

Appendix I: Erosion and Sediment Control Plan

# **EROSION AND SEDIMENT CONTROL PLAN**

Continental Resources, Inc.  
Buddy Domindgo Transmission Line

February 2022



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# Erosion Control Plan Continental Resources Inc. Buddy Domindgo Transmission Line

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## APPENDICES

**Appendix A** Inspection Log

## 1.0 Introduction

Continental Resources, Inc. (“Continental”) is proposing to build, own, and operate an approximately 3.1-mile-long pipeline for the transportation of natural gas from an existing natural gas pipeline and to an existing Continental oil well pad. The proposed pipeline will be constructed in Williams County, North Dakota (Figure 1).

### 1.1 Plan Purpose/Objectives

The Erosion and Sediment (ESCP) shall identify potential sources of pollution, which may reasonably be expected to affect the quality of storm water discharges from construction of the pipeline. The ESCP shall describe and ensure the implementation of Best Management Practices (BMP’s), which will be used to reduce the pollutants in storm water discharges associated with construction activity at the construction site and to assure compliance with the terms and conditions of this permit.

The ESCP shall:

- Be completed prior to initiating construction activities and updated as appropriate; and
- Provide for compliance with the terms and schedule of the ESCP beginning with the initiation of construction activities.

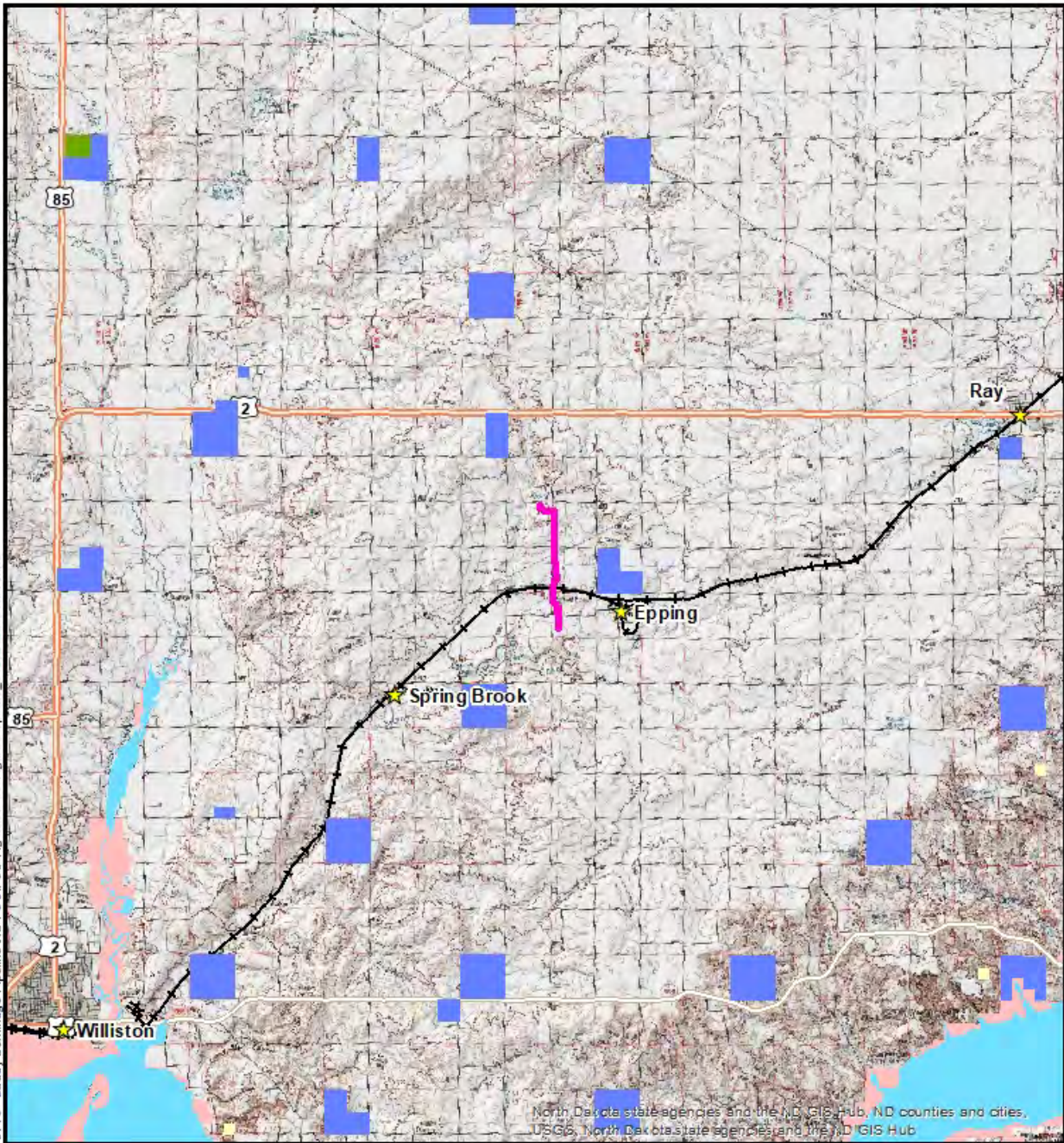
For the purposes of this plan, runoff management is defined as practices that divert, infiltrate, reuse, or treat storm water runoff, and not practices that limit exposure of potential pollutants to direct rainfall or runoff. The purpose of the ESCP is to:

