



Little Missouri Lateral Pipeline Project

WEED MANAGEMENT PLAN

ISSUED FOR CONSTRUCTION

Prepared by:



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LIST OF ACRONYMS AND ABBREVIATIONS

EI	Environmental Inspector(s)
MP	Milepost
ONEOK	ONEOK Bakken Pipeline, L.L.C.
Plan	Weed Management Plan
Project	Little Missouri Lateral Pipeline Project
ROW	Right-of-Way
SPCC	Spill Prevention, Control, and Countermeasure Plan
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

Noxious weed control practices for the ONEOK Bakken Pipeline, L.L.C. (ONEOK) Little Missouri Lateral Pipeline Project (Project) described in the *Weed Management Plan (Plan)* are being developed in consultation with the McKenzie County Weed Board.

2.0 GOALS AND OBJECTIVES

This Plan prescribes methods to prevent and control the spread of noxious weeds during and following construction of the Project. ONEOK and its contractors will be responsible for implementing the methods described in this Plan.

This Plan is applicable to the construction and operation of the proposed pipeline facilities, including the pipeline right-of-way (ROW), the proposed aboveground facilities, and extra temporary workspaces (ETWS) disturbed during the construction and operation of the proposed facilities.

3.0 NOTIFICATION AND APPROVAL

ONEOK will execute the following notification procedure:

1. At least 15 days prior to ground-disturbing activity, submit this Plan and the Project *Revegetation Plan* to the McKenzie County Weed Board.
2. Allow the McKenzie County Weed Board to identify revisions to bring the Plan into compliance with the County's weed management plan.
3. Wait to commence ground-disturbing activity until the Plan is approved by the McKenzie County Weed Board and signed by the presiding officer of the Board and by the person or a representative of the agency responsible for the action. The Plan must be approved, with revisions if necessary, within 10 days of receipt by the Board.

4.0 NOXIOUS WEED SPECIES LISTS

A weed is commonly defined as a plant that grows out of place. A noxious weed is any plant officially designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife, or property (Sheley, Petroff, and Borman, 1999). Noxious weeds are opportunistic plant species that readily flourish in disturbed areas, thereby preventing native plant species from establishing successive communities.

Invasive species in North Dakota are controlled and regulated under North Dakota Law (NDCC § 4.1-47-02). Counties and cities have the option to add additional weeds for enforcement only in their jurisdiction.

The State of North Dakota has 13 state-listed noxious and invasive weeds:

Absinth wormwood	Leafy spurge	Russian knapweed
Canada thistle	Musk thistle	Saltcedar
Dalmatian toadflax	Palmer amaranth	Spotted knapweed
Diffuse knapweed	Purple loosestrife	Yellow toadflax
Houndstongue		

McKenzie County, North Dakota, recognizes the following as invasive weeds:

Baby's breath	Common burdock
Black henbane	Halogeton

To comply with North Dakota Law (NDCC § 4.1-47-02), ONEOK has prepared this Plan specifying the weed management procedures to be implemented. Regulations also require that ONEOK reseed, plant, or otherwise manage the area to establish a beneficial plant cover. To this end, ONEOK has developed a *Revegetation Plan* that describes the methods to be used to accomplish revegetation, the time and method of seeding, fertilization practices, and recommended plant species. The Plan is subject to approval by the McKenzie County Weed Board.

5.0 NOXIOUS WEED SPECIES MANAGEMENT

This Plan is designed to:

- Treat specific infestation areas as recommended by weed districts prior to construction, pending landowner approval and seasonal limitations;
- Prevent the introduction and spread of weeds via construction equipment during construction;
- Contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas or along the construction right-of-way; and
- Treat infestations that may develop during operations.

5.1 IDENTIFICATION OF PROBLEM AREAS

ONEOK will work with the McKenzie County Weed Board and landowners to identify known locations of weed infestations in the Project area. In addition to infestation areas identified by the Board and landowners, additional areas containing noxious species may be identified prior to construction by the Environmental Inspectors (EI), which will be demarcated using color-coded flagging or signage on the construction ROW. Identification of existing noxious weed locations will alert environmental inspection and construction personnel to implement weed control measures during construction.

5.2 TREATMENT MEASURES

ONEOK will implement weed control measures, pending landowner approval of specific control measures, at identified infestation areas based on McKenzie County Weed Board input or by the EIs. Weed control measures may include the application of herbicide or mechanical, and/or alternative methods. The weed control measure chosen will be the best method available for the time, place, and species of weed as identified through consultation with the appropriate regulatory agencies. Should landowners not allow the use of herbicides, ONEOK will investigate potential alternative methods to be implemented, with approval by the landowners.

