

## Appendix 10 - Noxious Weed Management Plan



## North Dakota Noxious Weed Management Plan

**Project Name:**

Summit Carbon Solutions Midwest Carbon Express

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## Acronyms and Abbreviations

ECP	Environmental Construction Plan
EI	Environmental Inspector
GPS	Global Positioning System
MCE Project	Midwest Carbon Express Project
NDCC	North Dakota Century Code
NDDA	North Dakota Department of Agriculture
Plan	North Dakota Noxious Weed Management Plan
Project	North Dakota portion of the MCE Project

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# 1 Introduction

SCS Carbon Solutions, LLC (SCS) proposes to construct the Midwest Carbon Express Project (MCE Project). The MCE Project, as proposed, includes approximately 2,000 miles of pipeline for the transportation of carbon dioxide (CO<sub>2</sub>) from 32 ethanol plants and industrial facility sources across five states to underground injection control facilities in North Dakota for safe and permanent sequestration. This plan addresses the construction and operation of approximately 320 miles of pipeline and associated facilities which will be constructed in North Dakota under North Dakota Public Service Commission jurisdiction and will cross through Burleigh, Cass, Dickey, Emmons, Logan, McIntosh, Morton, Oliver, Richland, and Sargent counties (Table 1).

This North Dakota Noxious Weed Management Plan (Plan) has been developed to identify noxious weed control practices that will be implemented for the North Dakota portion of the MCE Project (Project). The Project consists of series of laterals, trunklines, and a mainline pipeline to transport CO<sub>2</sub> from industrial facilities in multiple states to a permanent geologic sequestration site in North Dakota under the jurisdiction of the North Dakota Industrial Commission.

Table 1: Project Location			
COUNTY	MAINLINE (MILES)	TRUNKLINE (MILES)	LATERALS (MILES)
Burleigh	41.2	--	--
Cass	--	--	22.0
Dickey	--	36.8	--
Emmons	37.0	--	--
Logan	1.8	--	--
McIntosh	34.3	--	--
Morton	22.9	--	0.1
Oliver	12.7	--	6.4
Richland	--	12.2	53.1
Sargent	--	39.5	--
<b>Totals</b>	<b>149.9</b>	<b>88.7</b>	<b>81.6</b>

## 1.1 North Dakota Weed Laws and Regulations

The North Dakota Noxious Weed Control Law (North Dakota Century Code (NDCC) Title 4.1, Section 4.1-47) imposes stewardship obligations upon local governing bodies (county and city weed boards) as well as public and private landowners throughout the state to control noxious weeds on land they own or control. Local county and city weed boards have responsibility for the implementation and enforcement of weed management in North Dakota. Under section 4.1-47-29 of the NDCC, the agriculture commissioner may quarantine the state or portions of the state if deemed necessary to prevent the spread of noxious weeds.

There are weed boards in all counties of North Dakota (Exhibit 1). Each board operates under the supervision of the North Dakota Department of Agriculture (NDDA). The NDAA Commissioner coordinates the efforts of County Weed Boards and state and federal land managers to implement integrated weed management programs. County Weed Board controls noxious weeds in road rights-of-way and public lands throughout the County to control and prevent the spread of noxious weeds in accordance with NDCC §4.1-47-02. Under the Noxious Weed Control Law, a person may not willfully transport any material that contains noxious weed seeds or propagating parts, on a public road, in a manner that allows for the dissemination of noxious weeds.

Noxious weeds are defined as plants propagated by either seed or vegetative parts and determined to be injurious to public health, crops, livestock, land, or other property (NDDA, 2021). The NDDA Commissioner is responsible for maintaining the state noxious weed list, while the County Weed Boards may designate as noxious certain weeds

that are not on the state noxious weed list. Thirteen weeds have been declared noxious in North Dakota (NDCC §4.1-47-03). Three additional weeds have been added to individual county noxious weed list(s) in Dickey, Logan, and Sargent counties. The thirteen state-listed species of noxious weeds and the three county-listed noxious weeds species are listed in Appendix 2.

## 2 Noxious Weed Management Requirements, Commitments, and Guidelines

Noxious weed management requirements and commitments are outlined in the MCE Project's Environmental Construction Plan (ECP). This Plan provides additional guidance to contractors who will be working on the project.

## 3 Purpose and Objectives

The purpose of this Plan is to present strategies and outline best practices to prevent and/or control the spread of noxious weeds during and following construction of the Project. This Plan addresses all Project lands within North Dakota. All contractors will be responsible for implementing the practices described in this Plan. Monitoring during the construction and post-construction phases will ensure that weed management objectives are achieved.

