipment, which spreads straw along a minimum of 80 percent of the header width, will prevent excess chaff problems. If weeds or excessive volunteering of previous crop is present, control with appropriate herbicide(s) in accordance with product label directions and current recommendations from North Dakota State University Cooperative Extension Service, ND Weed Control Guide, Cir. W-253 Rev.

1. Interseeding – Is not an approved method due to difficulty in achieving successful stands (especially for CRP cover establishment). The only exception is if conditions are met under Conservation Practice Specification 512 Pasture and HaylandPlanting (5c), which state interseeding may be done in limited cases. Review the 512 Specification for those conditions.

Rye produces an allelopathic agent that may inhibit germination in many grass species. If possible, avoid seeding into rye stubble or heavy rye residue. Other commonly grown crops provide good cover and do not inhibit germination.

Cover Crop Method - Plant a cover crop (high residue producing crop) of oats, barley, flax, grain sorghum, millet, or sudangrass during the growing season before seeding perennial forages if existing cover is insufficient to control erosion. If the cover crop method is to be used, see part 7.

Clean-Till Method - Seed into a new, clean tilled, firmly packed seedbed. If erosion or potential climatic factors are a potential concern, a cover crop may be used. See part 6 if a cover crop is to be used.

Part 3. Seeding Equipment:

Seeding equipment that ensures proper seed placement and good seed-soil contact will be used. Modern grass seeding attachments that allow for proper seed flow, seed placement and soil packing are needed to ensure a successful seeding.

Slower seeding speeds should be used for fluffy or rough-coated seed species. Three to five miles per hour should be the seeding speed for most types of grass drills. Seeding speeds in excess of 6 miles per hour may result in uneven or inconsistent grass and legume stands.

If a carrier is needed to help feed seed through the drill cracked corn or rolled oats may be added to the mixture.

Grass Drill

Grass drills are specifically designed and equipped to properly meter and place various grass, legume and/or forb seed and share the following design characteristics:

- Different seed boxes are normally required to handle the three types of grass seed commonly used. This includes the relatively clean, smooth seed characteristic of many cool-season grasses, the chaffy or trashy seed characteristic of many warm-season grasses, and fine, smooth seed, characteristic of legumes or grasses such as switchgrass, hard fescue, or reed canarygrass. Seed boxes having the capability of seeding chaffy or awned grasses (i.e. blue grama, bluestems, and indiangrass) are needed, only if such species are planned in the seeding mixture; likewise, fine-seed or legume seed boxes are needed, only if such species are to be seeded.
- Agitators or similar mechanisms that prevent bridging of chaffy or trashy seed and ensure a constant flow of seed at the desired rate with uniform mixing of the species in the mixture.
- Feeder mechanism (picker wheels, fluted feed, etc.) that ensures uniform flow of all types of grass seed either separately or in a mixture.
- Oversized feeder tubes that allow constant flow of chaffy or trashy type seed from boxes to placement point (if such seed is used).
- Individually mounted, adjustable, spring loaded, double-disc openers.
- Depth bands or other depth-control systems that provide positive seed placement for final planting depth of one-fourth to one inch over varying degrees of seedbed firmness.
- Press/packer wheels that provide adequate covering and firming of soil over and around the seed for necessary seed/soil contact after proper seed placement. They should be mounted individually on each furrow opener or independently to follow behind each opener. Press/packer wheels are not intended to provide the basic "firm seedbed." The firm seedbed must exist before the drilling operation begins.
- Drill calibration should be completed for both grass and grain drills prior to seeding. Refer to item 4 for guidance in completing drill calibration.

Small Grain Drill

Free-flowing grass seed (i.e., wheatgrasses) and legume seed can be successfully planted with a small grain drill provided proper seeding depth can be maintained throughout the field. Seeding depth is the most limiting factor to seeding success and contributes to most of the seeding failures when using a grain

drill. It is extremely important to have a firm seedbed when using a grain drill. Periodic inspections should be done to check seeding depth especially when seeding across different soil types. Seeding depth will vary under actual planting conditions.

Checking the drill frequently and hand mixing the seed is essential to achieving a properly blended seed mix and helps ensure that seeds of different sizes are seeded evenly across the field. Periodic feeder mechanism adjustments are usually necessary to ensure proper seeding rates. A separate legume box is desirable for seeding small seeded species. (i.e. switchgrass, hard fescue, reed canarygrass, and alfalfa). Ensure that the grain drill's drop tubes are placed in front of the packer wheels to allow for proper seed-soil contact.

Chaffy or awned seeds (i.e. bluestems, indiangrass, and blue grama) are extremely difficult to plant with a grain drill. It is recommended that a grass drill be used for these types of grasses. Proper agitation is needed to prevent “bridging” of seed in the seedbox, and the feeder mechanism must be capable of metering a uniform flow of seed at the desired rate. Very few grain drills have this capability. Use of debearded seeds is strongly recommended when considering seeding chaffy or awned seeds in a grain drill.

Broadcast Seeder

Broadcasting may only be used when one or more of the following conditions apply to the planting area:

- Slope makes use of a drill impractical;
- Soil conditions prohibit effective use of a drill;
- Area is 5 acres or less;
- Seeding pure stands of alfalfa.

Broadcast plantings exceeding 5 acres require a variance approved by the State Resource Conservationist. All areas to be broadcast will have properly prepared seedbed (minimal residue cover with a smooth, firmly packed surface). Following the broadcast operation, an additional operation will incorporate the seed into the soil at the proper depth. This can include use of a drag or harrow, culti-packer, roller packer, or other suitable implement to cover and press the seed into the soil surface, to attain the goal of good seed to soil contact. All broadcast plantings will utilize 150% of full seeding rates listed in Table 1. Forbs planned for pollinator plantings which normally exceed 100% rates, will not exceed 150% of the full seeding rate.

Air-seeders

Some air-seeders and similar types of equipment may be used to seed free flowing grass seed (i.e., wheatgrasses) and legume seed if proper seeding depth can be obtained (as specified in part 6). However, seeding mixtures containing varying seed sizes may require an inert carrier to work properly in air-seeders. The shallow planting depths for grasses and legumes can be difficult to maintain with this type equipment. The equipment must be able to provide a uniform flow of seed at the desired rate. Use packer wheels or other suitable packing implement to press soil firmly around the seeds.

Part 4. Drill Calibration:

Grass or grain drills may be calibrated using the following methods.

Bulk Weight Method:

Raise the drill's drive wheel and measure its circumference in **feet**. Next, measure the distance between seed spouts or disc openers. Use Table A to determine the number of revolutions (R) to turn the drive wheel for the row spacing and wheel circumference in feet (C) for your drill.

Table A

Row spacing in inches	No. of seed spouts to use	Turns of drive wheel	Row spacing in inches	No. of seed spouts to use	Turns of drive wheel
6	4	96/C = R	24	1	96/C = R
7	4	82/C = R	30	1	77/C = R
8	3	96/C = R	36	1	64/C = R
10	3	77/C = R	42	1	55/C = R
12	2	96/C = R	48	1	48/C = R

Place enough seed in the box to cover spouts from which you will collect seed. Turn the drive wheel until all spouts are feeding. Place a container under the correct number of seed spouts (as determined from the Table A) and turn the drive wheel the number of revolutions previously determined. Weigh the sample in grams. Multiply this weight by 0.5. The result is the pounds per acre at that setting. Make adjustments in the drill setting and continue trials until the desired seeding rate is obtained.

Remember: Seeding rates as determined by this method are in terms of **bulk seed**. You need to convert your seeding rate from pure live seed per acre to bulk seed per acre when using this calibration method.

Example:

Row spacing = 7 inches
Number of seed spouts = 4
Circumference of drive wheel = 6.8 ft
Revolutions of drive wheel (R) = 82/C
R = 82/6.8 = 12 revolutions
Bulk seeding rate is 15.1 lbs/ac. The drill is properly set when the 4 seed spouts yield 30 grams of seed after 12 revolutions of the drive wheel.
30 grams x 0.5 = 15 lbs/ac

Seeds Per Row Foot Method:

This method of determining the amount of seed being distributed by the seeding equipment is to count the number of seeds per foot of drill row while the machine is in operation.