Herbicide application is an effective means of reducing the size of weed populations. Herbicide treatment methods will be based on species-specific and area-specific conditions (e.g., proximity to wetlands, open water, riparian areas or agricultural areas, and time of year) and will be coordinated with the local counties and regulatory agencies. Spot herbicide applications will be the preferred option. In areas of dense infestation, a broader application may be used. Pending the seasonal start of construction, preconstruction treatment of infestation areas may be conducted and will be controlled as described in Section 7.1, to minimize the impacts on the surrounding vegetation. Preconstruction applications will be completed in accordance with applicable chemical contact times (as specified by the manufacturer) in advance of clearing and grading within the construction right-of-way. Treatment may be restricted in areas that are not readily accessible (e.g., difficult topography, saturated/inundated soils, etc.).

Mechanical control (e.g., mowing) can also be an effective control measure specifically for annual species (i.e., not for perennial rhizomatous species). The efficacy of mechanical control measures is dependent upon proper timing to cut the vegetation prior to the maturation of seed and may require multiple treatments during the growing season.

5.3 PREVENTIVE MEASURES

The following measures will be implemented to prevent the spread of noxious weeds.

- Prior to the beginning of construction of the project, all contractor vehicles and equipment (including timber mats) will be cleaned of soil and debris capable of transporting weed propagules. The contractor will maintain logs documenting the cleaning history of each piece of equipment and will make logs available to ONEOK, upon request. Contractor vehicles and equipment will be inspected and may require additional cleaning if necessary prior to mobilization to the ROW. Cleaning will be conducted using high pressure washing equipment or compressed air, and/or manually remove excess soil from the tracks, tires, and blades of equipment.
- ONEOK will install cleaning stations where the project crosses state lines. Stations will be sited at least 0.25 mile from perennial waterbodies. Station design and post-construction removal will be included in the contract bid documents. Stations will utilize high pressure water or compressed air and/or manually remove excess soil and plant debris from the tracks, tires, and blades of equipment prior to movement of equipment out of weed infested areas.
- Areas of the ROW where weed infestations are identified will be clearly marked prior to construction. In these areas, the contractor may elect to conduct full ROW topsoil stripping and will stockpile cleared vegetation and segregated topsoil along the ROW. The stockpiles will be identified as noxious weed stockpiles with signs and be maintained adjacent to the areas from which they were obtained to eliminate the transport of soil-borne noxious weed propagules to other areas along the ROW. During reclamation, the contractor will return topsoil and vegetative material to the areas from which they were obtained. Alternately, for annual weed species the contractor may elect to mow the infested area before the species begins seeding, thus eliminating the threat of spreading seeds during topsoiling and construction.
- In areas where full ROW topsoil stripping is implemented, equipment required for initial vegetation clearing and topsoil segregation will be cleaned using one of the methods described above prior to leaving the area. Once the topsoil has been segregated, subsequent equipment will not require cleaning, as it will not come into contact with noxious weeds or the topsoil containing weed seeds and propagules. Equipment required for topsoil restoration will also be cleaned prior to moving out of an infested area identified by the McKenzie County Weed Board or ONEOK.
- The contractor will ensure straw bales used to construct sediment control devices or used as mulch applications are certified weed free and obtained from approved certified sources as recommended by the McKenzie County Weed Board.
- The contractor will ensure seed mixes and mulching materials used for revegetation are certified weed free and obtained from approved certified sources as recommended by the McKenzie County Weed Board.

5.4 POST-CONSTRUCTION TREATMENT METHODS

ONEOK's objective is to comply with the requirements to prevent the spread of noxious weeds and treat areas of the ROW where weed species form a significant portion of the vegetation community in comparison to adjacent undisturbed areas. ONEOK will implement established reclamation practices to prevent the spread of noxious weeds in reclaimed construction areas and pipeline ROW.

The contractor will implement reclamation procedures immediately following construction. Rapid reclamation and revegetation will discourage the establishment of noxious weeds. In areas of severe weed infestation, as determined by ONEOK's EI(s), ONEOK may elect to delay reclamation efforts and conduct intensive weed control prior to implementing reclamation procedures where allowed by applicable laws.

The contractor will limit the use of fertilizer in reclaimed areas. Fertilizer will only be applied where specified by the jurisdictional land management agency or the property owner.

In the event noxious weed species become established in the ROW, ONEOK will make good faith efforts to control weeds within the ROW and to work with adjacent landowners to prevent the spread of the species to adjacent lands. Post-construction weed control measures may include the application of herbicide or mechanical methods, pending landowner approval. Should ONEOK receive calls from landowners concerning noxious weed on the ROW, ONEOK will work with the landowners to determine the appropriate action to control the spread of the weeds. The weed control measure chosen will be the best method available for the time, place, and species of weed as determined through consultation with the appropriate regulatory agencies. ONEOK will control noxious weed species at ONEOK-managed aboveground facility sites to prevent the spread onto adjacent properties.

Individuals wishing to report noxious weeds on the ROW should call ONEOK at (605) 642-2197, extension #5. ONEOK staff will work with the McKenzie County Weed Board or landowner(s) on an appropriate treatment method.

