

Appendix F

Vegetation Management Plan

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Jamestown to Ellendale 345kV Transmission
Line Project

Stutsman, LaMoure, and Dickey Counties North Dakota

July 2025

1 Introduction

The Jamestown to Ellendale Project (JETx) is a proposed 345 kilovolt (kV) high voltage transmission line from the existing Jamestown Substation in Stutsman County to Montana-Dakota's existing Ellendale Substation in Dickey County (Project). The Project will be located in portions of Stutsman, LaMoure, and Dickey Counties, North Dakota. In addition to the new high voltage transmission line, the Project includes substation expansions at both the Jamestown 345-kV Substation and the Ellendale Substation. The Project was identified and approved by the Midcontinent Independent System Operator, Inc. ("MISO") as part of its Long-Range Transmission Planning Tranche 1 Portfolio through the 2021 MISO Transmission Expansion Plan. The Project is being proposed by Otter Tail Power Company (OTP) and Montana-Dakota Utilities Co. (Montana-Dakota's) (jointly, the Applicants), who will also jointly own, operate and maintain the Project. This Vegetation Management Plan (VMP or Plan) is intended to describe the Applicants' standards for the handling of vegetation removal, and protection of existing vegetation during site preparation, construction, remediation, and operation and maintenance of the Project. The VMP will be implemented in conjunction with other required approvals concerning land disturbance activities associated with construction of the Project.

The Applicants provide this VMP for consideration as part of the corridor certificate and route permit siting proceedings currently underway with the North Dakota Public Service Commission (Commission).

2 General Right-Of-Way Vegetation Management

The Applicants' standard practice is to clear all woody vegetation within the full 150-foot proposed Corridor width for construction of new transmission lines sought by the Applicants. The Corridor for the Project aligns with the 150-foot right-of-way (ROW) being obtained by the Applicants. This includes cases where a new line will be located within an existing utility ROW such as for a line rebuild or double-circuiting a new line with an existing line. The purpose of clearing to the full extent of the Corridor is to ensure adequate and safe working spaces for crews during construction as well as to provide appropriate clearances for safe reliable operation of the lines once construction is complete. There are limited circumstances when this practice is modified and selected vegetation can remain within the Corridor provided National Electric Safety Code (NESC) clearance requirements are met.

While removing woody vegetation within the Corridor is necessary, efforts will be made to protect existing compatible low-growing vegetation to minimize construction impacts from soil erosion, wetland damage, or habitat loss. Implementation of integrated vegetation management practices help to minimize needs and efforts of future vegetation management activities on a property.

The use of herbicides focuses on controlling woody vegetation within the Corridor to reduce the need to mow on a property and help establish a sustainable Corridor that can be managed with selective herbicide treatments. A timeframe for the conversion of a Corridor to establish compatible, non-woody vegetation will vary based on site conditions. A property owner could

also encourage this conversion of the Corridor to compatible vegetation by allowing selective herbicide use and through planting compatible vegetation within the Corridor.

The following is a list of general practices that will be used to minimize vegetation impacts related to Project construction:

- Use sediment and erosion control devices and best management practices (BMPs) to intercept stormwater runoff from areas disturbed as part of clearing operations. Stormwater BMPs will be addressed in the Project-specific Stormwater Pollution Prevention Plan (SWPPP)
- Avoid and minimize rutting by using matting materials in wetland areas for all construction activities, including Corridor clearing activities, and to perform work on firm or frozen ground that can support the equipment used
- Minimize soil disturbance in steeply sloped areas, to the extent possible and/or practicable
- Limit traffic in the Corridor between transmission structure locations to a single access path, to the extent practicable and safe
- To the extent practicable, complete construction in wet organic soils when the ground is frozen
- When existing, low-growing vegetation is disturbed during construction, focus restoration efforts on establishing compatible (low-growing), non-invasive species within the Corridor

3 Vegetation Removal

The Project will require the clearing of vegetation within the Corridor. Clear cutting (including the removal of trees, brush, and other low-growing vegetation) will exceed the 50-foot-wide tree and shrub clearance limitation in the Tree and Shrub Mitigation Specifications established by the Commission and modification of the 50-foot clearance limitation is requested within the State Permit Application being submitted to the Commission. Clear cutting will occur within the 150-foot Corridor, as necessary for safety, access and maintenance. Clearing of vegetation will occur prior to other construction activities as allowed by landowner agreements and permit conditions. Clearing may be accomplished with the use of chainsaws, mowers, and hydraulic tree-cutting equipment. Vegetation will be cut at, or slightly above, the ground surface. Rootstock or stumps will typically be left in place unless transmission structure installation or construction access requires otherwise or at the request of the landowner.

