Appendix I

Storm Water Pollution and Prevention Plan

STORMWATER POLLUTION PREVENTION PLAN

Hawkeye Pipeline

April 29, 2014

Prepared for:

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CONTENTS

FIGURES

APPENDICES

INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) was prepared in accordance with the requirements of the North Dakota Pollutant Discharge Elimination System (NDPDES) Permit NDR10-0000 (Permit). The objective of this Plan is to identify potential sources of stormwater pollution and ensure that Best Management Practices (BMPs) are implemented to minimize the contribution of pollutants to the receiving waters of the State.

This Plan will be made available to the Environmental Protection Agency, the operator of the municipal system (in the case of a discharge to a municipal storm sewer system), or other regulatory agencies upon request. This Plan will be available at the site during normal working hours or with the individual responsible for overseeing implementation of the Plan.

This Plan will be amended whenever there is a significant change in the design, construction, operation, or maintenance that could cause potential discharge of pollutants to surface waters. This Plan will also be amended if it is found to be ineffective in controlling pollutants present in stormwater.

The Hawkeye Pipeline Project is currently in the permitting phase. This plan will be updated with additional site-specific information once the final design is complete.

1. SITE DESCRIPTION

a. Description and Type of Construction Activity

The project consists of the construction of pipeline within a 26-mile long right-of-way (ROW) connecting Bakken production fields south of Lake Sakakawea to existing processing facilities north of the lake. Two pipelines will be constructed and will transport crude oil from the proposed Hawkeye Central Facility Expansion near Keene, North Dakota, and natural gas from the Hawkeye Compressor Station near Charlson, North Dakota to the Ramberg Truck Facility and the Silurian Compressor Station near Tioga, North Dakota, respectively. In addition, an existing pipeline will be converted from a natural gas pipeline to a natural gas liquids pipeline. Activity will also involve the construction of pipeline-associated equipment such as pig launchers and valves.

b. Total Site Area and Area of Disturbance

The pipeline will traverse from McKenzie County on the south side of Lake Sakakawea to Williams County on the north side. The area expected to be disturbed by excavation, grading, grubbing, or other construction related activities is approximately 252 acres. The construction ROW will vary from 100-feet wide on private and state lands to 50-feet wide on federal lands and at crossings of wetlands and riparian areas. Road and river crossings will be bored or utilize existing pipelines. The actual disturbance area may vary depending on the length of the bored road and river crossings and final permitted pipeline route.

c. Proposed Timetable of Activities

Construction begins with clearing and grubbing of the ROW. A trench is excavated and topsoil is stockpiled separately from subsoil. Once the pipeline is constructed, the area is backfilled with subsoil or hauled-in fill material. Topsoil is re-spread and the area is stabilized and seeded. A proposed timetable will be included once the project has received final permits for construction.

d. Soil Description

According to the Natural Resources Conservation Service, United States Department of Agriculture (USDA) Web Soil Survey (April 24, 2014), the dominant soil type along the ROW in McKenzie County is Williams-Zahl loams. The dominant soil type along the ROW in Williams County are Williams-Zahl-Zahill complex and Zahl-Williams loams. Erosion is a concern with these soils on steep areas.

e. Receiving Waters

Stormwater from the disturbance areas drain to tributaries of the Missouri River and Lake Sakakawea.

f. Site Map

See **Figure 1** for a Pipeline Route Map. Pipeline alignment sheets will be added once the final design is complete. These will illustrate existing grades of the pipeline route, construction site boundaries, and areas of soil disturbance. Final ROW grades will match the existing grade. Flow direction and structural controls will be updated on the sheets throughout the life of the project as determined by inspections.

g. Impaired Surface Water Body Within 2,000 Feet

According to the North Dakota Department of Health website (www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm.), Lake Sakakawea does not support fish consumption due to methylmercury contamination. This project is not expected to cause additional methylmercury impairment to the lake.

2. OPERATIONAL CONTROLS

a. Responsible Personnel

The following individuals are responsible for implementing, maintaining, and revising this Plan:

Hess Contacts	Primary Phone Number	Secondary Phone Number
Murray Jackson Project Manager	(713) 496-6168	(713) 823-6718
Brandon Herda Manager, EHS-Infrastructure	(701) 420-7078	(832)-209-0178
Antoine Wright EHS Rep-Infrastructure	(828) 702-0089	N/A
Victoria Siemieniewski Regulatory Analyst	(701) 420-7002	(701) 389-7535

Construction contractor contacts will be added once contracts have been awarded for the pipeline construction work.

b. Good Housekeeping

Litter, debris, and parts will be properly handled to minimize exposure to Stormwater. The following are good housekeeping practices that will be implemented at the site to prevent pollution to the surface waters.

Construction Areas

- An operator will always be present during fueling of vehicles or equipment.
- Fueling will take place away from stream crossings and outside of drainage pathways.

Material Staging Areas

- Stormwater exposure to staging areas will be minimized when possible (i.e. keeping drums closed, providing rain cover, etc.).
- Materials onsite will be kept in their original containers or placed in properly labeled containers.
- Partially empty containers will be recycled or returned to the manufacturer.

Waste Materials

- Adequate waste receptacles will be provided for disposal of trash and general waste.
- All waste materials, including sanitary wastes, will be transported to an appropriate licensed disposal/recycling facility.
- Sanitary facilities will be located away from drainage pathways.

Dust and Sediments

- Vehicular traffic will be minimized to reduce dust and prevent soil erosion. Vehicles will be parked in designated areas.
- Disturbed soils will be watered if necessary to reduce dust during dry periods.
- Excessive mud will be removed from vehicles or equipment prior to leaving the site.
- Sediment tracked onto paved surfaces will be removed as soon as practicable.

c. Preventive Maintenance Practices

All erosion and sediment control measures identified in this Plan will be maintained in effective operating condition. If site inspections identify BMPs not operating effectively, maintenance will be arranged and accomplished within 24 hours of discovery or as soon as practicable. BMP maintenance requirements are outlined in **Appendix A**. Preventive maintenance will also be performed on equipment used or stored on site.

d. Spill Prevention and Response

Employees are trained in proper methods for cleanup of spills of various products used on site. Employees are aware of the location of related information, materials, and equipment necessary for storage requirements, spill containment, and cleanup of potential spills. All spills will be managed in accordance with the project's Emergency Response Plan.

All vehicles and equipment will be checked for leaking oil or other fluids. Leaks will be repaired immediately. Vehicles or equipment unfit for use will be removed from the project site. Vehicles and equipment will be fueled and lubricated a sufficient distance from any drainage pattern.

A hydrovac may be used during pipeline construction. In order to prevent an illicit discharge associated with hydrovac spoils, all hydrovac discharges will be performed in accordance with the Hydrovac Spoil Discharge Specification, **Appendix B**.

e. Employee Training

Hess provides SWPPP training to applicable employees on an annual basis. Employee training informs personnel of their responsibility in implementing the BMPs and controls included in this Plan.

f. Concrete Wash Water, Grindings, and Slurry

Concrete wash water, grindings, and slurry will not be discharged to waters of the State, storm sewer systems, or be allowed to drain onto adjacent properties. An area located away from drainage pathways will be designated for concrete washout, if necessary. The area will be sufficient to contain the wash water and residual concrete.

g. Dewatering or Basin Draining

Dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) related to construction activities will be managed such that the discharge does not adversely affect the receiving water or downstream landowners.

- Dewatering will be limited to stormwater and groundwater that may collect on site. A separate permit must be obtained to discharge water from other sources such as hydrostatic testing, contaminated groundwater, or surface water.
- The discharge will be operated to minimize the release of sediment and adequate BMPs will be provided where necessary to minimize erosion due

to the discharge. Discharges will not lead to the deposition of sediment within stormwater conveyance systems or surface waters. Discharges will not cause or potentially cause a visible plume within a surface water body.

- Inspections will be conducted daily at the dewatering site, areas where BMPs are being implemented, and the discharge location. Inspections and corrective actions will be recorded. Dewatering will be performed and documented in accordance with the Hess Water Discharge Specification, **Appendix C**.

3. EROSION AND SEDIMENT CONTROLS

a. Sediment Controls

Sediment controls such as water bars, silt fences, straw wattles, vegetative buffer strips, berms, etc. will be used for all down slope boundaries of the disturbed area and for other side slope boundaries as needed. Sediment Control Details are provided in **Appendix A**.

b. Temporary Erosion Protection

Temporary erosion protection (such as cover crop planting or mulching) or permanent cover will be provided in areas where construction activities have been completed or temporarily ceased. For areas with a continuous positive slope within 200 lineal feet of a surface water, this will be accomplished within 21 days. These areas include graded slopes, pond embankments, ditches, berms, and soil stockpiles. Typical erosion control details are provided in **Appendix A.**

c. Control Measures

Erosion control devices will be properly selected, installed, and maintained per the manufacturer's specifications and accepted engineering practices. If deviation from the manufacturer's specifications occurs, a rationale will be provided to justify the deviation.

d. Off-Site Sediment Accumulation

If sediment escapes from the site, off-site sediment accumulation will be removed as soon as practicable. In the event that sediment escapes from the site, this Plan will be revised to prevent further accumulation of sediments off-site.

e. Stormwater Controls

Stormwater controls are expected to withstand and function properly during precipitation events up to the 2-year, 24-hour storm event. The 2-year, 24-hour storm event in the project area is approximately 1.9 inches.

f. Discharge to Waters with TMDL Allocation

The surface waters impacted by this project do not have a Total Maximum Daily load (TMDL) allocation for sediment, suspended solids or turbidity.

4. STORMWATER MANAGEMENT

After construction, the pipeline ROW will be restored to its previous condition. No permanent stormwater features will be incorporated within the pipeline ROW.

5. MAINTENANCE

All erosion and sediment control measures and other protective measures identified in this Plan will be maintained in effective operating condition. If site inspections identify BMPs that are not operating effectively, maintenance will be performed. Refer to **Appendix A** for BMP maintenance requirements.

6. INSPECTIONS

Sediment control structures will be inspected every 14 days or within 24 hours after each 0.5-inch (or greater) rainfall event. The rainfall data will be obtained from an on-site rain gauge or the North Dakota Agricultural Weather Network website (http://ndawn.ndsu.nodak.edu/). Inspections will be conducted by personnel familiar with the site and Permit. Inspections and maintenance performed will be recorded on the Site Inspection Form provided in **Appendix D**.

During inspections, the erosion and sediment control measures will be observed to ensure proper operation condition. Inspections will include discharge outlets from storage areas, and vehicle maintenance areas. These areas will be inspected for evidence or potential for pollutants entering a drainage system. If necessary, this Plan will be revised based on the observations and deficiencies noted during the inspection.

7. PLAN CERTIFICATION

This Plan shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official.

This Plan 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:

1. The authorization is made in writing by a person described above and submitted to the Department; and

2. 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.

Certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

_____
Hess Director

_____
Date

FIGURE 1

Pipeline Route Map

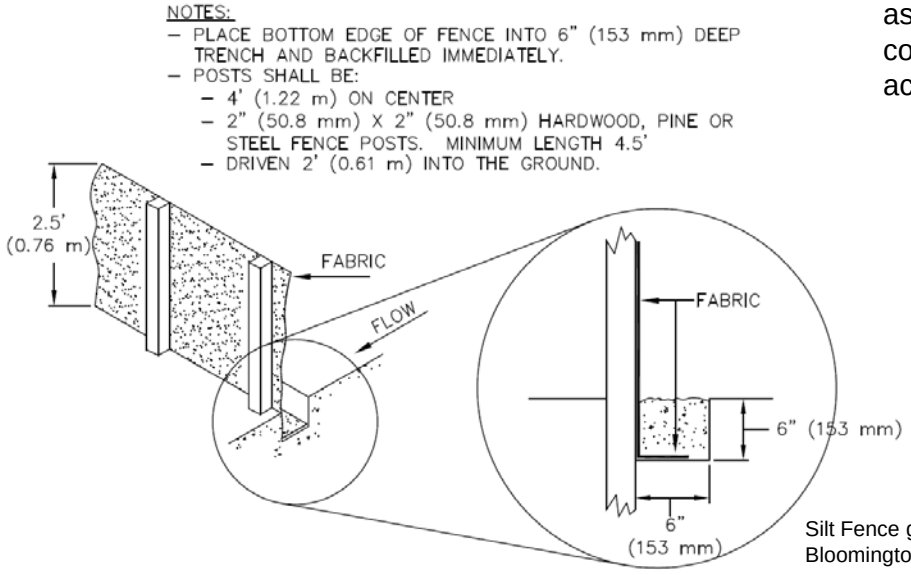

Silurian
Ramberg Truck Facility
Williams County
Mountrail County
Hofflund
North River Crossing
Lake Sakakawea
Missouri River
North Charlson
McKenzie County
Hawkeye
Hawkeye Central
Fort Berthold Indian Reservation
Canada
Divide
Burke
Renville
Williams
Mountrail
Ward
McKenzie
McLean
Dunn
Mercer
Billings
MONTANA
NORTH DAKOTA
LEGEND
Project Features
Hawkeye Proposed Route
Existing Facility
Existing Compressor Station
Figure 1
From Hawkeye Pipeline Project Biological Assessment/Biological Evaluation Draft February 2014
0
1
2
Miles

APPENDIX A

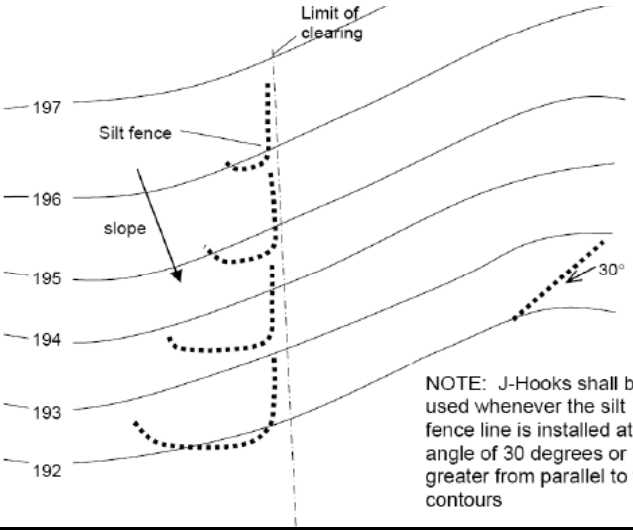
BMP Details

To be installed based on locations shown in the Site Specific Construction Documents or additional areas experiencing erosion as discovered during SWPPP inspections. Silt Fence will generally be installed downstream of well pad and access road grading areas where sediment could potentially leave the site. Silt Fence will also be utilized along pipeline construction routes in areas where vegetative buffers are not adequate or to protect stream crossings. Other areas to be protected by silt fence are diversion ditch exit points, culverts, and road ditches. In these areas the fence shall be installed in a J-Hook formation as shown below. Temporary soil stockpiles will be protected by silt fence only when necessary when located on a slope leaving the site or nearby waterways or ditches. Vegetative buffers should be used alongside silt fence whenever possible. Silt fence is to be removed once the site is determined to have reached final stabilization.

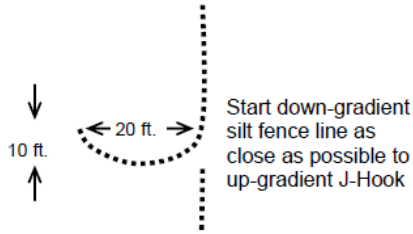
Sediment must be removed from behind silt fence once it reaches 1/3 the height of the fence. Silt fence must be replaced if fabric becomes worn from excessive wind or UV exposure. Repairs must be made within 24 hours of discovering that the silt fence needs maintenance or as soon as field conditions allow access.



Silt Fence graphic from City of Bloomington, MN Construction Details



NOTE: J-Hooks shall be used whenever the silt fence line is installed at an angle of 30 degrees or greater from parallel to the contours



Typical J-Hook Dimensions

Minimum width of J-Hook recommended at 20 ft with a depth of 10 ft. Where space is limited (e.g., along narrow rights of way), narrower hooks can be used with a higher spacing frequency.

J-Hook graphics from CNMI/Guam Stormwater Management Manual, May 2010

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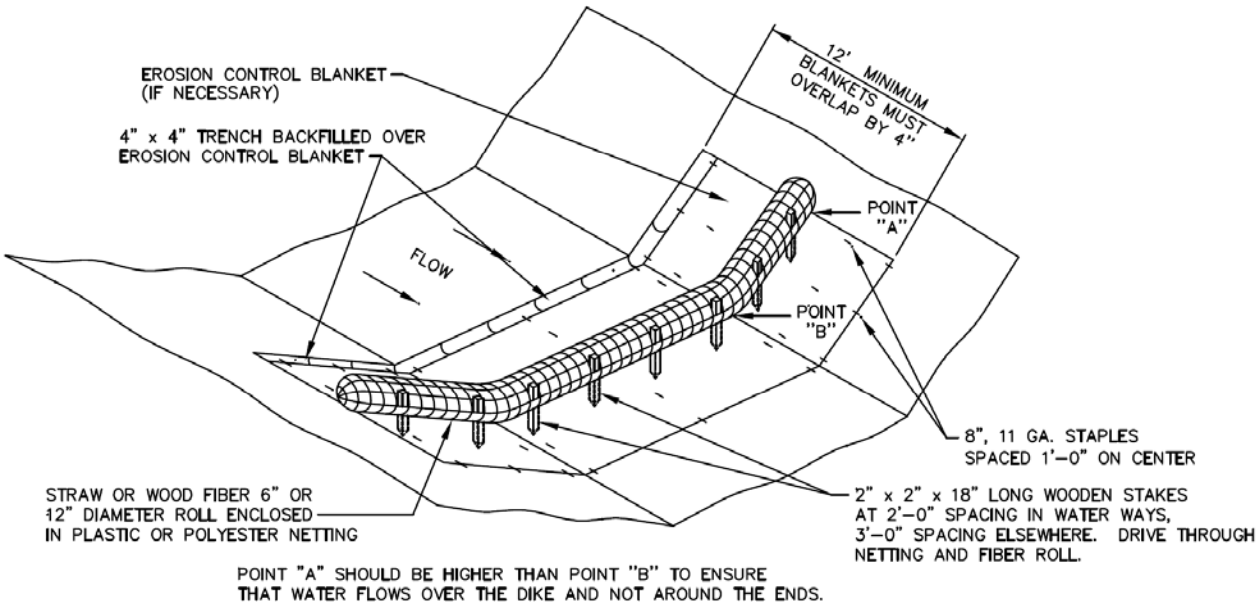
Appendix A
Detail 1 -Silt Fence

This diagram provides general recommendations, refer to the manufacturer for specific installation instructions.

To be installed based on locations shown in the Site Specific Construction Documents or additional areas experiencing erosion as discovered during SWPPP inspections. Standard areas to be protected by straw wattles are diversion ditch exit points, culverts, and road ditches. Road ditches steeper than 5% will be protected with straw waddles 20' to 100' o.c. Ditches steeper than 8% shall be protected with straw waddles 10' to 50' o.c. with the wattles being placed over erosion control blanket if necessary. Diversion ditch exits shall be installed in a J-Hook formation as shown in Detail 1-Silt Fence. Temporary soil stockpiles will be protected by straw wattles only when necessary when located on a slope leaving the site or nearby waterways or ditches. If more than one straw wattle is used, the wattles should overlap laterally by at least one foot. Wattles stakes should be placed on the downstream half of the wattle as shown below, not directly on-center. Vegetative buffers should be used alongside straw wattles whenever possible. Straw wattles may either be removed once the site is determined to have reached final stabilization or may stay on site and naturally bio-degrade.

Sediment must be removed from behind straw wattles once it reaches 1/3 the height of the fence. Repairs must be made within 24 hours of discovering that the wattle needs maintenance or as soon as field conditions allow access. Extra attention should be paid to the possibility of erosion undercutting the wattles.



Straw wattle graphic from City of Bloomington, MN Construction Details

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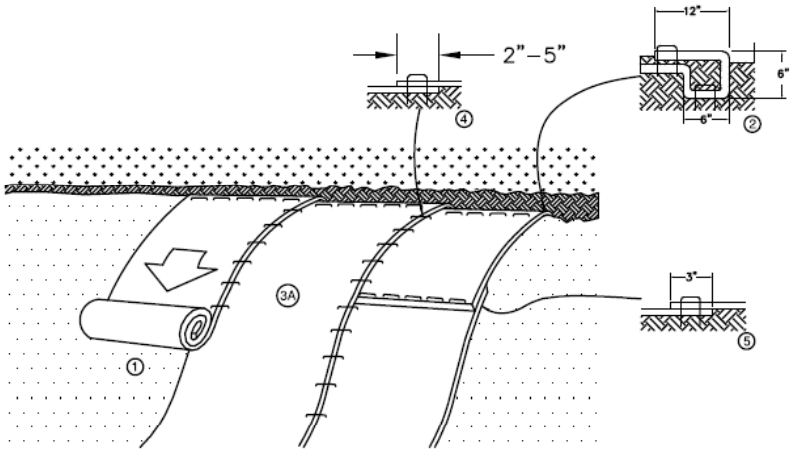
Appendix A
Detail 2 - Straw Wattles

This diagram provides general recommendations, refer to the manufacturer for specific installation instructions.

Typically slopes 3H to 1V or less shall be stabilized with conventional seeding equipment. Straw or mulch should be spread over fresh seed to avoid seed and topsoil run-off. Fertilizer should be applied per the seed distributors recommendations.

Slopes steeper than 3H to 1V may require stabilization with hydro-seeding, water bars, or erosion control blankets. Hydro-seed and erosion control blankets should be applied per the manufacturers recommendations. Water bars should be installed per the Site Specific Construction Documents. Below is a typical installation detail for Erosion Control Blanket.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"–5" (5cm–12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.
6. FOLLOW MANUFACTURER'S RECOMMENDED STAPLE PATTERN, FOR THE SLOPE FOR THE SPECIFIED BLANKET.

NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET

Erosion Control graphic from City of Bloomington, MN Construction Details

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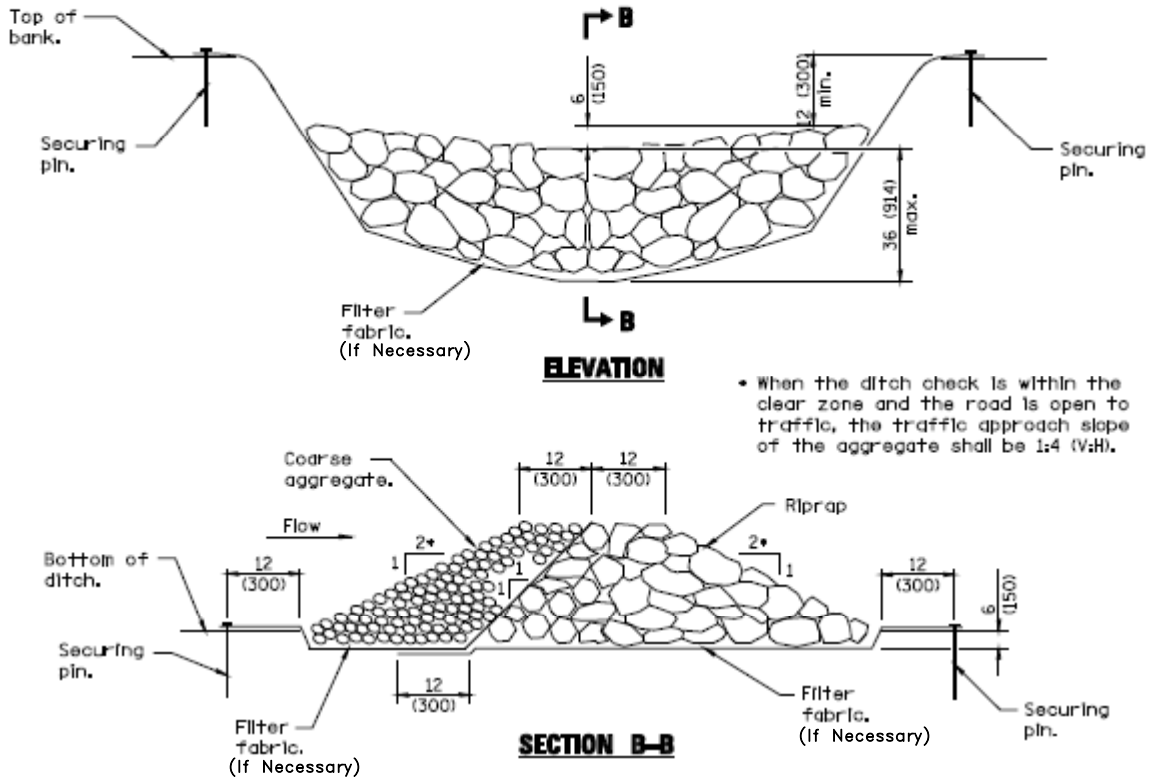
Appendix A
Detail 3 –Soil Stabilization

This diagram provides general recommendations, refer to the manufacturer for specific installation instructions.

To be installed in diversion ditch exit and road ditch areas experiencing erosion as discovered during SWPPP inspections or areas expected to have concentrated rather than sheet flow. Rock check dams will be used in areas where J-Hook silt fence or straw wattles are not adequate.

Sediment must be removed from behind rock check dams once it reaches 1/2 the height of the dam. Repairs must be made within 24 hours of discovering that the dam needs maintenance or as soon as field conditions allow access.



Erosion Control graphic from Illinois Department of Transportation Temporary Erosion Control Systems, Jan. 1, 2010

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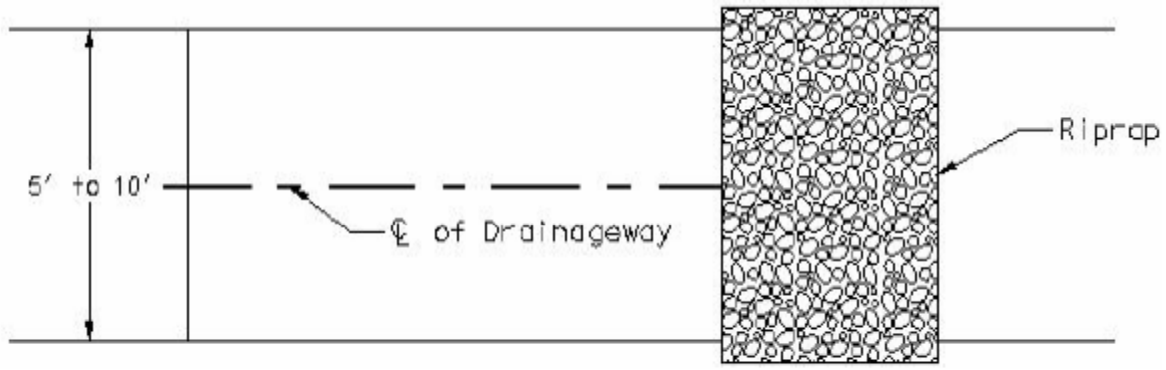
Appendix A
Detail 4 –Rock Check Dam

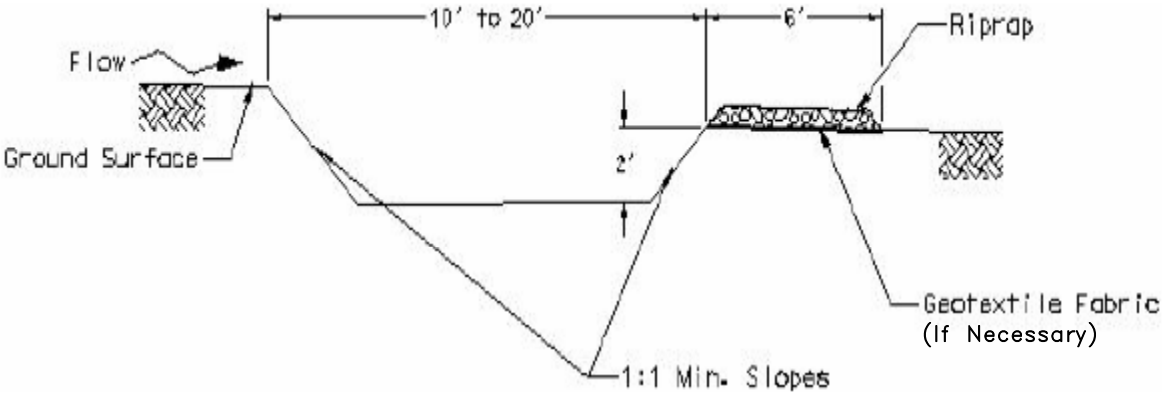
This diagram provides general recommendations, actual installation may vary due to field conditions.

To be installed in diversion ditch exit and road ditch areas experiencing erosion as discovered during SWPPP inspections or areas expected to have concentrated rather than sheet flow. Sediment traps will be used in areas where J-Hook silt fence, straw wattles or rock check dams are not adequate.

Sediment must be removed from sediment traps once it reaches 1/2 the capacity of the trap. Drainage and removal must be completed within 72 hours of discovery or as soon as field conditions allow access.



Plan View of Sediment Trap



Erosion Control graphic from North Dakota Department of Transportation Erosion and Sediment Control Handbook, June 2004

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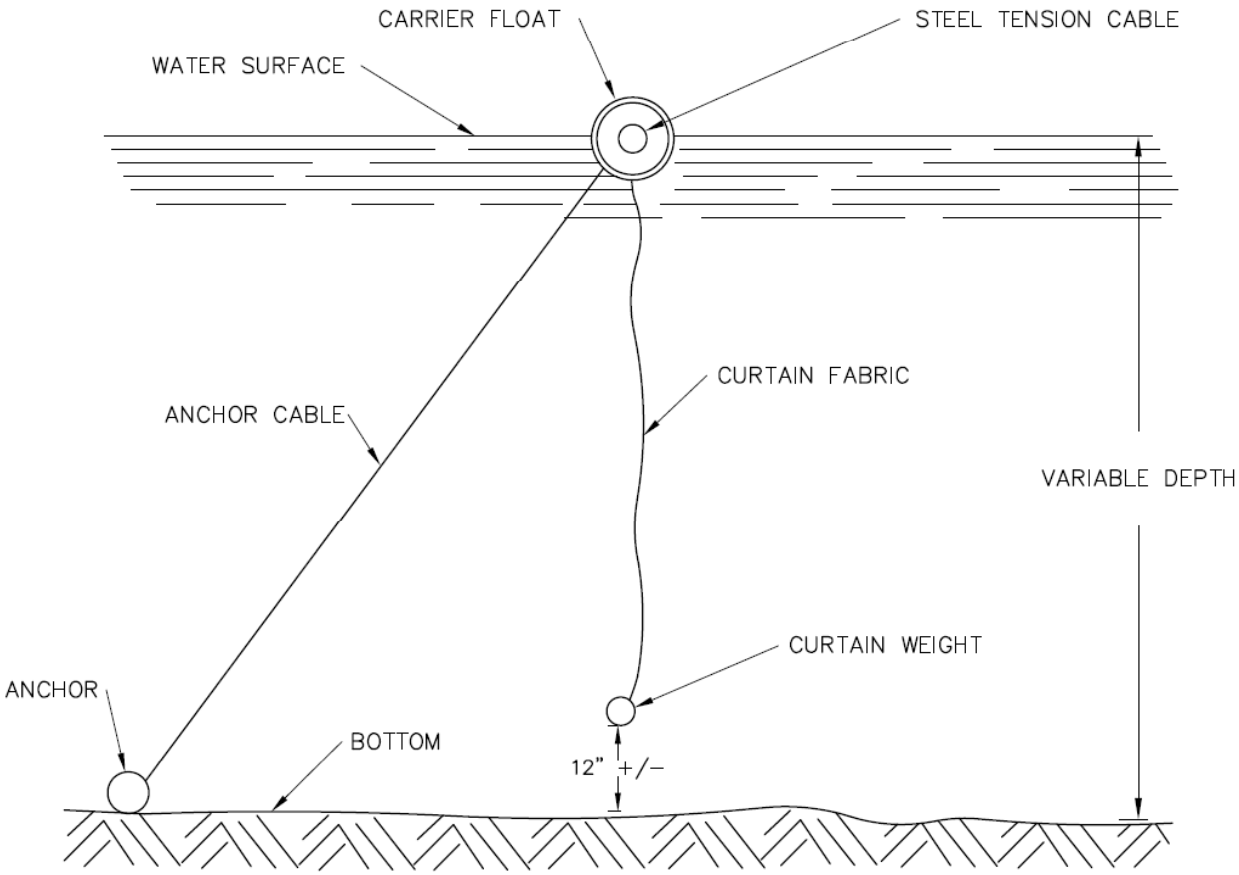
Appendix A
Detail 5 –Sediment Trap
This diagram provides general recommendations, actual installation may vary due to field conditions.

Impacts to streams and wetland are minimized as much as possible. Occasionally stream crossings or wetland impacts are required. When impacts are impossible to avoid, floating silt curtains will be utilized in order to prevent sediment from traveling downstream.



Erosion Control graphic from City of Bloomington, MN Construction Details

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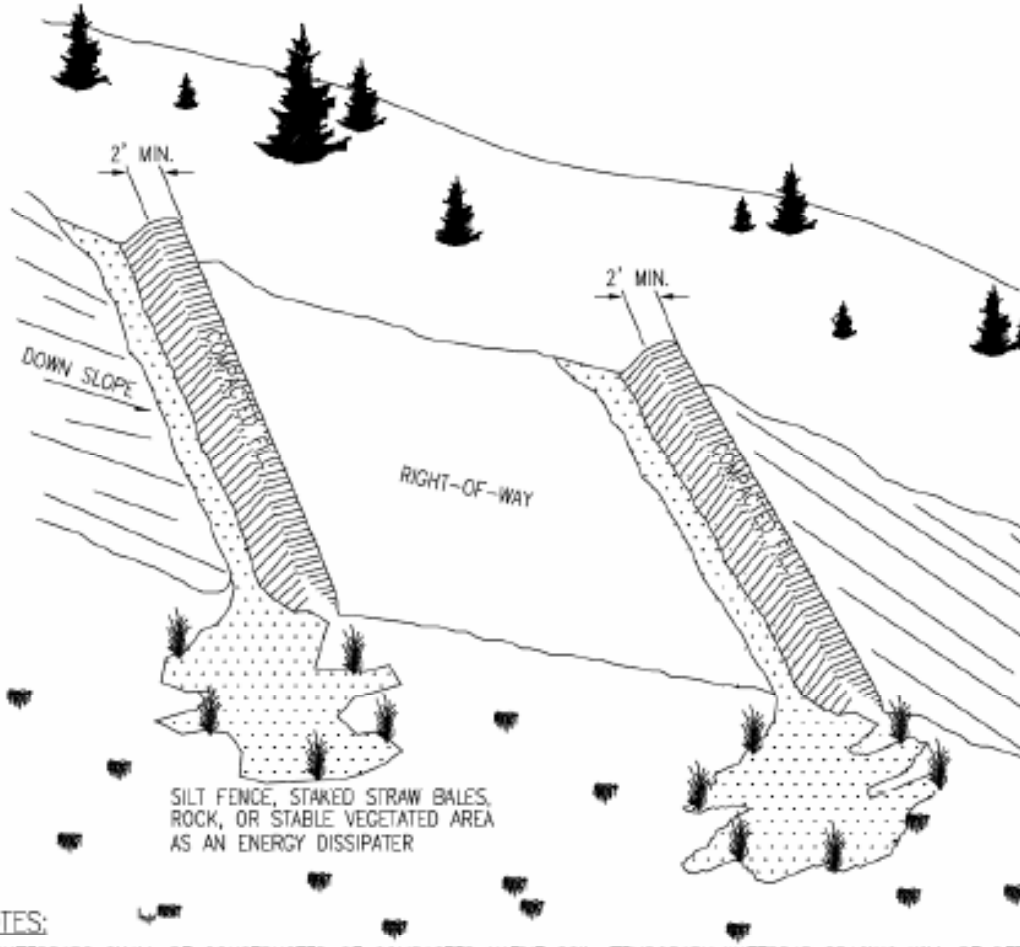
Appendix A
Detail 6 –Floating Silt Curtain

This diagram provides general recommendations, refer to the manufacturer for specific installation instructions.

Waterbars may be used in place of silt fence, straw wattles, or rock check dams in areas where reclamation is expected to happen quickly (for example on a pipeline project). These are not recommended when reclamation is expected to be delayed or in highly erodible soils.



NOTES:

1. WATERBARS SHALL BE CONSTRUCTED OF COMPACTED NATIVE SOIL. TEMPORARY WATERBAR SPACING WILL BE DETERMINED BASED ON SITE-SPECIFIC CONDITIONS AS DETERMINED BY THE COMPANY REPRESENTATIVE. PERMANENT WATERBARS WILL TYPICALLY BE INSTALLED AT THE FOLLOWING SPACING:

% SLOPE	SPACING (FEET)
5-15	300
15-30	200
30+	100

2. WATERBARS SHALL BE 18" DEEP (AS MEASURED FROM THE TROUGH TO THE TOP OF THE WATERBAR).
4. THE OUTLET OF THE WATERBAR MUST FREELY DISCHARGE ALL RUNOFF OFF THE DISTURBED R.O.W. INTO A STABLE, WELL VEGETATED AREA OR INTO AN ENERGY DISSIPATOR.
5. WATERBARS SHALL EXTEND SLIGHTLY BEYOND ARE EDGE OF THE CONSTRUCTION RIGHT-OF-WAY TO DIRECT RUNOFF INTO STABLE, WELL-VEGETATED AREAS.

DRAWING DEPICTED IS SUPERSEDED BY WRITTEN STANDARD, SCOPE OF WORK OR LINE LIST.

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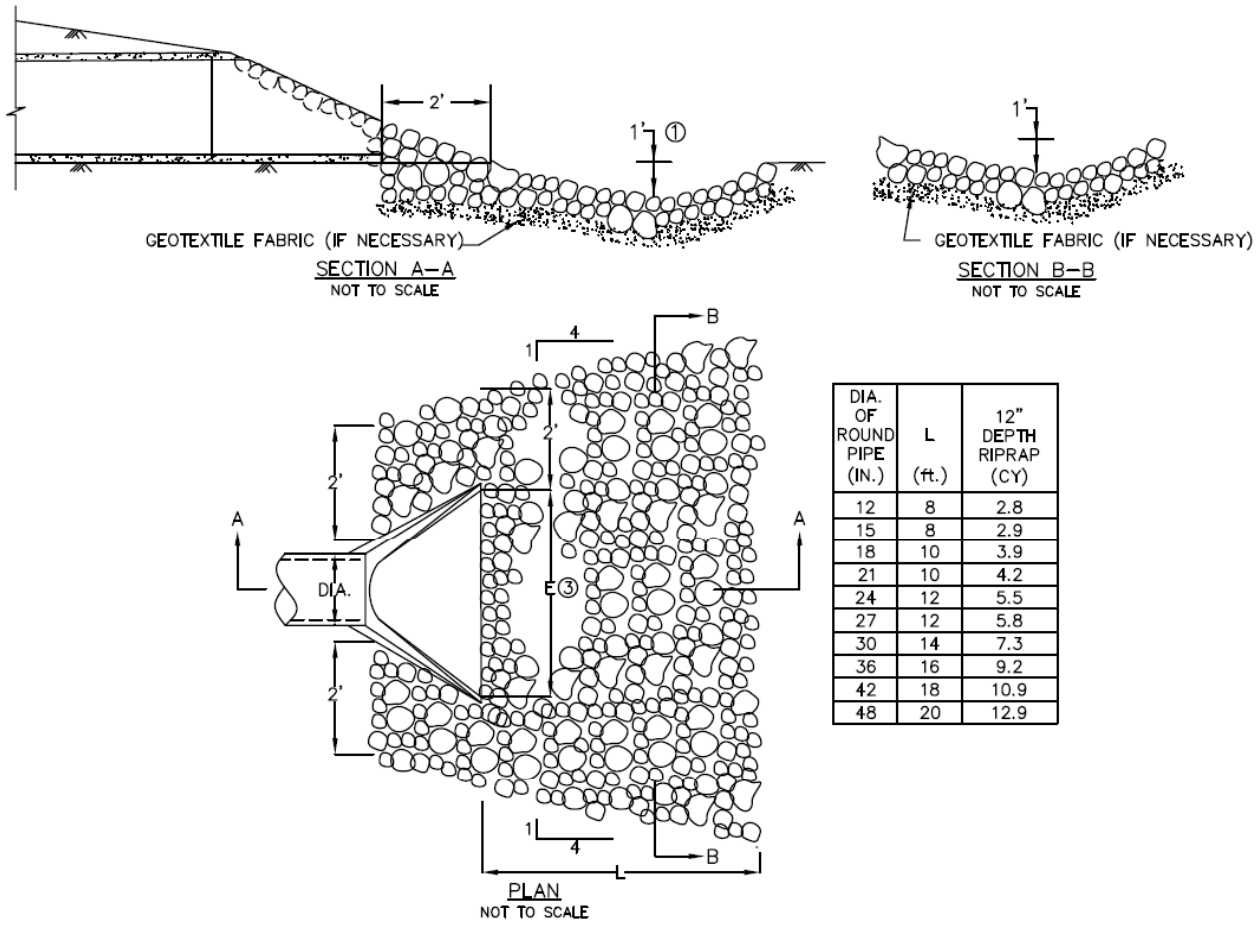
Appendix A
Detail 7 –Waterbar

This diagram provides general recommendations, actual installation may vary due to field conditions.

During construction, straw wattles will be utilized at culvert inlets and outlets (See Detail 2 for straw wattle installation details). Close attention should be paid to the possibility of erosion undercutting the wattles.

Riprap may be utilized at culvert outlets as a permanent BMP if scouring becomes an issue. Below is a recommendation for riprap installation.



DIA. OF ROUND PIPE (IN.)	L (ft.)	12" DEPTH RIPRAP (CY)
12	8	2.8
15	8	2.9
18	10	3.9
21	10	4.2
24	12	5.5
27	12	5.8
30	14	7.3
36	16	9.2
42	18	10.9
48	20	12.9

RIPRAP @ CULVERT OUTLETS

Graphic from City of Bloomington, MN Construction Details

Appendix A
Detail 8 –Culvert Energy Dissipation

Mulching involves the application of straw or other organic materials to form a temporary, protective soil cover. Mulch protects the soil surface from the forces of raindrop impact and overland flow. Organic mulches foster the growth of vegetation, reduce evaporation, insulates the soil, and suppresses weed growth.

Materials
Mulch material should consist of native hay or the straw from oats or barley, and should be seed free to prevent introduction of weeds as defined by the rules and regulations of the North Dakota Department of Agriculture.

At least 50% of the mulch by weight should be 10 inches or more in length.

Placement
The mulch should be machine blown and should be uniformly distributed over the seeded areas. The machine should be of a design that minimizes cutting or breaking of the mulching material.

Mulching operations should not be performed during periods of excessively high winds, which would preclude the proper placing of the mulch.

Mulch containing excessive moisture which prevents uniform feeding through the machine should not be used.

Bales should be broken up and loosened as they are fed into the blower to avoid placement of matted or unbroken lumps.

Installation
The mulch should be placed within 24 hours after the seeding has been completed.

The mulch should be placed uniformly over the seeded areas at the rate of 2 tons per acre.

Approximately 10% of the soil surface should be visible through the mulch blanket before the mulch tiller (punching) operation.

Maintenance

Problem	Corrective Maintenance
Rills or gullies forming	Regrade and reseed, Add additional controls
Bare soil patches	Remulch and/or reseed
Sediment at the toe of the slope	Regrade, Add silt fence or filter dike if next to a body of water

Specification 708.02 , From the North Dakota Department of Transportation Erosion and Sediment Control Handbook

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Appendix A
Detail 9 –Hay or Straw Mulch

Mulching involves the application of straw or other organic materials to form a temporary, protective soil cover. Mulch protects the soil surface from the forces of raindrop impact and overland flow. Organic mulches foster the growth of vegetation, reduce evaporation, insulates the soil, and suppresses weed growth.

