Appendix E
Vegetation Management Plan

Vegetation Management Plan

Lemon Hill Solar

Developer:

Lemon Hill Solar, LLC

Prepared by:

MNL, Inc

8740 77th Street NE

Otsego, MN 55362

June 2025

Table of Contents

Abbreviations and Definitions

- BMP: Best management practice
- ft. MSL: Feet above mean sea level
- Lemon Hill Solar, LLC: Lemon Hill Solar
- MDA: Minnesota Department of Agriculture
- MDNR: Minnesota Department of Natural Resources
- MW: Megawatt
- NWI: National Wetlands Inventory
- POI: Point of Interconnection
- Project: Lemon Hill Solar Project
- PV: Photovoltaic
- SSURGO: Soil Survey Geographic Database
- SWPPP: Stormwater Pollution Prevention Plan
- USDA-NRCS: United States Department of Agriculture – Natural Resources Conservation Service
- USGS: United States Geological Survey
- VMP: Vegetation Management Plan
- VMU: Vegetation Management Unit

List of Tables

List of Figures

Appendices

1.0 Executive Summary

Lemon Hill Solar, LLC (Lemon Hill Solar) proposes to construct and operate a 180 megawatt (MW) photovoltaic (PV) solar energy generating facility and associated infrastructure, known as the Lemon Hill Solar Project (or Project). The proposed Project is located in Haverhill and Viola townships in Olmstead County, Minnesota, just east of Rochester, Minnesota (Figure 1). Throughout this document, the term "Site" refers to the parcels of private land leased by Lemon Hill Solar and on which the primary Project facilities will be located (Figure 2 and Figure 3). The term "Preliminary Development Area" refers to the specific portions of the Site where the solar facilities and associated infrastructure will be built and operated and includes some public road rights-of-way where Project collection lines will be installed to connect the non-contiguous parcels of leased land. The Site is approximately 1,945 acres and the Preliminary Development Area will occupy approximately 966 acres. The proposed Project occurs on predominately agricultural cultivated cropland on rolling terrain with soils that are mostly silt loam, loam, and silty clay loam textures.

The overall goal of this Vegetation Management Plan (VMP) is to establish perennial vegetation within the Site utilizing diverse native prairie species. The vegetation will need to be compatible with the operation and maintenance of the solar generation facility. This perennial vegetation is expected to stabilize the soil, improve overall soil health, and provide habitat for native pollinators and other wildlife. Over the lifetime of the Project, Lemon Hill Solar will continue to maintain native vegetation and control invasive and other unwanted species.

2.0 Overview

This VMP describes the existing conditions at the Site and how the vegetation will be managed to provide diverse, native prairie within and surrounding the Project to protect soil and provide habitat for native pollinators. The goals and objectives below guide the rest of the VMP. Existing Site conditions are summarized and provide the basis for the plan for site preparation, seeding, and vegetation maintenance activities for the life of the Project.

2.1 Goals and objectives

This VMP follows best practices for establishment of native vegetation based on guidance from the Minnesota Board of Water and Soil Resources (BWSR 2025; Minnesota Department of Commerce [MDOC] 2021). Lemon Hill Solar's primary goals related to vegetation management are described below, with the related objectives to meet the goals.

- Goal 1: Establish perennial vegetation throughout the Site.
    - Objective 1a. Design seed mixes appropriate for this region and expected conditions.
    - Objective 1b. Prepare an establishment plan that minimizes the duration and extent of bare soil to ensure soil stability.
- Goal 2: Establish vegetation that will be compatible with the Project operations and minimize maintenance needs.
    - Objective 2a. Design seed mixes that will not impede or shade solar panels and will allow travel within the facility for maintenance and access.
    - Objective 2b. Use low maintenance vegetation that reduces the need for trimming and develops robust cover that minimizes potential invasive and undesirable species.

- Goal 3: Plan for vegetation to provide soil stability, improve soil health, and benefit native pollinators.
    - Objective 3a. Provide nectar sources from plants throughout the Site including as much native vegetation as possible.
    - Objective 3b. Plan for management methods that minimize widespread herbicide applications and treatments to reduce vegetation height and thatch accumulation.
- Goal 4: Minimize invasive species, noxious weeds, and undesirable species on the Site.
    - Objective 4a. Plan for long-term monitoring and maintenance that will reduce new infestations and rapidly control species that become established.

3.0 Site Location and Description

The Project is located in Haverhill and Viola Townships, in Olmsted County (Figure 1) and is composed of 17 separately fenced blocks of solar arrays covering approximately 966 acres, the Preliminary Development Area (Figure 2). The Project will connect to the grid via a gen-tie line to Dairyland's 161 kV Rochester to Wabaco line, which will be the Project's Point of Interconnection (POI; Figure 3).

3.1 Existing Land Use and Land Cover

The Project will predominately affect agricultural cultivated cropland, located within agriculture zoning areas (Figures 4a and 4b). Crops in the area are primarily corn and soybeans and several pastures and hay fields. Small headwater streams occur in small valleys, and many have tree cover along the streams and in adjacent riparian areas. Farmsteads occur scattered within and near each of the proposed Project blocks.

3.2 Soils

The county soil survey data from the United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) is presented in Figures 5a and 5b. The soil textures within the Site are primarily silt loam, loam, or silty clay loam that were formed, primarily, in thick loess deposits. Loess is a windblown sediment that accumulated during glaciation, and most of these deposits remain at the top of ridges and have developed into rich topsoil used for farming.

Approximately 10 percent of the Site is classified as hydric soil where historic wetlands were present prior to drainage for agriculture (e.g., installation of drain tiles and ditches) or where wetlands are presently located. Approximately 90 percent of the Site is classified as non-hydric soils (Figures 5a and 5b).