Disposal of timber, treetops, limbs, and slash will comply with state and local ordinances and the desires of landowners. Non-merchantable felled material may also be removed from the Corridor in a fashion that does not cause erosion unless BMPs are installed.

3.1 Upland Vegetation Removal

The cut and scatter method consists of cutting understory trees, branches, and brush, sectioning them into smaller pieces, and scattering them across the site. The cut and scatter method may be used in areas where limited clearing is necessary, and access is challenging. This method will be used to limit the need for unnecessary equipment access through these challenging areas and hauling of vegetation materials which could potentially disturb existing ground or vegetation.

Woody vegetation may be chipped and scattered over the Corridor to a maximum depth of one inch in non-agricultural upland areas.

3.2 Wetland Vegetation Removal

The use of heavy equipment in wetlands will be kept to the minimum extent practicable. Minimization of damage to wetland vegetation and hydric soils may be accomplished with the following BMPs:

- Constructing in wetlands during frozen conditions within wetland areas to the extent feasible;
- Using matting materials during non-frozen ground conditions;
- Working in dry conditions; and,
- Using low ground-pressure tires or specialized tracked vehicles.

Removal of trees and shrubs from forested wetlands may be necessary in some locations. The removal of woody vegetation within forested wetlands will be conducted in accordance with applicable wetland permit conditions. Within these areas, all trees and large shrubs will be cleared to ground level. Small diameter trees and shrubs (less than 6-inch diameter) will be cut and debris scattered in place. Large diameter trees and shrubs (greater than 6-inch diameter) will be hauled out of wetland areas to suitable upland locations and processed as described in Section 5. If the cut and scatter method is used within wetland areas, no slash material will be left in the wetlands. Chipping or scattering of chips will not occur in wetlands.

Stump removal may occur within wetlands only where stumps interfere with the placement of construction mats or pole locations, or where they may pose a risk to the safety of construction vehicle equipment movement. Where removal is required for access, stumps will be ground level with or slightly below the ground surface using low ground-pressure, track-mounted equipment. Woody materials generated by stump grinding may be thinly spread in the wetland but may not be mounded.

4 Herbicide Use

Herbicides may be used within the Corridor to control regrowth of specific tree and plant species, prevent the re-sprout of stumps of tall-growing tree species, or to control invasive or noxious weed species. Herbicides will be used in accordance with manufacturer's specifications and all applicable federal and state regulations and with permission of the landowner.

Herbicides designated for upland use will not be used within 75 feet of the vegetative buffer of waterbodies. Herbicides used in or near wetlands and waterbodies must be designed for use in wet areas as designated by manufacturer's specifications and federal and state regulations.

Herbicides will not be used on public lands without required permits/approvals and will not be used at organic farms or other properties where landowners prohibit their use.

The contractor applying herbicide will be required to obtain any necessary permits and/or certifications prior to herbicide placement and will be required to keep proper documentation of location and timing of herbicide use. Treatment will conform to manufacturers' specifications.

5 Noxious Weeds and Invasive Species Control

The Applicants have identified mitigation measures to be implemented to prevent the introduction and spread of noxious weeds and invasive species (NWIS) on lands disturbed by construction activities.

Preventing the introduction of NWIS from outside of the Project area will be primarily accomplished by ensuring that, prior to arrival onsite, equipment is clean and visible dirt or plant parts are removed using methods such as vehicle washing, high-pressure, compressed-air blowers, or brushing. Additional methods can be used to control NWIS that are already present within the Project Corridor including completing tree and brush clearing during the winter and treating NWIS-infested areas with herbicide prior to the start of vegetation clearing.