- Identify sources of pollutants associated with construction activities that may affect the quality of storm water runoff from construction sites; and
- To identify storm water management practices to abate pollutants in storm water discharges from the construction site, both during and after construction.

This ESCP has been designed to outline the specific measures implemented at the construction site for minimizing potential pollutants that may otherwise impact storm water runoff during construction. BMPs are used to prevent or minimize the discharge of pollutants. Specific BMPs for minimizing runoff and erosion are described in Section 5 of this ESCP. BMPs should be employed to properly cover and store materials, minimize contact of materials with rainfall and runoff, minimize waste, properly dispose of waste, and recycle where possible.

Conformance with the requirements of this ESCP includes timely inspections, proper maintenance, record keeping, tracking, and documentation. Required maintenance will be conducted as soon as practicable before the next anticipated storm event. If existing BMPs need to be modified or additional BMPs are necessary, corrections will be completed before the next anticipated storm event.

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 February 2022



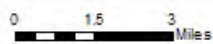
North Dakota state agencies and the ND GIS Hub, ND counties and cities, USGS, North Dakota state agencies and the ND GIS Hub



- Legend**
- Centerline
  - Missouri River
  - ND State Lands
  - Army Corps of Engineers Lands
  - Bureau of Land Management Surface Lands
  - Waterfowl Production Areas



**Continental Resources, Inc.**  
**Buddy Domindgo Transmission Line**  
 Location Map  
 Williams County, North Dakota



1:190,080



Basemap: ND GIS Hub, A1, Elevation, TopoMap, Shaded (148)/24K

## 2.0 Responsible Party/Signatory Certification

Continental is responsible for implementing the provisions of this operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications, or day-to-day operational control of those, which are necessary to ensure compliance with the ESCP for the site or other permit conditions.

### Operator

Continental Resources, Inc.  
20 N. Broadway  
Oklahoma City, OK 73102  
(405) 234-9000

### Staff Facilities Engineer

Jared Weingartner, P.E  
Continental Resources, Inc.  
20 N. Broadway  
Oklahoma City, OK 73102  
(405) 420-9569

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

### **3.0 Delegation of Authority**

Continental will own and operate the pipeline; however, construction of the pipeline will be performed by independent Contractors and construction inspectors hired by Continental. These Contractors and inspectors will have day-to-day responsibility to ensure compliance with this ESCP. Continental, by completing the Delegation of Authority Form (following page), grants authority to the named parties to act on its behalf on matters pertaining to this ESCP. Any signed Delegation of Authority form shall be always kept with this ESCP.