Post-construction herbicide applications will be conducted prior to seed maturation where possible. Applications will be controlled, as described in Section 7, to minimize the impacts on the surrounding vegetation. As discussed in Section 5.2, herbicide treatment methods will be based on species-specific and area-specific conditions (e.g., proximity to water, riparian areas or agricultural areas, and time of year) and will be coordinated with the local county and regulatory agencies. Spot herbicide applications will be the preferred option. In areas of dense infestation, a broader application will be used and a follow-up seeding program implemented according to the *Revegetation Plan*. The timing of subsequent revegetation efforts will be based on the persistence of the selected herbicide. ONEOK will communicate with a designated representative of each county to inform them of the location and type of treatment administered by ONEOK or its contractor.

Mechanical methods entail the use of equipment to mow weed populations for annual species (i.e., not for perennial rhizomatous species). Mechanical treatments will be conducted prior to seed maturation where required. If such a method is used, subsequent seeding will be conducted if necessary to re-establish a desirable vegetative cover that will stabilize the soils and slow the potential re-invasion of weeds.

During routine operations activities, if noxious weed species are identified that are not listed on the county or state weed lists, ONEOK will treat the affected area as quickly as possible.

ONEOK will consult with local agencies regarding the use of biological and alternate noxious weed control methods, which may be implemented through agreements with private landowners.

6.0 MONITORING

Following construction, weed infestations reported by landowners will be monitored as part of ONEOK's operations and maintenance surveys. EIs will periodically monitor the ROW to capture revegetation growth. Should the EIs identify noxious weed populations in the ROW, they will report their findings to the ONEOK operations and maintenance division to determine the appropriate action to control the spread of the weeds. Noxious weed management will be conducted in accordance with state and county regulations.

7.0 HERBICIDE USE

7.1 HERBICIDE APPLICATION AND HANDLING

Herbicide application will be based on information gathered from consultations with local weed districts and state agencies as well as discussions with landowners. Before application, ONEOK or its contractor will obtain required permits from the local weed districts or the state agencies, and landowner approval. Herbicide application will be conducted in accordance with applicable laws and regulations by a state-licensed contractor, or via contract with the McKenzie County Weed Board, if requested by the landowner.

All herbicide applications will follow United States Environmental Protection Agency (USEPA) label instructions. Application of herbicides will be suspended when any of the following conditions exists:

- Wind velocity exceeds 6 miles per hour during application of liquid or granular herbicides;
- Snow or ice covers the foliage of noxious weeds; or
- Precipitation is occurring or is imminent.

Vehicle-mounted sprayers (e.g., handgun, boom, and injector) may be used mainly in open areas that are readily accessible by vehicle. Hand application methods (e.g., backpack spraying) that target individual plants may be used to treat small or scattered weed populations or in rough terrain. Calibration checks of equipment will be conducted at the beginning of spraying and periodically to ensure that proper application rates are achieved.

Herbicides will be transported to the project site daily with the following provisions:

- On-site herbicide quantities will be limited where practical;
- Concentrate will be transported in approved containers only, in a manner that will prevent tipping or spilling, and in a compartment that is isolated from food, clothing, and safety equipment;
- Mixing will be conducted in an upland area at a distance greater than 100 feet from open or flowing water and wetlands, greater than 200 feet from private wells, and greater than 400 feet from public wells. The property owner would be consulted about the presence and location of wells prior to herbicide application; and
- All herbicide equipment and containers will be maintained as needed and inspected for leaks daily.

7.2 HERBICIDE SPILLS AND CLEANUP

ONEOK has developed a *Spill Prevention, Control, and Countermeasure (SPCC) Plan* that incorporates all reasonable precautions to be taken to avoid spills of all potentially hazardous materials. In the event of a spill, cleanup will be immediate and will be conducted in accordance with the *SPCC Plan*.

Herbicide contractors are responsible to keep spill kits in their vehicles and in herbicide storage areas to allow for quick and effective response to spills. Items to be included in the spill kit are:

- Protective clothing and gloves;
- A minimum of 20 pounds of suitable commercial adsorbent and barrier materials;
- Plastic bags and bucket;
- Shovel;
- Fiber brush and screw-in handle;
- Dust pan;
- Caution tape; and
- Detergent.

Response to an herbicide spill will vary depending on the material spilled and the size and location of the spill. The order of priorities after discovering a spill are to protect the safety of personnel and the public, minimize damage to the environment, and conduct cleanup and remediation activities.

7.3 WORKER SAFETY AND SPILL REPORTING

All herbicide contractors will obtain and have readily available copies of the appropriate safety data sheets and the herbicide labels for the herbicides used. All herbicide spills will be reported in accordance with applicable laws and requirements. Further information regarding spill response and reporting is detailed in the *SPCC Plan*.