The 1,945-acre Site contains approximately 1,179 acres of prime farmland (61%), 148 acres of prime farmland if drained (8%), and 365 acres of farmland of statewide importance (19%) (see Figure 4). Approximately 966 acres of the Site would be used for Project infrastructure as shown on the Preliminary Development Area map (see Figure 3). The Preliminary Development Area contains 681 acres of prime farmland (75%), 54 acres of prime farmland if drained (6%), and 185 acres of other important farmlands (20%) for a total of 920 acres, which is 95% of the Preliminary Development Area.

3.3 Topography

The Site is located near the top of slopes between watersheds (Figures 6a and 6b). There are rolling hills with some steeper slopes falling away from the Site into the small valleys of the headwater streams (Figure 1). The lowest elevations of the Site occur in the stream valleys in the northern portions of the Site and in the east. The topography of the Site is gently rolling with elevations ranging from 1,160 to

1,300 feet above sea level. The stream valleys have relatively steep slopes draining away from the Preliminary Development Area.

3.4 Hydrology

The Site lies between two major watersheds. The majority of the solar blocks drain to the east and north and are included in the Mississippi River-Winona Major Watershed. The northern block of the west portion of the Site drains through Dry Creek (Figure 6a), and the eastern portions all drain into the North Fork of the Whitewater River (Figure 6b). The two southernmost blocks in the western portion of the Site drain south and west into the South Fork of the Zumbro River major watershed via Silver Creek. All of these areas eventually flow east into the Mississippi River.

Based on the National Wetland Inventory (NWI), wetlands primarily occur in the headwaters of the small tributary streams that have developed the drainage pattern of this landscape (Figures 6a and 6b). The wetlands occur in narrow bands within the upper portions of the valleys of the streams. Most of these wetlands are considered wet meadow and wooded swamp communities.

There are three small wetlands within the proposed fenced areas, a total of about 1.4 acres were mapped within the fenced areas as part of a wetland delineation (Figures 6a and 6b). None of these wetlands will be impacted directly by the Project.

3.5 Land Cover and Ownership

Existing land cover is shown in Figures 7a and 7b according to the United States Geological Survey (USGS) National Land Cover Data. Most of this area is under cultivation for intensive row crop agriculture. One state managed conservation easement is located near the western portion of the Site.

Land ownership in the area is primarily private and used for agricultural purposes. The Minnesota Department of Natural Resources (MDNR) manages one Wildlife Management Area just south of the western portion of the Site (Figure 8). A small portion of the western Site is within a State Game refuge, also managed by the MDNR. This restricts hunting within this area but does not affect the Project. Public water streams are present outside the Site and will not be directly affected by the Project.

4.0 Management Units

The Site is divided into 17 blocks that each contain solar arrays and associated infrastructure. Collector lines and roads (mostly public roads) connect each of these blocks. Each of the blocks will be managed with the same goals and objectives, and each has the same management unit types within the blocks. There are three different management units spread throughout the Site. These management units are shown in Figures 9a and 9b and described based on the different objectives for each.

The Array Vegetation Management Unit (VMU) will be short-statured native species that will be carefully managed to prevent the plants from interfering with solar panel operation.

A. This VMU includes all of the areas within the fences: under the arrays, between arrays, and surrounding areas, not including roads and infrastructure.
B. This VMU will have native species that should remain shorter than 3 feet tall and will include diverse native grasses and forbs.
C. This will provide high-quality native prairie habitat.

The Outer Perimeter VMU that will be less intensively managed and will act as a buffer to surrounding agricultural areas.

A. This will include land that will be leased by Lemon Hill Solar that was previously used for agriculture and will not be farmed for the life of the Project.
B. The seed mix for this VMU will have similar species as the Array VMU but will include some taller species that are unlikely to spread into the array areas.
C. This will provide high-quality native prairie habitat.

The Stormwater Basin VMU will be composed of native vegetation within the proposed stormwater basins.

A. These are relatively small areas and will include species adapted to saturated soils and periods of shallow inundation.
B. This may include seeding in existing wetlands if they are not already vegetated.
C. This will be an area of high diversity of native plant species.

5.0 Management Unit Objectives

Establishment period and long-term management objectives for the Site will be the same for all VMUs, which will all be seeded with diverse native species and managed to maintain this diversity. Additional objectives are defined for the Array VMU, because it is within the operational area of the Project and will require more intensive management.

5.1 General Vegetation Management Objectives

The objectives below apply all VMUs that are managed by Lemon Hill Solar. These general objectives will guide management of all the areas that will be re-vegetated as part of this Project.

Short-term establishment objectives:

- Minimize soil disturbance and ensure appropriate seedbed with minimal compaction and mixing with subsoil.
- Comply with the Stormwater Pollution Prevention Plan (SWPPP) and Construction Stormwater General Permit by using appropriate best management practices (BMPs) and carefully monitoring construction activities.
- Install seed mixes that include a high diversity of native grasses and forbs that will provide high quality habitat for native pollinators.

Long-term objectives:

- Maintain vegetative cover throughout the Site (except roads and infrastructure) and prevent erosion.
- Maintain vegetation to prevent invasive plant species and other undesirable plants.
- Maintain diverse native vegetation.
- Annual monitoring to assess conditions and identify problems to be addressed through management activities.

5.2 Additional Array VMU Objectives

The Array VMU is unique because the vegetation in this area must remain lower to the ground to prevent shading the solar panels. Therefore, the native shortgrass seed mix will be used, and

additional management activity is expected to maintain vegetation at a low height to prevent interference with operation of the panels and maintain operational access.

Short-term establishment objectives:

- Control potential sources of seed from trees, shrubs, and other tall vegetation that may interfere with solar panels in the future.

Long-term objectives:

- Prevent species that may interfere with panel operation.
- Manage vegetation height and minimize thatch accumulation using mowing or grazing.

6.0 Vegetation Establishment and Management

The following vegetation establishment guidelines are based on observations of the status of the Site, a review of historical Site use, expected conditions prior to and during construction, construction timelines, and qualified contractor experience.