# Delegation of Authority Form

## Delegation of Authority

I, \_\_\_\_\_ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the \_\_\_\_\_ construction site. The designee is authorized to sign any reports, storm water pollution prevention plans and all other documents required by the permit.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (name of person or position)  
\_\_\_\_\_ (company)  
\_\_\_\_\_ (address)  
\_\_\_\_\_ (city, state, zip)  
\_\_\_\_\_ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in \_\_\_\_\_ (Reference State Permit), and that the designee above meets the definition of a "duly authorized representative" as set forth in \_\_\_\_\_ (Reference State Permit).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Name:** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## 4.0 Project Description

The project consists of a pipeline transportation system to natural gas oil from the existing East Mon-Dak WBI Energy Transmission Line to the Continental Buddy Domindgo oil well pad. The pipeline will be installed within a defined right-of-way (ROW). The temporary construction ROW will be 75 feet wide. The temporary construction ROW may be reduced in some areas as necessary to avoid impacts to environmentally sensitive areas. The pipeline is proposed to be constructed in rural areas with no established storm water drainage systems. Local roads are predominantly gravel/clay. No major paved roads exist in the area.

Generally, the permanent pipeline ROW will be 25 to 50 feet wide, with the pipeline centered within that ROW. The location of the pipeline within the permanent ROW may vary depending on terrain, the presence of other existing facilities, and landowner requests.

Additional temporary workspace will be required at certain locations (e.g., road and railroad crossings). These workspace areas may vary in size depending on the feature being crossed and crossing construction method(s).

Equipment and pipe storage areas will also be required. These areas may not be located adjacent to the proposed ROW. Off-site material storage areas (also including overburden and stockpiles of dirt, borrow areas, etc.), used solely by the permitted project, are considered a part of the project and shall be subject to the same control requirements as the ROW.

### 4.1 Sequence of Construction Activity

Pipeline construction is much like a moving assembly line. The construction activities will occur in the general order listed and include, but are not limited to, the following:

- Clearing
- Grading
- Stringing
- Bending
- Welding
- Ditching (excavation)
- Laying pipe
- Backfill
- Tie-ins
- Clean up

Construction will proceed along the pipeline in one continuous operation. As construction proceeds along a spread, construction at any single point along the pipeline, from initial surveying and clearing, to backfilling and finish grading is anticipated to last about three to four weeks. Different phases of construction may occur at multiple locations at the same time. The entire process will be coordinated in such a manner as to minimize the total time an individual tract is disturbed, exposed to erosion, or temporarily precluded from its normal use.

## 4.2 Construction Site Estimates

Total disturbed acres (assume 75-foot temporary ROW) = 95.3 acres

Temporary workspace acres = ~45 acres

## 4.3 Soils, Slopes, Vegetation, and Drainage Patterns

The construction ROW will be cleared and graded (where necessary) to provide a relatively level surface for construction equipment, a sufficiently wide workspace for the passage of heavy equipment, and safety for pipeline workers. The construction contractor will limit ground disturbance wherever possible. Natural features will be retained to the maximum extent possible. Native vegetation, especially trees, is to be retained to the maximum extent possible.

To avoid soil mixing, topsoil will be removed and segregated from underlying subsoil. Topsoil will be stored separately from subsoil and protected from construction-related activities. Topsoil is typically stored at the far edge of the ROW on the opposite side of the trench from where construction machinery does its work.

Once the pipeline is installed, the trench will be backfilled and then compacted while grading. Disturbed areas will be restored to their original contours and condition to the extent practical unless landowner consent is obtained to do otherwise. After grading is complete and during the process of backfilling, final stabilization measures will be taken to ensure minimal erosion. In general, the ROW will revert to the previous land use after construction is completed and during operation of the pipeline.

The general flow of storm water will remain the same throughout the project. Measures will be taken to ensure the minimal amount of erosion possible, as well as the least impact on the receiving bodies of water.