Materials
Hydro-mulch contains a wood cellulose fiber that has not been treated with any germination or growth inhibitive substance but will be treated with a tackifier to enhance seed and mulch placement and adherence to the soil. The mulch should be free of contamination from noxious weed seed and seed from competitive plants.

Placement
The mulch should be uniformly applied at a rate of one ton per acre and should cover a minimum of 95% of the seedbed area. After application, the mulch should permit percolation of water to the underlying soil.

Maintenance
Hydro-mulching is generally maintenance free.

Removal
Mulching does not need to be removed.

Specification 708.02 , From the North Dakota Department of Transportation Erosion and Sediment Control Handbook

HESS

Appendix A
Detail 10 –Hydro-Mulch

APPENDIX B

Hydrovac Spoil Discharge Specification

HYDROVAC SPOIL DISCHARGE SPECIFICATION

I. PURPOSE

To provide site personnel with guidance for Hydrovac spoil discharge

II. SCOPE

Applicable to all site personnel located in North Dakota

III. DISCHARGE SPECIFICATIONS

Hydrovac spoil discharge is prohibited by the following:

A. Color - A qualified person should inspect spoils for evidence of discoloration. If pollutants are present, spoils must be disposed of at an approved disposal facility.

B. Odor – A qualified person should inspect spoils for evidence of a hydrocarbon smell (i.e. oil or gas). If pollutants are present, spoils must be disposed of at an approved disposal facility.

C. Sheen – A qualified person should visually inspect spoils for evidence of oil sheen. If pollutants are present, spoils must be disposed of at an approved disposal facility.

IV. DISCHARGE LIMITATIONS

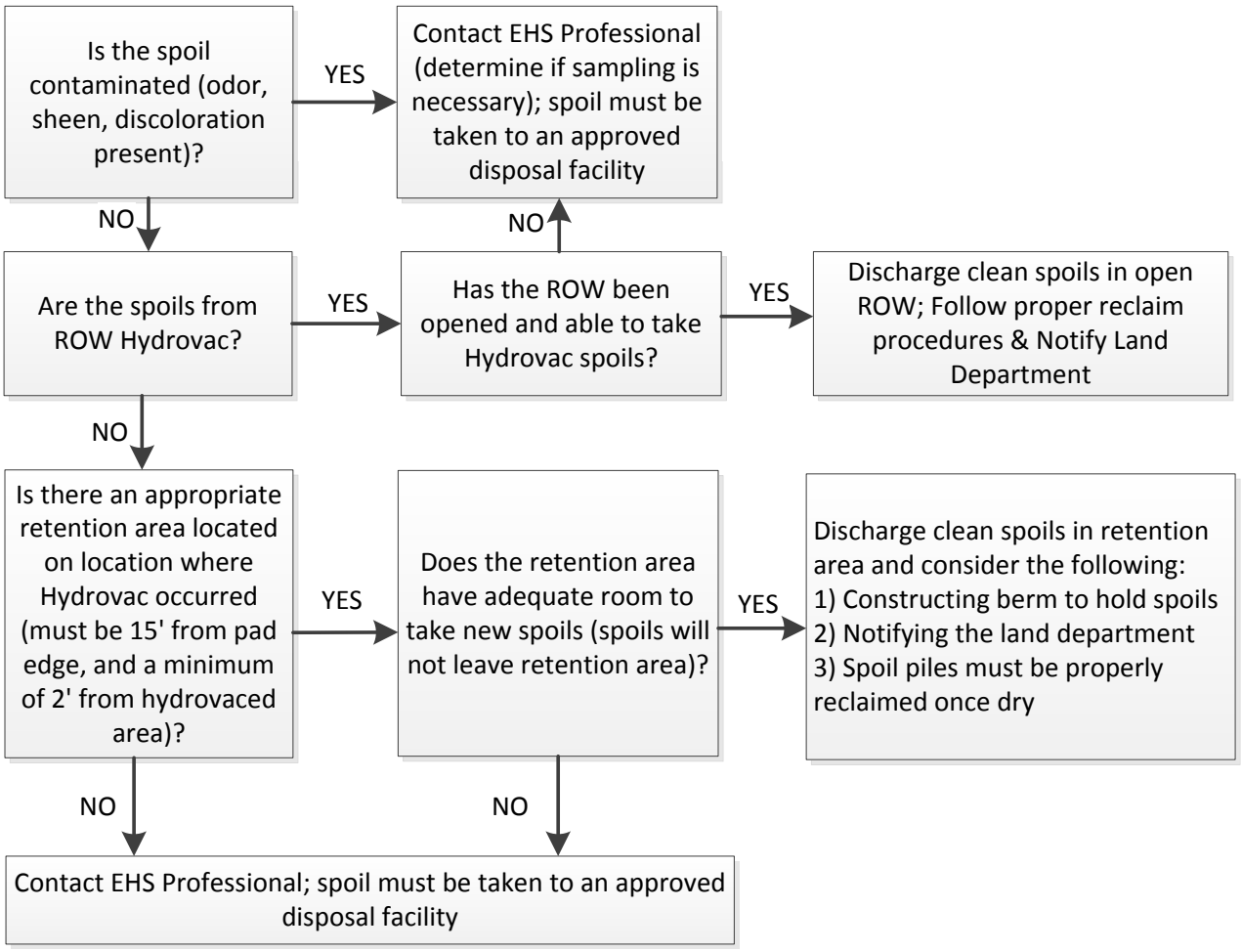
Hydrovac Spoils are limited to the appropriate retention area. Retention area should be a minimum 15’ from the edge of pad location and no closer than 2’ from the edge of the hydrovaced area. Operator should consider constructing berm to hold spoils in place until spoils are dry.

Spoils must dry in place and liquids may not leave site. If there is potential for liquids to leave site, operator must dispose of spoils at an approved disposal facility. Spoils leaving designated area are considered an “illicit” discharge and violate Federal and State regulations. Contact an EHS professional prior to taking spoils to a disposal facility as approved facilities may change over time.

V. EXCEPTIONS

If there are any exceptions, seek an EHS or Regulatory professional for further assistance.

VI. PROCESS FLOW CHART



APPENDIX C

Hess Water Discharge Specification

Water Discharge Specification

I. PURPOSE

To provide site personal with guidance for the discharge of surface water

II. SCOPE

Applicable to all site personal located in North Dakota

III. DISCHARGE SPECIFICATIONS

Storm water discharge is prohibited by the following:

A. Color - A qualified employee should inspect storm water for evidence of discoloration. Testing should be conducted if pollutants are present.

B. Odor – A qualified employee should inspect storm water for evidence of a hydrocarbon smell (i.e. oil or gas). Testing should be conducted if pollutants are present.

C. Sheen – A qualified employee should visually inspect storm water for evidence of oil sheen. Testing should be conducted if pollutants are present.

IV. DISCHARGE LIMITATIONS

If storm water meets the discharge specifications listed in Section III, the storm water can be discharged if the following erosion requirements are also met:

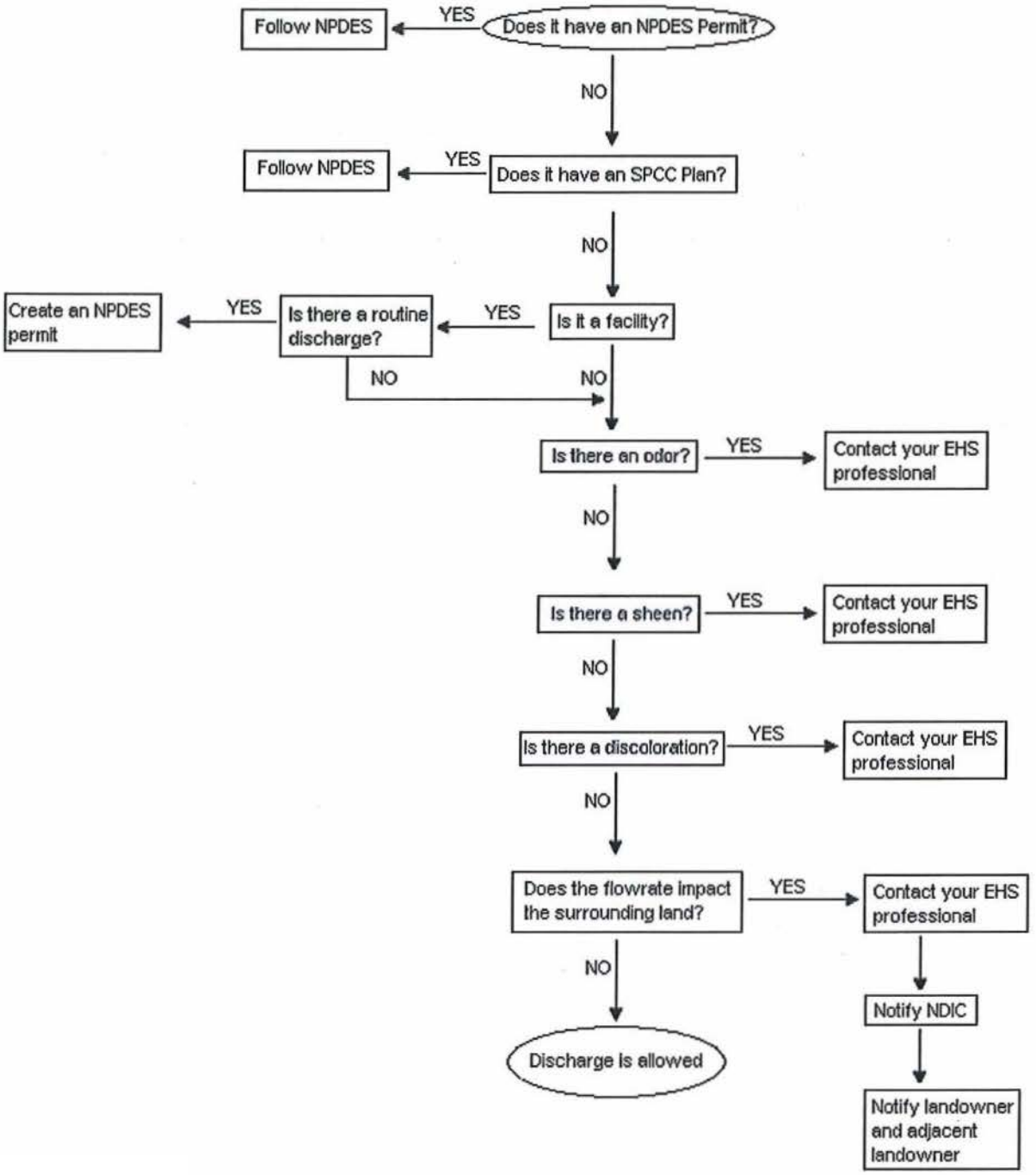
A. The flow rate must be controlled to limit surface erosion. The use of an electric transfer pump or a double diaphragm pump is suggested.

B. Flow direction must be controlled to prevent soil erosion. If possible, select discharge points where the flow path isn't bare.

V. Exceptions

If there are any exceptions, seek an EHS professional for further assistence

VI. Process Flow Chart



SPCC/SWPPP Stormwater Discharge Report Form

Stormwater Discharge Report Form
Hess Corporation
3015 16th St. SW, Suite 20
Minot, ND 58701

Wellsite: _____
Operator: _____

1. Does this Site Fall Under the NDR10-0000 SWPPP Permit for a Non-Stabilized Site?
   - □ Yes - Attach Completed SWPPP Inspection Sheets
   - □ No

2. Is this discharge free from odor, sheen, and discoloration?
   - □ Yes
   - □ No – Do not discharge water, contact your EHS professional

3. Does the flowrate impact the surrounding land?
   - □ Yes – Contact your EHS professional, (NDIC and landowner must be notified prior to discharge).
   - □ No

4. Has the landowner been contacted?
   - □ Yes
   - □ No – Recommend contacting the landowner prior to discharge

5. Discharge water and fill in form below.

DATE:	TIME START:	TIME STOP	WATER SAMPLING*	ESTIMATED VOLUME (GALLONS)	COMMENTS:
			❑ Yes ❑ No		
			❑ Yes ❑ No		
			❑ Yes ❑ No		
			❑ Yes ❑ No		
			❑ Yes ❑ No		
			❑ Yes ❑ No		

*Water sampling is not required, but recommend.

Form to be used for site dewatering during production or site construction. Operators are responsible for site dewatering and form completion during well production. Prior to the start of production, designated construction personnel are responsible for form completion and dewatering. If this site falls under a DOH construction SWPPP permit, a SWPPP inspection must be completed every 24hrs while site dewatering is occurring. Contact the Hess Regulatory Department with any comments or concerns: 701.420.7077 or ndregulatory@hess.com

Please scan a digital copy of this completed form to ndregulatory@hess.com. Email title should be structured Stormwater Discharge-Date-HessArea.

APPENDIX D

Site Inspection Form

SWPPP Inspection Record
HBIC II
3015 16th St. SW, Suite 20
Minot, ND 58701

Wellsite/Pipeline:_____
Inspector: _____
Inspection Date: _____
Time: _____

Precipitation Amount (If Applicable): _____ Precipitation Date: _____

Site Status*: □ Active Site
□ Stabilized Site
□ Fully Stabilized Site (Over 70% vegetated every square foot)

*Reference the SWPPP Inspection Process Flowchart in Appendix 4-2 of Master SWPPP plan for more information.

□ **Y** □ **N**	Is there evidence of, or the potential for sediment or pollutants entering drainage systems or waters of the state?
□ **Y** □ **N**	Have BMPs been implemented according to the current SWPPP?
□ **Y** □ **N**	Are BMPs effective in minimizing the discharge of sediment from the site?
□ **Y** □ **N**	Do BMPs need to be adjusted or additional BMPs needed?
□ **Y** □ **N**	Are litter, debris, chemicals, and parts being managed properly to minimize storm water pollution?
□ **Y** □ **N** □ **N/A**	Are there any devices where sediment accumulation has reached 1/3 height or higher (silt fences, fiber rolls, etc.)?
□ **Y** □ **N** □ **N/A**	Are there sediment basins where collected sediment has accumulated more than 1/2?
□ **Y** □ **N** □ **N/A**	Is there evidence of sediment being tracked offsite?
□ **Y** □ **N** □ **N/A**	Is proper containment being used around liquid of soluble materials (oil, fuel, paint, etc)?
□ **Y** □ **N** □ **N/A**	Is storm water flowing evenly over vegetative buffer?
□ **Y** □ **N** □ **N/A**	Are permanent storm water management measures working properly?

Inspection Findings/Corrective Action Recommendations:

_____
_____
_____
_____

□ **Y**	□ **N**		Has a Hess representative received a copy of this inspection?

Please email digital copy of completed above portion to ndregulatory@hess.com. Email title should be structured SWPPP-Date-HessArea.

Following to be completed by a Hess Representative:

Corrective Actions Taken (Silt fence/fiber roll sediment removal or repair, removal of sediment tracked or deposited off-site, spill or leak clean-up, etc):

Date:	Time:	Responsible Party:	Corrective Action Summary:

SWPPP Update Comments/Recommendations:

_____
_____

APPENDIX E

NDR10-0000

Permit No: NDR10-0000
Effective Date: October 12, 2009
Expiration Date: September 30, 2014

AUTHORIZATION TO DISCHARGE UNDER THE

NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33-16-01 of the North Dakota Department of Health 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

in accordance with conditions set forth in this permit.

This permit and the authorization to discharge shall expire at midnight,

September 30, 2014.

Signed this 12TH day of October, 2009.

Dennis R. Fewless, Director
Division of Water Quality

BP 2009.02.05

Table of Contents

I. PERMIT COVERAGE AND LIMITATIONS

A. Discharges Covered

1. This permit applies to all areas within the jurisdiction of the state of North Dakota.

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 and less than five (5) acres.

3. Stormwater discharges from support activities (e.g., concrete or asphalt batch plants, 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.

4. Certain non-stormwater discharges from facilities covered by this permit and meeting the requirements specified in Part II.A.

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), or National Historic Preservation Act (NHPA), it is your 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 for sediment, suspended solids or turbidity are not covered unless you develop a Stormwater Pollution Prevention (SWPP) plan that is consistent with the assumptions, allocations and requirements in the approved TMDL. Information about TMDL allocations may be found at the following website: www.ndhealth.gov/WQ/SW/Z2_TMDL/default.htm.

6. Stormwater discharges that the Department determines will cause, or have the reasonable potential to cause or contribute to violations of water quality standards.

C. Obtaining Coverage and Authorization Effective Date

1. To obtain authorization under this general permit for stormwater discharges you must submit a complete application and develop a Stormwater Pollution Prevention (SWPP) plan in accordance with Part II.C of this permit. A plan must be in place as a condition of the permit and a copy of the plan must be retained by the permittee. A copy of the plan must be submitted with the application for certain facilities as described in Part I.D.

2. Permit coverage will become effective 7 days after you submit a complete application unless otherwise notified by the Department (based on the department receipt date).

3. Upon the effective date of permit coverage you as the permit applicant are authorized to discharge stormwater from eligible activities under the terms and conditions of this permit.

D. Application (Notice of Intent) Process

1. You may use a Notice of Intent (NOI) form for Construction Activity (or a photocopy thereof) to complete your application. The NOI form (or a replacement application form) is available at the following website: www.ndhealth.gov/WQ/Storm/Construction/ConstructionHome.htm.

2. Application Content and Conditions.

   a. The owner or the owner jointly with the operator (usually the general contractor) shall submit a completed application 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 application (Notice of Intent) shall contain, at a minimum, the following information:

      (1) Owner name, mailing address and phone number;
      (2) Project contact name and phone number;
      (3) Project/site name;
      (4) Project/site location (street address; section, township, range; or latitude and longitude), county;
      (5) A brief description of the construction activity;
      (6) The anticipated start date and the anticipated completion date for the project (if known);
      (7) The estimated total area of the site and the total area of disturbance in acres;
      (8) Name of receiving water(s) or the name of the municipal storm sewer system and receiving water(s);
      (9) The signature of the applicant(s), owner (and operator if co-applicants) signed in accordance with Part IV.A.6 of this permit.

   c. A Stormwater Pollution Prevention (SWPP) plan (Part II.C) for the project must be prepared and available for review by the Department at the time of application. A partially complete plan 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 SWPP plan must be completed prior to the start of construction (or the applicable construction phase).

d. You must include a copy of the SWPP plan if the project involves 50 or more acres; or the project will have a discharge point located within 2000 feet of, and flow to, a water body listed as impaired under section 303(d) of the Federal Clean Water Act due to sediment, suspended solids or turbidity. The Department's 303(d) list may be found at the following website in the most recent Integrated Report: www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm.

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 application for all of the owner's construction activity within the common plan, or

   b. The operator, such as a homebuilder who may represent one or more lot owners, shall submit one application for all of the operator's construction activity within the common plan.

   In addition, a SWPP plan must be developed and implemented for the permittee's activities within a common plan of development. Additional phases of the common plan may be included under the initial application and permit coverage, provided the SWPP plan is amended to include the additional area or phases.

4. For oil and gas exploration, production, processing, and treatment operations or transmission facilities, coverage under this permit is not required for small construction activity. For oil and gas related large construction activity, permit applications may be submitted for individual project sites or for an area of operations such as well field area.

   To obtain permit coverage for an area of operations, the application must include a map outlining the area or a list of counties encompassing the area. Also include a copy of the SWPP plan or similar BMP document developed for construction related activities within the coverage area. The information for individual project sites and future sites within the coverage area including those meeting the criteria in Part I.D.2.d does not need to be submitted.

5. Completed applications and any reports required by this permit shall be submitted to:

   North Dakota Department of Health
   Division of Water Quality
   918 East Divide Avenue
   Bismarck, ND 58501-1947

6. Local Authority. This permit does not preempt or supersede the authority of local agencies to prohibit, restrict, or control discharges of stormwater to storm sewer systems or other water courses within their jurisdiction.

E. Notice of Termination (NOT)

1. Permittees wishing to terminate coverage under this permit must submit a Notice of Termination (NOT) or other written request identifying the facility, reason why the permit is no longer needed and signed in accordance with Part IV.A.6 of this permit. Compliance with the conditions of this permit is required until a NOT is submitted to and accepted by the Department.

2. Permittees may only submit a NOT after one of the following conditions have been met.

   a. Final stabilization (see Part II.E and definitions) has been achieved on all portions of the site for which the permittee is responsible.

   b. Another 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 or has achieved final stabilization. Instead the permittee may modify their SWPP plan to indicate that permit coverage is no longer required for that lot. The SWPP plan should indicate the reason coverage is no longer needed and the date it was achieved. In order to terminate coverage, all lots under the control of the owner or operator must:

      (1) Be sold to homeowners for private residential use with temporary erosion protection and down gradient perimeter controls installed. In addition, the permittee must distribute a "homeowner fact sheet" to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization; or

      (2) Achieve final stabilization (See Part II.E and definitions) on all portions of the site for which the permittee is responsible.

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 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 below. 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 SWPP plan created for the project or develop and implement their own SWPP plan. Permittee(s) shall ensure either directly or through coordination with other operators that their SWPP plan meets all terms and conditions of this permit and that their activities do not interfere with another party's erosion and sediment control practices.

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 application/NOI within 14 days of assuming control of the site.

G. Municipal Separate Storm Sewer System (MS4) Permittees

The submittal of an application (NOI) is not required for small construction activity owned or operated by an entity with general permit coverage for Municipal Separate Storm Sewer System (MS4) discharges. The small construction activity owned or operated by the permitted MS4 is subject to the conditions outlined in this permit except for the Application Process (Part I.D).

II. STORMWATER DISCHARGE REQUIREMENTS

A. Prohibition of Non-Stormwater Discharges

The discharge of wastewater from processing operations or sanitary facilities is not authorized by this permit. The following non-stormwater discharges may be authorized if the non-stormwater sources are identified in the SWPP plan with a description of the pollution prevention measures to be implemented: 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.