Fill the drill with seed, make setting, and drive equipment over a hard ground surface or canvas. Count the number of seeds per foot of row and adjust until proper seeding rate is attained. Use Table B to determine the linear foot of row necessary to equal one square foot planted.

Table B	
Row spacing in inches	Linear foot of row to equal one square foot
6	2.0 feet
7	1.8 feet
8	1.5 feet
10	1.2 feet
12	1.0 foot

To determine the proper number of seeds per foot of drill row for a specific seeding mixture; you will first need to calculate the bulk seeding rate for each species in the mix. From Table 1, calculate the number of seeds per square foot (ft^2) for each pound seeded (seeds per pound divided by 43,560ft^2/acre). Multiply the number of seeds per square foot for each pound seeded by the bulk seeding rate for each species. Total the resulting numbers to determine the number of seeds per square foot for the mixture.

For example: If you want to calibrate a drill for a mixture of 4.5 lbs. PLS/ac green needlegrass (80% purity and 70% germination) and 4.0 lbs. PLS/ac western wheatgrass (92% purity and 85% germination), we would calculate the bulk seeding rate for each species. Bulk seeding rate would be 8 lbs/ac for the green needlegrass and 5.1 lbs/ac for the western wheatgrass. Table 1 shows one pound of green needlegrass seed contains,

180,000 or 4.1 seeds/ft^2 for each pound seeded (180,000/43,560 ft^2/acre). Western wheatgrass has 112,000 seeds per pound or about 2.6 seeds/ft^2 for each pound seeded.

8 lbs/ac x 4.1 seeds/ft^2/lb. = 32.8 seeds/ft^2
5.1 lbs/ac x 2.6 seeds/ft^2/lb. = 13.3 seeds/ft^2

The total seeds per square foot for the mix would be 46. If the drill we are calibrating has 7-inch row spacing, the drill calibration would be 46 seeds per 1.8 feet of row length.

Part 5. Seed Requirements:

A. All seed must meet the requirements of North Dakota State Seed Laws and Regulations. Information on State seed law is available at Chapter 4.1-53 of the ND Century Code or ND Seed Labeling Requirements. All seed, including homegrown seed, must be officially tested for purity and germination to enable pure live seed (PLS) calculations for determining the proper seeding rate. Tests must be made within a 12-month period, exclusive of the test month, prior to seeding. Recommend re-testing of seed within the 12-month period if stored improperly (high humidity and/or high temperature).

B. Use certified seed when available.

C. Approved Varieties and Seed Selection:

   a. Origin of non-varietal ('common') grass seed (and for those varieties not listed in table 2) of both native and introduced species for Pasture and HaylandPlanting is limited to ND, SD, NE, MT, MN, WY, and Canada.

   b. Origin of non-varietal ('common') native forbs and legumes (and for those varieties not listed in table 2) will originate or be grown in ND, SD, NE, MT, WY, ID, WA, OR, MN, WI, IA, CO, and Canada.

   c. Approved named varieties are located in Table 2. All approved seed varieties must originate from the contiguous United States or Canada. If the origin is from someplace other than the contiguous United States or Canada or vendor must provide a DNA analysis that proves the variety is bona fide.

   d. Alfalfa named varieties must have a Winter Survival Index (WSI) of 2 or less to meet specifications. The term winter hardiness rating is sometimes used synonymously with winter survival index, a number of 2 or less is acceptable. If the winter hardiness rating uses letters (e.g. EH, extremely hardy) those will not be acceptable, only a number of 2 or less will be accepted. Origin of **non-varietal** ('common') alfalfa types and introduced legumes is limited to ND, SD, MN, MT, and Canada.

   e. Organic grass seed. Grass seed produced in a manner which meets the requirements of the National Organic Program is presently limited by availability and species. If organic grass seed which meets the requirements of Section 5 of this document is not available for the species identified on the ND-CPA-9, substitution of non-organically raised grass seed of the same species is permitted under Section 205.204(a) of the Code of Federal Regulations – National Organic Program.

   f. Legume seed should be inoculated with the proper culture just prior to seeding in order to increase the potential for nitrogen fixation by the plant.

D. No noxious weed amounts are allowed on any seed tags.

E. All seeding rates will be based on pure live seed (PLS). PLS can be calculated from information on the seed tag. PLS is derived by multiplying percent pure seed by percent germination (plus percent hard and dormant seed, if present) and dividing by 100. See ND Extension Service Publication A-353 "Farmer's Guide for Seed Buying".

F. Additional information on seed tag interpretation can be found at:
http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/ndpmcnl11797.pdf

G. Seed coating is considered inert matter which is reflected in the purity and inert percentages on the seed tag. The extra weight of the coating reduces the number of pure live seeds per pound, resulting in need to use higher seeding rates to achieve a full stand. Seed coating is considered inert matter which is reflected in the purity and inert percentages on the seed tag. The extra weight of the coating reduces the number of pure live seeds per pound, resulting in need to use higher seeding rates to achieve a full stand.
http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/ndpmcnl12597.pdf

H. Total PLS pounds seeded must be within 10% of the planned design.

Part 6. Seeding Depth:

Proper seeding depth is extremely important in successfully establishing native and introduced vegetation from seed. Native grasses, forbs, and shrubs need to be seeded at ¼ inch, as light plays a key role in the germination of many native species. Introduced grasses and forbs may be seeded ¼ to ¾ inch in depth.

Part 7. Cover and Companion Crops:

Cover Crops

A cover crop is an annual residue-producing crop, planted during the growing season(s) before seeding the perennial cover. Its purpose is to provide cover and residues to reduce evaporation, maintain cool soil temperatures, smother or reduce weeds, improve soil structure, enhance soil biology, trap snow, protect seedlings from extreme climatic conditions and control wind and water erosion.

See Practice 340 *Cover Crop* for guidance on selecting and managing cover crops. See Table 1: *Cover Crop – Common Species and Properties* for cover crop species characteristics, seeding rates, mycorrhizal association, etc.

Companion Crops

A companion crop is an annual that is planted with the perennial species. Seeding rates for companion crops are lower than normal seeding rates for those crops to reduce competition with the seeded perennial species.

Barley	10 lbs/acre
Oats	10 lbs/acre
Spring wheat	15 lbs/acre
Flax	7 lbs/acre

If used, the companion crop should be clipped above the new perennial seedlings and removed before it becomes competitive with the perennial species.

Part 8. Management and Protection During Establishment:

Grazing

Do not graze until stand is fully established. This period will be a minimum of one full growing season. If an adequate stand has not established during the first growing season, or if seedlings do not have well-developed root systems with adventitious roots above the sown seed, then deferment should be extended through the second growing season. Grazing during the deferment period for weed control will be handled on a case-by-case basis provided no damage will be done to the seeded species.

Weed Control

During the establishment period, excessive amounts of competitive weeds will be controlled. Control weeds that compete with seedlings for sunlight and/or moisture during the growing season of the species planted. The first weed control operation will be needed as recommended or prior to weed seed maturity. Repeated weed control operations may be needed. Competitive weeds can be controlled either mechanically or chemically, or by a combination of these methods.

Mechanical - When controlling competitive weeds by clipping or mowing, adjust the equipment to cut above the new seedlings, and clip before the weeds set seed or mature. If the clippings are dense enough to smother the new seedlings, promptly remove clippings from the field.

Mowing Height – Eight to ten inches is the preferred stubble height. This will be over the top of most 1- to 2-year old forb and legumes species in early summer. Certain species are especially sensitive to clipping height and removal of the basal leaves may result in death of the plant. Some grass species such as switchgrass have high growing points, and once established should not be mowed at a height less than 10 inches until after the growing season.

Equipment – Swathers generally work best because of operator visibility, maneuverability, and ease of height adjustment. The operator can quickly raise or lower the platform. If the windrows are heavy enough to smother new seedlings they should be promptly removed. Sickle bar mowers are good if an adequate, consistent stubble height can be maintained. Rotary mowers can work well if they are set at the highest wheel setting. This will usually result in about an 8-inch clipping height. A level mowing height should be maintained and travel speed as appropriate to disperse the clippings. A sharp blade is essential.

