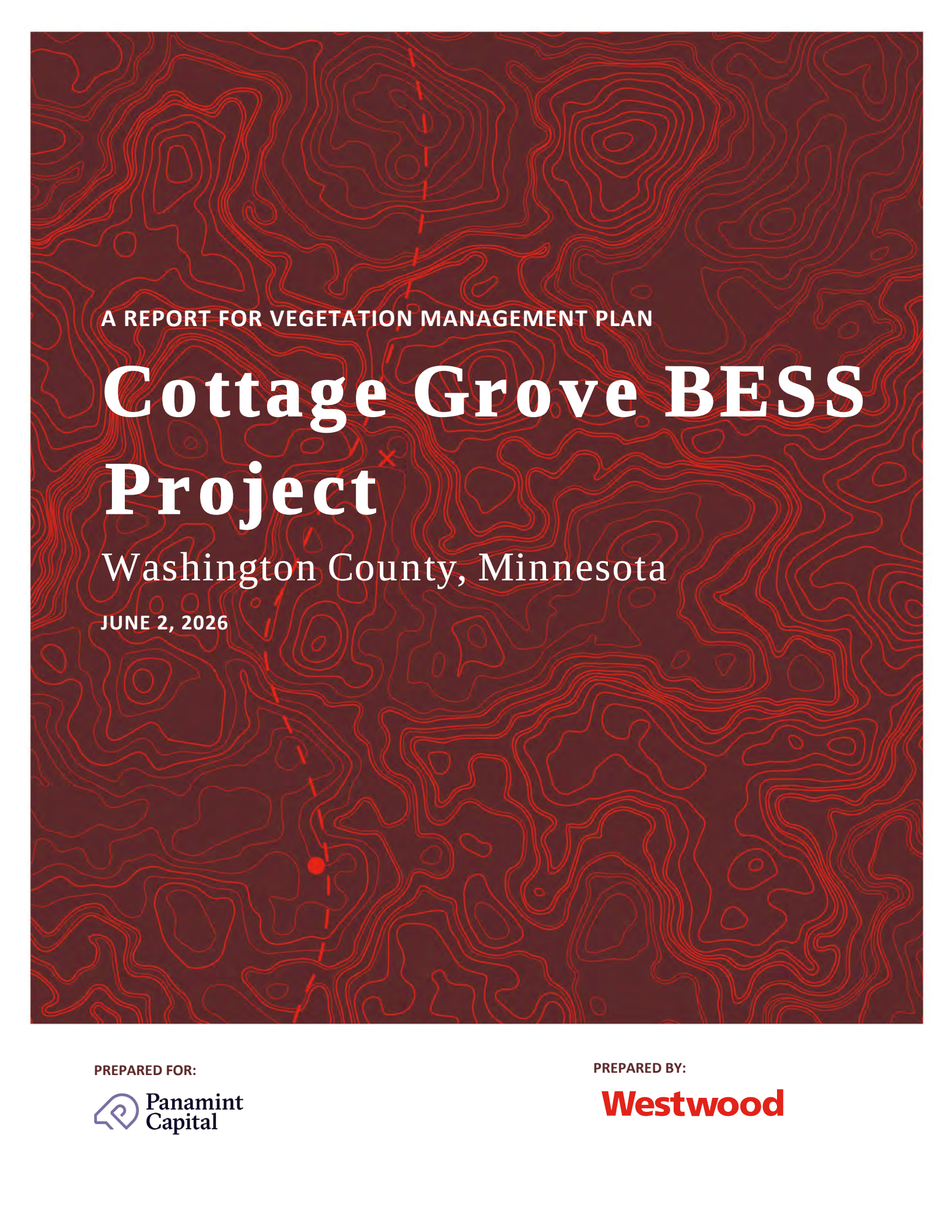


Appendix H

Preliminary Vegetation Management Plan



A REPORT FOR VEGETATION MANAGEMENT PLAN

Cottage Grove BESS Project

Washington County, Minnesota

JUNE 2, 2026

PREPARED FOR:



PREPARED BY:

Westwood

Vegetation Management Plan

Cottage Grove BESS Project
Washington County, Minnesota

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1.0 Introduction

LSP CG Storage LLC (“Client,” “LSP CG Storage LLC”) is proposing the development of a Battery Energy Storage System (BESS) facility (Project) on an approximately 6.84-acre Project Area. In addition to BESS pads and enclosures, the Project will consist of inverters and transformers, electrical feeder lines, a tap line, a potential operations and maintenance (O&M) facility, storage and parking areas, access roads, fencing, and other minor equipment and subcomponents as are typical of a BESS project. The Project is expected to include the gravel pad containing permanent Project infrastructure including stormwater management ponds, proposed grading areas, access road connection to the existing Southern Minnesota Municipal Power Agency road, and parking and storage areas external to the fence line

Cottage Grove BESS has prepared this Preliminary Vegetation Management Plan in support of the Site Permit Application (Application) to the Minnesota Public Utilities Commission (Commission or MPUC) for a Site Permit for an Energy Storage System (ESS) pursuant to the Minnesota Power Plant Siting Act (Minnesota Statutes [Minn. Stat.] Chapter 216E) and Minnesota Administrative Rules (Minn. R.) Chapter 7850. This Preliminary Vegetation Management Plan (VMP or Plan) is provided as part of the Site Permit Application for MPUC review for the Project site for granting of the Site Permit, which is the only land use approval needed for construction of the Project (Minn. Stat. § 216E.10, subd. 1). This VMP addresses vegetation management throughout the operation of the Project and revegetation of temporarily impacted areas from construction

Panamint Capital, LLC has contracted Westwood Professional Services, Inc., (Westwood) to develop this Preliminary VMP to guide site preparation, installation of prescribed seed mixes, management of invasive species, and erosion and sediment control.

The Project is located in Washington County, Minnesota. The Project Area is mapped in Township 027N, Range 021W, Section 27 of the City of Cottage Grove, Washington County, Minnesota (**Exhibit 1**). The Project Area is mapped east of Innovation Road, south of Point Douglas Drive, and northeast of the Canadian Pacific Railway. The Project Area consists of developed land of varying intensities with elevations that range from 794 to 808 feet above mean sea level increasing from west to east. Surrounding land use consists of industrial businesses, power stations, rural land, Cottage Grove Ravine Regional Park, and the Mississippi River to the south. (**Exhibit 1**).

This Vegetation Management Plan (“Plan”) was developed to guide site preparation with the main goal to suppress vegetation around the infrastructure and secondarily guide revegetation of temporarily disturbed areas. Temporary disturbed areas that can be revegetated like the stormwater basins will follow the guidance in this plan for installation of seed mixes on temporarily impacted areas, management of invasive species, suppression of plant growth, and erosion and sediment control. The purpose of the VMP is to describe vegetation management and suppression practices during the construction and operational phases of the Project and where the VMP will be implemented.

1.1 Regulatory Authority and Requirements

The authority guiding this Plan is provided under the following:

§United States Code (USC) 2801-2814, Federal Noxious Weed Act of 1974: provides for the control and eradication of “any parasitic or other plant of a kind, or subdivision of a kind, which is of foreign origin, is new to or not widely prevalent in the United States, and can directly or indirectly injure crops, other useful plants, livestock, or poultry or other interests of agriculture, including irrigation, or navigation or the fish or wildlife resources of the United States or the public health.” The Secretary of Agriculture is provisioned with broad powers in regulating transactions in, and movement of, noxious weeds into or throughout the United States.

§ USC 7701-7786, Plant Protection Act of 2000: designates that the Secretary of Agriculture may prohibit or restrict the importation, entry, exportation, or movement in interstate commerce of any noxious weed if it is determined “that the prohibition or restriction is necessary to prevent the introduction into the [U.S.] or the dissemination of a plant pest or noxious weed within the [U.S.],” and authorizes the issuance of implementing regulations.

§U.S.C. 703-712 The Migratory Bird Treaty Act of 1918: protects migratory songbirds, their nests, feathers, eggs, and other products from take and possession.

Minnesota Statutes of Agriculture, §18B.07: Pesticide Application must be in accordance with the product label or labeling and in a manner that will not cause unreasonable adverse effects on the environment within limits prescribed by this chapter and FIFRA.

Minnesota Statutes of Agriculture, §18B.33: A commercial applicator must have a valid license to apply pesticides for hire as well as purchase pesticides.

- **Subdivision 2:** A person must be licensed if they perform pesticide application for hire (a.k.a. part of their job duties) and is responsible for proper application of the pesticides.

Minnesota Statutes of Agriculture, §18.771: designates five categories of noxious weeds and regulatory requirements including mandated eradication on private lands. One category is for county level listing, which Washington County has not done.

Table 1.1: Noxious and Invasive Plants of Minnesota including Aquatic Plants

Category	Scientific Name	Common Name	Action/restriction
Prohibited Eradicate Noxious Weeds	<i>Cynanchum louiseae</i>	Black swallow-wort	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Centaurea jacea</i>	Brown knapweed	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Dipsacus fullonum</i>	Common teasel	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Dipsacus laciniatus</i>	Cutleaf teasel	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Linaria dalmatica</i>	Dalmatian toadflax	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Centaurea diffusa</i>	Diffuse knapweed	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Heracleum mantegazzianum</i>	Giant hogweed	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Digitalis lanata</i>	Grecian foxglove	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Humulus japonicus</i>	Hooked hair hops (formerly Japanese hops)	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Lonicera japonica</i>	Japanese honeysuckle (and all cultivars)	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Sorghum halepense</i>	Johnsongrass	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Cynanchum rossicum</i>	Pale swallow-wort	Required to eradicate

Category	Scientific Name	Common Name	Action/restriction
Prohibited Eradicate Noxious Weeds	<i>Amaranthus palmeri</i>	Palmer amaranth	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Thladiantha dubia</i>	Red hailstone	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Microstegium vimineum</i>	Stiltgrass	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Ailanthus altissima</i>	Tree of heaven	Required to eradicate
Prohibited Eradicate Noxious Weeds	<i>Centaurea solstitialis</i>	Yellow starthistle	Required to eradicate
Prohibited Control Noxious Weeds	<i>Polygonum x bohemicum</i>	Bohemian knotweed	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Cirsium arvense</i>	Canada thistle	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Berberis vulgaris</i>	Common barberry	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Tanacetum vulgare</i>	Common tansy	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Polygonum sachalinense</i>	Giant knotweed	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Polygonum cuspidatum</i>	Japanese knotweed	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Euphorbia virgata</i>	Leafy spurge	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Centaurea x moncktonii</i>	Meadow knapweed	Control, prevent spread

Category	Scientific Name	Common Name	Action/restriction
Prohibited Control Noxious Weeds	<i>Cardamine impatiens</i>	Narrowleaf bittercress	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Phragmites australis</i> x <i>ssp. australis</i>	Non-native phragmites	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Carduus acanthoides</i>	Plumeless thistle	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Conium maculatum</i>	Poison hemlock	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Lythrum salicaria</i>	Purple loosestrife	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Celastrus orbiculatus</i>	Round leaf bittersweet	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Centaurea stoebe</i> ssp. <i>micranthos</i>	Spotted knapweed	Control, prevent spread
Prohibited Control Noxious Weeds	<i>Pastinaca sativa</i> L. (except for non-wild cultivated varieties)	Wild parsnip	Control, prevent spread
Restricted Noxious Weeds	<i>Elaeagnus umbellata</i>	Autumn Olive	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Lonicera maackii</i>	Amur honeysuckle	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Lonicera x bella</i>	Bell's honeysuckle	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Robinia pseudoacacia</i>	Black locust	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Rhamnus cathartica</i>	Common or European buckthorn	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Alopecurus arundinaceus</i>	Creeping meadow foxtail	Do not transport/sell/purchase

