



South Dakota Noxious Weed Management Plan

Revision: 0

8/28/2023



Table of Contents

1	INTRODUCTION	3
1.1	South Dakota Weed Laws and Regulations	4
2	NOXIOUS WEED MANAGEMENT, REQUIREMENTS, COMMITMENTS, AND GUIDELINES	4
3	PURPOSE AND OBJECTIVES	4
4	PRE-CONSTRUCTION SURVEYS	5
5	NOXIOUS WEED MANAGEMENT.....	5
5.1	Preventative Measures.....	5
5.2	Treatment Measures	6
5.3	Education.....	7
6	HERBICIDE APPLICATION, HANDLING, SPILLS, AND CLEANUP	7
6.1	Herbicide Application and Handling	7
6.2	Herbicide Spills and Cleanup.....	7
6.3	Worker Safety and Spill Reporting	8
7	POST-CONSTRUCTION MONITORING AND TREATMENT	8
8	REFERENCES	8
9	APPENDIX 1 – COUNTY AND STATE WEED SUPERVISOR CONTACTS	9
10	APPENDIX 2 – SOUTH DAKOTA DESIGNATED NOXIOUS WEEDS.....	10

List of Tables

Table 1: Project Location in South Dakota

List of Appendices

Appendix 1 – County and State Weed Supervisor Contacts

Appendix 2 – South Dakota Designated Noxious Weeds

Acronyms and Abbreviations

Commission	South Dakota Weed and Pest Control Commission
CO ₂	Carbon Dioxide
ECP	Environmental Construction Plan
EI	Environmental Inspector
GPS	Global Positioning System
MCE Project	Midwest Carbon Express Project
Plan	South Dakota Noxious Weed Management Plan
Project	South Dakota portion of the MCE Project
Summit	SCS Carbon Transport LLC

1 INTRODUCTION

The purpose of this Noxious Weed Management Plan (Plan) has been developed to identify noxious weed control practices that will be implemented for the South Dakota portion of the MCE Project (Project). Below is a list of SCS Carbon Transport LLC (SCS) proposed pipelines and the counties in which they traverse.

COUNTY	MAINLINE	TRUNKLINE	LATERALS
Beadle	SDM-104	SDT-207	--
	SDM-105	SDT-208	
Brown	SDM-105	SDT-210	--
		NDT-211	
Clark	--	SDT-208	--
Codington	--	SDT-208	--
Edmunds	SDM-105	SDT-210	SDL-335
Hamlin	--	SDT-208	--
Hand	--	--	SDL-320
Hyde	--	--	SDL-320
Kingsbury	SDM-104	--	--
Lake	SDM-104	SDT-206	--
Lincoln	SDM-104	--	--
McCook	SDM-104	--	--
McPherson	SDM-105	--	--
	NDM-106		
Miner	SDM-104	--	--
Minnehaha	SDM-104	--	--
Spink	SDM-105	SDT-209	SDL-336
			SDL-320
Sully	--	--	SDL-320
Turner	SDM-104	--	--



1.1 South Dakota Weed Laws and Regulations

The South Dakota Weed and Pest Control Law, South Dakota Codified Law 38-22 (SDCL38-22) charges the South Dakota Weed and Pest Control Commission (Commission), a subdivision of the South Dakota Department of Agriculture & Natural Resources, with developing a program for the prevention, suppression, control, and eradication of weeds and pests in South Dakota. At SDCL 38-22-1.2(11), the law defines a weed as “any plant which the commission has found to be detrimental to the production of crops or livestock or to the welfare of persons residing within the state.” The Commission maintains the State Noxious Weed and Pest List (Appendix 2), interacts with many different entities, makes determinations regarding effective control methodology, and ensures uniform program implementation in each county while allowing for local specific needs and priorities to be addressed.

The Commission requires all counties to have an organized and active weed and pest board that carries out its duties and powers as required by SDCL 38-22 and Administrative Rules Article 12:62. Each county weed and pest board is required to develop and implement a program based on local needs to provide for the prevention, suppression, and eradication of weeds and pests in the county. The county program should be part of the overall statewide program formulated by the Commission for the same purpose statewide. County Weed Boards may designate certain weeds as noxious in addition to the state noxious weed list (Appendix 2).