Timing – Mowing must be done early enough in the season before most of the weed seed become viable and so the seeded species can still benefit from the "opened canopy" and put on new growth before fall. Multiple mowings in a season may be necessary with high density/biomass weed competition. Mowing in late summer or early fall provides little benefit to the seeded species and probably causes more harm than good. Check local/state regulations of individual conservation practices for the earliest allowable mowing dates.

Whenever new seedings are mowed some injury occurs to the seeded species. Young forb and legume seedlings are especially vulnerable and may be killed by driving over them. If weeds are a competition problem to the new seeding, then mowing is probably justified. Spot mowing is encouraged whenever possbile. This eliminates damage to the seeded species in areas where you don't have to mow, and maintains the taller wildlife cover. Spot mowing also creates "edge" structure which enhances landscape diversity within the field and may provide additional wildlife benefits.

Chemical - To control competitive weeds with herbicides use the appropriate herbicide(s) applied according to the manufacturer's label. The best control will generally be obtained when weeds are in the early stages of growth. Precautions should be taken to ensure that grass or legume seedlings are not

injured by the selected herbicide(s). Refer to North Dakota State University, ND Weed Control Guide (Cir. W-253 Rev.) for specific herbicide recommendations on forage crops in North Dakota. Noxious weeds must be controlled in accordance with State law.

Insect Control
Insects can be a threat to seedlings. Contact the County Extension Service for recommendations on control of specific insects affecting seeded species.

Cautions when using pesticides:
Some herbicides have residual activity that can adversely impact stand establishment of sensitive species or may have haying or grazing restrictions. Use of pesticides must be consistent with the manufacturer's label requirements and in accordance with State and Federal laws and regulations.

Part 9. Guidelines for Stand Evaluation:
To determine adequacy of stands and to determine if reseeding or reinforcement seeding is required, use ND-CPA-9a, Stand Evaluation Worksheet, and the following guidelines:

It should be recognized that environmental factors, such as climate, insects, soils, and fertility affect time required for establishment of stands. Timeliness of precipitation, drought, extreme temperatures, severe winds, or late soil thaw can delay seedling emergence and/or development.

Seedling emergence should be relatively uniform over the area. The density of established plants required for an adequate stand will depend upon the planned purpose of the seeding and may vary from program-to-program. Consult program specific guidelines for additional information.

If specific practice or program guidelines are not available, stand counts should indicate a density of at least 3 to 5 seedlings per square foot of area. If at least 3 of the seedlings are rhizomatous species, the lower limit of 3 seedlings per square foot is adequate. The upper limit of 5 seedlings per square foot is necessary when all are bunch-type species or a mixture of rhizomatous and bunch-type species.

The adequacy of a stand will be based on density of established plants and stage of morphological development needed to ensure perenniality. To be considered established, a grass plant must have a well-developed adventitious root system and should exhibit signs of tillering or rhizome development. See Figure 1. An alfalfa plant must have a well-developed taproot with secondary and tertiary roots and a well-developed crown set below the soil surface and/or branch rhizome.

For more information on alfalfa seedling development, see these online publications:

University of Wisconsin, Alfalfa Germination & Growth, A-3681

NDSU, Time of Seeding for New Alfalfa Establishment, R648

Preliminary stand evaluation can be made 4 to 8 weeks after germination; evaluate for progress and management problems (i.e. weeds, insects, etc.) - not for final establishment.

All stands must go through at least one winter before making final stand evaluation.

Stands resulting from late fall (dormant) or spring seedings must go through the first growing season and subsequent winter; evaluation for final establishment can be made any time during the second growing season.

Stands resulting from late summer seeding cannot be evaluated for final establishment until the end of subsequent, full growing season.

Most stands will require 2 growing seasons to become established; warm-season species may require 3 growing seasons for establishment.

Stand counts may either be done using a 1-square foot frame or the row count method. If a frame count is used, all plants rooted within the frame should be counted. If the row count method is used, 2 side-by-side rows should be counted, the length to be determined by the row spacing. 6-inch row spacing would require the observer to count all plants in 2 rows for a length of 12 inches; a 7-inch row spacing would require a 10.3-inch length of 2 rows; and an 8-inch row spacing would require a 9-inch length.

A predetermined number of steps should be taken diagonal or perpendicular to the drill rows and the frame dropped at the toe of the foot on the final step. The frame should be dropped in a consistent alignment to the drill rows. The same procedure would be used when making a row count. Instead of dropping the frame at the toe of the foot, this point would then mark the beginning of the row count.

The number of samples required depends on factors such as stand uniformity and the number of species to be counted. Generally, a minimum of 10 counts (or frames) per 10 acres or less of field size would result in a representative sample. End rows, turn around areas or other areas that may have been double seeded should be avoided. Ten counts per 10 acres of field size should only be used as a starting point. For example, a 70 to 80 acre pasture planting with a uniform stand may be sampled accurately using 40 counts or less. Whatever the situation, enough counts must be taken so that a representative sample is obtained.

ND-CPA-9A, Stand Evaluation Worksheet, may be used to document the stand counts.

If evaluation reveals a marginal stand, consideration should be given to allowing a second growing season for establishment. Seedings that contain a high percentage of "hard seed" are more likely to produce new seedlings during the second growing season.

The alternative of a partial reinforcement seeding, in lieu of the full seeding rate, should be considered during the evaluations.

"Spot" seeding weak areas may be a logical alternative in the case of spotty or intermittent stands, in lieu of whole field reseeding. Grazing deferment should follow spot seedings.

Table 1. Full Seeding Rates [1,2]					
Species	**Seeds/Pound**	**MLRA 55 A/B & 56 [4]**		**MLRA 53 A/B, 54 & 58 C/D [4]**	
		Seed/SqFt	**#PLS/Ac**	**Seed/SqFt**	**#PLS/Ac**
Introduced Cool-Season Grasses					
Bromegrass					
Meadow (BRBI2)	80,000	30	16.5	25	13.5
Smooth (BRIN2)	135,000	25	8	20	6.5
Creeping foxtail (ALAR)	750,000	60	3.5	60	3.5
Hard fescue (FEBR7)	565,000	50	4	35	3
Timothy (PHPR3)	1,300,000	30	1	NR	NR
Wheatgrass					
Green (ELHO3)	135,000	46	14	33	10
Crested (AGCR)	175,000	28	7	25	6
Intermediate (THIN6)	88,000	20	10	17	8.5
Pubescent (THIN6)	88,000	20	10	17	8.5
Siberian (AGFR)	175,000	30	7.5	25	6
Tall (THPO7)	79,000	23	13.5	20	11
Wildrye					
Altai (LEAN3)	68,000	30	19	25	16
Dahurian (ELDA3)	86,000	20	10	17	8.5
Mammoth (LERA5)	55,000	30	24	25	20
Manystem (LEMU11)	150,000	30	8.5	25	7.5
Russian (PSJU3)	175,000	30	7.5	25	6
Native Cool-Season Grasses					
Bluejoint (CACA4)	4,480,000	50	0.5	50	0.5
Fowl bluegrass (POPA2)	2,080,000	48	1	48	1
Green needlegrass (NAVI4)	180,000	30	7.5	25	6
Mannagrass					
American (GLGR)	1,280,000	45	1.5	45	1.5
Fowl (GLST)	1,440,000	37	1	37	1
Needle and thread (HECO26)	115,000	25	9.5	25	9.5
Nutall alkaligrass (PUNU2)	2,108,000	50	1	50	1