Category	Scientific Name	Common Name	Action/restriction
Restricted Noxious Weeds	<i>Miscanthus sacchariflorus</i>	Creeping miscanthus (formerly Amur silvergrass)	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Securigera varia</i>	Crown vetch	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Alnus glutinosa</i>	European alder	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Alliaria petiolate</i>	Garlic mustard	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Frangula alnus</i>	Glossy buckthorn (and all cultivars)	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Berberis thunbergii</i>	Japanese barberry (only the cultivars listed below are prohibited from sale)	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Ficaria verna</i>	Lesser celandine	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Lonicera morrowii</i>	Morrow's honeysuckle	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Rosa multiflora</i>	Multiflora rose	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Ampelopsis brevipedunculata</i>	Porcelain berry	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Tamarix ramosissima</i>	Saltcedar	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Caragana arborescens</i> (exemption for Green Spires® Caragana - <i>Caragana</i> 'Jefarb')	Siberian peashrub	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Lonicera tatarica</i>	Tatarian honeysuckle	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Daucus carota</i>	Wild carrot/Queen Anne's Lace	Do not transport/sell/purchase
Restricted Noxious Weeds	<i>Euonymus alatus</i>	Winged burning bush (and all cultivars)	Do not transport/sell/purchase

Category	Scientific Name	Common Name	Action/restriction
Specially Regulated Plants	<i>Phellodendron amurense</i>	Amur corktree	Only sales of named male cultivars permitted. Sales of all other <i>Phellodendron amurense</i> are prohibited. All existing planted and escaped fruit producing trees must be controlled, by tree removal or other means, such that no seed is disseminated.
Specially Regulated Plants	<i>Acer ginnala</i>	Amur maple	Sellers shall affix a label directly to the plant or container packaging that is being sold that advises buyers to "Only plant Amur maple and its cultivars in landscapes where the seedlings will be controlled by mowing or other means. Amur maple seed is wind dispersed and trees should be planted at least 100 yards from natural areas."
Specially Regulated Plants	<i>Pyrus calleryana</i>	Callery pear	Three-year production phase-out period, after which sale of this species will be prohibited and the species will be designated as Restricted in 2026.
Specially Regulated Plants	<i>Petasites hybridus</i>	Common butterbur	Three-year production phase-out period, after which sale of this species will be prohibited and the species will be designated as Restricted in 2029.
Specially Regulated Plants	<i>Petasites japonicus</i>	Giant butterbur	Three-year production phase-out period, after which sale of this species will be prohibited and the species will be designated as Restricted in 2029.
Specially Regulated Plants	<i>Acer platanoides</i>	Norway maple (and all cultivars)	Sellers shall affix a label directly to the plant or container packaging that is being sold that advises buyers to "Only plant Norway maple and its cultivars in landscapes where the seedlings will be controlled by mowing or other means. Norway maple seed is wind dispersed and trees should be planted at least 100 yards from natural areas."

Category	Scientific Name	Common Name	Action/restriction
Specially Regulated Plants	<i>Toxicodendron radicans</i> & <i>T. rydbergii</i>	Poison ivy	Must be eradicated or controlled for public safety along rights-of-ways, trails, public accesses, business properties open to the public or on parts of lands where public access for business or commerce is granted. Must also be eradicated or controlled along property borders when requested by adjoining landowners.
Specially Regulated Plants	<i>Sorbus aucuparia</i>	Rowan mountain ash	Three-year production phase-out period, after which sale of this species will be prohibited and the species will be designated as Restricted in 2029.
Specially Regulated Plants	<i>Acer tataricum</i> L.	Tatarian maple	Sellers shall affix a label directly to the plant or container packaging that is being sold that advises buyers to "Only plant Tatarian maple and its cultivars in landscapes where the seedlings will be controlled by mowing or other means. Tatarian maple seed is wind dispersed and trees should be planted at least 100 yards from natural areas."

Updates to this vegetation management plan should occur when new Noxious and Invasive Plants are listed to improve weed management protocols. Staff and subcontractors should have members trained in identifying these plants to ensure rapid responses and control of regulated species.

1.2 Plan Development

Development of this Plan included the use of resources from federal and state guidance, as well as industry and scientific papers, to identify proven methods for effective native plant establishment, noxious weed management, and long-term suppression of plant growth. Further resource-specific environmental protection measures should also be adhered to from all Project reports to avoid and minimize significant impacts from the Project. Environmental protection measures relevant to vegetation and noxious weed management have been integrated into this Plan. This Plan was also designed to meet requirements set forth by the Storm Water Pollution Prevention Plan (SWPPP) permit and state regulatory authorities.

1.3 Plan Goals

The purpose of this Plan is to lay out a clear strategy for site management including suppression of vegetation in the majority of the site as well as preparation, seeding, installation methods, and the process and timeline for successful vegetation establishment in

temporarily disturbed areas. Portions of the property not disturbed by Project construction and operation, may be managed as needed. This Plan will assist in suppressing plant growth within sensitive areas of infrastructure and establishing sustainable, diverse, native, and persistent vegetation in temporarily disturbed areas. The Plan also outlines the long-term maintenance and monitoring necessary to contribute to the long-term success for the Project.

Cottage Grove BESS is committed to implementing the Plan during construction and operation of the Project. Native plant establishment within the areas that can support vegetation within the Project Area, will be referred to as a Vegetated Management Unit (VMU). The portion of the site composed of electrical generating equipment and surrounded by a security fence will be entirely covered in gravel and include no proposed vegetation to mitigate fire and safety concerns. This area will be a Non-Vegetated Management Unit (NVMU). Areas not disturbed by Project construction and operation within the Project Area will be managed as needed by Cottage Grove BESS. The overall goal of this Plan is to establish a sustainable, diverse, perennial ground cover throughout the VMUs of the Project Area. The purpose of this Plan is to lay out a clear strategy for site preparation, seeding, planting methods, and the process and timeline for successful vegetation establishment. The Plan also outlines the long-term maintenance and monitoring necessary to contribute to the long-term success for the Project.

Specific Goals of this Plan include:

- **Goal 1** - Maintain compliance with permit requirements regarding revegetation after construction of the Project Area.
 1. **Objective 1.a:** Design and outline protocols to suppress vegetation within the BESS site and access roads through the operation of the Project.
 2. **Objective 1.b:** Create a long-term monitoring and maintenance plan so desired vegetation is maintained in vegetated areas of the Project site for entirety of its operational lifespan.
- **Goal 2** - Improve and maintain soil health where possible, so that Project lands may be returned to productive agricultural land use, or other uses as determined by the landowner, after Project decommissioning.
 1. **Objective 2.a:** Onsite soil health will be maintained through the use of perennial plant species that develop deep and prolific root systems leading to restricted agricultural soils for enhanced infiltration and increased organic matter.
 2. **Objective 2.b:** Permeable materials will be used to suppress plant growth to facilitate nutrient retention and soil porosity in areas where vegetation growth is suppressed.
- **Goal 3** - Develop and install perennial seed mixes that support the Project sites' biodiversity where feasible.
 1. **Objective 3.a:** Improve water quality and increase carbon sequestration over the duration of the Project while also increasing biodiversity and benefiting wildlife habitat such as buffer areas and appropriate seed mixes for stormwater basins
 2. **Objective 3.b:** Select species adapted to site specific environmental parameters including soils, drainage, and local climate, and compatible with function and operation of energy production equipment and facilities.

- **Goal 4** - Be compatible and compliant with Minnesota Pollution Control Agency (MPCA) Construction Stormwater General Permit the Project Stormwater Pollution Prevention Plan (SWPPP) and associated storm water management permit requirements during construction and operation of the Project. This Plan supplements, and does not replace, the guidance provided in the SWPPP.
 - 1. **Objective 4.a:** Best management practices (BMPs) can be updated and implemented on site in accordance with MPCA & SWPPP requirements as innovative technologies become available over the course of the Project lifespan.
- **Goal 4** - Create a long-term monitoring and maintenance plan so desired vegetation is maintained in VMUs for entirety of its operational lifespan.
 - 1. **Objective 5.a.** Best management practices (BMPs) can be updated and implemented on site in accordance with federal and state Noxious Weed Laws and wildlife or habitat regulations.

2.0 Project Description

The Project consists of a 6.84-acre Project Area within one parcel of land (Parcel ID# 2702721420004). The Project Area is mapped in Township 027N, Range 021W, Section 27 of the City of Cottage Grove, Washington County, Minnesota. Located to the west of the Project is Innovation Road, to the north is Point Douglas Drive, and to the northwest is the Canadian Pacific Railway. The Project Area consists of developed land of varying intensities with elevations that range from 794 to 808 feet above mean sea level increasing from west to east. Surrounding land use consists of industrial businesses, power stations, rural land, Cottage Grove Ravine Regional Park, and the Mississippi River to the south (**Exhibit 1**).

2.1 Existing Conditions

2.1.1 Land Cover

Current land use in the area is lightly developed and mowed (**Exhibit 3**). There is one man-made wetland and no waterbodies or flowlines mapped within the Project Area. A total of four land cover types were identified and mapped within the Project Area (**Exhibit 4**) with no undisturbed habitats present. According to the current landowner, none of the agricultural fields within the Project Area are known to contain field drain tiles. In the event drain tiles are discovered and damaged during construction, they will be repaired to the extent necessary to maintain drainage on adjacent non-participating property.

2.1.2 Soils

Soils data were downloaded from the USDA NRCS Web Soil Survey and are shown on **Exhibit 5** and summarized in **Table 2.1**. The Project Area consists of Hydrologic Soil Group (HSG) A. Type A soils have low to moderate runoff potential and infiltration rates (USDA NRCS 2021). These characteristics affect the availability of water for plants, so seed selection has included these soils to improve vegetation establishment.

Table 2.1: Soils within Project Areas

Map Unit Symbol	Map Unit Name	Hydrologic Soil Group	Acres in Project Area	Percent of Project Area
8B	Sparta loamy sand, 2 to 6 percent slopes	A	1.4	20.7%
327	Dickman sandy loam, 0 to 2 percent slopes	A	5.4	79.3%
Totals for Area of Interest			6.8	100.00%

2.1.3 Hydrology

The Project Area is located within the Colby Lake (070102060902) HUC12 Watershed (USGS, 2023). Within the Project Area, the topography is mostly flat with intentional drainages directed to the man-made wetland (**Exhibit 4**). Isolated depressions are likely present on-site that may hold water during rain events. Precipitation for the region averages between 31 and 33 inches per year (U.S. Climate Data 2025). The wet season occurs from Mar through October. The least amount of measurable precipitation occurs from November to early March (**Figure 2.1**). Revegetation seeding should be done in late

March or early May to increase the likelihood of success for plant establishment during the best environmental conditions.