The objectives of noxious weed control on the Project include the following:

- Acquire information on the occurrence, distribution, and abundance of noxious weeds in the Project area prior to construction;
- Prevent the establishment of new populations of noxious weeds in the Project areas not previously infested, and limit the spread of existing infestations to the extent feasible;
- Minimize possible negative effects to rare flora or fauna within the Project area by control activities;
- Coordinate and consult with designated State and County weed personnel regarding noxious weed control activities conducted by the SCS to ensure compatibility with existing weed control protocols; and
- Respond to landowner and/or land-managing agency reports of weeds during the post- construction period.

## 4 Pre-Construction Surveys

Noxious weed surveys will be conducted by qualified environmental personnel prior to ground disturbance. The surveys would be conducted by biologists who are familiar with the taxonomic characteristics and typical habitats of noxious weeds. Post-construction surveys will be conducted as described in Section 7.

## 5 Noxious Weed Management

Weeds are spread by a variety of means that may include construction equipment, construction and reclamation materials, livestock, wildlife, vehicles, people, and wind. The risk of establishing weeds increases with ground-disturbing activities (Sheley et al., 1999). This Plan emphasizes: 1) preventing the establishment of new populations of noxious weeds in lands that are currently weed-free; and 2) limiting the spread of existing populations of noxious weeds as feasible. The following section presents strategies to manage noxious weeds during the pre-construction, construction, and post-construction phases of the Project.

### 5.1 Preventive Measures

- Pre-construction noxious weed surveys will be conducted on all construction areas prior to vegetative clearing. Existing infestations will be described (i.e., species, density, and extent) and recorded with Global Positioning System (GPS). Noxious weeds that occur adjacent to the right-of-way will be similarly noted in survey forms and GPS records but not mapped.

- SCS will implement weed treatment prior to construction on a species and/or site-specific basis. Pre-construction treatments may include mechanical means (e.g., mowing, clearing) or herbicides, depending on the species present and size of the population.
- All Contractor vehicles and equipment will arrive at the work site clean and free of noxious weed seeds or parts. Equipment will be cleaned using high-pressure washing devices if necessary (air or water). An Environmental Inspector (EI) will inspect and verify that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds or parts prior to being allowed access to the right-of-way.
- In areas where noxious weeds have been identified, the Contractor will stockpile cleared vegetation and salvaged topsoil adjacent to the area from which they were stripped. Stockpiles containing noxious weed seed or plant parts will be separated from abutting, uninfested stockpiles. During reclamation, the Contractor will return topsoil and vegetative material from infested sites to the areas from which they were originally stripped.
- The Contractor will implement revegetation activities as promptly as possible following construction and during the optimal seeding and planting window. An adequate vegetative cover greatly reduces the opportunity for invasion by noxious weeds.
- The Contractor will only apply fertilizer to reclaimed areas as directed by the land management agency, EI, or if requested by the landowner. Fertilizer is known to enhance the growth of noxious weeds.
- The Contractor must identify the source of straw/hay bales and mulch used for erosion control to verify that it is noxious weed-free.
- All seed will be certified noxious weed-free.
- Imported gravel and fill material will be source-identified by the Contractor and approved by SCS to ensure that the originating site is noxious weed-free.

## 5.2 Treatment Methods

Noxious weed treatment will be in accordance with the NDDA, county regulations, or jurisdictional land management agency. Post-construction control measures may include one or more of the methods listed below.

- Mechanical methods will include hand-pulling, mowing, or disking weeds. If these methods are used, subsequent seeding may be conducted to re-establish a desirable vegetative cover that will stabilize soils and slow the potential re-invasion of noxious weeds.
- County and State-approved herbicides will be utilized to control noxious weed populations at select sites. Applications will typically be controlled to minimize impacts on surrounding vegetation (specific species and locations will be targeted). In areas of dense infestation, a broader application will be used and a follow-up seeding program implemented if needed. The timing of subsequent revegetation efforts will be based on the life of the selected herbicide and appropriate seeding windows. Herbicide application is discussed in greater detail in Section 6.
- In the event an area is not seeded until the spring following construction because of weather or scheduling constraints, all annual weed species and undesirable vegetation that have become established will be mechanically removed (e.g., disking, harrowing, mowing) as part of the seedbed preparation.
- SCS will respond to landowner reports of post-construction noxious weeds on or adjacent to the right-of-way or aboveground facilities. Where it is determined that new populations have become established, or weed density or extent exceeds that which occurred in pre-construction circumstances, SCS will either treat directly, treat via county or private contractor, or reimburse the landowner for reasonable costs associated with the treatment of documented weeds. Mechanical/cultural control methods or herbicide treatments will be considered.