## 4.4 Receiving Waters

A comprehensive wetland and waterbody delineation survey has been conducted along the route. The proposed pipeline will cross wetlands and ephemeral drainages. The location of delineated wetlands and ephemeral drainages are indicated on the construction drawings. In general, the following practices will be observed at these locations:

- In wetland or riparian zones, the Contractor will install sediment control structures along the construction right-of-way edges prior to vegetation removal where practicable.
- Where drainages or wetlands are adjacent to the construction right-of-way, the Contractor shall install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way.
- Sediment barriers will be installed across the entire ROW way immediately upslope of the wetland boundary at all standard (saturated or standing water) wetland crossings as necessary to prevent sediment flow into the wetland. Sediment control barriers are not required at “dry” wetlands.
- Sediment barriers will be installed across the entire ROW immediately upslope of any flowing waterbody or impoundment.

## 5.0 Erosion and Sediment Control BMPs

Erosion and sediment controls include stabilization practices, as well as structural controls. General structural practices may include, but are not limited to, silt fences, earth dikes, drainage swales, sediment traps, check dams, reinforced soil retaining systems, gabions, temporary or permanent sediment basins and flow diversion.

Temporary erosion and sediment control measures shall be installed immediately after initial disturbance of the soil, maintained throughout construction, and reinstalled as necessary until replaced by permanent erosion control structures or restoration of the construction ROW is complete.

Specifications and configurations for erosion and sediment control measures may be modified by Continental as necessary to suit actual site conditions. However, all work shall be conducted in accordance with applicable permits.

The intent of the BMPs is to prevent any damage due to transported sediments or adding any erosion burden by diverting storm water runoff into sensitive areas. The intent is not to vegetate areas that are not naturally vegetated and to not increase any erosion rates over and above what is caused by natural drainage in the area. In general:

- Construction-phase erosion and sediment controls should be designed to retain sediment on-site to the maximum extent practicable.
- 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.
- If sediments escape the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.
- Sediment must be removed from sediment traps or sedimentation ponds when design capacity has been reduced by 50%.
- Litter, construction debris, and construction chemicals exposed to storm water shall be prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, picked up daily, etc.).
- Ensure that silt fences are intact and that there are no gaps at the fence-ground interface or tears along the length of the fence. If gaps or tears are found, they should be repaired, or the fabric should be replaced immediately. Accumulated sediments should be removed from the fence base when the sediment reaches one-third to one-half the height of the fence.
- Large debris, trash, and leaves should be removed from check dams (hay bales). The center of a check dam should always be lower than its edges. If erosion or heavy flows cause the edges of a dam to fall to a height equal to or below the height of the center, repairs should be made immediately. Accumulated sediment should be removed from the upstream side of a check dam when the sediment has reached a height of approximately one-half the original height of the dam (measured at the center).
- Sediment control barriers shall be placed so as not to hinder construction operations. If silt fence or straw bale sediment barriers (in lieu of drivable berms) are placed across the entire construction ROW, a provision shall be made for temporary traffic flow through a gap for vehicles and equipment to pass within the structure. Immediately following each day's shutdown of construction activities, a row of straw bales or a section of silt fence

shall be placed across the upgradient side of the gap with sufficient overlap at each end of the barrier gap to eliminate sediment bypass flow, followed by bales tightly fitted to fill the gap. Following completion of the equipment crossing, the gap shall be closed using silt fence or straw bale sediment barrier.

- The Contractor shall remove sediment barriers, except those needed for permanent erosion and sediment control, during cleanup of the construction right-of-way.

The following sections describe erosion and sediment goals to be considered during construction and practices expected to be implemented to achieve those goals during construction.

## **5.1 Run-on Protection**

The pipeline ROW will be graded to provide relatively flat surfaces that facilitate the movement and maneuvering of heavy equipment. Natural drainage swales will be utilized to the extent possible when planning locations to intercept, divert and convey storm water and runoff around the ROW. Some minor contouring may be necessary to enhance the drainage and take advantage of the natural drainage characteristics of the terrain; however, to capture sediment transported by overland flow, some structural BMPs may be installed. These include:

- Earthen dikes established on high side of location to intercept, divert and convey storm water and/or runoff around the project site.
- Trenching/ditching around high side of location to intercept, divert and convey surface runoff around the project site.