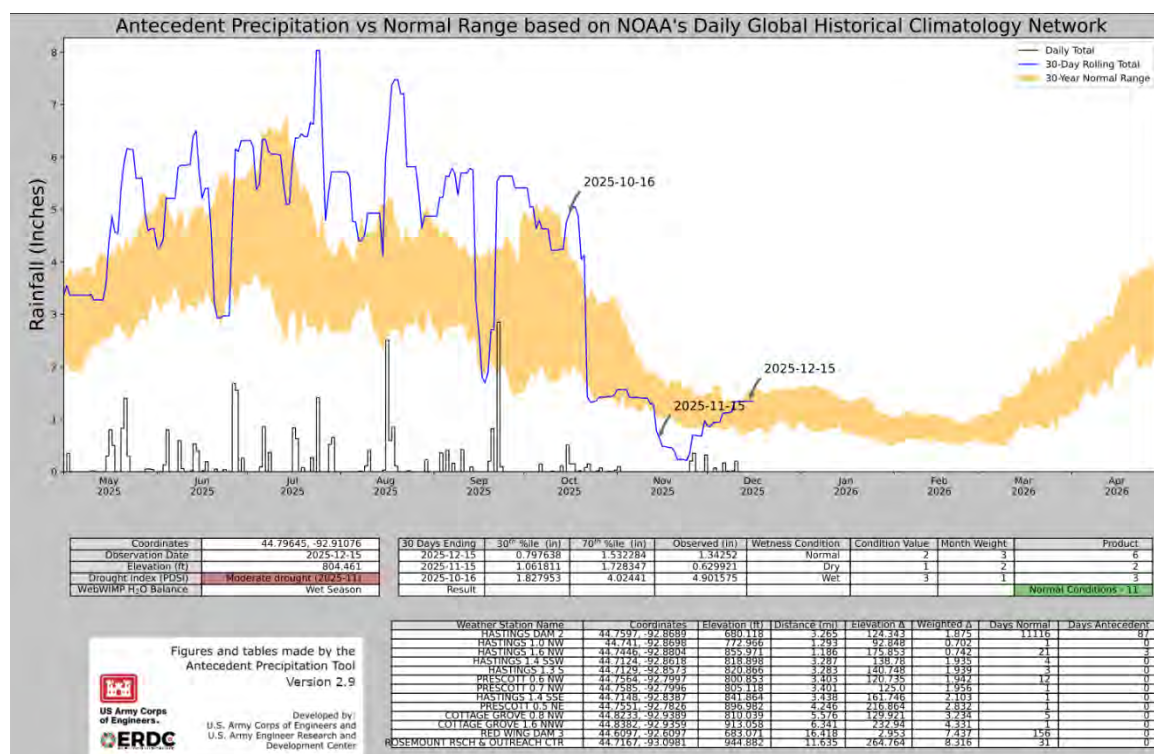


Figure 2.1 Seasonal precipitation patterns for the Project Area. The Orange band shows the 30-year average and indicates May, June, July and September and October have the most rainfall.

2.1.4 Topography

Topography within the Project Area is generally flat with gentle to moderate slopes between some field edges and roads (**Exhibit 1**). The elevation of the Project Area ranges from approximately 794 feet to 808 feet above mean sea level with slopes generally less than five percent. This will afford options in some areas to leave soils intact which will improve revegetation.

2.1.5 Ecology

According to the Minnesota Department of Natural Resources (MNDNR) and the Ecological Classification System (ECS), the Project Area is located within the Tallgrass Prairie region and near Eastern Deciduous Forest (MNDNR ECS1988). Tallgrass prairies include a wide variety of landforms, including beach ridges and swales, glacial lake beds, moraine hills, steep bluffs and rolling till plains. One of the more prominent indicators is the vegetation is mostly herbaceous plants and the dominance of a few major prairie grasses. Soil moisture levels and nutrient loads correlate to topography. In general, big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*) occupied the deep fertile soils of the moist uplands and little bluestem (*Schizachryium scoparium*) and sideoats grama occurred on the thin soils of the uplands (MNDNR n.d.a.). Woody encroachment is likely to occur without proper management of the site.

2.1.6 Baseline Noxious Weeds

The managed vegetation and roadside disturbances throughout the Project Area has a high probability to facilitate establishment of invasive and noxious weeds. Preconstruction surveys and control of noxious weeds is recommended. Further monitoring of vegetation in disturbed and revegetated areas should be completed as vegetation establishes to improve target vegetation establishment success and mitigate potential nuisance impacts to neighboring landowners. Future surveys can be conducted as part of SWP3 inspections and site walkdowns throughout the construction process and may be commissioned as separate studies.

2.2 Disturbance Types

This Plan defines three types of disturbance conditions — Long-term alteration for infrastructure and vegetation suppression, and two types of short-term disturbances that will be revegetated, topsoil removal and topsoil compaction. Before beginning any construction activity or other ground-disturbing activity, all areas to be affected need to have boundaries marked using stakes, flagging, and/or fencing spaced to maintain a sightline, and all disturbances must be confined to the marked areas in accordance with civil site plan. All Project personnel must be instructed that their activities have to be confined to the marked areas, and no grading is permitted within 1 foot of a property line, except for roads, driveways, and utilities. If sensitive resources are observed within the area to be disturbed, construction should proceed in a different area until an approved resource specialist has evaluated the area of concern.

2.2.1 Long-term Soil Alteration Areas

For areas that will have long-term soil alterations for the life of the Project, including BESS pad sites and gravel roads, topsoil can be removed and spread over areas of temporary disturbance that will be revegetated. Ammending the soils and surfaces with thick gravel, weed cloths, and permeable liners will reduce vegetation establishment.

2.2.2 Topsoil Removal Areas

Removing topsoil and disturbing plants in this ecoregion permanently alters the area and can cause difficulty in reestablishing vegetation. Although it is necessary for constructing the facility, soil disturbance should be limited as much as possible.

When topsoil must be removed, the top six inches should be stored separately from lower soils to preserve the nutrients and potential seed bank. Stored topsoil should be reapplied to areas where vegetation is desired at the final stage of contouring surfaces. Water bars and silt sock installations are recommended to allow water and seeds to pool, preventing erosion and loss of seeds. Reseeding should occur as quickly as possible and within the SWPPP requirements of soil disturbance activities and vegetation allowed to establish prior to subsequent disturbances.

Topsoil removal disturbance also includes constructing access roads needed for routine maintenance of the facility, even though these areas will not be revegetated. Topsoils from these areas will be used in other areas on site to aid in revegetation.

2.2.3 Topsoil Compaction Areas

In an effort to improve revegetation, areas may be revegetated, then mowed and driven over by heavy machinery during construction. This can include using various types of heavy equipment movement within the Project Area to install solar panels, fencing, and

gen-tie poles, parking vehicles and equipment, and storing materials in designated staging areas. These areas may become compacted and require restoration following the completion of construction. Silt sock installations are recommended to allow water and seeds to pool, preventing erosion and loss of seeds. Reseeding of any bare spots and disturbed areas should occur as quickly as possible and within the SWPPP requirements and vegetation allowed to establish prior to subsequent disturbances.

3.0 Soil Work During Construction

During Project development and before beginning construction, areas that will be temporarily disturbed should have their vegetation evaluated to determine if areas can be used with vegetation in place or if they will require soil disturbance.

The following sections describe BMPs for areas that will be revegetated when construction finishes. A map of proposed vegetation management strategies is presented in **Exhibit 6**. This map is preliminary and should not be used for final design. The map is in part based on publicly available aerial imagery and a design layout provided by LSP CG Storage LLC to Westwood.

3.1 Site Clearing, Grading, and Vegetation Removal

Preparation for construction of the Project may require some amount of vegetation removal and grading, especially in areas that will have gravel pads installed. Backfilled areas that will be revegetated must be dressed with a minimum of six inches of topsoil, seeded, and stabilized using certified weed-free straw mulch, slash mulch not exceeding three (3) inches of depth, and/or erosion control blankets.

The timing and nature of vegetation removal will incorporate Best Management Practices and regulations set forth by the federal Migratory Bird Treaty Act and state regulations - see **Table 3.1** for land clearing dates and restrictions.

Woody material generated from site clearing and vegetation management should be piled on site for wildlife habitat or mulched and used as perimeter berms, incorporated into the soil as an organic matter amendment, or used as temporary cover for topsoil stockpiles. Wood or slash mulch generated on site must be finely ground such that material can freely pass through a $\frac{3}{4}$ " sieve.

Table 3.1: Vegetation Clearing Windows and Restrictions

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mowing & Vegetation clearing												

Note: Both state and federal laws protect birds and their nests, so vegetation clearing for construction and maintenance should only occur between September 16 and April 14 (white cells). Mowing and land clearing activities between April 15 and September 15 must have nest surveys completed zero to five days prior to activity to remain in compliance with the MBTA.

Grading designs of the Project should seek to minimize grading while providing a surface suitable to meet infrastructure needs and positive drainage. This also minimizes the extent of balance cut and fill volumes as much as possible across the site.

Erosion and sediment control devices should be installed in advance of grading activities and as needed and must be maintained throughout grading and stabilization according to the Stormwater Management Plan (SWMP), and associated BMPs developed for the Project as part of the civil site plan.

Where soil disturbance is necessary and will be revegetated, the contractor will adhere to this VMP and avoid mixing or contaminating topsoil with subsoils. Topsoil needs to be stripped, stockpiled, and properly maintained by BMPs separately from subsoils and reapplied during final grading for vegetation establishment. Nutrients within topsoils are difficult to replenish and subsoils are typically nutrient poor. Mixing these soils will negatively affect vegetation establishment. Stockpiled soils should be temporarily stabilized with a cover crop such as wheat or browntop millet and/or mulch cover if they will be stored for months.

Drainage patterns from the Project Area should remain similar to pre-developed conditions, with a majority of the site draining via sheet flow to existing drainage ditches or swales that cross multiple locations of the Project Area. Storm water management practices including temporary storm water sediment basins will be constructed to manage storm water runoff and will meet the permit requirements (**Exhibit 6**).

No vegetation clearing should occur within 50 feet of wetlands or waterways. Managing wetlands and their buffer areas for Noxious and Invasive Plants (**Table 1.1**) must follow state guidance. Newly constructed stormwater areas that will be vegetated will be seeded with plants from MnDOT wet ditch mix (**Appendix A**).

3.2 Noxious and Species Management

Invasive and noxious weed management will be conducted as needed to reduce the spread of weeds from existing populations into adjacent lands, improve establishment and success of the permanent seed mixes, and reduce vegetation impacts to the BESS facility and infrastructure. State and federal law define noxious weeds as non-native plants that displace or out-compete native plants for soil moisture and degrade natural habitat. The MNDNR divides noxious weeds onto five separate lists, one of which is left up to counties (MNDNR 2023). Washington County does not have a Noxious weed list, so the remaining four lists are compiled in **Table 1.1**.

The overall goal for the site is the prevention and management of noxious weed populations from growing/recurring onsite. Throughout this Plan there will be several terms used to describe the different management methods. Eradication means to eliminate entirely from a site. Control means extensively managing in a way that prevents the spread of these species by seed or vegetative means. Suppression means reducing the noxious weed-infested area as well as curtailing the noxious weed's ability to spread to surrounding areas.

Properly controlling and reducing noxious weed species onsite will be done utilizing BMPs, which may include the following:

- Minimizing traffic into and out of areas onsite with invasive and noxious weeds.
- Inspecting the Project Area to identify weeds prior to becoming a substantial problem onsite.
- Cleaning vehicles and equipment after moving through known noxious weed areas.
- Allowing native plant populations to grow and infill to help reduce noxious weed growth.

The site should be monitored throughout construction and operation for noxious weeds. Materials and equipment being brought onsite need to be inspected preceding application to ensure that they are noxious weed-free. Revegetation activities are to be implemented in a timely manner to reduce the opportunity for noxious weeds to reestablish.

Vegetation management equipment and implements should be cleaned of potential weed and noxious species reproductive parts prior to entering the Project Area. Similarly, the equipment will be cleaned after all work events in the Project Area. Cleaning can occur off-site at a designed cleaning station or facility, or a cleaning station constructed in the Project Area. Cleaned equipment should always be inspected to ensure removal of all vegetative material.