6.1 Contractor Qualifications

Seeding contractors must have at least 5 years of experience installing native seed, including installation within solar array projects in Minnesota or the upper Midwest. The contractor will provide references demonstrating the ability to successfully perform similar work on utility-scale solar projects. Contractor(s) will be assigned prior to Project construction. All herbicides will be applied by Minnesota Department of Agriculture (MDA) licensed commercial applicators according to manufacturer's directions.

6.2 Site Preparation

BMPs will be installed before and during grading activities, including placement of erosion control measures. Selected BMPs will be based on site-specific conditions and in accordance with SWPP requirements. Areas with existing vegetation will be avoided during construction to the degree feasible to maintain living root structure, which reduces erosive potential, provided that vegetation does not include undesirable species. If possible, Lemon Hill Solar may work with landowners to pre-treat areas with invasive species or other undesirable plants during the previous growing season. Any necessary tree clearing, grubbing, and stump removal will be completed only where necessary. Site grading will be completed in accordance with the Site plans, in a manner which minimizes overall soil disturbance and reduces soil movement as much as possible.

Topsoil will be segregated during grading and redistributed across graded areas upon completion. Where necessary, all topsoil that has been impacted by construction activities will be de-compacted with chisel plows, rippers, or tillers depending on the depth and severity of the compaction. Decompaction may be followed by disking to prepare a smooth, evenly textured soil surface.

If existing undesirable vegetation is present, preparatory herbicide treatments may be implemented. These preparatory treatments would be completed using broad spectrum herbicides like glyphosate and may include a secondary chemical to target potential problem species (i.e. triclopyr may be added if thistles are abundant; 2,4-D may be added if there are a variety of broadleaf weeds). Herbicide treatment should be conducted approximately 14-21 days prior to scheduled seeding with application of a non-specific herbicide to all live vegetation in the seeding area. A second herbicide treatment may be applied to any significant areas of undesirable vegetation still growing 14 days after the first herbicide

application. Spray drift should be minimized by utilizing appropriate equipment calibrated to be conducive to the weather conditions at the time of treatment. All herbicide applications will be completed per manufacturer label instructions using appropriate practices to minimize pesticide drift.

6.3 Seeding

If possible, seed should be installed prior to commencement of construction. Pre-construction seeding helps to maintain soil stability, prevent erosion, and maintain a cleaner working area for equipment during construction by establishing vegetation early, as compared to working on bare soils. Construction activities will inevitably result in some disturbance to these seeded areas, which may require re-seeding after completion of work in each area.

All seed will be installed using a Truax no-till drill or Trillion type seeder (or similar) specific to native seed mixes. Where drill-seeding is not practical due to Site conditions, including the presence of solar panels and pilings, seed will be broadcast onto the soil surface using a Vicon seeder (or similar) and raked to ensure good seed-to-soil contact.

Prior to seed installation, the seeding contractor will calibrate and adjust seeding equipment to sow seeds at the proper seeding rate. Calibration methods are determined by the type and model of equipment to be used. Seeding equipment will be operated in a manner to ensure complete coverage of the entire area to be seeded. Equipment will be steam cleaned or thoroughly washed prior to the start of work at the Site, to prevent contamination from outside seed sources.

Cover Crop

A cover crop-only seed mix should be installed into any open soil that will be undisturbed for more than 14 days without erosion control or permanent seeding, to provide soil stabilization. Cover crop typically includes oats during spring or summer and winter wheat in late summer or fall. Cover crops will be included in all permanent seed mixes at a reduced rate.

Perennial Seed Mixes

Three seed mixes will be used that are composed of a high diversity of native grasses, sedges, and forbs, and provide quality restored prairie habitat for pollinators (Appendix A). The Array Shortgrass Pollinator Mix will be used in the Array VMU (Figures 9a and 9b); this mix is designed to be low growing, so it does not interfere with the solar panels. The Perimeter Shortgrass Pollinator Mix to be used in the Perimeter VMU will be a similar mix, but it does not include some of the sedge species and will include a few taller forbs that are not likely to become a problem if they spread into the Array VMU. Similarly, the Wetland/Stormwater Pond Native Mix will be used in the wetter areas but will not include species like big bluestem (*Andropogon gerardii*) which may become a nuisance within the Array VMU.

Seed Substitutions

Certain species in the proposed seed mixes may not be available when installation is planned. If necessary, any substitution will be approved by Lemon Hill Solar and will be consistent with this VMP's stated goals and objectives.

Pesticide Drift

Prior to or shortly after seeding native species on the Site, Lemon Hill Solar will contact each landowner with property directly adjacent to the Site to inform them of the presence of native plants. Lemon Hill Solar will request that landowners use caution to minimize pesticide drift. While pesticide drift from neighboring lands may impact edges of the Site in a few limited areas, it is not expected to significantly affect overall species diversity on the Site.

6.4 Landscape Screening Areas

Lemon Hill Solar will work with adjoining landowners to identify potential landscape screening needs and implement such screening upon request. Table 1 shows recommended trees and shrubs for screening; other species may be used depending upon availability at the time of ordering. Native tree and shrub species are preferred as they are best adapted to the Site conditions.