- Under certain circumstances it may be necessary or desirable to clear herbaceous and woody vegetation well in advance of grading operations (i.e., pre-clearing). Depending on site conditions, pre-clearing could have the potential to contribute to noxious weed dispersal due to soil disturbance and/or the spreading of plant parts. SCS will implement the following measures to avoid or minimize the spread of weeds during pre-clearing:
  - All pre-clearing equipment will arrive on site clean and free of noxious weed seeds or parts;
  - Vegetation will be cut as close to the ground as possible without disturbing the soil surface;
  - Pre-clearing operations will be reassessed in the event that soil conditions become too saturated to avoid soil degradation (via thawing or rain). SCS may temporarily suspend pre-clearing until conditions improve or use methods that reduce soil disturbance.
  - Depending on site conditions, relevant practices outlined elsewhere in this Plan will be implemented per SCS direction.

Treatment methods will be based on species-specific and site-specific conditions (e.g., plant phenology, proximity to water or riparian areas, agricultural activities, time of year) and will be coordinated with landowners and local regulatory agencies.

### 5.3 Education

SCS and the Contractor will provide information to their employees regarding noxious weed identification, reporting, and impacts on agriculture, livestock, and wildlife. The critical importance of preventing the spread of noxious weeds in un-infested areas and controlling the proliferation of weeds already present will be explained. The importance of adhering to measures to prevent the spread of noxious weeds will be stressed.

## 6 Herbicide Application, Handling, Spills, and Cleanup

Herbicides will be utilized on a limited basis during the pre-construction phase and as the primary control method during the post-construction phase. Herbicides used on the Project in North Dakota will first be approved by the County Weed Supervisor in the county in which they would be used. All persons applying herbicides will have appropriate and current North Dakota licensing.

### 6.1 Herbicide Application and Handling

Prior to herbicide application, SCS or an SCS Contractor will obtain any required permits from the Project area counties in North Dakota. All SCS contractors conducting this scope of work will be licensed in herbicide application and will handle, store, and complete herbicide application in accordance with all applicable laws and regulations.

U.S. Environmental Protection Agency herbicide label instructions will be strictly followed. Application of herbicides will be suspended when any of the following conditions exist:

- Wind velocity exceeds six miles per hour for application of liquids or 15 miles per hour for application of granular herbicides;
- Snow or ice covers the foliage of noxious weeds; or
- Precipitation is occurring or imminent.

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

All herbicide equipment and containers will be inspected daily for leaks.

## 6.2 Herbicide Spills and Cleanup

All reasonable precautions will be taken to avoid spilling herbicides. In the event of an unintentional herbicide release, immediate action will be taken to clean up the site. A spill kit is required in contractor vehicles used for herbicide application and in herbicide storage areas.

## 6.3 Worker Safety and Spill Reporting

All herbicide contractors will obtain and have readily available copies of the appropriate Safety Data Sheets for the herbicides being used. Herbicide spills will be reported in accordance with all applicable laws and requirements.

# 7 Post-Construction Monitoring and Treatment

The focus of SCS' weed management program is to protect weed-free perennial vegetation by monitoring and treating new or expanded post-construction weed populations within the Project work area in North Dakota. Monitoring and management of pre-existing noxious weeds in agricultural areas will be conducted on a case-by-case basis in response to landowner reports.

The distribution and density of noxious weeds will be monitored following construction and reclamation of the site in North Dakota. In cultivated field and non-native pastures, monitoring surveys would occur in response to landowner reports. Surveys will be conducted as early in the year as feasible to identify and control noxious weeds before they produce seed. Noxious weeds, if present, will be documented on aerial photo-based maps. Estimates will be made for the entire problem area, comparing disturbed and adjacent areas, and may include a range of species cover and density values. The boundaries of new noxious weed populations within the Project will be drawn on maps and located with a GPS unit.

Weed monitoring will be conducted in conjunction with overall revegetation monitoring after the first growing season following revegetation consistent with the ECP. Treatment of noxious weeds will occur if one or more of the following three criteria are met:

- A new noxious weed population is confined to the construction right-of-way;
- A noxious weed population is expanding via the construction right-of-way; and/or
- A noxious weed population is impeding revegetation establishment in the right-of-way.

Weed treatment will be discontinued if weeds are not present for two consecutive years or if adjacent populations are so extensive that continued treatment and monitoring of the right-of-way would be ineffective.