Drainage channels or ditches shall be used on a limited basis to provide drainage along the construction right-of-way and toe of cut slopes as well as to direct surface runoff across the construction right-of-way or away from disturbances and onto natural undisturbed ground. Channels or ditches shall be constructed by the Contractor during grading operations. Where there is inadequate vegetation at the channel or ditch outlet, sediment barriers, check berms, or other appropriate measures shall be used to control erosion.

## **5.2 Stabilizing Soils**

The soils that generally will require stabilization are those used for berm construction and soil stockpiles. Stabilization includes, but is not limited to, soil compaction and seeding of disturbed soil once backfilling and/or grading is complete. General stabilization practices may include, but are not limited to, establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures.

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

The ROW may be bare in heavily travelled areas. Reseeding should be completed in areas (uncultivated) that have no traffic if foliage has not grown in those areas already. Use approved seed to reseed/vegetate existing locations in areas no longer traveled. Stabilize the topsoil piles as soon as practical after stripping is complete. Erosion control matting may be installed on slopes, as needed.

Interim stabilization practices are not expected to be needed or implemented during active construction. Wherever possible, existing vegetation will remain in place to minimize erosion potential. Final re-vegetation and stabilization of each disturbance area will occur once active construction is completed.

Soil stockpile may be stabilized by wetting with water or using soil tackifiers. When wetting topsoil piles with water does not prevent wind erosion, the Contractor shall temporarily suspend topsoil handling operations and apply a tackifier to topsoil stockpiles at the rate recommended by the manufacturer.

Should construction traffic, cattle grazing, heavy rains, or other related construction activity disturb the tackified topsoil piles and create a potential for wind erosion, additional tackifier shall be applied by the Contractor. Soil stockpiles may also be stabilized by seeding with an approved temporary seed mixture or by hydromulching.

### 5.3 Slope Protection

Use berms to divert location flow from slopes to established drainages where practical. Minimize removal of existing vegetation on new locations. Use approved seed to reseed/vegetate existing locations in areas no longer traveled.

Trench breakers shall be installed in steep terrain where necessary to limit the potential for trench line erosion and at the base of slopes adjacent to waterbodies and wetlands. Trench breakers shall be constructed of materials such as sandbags, sand/cement bags, bentonite bags, or other suitable materials. The Contractor shall not use topsoil in trench breakers.

Permanent slope breakers (water bars) shall be constructed of soil or, in some instances, sandbags. The Contractor shall construct permanent slope breakers on the construction right-of-way where necessary to limit erosion, except in cultivated areas. Slope breakers shall divert surface runoff to adjacent stable vegetated areas or to energy-dissipating devices. In general, permanent slope breakers should be installed immediately downslope of all trench breakers. Permanent slope breakers shall be installed as specified on the construction drawings or generally with a minimum spacing as shown on the following table:

<u>Slope (%)</u>	<u>Spacing (feet)</u>
5 - 15	300
>15 – 30	200
>30	100

The gradient (fall) for each slope breaker shall be two percent to four percent unless otherwise approved by Continental based on site-specific conditions.

Manufactured erosion control mats shall be installed across areas that have eroded and cannot be stabilized by normal seeding and mulching practices. Erosion control matting shall be made of biodegradable, natural fiber such as straw or coir (coconut fiber).

The Contractor shall prepare the soil surface and install the erosion control matting to ensure it is stable and the matting makes uniform contact with the soil of the slope face or waterbody bank with no bridging of rills, gullies, or other low areas. Ensure that the mats are properly anchored.

## 5.4 Perimeter Controls and Sediment Barriers

Install silt fence or fiber rolls (wattles) as necessary to provide a sediment barrier. Sediment barriers should be installed at the lowest elevation of the location, at the boundary where disturbed (bare) soils meet undisturbed (vegetated) soils. Sediment barriers should be installed in ditches along the lower perimeter of locations. Straw bales may be installed as an alternative to silt fence or fiber rolls.

If none of the above BMPs are effective, installation of systems that are more complex are required. This may include the construction of sediment traps or detention basins.

## 5.5 Construction Entrance/Exits

Existing location entrances/exits are assumed to be stabilized. All roads begin on established roads and have proper entrances established with provisions for drainage. County roads are surfaced with gravel and have established drainage ditches. Control of sediment deposition is required prior to accessing the country road from a lease road.