Table 1. Full Seeding Rates [1,2]					
Species	Seeds/Pound	MLRA 55 A/B & 56 [4]		MLRA 53 A/B, 54 & 58 C/D [4]	
		Seed/SqFt	#PLS/Ac	Seed/SqFt	#PLS/Ac
Native Cool-Season Grasses (cont.)					
Porcupine grass (HESP11)	57,000	25	19	25	19
Prairie junegrass (KOMA)	2,315,000	50	1	50	1
Reed canarygrass (PHAR3)	530,000	40	3.5	40	3.5
Wheatgrass					
Bluebunch (PSSP6)	140,000	NR	NR	25	8
Slender, awned & bearded (ELTR7)	155,000	25	5.5	17	5
Streambank/Thickspike (ELLAL)	155,000	NR	NR	25	7
Western (PASM)	112,000	25	10	20	8
Whitetop (Sprangletop) (SCFE)	191,000	11	2.4	NR	NR
Wildrye					
Basin (LECI4)	140,000	NR	NR	25	8
Beardless (LETR5)	150000	30	8.5	25	7.5
Canada (ELCA4)	115,000	20	7.5	17	6.5
Virginia (ELSU)	96,000	20	10	NR	NR
Native Warm-Season Grasses					
Alkali sacaton (SPAI)	1,758,000	NR	NR	40	6
American sloughgrass (BESY)	1,150,000	25	0.9	25	0.9
Bluestem					
Big (ANGE)	176,000	30	7.5	25	6
Little (SCSC)	286,000	30	4.5	25	4
Sand (ANHA)	113,000	30	12	25	9.5
Buffalograss (BODA2)	50,000	30	26	25	23
Grama					
Blue (BOGR2)	750,000	40	2.5	30	2
Sideoats (BOCU)	180,000	30	7.5	25	6
Inland saltgrass (DISP)	520,000	35	5.5	35	5.5
Indian ricegrass (ACHY)	235,000	30	5.5	25	4.5
Indiangrass (SONU2)	193,000	30	7	25	5.5
Prairie cordgrass (SPPE)	183,000	30	7	30	7

Table 1. Full Seeding Rates [1,2]					
Species	**Seeds/Pound**	**MLRA 55 A/B & 56 [4]**		**MLRA 53 A/B, 54 & 58 C/D [4]**	
		Seed/SqFt	**#PLS/Ac**	**Seed/SqFt**	**#PLS/Ac**
Native Warm-Season Grasses (cont.)					
Prairie dropseed (SPHE)	224,000	25	5	25	5
Prairie sandreed (CALO)	275,000	30	5	25	4
Sand dropseed (SPCR)	5,680,000	70	0.5	70	0.5
Switchgrass (PAVI)	390,000	40	4.5	30	3.5
Native Grass-likes					
Fox sedge (CAVU2)	1,600,000	37	1	37	1
Slough sedge (CAAT2)	230,490	25	4.7	25	4.7
Native Forbs and Legumes					
Alexander					
Golden (ZIAU)	176,000	25	6.2	25	6.2
Heart-leaved (ZIAP)	180,000	25	6.1	25	6.1
American vetch (VIAM)	30,000	25	36	25	36
Aster					
Blue (SYLAL3)	880,000	30	1.5	30	1.5
Heath (SYER)	3,200,000	30	0.4	30	0.4
New England (SYNO2)	1,300,000	25	0.8	NR	NR
Black-eyed Susan (RUHI2)[3]	1,450,000	25	0.8	25	0.8
Black samson (ECAN2)	120,000	25	9	25	9
Blanket flower (GAAR)	157,000	25	7	25	7
Blue vervain (VEHA2)	1,488,000	34	1	34	1
Canada anemone (ANCA8)[3]	128,000	29	10	29	10
Canada tickclover (DECA7)	88,000	25	12.3	25	12.3
Columbine (AQCA)	362,000	25	3	25	3
Coneflower					
Grayhead (RAPI)	625,000	25	1.7	NR	NR
Prairie (Yellow) (RACO3)[3]	737,000	25	1.5	25	1.5
Cudweed sagewort (ARLU)[3]	4,000,000	25	0.3	25	0.3
Culver's root (VEVI4)	12,800,000	30	0.1	NR	NR
Cup plant (SIPE2)	22,400	10	9	NR	NR

Table 1. Full Seeding Rates [1,2]					
Species	Seeds/Pound	MLRA 55 A/B & 56 [4]		MLRA 53 A/B, 54 & 58 C/D [4]	
		Seed/SqFt	#PLS/Ac	Seed/SqFt	#PLS/Ac
Native Forbs and Legumes (cont.)					
Evening primrose (OEBI)	1,376,000	25.3	0.8	25.3	0.8
False boneset (EUPE3)	2,560,000	25	0.4	25	0.4
Gayfeather					
Dotted (LIPU)	136,000	25	8	25	8
Meadow (LILI)	160,000	25	6.8	25	6.8
Thickspike (LIPY)	136,000	25	8	NR	NR
Giant blue hyssop (AGFO)	1,440,000	25	0.8	25	0.8
Goldenrod					
Canada (SOCA6)	4,600,000	25	0.2	25	0.2
Missouri (SOMI2)	1,998,000	25	0.5	25	0.5
Stiff (SORI2)	772,000	25	1.4	25	1.4
Tall smooth (SOGI)	700,000	25	0.5	25	0.5
Harebell (CARO2)	14,400,000	10	0.03	10	0.03
Hoary vervain (VEST)	450,000	25	2.4	25	2.4
Illinois bundleflower (DEIL)	60,000	25	18	25	18
Indian breadroot (PEES)	17,600	10	24.8	10	24.8
Ironweed (VEFA2)	385,000	25	2.8	25	2.8
Joe Pye weed (EUMAB)	1,520,000	25	0.7	25	0.7
Lewis flax (LILE3)	287,000	25	3.8	25	3.8
Milkvetch					
Canada (ASCAC6)	266,000	25	4	25	4
Groundplum (ASCR2)	83,000	25	13.1	25	13.1
Milkweed					
Butterfly (ASTU)	67,000	25	16.2	25	16.2
Showy (ASSP)	85,000	25	13	25	13
Swamp (ASIN)	72,000	25	15	25	15
Partridge pea (CHFAF)	43,000	10	10	10	10
Pasque flower (PUPA5)	288,000	15	2.3	15	2.3
Plains coreopsis (COTI3)	1,650,000	25	0.7	25	0.7

Table 1. Full Seeding Rates [1,2]					
Species	**Seeds/Pound**	**MLRA 55 A/B & 56 [4]**		**MLRA 53 A/B, 54 & 58 C/D [4]**	
		Seed/SqFt	**#PLS/Ac**	**Seed/SqFt**	**#PLS/Ac**
Native Forbs and Legumes (cont.)					
Prairieclover					
Purple (DAPU5)	290,000	25	3.8	25	3.8
Silky (DAVI)	253,500	25	3.8	25	3.8
White (DAAL)	278,000	25	3.9	25	3.9
Prairie onion (ALST)	176,000	25	6.2	25	6.2
Prairie phlox (PHAN4)	304,000	28	4	28	4
Prairie smoke (GETR)	432,000	10	1.0	10	1.0
Purple meadow rue (THDA)	176,000	25	6.2	25	6.2
Rocky Mountain Bee plant (CLSE)	64,000	29.6	20	29.6	20
Scarlet globemallow (SPCO)	500,000	25	2	25	2
Shell-leaf penstemon (PEGR7)	273,000	25	4	25	4
Silvery lupine (LUAR3)	126,000	NR	NR	25	8
Sneezeweed (HEAU)	2,100,000	25	0.4	25	0.4
Spiderwort					
Long bract (TRBR)	166,000	25	7	25	7
Prairie (TROC)	166,000	25	7	25	7
Sunflower					
False (HEHES)[3]	60,000	25	18	25	18
Maximilian (HEMA2)	250,000	6	1	6	1
Sawtooth (HEGR)	630,000	25	1.7	NR	NR
Stiff (HEPAS)[3]	85,000	5	2.5	5	2.5
Western yarrow (ACMIO)[3]	2,800,000	25	0.4	25	0.4
Wild bergamot (MOFI)	1,200,000	25	0.9	25	0.9
Introduced Legumes					
Alfalfa (MESA)	210,000	30	6.5	25	5.5
Birdsfoot trefoil (LOCO6)	418,000	50	5	NR	NR
Cicer milkvetch (ASCI4)	134,000	30	10	25	8