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. Any release of a hazardous substance, including a release in a stormwater discharge, must be reported to the agencies identified in Part IV.A.7. The discharge of hazardous substances in stormwater discharges shall be minimized in accordance with the applicable SWPP plan for the facility. Should a reportable quantity release occur, the SWPP plan shall be revised to prevent the recurrence of such a release.

C. Stormwater Pollution Prevention Plans

All permittees shall implement a Stormwater Pollution Prevention (SWPP) plan for any construction project requiring this permit until final stabilization is achieved. The SWPP plan and revisions are subject to review by the Department. The objectives of the plan are to identify potential sources of sediment or other pollution from construction activity and to ensure practices are used to reduce the contribution of pollutants from construction site runoff. Stormwater management documents developed under other regulatory programs can be included in the SWPP plan or incorporated by reference, or used in whole as a SWPP plan if it meets the requirements of this part.

The SWPP plan 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 SWPP plan to accomplish this. However, in the event there is a requirement under the SWPP plan for which responsibility is ambiguous or is not included in the SWPP plan, each permittee shall be responsible for implementation of that requirement. Each permittee is also responsible for assuring that its activities do not render another permittee's controls ineffective.

The SWPP plan must incorporate the guidelines provided in Appendix 1, to the extent practicable, and shall include the following information.

1. **Site Description**. Each plan shall provide a description of the construction site and potential pollutant sources 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 of activities that disturb soils 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 may receive discharges from the project site; and

f. A site map indicating:
   1) Drainage patterns including flow direction, dividing lines, and the existing and final grades
   2) Construction site boundaries and areas of soil disturbance;
   3) Location of major structural and nonstructural controls identified in the plan;
   4) Location of areas where stabilization practices are expected to occur;
   5) Surface waters, including an aerial extent of wetland acreage;
   6) Locations where stormwater is discharged to surface waters;
   7) 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.

g. Projects that have a discharge point within 2000 feet of, and flow 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 plan. The Department's 303(d) list may be found at the following website under Integrated Reports: www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm.

2. **Operational Controls**. The plan shall describe the Best Management Practices (BMPs) used in day to day operations on the project site that reduce the contribution of pollutants in stormwater runoff.

   a. The plan must identify a person knowledgeable and experienced in the application of erosion and sediment control BMPs who will oversee the implementation of the SWPP plan, and the installation, inspection and maintenance of the erosion and sediment control BMPs before and during construction. The owner shall develop a chain of responsibility with all operators on the site to ensure that the SWPP plan 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.

   b. Good housekeeping practices to maintain a clean and orderly site. Litter, debris, chemicals and parts must be handled properly to minimize the exposure to stormwater. This includes measures to reduce and remove sediment tracked off-site by vehicles or equipment, and the generation of dust.

   c. Preventative maintenance practices must be provided to ensure the proper operation, inspection and maintenance of stormwater control devices (e.g., oil-water separators, catch basins, and silt fences) and equipment used or stored on site.

   d. Spill prevention and response procedures must be developed where potential spills can occur. Where appropriate, specific handling procedures, storage requirements, spill containment and cleanup procedures must be identified. Bulk 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, storm sewer systems or draining onto adjacent properties.

   e. Employee training informs personnel of their responsibility in implementing the practices and controls included in the plan such as spill response, good housekeeping, and sediment control practices. Employee training must be provided at least annually, as new employees are hired or as necessary to ensure compliance with the plan and the general permit.

   f. Concrete wash water, grindings and slurry, shall not be discharged to waters of the state, storm sewer systems or allowed to drain onto adjacent properties.

   g. Dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) related to the permitted activity must be managed with the appropriate BMPs, such that the discharge

does not adversely affect the receiving water or downstream landowners. The following conditions and considerations apply to the dewatering activities:

1) The dewatering is limited to stormwater and groundwater that may collect on site and those sources identified in Part II.A. A separate permit must be obtained to discharge water from other sources such as hydrostatic testing or 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) In addition to the inspection requirements in Part III, the dewatering activities should be inspected daily. The inspection must include the dewatering site, areas where the BMPs are being implemented and the discharge location. A record should be maintained to document the inspections of the dewatering operation and actions taken to correct any problems that may be identified.

4) Local authorities may require specific BMPs for discharges affecting their storm sewer system.

3. **Erosion and Sediment Controls**. An erosion and sediment control plan shall be developed to identify the appropriate control measures and when they will be implemented during the project for each major phase of site activity (e.g., clearing, grading and building phases). The erosion and sediment control plan must conform to the guidelines provided in Appendix 1. The description and implementation of controls shall address the following minimum components:

   a. 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.

   b. Temporary erosion protection (such as cover crop planting or mulching) or permanent cover must be provided as outlined in Appendix 1 for the exposed soil areas where activities have been completed or temporarily ceased. These areas include graded slopes, pond embankments, ditches, berms and soil stockpiles.

   c. 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. The permittee may deviate from the manufacturer's specifications and erosion and sediment control guidelines in Appendix 1 if they provide justification for the deviation and document the rationale for the deviation in the SWPP plan.

   d. If sediment escapes from the site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts. The plan must be modified to prevent further sediment deposition off-site.

   e. The 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 1.9 inches in the west to 2.3 inches in the east.

f. For projects that discharge to waters that have a TMDL allocation for sediment, suspended solids or turbidity, the plan must be consistent with the assumptions, allocations and requirements of the approved TMDL. If a TMDL specifies certain BMPs or controls to meet a wasteload allocation (WLA) applicable to the project's discharges, then the BMPs or controls must be incorporated into the plan. Information about TMDL allocations may be found at the following website: www.ndhealth.gov/WQ/SW/Z2_TMDL/default.htm.

4. **Stormwater Management**. The plan 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 by use of open vegetated swales and natural depressions; infiltration of runoff on-site; and sequential systems which combine several practices.

   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.

5. **Maintenance**. All erosion and sediment control measures and other protective measures identified in the plan must be maintained in effective operating condition. The plan 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 as soon as practicable.

6. **Inspections**. The plan 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. The erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly and in serviceable condition. Inspections shall also include discharge outlets from areas used for storage of materials, permanent stormwater control measures and vehicle maintenance areas. 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.

7. **Plan Review and Revisions**.

   a. The plan 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.

   b. The permittee shall make plans available upon request to the Department, EPA, or, in the case of discharges to a municipal storm sewer system, to the operator of the municipal system.

   c. The permittee shall amend the SWPP plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters of the state. The plan shall also be amended if the plan is found to be ineffective in controlling pollutants present in stormwater.

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.

E. Final Stabilization

The permittee(s) must ensure final stabilization of the site. The permittee(s) 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 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 synthetic, and structural 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 clean out all sediment from conveyances and from temporary sedimentation basins that will be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, 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 residential construction only, final stabilization has been achieved when temporary erosion protection and down gradient perimeter control for individual lots has been completed 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 0.50 inches of rain per 24-hour period during active construction. The permittee shall use a rain gauge near the site or utilize the nearest National Weather Service precipitation gauge station. Any gauge used shall be located within 5 miles of the stormwater discharge.

2. All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained in accordance with Part III.B. Records of each inspection and maintenance activity shall include:

a. Date and time of inspections;

b. Name of person(s) conducting inspections;

c. Findings of inspections, including recommendations for corrective actions;

d. Corrective actions taken (including dates, times, and party completing maintenance activities);

e. Date and amount of all rainfall events greater than 1/2 inch (0.50 inches) in 24 hours; and

f. Documentation that the SWPP plan has been amended when substantial changes are made to the erosion and sediment controls or other BMPs in response to inspections.

3. Completed areas that have been stabilized but do not meet the 70% 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. Inspections also 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.

4. 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, etc., may prohibit inspections. Should this occur, the permittee must record a description of why the inspection(s) could not be performed at the designated time.

5. The permittee may submit an alternative inspection plan for long, narrow, linear construction projects such as pipeline or utility line inspection, and similar projects in remote areas where vehicle traffic is restricted or could compromise native vegetation or stabilization measures. A copy of the SWPP plan and proposed inspections plan shall be submitted to the Department 30 days prior to implementing an alternative inspection plan. Any alternative plan must provide for the timely recognition and repair of erosion and sediment damage.

6. 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 supplemented with appropriate measures as soon as practicable.

B. Records Location

A copy of the completed and signed Notice of Intent, coverage letter from the Department, SWPP plan, site inspection records, and this general permit shall be kept at the site of the construction activity in a field office, trailer, or shed, or in a vehicle that is on-site during normal working hours. If the site does not have a reasonable on-site location, then the documents must be retained at a readily available alternative location; preferable with the individual responsible for overseeing the implementation of the SWPP plan. If the site is inactive, then the documents may be stored at a local office.

IV. STANDARD CONDITIONS

A. COMPLIANCE RESPONSIBILITIES

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. 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 for at least three years 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.

a. All permit applications shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official.

b. 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:

(1) The authorization is made in writing by a person described above and submitted to the Department; and

(2) 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.

If an authorization under “Compliance Responsibilities-Signatory Requirements” section is no longer accurate for any reason, a new authorization satisfying the above requirements must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

7. Noncompliance Notification

The permittee shall report any noncompliance which may seriously endanger health or the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the EPA, Region VIII, Emergency Response Branch at 1.800.424.8802 and the State of North Dakota, Division of Homeland Security at 1.800.472.2121. The following occurrences of noncompliance shall be reported by telephone to the Department at 701.328.5210 by the first workday (8:00 a.m.-5:00 p.m. Central time) following the day the permittee became aware of the circumstances:

a. Any lagoon cell overflow or any unanticipated bypass which exceeds any effluent limitation in the permit (see “Compliance Responsibilities-Bypass of Treatment Facilities” section);

b. Any upset which exceeds any effluent limitation in the permit (see “Compliance Responsibilities-Upset Conditions” section); or

c. Violation of any daily maximum effluent or instantaneous discharge limitation for any of the pollutants listed in the permit.

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:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

Reports shall be submitted to the address in the “Reporting and Recordkeeping Requirements-Reporting” section. 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.

All other instances of noncompliance shall be reported no later than at the time of the next Discharge Monitoring Report submittal. The report shall include the four items listed in this subsection.

8. Bypass of Treatment Facilities

Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to any of the following provisions in this section.

Bypass exceeding limitations-notification requirements.

a. Anticipated Bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of bypass.

b. Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required in the "Compliance Responsibilities-Noncompliance Notification" section.

Prohibition of Bypass. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. 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 equipment downtime or preventive maintenance; and

c. The permittee submitted notices as required in the "Bypass of Treatment Facilities-Anticipated Bypass" section.

The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above.

9. Upset Conditions

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations 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 "Compliance Responsibilities-Noncompliance Notification" section; and

d. The permittee complied with any remedial measures required under "Compliance Responsibilities-Duty to Mitigate" section.

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 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. Sludge/digester supernatant and filter backwash shall not be directly blended with or enter either the final plant discharge and/or waters of the state. The permit issuing authority shall be contacted prior to the disposal of any sewage sludges. At that time, concentration limitations and/or self-monitoring requirements may be established.

12. Duty to Reapply
Any request to have this permit renewed should be made 15 days prior to its expiration date.

B. GENERAL REQUIREMENTS

1. Right of 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 wastewater treatment facilities 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 Statement of Acceptance by the new party and subsequent Department approval. 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, changes in sewage sludge practices, 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
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.

11. General Permits

Coverage under this permit may be modified, revoked and reissued, or terminated for cause. The Department may require any operator covered by this permit to apply for and obtain an individual or alternative general permit if:

a. The discharge is not in compliance with the conditions of the general permit

b. Conditions or standards have changed so that the discharge no longer qualifies for a general permit

c. Information becomes available which indicates that the permitee's discharge has a reasonable potential to contribute to an exceedance of a water quality standard

When an individual NDPDES permit is issued to an operator otherwise subject to this permit or the operator is approved for coverage under an alternative NDPDES general permit, the applicability of this permit to the operator is automatically inactivated upon the effective date of the individual permit or coverage under the alternative general permit.

V. DEFINITIONS

“303d List” or “Section 303d List” means a list of North Dakota’s water quality-limited waters needing total maximum daily loads or TMDLs developed to comply with section 303d of the Clean Water Act. A copy of the latest integrated report is available on the state’s web site at: www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm.

“Act” means the Clean Water Act.

"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 plant 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 on (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 Health, 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.

“Final Stabilization” means that:

1. All soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of 70 percent of the native cover for unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) has been achieved.

2. For areas with an average annual rainfall of less than 20 inches only, all soil disturbing activities at the site have been completed and temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years and achieve 70 percent vegetative coverage within three years without active maintenance.

3. For soil disturbing activities on land used for agricultural purposes, final stabilization may be accomplished by returning the disturbed land to its pre-disturbance agricultural use. 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 agricultural use must meet the final stabilization criteria in (1) or (2) above.

“Large Construction Activity” means land disturbance of equal to or greater than 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, infrequent building and equipment wash down without detergents, uncontaminated foundation drains, springs, lawn watering 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 SWPP plan. 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.

“Permanent Cover” means final stabilization. Examples include grass, gravel, asphalt, and concrete.

"Severe Property Damage" means substantial physical damage to property, damage to treatment facilities 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 production.

"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; raw materials used in food processing or production; 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, wood fiber blanket, or other material that prevents erosion from occurring. Grass seeding alone is not stabilization.

"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 once 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.

"Temporary Erosion Protection" means methods employed to prevent erosion. Examples of temporary cover include; straw, wood fiber blanket, wood chips, and erosion netting.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations 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 treatment facilities, inadequate treatment facilities, 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.

“You” means the owner, operator or permittee as appropriate.

Appendix 1 – Erosion and Sediment Control Guidelines

Guidelines for designing, implementing and maintaining erosion and sediment controls.

A. Erosion and Sediment Control Practices

1. Temporary (or permanent) sediment basins, or equivalent control, must be provided where ten (10) or more acres of disturbed area drain to a common location prior to the runoff leaving the site or entering surface waters. The permittee is encouraged, but not required, to install temporary sediment basins where appropriate in areas with steep slopes or highly erodible soils even if less than ten (10) acres drains to one area. The basins must provide at least the following:

   The basins shall be sized to provide 3,600 cubic feet of storage below the outlet pipe per acre drained to the basin. Alterative designs may be used which provide storage below the outlet for a calculated volume of runoff from a 2 year, 24 hour storm and provides not less than 1800 cubic feet of storage below the outlet pipe from each acre drained to the basin.

   Basin outlets must be designed to avoid short-circuiting and the discharge of floating debris. The basin must be designed with the ability to allow complete basin drawdown (e.g., perforated riser pipe wrapped with filter fabric and covered with crushed gravel, pumps or other means) for maintenance activities. The drawdown should be designed to release the storage volume in a 24 hour or longer period. The basin must have a stabilized emergency overflow to prevent failure of pond integrity. Energy dissipation must be provided for the basin outlet.

2. Where the temporary sediment basin is not practical due to site limitations or nature of disturbance (such as developing a roadway, pipeline, or diversion) a combination of measures must be used to provide equivalent sediment control for all down slope boundaries of the construction area and for side slope boundaries as deemed appropriate by individual site conditions. Equivalent sediment controls include such things as smaller sediment basins and/or sediment traps, silt fences, and vegetative buffer strips. In determining whether installing a sediment basin is attainable, the permittee must consider public safety and may consider factors such as site soils, slope and available area on site.

3. Provide temporary erosion protection or permanent cover for the exposed soil areas where activities have been completed or temporarily ceased. For those areas with a continuous positive slope within 200 lineal feet of a surface water, temporary erosion protection or permanent cover must be applied within 21 days of completing or ceasing earth moving activities. These areas include pond embankments, ditches, berms and soil stockpiles. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) are exempt from this requirement.

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 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization should be completed within 24 hours of connecting to a surface water.

6. Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water. Splash pads and/or downspout extensions must be provided for roof drains to prevent erosion from roof runoff.

7. In order to maintain sheet flow and minimize rills and/or gullies, there should be no unbroken slope length of greater than 75 feet for slopes with a grade of 3:1 or steeper.

8. Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g., ditches with rock check dams) require sediment control practices only as appropriate for site conditions.

9. All storm drain inlets in the immediate vicinity of the construction site must be protected by the appropriate BMPs during construction until all sources with the potential for discharging 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.

   Inlet protection devices are a last line of control – sediment and erosion 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 drainage adequate 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 SWPP plan. In this situation, additional erosion and sediment control practices must be used to supplement for the loss of the inlet protection device to prevent sediment from entering a storm sewer system.

   Maintenance and cleaning of inlet protection devices, including on-site sediment and erosion controls, must be performed in a timely manner.

10. Vegetated buffers must have a minimum width of 25 feet for every 125 feet of disturbed area which drains to the buffer. For each additional 5 feet of disturbance, an additional 1 foot of width must be added. The width of the buffer shall have a slope of 5% or less and the area draining to the buffer shall have a slope of 6% 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% of the buffer. Woody vegetation shall not be counted for the 90% coverage. No more than 10 % of the overall buffer may be comprised of woody vegetation.

B. Maintenance Considerations 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, replaced, or supplemented with functional BMPs. The Permittee(s) must investigate and comply with the following inspection and maintenance requirements:

   All control devices similar to silt fence or fiber rolls must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the device. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access.

   Temporary and permanent 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.

2. Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion. The permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place immediately, but no more than, seven (7) days after the discovery unless precluded by legal, regulatory, or physical access constraints. The permittee 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. The permittee is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.

3. Construction site egress locations must be inspected for evidence of sediment being tracked off-site by vehicles or equipment onto paved surfaces. Accumulations of tracked and deposited sediment must be removed from all off-site paved surfaces within 24 hours or, if applicable, within a shorter time specified by local authorities or the Department.

   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. The permittee(s) is 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.

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 and/or pose a safety hazard to users of public streets).

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.

C. **Housekeeping and Standard Operating Procedures**

1. Properly handle construction debris and waste materials.

   Provide appropriate container(s) on site (or centrally located at several sites) for storing debris and other wastes until disposal. Litter and debris shall be picked-up regularly to reduce the chance for materials to be carried off the site by wind or water. Collected material shall be taken to the appropriate facility for disposal or recycling.

   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 hazardous waste must be in compliance with applicable regulations.

2. Concrete wash water shall not be discharged to any waters of the state, storm sewer systems or allowed to drain onto adjacent properties. Wash water disposal must be limited to a defined area of the site or to an area designated for cement washout. The area(s) must be sufficient to contain the wash water and residual cement.

Appendix J

Environmental Protection Measures

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
Air Quality	Water or chemical soil binders would be used to control dust along the right-of-way (ROW) and access roads during construction in accordance with federal, state, and local requirements.
	Construction would be performed using methods and equipment to minimize the discharge of smoke, dust, or other contaminants to the atmosphere in accordance with federal, state, and local requirements.
Geology and Minerals	The horizontal direction drill (HDD) construction method would be used to avoid impacts to landslide areas associated with the bluffs on the north and south sides of Lake Sakakawea. Where needed, geotechnical investigations would be used to ensure protection from underground coal mines during construction of the proposed pipeline.
Soils	Soil erosion would be minimized by implementing procedures described in the Storm Water Pollution Prevention Plan (SWPPP) (POD, Appendix I), and Construction, Mitigation, and Reclamation Plan (CMRP) (POD, Appendix C).
	For storm water events during construction, vehicle traffic and equipment would be restricted to prevent rutting in areas where topsoil is intact (excluding areas where topsoil has been removed/segregated).
	Use of temporary roads across agricultural lands may result in some compaction and seasonal loss of crops. When necessary, compacted soils would be disked following project completion and landowners would be compensated for crop loss per their easement agreement.
	During construction, topsoil and subsoil would be segregated. Topsoil would be stripped and stored separately from the subsoil, which would be replaced with minimum handling. In rocky areas, an assessment of the soil handling requirements would be made by Hess.
	On agricultural land, subsoil would be chisel-plowed, rock-picked, and leveled prior to the replacement of topsoil.
Water Resources and Wetlands	The SWPPP and Best Management Practices (BMPs) would be implemented to minimize storm water transport of sediment from disturbed areas to streams and wetlands. All project-related storm water discharges would be in compliance with a National Pollutant Elimination Discharge System (NPDES) permit.
	Wetland and riparian areas would be identified and signs posted at the edges of the wetland/waterbody features prior to construction to indicate to crews the limits of these areas so that specific BMPs and work practices are adhered to.
	No aboveground facilities or staging areas would be constructed within wetlands, riparian areas, or other waters of the U.S.
	Additional temporary workspace would be located a minimum of 50 feet outside wetland boundaries. Protection measures (including installation of erosion control devices) would be utilized at wetland and waterbody crossings to minimize sedimentation. For areas where additional setbacks are deemed necessary to protect the resource, the applicability of the appropriate setback would be determined in consultation with agencies on a site-specific basis.
	No refueling or lubricating would occur within 100 feet of wetlands and/or perennial/intermittent/ephemeral waterbodies. Hazardous materials, chemicals, fuels, etc., would not be stored within 100 feet of wetlands or perennial/intermittent waterbodies.
	Hydraulic, fuel, and lubricating systems on operating equipment would be kept in good repair to avoid leakage of petroleum products into watercourses.
	No debris would be placed or left where it would enter a river or stream. Earthen material would not be dumped into rivers or waterways.
	Depositing harmful substances in or adjacent to wetlands or waterbodies is prohibited.
	Application of herbicides or pesticides within the vicinity of wetlands and waterbodies would follow pesticide use protocol and restrictions outlined in the Noxious Weed and Invasive Weeds and Aquatic Nuisance Species Control Plan (POD, Appendix F).