Table 1. Potential Woody Plants for Screening at Lemon Hill

Scientific name	Common name	Container size	Spacing (ft.)
Deciduous and Coniferous Trees			
Amelanchier arborea	Downy Serviceberry	5#	6
Amelanchier laevis	Allegheny Serviceberry	5#	6
Crataegus mollis	Downy hawthorn	15#	15
Juniperus virginiana	Eastern red cedar	15#	15
Ostrya virginiana	Ironwood	15#	15
Pinus banksiana	Jack Pine	15#	15
Prunus pensylvanica	Pin Cherry	5#	6
Quercus macrocarpa	Bur oak	15#	25
Quercus rubra	Red oak	15#	25
Deciduous Shrubs			
Cornus amomum	Silky Dogwood	5#	6
Cornus racemosa	Gray Dogwood	5#	6
Corylus americana	American Hazelnut	5#	6
Physocarpus opulifolius	Common ninebark	5#	6
Prunus virginiana	Common chokecherry	5#	6
Sambucus canadensis	American elder	5#	6
Staphylea trifolia	American bladdernut	5#	6
Viburnum lentago	Nannyberry	5#	6
Viburnum rafinesquianum	Downy arrowwood viburnum	5#	6

6.5 Approximate Management Timeline

This management timeline is a general standard for pollinator-solar vegetation management. In a given year, additional or fewer services may be required based on panel height, vegetation growth, weather, and other to-be-determined Site conditions. Methods listed below will follow the techniques described in Section 6.7 and are informed by the management objectives of this VMP. Depending on Site construction and seeding timelines, vegetation establishment may be staggered in different areas as they are completed at different times. Thus Year 1 Maintenance may occur in different calendar years across different areas of the Site, and establishment timelines for each area should be based on final seeding following completion of land-disturbing construction activities.

The activities described below are based on expected conditions that are in typical establishment timelines. Careful monitoring and assessment must accompany these activities to determine what methods are needed to ensure appropriate development of the vegetation. It is important to respond to actual conditions, which vary depending on many factors that are unpredictable.

Year 1 Maintenance - In the first year, vegetation in the seeded areas should be mowed 2-3 times during the growing season as needed to prevent weed seed production, remove shading from small plant seedlings, and prevent shading of solar modules. Weed whipping may be used as needed, often following mowing, to control vegetation not accessible to mowing equipment. Herbicide will be used minimally and only as a spot-treatment on aggressive perennial weeds and woody plants, with mowing utilized as the primary method of controlling undesirable species.

Year 2 Maintenance – In the second year, vegetation in the seeded areas will likely require mowing 1-2 times during the growing season to control annual weeds, ensure good establishment of seeded species, and prevent shading of modules. Noxious, invasive, and woody plants may require mowing to prevent seed development. Weed whipping may be employed as needed. In lieu of one mow, grazing may be conducted once during the growing season as vegetation growth permits. Selective spot herbicide treatment should begin during the second growing season for biennial and perennial noxious weeds and woody species. Herbicide treatment should occur 1-2 times as needed throughout the summer or early fall, scheduled strategically around mowing or grazing to ensure effective herbicide uptake in target plants.

Year 3 Maintenance – In the third year, vegetation in the seeded areas may require mowing 1-2 times during the growing season for control of tall-growing annual weeds, woody species, or perennial/noxious weeds at risk of producing seed prior to herbicide application. Height-reduction mowing of the array area or portions thereof may be required in mid-summer to prevent shading of modules. Weed whipping may be employed as needed. In lieu of one mow, grazing may be conducted once during the growing season. Targeted herbicide treatment should occur 1-2 times as needed during the growing season for biennial/perennial invasive species, noxious weeds, and woody species, scheduled around mowing or grazing.

Year 4/5 Maintenance – In the fourth and fifth years, the vegetation management strategy will shift to minimizing impact on the desirable plant community while controlling noxious weeds and woody species and preventing shading of panels. Mowing and weed whipping during the growing season may be required to remove shading and control weeds. Grazing may be employed once per growing season and can replace 1-2 mows and weed whips. Targeted spot herbicide treatment will continue 1-2 times as needed during the growing season. Volunteer tree seedlings will be removed via cutting and stump treating, which is preferred over foliar spraying for effectiveness and reduction of non-target impact.

Long-Term Maintenance – In the long-term maintenance phase (after year 5 assuming proper establishment), the vegetation management strategy will be similar to that in the fourth and fifth years. In addition to mowing, weed whipping, grazing, and selective herbicide treatments, the Site may also require periodic clearing of thatch, or dead vegetation from previous growing seasons, to reduce fire risk and maintain the health of the plant community. Timing for thatch reduction will depend on Site conditions, vegetation growth, and method utilized. Thatch reduction is most effective through grazing or mowing during the dormant season or haying during the growing season. It should be conducted on a rotational basis, with no area cleared at the same time two years in a row. Dormant-season grazing should aim to defoliate 90% or more of the standing vegetation and clear 90% of the accumulated thatch layer. Dormant-season mowing should be done with a rotary or flail-type implement to thoroughly chop cut vegetation. Haying requires multiple steps, including mowing, drying of the cut vegetation, windrowing, mechanical baling, and removal. The haying process should be done only by approved contractors or personnel with equipment customized to safely operate within solar arrays.

6.6 Invasive Species and Noxious Weed Management

Invasive and undesirable plant species will be controlled by Lemon Hill Solar throughout the lifetime of the Project. Any species listed on the state noxious weed list maintained by the MDA (2025) will be controlled in accordance with Minnesota and Olmsted County noxious weed rules and regulations. Invasive plant species include those on the MDNR lists (MDNR 2025). Invasive and other undesirable plant species, including some particularly tall or aggressive native species such as giant ragweed, may be controlled on the Project depending on their capacity to interfere with solar operations and desirable vegetation establishment.

Invasive Species Prevention

Before machinery and equipment is transported onto the Site it will be inspected for potential undesirable seed or plant material. Any plants, seeds, mud, dirt clods, and animals will be removed through washing to prevent the import of undesirable seeds to the Site. Any equipment arriving on the Site that has not been properly cleaned will be sent to an off-Site location for cleaning and inspection before returning. During construction, weed management will be achieved through a combination of herbicide applications and mowing to prevent the production and spread of undesirable seeds. This will include areas within the control of Lemon Hill Solar.