Table 1. Full Seeding Rates [1,2]					
Species	**Seeds/Pound**	**MLRA 55 A/B & 56 [4]**		**MLRA 53 A/B, 54 & 58 C/D [4]**	
		Seed/SqFt	**#PLS/Ac**	**Seed/SqFt**	**#PLS/Ac**
Introduced Legumes (cont.)					
Clover					
Alsike (TRHY)	680,000	50	3	50	3
Red (TRPR2)	275,000	30	5	NR	NR
Strawberry (TRFR2)	300,000	25	3.5	25	3.5
Sweet (MEOF)	260,000	25	4	20	3
White / Ladino (TRRE3)	800,000	25	1.5	25	1.5
Sainfoin (ONVI)	18,500	15	35 (hull)	15	35 (hull)
Native Shrubs					
Buffaloberry (SHAR)	41,000	4	4.2	4	4.2
Chokecherry (PRVIV)	5,000	3	26	3	26
False indigo (AMNA)	52,000	30	25	25	21
Golden currant (RIAU)	240,000	30	5.5	25	4.5
Juneberry (AMAL2)	82,000	30	16	25	13
Leadplant (AMCA6)	200,000	30	6.5	25	5.4
Prairie rose (ROAR3)	45,000	30	29	25	24
Saltbush					
Fourwing (dewinged) (ATCA2)	52,000	7	6	7	6
Gardner (ATGA)	110,000	30	12	25	10
Western snowberry (SYOC)	74,400	30	17.5	25	14.6
Winterfat (KRLA2)	150,000	30	8.5	25	7
WY big sagebrush (ARTRW8)	2,466,000	NR	NR	28	0.5

Footnotes for Table 1.

[1] See individual practice specifications (e.g. 550 Range Planting) for planning and application details and requirements.

[2] For additional information see http://plants.usda.gov/.

[3] These species are limited to no more than 2% of the seeding mix.

[4] See map on page 1 or Major Land Resource Areas (MLRA) of North Dakota in FOTG - Section I - Maps.

Table 2. Approved Named Varieties [1]		
Species	**Recommended Varieties for North Dakota**	
Introduced Cool-Season Grasses		
Bromegrass	Meadow	Fleet, Paddock, Regar, Montana, MacBeth, Cache
	Smooth[1]	Carlton, Signal, Magna, Manchar, Badger, Radisson, Rebound, Beacon, Barton, Baylor, Saratoga, Lincoln, AC Rocket, Bravo, Polar, Jubilee, Alpha, Cottonwood, York
Creeping foxtail		Retain, Garrison
Hard fescue		Discovery, Aurora, Reliant, Durar
Timothy		Climax, Itasca, Winmor, Comtal, Goliath, Timfor, Toro
Wheatgrass	Crested	
	Type: Standard	Nordan, RoadCrest, Summit
	Fairway	Ephraim, Ruff, Parkway, Fairway, Douglas
	Hybrid	HyCrest II, HyCrest, NU-ARS AC2
	Green	NewHy, AC Saltlander
	Intermediate	Reliant, Clarke, Slate, Chief, Oahe, Haymaker, Beefmaker, Manifest, Rush [4]
	Pubescent	Manska, Greenleaf, Luna
	Siberian	Vavilov, P-27
	Tall	Orbit, Platte, Jose, Alkar
Wildrye	Altai	Pearl, Eejay, Prairieland, Mustang
	Dahurian	Arthur, James
	Mammoth	Volga
	Manystem	Shoshone
	Russian	Mankota, Tetracan, Bozoisky Select, Swift, Bozoisky II, Cabree, Mayak
Native Cool-Season Grasses		
Bluejoint		Common
Fowl bluegrass		Common
Green needlegrass		Lodorm, AC Mallard, Fowler
Mannagrass	American	Common
	Fowl	Common
Needle and thread		Common, AC Sharptail
Nutall's alkaligrass		Common
Porcupine grass		Common
Prairie junegrass		Common
Reed canarygrass		Palaton, Venture, Vantage, Rise, Rival, Chiefton, Marathon
Wheatgrass	Bluebunch	Goldar, Secar, Anatone, P-7, Whitmax
	Slender awned, bearded	Adanac, Pryor, Revenue, Primar, Firststrike
	Streambank/ Thickspike	Bannock, Critana, Sodar, AC Polar, Elbee
	Western	Rodan, Walsh, Flintlock, Rosana, W.R.Poole, Recovery
Whitetop (Sprangletop)		Common
Wildrye	Basin	Trailhead, Magnar, Continental, Washoe
	Beardless	Shoshone
	Canada	Mandan
	Virginia	Tober, Omaha
Native Warm-Season Grasses		
Alkali sacaton		Common
American sloughgrass		Common

Table 2. Approved Named Varieties [1]		
Species	**Recommended Varieties for North Dakota**	
Bluestem	Big	Sunnyview, Bison, Bonilla, Bounty, Champ
	Little	Badlands, Itasca
	Sand	Goldstrike, Garden
Buffalograss		Bowie, Cody
Grama	Blue	Bad River
	Sideoats	Killdeer, Pierre, Butte
Inland saltgrass		Common
Indian ricegrass		Rimrock, Nezpar
Indiangrass		Tomahawk
Prairie cordgrass		Red River
Prairie sandreed		Goshen, Bowman, Koch
Prairie dropseed		Common
Sand dropseed		Common
Switchgrass		Dacotah, Forestburg, Sunburst, Summer
Native Grass-likes		
Fox sedge (*Carex vulpinoidea*)		Common
Slough sedge (*Carex atherodes*)		Common
Native Legumes and Forbs		
Alexander	Golden	Common
	Heart-leaved	Common
American vetch		Common
Aster	Blue	Common
	Heath	Common
	New England	Common
Black-eyed Susan		Common
Black samson		Bismarck
Blanket flower		Meriwether
Blue vervain		Common
Canada anemone		Common
Canada tickclover		Common
Columbine		Common
Coneflower	Grayhead	Common
	Prairie (yellow)	Stillwater
Cudweed sagewort		Summit
Culver's root		Common
Cup plant		Common
Evening primrose		Common
False boneset		Common
Gayfeather	Dotted	Common
	Meadow	Common
	Thickspike	Common
Giant blue hyssop		Common
Goldenrod	Canada	Common
	Missouri	Common
	Stiff	Common
Harebell		Common

Table 2. Approved Named Varieties [1]		
Species	**Recommended Varieties for North Dakota**	
Native Legumes and Forbs (cont.)		
Hoary vervain		Common
Illinois bundleflower		Common
Indian breadroot		Common
Ironweed		Common
Joe Pye weed		Common
Lewis flax		Appar, Maple Grove
Milkvetch		
	Canada	Sunrise
	Groundplum	Common
Milkweed	Butterfly	Common
	Showy	Common
	Swamp	Common
	Tall smooth	Common
Partridge pea		Common
Pasque flower		Common
Plains coreopsis		Common
Prairie onion		Common
Prairie phlox		Common
Prairie smoke		Common
Prairieclover	Purple	Bismarck
	Silky	Common
	White	Antelope
Purple meadow rue		Common
Rocky Mountain Bee plant		Common
Scarlet globemallow		Common
Shell-leaf penstemon		Common
Silvery lupine		Common
Sneezeweed		Common
Spiderwort	Long bract	Common
	Prairie	Common
Sunflower	False	Common
	Maximilian	Medicine Creek
	Sawtooth	Common
	Stiff	Bismarck
Western yarrow		Great Northern, Eagle
Wild bergamot (Monarda)		Common
Introduced Legumes		
Alfalfa [2]		Winter Survival Index (WSI) of 2 or less [3]
Birdsfoot trefoil		Leo, Empire, Viking
Cicer milkvetch		Lutana, Monarch, Windsor
Clover	Alsike	Common
	Red	Common
	Strawberry	Common
Clover (cont.)	Sweet	Common

Table 2. Approved Named Varieties [1]		
Species	**Recommended Varieties for North Dakota**	
	White / Ladino	Common
Introduced Legumes (cont.)		
Sainfoin		Eski
Native Shrubs		
Buffaloberry		Sakakawea
Chokecherry		Common
Currant	Golden	Common
False indigo		Survivor
Fourwing saltbush	Dewinged	Wytana, Snake River
Gardner saltbush		Common
Juneberry		Common
Leadplant		Common
Prairie rose		Common
Western snowberry		Trapper
Winterfat		Open Range
WY big sagebrush		Common

Footnotes for Table 2.