## 5.6 Additional BMPs

Additional/optional BMPs will be used as necessary when other methods are not effective. BMPs are subject to approval from the project engineer as well as permitting/land management agencies. Other BMPs will be used site-wide to minimize pollutants in storm water from other potential sources in accordance with the control requirements. These include:

**Waste Disposal** – No solid materials, including building materials, shall be discharged to waters of the State. Solid materials refer to such items as boards, wrapping materials, bricks and concrete debris, and land clearing debris such as leaves and tree limbs, but do not include total suspended solids.

**Off-Site Vehicle Tracking** – BMPs will be used in the minimization of vehicle tracking of sediments off-site and minimization of dust generation. The construction site will have limited access. Gravel drives will be used at the entrances to undeveloped areas.

**State/Local Sanitary Sewer, Septic System or Waste Disposal Regulations** – All sanitary wastewater from temporary facilities located within the construction site (trailers, portable toilets, etc.) will be removed for disposal off-site by a contractor. No sanitary wastewater will be discharged from the construction site.

**Storage of Construction and Waste Materials** – Vehicle maintenance, repair, refueling, and cleaning will be performed in a designated area at the construction site to minimize the potential for contamination of storm water by oil and grease. Any waste oil collected during such activities will be collected in drums or other compatible oil container and will be removed from the site. All waste collected from the site will be disposed of off-site at a registered waste disposal facility. There will be no on-site storage of gasoline or diesel for refueling vehicles.

## 5.7 Maintenance

Maintenance of the erosion and sediment control BMPs will be conducted in a timely manner once the need for maintenance activities is deemed necessary. If during inspections, a BMP

requiring maintenance is identified, the maintenance will be accomplished prior to the next anticipated storm event, or as necessary to maintain the continued effectiveness of the BMP. When maintenance of the BMP cannot be accomplished prior to the next storm event, the maintenance will be scheduled and performed as soon as practicable.

Except for sediment basins, all accumulated sediment shall be removed from structural controls when sediment deposits reach  $\frac{1}{3}$  to  $\frac{1}{2}$  the height of the control. For sediment basins, accumulated sediment shall be removed when the capacity has been reduced by 50%. All removed sediment deposits shall be properly disposed of. Non-functioning controls shall be repaired, replaced, or supplemented with functional controls within 24 hours of discovery or as soon as field conditions

## 6.0 Good Housekeeping BMPs

Good housekeeping is used to maintain a clean and orderly workplace and to reduce the potential for accident spills or releases of materials that could contaminate storm water. Generally, the following general good housekeeping BMPs will be used:

- Designate areas for equipment maintenance and repair. These areas must have provisions to contain any potential pollutants in an area that can be regularly removed and properly disposed.
- Establish proper equipment/vehicle fueling and maintenance practices (drip pans, spill kits).
- Spills that occur shall be cleaned up immediately and reported, as necessary.
- Designate equipment wash-down areas and provide appropriate control of wash water.
- Construction materials should be stored in designated areas until these materials are required and should be loaded and off-loaded in the designated areas.
- Each contractor and subcontractor are encouraged to bring to the job site only the material to be used that day.
- Large items should be placed next to their installation locations to minimize handling.
- Provide protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials. If such materials are used, these storage areas should be enclosed with temporary fencing where practical. Curbing/temporary berms can be provided to minimize storm water run-on onto storage areas.
- Provide waste receptacles at convenient locations and provide regular collection of wastes.
- Debris and waste should be properly disposed of according to the applicable federal, state, and local laws.
- Provide adequately maintained sanitary facilities.
- Contractors/subcontractors should be provided with a storage yard in which to park vehicles during off-hours.
- Drums and tanks will be clearly tagged and labeled.
- Tanks and equipment will be regularly inspected.

### 6.1 Material Handling and Waste Management

Keep area policed of all trash and debris. Garbage will be stored in a dumpster and its contents disposed of according to local and state regulations at an approved facility. Disposal will not be allowed on location. No burning or burying of garbage will be allowed.