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
Water Resources and Wetlands (Continued)	To control Aquatic Invasive Species (AIS), equipment would be washed to remove all vegetation matter and AIS prior to arrival at the construction site and after constructing through stream water, where water is evident within the channel.
	Where crossings of riparian or wetland areas cannot be reasonably avoided, HDD methodology would be utilized for the crossings.
	The HDD/bore crossing method would be used at a total of 45 locations to avoid sensitive areas such as waterbodies (14), steep topography (3), county roads (23), two combined cultural features/steep terrain and construction constraints, and three combined roads/waterbodies.
	Water used for hydrostatic testing, dust control during construction, etc., would be obtained from a licensed contractor. The installation or abandonment of wells is not anticipated. Surface water or groundwater appropriation is not anticipated. All water that needs to be discharged would be handled in accordance with an NPDES permit.
	Based on coordination with the U.S. Army Corps of Engineers (USACE), a Section 404 permit is not required. However, if a Section 404 permit is obtained and mitigation is required, mitigation areas would be monitored for a minimum of 5 years. Annual reports would be submitted to the North Dakota Corps of Engineers regulatory office. Successful performance criteria would be developed in a Mitigation and Monitoring Plan that would be submitted with the 404 permit application.
Vegetation	The USFS-approved revegetation seed mixes for native prairie would be applied on federal lands. The USFS-approved seed mix will be applied on state and private lands unless state and private landowners request a different seed mix. The CMRP outlines the procedures to be followed for returning the land to pre-existing vegetative cover and land uses.
	Trees and shrubs would be replaced in accordance with the Tree and Shrub Sampling Plan (POD, Appendix O). Hess would coordinate with the appropriate agencies to identify efficient restoration and mitigation measures following construction.
	Reclamation monitoring would be conducted for 3 to 5 years after the first growing season, depending on land ownership, to determine the success of revegetation focusing on vegetative cover and noxious weeds and invasive species cover. On private lands, if revegetation is successful after the third growing season, no additional monitoring will be conducted. On USFS, state, and USACE managed lands, if revegetation is successful after the fifth growing season, no additional monitoring will be conducted. Areas which have not been successfully re-established will be revegetated by Hess or by compensation of the landowner to reseed the area. Reclamation success would be based on the revegetation to at least 70 percent of the background cover, as stipulated in the SWPPP and the applicable permits obtained.
	In grasslands identified as native and native-invaded Dakota skipper habitat, post-construction monitoring inspections would be conducted for 5 years following the first growing season to determine the success of revegetation focusing on vegetative cover and noxious weeds and invasive species establishment. The monitoring period may be shortened to 3 years upon request if located on private land. If 2 consecutive years of successful revegetation is not documented, additional mitigation measures (e.g. reseeding) and extended monitoring may be required. Additional mitigation measures will be determined by discussions between the appropriate entity involved (BLM, landowner/manager, or USFWS). Reclamation success would be based on the revegetation to at least 70 percent of the background cover, with no more than 30 percent of the total vegetative cover as non-native species, as stipulated in the SWPPP and the applicable permits obtained.

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
Noxious Weeds	The Noxious Weed and Invasive Weeds and Aquatic Nuisance Species Control Plan (POD, Appendix F) would be implemented to minimize the spread of noxious weeds. A Pesticide Use Proposal would be included in the Plan in the event pesticides are used.
	Reclamation monitoring for noxious weeds post-construction would be conducted in conjunction with ROW monitoring of reclamation success.
Wildlife and Fisheries	No firearms, dogs, or pets would be brought onto the ROW by anyone involved with the Project and that no harassment or depredation of any wildlife species or livestock takes place.
	Hess would construct escape ramps every 0.5 mile to reduce the potential for livestock and wildlife becoming trapped in the pipeline trench.
	Construction activities would not be conducted during the migratory bird breeding season (between February 1 and July 15). If construction occurs during the bird breeding season, Hess would either: 1) mow and maintain vegetation within the Project disturbance area prior to and during the breeding season to deter migratory birds from nesting in the Project area until construction is underway; or 2) conduct a breeding bird survey within 5 days of construction activities. If evidence of breeding is identified, Hess would coordinate with the Bureau of Land Management (BLM) and applicable federal agencies to determine appropriate actions to protect breeding birds.
	Any open posts (1.5-inch-diameter or greater), which may be utilized in pipeline construction or operation (such as markers, signs, stacks, etc.) would be permanently covered or filled with sand or gravel. This is necessary to prevent wildlife mortalities by entrapment.
	To avoid/minimize impacts to nesting bald eagles from construction activities, Hess would: 1) maintain a minimum 0.5-mile buffer between the activity and any bald eagle nest if no landscape buffer exists; 2) maintain a minimum 660-foot buffer and landscape buffer or natural area between the activity and around the nest tree; and 3) avoid activities during the bald eagle nesting season (February 1 to July 15).
	To avoid/minimize impacts to golden eagles, Hess would conduct surveys prior to any on-the-ground activities to determine the extent of any golden eagle breeding territories in the area that may be impacted by the Project. Hess would conduct an aerial nest survey (preferably by helicopter) within 1 mile of the Project ROW to identify any occupied and unoccupied golden eagle nest sites in proximity to the Project area. Aerial surveys would be conducted between March 1 and May 15, before leaf-out, so that nests are visible and their status (active or inactive) can be determined. A nesting territory or inventoried habitat would be designated as unoccupied by golden eagles only after at least two complete aerial surveys in a single breeding season. Aerial surveys would include the following: 1. Due to the ability to hover and facilitate observations of the ground, helicopters are preferred over fixed-wing aircraft, although small aircraft also may be used. Hess would report any golden eagle nests, as well as other nests of any other raptors found during the survey. Where possible, Hess would utilize two observers to conduct the surveys. 2. Hess would record any observations of golden eagle nest sites using a global positioning system. The date, location, nest condition, activity status, and habitat would be recorded for each sighting. 3. Hess would share the qualifications of the biologist(s) conducting the survey, method of survey, and results of the survey with the U.S. Fish and Wildlife Service (USFWS).
	Alternatively, Hess may conduct ground surveys to identify golden eagle nests within 1 mile of the Project ROW between March 1 and May 15. However, ground surveys are much less reliable than aerial surveys, even during leaf-off conditions, and 75 percent of golden eagle nests present may be missed. Hess would conduct at least 2 ground observation periods lasting at least 4 hours or more per linear mile to designate inventoried habitat or territory as unoccupied as long as all potential nest sites and alternate nests are visible and monitored. If a golden eagle nest is observed, Hess would contact the USFWS for further consultation to determine appropriate protection measures and possible “take” permit implications.

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
Special Status Species	Prior to the initiation of construction, applicable biological surveys would be conducted through areas of suitable habitat for specific species during the appropriate season, as determined by the jurisdictional agencies (e.g., BLM and USFWS) and survey results reported in compliance with Section 7 of the Endangered Species Act.
	If threatened, endangered, candidate, or sensitive plant species are identified in proposed disturbance areas prior to construction, appropriate protection measures would be determined in consultation with agencies.
	Surface use is prohibited from March 1 through June 15 within 1 mile (line of sight) of a sharp-tailed grouse display ground.
	If construction were to occur during the interior least tern or piping plover breeding season (April 1 through August 31), Hess would conduct surveys in suitable habitat within 0.5 mile of the Lake Sakakawea crossing location. Surveys would be conducted by a qualified wildlife biologist who is able to identify these species and would occur daily, before and after construction activities. Surveys would last for at least 2 hours prior to the start of construction each day and continue for at least 1 hour after construction has finished each day. If interior least terns or piping plovers are observed within line-of-sight of the Project area, no work would begin or continue and the BLM and USFWS would be contacted within 24 hours. Appropriate protection measures, such as seasonal constraints and the establishment of a spatial buffer area, may be implemented on a site-specific basis in coordination with the USFWS. Similar constraints and/or mitigation measures may apply to pipeline maintenance activities if conducted within 0.5 mile of suitable habitat.
	If construction occurs during spring (March to May) or fall (September to November) migration, Hess would provide whooping crane monitors in suitable habitat along the ROW. If a whooping crane is sighted within 1 mile of a pipeline or associated facilities during construction, all work would cease within 1 mile of the area and the USFWS would be contacted immediately. In coordination with the USFWS, work would resume after the bird(s) leave the area.
	If construction were to occur during the rufa red knot migration period (Fall: July 15 through November 15; Spring: March 15 through June 15), Hess would conduct surveys in suitable habitat within 0.5 mile of the Lake Sakakawea crossing location. Surveys would be conducted by a qualified wildlife biologist who is able to identify rufa red knots and would occur daily before and after construction activities. Surveys would last for at least 2 hours prior to the start of construction each day and continue for at least 1 hour after construction has finished each day. If rufa red knots are observed within line-of-sight of the Project area, no work would begin or continue and the BLM and USFWS would be contacted within 24 hours. In coordination with the USFWS, work may resume after the bird(s) leave the area. Similar constraints may apply to pipeline maintenance activities if conducted within 0.5 mile of suitable habitat.
	In order to reduce impacts to the Dakota skipper, Ottoe skipper, regal fritillary, and tawny crescent, disturbance to native prairie would be reclaimed to its original condition using the USFS-approved native seed mix. The objective is for no net loss of native prairie habitat to occur. In addition, the following protection measures would be implemented to minimize impacts to the special status butterfly species: • Restrict workspaces where the ROW crosses native prairie habitat; • Salvage and segregate topsoil in native prairie to maintain the native seed sources for revegetation of the ROW in native prairie; • Control noxious and invasive plant species as addressed in the Noxious Weed and Invasive Weeds and Aquatic Nuisance Species Control Plan (POD, Appendix F); and • Prohibit herbicide and pesticide use where special status butterfly species are found.

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
Special Status Species (Continued)	The loss of special status plant species individuals or populations may occur as a result of adjacent noxious weed-related herbicide application treatments. To effectively mitigate this impact, consultation between the special status plant species jurisdictional agency and the weed control specialists would be completed prior to treatments. The location of known special status plant species and noxious weed species individuals and populations would be confirmed prior to treatments. In addition, techniques for special status plant species avoidance via direct and indirect applications would be developed.
	To prevent the spread of aquatic nuisance species during construction and operation, Hess would remove aquatic plants and animals from equipment prior to entering and before leaving any waterbody. Project staff would spray/wash equipment with high pressure hot water when leaving a wetland/waterbody, or would dry equipment for at least 5 days before use at a different wetland/waterbody.
	The revegetation plan would include a commitment to reseed disturbed native prairie with a comparable native grass/forb seed mixture and planting a diverse mixture of native cool- and warm-season grasses and forbs. The approved USFS-approved seed mix to be used for reclamation meets these commitments.
	Hess would obtain a seed source that is as local as possible to ensure the particular cultivars are well adapted to the local climate.
Land Use	Any range improvements such as fences, gates, cattle guards, and developed water sources that are damaged during construction and are located within the Project's disturbance area or access roads would be repaired to the satisfaction of the agency or private landowner.
	If construction disturbs or destroys a natural barrier used for livestock control, the opening would be temporarily closed during construction and permanently closed following construction, as required by the agency or private landowner.
	Hess would coordinate with landowners to minimize impacts to their lands. Lands would be restored to original use following the construction phase of the Project.
	Construction personnel would be directed to stay within the approved ROW or would follow designated access roads to prevent disturbance beyond the ROW and approved access routes.
Recreation and Visual Resources	Measures would be implemented to minimize the visual effects of construction on high value road, river, and trail crossings as identified by the BLM, USFS, or USACE.
	To prevent unauthorized use of the ROW by off-road vehicles and subsequent potential impacts to soil, vegetation, and wildlife resources, access would be blocked at locations specified by agencies and /or private landowners.
Transportation	All major highway crossings would be bored to limit traffic interruptions.
	All roads, including unpaved roads, would be bored subject to approval of local road authorities.
	Temporary access areas would avoid sensitive features such as wetlands. Areas used for temporary roads or staging areas during construction would be restored to their original condition to the extent practicable.
Cultural and Paleontological Resources	Prior to Project construction, cultural and paleontological resource inventories would be conducted on all proposed disturbance areas not previously inventoried. All cultural resources recorded during the inventories would be evaluated for eligibility to the National Register of Historic Places (NRHP). Avoidance is recommended for cultural resources listed on the NRHP, evaluated as eligible for listing on the NRHP, or unevaluated. If avoidance is not possible, a treatment plan would be developed by the BLM in consultation with the North Dakota State Historic Preservation Office, USFS/USACE (if on their lands), and interested tribes. The treatment plan would be implemented prior to Project construction.

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
Cultural and Paleontological Resources (Continued)	Twenty-three cultural resources (32MZ773, 32MZ796, 32MZ2164, 32MZ2168, 32MZ2599, 32MZ2764, 32MZ2766, 32MZ2767, 32MZ2768, 32MZ2769, 32MZ2770, 32WI414, 32WI1522, 32WI1575, 32WI1576, 32WI1577, 32WI1579, 32WI1580, 32WI1581, 32WI1632, 32WI1633, 32WI1634, and 32WI1635) have been identified in the Project area and all of these cultural resources have been avoided by the Project through redesign of the Project ROW. On February 17, 2015, the SHPO concurred with BLM's findings that the Project would not have an adverse effect on these cultural resources. Archaeological monitoring and protective fencing would be utilized during construction near 17 of the cultural resources (32MZ0773, 32MZ0796, 32MZ2168, 32MZ2599, 32MZ2766, 32MZ2767, 32MZ2769, 32MZ2770, 32WI1575, 32WI1577, 32WI1579, 32WI1580, 32WI1581, 32WI1632, 32WI1633, 32WI1634, and 32WI1635) and six areas near the Project ROW would be monitored due to the possibility of encountering buried archaeological resources and/or paleosols.
	If cultural resources, including human remains, are discovered during project construction, all work would stop in the area of the discovery and the procedures outlined in the Unanticipated Discoveries Plan for Cultural Resources (POD, Appendix K) would be followed. Written permission stating that work in this area no longer presents a hazard to cultural resources would be required from the BLM before work can resume in the area of the discovery. If the cultural resource is determined to be a historic property and cannot be avoided, then appropriate mitigation measures would be developed in consultation with the applicable federal land managing agency, Tribes and SHPO. BLM written permission stating that work in this area no longer presents a hazard to cultural resources would be required before work can resume in the area of the discovery. If human remains are discovered, the Environmental Inspector would immediately stop construction in a 300-foot radius and notify the BLM. If human remains are determined to be Native American and found on federal lands, BLM would follow the requirements under the Native American Graves Protection and Repatriation Act (NAGPRA). BLM would provide written notice to Hess indicating they can proceed with construction once the remains have been fully evaluated and appropriate treatment of the discovery has been completed. Paleontological monitoring is required during ground-disturbing activities in areas identified with PFYC Class 4 bedrock. If paleontological resources are discovered during Project-related construction activities, all construction activity would cease within 100 feet of the discovery and would be reported to the construction supervisor and a qualified BLM-permitted paleontologist for assessment and recommended actions. The discovery would be handled as stipulated in the Unanticipated Discoveries Plan for Paleontological Resources (POD, Appendix L). Construction activities would not resume until the BLM Project Manager has issued a Notice to Proceed.
	To minimize indirect impacts to cultural and paleontological resources, project-related personnel would be educated as to the sensitive nature of the resources, and a strict policy of prohibiting collection of these resources would be implemented.
	To reduce potential visual effects to a historic property in which site setting contributes to its NRHP eligibility, aboveground structures would be painted with BLM-approved environmental colors to minimize contrasts with surrounding landscapes
Tribal Treaty Rights and Interests	Several areas of tribal concern were identified in the Project ROW. These areas of tribal concern would be avoided by the Project by realignment or narrowing of the Project ROW.
Noise	Construction would be restricted to the hours from 7:00 a.m. to 7:00 p.m. within 1,000 feet of an occupied residence. Construction would not occur within 1,000 feet of the Trinity Lutheran Church on Sundays. Based on these assumptions, noise levels would comply with the 65 decibels (dB) on the A-weighted scale (dBA) Housing and Urban Development (HUD) standard and noise effects on sensitive receptors would be minimized.

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
Public Safety and Environmental Protection	The Project would be located a minimum distance of 500 feet from residences to minimize hazards to human health and safety. Also, isolation valves would be installed along the pipeline in accordance with federal regulations to isolate the pipeline during a potential leak to minimize the release. At Lake Sakakawea, isolation valves would: 1) be remotely operated to reduce potential spill volume; 2) have pressure sensors that are capable of detecting leaks with slow release rates; and 3) have pressure detectors equipped with acoustic detection capabilities, capable of identifying the location of a release within 6 feet of its actual location, thereby reducing environmental disturbance.
	A Spill Risk Assessment has been completed to identify High Consequence Areas and potential impacts as a result of an accidental release of crude oil, NGL, and natural gas during pipeline operation.
	Equipment would be maintained on-site to contain, capture, and clean up any accidental release of harmful chemicals, pollutants or other materials into the environment. Spills would be cleaned up immediately. Spills on water that cause a sheen on the water require notification to the U.S. Environmental Protection Agency and would be removed by the appropriate containment and cleanup technologies. Spills would be cleaned up using an absorbent material, vacuum trucks, and other equipment, and the contaminated material either drummed in marked 55-gallon drums or hauled to an authorized disposal area.
	The use of hazardous materials would be carefully controlled. Such materials would be clearly labeled and used only by authorized personnel trained in the transportation, handling, use and storage of the specific hazardous materials. Storage sites for fuels and hazardous materials would be located a minimum distance of 500 yards from wetlands and waterbodies and shall be selected to ensure that risk of contamination of waterbodies or other sensitive environments resulting from an accidental spill at the site is reduced, and that leakage would be readily detected and contained.
	Storage sites of fuels or chemicals designed to hold in excess of 300 barrels would be surrounded by an impermeable berm, which would be of sufficient capacity to contain 150 percent of the volume of liquid stored. All hazardous chemicals, regardless of volume (including pesticides) would be stored on or in a secondary containment vessel capable of containing 150 percent of the volume of liquid stored.
	Hess would be responsible (or have contracts with companies with equipment and capabilities) for maintaining a sufficient supply of spill containment and clean-up equipment, including suitable commercial absorbent material on the work site with the responsibility to adequately respond to a loss of containment event.
	Hess would implement fire prevention and control measures including, but not limited to: 1) ensuring that sufficient suppression equipment and qualified personnel are present during hot work jobs; 2) requiring construction crews to carry fire extinguishers in their vehicles and/or equipment; 3) training construction crews in the proper use of fire extinguishers; and 4) coordinating with the local fire district to provide fire response services.
USFS Specific Mitigation Measures	Keep disturbance to a minimum to reduce impacts to suitable sensitive species habitat and native vegetation communities in general, and also to reduce spread of invasive species.
	Where the disturbance area would intersect noxious weeds or patches of invasive species, treat the noxious weeds or invasive species at least 2 weeks prior to construction, or salvage and stockpile the topsoil from these sites separately to isolate the vegetative propagules and seed. These areas should be identified to ensure they are monitored after reclamation.

Appendix J
Summary of Environmental Protection Measures for the Project

Resource	Environmental Protection Measures
USFS Specific Mitigation Measures (Continued)	Use a USFS-approved native seed mix for reclamation; monitor to ensure proper establishment. Monitor annually for 5 years following reclamation to ensure reclamation success and to identify noxious weeds and invasive species establishment. If, at any time during the 5-year monitoring period, revegetation is deemed successful by the USFS, no additional monitoring would be conducted.
	If invasive species are found on reclaimed sites that are in areas mostly dominated by native species, treat the invasive species sites and reseed if necessary.
	If noxious weeds are found on reclaimed sites, treat the weeds and reseed if necessary.
	Clean vehicles and equipment used for construction at approved water or air wash stations (monitored by an environmental inspector) prior to entering the Little Missouri National Grasslands to remove all seeds and plant propagules (seeds and vegetative parts that may sprout) in order to prevent the potential spread of noxious weeds and invasive species. Approved wash stations would include commercial car washes and on-site locations. This mitigation would be applied when moving equipment from an area containing invasive species to an area that does not contain invasive species.
	Clearly mark (stake/fence/flag) sensitive plant populations within or very near the ROW prior to construction and note them on alignment sheets to ensure that they are avoided. Ensure that such marking is still visible prior to reclamation activities.
	Any discovery of sensitive or watch plants within the Project area should be reported to the McKenzie Ranger District Office. Sensitive plant populations discovered after Project approval should be protected; therefore, last-minute alterations of the Project design or access route may be requested in order to avoid negative impacts to such populations.

Appendix K

Unanticipated Discoveries Plan for Cultural Resources

Appendix K

Unanticipated Discoveries Plan for Cultural Resources and Human Remains

Guidelines for Unanticipated Discovery of Cultural Resources and Human Remains

Introduction

Pursuant to the regulatory requirements of Section 106 of the National Historic Preservation Act (NHPA) (54 United States Code [U.S.C.] 306108) and its implementing regulation 36 Code of Federal Regulations (CFR) 800 (as amended August 5, 2004), and Section 3(d) (U.S.C. Part 3002) of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. Part 3001-3013), the Archaeological Resource Protection Act (ARPA) (Public Law 96-95, 16 U.S.C. 470aa-mm); North Dakota Century Code (NDCC) 27; NDCC §55-02-07; and the administrative rules in the North Dakota Administrative Code (NDAC) Chapter 40-02-03, Hess Corporation (Hess) has established the following procedures to be followed by Hess personnel and their contractors in the event previously unrecorded and unanticipated cultural resources or human remains are found during construction of the Hawkeye Pipeline System Project (Project). This document serves as the primary guidance tool for Hess and its contractors so they can comply with federal and state laws and regulations.

Cultural resources include locations of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral history. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include locations (sites or places) of traditional, religious, and cultural importance to specified social and/or cultural groups.