[1] See individual practice specification (e.g. 512 – Pasture and HaylandPlanting) for planning and application details and requirements.

[2] A partial list of grazable type alfalfas can be found in the NDSU report, "Developing Alfalfa Adapted to Grazing in the Northern Great Plains".

[3] The following web sites are approved for use in determining alfalfa varieties that are acceptable and planners are strongly encouraged to use these web sites for selecting acceptable varieties: http://www.alfalfa.org/ or http://www.extension.umn.edu/agriculture/forages/variety-selection-and-genetics/#legumes . Alfalfa named varieties must have a Winter Survival Index (WSI) of 2 or less to meet specifications. The term winter hardiness rating is sometimes used synonymously with winter survival index, a number of 2 or less is acceptable. If the winter hardiness rating uses letters (e.g. EH, extremely hardy) those will not be acceptable, only a number of 2 or less will be accepted.

Generally, the higher the fall dormancy score, the greater the production potential of the alfalfa variety. However, the higher FDS, the shorter the life span/persistence of the alfalfa variety. Origin of non-varietal ('common') alfalfa types is limited to ND, SD, MN, MT, and the Canadian provinces of Alberta, Manitoba and Saskatchewan.

NOTE: Approved varieties which may not be shown on these web sites include Alogonquin, Anik, Blazer, Champ, Drylander, Grim, Ladak, Ladak 65, Prowler, Rambler, Rangelander, Ramsey, Ranger, Spredor 2, Teton, Travois, Vernal, and Wrangler. Alfalfa varieties not listed here or shown on these web sites will require documentation from the distributor or developer to determine suitability. Consult the appropriate area or state office specialist for assistance as needed.

[4] Limited ND production trials indicate Rush intermediate wheatgrass is less productive than other approved intermediate varieties; therefore, Rush will be used for conservation cover plantings only. In addition, Rush is a Protected Plant Variety (PPV) and should only be available as commercial certified seed as designated by blue seed tag.

Table 3. Grass and Grass-like Species Characteristics									
Species	**Growth Characteristics [1,10]**	**Drought Tolerance [2]**	**Flood Tolerance [3]**	**Saline Tolerance (dS/m) [4]**	**Recovery After Harvest**	**Season Of Use [6]**	**Longevity [7]**	**Grazing Preference [8]**	**Stand Establishment [9]**
Introduced Grasses									
Bromegrass									
Meadow (BRBR14)	B/M	Fair	Fair	5-10	Good	Sp, F	Medium	High	Medium
Smooth (BRIN2)	R/M	Fair	Good	5-10	Good	Sp, F	Long	High	Rapid
Creeping foxtail (ALAR)	R/M	Poor	Good	10-15	Good	Sp, Su, F	Long	High	Medium
Hard fescue (FEBR7)	B/S	Good	Fair	NR	Good	Sp, F	Medium	Medium	Medium
Timothy (PHPR3)	B/M	Poor	Good	NR	Good	Sp, F	Short	Medium	Rapid
Wheatgrass									
Green (ELHO3)	B/M	Fair	Good	15-25	Good	Sp	Long	High	Medium
Crested (AGCR)	B/M	Good	Poor	10-15	Fair	Sp, F	Long	Medium	Rapid
Intermediate (THIN6)	R/M	Fair	Fair	10-15	Fair	Sp	Long	High	Medium
Pubescent (THIN6)	R/M	Fair	Fair	10-15	Fair	Sp	Long	High	Medium
Siberian (AGFR)	R/M	Good	Poor	NR	Fair	Sp, F	Long	Medium	Rapid
Tall (THPO7)	B/T	Fair	Good	15-25	Fair	Sp, F, W	Medium	Low	Medium
Wildrye									
Altai (LEAN3)	B/M	Fair	Good	15-25	Poor	Sp, F, W	Medium	Medium	Slow
Dahurian (ELDA3)	B/M	Fair	Fair	NR	Good	Sp	Short	Medium	Rapid
Mammoth (LERA5)	R/T	Good	Poor	NR	Fair	Sp	Long	Low	Slow
Manystem (LEMU11)	R/M	Fair	Fair	15-25	Poor	Su, F	Long	Medium	Slow
Russian (PSJU3)	B/M	Good	Fair	15-25	Good	Sp, F, W	Medium	High	Medium
Native Cool-Season Grasses									
Bluejoint (CACA4)	R/M	Poor	Good	NR	Fair	Sp,Su	Long	Medium	Medium
Fowl bluegrass(POPA2)	B/M	Poor	Good	Poor	Poor	Sp, F	Med	Low	Medium
Green needlegrass (NAVI4)	B/M	Good	Fair	NR	Good	Sp, F	Long	High	Medium
Mannagrass									
American (GLGR)	R/T	Poor	Good	NR	NR	NR	NR	NR	NR
Fowl (GLST)	R/T	Poor	Good	NR	Poor	NR	Short	High	Medium
Needle and thread (HECO26)	B/M	Good	Fair	NR	Fair	Sp	Long	Medium	Slow
Nutall's Alkaligrass (PUNU2)	B/S	Poor	Good	15-25	Fair	Sp	Long	High	Slow
Porcupinegrass (HESP11)	B/M	Good	Fair	NR	Good	Sp	Long	Medium	Slow
Prairie junegrass (KOMA)	B/S	Good	Poor	NR	Poor	Sp	Long	High	Slow
Reed canarygrass (PHAR3)	R/T	Fair	Good	5-10	Good	Sp, Su	Long	High	Medium
Wheatgrass									
Bluebunch (PSSP6)	B/M	Good	Poor	NR	Poor	Sp, Su, F	Long	High	Medium

Table 3. Grass and Grass-like Species Characteristics									
Species	**Growth Characteristics** [1,10]	**Drought Tolerance** [2]	**Flood Tolerance** [3]	**Saline Tolerance (dS/m)** [4]	**Recovery After Harvest**	**Season Of Use** [6]	**Longevity** [7]	**Grazing Preference** [8]	**Stand Establishment** [9]
Native Cool-Season Grasses (cont.)									
Wheatgrass (cont.)									
Slender/Awned/Bearded (ELTR7)	B/M	Good	Good	15-25	Fair	Sp, Su, F	Short	Medium	Rapid
Streambank/Thickspike (ELLAL)	R/M	Good	Fair	10-15	Fair	Sp. F	Long	Medium	Medium
Western (PASM)	R/M	Good	Good	15-25	Fair	Sp, Su, F	Long	Medium	Medium
Whitetop (Sprangletop) (SCFE)	R/T	Poor	Good	NR	NR	NR	Medium	NR	NR
Wildrye									
Basin (LECI4)	B/T	Good	Fair	NR	Fair	Sp, F	Long	High	Slow
Beardless (LETR5)	R/M	Fair	Fair	15-25	Poor	Su, F	Long	Medium	Slow
Canada (ELCA4)	B/M	Fair	Good	10-15	Fair	Sp, F	Short	Medium	Rapid
Virginia (ELSU)	B/M	Fair	Good	Poor	Poor	Sp	Short	Medium	Rapid
Native Warm-Season Grasses									
Alkali sacaton (SPAI)	B/E	Good	Fair	15-25	Fair	Sp, Su	Medium	Medium	Slow
American sloughgrass (BESY)	St/S	Poor	Good	NR	Poor	NR	NR	NR	NR
Bluestem									
Big (ANGE)	R/T	Fair	Good	NR	Good	Su	Long	High	Slow
Little (SCSC)	B/M	Good	Poor	NR	Fair	Su, F	Long	Medium	Medium
Sand (ANHA)	R/T	Good	Fair	NR	Fair	Su, F	Long	High	Slow
Buffalograss (BODA2)	St/S	Good	Poor	10-15	Fair	Su	Long	High	Medium
Grama									
Blue (BOGR2)	B/S	Good	Poor	NR	Poor	Su	Long	High	Medium
Sideoats (BOCU)	R/S	Good	Poor	NR	Fair	Su, F	Long	High	Medium
Inland saltgrass (DISP)	R/S	Medium	Good	15-25	Poor	Sp, Su, F	Long	Low	Slow
Indiangrass (SONU2)	R/T	Fair	Good	NR	Good	Su, F	Long	High	Medium
Indian ricegrass (ACHY)	B/M	Good	Poor	NR	Fair	Su	Long	High	Slow
Prairie cordgrass (SPPE)	R/T	Poor	Good	10-15	Fair	Sp	Long	Medium	Slow
Prairie sandreed (CALO)	R/T	Good	Poor	NR	Fair	Su, F	Long	Medium	Slow
Prairie dropseed (SPHE)	B/M	Fair	Good	NR	Fair	Su	Long	Medium	Slow
Sand dropseed (SPCR)	B/M	Good	Poor	NR	Poor	Su	Short	Low	Rapid
Switchgrass (PAVI)	R/T	Fair	Good	5-10	Fair	Su, F	Long	Medium	Medium
Native Grass-likes									
Fox sedge (CAVU2)	B/S	Poor	Good	None	Poor	Sp	Long	Medium	Medium
Slough sedge (CAAT2)	R/M	Poor	Good	None	Poor	Sp, Su	Long	Low	Low