Under the South Dakota Weed and Pest Control Law, it is a Class 2 misdemeanor for any person to transport hay, livestock feeds or other plant products containing weed seed in such a manner as may constitute a substantial risk of contaminating fields or other lands.

2 NOXIOUS WEED MANAGEMENT, REQUIREMENTS, COMMITMENTS, AND GUIDELINES

General 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 South Dakota. All contractors will be responsible for implementing the practices described in this Plan. Monitoring by Summit 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 Summit 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 Preventative 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.
- As required by recommendations of the weed boards and approved by the landowner, Summit 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 cleaning 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.
- As required by recommendations of the weed boards and approved by the landowner in areas where noxious weeds have been identified, the Contractor may 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, non-infested 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 Summit to ensure that the originating site is noxious weed-free.

5.2 Treatment Measures

Noxious weed treatment will be in accordance with the Commission through the weed boards, 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 as required by the weed boards and/or landowner. 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.
- Summit will respond to landowner reports of post-construction noxious weeds on or adjacent to the right-of-way or aboveground facilities where weeds were not known to exist prior to construction. Where it is determined that new populations have become established, or weed density or extent exceeds that which occurred in pre-construction circumstances, Summit 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. Summit 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 if soil conditions become too saturated to avoid soil degradation (via thawing or rain). Summit 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 Summit 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

Summit 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 for those species required to be treated by the weed boards. Herbicides used on the Project in South 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 South Dakota licensing.

6.1 Herbicide Application and Handling

Prior to herbicide application, Summit or a Summit Contractor will obtain any required permits from the Project area counties in South Dakota. All Summit 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 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 Summit's 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 South 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 cultivated fields 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

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.

South Dakota Codified Law 38-22. 2023. <https://sdlegislature.gov/Statutes/38-22>. Accessed July 24, 2023.

South Dakota Department of Agriculture & Natural Resources – Weed and Pest Information. 2023. <https://danr.sd.gov/Conservation/PlantIndustry/WeedPest/WeedandPestInfo/default.aspx>. Accessed July 24, 2023.



9 APPENDIX 1 – COUNTY AND STATE WEED SUPERVISOR CONTACTS

COUNTY	WEED\PEST SUPERVISOR	PHONE NUMBER	EMAIL
BEADLE	Tanya Devries	605-353-0200	bcweed@santel.net
BROWN	Chris Hemen	605-626-7120	N/A
CLARK	Brian Jenkins	605-532-3538	N/A
CODINGTON	Steve Molengraaf	605-882-6300	codmain@codington.org
EDMUNDS	Michael Jager	605-426-6761	N/A
HAMLIN	John Michalski	605-783-3483	N/A
HAND	Randy Peck	605-853-3802	N/A
HYDE	Dave Tatum	605-852-2518	hydeweeds@venturecomm.net
KINGSBURY	Tanya Flegel	605-854-3183	kingsburycd@sdconservation.net
LAKE	Nels Nelson	605-256-7607	N/A
LINCOLN	Terry Fluit	605-764-5841	N/A
MCCOOK	Brian Havard	605-425-2791	mccookweedandpest@triotel.net
MCPHERSON	Michael Schwingler	605-439-3331	N/A
MINER	Kent Terwilliger	605-772-4533	minerem@minercountysd.org
MINNEHAHA	Jason McCubbin	605-367-7224	N/A
SPINK	Jeff Haessig	605-472-5008	jhaessig.spinkhwy@nrctv.com
SULLY	Paula Barber	605-258-2708	N/A
TURNER	Brad Georgeson	605-297-3112	turnercoem@iw.net



10 APPENDIX 2 – SOUTH DAKOTA DESIGNATED NOXIOUS WEEDS

Seven statewide noxious weeds are enforced by all counties in South Dakota.

SOUTH DAKOTA STATEWIDE NOXIOUS WEED LIST

Absinth Wormwood	<i>Artemisia absinthium</i> L.
Canada Thistle	<i>Cirsium arvense</i>
Perennial Sow Thistle	<i>Sonchus arvensis</i>
Hoary Cress	<i>Cardaria draba</i>
Purple Loosestrife	<i>Lythrum salicaria</i>
Leafy Spurge	<i>Euphorbia esula</i> L.
Saltcedar	<i>Tamarisk</i> spp.