Portable chemical toilets will be provided for construction personnel. Do not locate near drainage facilities or in areas that will collect/accumulate water. Sewage will be disposed of according to local and state requirements

### 6.2 Material Staging Areas

Store materials indoors when possible. Do not store any hazardous materials on the ground. Store bags and boxes on pallets under cover and liquids in drums under cover. Ensure that all bags/boxes are completely covered when not being used. Store materials in their original packages with the original product labels. Have MSDS information available on site for all materials. Provide for proper containment in accordance with the Spill Prevention Control and

Countermeasure (SPCC) Plan developed for the project. Store all products with sufficient space to allow for spill cleanup and emergency response access.

### **6.3 Equipment/Vehicle Fueling and Maintenance**

Fuel will be delivered to the construction areas via steel tanks mounted in pick-up trucks or by bulk delivery trucks. Trucks shall be equipped with spill containment kits and tools. All personnel engaged in refueling operations on site will be required to attend all nozzles or transfers during the entire time fuel transfer is occurring.

Oil and oily wastes, such as crankcase oil, cans, rags, and paper dropped in oil and lubricants, can be best disposed of in proper receptacles or recycled. Waste oil for recycling should not be mixed with degreasers, solvents, antifreeze, or brake fluid. Dumping of these wastes in storm sewers and other drainage channels is illegal and could result in fines or job shutdown.

A further source of these pollutants is leaky vehicles. Proper maintenance of equipment and placing tarps/drip pans underneath vehicles parked for a period of one or more days will further reduce pollution by this source. Refer to the SPCC Plan prepared for this project.

### **6.4 Additional BMPs**

Wash facilities will not be provided to clean mud/dirt from construction equipment/vehicles. If excessive mud is on vehicles, use shovels and or brooms to brush off prior to entering county roads.

## 7.0 Post-Construction BMPs

Post construction activities shall, at a minimum, include:

- Reseeding/restoration of areas not needed for agricultural operations.
- Drainage ditches, earthen dikes, drainage swales, and other sediment control and diversion structures shall remain in place. Those not made permanent should be made permanent prior to final stabilization of the project area.
- Any exposed slopes should be protected using already established BMPs cited above.
- Reference is made to all the above BMP specifications mentioned previously in this plan and they are hereby incorporated into this section of the plan.

Only certified, weed-free, seed will be used for reseeded. Once the points of disturbance have been re-contoured, broadcast seeding will be used as the application method for re-vegetation. If necessary, the seeded area will be lightly dragged after broadcasting the seed to get ¼- to ½-inch soil coverage and certified noxious weed-free mulch, composed of either annual grain residue or native hay, will be crimped into the soil. If seeding is done by drill seeding methods, the rates above will be reduced by 50%.

Final stabilization means that all soil-disturbing activities at the site have been completed and either of the two following criteria is met:

- A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover adequate to stabilize disturbed areas and prevent future impacts to the environment has been established, or
- Equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

Once the site has undergone final stabilization, structural controls may be removed.

## 8.0 Potential Sources of Pollution

The following substances listed below may be expected to be present on-site during construction:

- Concrete
- Detergents
- Paints (enamels and latex)
- Metal studs
- Fertilizers
- Fuels
- Cleaning solvent
- Lubricants
- Wood
- Pipe coatings/lubricants

The most economical and effective way to control pollutants other than sediment is to exercise good housekeeping practices and to require construction workers, planners, engineers, and developers to be aware of the need to comply with federal, state, and local regulations. The following sections discuss practices that will minimize the potential for pollutants to enter storm water discharges.

Petroleum products are commonly used during construction activities. These products are used as fuels and lubricants for vehicular operations, power tools, general operation, and equipment maintenance. These pollutants include oils and fuels such as gasoline, diesel oil, kerosene, lubricating oils, and grease. Most of these pollutants adhere to soil particles and other surfaces easily. One of the best practices of control is to retain sediments that contain oil, if any, on the construction site.