Table 4. Pollinator / Forb Species Characteristics											
Species	**Growth Character-istics[1,10]**	**Establish-ment List[12]**	**Drought Tolerance [2]**	**Flood Tolerance [3]**	**Saline Tolerance (dS/m) [4]**	**Recovery After Harvest**	**Season of Use [6]**	**Longevity[7]**	**Grazing Preference[8]**	**Stand Establish-ment[9]**	**Bloom Period[11]**
Native Forbs/Legumes											
Alexander											
Golden (ZIAU)	E/P	B	Poor	Fair	NR	NR	Sp, Su	Medium	NR	Medium	Er
Heart-leaved (ZIAP)	E/P/M/B	B	Fair	Fair	Poor	Slow	Sp, Su	Medium	Medium	Medium	Er / Mi
American vetch (VIAM)	Pr/P	A	Good	Poor	Poor	NR	NR	Medium	NR	Medium	Er / Mi
Aster											
Blue (SYLAL3)	E/P	A	Fair	Poor	None	Poor	NR	Short	NR	NR	L
Heath (SYER)	E/P	B	Good	Fair	NR	NR	Su	Long	Low	NR	Mi / L
New England (SYNO2)	E/P/R	A	Poor	Good	NR	NR	NR	Long	NR	Medium	Mi / L
Black-eyed Susan (RUHI2)	E/P	A	Good	Good	Poor	NR	NR	Short	NR	Rapid	Mi / L
Black samson (ECAN2)	E/P	A	Good	Poor	Poor	NR	NR	Long	NR	Slow	Mi / L
Blanketflower (GAAR)	E/P	A	Good	Fair	2-6	NR	NR	Medium	NR	Medium	Mi
Blue vervain (VEHA2)	E/P	B	NR	NR	NR	NR	NR	NR	NR	NR	Mi / L
Canada anemone (ANCA8)	P/R/M	A	Fair	NR	NR	Poor	NR	Medium	NR	NR	Er / Mi
Canada tickclover (DECA7)	E/P	A	Fair	Fair	NR	NR	Sp, Su	Medium	Medium	NR	Mi
Columbine (AQCA)	P/M	B	Fair	NR	NR	NR	NR	Medium	NR	Rapid	Er / Mi
Coneflower											
Grayhead (RAPI)	E/P/T	A	Good	Fair	NR	Poor	Sp, Su	Medium	Medium	Medium	Mi / L
Prairie (Yellow) (RACO3)	E/P	A	Good	Fair	2-6	NR	NR	Long	NR	Medium	Mi
Cudweed sagewort (ARLU)	E/P	B	Good	Poor	NR	NR	NR	Long	NR	Medium	L
Culver's root (VEVI4)	E/P	B	Fair	Fair	NR	NR	NR	Long	NR	NR	Mi
Cup plant (SIPE2)	E/P/T	A	Poor	Good	Poor	NR	NR	Long	NR	Medium	Mi / L
Evening primrose (OEBI)	Bi/M	B	Medium	NR	None	Slow	NR	Short	NR	Rapid	Mi / L
False boneset (EUPE3)	E/P	A	NR	NR	NR	NR	NR	NR	NR	NR	Mi /L
Gayfeather											
Dotted (LIPU)	E/P	A	Good	Poor	Poor	NR	NR	Long	Fair	Slow	Mi / L
Meadow (LILI)	E/P/T	B	Good	Good	Poor	Slow	Su, F	Long	Fari	Medium	Mi / L
Thickspike (LIPY)	E/P	B	Poor	Fair	Poor	Poor	Su	Medium	Fair	Medium	Mi / L
Giant blue hyssop (AGFO)	E/P/R	A	Poor	Fair	NR	NR	NR	Medium	Fair	Rapid	Mi / L
Goldenrod											
Canada (SOCA6)	E/P	B	Fair	NR	NR	Fair	NR	Long	NR	NR	Mi / L
Missouri (SOMI2)	E/P	A	Good	NR	NR	Poor	NR	Short	NR	NR	Mi / L
Stiff (SORI2)	E/P/B	A	Good	NR	NR	Fair	NR	Medium	NR	NR	Mi / L
Tall smooth (SOGI)	E/P/B	B	Medium	NR	NR	NR	NR	Medium	NR	NR	L

Table 4. Pollinator / Forb Species Characteristics											
Species	**Growth Characteristics[1,10]**	**Establishment List[12]**	**Drought Tolerance [2]**	**Flood Tolerance [3]**	**Saline Tolerance (dS/m) [4]**	**Recovery After Harvest**	**Season of Use [6]**	**Longevity[7]**	**Grazing Preference[8]**	**Stand Establishment[9]**	**Bloom Period[11]**
Native Forbs/Legumes (cont.)											
Harebell (CARO2)	E/P/R/S	B	Good	Poor	Poor	N/A	N/A	Long	N/A	Slow	Mi / L
Hoary vervain (VEST)	E/P	A	NR	NR	NR	NR	NR	NR	NR	NR	Mi / L
Illinois bundleflower (DEIL)	E/P	A	Fair	Good	Poor	Fair	Sp, Su	Short	High	Rapid	Mi / L
Indian breadroot (PEES)	P/S	B	Good	Poor	Poor	Slow	Su, F	Long	Low	Medium	Er / Mi
Ironweed (VEFA2)	E/P	A	Fair	Good	NR	Fair	Sp, Su	Short	High	Rapid	Mi / L
Joe Pye weed (EUMAB)	E/P	B	Fair	Good	NR	NR	NR	Medium	NR	NR	Mi / L
Lewis flax (LILE3)	E/P	A	Good	Fair	2-6	NR	NR	Medium	NR	Rapid	Er
Milkvetch											
Canada (ASCAC6)	E/P	A	Fair	Good	2-6	NR	NR	Short	NR	Medium	Mi
Groundplum (ASCR2)	P/Pr/S	B	Good	Poor	Poor	Slow	Su, F	Long	High	Medium	Er / Mi
Milkweed											
Butterfly (ASTU)	E/P	A	Good	Poor	None	Poor	Sp, Su	Medium	NR	NR	Er / Mi / L
Showy (ASSP)	E/P	B	Low	NR	NR	Poor	NR	Long	NR	NR	Er / Mi
Swamp (ASIN)	E/P	A	Poor	NR	NR	Poor	NR	Medium	NR	NR	Mi / L
Partridge pea (CHFAF)	E/P	B	NR	NR	NR	NR	NR	NR	NR	NR	L
Pasque flower (PUPA5)	P/B/S	B	Good	Poor	Poor	Slow	Sp, Su	Long	Low	Slow	Er
Plains coreopsis (COTI3)	E/A	A	Good	Good	NR	NR	NR	Short	NR	Rapid	Er / Mi
Prairieclover											
Purple (DAPU5)	E/P	A	Good	Fair	2-6	NR	NR	Medium	NR	Medium	Mi
Silky (DAVI)	E/P	A	Good	Poor	NR	NR	NR	Long	High	Medium	Mi / L
White (DAAL)	E/P	A	Good	Fair	NR	NR	NR	Medium	NR	Medium	Mi / L
Prairie onion (ALST)	E/P	B	Good	Poor	NR	NR	NR	NR	NR	NR	Mi
Prairie phlox (PHAN4)	P/R/M	B	NR	NR	NR	NR	Sp, Su	Long	Fair	Slow	Mi
Prairie smoke (GETR)	P/R/S/B	B	Fair	Poor	Poor	Slow	Sp, Su	Medium	Low	Slow	Er
Purple meadow rue (THDA)	E/P	B	Poor	Good	NR	NR	NR	NR	NR	NR	Mi
Rocky Mountain Bee plant (CLSE)	A/L/T	A	Low	NR	NR	Slow	NR	Short	Low	Rapid	Er
Scarlet globemallow (SPCO)	E/P	A	Good	Poor	NR	Good	NR	Short	Fair	NR	Mi
Shell-leaf penstemon (PEGR7)	E/P	A	Good	Poor	NR	NR	NR	Short	NR	Medium	Er
Silvery lupine (LUAR3)	E/P	B	Fair	NR	NR	Good	NR	Short	NR	NR	Er / Mi
Sneezeweed (HEAU)	E/P	B	Poor	NR	NR	Poor	Sp, Su	Medium	NR	NR	L
Spiderwort											
Long bract (TRBR)	E/P/R	B	NR	NR	NR	NR	NR	NR	NR	NR	Er / Mi
Prairie (TROCO)	E/P	B	Good	Good	NR	NR	NR	NR	NR	NR	Er / Mi / L