3.3 Herbicide Use During Construction

The Client, or licensed herbicide applicator subcontractor, must demarcate work areas for herbicide treatment based on the species listed in **Table 1.1**. Demarcations may include wooden flagging or lathe stakes to mark the corners of herbicide work areas and the expected re-entry time. Lathe stakes should be marked with purple spray paint and/or flagging tape. Herbicide work areas may also be marked with purple spray paint in lieu of lathe stakes where appropriate. The Client will direct staff not directly involved with herbicide application to avoid herbicide work areas until the stand-down time for each herbicide has passed.

Depending on the work area conditions, a non-selective herbicide such as glyphosate might work to control target species. In areas that will remain vegetated or be revegetated, selective herbicides and spot treatment are recommended. For example, broadleaf-specific herbicides like clopyralid or grass-selective herbicides like Fusilade can be used to reduce impacts to surrounding native vegetation. Application methods must be reviewed/designed by a licensed applicator to determine whether low volume/spot application or broadcast applications are appropriate based on the non-desirable plant species present at each work area. The Herbicide Use Plan must be developed after site conditions and seasons are reviewed. Some additional considerations include target species, vegetation density or composition, and site evaluation including sensitive surrounding areas, projected precipitation, or winds. Westwood encourages the Client to consult with local herbicide specialists to leverage their knowledge and experience.

Herbicide treatments must be performed by individuals with a current Commercial Pesticide Applicator certification and license issued through the Minnesota Department of Agriculture and in accordance with all applicable laws, regulations, and herbicide label instructions.

Vegetation management equipment and implements will be cleaned of potential weed and invasive species reproductive parts prior to entering the Project Area. Similarly, equipment should be cleaned prior to leaving the Project Area. Cleaning can occur off-site at a designated cleaning station or facility, or a cleaning station constructed in the Project Area. Cleaned equipment should be inspected to ensure removal of all vegetative matter and soils.

3.4 Temporary Seedings

Temporary seeding, the use of only annual seeds, should be applied to all areas of disturbance intended to remain pervious and revegetated. Additional areas where temporary seeding will be applied include topsoil stockpiles and non-structural soil material. Multiple applications may be necessary during the construction process to meet the requirements of temporary stabilization. For disturbed areas where construction efforts may permit plant establishment, like swales or berms, fast establishing natives should be included in the temporary seed mix to improve diversity of the final vegetation stand.

Wheat (*Triticum aestivum*) and browntop millet (*Urochloa ramosa*) are suitable selections for the temporary seeding cover crops if being installed from summer through the winter or frost seeding. Crimson clover (*Trifolium incarnatum*) and annual ryegrass (*Lolium multiflorum*) may be substituted for the temporary seeding cover crops if being installed in spring or early summer. **Table 3.4** lists suitable candidates for the temporary seeding cover crop by season for the region.

Table 3.4: Annual Cover Crop Seed List

Scientific Name	Common Name	Planting Season
<i>Erigeron spp.</i>	Buckwheat	May-Aug
<i>Lolium multiflorum</i>	Annual ryegrass	Mar-Aug
<i>Secale cereale</i>	Cereal rye	Sep-Feb
<i>Trifolium incarnatum</i>	Crimson clover	Sep-Feb
<i>Triticum aestivum</i>	Common wheat	Nov-Jan
<i>Urochloa ramosa</i>	Browntop millet	Mar- Jul

4.0 Vegetation Installation

The main goal of site preparation in areas that will be revegetated, is to create ideal establishment and growing conditions for seed to be installed in areas where disturbance or compaction have occurred. It will be essential to control invasive species after planting, along with erosion and sediment control, and preserving areas not meant to be disturbed.

The following section describes site preparation tasks that may be conducted prior to the installation of the permanent seed mixes. All site preparation activities shall maintain compliance with the SWMP and SWP3.

The permanent seed mixes have been customized to be compatible with site maintenance and adapted to the site environmental conditions.

4.1 Revegetation Constraints

Revegetation constraints within the Project include 1) unknown-nutrient levels 2) drought conditions compared to average annual precipitation levels, and 3) high average summer temperatures with strong winds and fluctuating humidity.

4.2 Seed Bed Preparation

In order to overcome the constraints identified above, appropriate native, commercially available species common within the ecoregion have been reviewed and proposed to be used for vegetating the Project Area to the greatest extent practicable. Soil stabilization must occur in accordance with the Project's associated SWP3 and compacted soils will be restored as closely as possible to preconstruction conditions as required for ground stabilization and erosion control. Where feasible, soils and subsurface plant structures should be left in place. Leaving vegetation intact also supports the success of revegetation activities following construction. Westwood biologists have reviewed local plant communities and seed providers to determine appropriate native species and seeding rates for the Project Area (**Appendix A**).

Seed mixes must be applied with mulch, organic soil amendments, locally hayed native vegetation or certified weed-free straw mulch, and tackifiers to increase revegetation success. A recommended seed list and application rates for the Project are provided in **Section 4.4**. The Project seed mix to be used should be approved by regulatory oversight committees prior to application. Before application of the seed mixes to the Project Area, the seed bed will be prepared to ensure successful propagation and survival of the desired plants in the Project Area. To prepare the site for effective seeding, any Noxious or Invasive Plants (**Table 1.1**) or species listed in the Suppression Plans (**Tables 3.1** and **3.4**) located within the area to be seeded should be treated with an approved management method (**Section 5.3**).

When soils are disturbed, an adequate seed bed should be prepared using a disc, field cultivator, or chisel plow (or equivalent). Seedbed preparation will be based on seeding methods and species planted. Tillage and equipment operations related to seeding and mulching will be performed in a manner to minimize soil erosion and may include the addition of straw, swales, or socks to capture soils and seeds.

Compacted areas, such as the laydown yards and heavily travelled corridors, must be decompacted. Decompaction will be performed when the severity of the compaction is expected to prevent revegetation. If possible, deep-rooted vegetation should be avoided, and soils nearby will be aerated.

In areas where topsoils and subsoils have been removed and stockpiled (**Section 3.1**), reapplication can occur during final grading and after decompaction is performed. This will prevent impervious soils from forming. Reapplication should be coordinated with BMP placement with topsoil being placed over subsoils.

The application of manure, compost, pine bark mulch, or comparable organic soil amendments will be performed at revegetation areas. Organic soil amendments will be incorporated into the soil along with any granular or liquid fertilizers. Organic soil amendment and fertilizer application will be performed immediately before seeding and stabilization. Location, materials, materials origin, time of application, and personnel involved in soil amendment application will be tracked and included in Project environmental tracking documentation.

4.3 Installation Methods

Seed must be applied uniformly at specified rates by drilling, broadcasting, or hydroseeding. Equipment must be setup to allow seeds to be sown to the appropriate depths based on method, species, soil type and available moisture. Seeding activities must be suspended if conditions are such that equipment will cause significant rutting of the surface in the designated seeding areas.

4.4.1 Drill Seeding

Seeding equipment will be capable of uniformly distributing the seed and sowing it at the required depth. Drills will be equipped with a feeding mechanism that will provide a uniform flow of seed at the desired application rate. Single-disc furrow openers equipped with depth bands and packer wheels to firm the soil over the seed will be used where appropriate. Other types of seed drills may be used based on availability and soil conditions. Drill seeding is the preferred method of seeding for the Project.

4.4.2 Broadcast Seeding

Broadcast seeding rate will be double the drill-seeding rate. Seed will be uniformly distributed by mechanical or hand-operated seeders. Following seeding, a cultipacker, harrow, or hand rake will be used to cover the seeds and firm the seedbed as is appropriate for the area. If drill seeding is not practical due to site conditions including terrain, broadcast seeding may be performed.

4.4.3 Hydroseeding

Hydroseeding rate will be double the drill seeding rate, or the same as broadcast seeding rate. Seed will be applied alone or in a seed, fertilizer and/or hydromulch slurry. Please note that mulch-materials should be organic and avoid plastics, malachite dye, or other harmful components. If seeding is applied alone, the amount of hydromulch material will be adjusted to the seed slurry to show where seeding has taken place, providing a means to identify uniform cover. Hydroseeders must provide continuous agitation and be capable of supplying a continuous, non-fluctuating flow of slurry. Hydroseed slurry will not be held in the tank more than 1 hour before use. If drill or broadcast seeding is not practical due to site conditions including terrain, hydroseeding may be performed.

4.4 Permanent (Perennial) Seeding

Upon completion of grading and soil disturbance activities, all disturbed areas that will be revegetated must be seeded with a perennial seed mix. Mulch and straw are expected to be used and must comply with regulations on Noxious Weeds as described in **Section 1.1**. Use of local hay from native pastures can improve biodiversity to supplement seed mixes. However, there are likely tall, invasive plant seeds in hay that will require management and control the following years.

The Minnesota Department of Transportation (MNDOT) has created seed mixes (**Appendix A**). These can be used to create a less biodiverse seed mix if warranted. New species substituted into MNDOT seed mixes are not recommended. However, if necessary, additional species must meet the same general criteria as other species on the recommended seed mixes – native or naturalized to the region, low-growing, and tolerant of local precipitation patterns. In the case that substitutions are to be used, the applicant is advised to consult with the VMPWG to ensure species still meet diversity and seasonal requirements.

The MNDOT seed mixes are composed of various fast-establish, deep rooted, native and non-native, grass and forb species. The species selected may provide habitat or food for life-stages of pollinators. Once established and mowing occurs on an annual or biennial basis, the proposed mixes will also provide nesting and foraging habitat for birds. Additionally, these native plant species will grow deep and prolific root systems leading to restructured agricultural soils for enhanced infiltration and increased organic matter. The species have been selected on their growth size, composition, and ability to thrive under a wide array of site conditions. Final seed mixes and seeding rates may be modified based on factors such as site conditions and seed availability at the time of final design and construction and may result in the addition or removal of species, or adjustment of species component percentages. Defensible, vegetated areas like below fences and along roadways will require seeding with plants that can tolerate low mowing. These areas are not considered in the MNDOT seed mixes (**Appendix A**), so Westwood put together recommended species for these areas in the table below.

Table 4.4: Suitable plants for areas that will be mowed short on a regular schedule.

Scientific Name	Common Name	Maximum % of Cover	PLS lbs/ac	Maximum Seeding Rate (PLS/ac)
Grasses				
<i>Bouteloua curtipendula</i>	Side-oats Grama	25.0	4.0	1.0
<i>Bouteloua hirsute</i>	Hairy Grama	15.0	4.0	3.75
<i>Poa pratense</i>	Kentucky blue grass	50.0	3.0	1.5
Forbs				
<i>Prunella vulgaris</i>	Common selfheal	10.0	3.0	0.3
<i>Plantago rugelii</i>	American plantain	10.0	10.0	1.0
<i>Ruellia humilis</i>	Hairy Ruellia	10.0	14.5	1.5
<i>Trifolium repens</i>	White clover	50.0	7.0	1.75
Sedges/Rushes				
<i>Juncus tenuis</i>	Path Rush	25.0	1.0	0.25

Ditches and stormwater basins should be seeded with plants from the MnDOT Wet Ditch Mix (**Appendix A**). Seed mixes have been cross-referenced with soils on site (**Table 2.1**) and should establish following this VMP. Species in the Wet Ditch Mix tolerate long periods of inundation, improve water quality, and slow stormwater velocity.

For areas that can be allowed to grow through the growing season, seeds should be selected from the MnDOT Dry Prairie Mix (**Appendix A**).