Winter clearing limits the likelihood of construction equipment coming in contact with NWIS plant parts or seeds and reduces the chances of spreading them throughout the Corridor. Treatment of NWIS areas with herbicides before they are able to go to seed can also minimize spread. If mulch is used on the Project, it will consist of state-certified, weed-free material or mulch derived from onsite locations. The contractor will be responsible for locating and documenting the source of certified, weed-free mulch. Copies of the applicable certification documentation must be made available upon request to the appropriate agencies. During restoration of temporary disturbance areas, woodchip mulch will be spread evenly to a depth no greater than one inch. No mulch will be spread in wetland locations. Areas with heavy NWIS infestations identified during the first growing season will be treated with the use of herbicides or by mechanical methods.

6 Seeding and Revegetation

Revegetation of areas disturbed by construction activities will take place as soon as practicable following construction completion in those areas. Seedbed preparation will be dependent on the

site conditions following construction activities and may include tilling to a minimum depth of four inches with a disc, field cultivator, or chisel plow, breaking up large clumps and firming the soil surface. Prior to seeding, prepared beds should be sufficiently soft to allow for seed penetration and mulch anchoring, while sufficiently firm to provide surface soil stability. Seeding and mulching should occur parallel to ground contours as practicable.

In areas where stumps remain within areas of cleared forest, it may not be practical to access large areas with seeding and seedbed preparation equipment. In these areas, smaller vehicles may be required to perform tasks such as smoothing ruts, preparing seedbeds with small rakes, and surface packing after seeding. Fertilizers and other soil amendments are not recommended and will only be applied as requested by and agreed to with landowners.

Because of the linear nature of high voltage transmission line projects, there are typically many different landcover types and plant communities impacted by Project construction. In cases where there are exposed soils in areas such as roadsides, field edges, and other locations dominated by non-native species, an approved native seed mix will be used. In locations where disturbances are within previously undisturbed natural areas which contain native plant species, an approved native seed mix will be used. On private agricultural lands, the Applicants will work with landowners to develop appropriate measures for reseeding of disturbed soils. Pastures will be reclaimed, fertilized, and reseeded according to the Natural Resources Conservation Service (NRCS) recommendations, unless otherwise specified by the landowner and approved by the Commission.

6.1 Seeding Methods

Seeding methods may include broadcast, seed drilling, or hydroseeding.

Broadcast seeding is the most commonly used method for relatively small, disturbed areas, which are typically what is seen in high voltage transmission line construction. Seed will be uniformly distributed by a mechanical, hand-operated seeder, or in small seeding areas, by hand. Following seeding, the surface will be raked with a cultipacker, harrow, or hand rake. The bed will be firmed as appropriate to site conditions.

Drilled seed will typically be sown at a depth of approximately 0.25 inch; however, some native seed mixes contain small seed which needs to be shallower. If native seed mixes are being installed via seed drill equipment, the equipment will be able to accommodate and uniformly distribute different sizes of seed at the required depth. Feeding mechanisms will be able to evenly distribute different seed types at the rates specified. Seedbed soil will be suitably firmed immediately following seed drilling. Seed drilling will be only used in areas with a larger disturbance footprint.

Hydroseeding involves applying seed in a broadcast, hydromulch slurry. The hydromulch mix allows the installer to see where application has taken place, ensuring uniform coverage of the seeding area. The hydro-seeder must provide for continuous agitation of slurry and provide for a uniform flow of slurry. This method is not recommended for diverse, native seed mixes because of the range of seed size and necessary planting depths.

When used, native seed mixes are typically most successful when installed between April 1 to June 30, or when soil temperatures are above 55 degrees Fahrenheit. However, seeding may also be completed outside of those time periods, as areas are ready for revegetation, in order to facilitate permanent vegetation cover and stabilize ground disturbances as soon as possible. Additional seed may be installed in areas where initial seeding is not successful.