## 8 References

- North Dakota Department of Agriculture (NDDA). 2021. North Dakota Noxious Weed Law and Regulations. North Dakota Department of Agriculture, Plant Industries Division, updated May 2021. <https://www.nd.gov/ndda/plant-industries/noxious-weeds>. Accessed September 6, 2022.
- NDDA. 2022. County and City Listed Noxious Weeds. North Dakota Department of Agriculture, Plant Industries Division, Revised July 2022. <https://www.nd.gov/ndda/general-resource/local-government/local-government/county-and-city-listed-noxious-weeds>. Accessed September 6, 2022.
- Sheley, R.L., M. Manoukin, and G. Marks. 1999. Preventing Noxious Weed Invasion, pages 69-72 in, R.L. Sheley and J.K. Petroff, editors. Biology and Management of Noxious Rangeland Weeds. Oregon State University Press.

Appendix 1 –  
County and State Weed Supervisor Contacts

DRAFT

COUNTY	CONTACT PERSON / WEED OFFICER	PHONE NUMBER	EMAIL
BURLEIGH	Seth Hanson	701-934-0088	<a href="mailto:burleighcoveed@nd.gov">burleighcoveed@nd.gov</a>
CASS	Stanley Wolf	701-730-6787	<a href="mailto:wolfs@casscountynd.gov">wolfs@casscountynd.gov</a>
DICKEY	Terry Weis	701-223-7571	<a href="mailto:taweis03@yahoo.com">taweis03@yahoo.com</a>
EMMONS	CJ Pearce	701-329-9090	<a href="mailto:cjpearce@nd.gov">cjpearce@nd.gov</a>
LOGAN	Heather Moser	701-989-5464	<a href="mailto:hl.moser.78@gmail.com">hl.moser.78@gmail.com</a>
MCINTOSH	Brayden Salzer	701-426-0480	<a href="mailto:brayden.salzer@gmail.com">brayden.salzer@gmail.com</a>
MORTON	Cody Schnabel	701-391-8006	<a href="mailto:cody.schnabel@mortonnd.org">cody.schnabel@mortonnd.org</a>
OLIVER	Richard Schmidt	701-207-0010	<a href="mailto:rick.schmidt@ndsu.edu">rick.schmidt@ndsu.edu</a>
RICHLAND	Steve Ginsbach	701-899-2096	<a href="mailto:ginsbachfarm@yahoo.com">ginsbachfarm@yahoo.com</a>
SARGENT	Eric Huemiller	701-429-8014	<a href="mailto:emeralddiamondlc@aol.com">emeralddiamondlc@aol.com</a>

## Appendix 2 – North Dakota Designated Noxious Weeds and Non-Native Plant Quarantine Species

Thirteen statewide noxious weeds are enforced by all cities and counties in North Dakota.

NORTH DAKOTA STATEWIDE NOXIOUS WEED LIST	
COMMON NAME	SCIENTIFIC NAME
Absinth Wormwood	<i>Artemisia absinthium</i> L.
Canada Thistle	<i>Cirsium arvense</i>
Dalmatian Toadflax	<i>Linaria genistifolia</i> spp. <i>dalmatica</i> )
Diffuse Knapweed	<i>Centaurea diffusa</i> Lam.
Houndstongue	<i>Cynoglossum officinale</i> L.
Leafy Spurge	<i>Euphorbia esula</i> L.
Musk Thistle	<i>Carduus nutans</i> L.
Palmer amaranth	<i>Amaranthus palmeri</i>
Purple Loosestrife	<i>Lythrum salicaria</i> L., <i>Lythrum virgatum</i> L., and all cultivars
Russian Knapweed	<i>Centaurea repens</i> L.
Saltcedar	<i>Tamarisk</i> spp.
Spotted Knapweed	<i>Centaurea maculosa</i> Lam.
Yellow Toadflax	<i>Linaria vulgaris</i>
<b>Source: North Dakota Noxious Weeds. <a href="https://www.nd.gov/ndda/plant-industries/noxious-weeds">https://www.nd.gov/ndda/plant-industries/noxious-weeds</a>.</b>	

Counties and cities do have the option to add additional weeds onto a list for enforcement only in their jurisdiction. The following weeds have been added to individual county noxious weed lists crossed by the Project in North Dakota.

COUNTY	COMMON NAME	SCIENTIFIC NAME
Dickey	Downy brome	<i>Bromus tectorum</i> L.
Logan	Black henbane	<i>Hyoscyamus niger</i> L.
Sargent	Bull thistle	<i>Cirsium vulgare</i>
<b>Source: City County Noxious Weeds List, Updated July, 2022.</b>		
<b><a href="https://www.nd.gov/ndda/general-resource/local-government/local-government/county-and-city-listed-noxious-weeds">https://www.nd.gov/ndda/general-resource/local-government/local-government/county-and-city-listed-noxious-weeds</a>.</b>		