6.7 Long-term Management Methods

A variety of vegetation management techniques will be implemented on the Site, when necessary, based on the timeline in Section 6.5 and adjusted per recommendations from the vegetation management and monitoring contractors. Methods will be selected to provide the best control possible of noxious, invasive, and woody species while minimizing impacts on seeded species and ensuring vegetation does not shade or interfere with solar modules and equipment. All weeds on the Minnesota state noxious weed list (MDA 2025) will be managed based on their designation category on the list at the time of the inspection, i.e., eradicate or control.

Mechanical Mowing

Areas that require mowing will be determined by the management contractor and Lemon Hill Solar. Mowing will be accomplished using agricultural tractors with flail or rotary mower attachments, zero-turn mowers, and/or other mechanical option(s) as approved by Lemon Hill Solar. Flail mower implements are preferred to mulch the cut material and avoid forming a mat of cut vegetation which could smother desirable plant growth. Other mechanical cutting implements may be used if haying is expected to follow the mowing operation. Where appropriate, mower height should be at least 6-9” from the ground to avoid damaging flowering plants.

Haying includes mowing as a first step, followed by drying the cut material for a certain length of time, windrowing and baling the cut material, and finally removing bales from the Site. Haying is beneficial for solar sites to minimize accumulation of dry, dead plant material that may pose wildfire risks. In addition, thatch removal is beneficial for the growth of many species because it allows new seedlings to become established. This method will only be used where practical for access, by sufficiently trained and experienced personnel, and with the appropriate equipment.

Weed Whipping

Weed whipping may be used to remove excessive vegetation growth in areas that are difficult to access with mechanical mowing equipment or for plants that are not impacted by grazing sheep. These areas may include directly underneath solar panels, around pilings, underneath tracker drivelines or above-

ground cabling, around sensitive electrical equipment, around gates/entrances, along fencelines, in wet or steep areas, in areas with biologs or other erosion-control BMPs, and around screening trees/shrubs.

Grazing

Lemon Hill Solar is retaining the option to utilize grazing as a vegetation management tool for the Project. Sheep grazing can be implemented in place of mowing to manage vegetation height or density. Grazing provides many of the same services as mowing, including decreasing vegetation height to prevent or remove shading of solar modules, but it has the added benefit of reducing vegetation in areas inaccessible to mowers, such as immediately adjacent to and underneath sensitive equipment and along fencelines. Another service grazing provides is the removal of vegetative thatch, which reduces the risk of wildfires.

Sheep grazing also re-introduces valuable services for the overall health of the plant community by recycling nutrients; it has been shown to increase soil carbon and nutrients when grazing in native vegetation (Towner et al. 2021). Grazing intensity and timing will vary based on vegetation type and management objectives. Native plantings and targeted noxious weed programs subject to a high-impact grazing should aim to defoliate 70-90% of the leafy vegetation. This requires relatively high stocking density and a limited time within a given area or paddock, ideally less than four weeks. Cool-season-dominant or forage plantings may be subject to low-intensity or continual grazing. Dormant season grazing events may be recommended to further reduce thatch.

Herbicide Applications

Herbicides are an effective weed management tool. While mowing and grazing can effectively control annual and biennial weeds and may provide short-term control for some perennials, many noxious weeds and other undesirable species must be treated with herbicide to provide the most effective control. Herbicide treatment will reduce populations, prevent the spread of weed seeds, and kill vegetation that may be encroaching or shading modules and electrical equipment.

Herbicide treatments should begin during the second year of establishment or as needed based on weed populations; first year applications are recommended if extensive perennial weeds or woody species are present. Ongoing annual herbicide applications will likely be required into the long-term maintenance phase to continue controlling woody and noxious species introduced to the Site from surrounding landscapes. Selective herbicide application, using herbicides formulated for specific plant groups, and spot herbicide application, applying herbicide directly to the foliage of target plants, are preferred over broadcast and non-selective applications in pollinator habitat. These techniques will ensure good control of invasive species while minimizing off-target damage to desirable plants. If broadcast applications are recommended, the most selective herbicide will be utilized, and the application will be limited to the minimum effective area. If non-selective herbicides are required for certain weed species, their use will be limited to the minimum effective area and application method.

In addition to herbicide treatment for weeds, pre-emergent and non-selective herbicides may be applied to specific areas of the Site to maintain bare ground. This includes areas near sensitive electrical equipment such as combiner boxes in rows, and inverters and transformers at substations, and along roads and gravel. Herbicide treatments for bare ground include a chemical adjuvant to increase soil deposition/adsorption and prevent runoff.

All herbicide applications will be completed per manufacturer label instructions, and all applicators will hold a valid State of Minnesota Pesticide Applicator License.

Supplemental Seeding

Supplemental seeding may be necessary where vegetation establishment does not meet the objectives of this VMP. Establishment failure can occur for a variety of reasons, including compacted soil conditions, flooding, drought, and extensive weed competition. Depending on the reason(s) for failure, recommendations may be provided to adjust species in the re-seeding mix to better accommodate growing conditions in the specific area.

If temporary disturbance is necessary after final construction, such as excavating or trenching for repairs or maintenance, the seeding contractor will work with Lemon Hill Solar to choose an appropriate seed mix for these areas.

If certain areas are continually impacted by maintenance activities or utilized as travel paths, and initially seeded species fail to thrive, these areas may be re-seeded with species that can tolerate a higher level of disturbance.

Seed selection and rate for supplemental seeding will be determined based on present Site conditions. As needed, temporary cover crops may be installed. The timing and methodologies of supplemental seeding will be determined for each specific situation based on the conditions, scope and other mitigating factors.

7.0 Monitoring and Adaptive Management

Site monitoring will be conducted by a qualified ecologist or botanist familiar with native vegetation. The ecologist will evaluate the establishment of seeded species, identify invasive, noxious, and woody species presence, check for erosion or other Site issues, and determine vegetation maintenance needs and timing. Monitoring visits will occur three times per year during the early establishment period (years 1-3) and twice per year thereafter.