Table 4. Pollinator / Forb Species Characteristics											
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Native Forbs/Legumes (cont.)											
Sunflower											
False (HEHES)	E/R	A	Good	NR	None	Poor	NR	Short	NR	NR	Mi / L
Maximilian (HEMA2)	E/P/R	A	Poor	Good	2-6	NR	NR	Long	NR	Medium	Mi /L
Sawtooth (HEGR4)	E/P/R	B	Fair	NR	NR	Poor	NR	Medium	NR	NR	Mi / L
Stiff (HEPAS)	E/P/R	A	Fair	NR	NR	Poor	NR	Long	High	Slow	Mi / L
Western yarrow (ACMIO)	E/P	A	Good	Good	2-6	NR	NR	Long	NR	Medium	Er / Mi
Wild bergamot (MOFI)	R/P	A	Poor	Good	NR	Poor	Sp	Medium	Medium	Medium	Mi / L
Introduced Legumes											
Alfalfa (MESA)	E/P	A	Good	Poor	5-10	Good	Sp, Su	Medium	High	Rapid	Er / Mi /L
Birdsfoot trefoil (LOCO6)	Pr/P	A	Fair	Fair	5-10	Good	Sp, Su	Medium	High	Rapid	Er
Cicer milkvetch (ASCI4)	Pr/P	A	Good	Fair	5-10	Good	Sp	Long	High	Medium	Mi
Clover											
Alsike (TRHY)	Pr/P	A	Poor	Good	5-10	Good	Sp, Su	Short	High	Medium	Mi
Red (TRPR2)	Pr/P	A	Fair	Fair	5-10	Fair	Sp, Su	Short	High	Medium	Er / Mi
Strawberry (TRFR2)	E/P	A	Fair	Good	15-25	Fair	Sp, Su	Medium	Medium	Rapid	Er / Mi
Sweet (MEOF)	E/Bi	A	Good	Fair	5-10	Poor	Sp, Su	Medium	Medium	Rapid	Mi
White / Ladino (TRRE3)	Pr/P	A	Poor	Good	5-10	Fair	Sp, Su	Short	High	Medium	Er / Mi / L
Sainfoin (ONVI)	E/P	A	Good	Poor	NR	Fair	Sp, Su	Medium	High	Slow	Er
Native Shrubs											
Buffaloberry (SHAR)	E/P/R	A	Good	Poor	8-15	NR	NR	Long	NR	Slow	Er
Chokecherry (PRVIV)	E/P/R	A	Fair	Fair	4-8	NR	NR	Long	NR	Slow	Er
False indigo (AMFR)	E/P	A	Poor	Good	NR	NR	NR	Medium	NR	Slow	Mi
Golden currant (RIAU)	E/P	A	Good	Fair	8-15	NR	NR	Medium	NR	Slow	Er
Juneberry (AMAL2)	E/P/R	A	Poor	Good	4-8	NR	NR	Long	NR	Slow	Er
Leadplant (AMCA6)	E/P	A	Good	Poor	NR	NR	NR	Long	NR	Slow	Mi / L
Prairie rose (ROAR3)	E/P/R	A	Good	Fair	NR	NR	NR	Long	NR	Slow	Er / Mi
Saltbush											
Fourwing, dewinged (ATCA2)	E/P	A	Good	Poor	8-15	NR	NR	Long	NR	Slow	Mi
Gardner (ATGA)	E/P	A	Good	Poor	8-15	NR	NR	Long	NR	Slow	Mi
Western snowberry (SYOC)	E/P/R	A	Fair	Fair	NR	NR	NR	Long	NR	Slow	Er / Mi
Winterfat (KRLA2)	E/P	A	Good	Poor	NR	NR	NR	Long	NR	Slow	Er
WY big sagebrush (ARTRW8)	E/P	A	Good	NR	NR	NR	NR	Long	NR	NR	L

Footnotes for Table 3 and Table 4.

[1]For additional information refer to the USDA Plants Database at: http://plants.usda.gov/.

[2]**Drought Tolerance**: Based on species being on an adapted site.

[3]**Flood Tolerance**: Good = 28-42 days; Fair = 14-28 days; Poor = less than 14 days. Creeping foxtail and reed canarygrass can tolerate up to 60 days.

[4]**Plant salinity tolerance** ratings are based upon saturated paste measurements in decisiemens per meter (dS/m). USDA-NRCS March 2007. Plant Materials for Salt-Affected Sites in the Northern Great Plains. Soil surface layer salinity measurements may be taken in the field using a 1:1 solution and a handheld EC Meter. To convert EC Meter readings to dS/m, multiply meter reading by 0.5.

[5]**Recovery after Harvest**: Based on adequate soil moisture.

[6]**Season of Use**: Sp – spring; Su – summer; F – fall; W – winter.

[7]**Longevity**: Short 1-4 years; Medium 5-10 years; Long – longer than 10 years with proper management.

[8]**Grazing Preference**: Based on season of rapid growth. Palatability is relative, depending on quantity, quality, and availability of other species. Grazing preference shown is for cattle and will vary for other species of domestic livestock or wildlife.

[9]**Stand Establishment**: Rapid – usually 1 growing season after planting; Medium – usually 1-2 growing seasons after planting; Slow usually 2-3 growing seasons after planting.

[10]**Growth Characteristics Table**

Growth Characteristics	
A	Annual
B	Bunch
Bi	Biennial
E	Erect
M	Mid 18" - 36"
P	Perennial
Pr	Prostrate
R	Rhizomatous
S	Short < 18"
St	Stoloniferous
T	Tall > 36"
NR	Not Rated

[11]**Bloom Period Table**

Bloom Period		
Er	Early bloom period	April - May
Mi	Mid-bloom period	May - July
L	Late bloom period	July - September

[12]**Establishment List:** Pollinator species listed as "A" have demonstrated consistent establishment and persistence on various sites state-wide, based on field reviews of pollinator plantings. At least 75% of native forbs in a mix must come from List A. Additional species to consider for pollinator plantings are noted as "B". Grass species do not have a rating.