Contact seed companies as soon as the disturbance acreage estimates are known to ensure seed availability for the required volume.

4.5 Seed Application Timing

Due to local rain patterns (**Figure 2.1**), seeds can be installed anytime during the growing season, but spring seeding is preferred for best results. Spring seeding season would occur mid-April through June and the fall seeding season would occur from mid-October until first frost. Temporary cover crop (annual) seed and permanent (perennial) seed should be installed simultaneously, in the same hydro-mix. Anticipated timeframe for seeding activities to take place in Spring 2028 once construction activities have been completed.

Mulch material or other erosion control materials must be applied per manufacture's recommendations. The MPCA Construction Stormwater General Permit and the Project SWPPP may require application of a straw mulch or other approved compost cover over newly seeded areas to meet stabilization requirements.

4.6 Supplemental Water

The mild climate in the local area can make seed establishment fairly easy; however sporadic droughts can reduce the success of plant establishment. When feasible, seeds should be planted in Spring 2028 (anticipated completion of construction) or before the wet season so plants can take advantage of the higher precipitation.

In severe dry conditions, localized drip bags or tubes can also be used in smaller disturbed areas. These slowly release water into the area enabling seedlings to establish while conserving water. This method can also be used to establish vegetation islands that will promote further vegetation establishment and provide new seeds. Similarly, vertical barriers that mimic standing vegetation can be used to capture wind-blown seeds and provide microhabitat for improved seedling establishment.

4.7 Standards for Seeds and Seed Mixes

Seed and seed mixes will be native to the southeast region of Minnesota and regionally sourced and purchased on a Pure Live Seed (PLS) basis. To the extent possible it is preferred to select seeds from the same ecoregion, where plants have adapted to the climate, soil and geology of the specific geographic area. Associated seed tags will identify purity, germination, date tested, total weight and PLS weight, weed seed content and supplier's information. Seeding rates will be based on the PLS rate and number of pure live seeds per square foot. Seed tags will be retained for record keeping such as dates and locations of application.

The contractor must keep a record of which seed is used along with application rate and dates of application. The contractor will document seed tags for reference.

4.8 Post-seeding Vegetation Cover Monitoring

Six weeks after seeds are sown, monitoring surveys should occur throughout the site. Areas with poor vegetation establishment should be mapped and evaluated. If the area was clearly scoured by heavy rains, cut straw into the topsoil and reseed with an appropriate seed mix. If the area has not been scoured, tests for compaction should be conducted next. If soils have 300psi or higher readings on the penetrometer, decompaction should occur and the area reseeded. If the soils are not compacted, soil samples from the center of the area should be collected and tested for nutrients, salts, and pollution. Following actions will depend on the results.

In areas that are overseeded, spot-mowing with a string trimmer can be used to decrease plant abundance. No more than 25% of the area should be cut and the areas that are cut should be disconnected and patchy. End height should be about two inches. This will allow for taller plants to have less competition and spread out, while lower growing plants will be selected for in the cut areas.

5.0 Weed Management, Fire Mitigation, and Long-term Site Maintenance

The majority of the Project Area will be kept free of vegetation (**Exhibit 6**) to be in compliance with regulations and fire safety. These areas should have infrastructure in place, like liners and deep gravel, to reduce plant establishment. An Herbicide Use Plan should be available on site. Manual removal of plants can be done as well when feasible and is recommended around wetlands and stormwater canals.

In areas where vegetation will be maintained or restored, follow-up monitoring and maintenance are critical tasks for achieving successful establishment of seeded vegetation. Native plant species typically take longer to mature than non-native species. For full establishment of native vegetation, the process usually takes two to three years for plants to reach maturity in years with normal rainfall.

In the first year, most native perennial species are developing their deep fibrous root system. The second year brings more developed foliage and blooms. During these first two years, it is essential to offer routine maintenance and weed control to prevent more rapidly growing non-native, noxious, and invasive weed species from establishing. The following three years should show a reduction in need of maintenance as the native vegetation establishes.

The Project should be monitored through the construction process to verify temporary and permanent seeding is being completed and vegetation is establishing. Revegetated areas within the Project must be monitored annually post-construction during the five-year establishment period. Due to the small acreage, visual inspections for noxious weeds should be completed every 60 days during the growing season. Monitoring will determine maintenance and vegetation management needs across the Project Area. Routine post-construction monitoring includes surveys for invasive and noxious weed species and follow-up treatments. Surveys should be conducted as needed throughout the life of the Project especially if soil disturbance work occurs.

Herbicide treatments (Herbicide Use Plans) must be performed by individuals with a current Commercial Pesticide Applicator certification and license issued through the state of Minnesota, and in accordance with all applicable laws, regulations, and herbicide label instructions. Herbicide application in or immediately adjacent to wetlands with standing water should be avoided when possible. Broad-spectrum, long-lasting herbicides are recommended on pads where vegetation will not be allowed to grow. Soil amendments and weed cloth can also be used in designs to reduce pesticide use.

5.1 Managing Planned Barren and Defensible Areas

Soil amendments, weed liners, and gravel pads should be used to prevent plant growth around sensitive infrastructure. Areas can further be maintained with long-term herbicides to keep areas barren where vegetation is not permitted to grow.

The Client, or licensed herbicide applicator subcontractor, must demarcate work areas for herbicide treatment. Demarcations may include wooden flagging or lathe stakes to mark the corners of herbicide work areas and the expected re-entry time. The Client will direct staff not directly involved with herbicide application to avoid herbicide work areas until the stand-down time for each herbicide has passed.

Depending on the work area conditions, a non-selective herbicide such as glyphosate might work to control target species. In areas that will remain vegetated or be revegetated, selective herbicides are recommended. For example, broadleaf-specific herbicides like clopyralid or grass-selective herbicides like Fusilade can be used to reduce impacts to surrounding native vegetation. Application methods must be reviewed/designed by a licensed applicator to determine whether low volume/spot application or broadcast applications are appropriate based on the non-desirable plant species present at each work area. Some additional considerations include target species, vegetation density or composition, and site evaluation including sensitive surrounding areas, projected precipitation, or winds. Westwood encourages the Client to consult with local herbicide specialists to leverage their knowledge and experience.

Short vegetation borders, like those around road edges, fence lines, pads, and fence lines, should be mowed every few weeks with blade heights that are set at less than three inches. Mowers, brush hogs, and other equipment can start fires so fire suppression equipment should be available and quickly accessible when machines are in use.

5.2 Noxious and Invasive Plants

Treatment of Noxious and Invasive Plants (**Table 1.1**) is required annually and is recommended to occur between April 1 and October 1 (growing season). Herbicide use is recommended to avoid soil disturbances and prevent self-seeding of noxious and invasive species. Contact local state agricultural extension offices if a noxious weed infestation occurs. Small population establishments should be able to be controlled with localized herbicide application or mowing. Furthermore, noxious weed prevention Best Management Practices should be utilized at all Project entrances during construction to reduce the introduction of noxious, invasive, and non-native plants. If mowing is used to control noxious weeds, clippings will be left at the infestation site. Workers' clothing, shoes, PPE, and landscaping equipment containing any plant material from noxious weeds shall be cleaned to remove visible debris prior to leaving the infestation area.

5.3 Permanent Vegetation Mowing

Mowing is an essential tool in the establishment of native vegetation proposed for revegetating the solar site but can also be harmful to protected species. Mowing keeps undesirable vegetation and weed species at a reduced height and prevents them from blooming and setting seed. Mowing also allows sunlight to reach the ground to facilitate growth of desirable species and prevents shading.

Throughout the Project Area, spot mowing or herbicide treatment should be utilized approximately 4-6 weeks after permanent seeding of all seed mixes in any area where invasive species are densely colonizing. Treatment should be repeated as needed to keep undesired weed species from crowding or going to seed. A minimum of two spot mowing events per year should occur during the first two years. Triggers for these mowing events include when non-native species reach a height of around 12 to 18 inches, or non-native species begin flowering. The mower deck should be set at 5 to 8 inches and raised as perennial plantings mature. Weed whipping will be needed in areas near equipment, to prevent damage and reduce impact to establishing desired plants.

Treatment of undesired vegetation is recommended between April 1 and October 1 (growing season). Similarly, to comply with the MBTA and state regulations that protect birds, mowing should have nest surveys completed no more than 72 hours prior to mowing in the growing

season with avoidance of any active nests observed. Workers can walk areas prior to mowers and flag 150 ft buffers around active nests for mowers to avoid.

During the growing season, if large areas require mowing, wildlife friendly BMPs recommend no more than 75% of a parcel or property should be mowed in a two-week window, and blades should be a minimum of 5 inches off the ground, if not higher, depending on the plant species that are being controlled. This will give mowed areas sufficient time to bloom again for pollinators to continue feeding.

In years 3-5, the perennial vegetation should be established and there is less risk of weed growth. For all seed mixes, mowing should continue to occur no more than once per year to prevent woody encroachment. Spot mowing should occur in all seeding areas to target only specific areas of undesired plant growth or to prevent woody species from encroaching.

Table 5.3: Blade height, period, and triggers for mowing activities in vegetated areas.

Mowing Height	Mowing Period	Mowing Triggers
Finished height of 5 - 8 inches	Growing Season: April – September	Dense areas of non-native plants, or initial flowering of non-native plants.
Finished height of 3 - 6 inches	Dormant Season: October – March	Woody vegetation encroachment