A cultural resource discovery could consist of, but is not limited to:

- Prehistoric features (e.g., hearths, occupational surfaces, middens, charcoal stains)
- Prehistoric artifacts (e.g., debitage, projectile points)
- Historic features (e.g., wells, trails, foundations, cisterns)
- Historic artifacts (e.g., pottery, pipes, glass beads, shell)
- Burials and funerary items (including, but not limited to skeletal remains, headstones, coffin wood fragments, burial goods [e.g., pipes, pottery, ornaments])

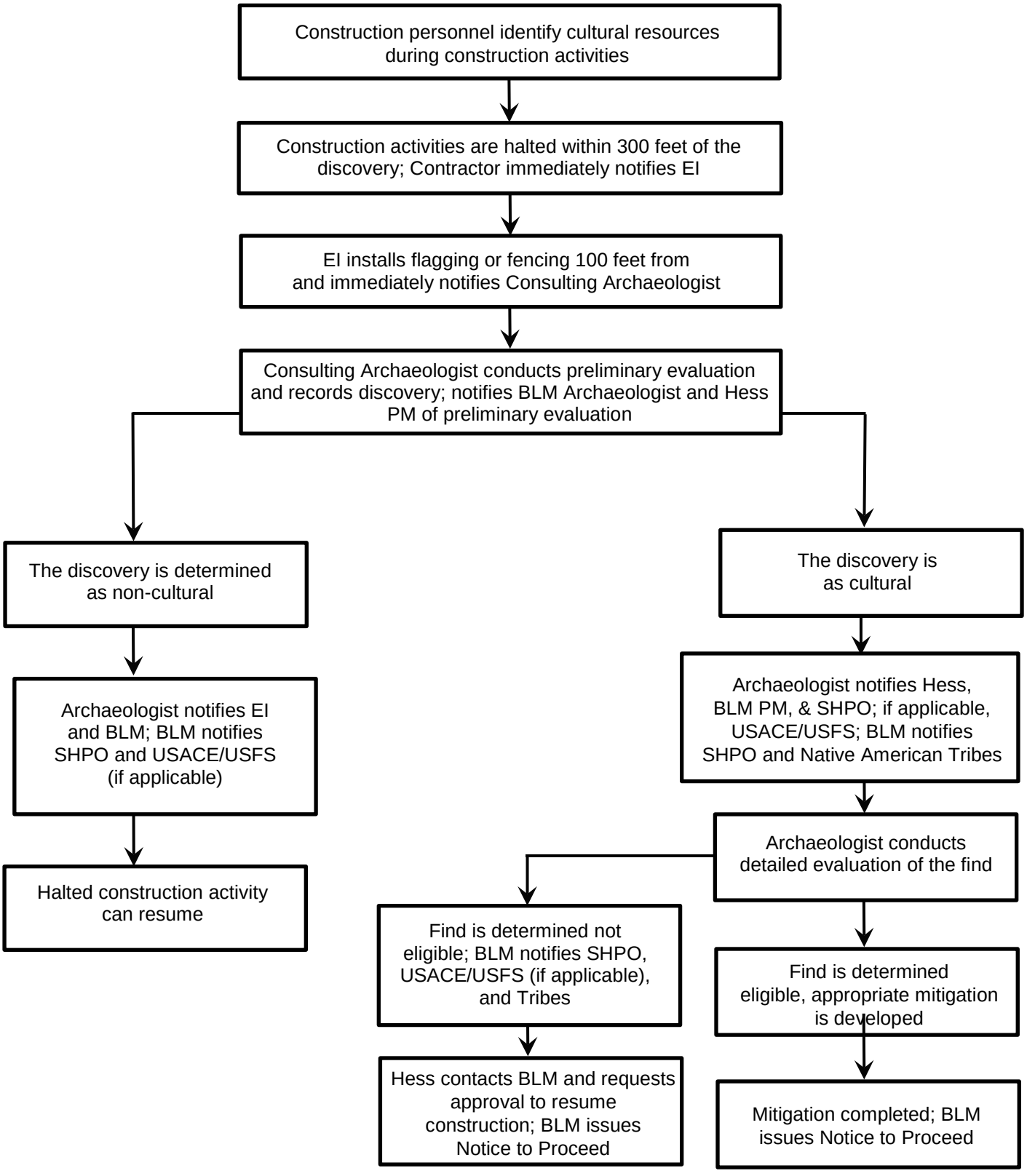
Unanticipated Discoveries Plan

A. <u>Discovery of Cultural Material</u>

The procedures for the discovery of cultural material are detailed below and also are shown on **Figure 1**.

- In the event construction personnel or the archaeological monitor identify a previously unrecorded cultural resource during construction activities, the Contractor will immediately cease work within a 300-foot radius of the discovery to protect the integrity of the find, and immediately notify the Environmental Inspector (EI). No cultural material will be moved from its original location.
- The EI will immediately notify Hess' Project Manager, who will coordinate with the Consulting Archaeologist, who meets the Secretary of the Interior Standards for Archaeology (36 CFR Part 61) and Bureau of Land Management (BLM) professional qualifications (H-8110-1). The Consulting Archaeologist will travel to the location of the discovery to conduct a preliminary evaluation of the find.
- The EI will install temporary flagging or fencing approximately 100 feet from the discovery to provide a sufficient buffer and to protect the discovery itself from additional disturbance. No fencing will be installed outside of the right-of-way without prior approval from the landowner (if discovery is located on private land).

Figure 1
Procedures for Unanticipated Discovery of Cultural Resources



B. The Consulting Archaeologist will document the find using the appropriate North Dakota Cultural Resource Survey (NDCRS) form within 48 hours of the discovery, and will consult with the North Dakota State Historic Preservation Officer (SHPO), to determine if the discovery qualifies as a an archaeological site and if the site is potentially eligible for listing in the National Register of Historic Places (NRHP). The Consulting Archaeologist will notify Hess' Environmental Project Manager and the BLM Archaeologist of the preliminary evaluation of the significance of the find within 72 hours, or sooner if possible.

C. If the discovery is determined by the BLM and SHPO, in consultation with the federal land managing agency Archaeologist, as appropriate, and Native American Tribes, as non-cultural or determined to be an isolated find or a site that is not eligible for the NRHP, the BLM Archaeologist will provide written notification to Hess that construction can resume, and the Consulting Archaeologist will notify the EI that construction can resume. The EI will have the authority to remove the stop-work order and resume construction activities. Within 5 business days of the discovery, the Consulting Archaeologist will submit a letter report summarizing the findings to the BLM Archaeologist.

D. If the discovery is determined by the BLM Archaeologist and SHPO, in consultation with the federal land managing agency Archaeologist, as appropriate, and Native American Tribes to be a site that is potentially eligible for the NRHP, the Consulting Archaeologist will notify Hess' Environmental Project Manager and the BLM Project Manager, and the procedures outlined below in Section E, "Discovery of Potentially NRHP-Eligible Cultural Material" will be followed. If the discovery is determined to be human remains, the procedures outlined below in Section F, "Discovery of Human Remains," will be followed.

E. Discovery of Potentially NRHP-Eligible Cultural Material

As previously discussed in Section A, the EI will ensure that the appropriate measures have been taken to protect and secure the discovery from additional disturbance. The procedures for the discovery of potentially NRHP-eligible cultural material are detailed below and also are shown on **Figure 1**.

- In addition to the BLM Project Manager and Hess' Environmental Project Manager, the Consulting Archaeologist will notify SHPO, and if applicable the U.S. Forest Service (USFS) Archaeologist and the U.S. Army Corps of Engineer (USACE) Archaeologist within 24 hours of determination of the site's potential significance. If the site is associated with prehistoric or historic Native American culture, the BLM Archaeologist will immediately notify the Native American Tribes participating in the consultation efforts for the Project.
- The Consulting Archaeologist will be provided 3 days to conduct a detailed assessment and evaluation of the significance of the find assuming that it is safe to do so. If due to safety reasons, the significance of the find cannot be determined in 3 days an extension will be given so that the proper safety mechanisms can be put in place. The Consulting Archaeologist will provide recommendations regarding the NRHP eligibility and the potential adverse effects associated with construction activities. Within 3 days of completing the assessment and evaluation, the Consulting Archaeologist will provide the findings to the BLM Archaeologist, SHPO, and federal land managing agency Archaeologist, as appropriate.
- If the find is determined by the BLM Archaeologist and federal land managing Archaeologist, as appropriate, in consultation with SHPO, to be eligible for listing in the NRHP and at risk of being adversely affected by construction activities, Hess will request mitigation recommendations from the BLM who in turn will consult with the federal land managing agency Archaeologist (as appropriate), SHPO, and Native American Tribes. If needed, a mitigation or treatment plan will be developed by the Consulting Archaeologist and submitted to the BLM Archaeologist within 3 days of the determination. The mitigation or treatment plan will take into consideration any safety issues that may be present near the discovery. The BLM Archaeologist will forward the treatment plan to the federal land managing agency Archaeologist, as appropriate, SHPO, and interested

Native American Tribes, who in consultation will have 5 business days to review and approve the plan. Mitigation may include:

- Variance request to reroute around the site;
- Site visits by the BLM, SHPO, Native American tribes, and other applicable parties;
- Data recovery, which may include the systematic professional excavation of the site; or
- Other mitigation (in lieu of data recovery) determined by the BLM Archaeologist through consultation with the SHPO, Native American tribes, and other applicable parties.

- Mitigation will commence immediately after approval of the mitigation or treatment plan by the BLM Archaeologist, SHPO, and federal land managing agency Archaeologist (if applicable). All necessary permits will be issued by the federal land managing agency in consultation with the BLM prior to the commencement of mitigation. No construction activities in the area of the discovery will be resumed until treatment has been completed and the BLM Project Manager has issued a Notice to Proceed. If the site does not qualify as an historic property, Hess will consult with the BLM, SHPO, and other applicable parties, and will request approval to resume construction activities. BLM will provide written notice that construction activities can resume at the discovery location.
- No construction activities in the area of the discovery will be resumed until treatment has been completed and the BLM Archaeologist, SHPO, and land managing agency Archaeologist, as appropriate, have reviewed and approved the preliminary report and the BLM Project Manager has issued a Notice to Proceed.
- The technical report detailing the mitigation measures conducted at the site will be due to Hess for review within 2 months after treatment is complete. The Consulting Archaeologist will revise the technical report accordingly and submit it to the BLM Archaeologist, who in turn will submit it to the, federal land managing agency Archaeologist, as appropriate, SHPO, and interested Native American tribes, for 30-day review and comment period. The Consulting Archaeologist will prepare the final technical report within 20 days after the 30-day review period has ended. The final report is due to BLM no later than 180 days after completion of mitigation fieldwork.

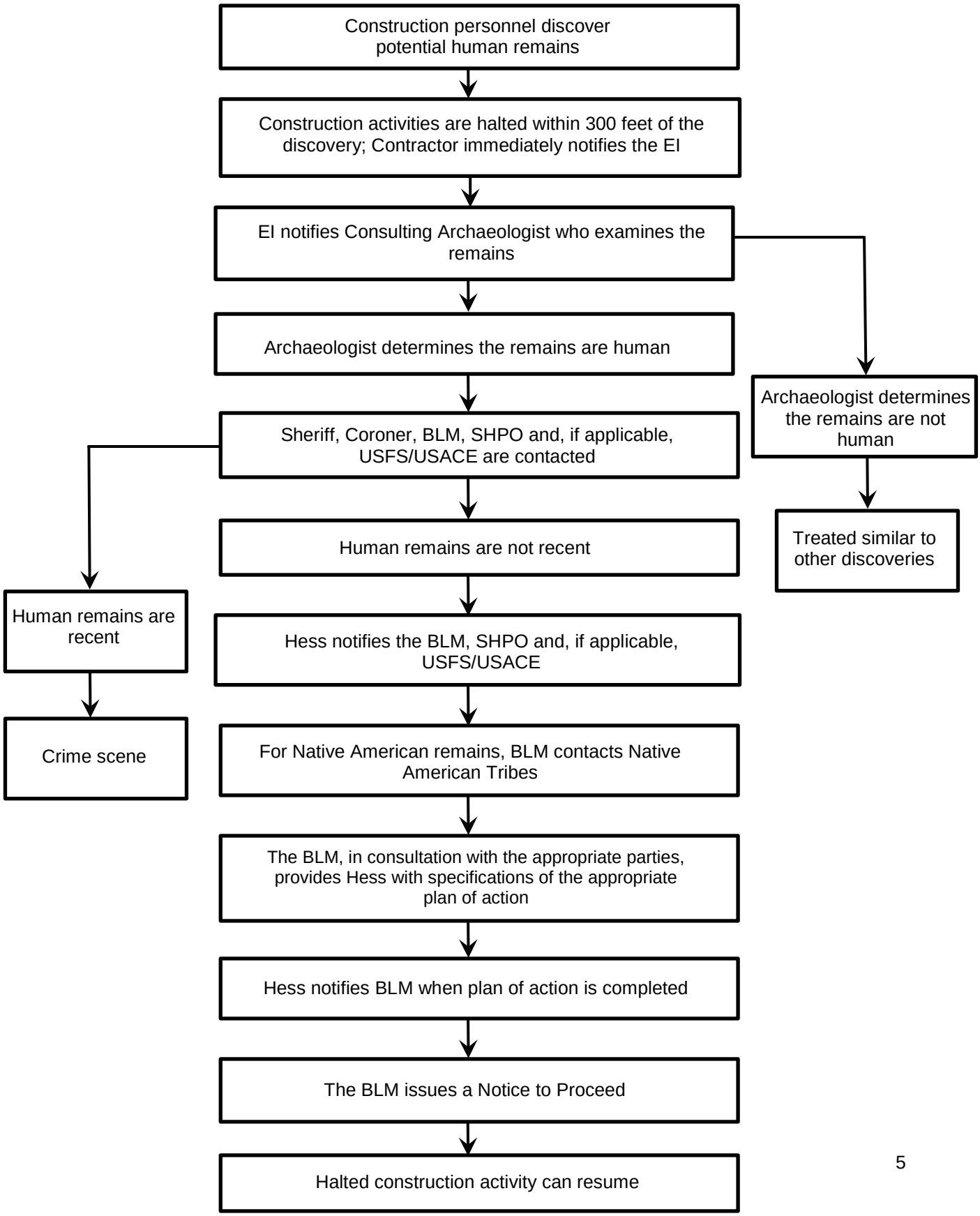
F. Discovery of Human Remains

Hess will comply with relevant federal laws and the NDCC 23-06-27 and accompanying administrative rules (NDAC 40-02-03). In addition, the Advisory Council on Historic Preservation's Policy Statement on the Treatment of Burial Sites (2007) also will be taken into account to assure that the remains are treated with dignity and respect. Procedures for the discovery of human remains are detailed below and also are shown on **Figure 2**.

The following three bullet items will be followed regardless of land ownership:

- If human remains are encountered during construction, all construction activities will cease immediately within a 300-foot radius of the remains, and the Contractor will immediately notify the EI. The EI will notify the Hess Project Manager and the Consulting Archaeologist, who will examine the remains.
- If the remains are determined to be non-human and are associated with cultural material, the procedures outlined in Section A will be followed.

Figure 2
Procedures for the Unanticipated Discovery of Human Remains



- If the remains are determined to be human, the EI will immediately contact the BLM Project Manager, BLM Archaeologist, and federal land managing agency Archaeologist, as appropriate. The remains will be left in place, and the EI will erect exclusionary fencing in a 50-foot radius around the discovery. In the event of adverse weather conditions, the remains will be covered with protective, waterproof material. Vehicle traffic will be prohibited from passing through the area, and, if necessary, a guard will be posted at the site.

For Human Remains Found on Non-federal Land

- Hess' Project Manager will immediately notify the county sheriff of the find, and will request that the sheriff contact the county coroner. If the sheriff or coroner determines that the remains are recent and constitute a law enforcement issue, all further work will be at the direction of the country sheriff, including notification that construction can resume.
- If the sheriff or coroner determines that the remains are not a law enforcement issue, the BLM Archaeologist in coordination with the SHPO will consult with Hess, Native American Tribes, and other applicable parties regarding treatment of the remains. The BLM Archaeologist will ensure that appropriate treatment of the human remains is carried out by Hess prior to construction activities being resumed in the area of the discovery. Treatment may involve excavation of the remains, documentation, and consultation. Construction activities will not resume until the BLM Project Manager has issued a Notice to Proceed.

For Human Remains Found on Federal Land

- If the remains are found on USFS land, the USFS Archaeologist will be immediately notified by the BLM Archaeologist. For discovery of remains on USACE land, the BLM Archaeologist will immediately notify the USACE Archaeologist.
- Further treatment of the remains will be at the direction of the BLM Archaeologist, in consultation with the applicable federal land managing agency Archaeologist, including determination of whether the remains are recent and constitute a law enforcement issue or are not recent. If the remains are recent, the BLM Archaeologist will be responsible for contacting the county sheriff, and will request that the sheriff contact the coroner. All further work will be at the direction of the country sheriff, including notification that construction can resume.
- If the remains are not modern, the BLM Archaeologist in coordination with the federal land managing agency Archaeologist, as appropriate, and SHPO will consult with Hess and interested Native American Tribes regarding treatment of the remains. The BLM Archaeologist will ensure that appropriate treatment of the human remains is carried out by Hess prior to construction activities being resumed in the area of the discovery. Treatment may involve excavation of the remains, documentation, and consultation. All necessary permits will be issued by the federal land managing agency in consultation with the BLM. Construction activities will not resume until the BLM Project Manager has issued a Notice to Proceed.

For Native American Human Remains Found on Federal Lands

- For Native American human remains, funerary objects, sacred objects, and/or objects of cultural patrimony, the BLM and federal land managing agency Archaeologist will comply with the requirements of NAGPRA for discovery situations in accordance with 43 CFR 10. All of the Native American tribes involved in the government-to-government consultation efforts for the Project will be notified immediately of the discovery. The BLM Archaeologist and appropriate federal land managing agency Archaeologist will consult with the Native American tribes and every effort will be made to an identify the tribe with cultural affinity to the remains.
- Within 7 business days of the discovery, an action plan will be written by the Consulting Archaeologist in coordination with the BLM Archaeologist and interested Native American Tribe(s) participating in the consultation efforts. The applicable federal agency (USFS or USACE) also will

be involved in preparation of the action plan. Treatment and handling of the human remains will take place immediately following completion and approval of the plan. All necessary permits will be issued by the federal land managing agency in consultation with BLM and the affected tribes.

- Construction activities within the 300-foot radius buffer area will not resume until the remains have been appropriately treated in accordance with the action plan, and the BLM Project Manager has issued a Notice to Proceed.

Table 1 lists the federal, state, and local agency contact information in the event of an unanticipated discovery.

Table 1 Federal, State, and Local Agency Contact Information

Name	Title/Agency	Phone	E-mail
Bureau of Land Management			
Lowell Hassler	Project Manager	406-538-1909 (direct) 701-290-4235 (cell)	lhassler@blm.gov
Shannon Gilbert	Project Archaeologist	406-683-8029 (direct)	sgilbert@blm.gov
Hess Corporation			
Murray Jackson	Project Manager	713-496-6168 (cell)	mujackson@hess.com
Stantec			
Chuck Herrmann	Environmental Inspector	920-428-1373 (cell)	chuck.herrmann@stantec.com
Archaeological Consultant			
Damita Engel	Cultural Resource Manager	701-258-1215 (office) 701-214-1335 (cell)	dengel@metcalfarchaeology.com
State Historic Preservation Office			
Claudia Berg	Director, State Historical Society of North Dakota	701-328-2672 (direct)	cberg@nd.gov
Paul Picha	State Archaeologist, State Historic Society of North Dakota	701-328-3574	ppicha@nd.gov
U.S. Forest Service			
Liv Fetterman	Archaeologist	701-250-4443 x 108 (office) 701-516-4009 (cell)	lfetterman@fs.fed.us
U.S. Army Corps of Engineers			
David Cain	Archaeologist	(701)654-7706	David.Cain2@usace.army.mil
County Sheriff			
Ron Rankin	McKenzie County Sheriff	701-444-3654 x 1420	
Scott Busching	Williams County Sheriff	701-577-7700	

Appendix L

Unanticipated Discoveries Plan for Paleontological Resources

Appendix L Unanticipated Discoveries Plan for Paleontological Resources

Unanticipated Discoveries for Paleontological Resources

Pipeline excavations can have significant impact on surface and subsurface paleontological resources. Occurrences of paleontological resources are closely tied to the geologic units (i.e., formations, members, or beds) that contain them. The probability for finding paleontological resources can be broadly predicted from the geologic units present at or near the surface. Therefore, geologic mapping can be used to assess the potential for occurrence of paleontological resources. The Bureau of Land Management (BLM) uses the Potential Fossil Yield Classification (PFYC) system to rank geological unit based on their potential to yield paleontological resources. Geological units ranked as PFYC 1 have limited potential to yield scientifically significant paleontological resources. Geological units ranked as PFYC 3 have moderate or unknown potential to yield scientifically significant paleontological resources. Geological units ranked as PFYC 5 have the highest potential to yield scientifically significant paleontological resources.

The proposed Hawkeye Pipeline System Project area is underlain by Paleocene-age Tongue River/ Bullion Creek and Sentinel Butte formations of the Fort Union Group and Quaternary surficial deposits. These formations were ranked using the PFYC system. Both the Sentinel Butte and Tongue River/Bullion Creek Formations of the Fort Union Group have high paleontological potential (PFYC Class 4).

A pedestrian survey of exposed bedrock outcrops was conducted within a 200-foot-wide corridor centered on the proposed pipeline centerline. No new scientifically significant paleontological resources were discovered during the survey. Although no new paleontological resources were discovered during the survey, data provided by the North Dakota Geological Survey and University of North Dakota show numerous paleontological resource localities within proximity of the proposed ROW, which suggest that ground-disturbing Project activities through areas underlain by these bedrock units could uncover paleontological resources. Direct adverse impacts to subsurface paleontological resources may occur as the result of grading and trenching activities. Therefore, monitoring for paleontological resources during ground-disturbing activities in areas identified with PFYC Class 4 bedrock may be warranted.

According to BLM Instructional Memorandum No. 2009-011 (Assessment and Mitigation of Potential Impacts to Paleontological Resources), which supersedes BLM Handbook 8270-1, paleontological resources collected from privately-owned or split-estate lands are the property of the surface-estate owner, and their disposition shall be in accordance with the surface agreement between the landowner and the permittee.