Soil erosion and sediment control practices can effectively accomplish this. Improved maintenance and safe storage facilities will reduce the potential for contaminating construction sites. Guidelines for storing construction related products are as follows:

- Clearly label all products.
- Keep tanks off the ground.
- Keep lids securely fastened.
- Post information for procedures in case of spills. Persons trained in handling spills should be always on-site or on-call.
- Keep materials for cleaning up spills on-site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of.
- Specify a staging area for all vehicle maintenance activities. This area should be away from all drainage courses.
- During subcontractor or safety meetings, remind workers about proper storage and handling of materials.

### 8.1 Non-Storm Water Discharge Management

Allowable non-storm water discharges are:

- Fresh water used for dust control,

- Fresh uncontaminated water used to test pipelines and flowlines,
- Air Conditioning condensate from vehicles on location,
- Discharges from fire-fighting activities,
- Uncontaminated ground water or spring water,
- Uncontaminated excavation dewatering,
- Landscape irrigation.

## 9.0 Inspections

The project area will be regularly inspected by qualified personnel to ensure that BMPs are maintained in good and effective order. Personnel shall receive training in the ESCP plan, ESCP Plan implementation and BMP purpose, construction, use and inspection.

Erosion and sediment control measures shall be inspected on a regular basis. Disturbed areas and storage areas that are exposed to rainfall or run-on must be inspected for evidence of, or the potential for, pollutants entering site runoff. Site access shall also be inspected to determine if sediment is being tracked onto adjacent roads.

During day-to-day operations, inspections will be conducted by construction personnel. Each location is normally visited at least once per week. An inspection shall be conducted at this time and any problems areas noted on the Inspection Log (Appendix A). If all BMPs are in place and functioning properly, a negative report should be entered.

### 9.1 Inspection Schedule

Routine inspections will occur a minimum of once every 14 calendar days and within 24 hours of the end of a storm event of or greater than 0.5 inches of precipitation. The frequency of inspections will be reduced if:

- The entire site is temporarily stabilized;
- Runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen);
- Construction is occurring during a seasonal arid period.

Inspections must include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures identified in the ESCP must be inspected to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

Based on inspection results, the site description and pollution prevention measures must be revised in this ESCP if inadequacies are discovered. The inspection and plan review process must include timely implementation of any changes to the ESCP within seven (7) calendar days after the inspection. If existing BMPs need to be modified or if additional BMPs are necessary, implementation shall be completed before the next anticipated storm event. If implementation of changes to BMPs is not practical before the next anticipated storm event, modifications shall be implemented as soon as practical.

A waiver of the inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all the following requirements are met:

- Frozen conditions are anticipated to continue for more than one month;
- Land disturbance activities have been suspended; and
- Beginning and ending dates of the waiver period are documented in the ESCP.

## **9.2 Inspection Report**

The inspection reports should summarize the scope of inspections, names and qualifications of inspection personnel, the inspection dates, major observations, and remedial actions taken. These records shall be retained as part of the ESCP for at least three (3) years after the date of inspection.

The Inspection Form describes what to look for during inspections and the types of maintenance measures to undertake. The checklist includes:

- Visual inspection
- Good housekeeping
- Site assessment

## **9.3 Corrective Action Log**

If problems are encountered, the issue shall be promptly reported to the field superintendent or his designated representative. Corrected action shall be planned immediately and initiated as soon as feasible. Corrective actions shall be recorded on the Inspection Log included in Appendix A.

## **10.0 Recordkeeping and Training**

### **10.1 Recordkeeping**

The following records should be kept for a period of at least three (3) years from the date all site work has been completed:

- Dates of grading, construction activity, and stabilization;
- Inspection reports; and
- Date(s) when an area is either temporarily or permanently stabilized.

### **10.2 Training**

ESCP training sessions will be held prior to and during construction, as needed. Contractor construction supervisory personnel and construction inspectors are required to attend. Training topics will include the following items:

- General storm water and BMP awareness training for staff and subcontractors;
- Spill prevention and response, as described by the SPCC components of this ESCP;
- Standard housekeeping measures;
- Materials handling procedures; and
- A review of the most recent inspection results and any resulting changes to storm water pollution prevention or new requirements.

## ***Appendix A***

### ***Inspection Log***