During years 1-3, monitoring visits should occur at regular intervals throughout the growing season to continually evaluate and adjust vegetation management strategies, approximately in May, July, and September/October. After the early establishment period, monitoring visits should be conducted in mid-summer and in spring or fall. The mid-summer visit will be coordinated with vegetation management activities to ensure an accurate assessment of the Site vegetation and provide timely recommendations for further management services, and the spring or fall visit will evaluate the previous year's vegetation management activities and generate a plan for the upcoming growing season.

Qualitative monitoring will be completed at each of the monitoring visits, beginning in Year 1. This will include a general review of the Site, often directed by onsite personnel and management contractors who are familiar with the Site conditions and vegetation management approach. This review will document problematic areas that may have populations of noxious and invasive plants, woody species, erosion or bare soil issues, etc., to direct vegetation management contractors in addressing each issue.

Photo points will be created with at least 2 photo points per unique Array and Perimeter VMU area. Larger VMU areas will have additional photo points to provide appropriate representation of the conditions within each unit. Ecologists will complete qualitative monitoring assessments twice per year (after establishment). All areas of each VMU will be visited at least once per year (during the monitoring visits or documented by site managers). Management activities will be developed for all problem areas (undesirable species, bare soil, erosion, etc.). Future monitoring assessments will return to problem areas to document the changes until the problems are resolved. Monitoring will be used to assess the

vegetative cover relative to the site objectives described in Section 5. Areas that fail to meet site objectives must be treated accordingly to remediate the issue, which may include re-seeding or installing live plants if necessary.

7.1 Adaptive Management

Consistent, properly timed, and correctly implemented vegetation maintenance in the short-term (through year 3) is essential to ensure long-term establishment of pollinator-solar sites. Once vegetation on these sites is well-established (after year 4 or 5), maintenance should remain consistent to ensure ongoing management of invasive and noxious species, although more flexibility with timing and implementation is generally acceptable. Maintenance should follow an integrated approach to encourage proper long-term establishment, referred to as Adaptive Management.

Vegetation monitoring will be used to recommend vegetation management activities with reference to this VMP for the Site. Maintenance methods will be selected to provide the most effective control possible of undesirable species while minimizing impacts on desirable seeded species and ensuring vegetation does not shade or interfere with solar modules and equipment.

8.0 Reporting

An annual monitoring report will be prepared after each growing season to summarize monitoring information for each year. This report will include a summary of the vegetation management activities completed in the last year and summarize the vegetation composition relative to the stated objectives for each VMU. Qualitative and quantitative monitoring data will be included in the report for each season. The report will also include a plan for expected management activities required in the following year and beyond, if necessary. The report will be completed by a qualified ecologist or botanist familiar with native vegetation and provided to Lemon Hill Solar by January 31 of the year following monitoring.

9.0 References

BWSR. 2025. Minnesota Habitat Friendly Solar Program. URL: https://bwsr.state.mn.us/minnesota-habitat-friendly-solar-program. Accessed: January 2025

MDA. 2025. Minnesota Noxious Weed List. URL: https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list. Accessed: January 2025.

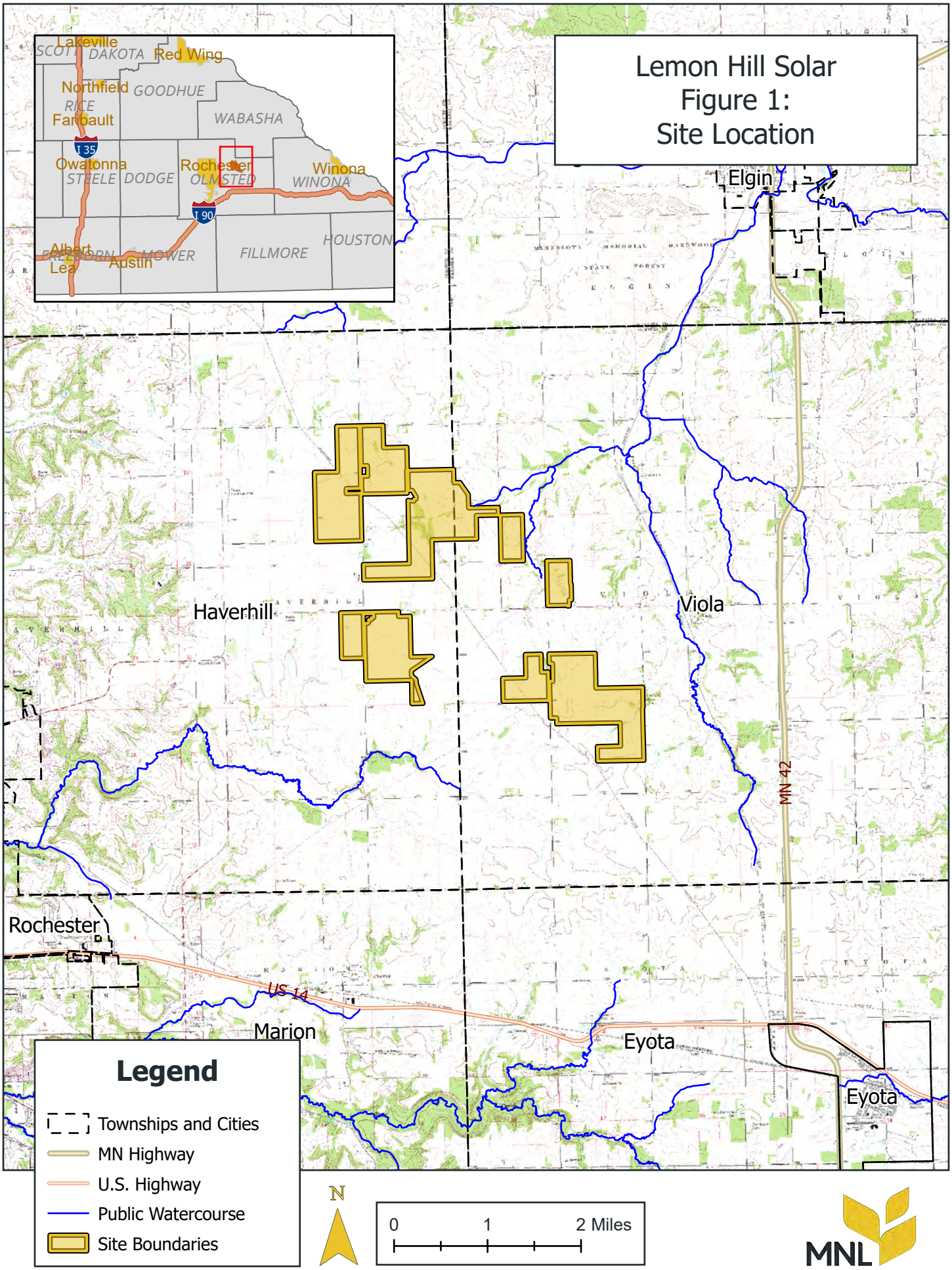
MDNR. 2025. Invasive Species in Minnesota. URL: https://www.dnr.state.mn.us/invasives/index.html Accessed: January 2025.