<u>Discovery of Unanticipated Paleontological Resources</u>

The process for handling unanticipated paleontological resources will be in accordance with BLM rules and guidance. All Project personnel should be instructed on procedures to be followed in the event of an unanticipated paleontological resource.

1. In the event that paleontological resources are encountered during the construction phase, The EI will be notified immediately. The EI will notify the Hess Project Manager, who will notify the BLM as outlined below.
2. All undertaking-related activities, including vehicular traffic, within 100 feet of the discovery should immediately be halted. Fossils will be left in place untouched until further instructions are received from the BLM Authorized Officer.

    a. If the discovery is on public (Federal or State) land, Hess will immediately notify the BLM, the North Dakota Industrial Commission – Department of Mineral Resource-Division of Paleontology, and Hess' Paleontological Resource Consultant (PRC). If the discovery is on Federal land, Hess will notify the BLM Project Manager and the PRC. For discoveries on State land, BLM will notify the North Dakota Industrial Commission – Department of Mineral

Resource-Division of Paleontology. These agencies, in consultation with Hess's PRC, shall determine the significance of the paleontological discovery and the need for mitigation. If the discovery is on private land, Hess will immediately notify the BLM and Hess's PRC. The landowner will be notified. The BLM, in consultation with Hess's PRC and the landowner, shall determine the significance of the paleontological discovery and the need for mitigation.

3. If mitigation measures are determined appropriate, the PRC shall consult with the BLM regarding the preferred mitigation measures within 2 business days of the discovery.

    a. If deemed necessary by the BLM, and the PRC as appropriate, a mitigation program would be developed and implemented to document and to remove significant paleontological resources prior to ground disturbing activities. The PRC shall prepare and submit a mitigation plan to Hess for review. The PRC will revise the mitigation plan accordingly and submit to the BLM for review. The BLM shall approve a mitigation plan within 7 business days of submittal.

    b. Significant paleontological resources recovered from Federal lands shall be prepared for curation in accordance with standard professional paleontological techniques and curated at an appropriate, BLM approved, repository. The mitigation plan developed by the PRC shall identify qualified personnel per BLM regulations who shall conduct mitigation activities.

4. Hess will ensure that reports detailing mitigation efforts for discovery situations are completed by the PRC within 10 business days and conform to the standards for paleontological resource reports. For fossils collected from Federal lands, a report on the findings of the salvage program, including a list of the recovered fossils, shall be prepared within 10 business days following completion of the program, which will be reviewed by Hess within 3 business days. The PRC will revise the report(s) and submit to BLM for review and comment. A copy of this report shall accompany the fossils to the BLM approved curation facility (repository). Final reports will be submitted to all applicable agencies within 10 business days after receiving BLM comments.
5. Undertaking-related activities within 100 feet of the discovery will not resume until the BLM notifies Hess (in writing) that mitigation is not required or that mitigation is complete and activities can resume. The BLM will issue a Notice to Proceed after review and approval of the draft report.
6. Hess will be responsible for all expenses associated with the discovery including evaluations, preparation of mitigation plans, excavation, preparation, reporting, and curation.

Recording Procedures, Emergency Salvage, and Reporting

Every paleontological occurrence is a unique situation which must be assessed on a case-by-case basis. Assessment of mitigation requirements, including the need for emergency salvage, excavation, recording, and reporting procedures (collectively called a mitigation plan) will be conducted on a case-by-case basis. The PRC will present recommended mitigation actions to Hess and the BLM within 2 working days of the discovery for review and comment. The recommendations will provide the framework for the Mitigation Plan, including documentation, sampling, testing, excavation, screen washing, emergency salvage, reporting and other paleontological protocol as appropriate**.**

Contact Information

Name	Title/Agency	Phone	E-mail
Bureau of Land Management			
Lowell Hassler	Project Manager	406-538-1909 (direct) 701-290-4235 (cell)	lhassler@blm.gov
Greg Liggett	Regional Paleontologist	406-896-5162 (direct)	gliggett@blm.gov

Contact Information (Continued)

Name	Title/Agency	Phone	E-mail
North Dakota Industrial Commission, Department of Mineral Resource, Division of Paleontology			
Jeff Person	Paleontologist	701-328-8000 (office)	jjperson@nd.gov
Paleontological Resources Consultant			
Randolph Moses	Paleontologist	307-684-5891 (office) 307-620-9015 (cell)	randolph.moses@arcadis-us.com
Hess Corporation			
Murray Jackson	Project Manager	713-496-6168 (cell)	mujackson@hess.com
Stantec			
Chuck Herrmann	Environmental Inspector	920-428-1373	chuck.herrmann@stantec.com

Appendix M

Raptor Survey Letter Report

SWCA®
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

Bismarck Office
116 N. 4th Street, Suite 200
Bismarck, ND 58501
701.258.6622
www.swca.com

May 14, 2013

Murray Jackson
Deputy Project Manager
Hess Corporation
1501 McKinney Street
Houston, TX 77010

RE: Bird Survey Results

Dear Murray,

On May 6-9, 2013, SWCA Environmental Consultants (SWCA) conducted raptor surveys and cursory bird surveys for the Hess Hawkeye Pipeline, which was initially surveyed for environmental impacts in the fall of 2012. Legal locations and dimensions for the gathering line are summarized below.

- **Hess Hawkeye Pipeline:** The alignment is proposed on private land, State of North Dakota owned lands, and federal lands located in McKenzie and Williams Counties, North Dakota. Approximately, 3.5 miles of the proposed alignment occurs on federal lands held in the Little Missouri National Grassland (LMNG), McKenzie County, North Dakota. The proposed 25.45-mile alignment would start in Sections 31 and 32 Township (T)156 North (N), Range (R) 95 West (West) and run south into Sections 5, 8, 17, 20, 29, 32, and 33 T155N, 95W; Sections 4, 9, 16, 21, 22, 27, and 34 T154N, R95W; Sections 3, 4, 10, 15, 22, 26, 27, and 34 T153N, R95W; and Sections 5, 6, and 8 T152N, R95W.

Methods

SWCA conducts migratory bird surveys according to a protocol designed specifically for discovering nest locations of migratory passerines/waterfowl, as well as owl and raptor species that are known to breed in western North Dakota (migratory bird breeding season occurs from February 1 to July 15). SWCA biologists are trained to identify avian species by both visual and auditory observations. In addition, SWCA employs the use of a nest dragging device to increase the probability of detecting grassland species and their nests (Photo 1).

At the project area, SWCA biologists observe and document habitat types which aid in the determination of avian species that may inhabit the area. A 0.5-mile line-of-sight search of the project area is conducted for raptors and their nests by a qualified SWCA biologist with experience in raptor/raptor nest identification. Behavior, flight pattern, and location of resident raptors are noted concurrent with other avian species surveys to determine areas where nesting raptors may be concentrated. In particular, ridge tops and vertical exposures are surveyed. Large trees and small shrubs may also provide functional structure for raptor nests and are surveyed

using binoculars or spotting scopes on high points throughout the project area. Raptor nest locations found in the project area and within the 0.5-mile line-of-sight area are documented by noting the species, date(s) of activity, Universal Transverse Mercator coordinates, nest contents (if possible), and behavior.

After the habitat assessment is completed, a nest drag is used to ensure all grassland habitat within the project area is sufficiently surveyed. When a bird is identified, either by visual or auditory cues, SWCA biologists attempt to locate or flush the bird. If the nest is located, SWCA biologists confirm the species, take a nest photograph, and record the location with a global positioning system (GPS) unit (Photo 2). For passerine species that nest in stands of deciduous trees/shrubs, the area is examined for signs of active nests or behavioral cues indicating presence of breeding passerines. If an active nest is discovered, SWCA biologists document the species, take photographs, and record the nest location with a GPS unit.

Note that SWCA avoids conducting surveys during excessive rain events, temperatures above 90 degrees Fahrenheit, or wind speeds greater than 20 miles per hour.

Photo 1. SWCA performing a nest drag.

Photo 2. SWCA recording a nest location.

Results

During the course of the survey, several raptor species were observed within the project area including the northern harrier (Circus cyaneus), red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*), as well as two unidentified raptor species. Other migratory bird species observed include the savannah sparrow (*Passercolus sandwichensis*), red-winged blackbird (*Agelaius phoeniceus*), mallard (*Anas platyryhnchos*), mourning dove (*Zenaida macroura*), song sparrow (*Melospiza melodia*), American crow (*Corvus brachyryhnchos*), clay-colored sparrow (*Spizella pallida*), lark bunting (*Calamospiza melanocorys*), vesper sparrow (*Poecetes gramineus*), black-capped chickadee (*Poecile atricapilla*), willet (*Catoptrophorus semipalmatus*), grasshopper sparrow (*Ammodramus savannarum*), field sparrow (*Spizella pusilla*), American white pelican (*Pelecanus erythrorhynchos)*, Sprague's pipit (*Anthus spragueii*), downy woodpecker (*Picoides pubescens*), hairy woodpecker (*Picoides villosus*), blue-winged teal (*Anas discors*), killdeer (*Charadrius vociferus*), northern pintail (*Anas acuta*), Canadian goose (*Branta canadensis*), dark-eyed junco (*Junco hyemalis*), double-crested

cormorant (*Phalocrocorax auritis*), northern flicker (*Colaptes auratus*), mountain bluebird (*Sialia currucoides*), horned lark (*Eremophila alpestris*), ring-billed gull (*Larus delawarensis*), brown-headed cowbird (*Molothrus ater*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), tree swallow (*Tachycineta bicolor*), American robin (*Turdus migratorius*), western meadowlark (*Sturnella neglecta*), American tree sparrow (*Spizella arborea*), and common grackle (Quisealus quiscula). Although present, these species were not displaying nesting behavior. Resident species including the sharp-tailed grouse (*Tympanuchus phasianellus*), ring-necked pheasant (*Phasianus colchicus*), gray partridge (*Perdix perdix*), and rock dove (*Columbia livia*) were also observed. An active sharp-tailed grouse nest was observed within the survey area, and the nest location and contents were recorded (see attached map). Dominant habitat types within the survey area include mixed-grass prairie, native prairie, forested upland, shrub land, wetland/creek systems, and agriculture fields, which provide suitable habitat for grassland nesting species, tree/shrub nesting species, and raptors. No nesting raptors or owls were observed during the 0.5-mile line-of-sight survey, and no previously recorded eagle nests are known to be present within 0.5-mile of the project area.

Recommendations

No nesting raptors were observed within the survey area during surveys conducted during May 6-9, 2013. The project area provides suitable nesting habitat for a wide variety of avian species, therefore it is recommended that before construction activities commence, another bird survey should be conducted within 5 days of any ground-clearing disturbances.

Sincerely,

Pete Christensen
Wildlife Biologist/GIS Lead/Project Manager
SWCA Environmental Consultants
116 North 4th Street, Suite 200
Bismarck, North Dakota 58501
pchristensen@swca.com

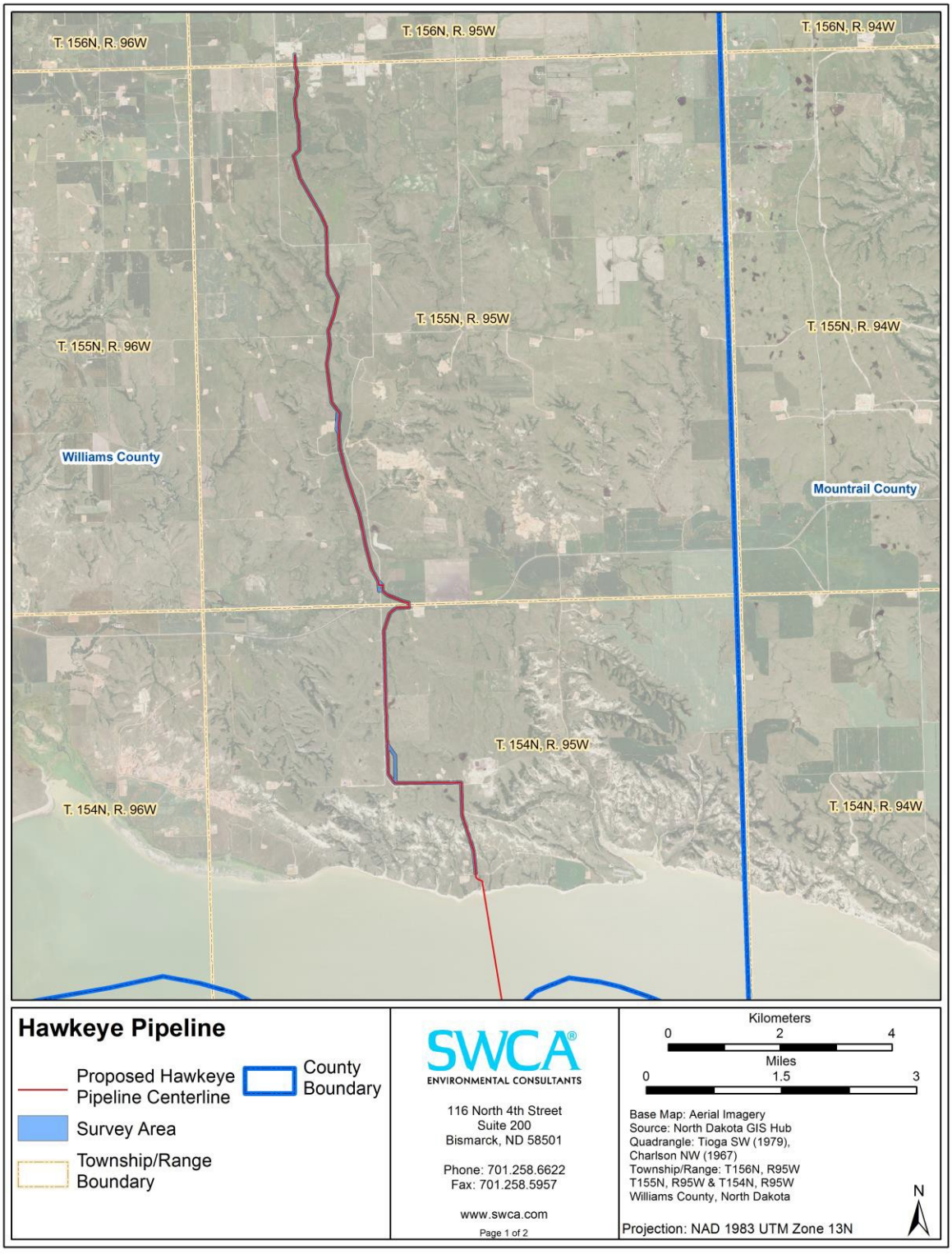


Figure 1 Project Overview Map 1 of 2.

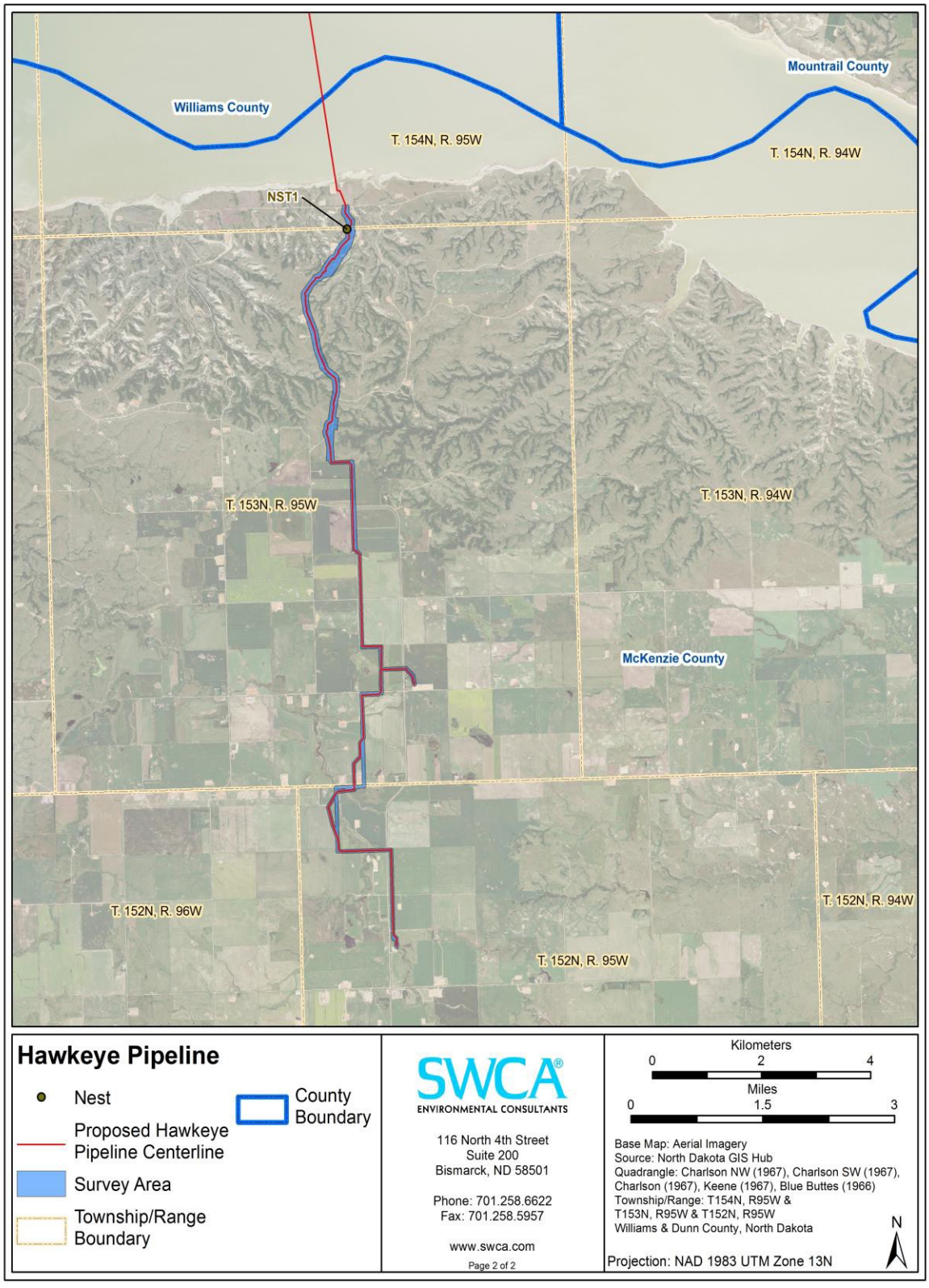


Figure 2 Project Overview Map 2 of 2.

Appendix N

Spill, Prevention, Control, and Countermeasures Plan

APPENDIX N
Spill Prevention, Control, and Countermeasure Plan

Hess Plan of Development

Spill Prevention, Control, and Countermeasure Plan

Prepared for:

BUREAU OF LAND MANAGEMENT

September 2014

TABLE OF CONTENTS

LIST OF TABLES

ATTACHMENTS

1.0 INTRODUCTION

Hess Bakken Investments II (HESS) prepared this *Spill Prevention, Control, and Countermeasure Plan* (SPCC Plan) to be implemented during construction of the Hess Hawkeye Pipeline System Project (Project). This SPCC Plan outlines specific preventative measures and practices to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the release.

This SPCC Plan restricts the location of fuel storage, fueling activities, and construction equipment maintenance along the construction right-of-way and provides procedures for these activities. Training and lines of communication to facilitate the prevention, response, containment, and cleanup of spills during construction activities are also described.

All contractor and subcontractor personnel working on the HESS right-of-way are responsible for implementation of the measures and procedures defined in this SPCC Plan. This SPCC Plan will be included in both the bid and the contract documents as contractual requirements and instructions to the contractor.

2.0 PREVENTATIVE MEASURES

HESS will require that contractors minimize, to the extent practicable, the potential for and consequences of a spill during construction of Project pipeline facilities. HESS will require contractors to comply with applicable environmental and safety laws and regulations, including compliance by all its subcontractors. The contractors will be required to maintain a copy of this SPCC Plan available on site to all personnel and provide a copy to all subcontractors.

2.1 Training

Training regarding Spill Prevention, Control, and Countermeasures will be provided as part of the initial Project training for all employees and contractors. Topics will include spill handling and personal responsibility for initiating and adhering to appropriate procedures, and the required spill containment supplies to be maintained with each construction crew. Any new employees will be trained prior to commencing work, as on-boarded.

2.2 Release Response Equipment

The contractor shall supply each construction crew with a quantity of absorbent and barrier materials sufficient to contain and recover spills that could potentially occur from the equipment with the largest on-board volume of fuel and lubricant. These materials may include, but are not limited to, drip pans, buckets, absorbent pads, containment booms, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, plastic sheeting, skimmer pumps, covered holding tanks, and fire extinguishers.

The contractor shall make known to all construction personnel the yard and warehouse locations of spill response equipment and materials and have them readily accessible during construction.

2.3 Equipment Inspection

Prior to moving equipment onto the construction right-of-way, HESS' contractor will visually inspect equipment for cracks, excessive corrosion, or other flaws that may compromise

the integrity of its fuel, hydraulic, or cooling systems. The contractor will repair or replace leaking equipment immediately after a leak is detected.

3.0 REGULATED MATERIALS STORAGE AND HANDLING

3.1 Contractor Yards

HESS' contractor will store fuel, petroleum products, and hazardous materials at the yards in a manner designed to protect the environment. Storage will be provided with secondary containment structures lined with an impervious material that provides a minimum containment volume equal to 110 percent of the volume of the largest storage vessel located in the structure. The contractor will construct these containment structures such that, in the event of a leak or spill, the liquid will be contained within the structures. 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.

Containment areas will not have drains. Accumulated rainwater may be removed from the containment structure if authorized by HESS' Environmental Inspector (EI). If visual inspection indicates that no spillage has occurred in the containment structure, and if approved by HESS' EI, accumulated water may be drawn off and sprayed on the surrounding upland areas. If spillage has occurred in the structure, accumulated waste water shall be drawn off and pumped into a storage vessel for proper disposal.