Source: South Dakota State Noxious Weed & Pest List

<https://Danr.Sd.Gov/Conservation/PlantIndustry/Weedpest/Weedandpestinfo/Statenoxious/Default.aspx>.

Counties have the option to add additional weeds onto a list for enforcement for a period of four years in their jurisdictions. The following weeds have been added to individual county noxious weed lists crossed by the Project in South Dakota.

SOUTH DAKOTA LOCAL NOXIOUS WEED PEST LIST

County	Weed Name	Scientific Name	Year Added	Enforcement Period
Beadle	Plumeless Thistle	<i>Carduus acanthoide</i>	2023	2027
	Musk Thistle	<i>Carduus nutans</i> L.	2023	2027
	Bull Thistle	<i>Cirsium vulgare</i>	2020	2024
	Yellow toadflax	<i>Linaria vulgaris</i>	2022	2026
Brown	Plumeless Thistle	<i>arduus acanthoides</i>	2022	2026
	Musk Thistle	<i>Carduus nutans</i> L.	2022	2026
	Bull Thistle	<i>Cirsium vulgare</i>	2023	2027
	Yellow Toadflax	<i>Linaria vulgaris</i>	2022	2026
Clark	Bull Thistle	<i>Cirsium vulgare</i>	2021	2025
	Spotted Knapweed	<i>Centaurea stoebe</i>	2021	2025
	Poison Hemlock	<i>Conium maculatum</i>	2022	2026
Codington	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027



	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Bull Thistle	<i>Cirsium vulgare</i>	2022	2026
Edmunds	Yellow Toadflax	<i>Linaria vulgaris</i>	2023	2027
	Palmer Amaranth	<i>Amaranthus palmeri</i>	2020	2024
Hamlin	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Bull Thistle	<i>Cirsium vulgare</i>	2021	2025
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
	Yellow Toadflax	<i>Linaria vulgaris</i>	2021	2025
	Poison Hemlock	<i>Conium maculatum</i>	2021	2025
Hand	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
	Yellow Toadflax	<i>Linaria vulgaris</i>	2019	2023
Hyde	Musk Thistle	<i>Carduus nutans L.</i>	2022	2026
	Plumeless Thistle	<i>Carduus acanthoides</i>	2022	2026
	Bull Thistle	<i>Cirsium vulgare</i>	2020	2024
	Palmer Amaranth	<i>Amaranthus palmeri</i>	2020	2024
	Houndstongue	<i>Cynoglossum officinale</i>	2020	2024
	Common Mullein	<i>Verbascum thapsus</i>	2022	2026
Kingsbury	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
Lake	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
	Bull Thistle	<i>Cirsium vulgare</i>	2023	2027
	Field Bindweed	<i>Convolvulus arvensis</i>	2023	2027
	Scotch Thistle	<i>Onopordum acanthium</i>	2023	2027
	Spotted Knapweed	<i>Centaurea stoebe</i>	2023	2027
	Common Burdock	<i>Arctium</i>	2023	2027



Lincoln	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
	Spotted Knapweed	<i>Centaurea stoebe</i>	2023	2027
McCook	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
	Bull Thistle	<i>Cirsium vulgare</i>	2023	2027
McPherson	Yellow Toadflax	<i>Linaria vulgaris</i>	2022	2026
Miner	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
	Bull Thistle	<i>Cirsium vulgare</i>	2023	2027
Spink	Musk Thistle	<i>Carduus nutans L.</i>	2023	2027
	Plumeless Thistle	<i>Carduus acanthoides</i>	2023	2027
	Yellow Toadflax	<i>Linaria vulgaris</i>	2020	2024
Turner	Spotted Knapweed	<i>Centaurea stoebe</i>	2019	2023

Source: South Dakota Locally Noxious Weed Pest List

[HTTPS://DANR.SD.GOV/CONSERVATION/PLANTINDUSTRY/WEEDPEST/DOCS/NOXIOUSWEEDS.PDF](https://danr.sd.gov/conservation/plantindustry/weedpest/docs/noxiousweeds.pdf)
[HTTP://WWW.ND.GOV/NDDA/GENERAL-RESOURCE/LOCAL-GOVERNMENT/LOCAL-GOVERNMENT/COUNTY-AND-CITY-LISTED-NOXIOUS-WEEDS](http://www.nd.gov/ndda/general-resource/local-government/local-government/county-and-city-listed-noxious-weeds)