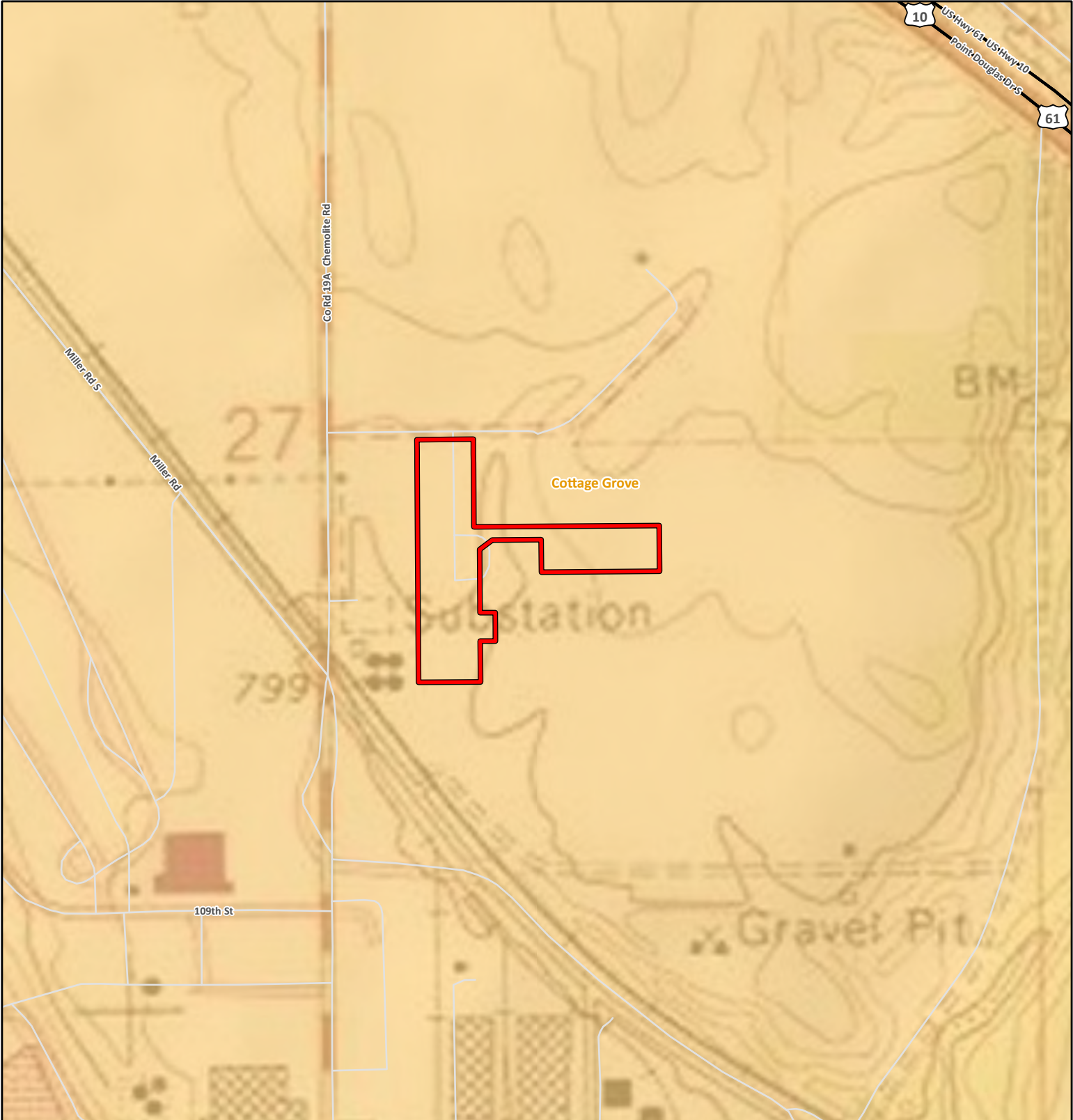
Once vegetation is fully established past year five, mowing to prevent woody plant encroachment can occur between October and March when necessary (**Table 5.3**) based on monitoring. Staggering mow years for nearby parcels will facilitate pollinator populations for species that overwinter or nest in twigs. An alternative to mowing is grazing as numerous projects have started using sheep to replicate the same process. An alternative seed mix would be studied and proposed concurrent with the evaluation of grazing. If grazing is to be used for management option, a grazing plan shall be prepared and provided to the VMPWG by an experienced conservation grazing specialist.

6.0 References

- Cropscapes 2024. Han, W., Yang, Z., Di, L., Yue, P., 2014. A geospatial Web service approach for creating on-demand Cropland Data Layer thematic maps. Transactions of the ASABE, 57(1), 239-247.
- MNDNR. 2023. Minnesota Noxious Weed. Minnesota Department of Natural Resources (available at <https://files.dnr.state.mn.us/eco/invasives/noxious-weeds.pdf>) Accessed December 2025.
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- U.S. Climate Data. 2025. Cottage Grove, Minnesota. Accessed from: <https://www.usclimatedata.com/climate/>
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Westwood

Exhibits



Data Source(s): Westwood (2026); Esri WMS U.S. Topo & World Streets Basemaps (Accessed 2025); U.S. Census Bureau (2024 & 2025).

Cottage Grove BESS Project

City of Cottage Grove,
Washington County, Minnesota

Project Location & USGS Topography

Exhibit 1

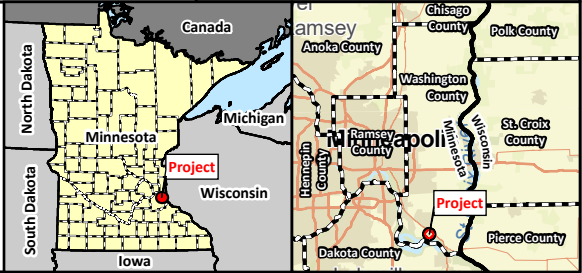


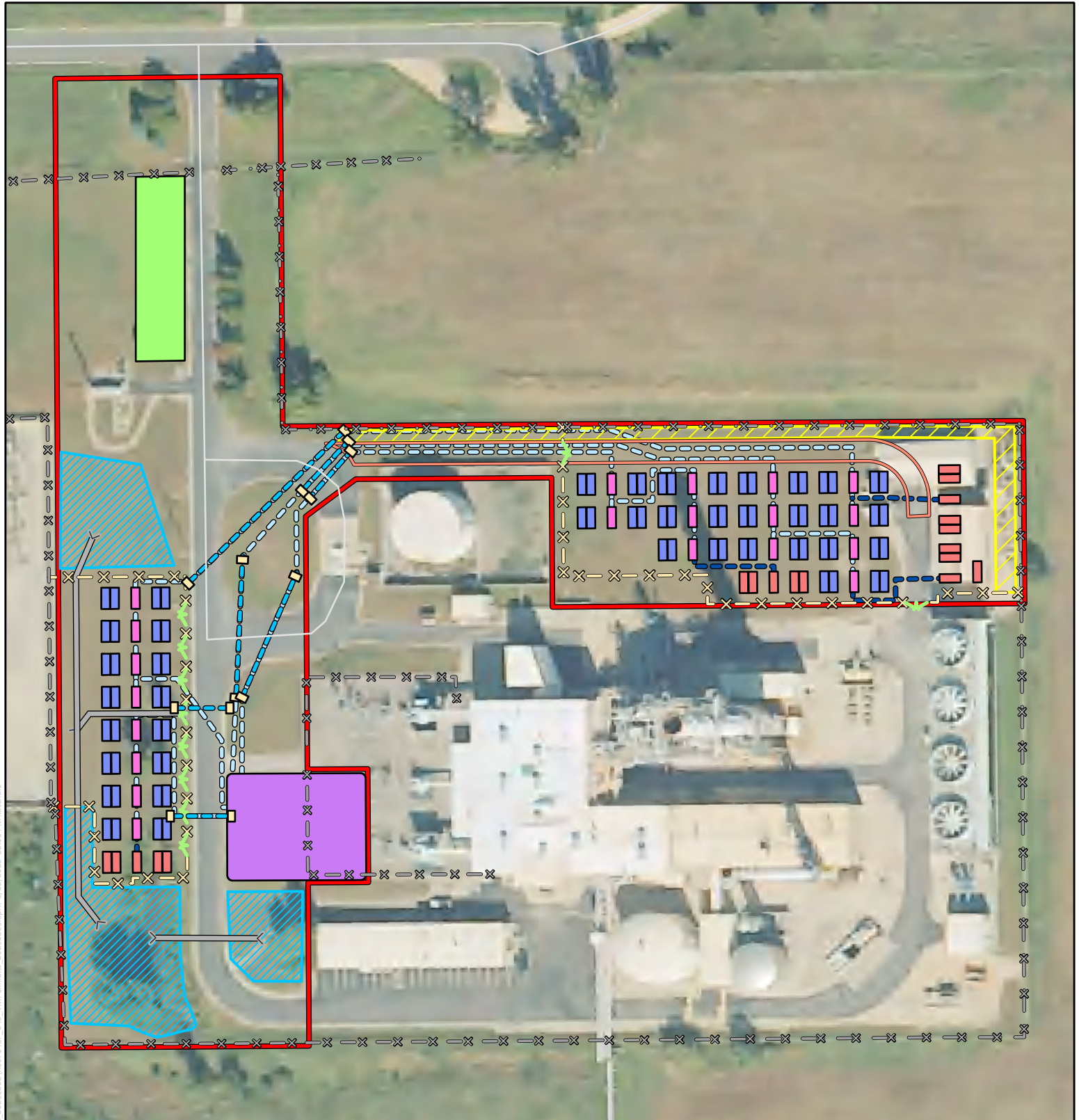
Legend

- Project Area
- Municipal Boundary
- Major Road
- Road

Westwood

Toll Free (888) 937-5150 westwoodps.com





Data Source(s): Westwood (2026); NAIP (2025); U.S. Census Bureau (2024).



Cottage Grove BESS Project

Site Development Plan & Disturbed Soils

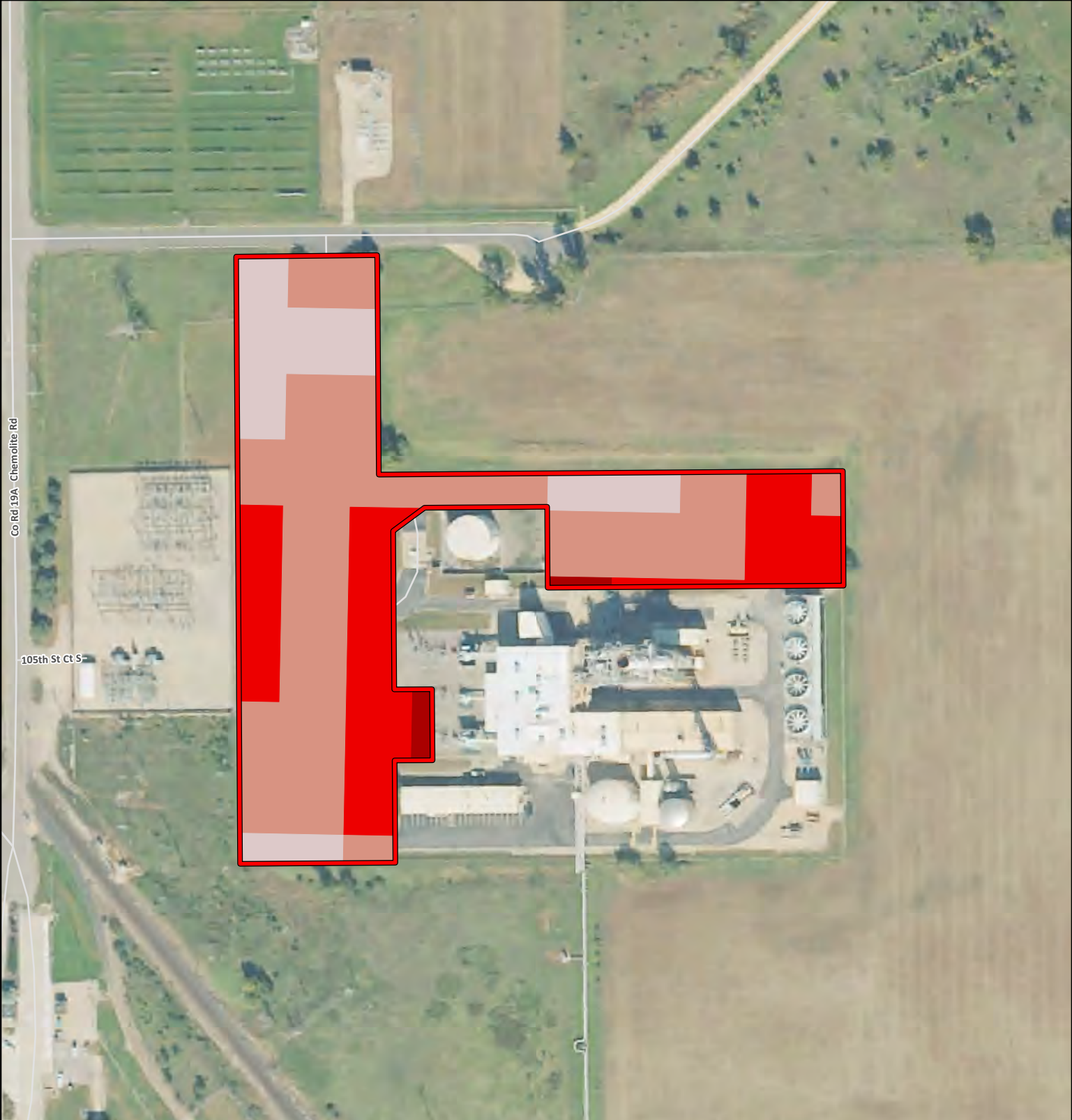
City of Cottage Grove,
Washington County, Minnesota

Exhibit 2

Westwood
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Legend

- | | | | |
|--------------------|----------------|-----------------------------|---------------------|
| Project Area | PCS Equipment | Proposed Fence | AUG Collection Line |
| Access Road | BESS Equipment | Existing Fence | Proposed Gate |
| Infiltration Swale | AUG Equipment | Bore Line | Road |
| Drainage Basin | Substation | Underground Collection Line | Culvert |
| Laydown Yard | Bore Pit | | |



Data Source(s): Westwood (2026); NAIP (2025); U.S. Census Bureau (2025); NLCD (2024).