Bulk storage tanks will not be placed on the pipeline right-of-way or in areas subject to periodic flooding or erosion. The contractor will visually inspect aboveground bulk tanks frequently and whenever the tank is refilled. Drain valves on temporary storage tanks will be locked to prevent accidental or unauthorized discharges from the tank. The contractor will correct visible leaks in tanks as soon as possible.

All fuel nozzles shall be equipped with functional automatic shut-off valves. Prior to departure of any fuel tank truck, all outlets on the vehicle shall be examined by the driver for leakage and tightened, adjusted, or replaced to prevent liquid leaking while in transit.

Routine equipment maintenance of wheel-mounted vehicles, such as oil changes, will be accomplished at the contractor yards or staging area. Routine maintenance of track-mounted equipment will be conducted in a manner to gather oil and other discharges and remove them to a suitable recycling or disposal site.

Storage containers will display labels that identify the contents of the container and whether the contents are hazardous. Copies of Material Safety Data Sheets (MSDSs) for all potentially hazardous materials will be provided and maintained by the contractor and be accessible to all contractor personnel.

Table 3.1-1 presents typical vehicle and equipment fuels, lubricants, and hazardous materials stored or used during construction, and briefly describes the location, typical quantities, and usual methods of storage. The contractor will provide, maintain, and make available the appropriate MSDS documents for each of these materials and those for any other hazardous or controlled materials utilized on the right-of-way or in the contractor yard at a location accessible to all contractor and HESS employees.

TABLE 3.1-1

HESS Hawkeye Pipeline Project
Typical Fuel, Lubricants, and Hazardous Materials

Fluid Uses	Fluids	Typical Quantity Per Location (gallons)	Method of Storage	Storage Location
Fuels	Diesel	5,000 – 10,000	Tanks or Tankers	Contractor Yard Warehouse/ Fuel Vehicle Parking Areas
	Gasoline	5,000 – 10,000	Tanks or Tankers, 10-Gallon Containers, Pick-up Tanks	Contractor Yard Warehouse/ Fuel Vehicle Parking Areas
Lubricants	Engine Oil	<100	Bulk Storage or Retail Packaging	Contractor Yard Warehouse
	Transmission/ Drive Train Oil	<50	Retail Packaging on Service Trucks	Contractor Yard Warehouse/ Service Trucks
	Hydraulic Oil	<100	Bulk Storage or Retail Packaging	Contractor Yard Warehouse/ Service Trucks
	Gear Oil	<50	Retail Packaging on Service Trucks	Contractor Yard Warehouse/ Service Trucks
	Lubricating Grease	<25	Tubes Stored in Paper Cases	Contractor Yard Warehouse/ Service Trucks
Miscellaneous/ Coolants, Hydraulic fluids	Ethylene Glycol	<100	Bulk Storage or Retail Packaging	Contractor Yard Warehouse/ Service Trucks
	Propylene Glycol	<100	Bulk Storage or Retail Packaging	Contractor Yard Warehouse/ Service Trucks
	Power Steering Fluid	<50	Retail Packaging on Service Trucks	Contractor Yard Warehouse/ Service Trucks
	Brake Fluid	<50	Retail Packaging on Service Trucks	Contractor Yard Warehouse/ Service Trucks
	Propane	25 – 100	Pressurized Tanks	Contractor Yard Warehouse/ Welding Trucks

3.2 Activities on the Construction Right-of-Way

HESS will undertake preventative measures to avoid environmental impacts from refueling and lubrication activities on the construction right-of-way.

Refueling and lubricating of construction equipment will be restricted to upland areas at least 100 feet from the edge of any perennial streams, wetlands, ditches, and other waterbodies. No private or public wells have been identified through landowners, surveys or publicly available records; however, if identified, refueling and lubricating of construction equipment will be restricted to upland areas at least 200 feet from private water supply wells and 400 feet from public water supply wells, wherever possible. If refueling cannot be avoided in these areas, refer to Section 3.3 of this SPCC Plan. Wheeled and tracked construction equipment shall be moved to an upland area more than 100 feet from perennial streams, wetlands, ditches, and other waterbodies for refueling and at the end of each work day. Fuel and service truck drivers will be responsible for spill prevention during refueling and service activities.

Fuels and lubricants will be stored in designated areas and in appropriate service vehicles. Storage sites for fuels, other petroleum products, chemicals, and hazardous materials including wastes shall be located in upland areas. To prevent these materials and other potential contaminants from reaching waterways, no hazardous substances will be stored within 100 feet of perennial streams and/or within 200 feet of private wells (400 feet for public wells). If fuel must be stored in these areas, refer to section 3.3 of this SPCC Plan. HESS will confirm

with the EI the locations of areas where these activities are prohibited prior to construction crews entering that area with equipment.

The contractor will maintain a minimum of 20 pounds of suitable commercial absorbent and barrier materials at each contractor yard and on fuel and service trucks to allow rapid containment and recovery of a spill. Absorbent and barrier materials shall also be utilized to contain runoff from spill areas. Fuel trucks shall also be equipped with shovels and an assortment of hand tools to aid in the containment of a spill.

Equipment shall not be washed in streams, wetlands, ditches, or other waterbodies. Equipment operators shall be responsible for prompt reporting and mitigation of any fuel or lubricant spills from equipment.

3.3 Restricted Refueling Areas

Restricted refueling areas include areas where the buffer zone (e.g., 100 feet from a wetland or waterbody) cannot be maintained. Potential situations where plans may be approved by the EI to allow refueling in restricted areas include extensive wetland crossings with limited right-of-way access, continuous construction at stream/river crossings, and the required placement and operation of stationary equipment such as dewatering pumps, generators, and boring/drilling equipment. The requirement for any refueling and equipment service within restricted areas will be verified and approved by the EI prior to initiating such activity. Within these areas, the previously described fuel handling and refueling procedures and the following procedures will also apply.

Tracked Equipment

In wetlands where no upland site is available for refueling, auxiliary fuel tanks may be mounted to equipment to minimize the need for refueling.

Only a fuel truck with a maximum of 300 gallons of fuel may enter restricted areas to refuel construction equipment. Two trained personnel will be present during refueling to reduce the potential for spills or accidents.

Stationary Equipment

Equipment such as non-portable, stationary pumps may be fitted with auxiliary tanks as appropriate. Such auxiliary tanks will be placed within a secondary containment structure. Refueling of dewatering pumps, generators, and other small, portable equipment will be performed using approved containers.

3.4 Vehicle and Equipment Maintenance

All routine vehicle and equipment maintenance on the right-of-way involving fluid replacement will be conducted outside the boundary restrictions for wetlands, waterbodies, and water wells. Before lubricants are drained from the construction equipment, a suitable containment vessel and plastic sheeting will be placed under the equipment to collect any spilled material. HESS will take necessary precautions to ensure that material that might accumulate on the liner does not spill on the ground surface. Vehicle maintenance wastes, including used oils and other fluids, will be handled and managed by personnel trained in the procedures outlined in this plan. Vehicle maintenance wastes shall be stored and disposed of in accordance with applicable federal, state and local regulations. Non-routine repairs can be

conducted within the buffer zone only with approval from an EI and only with adequate containment.

4.0 SPILL RESPONSE

In the event of a spill, the release will be contained and remediated as soon as possible. The order of priorities after discovering a spill are to protect the safety of personnel and the public, minimize damage to the environment, and control costs associated with cleanup and remediation.

4.1 Spill Coordinator

HESS' construction contractor will appoint a Spill Coordinator who will be responsible for the reporting of spills, coordinating contractor personnel for spill cleanup, subsequent site investigations, and associated incident reports. The Spill Coordinator, along with the EI field Environmental, Health & Safety (EHS) representatives, will be responsible for determining the extent of the spill containment and isolation area.

4.2 Immediate Response

ALL SPILLS, REGARDLESS OF SIZE, MUST BE REPORTED TO THE SPILL COORDINATOR, EHS AND HESS' EI

The person observing the incident will take the following actions:

1. Assess the safety of the situation (including the risk to the surrounding public).
2. If safe to do so, make every effort to remove potential ignition sources and stop the source of the spill.
3. Promptly notify the Spill Coordinator and the EI. Report your name, the spill location, and the extent of the incident.

Upon learning of the spill, the Spill Coordinator will implement the following measures:

1. For an upland spill, if necessary, berms will be constructed with available equipment to physically contain the spill.
2. Absorbent materials will be applied to the spill area. Contaminated soils and vegetation will be excavated and temporarily placed on and covered by plastic sheeting in a containment area a minimum of 100 feet away from any wetland or waterbody, until proper disposal is arranged.
3. If a spill is beyond the scope of on-site equipment and personnel, an Emergency Response Contractor will be secured to further contain and clean up the spill.

4.3 Wetland or Waterbody Response

Regardless of size, the following conditions apply if a spill occurs near or into a stream, wetland, or other waterbody:

1. For spills in standing water, floating booms, skimmer pumps, and holding tanks shall be used as appropriate by the contractor to recover and contain released materials on the surface of the water.

2. For a spill threatening a waterbody, berms and/or trenches will be constructed to contain the spill before it reaches the waterbody. Deployment of booms, sorbent materials, and skimmers may be necessary if the spill reaches the water. The spilled product will be collected and the affected area cleaned up in accordance with appropriate state or federal regulations.

3. Contaminated soils in wetlands must be excavated, and placed on and covered by plastic sheeting in approved containment areas a minimum of 100 feet away from the wetland or waterbody. Contaminated soil will be disposed of as soon as possible in accordance with appropriate state or federal regulations.

5.0 REPORTING

With assistance from the EI, the Spill Coordinator is responsible for the completion of the Spill Report Form (Attachment 2). Completion of this form will assist in the assessment of the spill and provide information necessary for agency notification.

Specific minimum quantities for mandatory reporting of spills have not been established in North Dakota. North Dakota Department of Health (NDDH) regulations require that a spill of any size which may cause pollution to Waters of the State be reported immediately; however, it is acknowledged that collecting information and assessing the situation may take time. All spills which may potentially impact waters of the state, either surface water or groundwater, must be reported. This includes all substances, not just "hazardous materials."

The spill report form will be completed for all spills, including those spills that will not enter a water of the state, and submitted to the EI and HESS' Construction Specialist within 4 hours of the occurrence. The Spill Coordinator, in coordination with the EI and HESS' Construction Specialist, will then coordinate appropriately with the NDDoH. Any spill that may enter a water of the state will be reported to the NDDoH via telephone as soon as possible after the initial assessment. Additionally, the Spill Coordinator, in coordination with the EI and HESS' Construction Specialist, will submit an Environmental Incident Report via NDDoH's website (http://www.ndhealth.gov/ehs/eir/NonOilField/) for those spills that reach a Water of the State, and that were previously reported via telephone (see section 6.0).

6.0 NOTIFICATIONS

**IN THE EVENT OF A SPILL,
HESS OR ITS REPRESENTATIVE WILL NOTIFY THE APPROPRIATE
FEDERAL, STATE, AND LOCAL AGENCIES**

6.1 Federal and State Agencies

TABLE 6.1-1

**Hess Hawkeye System Pipeline Project
Reporting Environmental Incidents**

Type of Incident	Agency	Office Hours Phone
Hazardous Substances and Oil Spills	Environmental Protection Agency, National Response Center (Washington D.C.)	(800) 424-8802 (24 hours)
Hazardous Waste Spills	N.D. Department of Health, Division of Emergency Management	(800) 472-2121 **(After Hours Phone is the same)**
Releases Affecting "Waters of the State" or Petroleum Products	N.D. Department of Health Division of Water Quality	(701) 328-5210
Radiological Materials	N.D. Department of Health Division of Air Quality	(701) 328-5188 or (701) 328-9921
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/ Emergency Planning and Community Right-to-Know Act (EPCRA) Hazardous Substances	Department of Emergency Services Division of Homeland Security	(701) 328-8100

ATTACHMENT 1
Response Team Contacts

Response Team Contacts (To Be Completed Prior to Construction)	
Title/Position	**Phone/Pager Number(s)**
CONSTRUCTION CONTRACTOR SPILL COORDINATOR TBD	
ENVIRONMENTAL INSPECTOR/S TBD	
CONSTRUCTION CONTRACTOR SUPERINTENDENT TBD	
CHIEF INSPECTOR TBD	
HESS LEAD CONSTRUCTION SPECIALIST Murray Jackson HESS	713-496-6168 73-823-6718
OTHER HESS REPRESENTATIVES Brian Epperson HESS, Senior Manager, Regulatory	713-496-7296 office 701-389-0547 cell

ATTACHMENT 2
Spill Report Form

Spill Report Form

General Information

Date/time of spill: _____

Date/time of spill discovery: _____

Name and title of discoverer: _____

County:

Township:_____ Range:_____ Section:_____

Milepost/Legal Description: _____

Directions from nearest community: _____

_____

Spill Source and Site Conditions

Material spilled/estimated volume: _____

Estimated duration of spill: _____

Unique qualifier, if relevant, such as manufacturer: _____

Media in which the release exists (circle: sand, silt, clay, upland, wetland, surface water, other):

_____

Topography and surface conditions of spill site: _____

_____

Proximity to wetlands, surface waters (including ditches), or water supply wells: _____

_____

Weather conditions at the time of release: _____

Describe the causes and circumstances resulting in the spill: _____

_____

_____

_____

Describe the extent of observed contamination, both horizontal and vertical (e.g., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

_____

_____

Spill Control and Clean-up

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

_____

_____

Spill Report Form

Location of any excavated/stockpiled contaminated soil:

Location of where recovered waste will be disposed:

Disposal contractor: _____

Describe the extent of spill-related injuries and remaining risk to human health and environment:

Name, company, and telephone number of party causing spill (e.g., contractor):

Current status of cleanup actions:

Contact Information

Name and company for the following:

Construction Superintendent (Contractor):	Spill Coordinator:
Environmental Inspector (EI):	Chief Inspector (HESS)
Landowner notified (if appropriate):	Form completed by:
Date: _____	Date: _____

Government agency notified **(to be completed by Jason Henry EHS, Environment 701-389-1268)**:

Date: _____

Spill Coordinator must complete this form for any spill, regardless of size, and submit the form to the HESS Construction Specialist and Environmental Inspector within 4 hours of the occurrence.

Appendix O

Tree and Shrub Sampling Plan

Tree and Shrub Sampling Plan

Hess Hawkeye Pipeline Project

Williams and McKenzie Counties, North Dakota

Prepared for:
Hess Corporation
1501 McKinney Street
Houston, TX 77010

Prepared by:
Stantec Consulting Services Inc.
2950 E. Harmony Rd., Suite 290
Fort Collins, CO 80528

January 15, 2015

This document entitled *Tree and Shrub Sampling Plan* was prepared by Stantec Consulting Services Inc. for the account of Hess Corporation. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec Consulting Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Prepared by 

Erin Bergquist

Reviewed by 
(signature)

Kim Munson

Table of Contents

1.0 Introduction

Hess Corporation (Hess) is proposing to construct an approximately 26-mile-long pipeline system connecting Bakken production fields south of Lake Sakakawea to existing processing facilities north of the lake. The proposed Hawkeye Pipeline System Project (Project) would transport subsurface crude oil from the proposed Hawkeye Oil Facility near Keene, North Dakota, and natural gas and natural gas liquids (NGL) from the existing Hawkeye Compressor Station near Charlson, North Dakota, to the existing Ramberg Truck Facility (crude oil) and the existing Silurian Compressor Station (natural gas and NGL) near Tioga, North Dakota

Hess will comply with the tree and shrub mitigation specifications outlined in **Attachment A**. This sampling plan describes the sampling methods used to inventory the tree and shrubs along the Project route.

2.0 Survey Area

The Project area is located entirely within the Northwestern Great Plains ecoregion encompassing the Missouri Plateau section of the Great Plains of west-central North Dakota. The landscape consists of a semi-arid rolling plain of shale, siltstone, and sandstone, punctuated by agriculture and rolling plains topography with isolated sandstone buttes and badland formations.

The elevation ranges from approximately 1,900 to 2,420 feet above sea level. The elevation ranges get lower in the central portion of the Project area where the pipeline moves closer to and crosses Lake Sakakawea.

3.0 Sampling Methods

Surveys were conducted within a 200-foot-wide survey corridor that encompasses the centerline and the construction and operation footprint of the Project. The total number of trees, saplings, and shrubs present within the survey corridor were surveyed in planted areas, which include windbreaks and shelterbelts, and native growth areas that include woody draws and patches of woody vegetation.

The boundary of all forested upland, shrubland, and shelterbelt habitat was geographically referenced using a Trimble GeoXT series handheld global positioning system unit. Representative photos were taken of native growth areas and planted areas. Information for each surveyed polygon was recorded on standard forms, and includes site id, county, tree and shrub species present to genus, and the number of each species present in the polygon.

In forested upland and shrubland habitat, the number of all woody stemmed vegetation regardless of diameter at breast height (DBH) was counted or visually estimated. In shelterbelt areas, all woody stemmed vegetation with a DBH of ≥1 inch was inventoried, regardless of height. Ecologists taxonomically identified all recorded individuals to the species level within each habitat type.

In high density woodland areas, such as shelterbelts that are more than 100 feet wide, the Linear Spacing Estimates could be used in place of individual counting. Linear Spacing Estimates require that the survey crew ecologist estimate the total number of individual trees or shrubs within each observed shelterbelt by calculating the total number of individuals, regardless of DBH, of each species within a set linear distance. This method assumes that spacing and species pattern between individuals is equal along the entire length of the shelterbelt. When a satisfactory number of replications was averaged (usually up to 50 percent of the total shelterbelt length), ecologists determined the total shelterbelt length and estimated the total number of individuals potentially present based on the average number of individuals per linear foot. Once the number of individuals per foot was estimated for each shelterbelt, ecologists used a shapefile depicting the width of the proposed disturbance area (i.e., 100 feet) to determine the linear length of each shelterbelt segment potentially impacted by construction activities. This linear length was then used to estimate the number of individual trees or shrubs potentially impacted through construction activities.

In native growth areas and planted areas, shrubs that form colonies (such as buffalo currant, chokecherry, dogwood, plum, pussy willow, and sandbar willow) and that are cut flush with the ground surface and not cleared (so as to leave the naturally occurring seed bank and root stock intact), are not included in the direct stem counted. Instead, these areas were delineated either from an aerial photo or from field surveys. These areas will be marked on construction drawings to not be cleared or have the ground disturbed. If ground disturbance occurs, Hess will conduct a direct stem count of the disturbance area or estimate the number of stems cleared using a Commission-approved sampling estimate method.

Attachment A

Public Service Commission
Tree and Shrub Mitigation Specifications

Case No. PU-10-218

Tree and Shrub Mitigation Specifications

Inventory

1. Trees and shrubs anticipated to be cleared, including those that are considered invasive species or noxious weeds (e.g., C*aragana arborescens*, *Elaeagnus angustifolia*, *Rhamnus cathartica*, *Tamarix chinensis*, *T. parviflora*, *T. ramosissima*, *Ulmus pumila*), shall be inventoried before cutting. The inventory shall record the location, number, and species of trees and shrubs.
2. In windbreaks, shelterbelts, and other planted areas, trees or shrubs anticipated to be cleared, regardless of size, shall be inventoried for replacement.
3. In native growth areas, trees anticipated to be cleared that are 1-inch diameter at breast height (dbh) or greater shall be inventoried for replacement.
4. In native growth areas, shrubs anticipated to be cleared in the permanent right-of-way shall be inventoried for replacement.
5. In native growth areas outside the permanent right-of-way, shrubs shall be cut flush with the surface of the ground, taking care to leave the naturally occurring seed bank and root stock intact. If soil disturbance is necessary, the native topsoil shall be preserved and replaced after construction. Shrubs shall be allowed to regenerate naturally where native topsoil is preserved and replaced. Where native topsoil is not preserved and replaced, shrubs anticipated to be cleared shall be inventoried for replacement.
6. In native growth areas, trees and shrubs may be inventoried by actual count or by sampling method that will properly represent the woody vegetation population. A sampling plan developed by the company, filed with the North Dakota Public Service Commission (PSC) and approved prior to the start of construction shall define the sampling method to be used for trees, tall shrubs and low shrubs. The data from the sample plots shall be extrapolated to the total acreage of the wooded area to be cleared to determine the species and quantity of trees and shrubs to be replaced.

Clearing for Construction

7. Trees and shrubs shall be selectively cleared, leaving mature trees and shrubs intact where practical.
8. The width of clear cuts through windbreaks, shelterbelts and all other wooded areas shall be limited to 50 feet or less unless otherwise approved by the North Dakota PSC.
9. If the area of trees or shrubs actually cleared differs from the area inventoried, the difference in number of trees and shrubs to be replaced shall be noted on the inventory.

Replacement

10. Prior to tree/shrub replacement, documentation identifying the number and variety of trees removed as well as the mitigation plan for the proposed number, variety, type, location and date of replacement plantings shall be filed with the North Dakota PSC for approval.
11. Tree replacement shall be on a 2 to 1 basis with 2-year-old saplings. Shrub replacement shall be on a 2 to 1 basis with stem cuttings.
12. Trees and shrubs shall be replaced by the same species or similar species suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.
13. Tree and shrub replacement shall not be conducted within a 20- to 30-foot-wide path over the pipeline to facilitate visual inspections of the right-of- way in accordance with U.S. Department of Transportation safety regulations.
14. Landowners shall be given the option of having replacement trees/shrubs planted off the right-of-way on the landowner's property or waiving that requirement in writing and allowing those replacement trees/shrubs to be planted at alternative locations.
15. At the conclusion of the Project, documentation identifying the actual number, variety, type, location and date of the replacement plantings shall be filed with the North Dakota PSC.
16. Tree/shrub replacements shall be inspected once a year for three years, on about the anniversary of the plantings, and, on or shortly before October 1 of each year, a report shall be submitted to the North Dakota PSC documenting the condition of replacement planting and any woodlands work completed. If after three years from the anniversary of the plantings the survival rate is less than 75 percent, the North Dakota PSC may order additional planting(s).