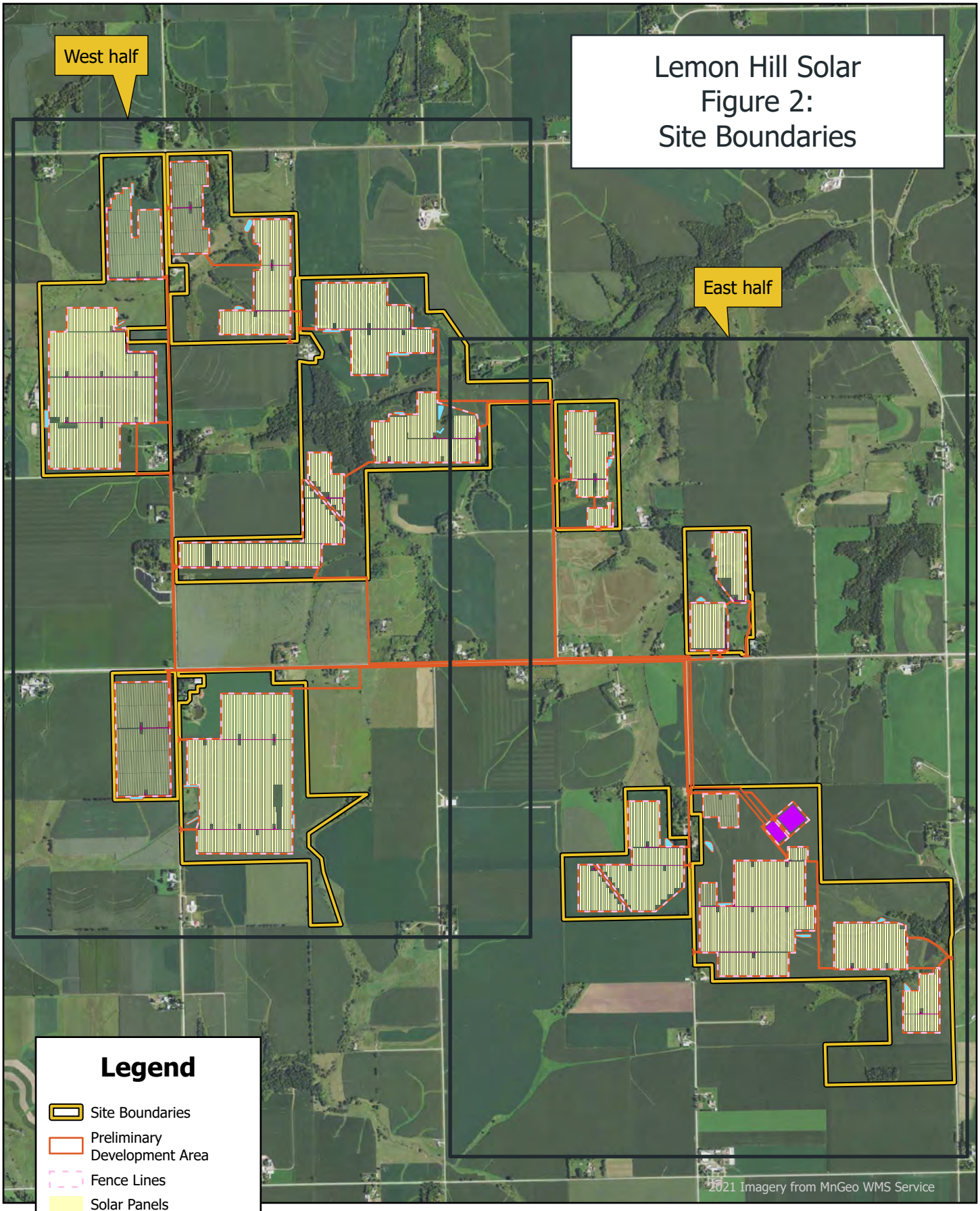
MDOC. 2021. Guidance for Developing a Vegetation Establishment and Management Plan for Solar Facilities. Division of Energy Resources, Energy Environmental Review and Analysis. URL: https://apps.commerce.state.mn.us/eera/web/project-file/11702. Accessed: January 2025.