N
0 200 Feet

Cottage Grove BESS Project		City of Cottage Grove, Washington County, Minnesota
Land Cover	Exhibit 3	



Toll Free (888) 937-5150 westwoodps.com

Legend

 Project Area

 Road

NLCD Classification

 Developed, High Intensity

 Developed, Medium Intensity

 Developed, Low Intensity

 Developed, Open Space



Data Source(s): Westwood (2026); NAIP (2025); NHD (2025); NWI (2025); U.S. Census Bureau (2025).

Cottage Grove BESS Project

City of Cottage Grove,
Washington County, Minnesota

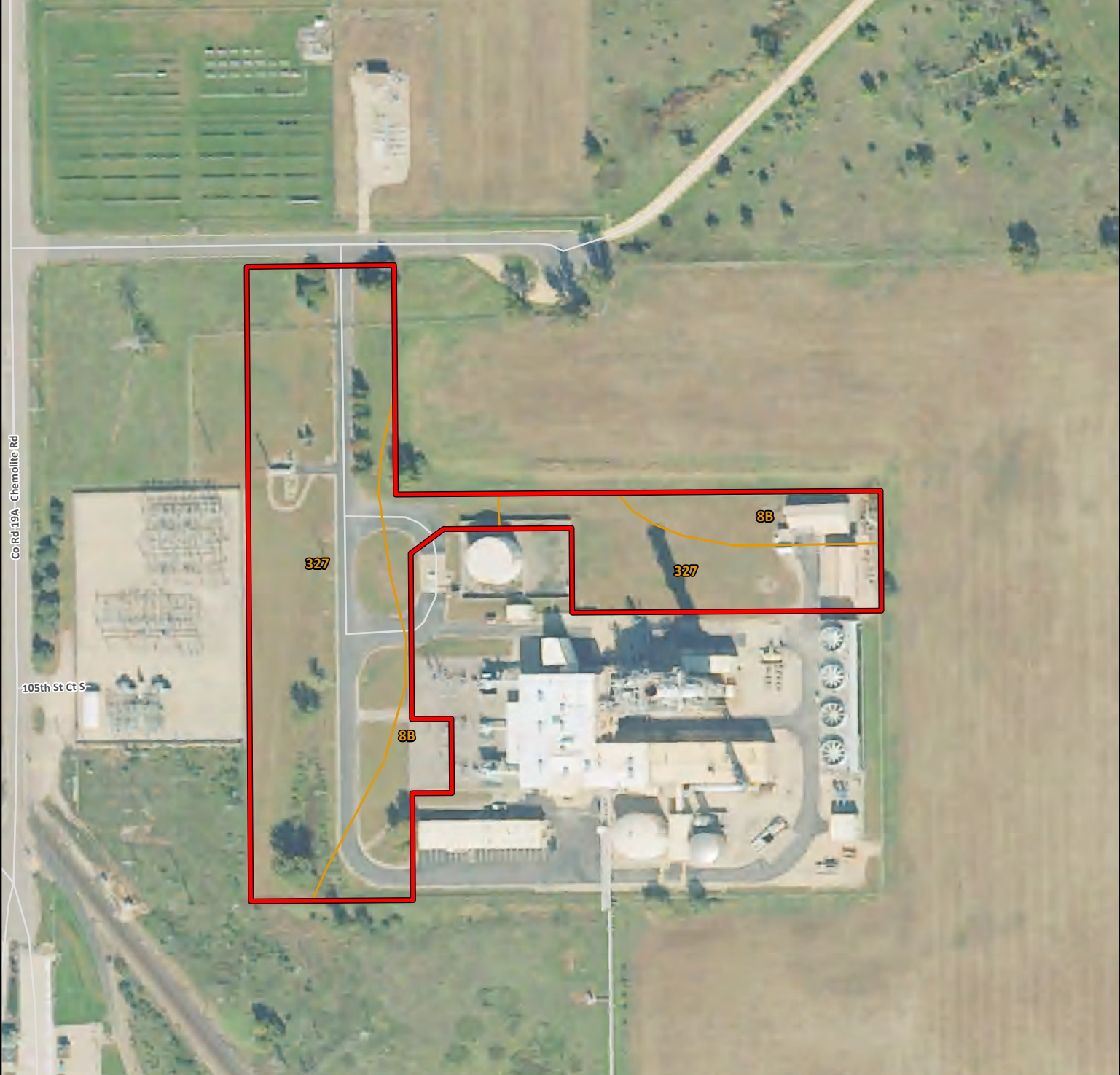
Hydrology

Exhibit 4



Legend

-  Project Area
-  NWI Wetland
-  NHD Flowline
-  Major Road
-  Road



Map Unit Symbol	Map Unit Name	Percent Hydric Classification	Hydric Classification
327	Dickman sandy loam, 0 to 2 percent slopes	0	Non-Hydric
8B	Sparta loamy sand, 2 to 6 percent slopes	0	Non-Hydric

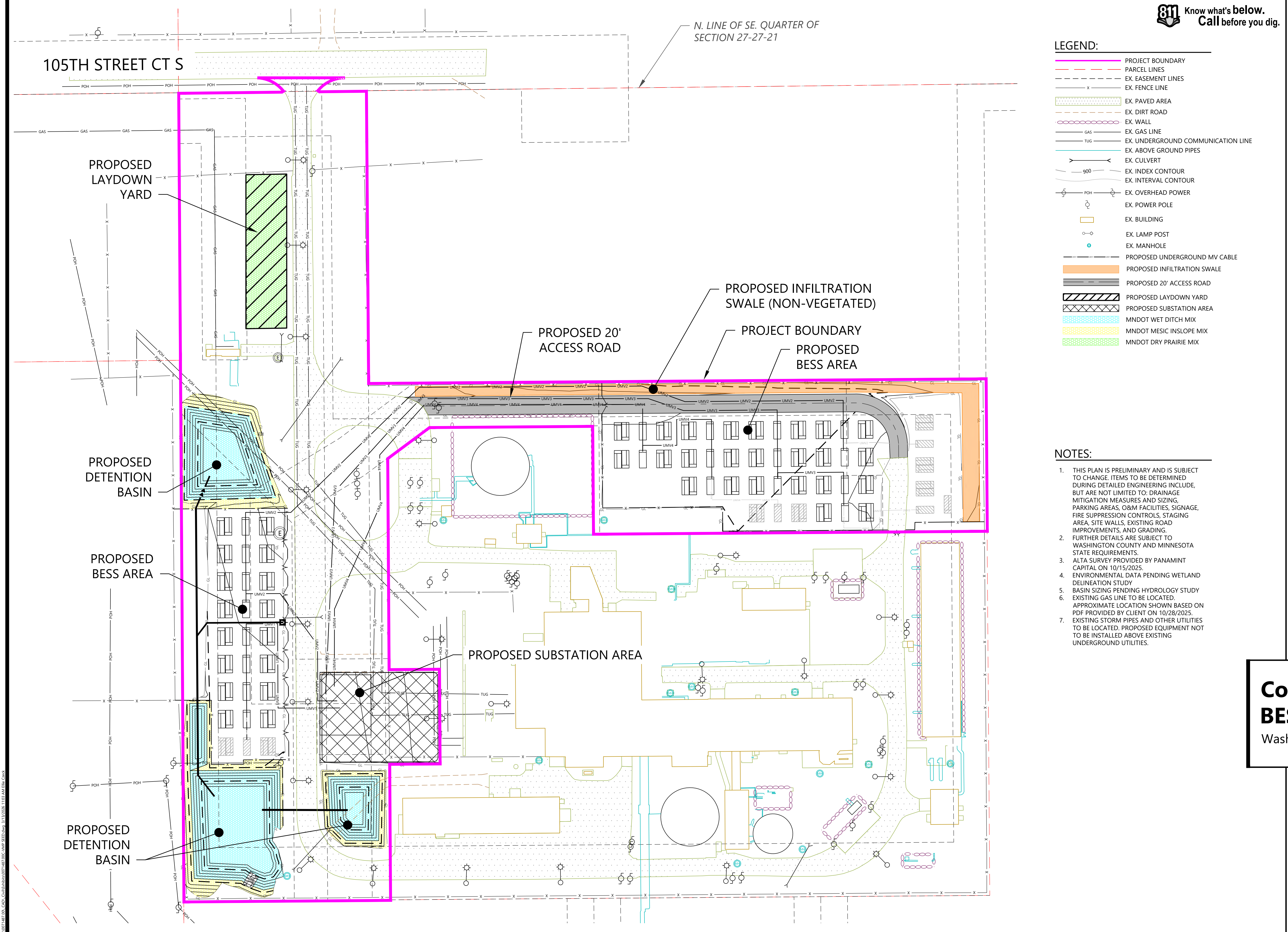
Data Source(s): Westwood (2026); NAIP (2025); NRCS (Accessed 2026); U.S. Census Bureau (2025).

Cottage Grove BESS Project	City of Cottage Grove, Washington County, Minnesota
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Soils	Exhibit 5
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- Legend**
- Project Area
 - Soil Unit Boundary
 - Road



811 Know what's below.
Call before you dig.

- LEGEND:**
- PROJECT BOUNDARY
 - PARCEL LINES
 - EX. EASEMENT LINES
 - EX. FENCE LINE
 - EX. PAVED AREA
 - EX. DIRT ROAD
 - EX. WALL
 - EX. GAS LINE
 - EX. UNDERGROUND COMMUNICATION LINE
 - EX. ABOVE GROUND PIPES
 - EX. CULVERT
 - EX. INDEX CONTOUR
 - EX. INTERVAL CONTOUR
 - EX. OVERHEAD POWER
 - EX. POWER POLE
 - EX. BUILDING
 - EX. LAMP POST
 - EX. MANHOLE
 - PROPOSED UNDERGROUND MV CABLE
 - PROPOSED INFILTRATION SWALE
 - PROPOSED 20' ACCESS ROAD
 - PROPOSED LAYDOWN YARD
 - PROPOSED SUBSTATION AREA
 - MNDOT WET DITCH MIX
 - MNDOT MESIC INSLOPE MIX
 - MNDOT DRY PRAIRIE MIX

- NOTES:**
- THIS PLAN IS PRELIMINARY AND IS SUBJECT TO CHANGE. ITEMS TO BE DETERMINED DURING DETAILED ENGINEERING INCLUDE, BUT ARE NOT LIMITED TO: DRAINAGE MITIGATION MEASURES AND SIZING, PARKING AREAS, O&M FACILITIES, SIGNAGE, FIRE SUPPRESSION CONTROLS, STAGING AREA, SITE WALLS, EXISTING ROAD IMPROVEMENTS, AND GRADING.
 - FURTHER DETAILS ARE SUBJECT TO WASHINGTON COUNTY AND MINNESOTA STATE REQUIREMENTS.
 - ALTA SURVEY PROVIDED BY PANAMINT CAPITAL ON 10/15/2025.
 - ENVIRONMENTAL DATA PENDING WETLAND DELINEATION STUDY
 - BASIN SIZING PENDING HYDROLOGY STUDY
 - EXISTING GAS LINE TO BE LOCATED. APPROXIMATE LOCATION SHOWN BASED ON PDF PROVIDED BY CLIENT ON 10/28/2025.
 - EXISTING STORM PIPES AND OTHER UTILITIES TO BE LOCATED. PROPOSED EQUIPMENT NOT TO BE INSTALLED ABOVE EXISTING UNDERGROUND UTILITIES.