Temporary seed (oats or winter wheat) may also be applied in those situations as a cover crop. Temporary seeding of cover crop will occur in locations where unfrozen, bare soil surface conditions and ruts will not be permanently restored within 30 days of completion of active work. Temporary restoration activities will include the repair of rutted surfaces and an even broadcast-seeding of the temporary cover-crop seed mix at a rate appropriate to the cover crop to provide erosion control of the soils. Temporary seed will not be applied in wetland areas.

6.2 Natural Revegetation

In many cases, natural revegetation by early successional native species following tree clearing is expected to occur. In areas where native species voluntarily revegetate the Corridor, active restoration and seeding may not be required. Regular monitoring will take place to ensure that NWIS are controlled, that desirable native plant species become the dominant vegetation communities in natural areas, and that bare soils are quickly stabilized to reduce erosion. In areas of minimal disturbance, vegetation will be allowed to regenerate naturally.

Where standing water and wetlands are not present, and where surrounding vegetation is dominated by abundant native species, the seeding of bare soils created by construction activities with temporary cover-crop seed mix may be sufficient for a temporary cover and soil stabilizer while native species revegetate the area.

In areas where wetland plant communities are dominated by native species with rhizomatous root systems that will likely rapidly recolonize areas of limited disturbance, bare soils may be broadcast-seeded with seasonally appropriate temporary cover crop. In areas where disturbed and bare soils are sufficient to preclude revegetation from the local, native seed source, a native wetland seed mix will be applied.

7 Tree and Shrub Mitigation

The purpose of the Commission's Tree and Shrub Mitigation Specifications is to create sustainable plantings appropriate for the local soil and growing conditions that will provide long-term benefits to landowners, farmers and ranchers, the community, and wildlife. In areas where trees and shrubs are removed, the Applicants will replace trees using the Commission's Tree and Shrub Mitigation Specification 2:1 ratio, or more to increase chances for survival, through coordination with local county soil conservation districts' tree planting programs. Landowners who have had trees and shrubs removed from their property will be given the option to have trees and shrubs replaced on their property.

Two years after completion of tree and shrub mitigation, the Applicants will file a summary documenting how the plan achieved the purpose with the Commission. The summary will also report the number of surviving replacement trees and shrubs.

8 Erosion Control

In some cases, temporary erosion control methods will be necessary to stabilize soils and give the seed time to germinate. Erosion control measures and devices may consist of matting, vegetative buffers, silt fencing, vehicle tracking devices, mulching, seeding, and wattles. When used, the contractor will be responsible for acquiring certified weed-free mulch. If used, wattles will be wildlife-friendly and of non-welded weave in order to minimize impacts to small wildlife. Mulch or wattles will be required on disturbed, exposed soils on all slopes greater than five percent and on dry, sandy soils prone to erosion by wind or rain.

If there are locations where seeding is not possible, and there is adequate seed bank present in the soil, temporary stabilization using erosion control matting or mulch will be installed and maintained in a similar manner as in seeded areas. Dormant seeding may be used after soil temperatures have fallen below 55 degrees Fahrenheit and lower temperatures prevent seed from germinating. If dormant seeding is performed, temporary erosion control measures will be installed as indicated in the Project SWPPP.

9 Monitoring

The Applicants will monitor and control NWIS within the Corridor through the construction period. The Applicants will be required to meet easement and lease conditions, permit obligations, and will continue to work with landowners and the appropriate agencies to achieve standards set forth in their agreements and permit conditions.

The Applicants will monitor areas where seeding and erosion control measures have been implemented and will follow-up with additional reseeding measures where the vegetative cover is inadequate to provide long-term stability and sustainable native plant communities.

10 Operations and Maintenance

Once the Project construction is complete, affects to vegetative resources are anticipated to be significantly lower level than during construction. During project operations, activities to manage vegetative resource will likely include periodic vegetation management along the transmission line by using control methods such as manual (chainsaws), mechanical (mowers and other specialized vegetation management equipment including aerial saws where appropriate) and herbicides, as well as maintenance checks of the high voltage transmission line.

The purpose of operational vegetation management will be to ensure that NESC requirements for clearance between trees and transmission lines be maintained at all times. During operations and maintenance, the Applicants will monitor vegetation growth and the control of NWIS as described in Section 5 and required with the Project SWPPP.