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
TollFree (888) 937-5150 Minnetonka, MN, 55343
westwoodps.com

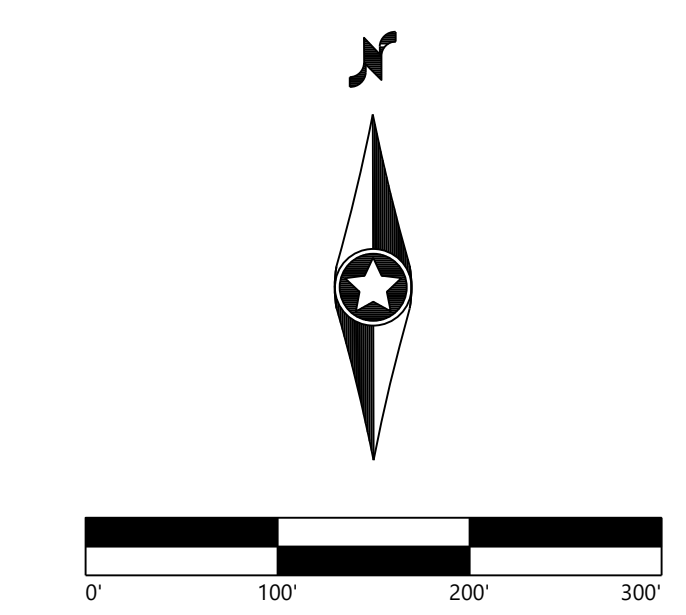
Westwood Professional Services, Inc.
FIRM # 1435401900042 (formerly SZ-405)

PREPARED FOR:

LSP CG STORAGE LLC

REVISIONS:

#	DATE	COMMENT	BY	CHK	APR
A	01/23/2026	ISSUED FOR REVIEW	EAC	EAC	NTM
B	03/13/2026	ISSUED FOR REVIEW	EAC	EAC	NTM



**Cottage Grove
BESS**
Washington County, Minnesota

**PRELIMINARY
SEEDING PLAN**

NOT FOR CONSTRUCTION

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Appendix A

MnDOT Seed Mixes

MnDOT Mesic Inslope Mix

Scientific Name	Common Name	% of Mix	PLS	Seeds / SF
Grasses				
<i>Bouteloua curtipendula</i>	Side-oats Grama	7.70	1.24	11.03
<i>Bromus bierbesteinii</i>	Meadow Brome	10.77	0.90	8.03
<i>Elymus trachycaulus</i>	Slender Wheat Grass	7.69	1.43	12.67
<i>Elymus virginicus</i>	Virginia Wild Rye	7.69	0.87	7.71
<i>Festuca ovina</i>	Sheep Fescue	12.31	10.95	97.34
<i>Lolium perenne</i>	Perennial Ryegrass	18.46	6.72	59.78
<i>Phleum pratense</i>	Timothy	3.08	6.35	56.47
<i>Poa palustris</i>	Fowl Bluegrass	7.69	26.86	238.75
<i>Poa pratensis</i>	Kentucky Bluegrass	16.92	39.48	350.97
	Total Grasses	92.31	94.81	842.76
Forbs				
<i>Dalea candida</i>	White Prairie Clover	1.15	0.59	5.23
<i>Dalea purpurea</i>	Purple Prairie Clover	1.15	0.46	4.13
<i>Heterotheca villosa</i>	Hairy Golden Aster	0.31	0.58	5.14
<i>Medicago sativa</i>	Alfalfa	3.08	1.17	10.41
<i>Trifolium repens</i>	White Clover	2.00	2.39	21.24
	Total Forbs	7.69	5.19	46.17
	MIX TOTAL	100		

MnDOT Wet Ditch Mix

Scientific Name	Common Name	% of Mix	PLS	Seeds / SF
Grasses				
<i>Andropogon gerardii</i>	Big Bluestem	5.00	1.10	3.67
<i>Bromus ciliatus</i>	Fringed Brome	7.50	1.81	6.06
<i>Calamagrostis canadensis</i>	Bluejoint Grass	0.25	1.54	5.14
<i>Elymus canadensis</i>	Nodding Wild Rye	10.00	1.14	3.82
<i>Elymus virginicus</i>	Virginia Wild Rye	20.00	1.85	6.17
<i>Glyceria grandis</i>	Tall Manna Grass	0.75	1.15	3.86
<i>Leersia oryzoides</i>	Rice Cutgrass	1.50	1.12	3.75
<i>Lolium perenne</i>	Perennial Ryegrass	30.00	8.94	29.89
<i>Panicum virgatum</i>	Switchgrass	2.50	0.77	2.57
<i>Poa palustris</i>	Fowl Bluegrass	5.00	14.28	47.75
	Total Grasses	82.50	33.70	112.68
Sedges & Rushes				
<i>Carex hystericina</i>	Porcupine Sedge	0.50	0.33	1.10
<i>Carex stipata</i>	Awl-fruited Sedge	0.25	0.19	0.62
<i>Carex vulpinoidea</i>	Fox Sedge	0.50	1.10	3.67
<i>Juncus dudleyi</i>	Dudley's Rush	0.25	17.58	58.77
<i>Scirpus atrovirens</i>	Dark Green Bulrush	0.50	5.05	16.90
<i>Scirpus cyperinus</i>	Woolgrass	0.50	18.68	62.44
	Total Sedges	2.50	42.92	143.51
Forbs				
<i>Anemone canadensis</i>	Canada Anemone	0.25	0.04	0.15
<i>Asclepias incarnata</i>	Swamp Milkweed	1.25	0.13	0.44
<i>Asclepias syriaca</i>	Common Milkweed	1.00	0.09	0.29
<i>Astragalus canadensis</i>	Canada Milkvetch	2.50	0.93	3.12
<i>Bidens cernua</i>	Nodding Bur Marigold	0.50	0.23	0.77
<i>Desmodium canadense</i>	Canada Tick-trefoil	2.50	0.30	1.01
<i>Doellingeria umbellata</i>	Flat-topped Aster	0.25	0.37	1.23
<i>Eupatorium perfoliatum</i>	Common Boneset	0.25	0.88	2.94
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	0.15	1.15	3.86
<i>Eutrochium maculatum</i>	Spotted Joe Pye Weed	0.30	0.63	2.09
<i>Helenium autumnale</i>	Autumn Sneezeweed	0.50	1.43	4.78
<i>Helianthus grosseserratus</i>	Sawtooth Sunflower	0.30	0.10	0.33
<i>Liatris pycnostachya</i>	Prairie Blazing Star	0.85	0.21	0.69
<i>Lobelia siphilitica</i>	Great Lobelia	0.25	2.75	9.18
<i>Mimulus ringens</i>	Blue Monkey Flower	0.15	7.58	25.34
<i>Physostegia virginiana</i>	Obedient Plant	0.30	0.07	0.24
<i>Rudbeckia laciniata</i>	Cut-leaf Coneflower	0.50	0.15	0.51
<i>Solidago rigida</i>	Stiff Goldenrod	0.50	0.45	1.51
<i>Symphyotrichum lanceolatum</i>	Eastern Panicked Aster	0.25	0.86	2.87
<i>Symphyotrichum puniceum</i>	Red-stemmed Aster	0.25	0.44	1.47
<i>Thalictrum dasycarpum</i>	Tall Meadow Rue	0.50	0.22	0.73
<i>Verbena hastata</i>	Blue Vervain	0.75	1.53	5.12
<i>Veronicastrum virginicum</i>	Culver's Root	0.15	2.64	8.82
<i>Zizia aurea</i>	Golden Alexanders	0.80	0.19	0.65
	Total Forbs	15.00	23.37	78.14
	MIX TOTAL	100.00		

MnDOT Dry Prairie Mix

Scientific Name	Common Name	% of Mix	PLS lbs/ac	Seeds / SF
Grasses				
<i>Andropogon gerardii</i>	big bluestem	1.92	0.7	2.57
<i>Bouteloua curtipendula</i>	side-oats grama	8.22	3	6.61
<i>Bouteloua gracilis</i>	blue grama	1.37	0.5	7.35
<i>Bromus kalmii</i>	kalm's brome	2	0.73	2.14
<i>Elymus canadensis</i>	nodding wild rye	2.74	1	1.91
<i>Koeleria macrantha</i>	junegrass	0.69	0.25	18.37
<i>Schizachyrium scoparium</i>	little bluestem	8.22	3	16.53
<i>Sorghastrum nutans</i>	Indian grass	1.92	0.7	3.09
<i>Sporobolus heterolepis</i>	prairie dropseed	0.34	0.12	0.73
	Total Grasses	27.42	33.70	59.3
Sedges & Rushes				
<i>Carex hystericina</i>	Porcupine Sedge	0.50	0.33	1.10
<i>Carex stipata</i>	Awl-fruited Sedge	0.25	0.19	0.62
<i>Carex vulpinoidea</i>	Fox Sedge	0.50	1.10	3.67
<i>Juncus dudleyi</i>	Dudley's Rush	0.25	17.58	58.77
<i>Scirpus atrovirens</i>	Dark Green Bulrush	0.50	5.05	16.90
<i>Scirpus cyperinus</i>	Woolgrass	0.50	18.68	62.44
	Total Sedges	2.50	42.92	143.51
Forbs				
<i>Agastache foeniculum</i>	blue giant hyssop	0.17	0.06	2.07
<i>Amorpha canescens</i>	lead plant	0.26	0.09	0.42
<i>Asclepias tuberosa</i>	butterfly milkweed	0.17	0.06	0.1
<i>Astragalus canadensis</i>	Canada milk vetch	0.18	0.06	0.4
<i>Coreopsis palmata</i>	bird's foot coreopsis	0.16	0.06	0.21
<i>Dalea candida</i>	white prairie clover	0.15	0.06	0.39
<i>Dalea purpurea</i>	purple prairie clover	0.51	0.19	1.02
<i>Desmodium canadense</i>	Canada tick trefoil	0.18	0.06	0.13
<i>Helianthus pauciflorus</i>	stiff sunflower	0.17	0.06	0.09
<i>Liatris aspera</i>	rough blazing star	0.12	0.04	0.25
<i>Monarda fistulosa</i>	wild bergamot	0.15	0.06	1.42
<i>Oligoneuron rigidum</i>	stiff goldenrod	0.15	0.06	0.83
<i>Penstemon grandiflorus</i>	large-flowered beard tongue	0.17	0.06	0.32
<i>Rudbeckia hirta</i>	black-eyed susan	0.84	0.31	10.32
<i>Solidago nemoralis</i>	gray goldenrod	0.1	0.04	3.86
<i>Symphyotrichum ericoides</i>	heath aster	0.1	0.04	2.58
<i>Symphyotrichum laeve</i>	smooth aster	0.17	0.06	1.26
<i>Verbena stricta</i>	hoary vervain	0.34	0.13	1.29
	Total Forbs	4.09	1.5	26.96
	MIX TOTAL	100.00		