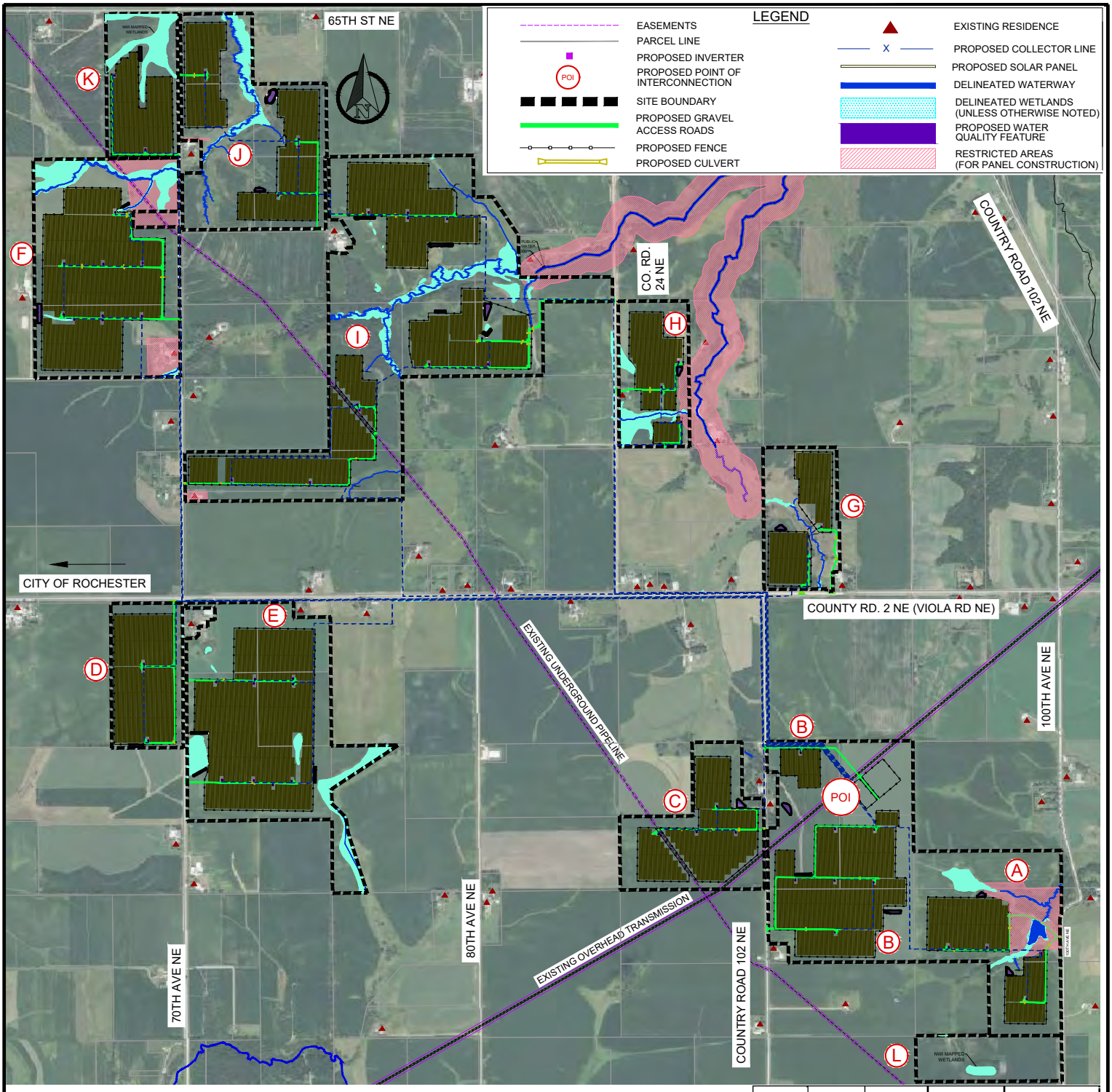
Towner, E., Karas, T., Janski, J., Macknick, J. & Ravi, S. 2021. Managed sheep grazing can improve soil quality and carbon sequestration at solar photovoltaic sites. AGU Fall Meeting 2021. New Orleans : s.n.

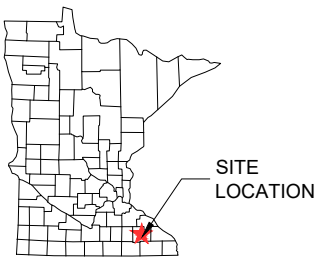
USDA-NRCS. 2025. Soil Survey Geographic Database (SSURGO). URL: www.nrcs.usda.gov/resources/data-and-reports/soil-survey-geographic-database-ssurgo. Accessed: January 2025.

USGS. 2025. National Land Cover Database. URL: www.usgs.gov/centers/eros/science/national-land-cover-database Accessed: January 2025.


Lemon Hill Solar
Figure 1:
Site Location
Lakeville
DAKOTA
Red Wing
Northfield
GOODHUE
RICE
Faribault
WABASHA
I 35
Owatonna
STEELE
DODGE
Rochester
OLMSTED
Winona
WINONA
I 90
Albert Lea
Austin
MOWER
FILLMORE
HOUSTON
Elgin
Haverhill
Viola
MN 42
Rochester
US 14
Marion
Eyota
Eyota
Legend
Townships and Cities
MN Highway
U.S. Highway
Public Watercourse
Site Boundaries
N
0
1
2 Miles
MNL


West half
East half
Lemon Hill Solar
Figure 2:
Site Boundaries
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
Solar Panels
Stormwater Basins
Access Roads
Substation
N
0
0.25
0.5
1 Miles
2021 Imagery from MnGeo WMS Service
MNL





FIELD NO.	NO. OF PANEL SETS	TOTAL PANEL AREA (SF)	MAX POWER* (MW)
A	206	620 333	12
B	416	1 411 069	27
C	242	781 592	15
D	235	764 087	15
E	548	1 775 186	34
F	513	1,645 353	31
G	125	405 741	8
H	141	423 643	8
I	644	2 053 901	40
J	293	947 755	18
K	147	475 265	9
L	0	0	0
	3,503	11,344,644	218

REVISED - INCLUDES RESTRICTED AREA & WETLAND AREA REDUCTIONS

*MAX POWER CALCULATED BY PANEL MANUFACTURER AT STC (STANDARD TEST CONDITIONS)

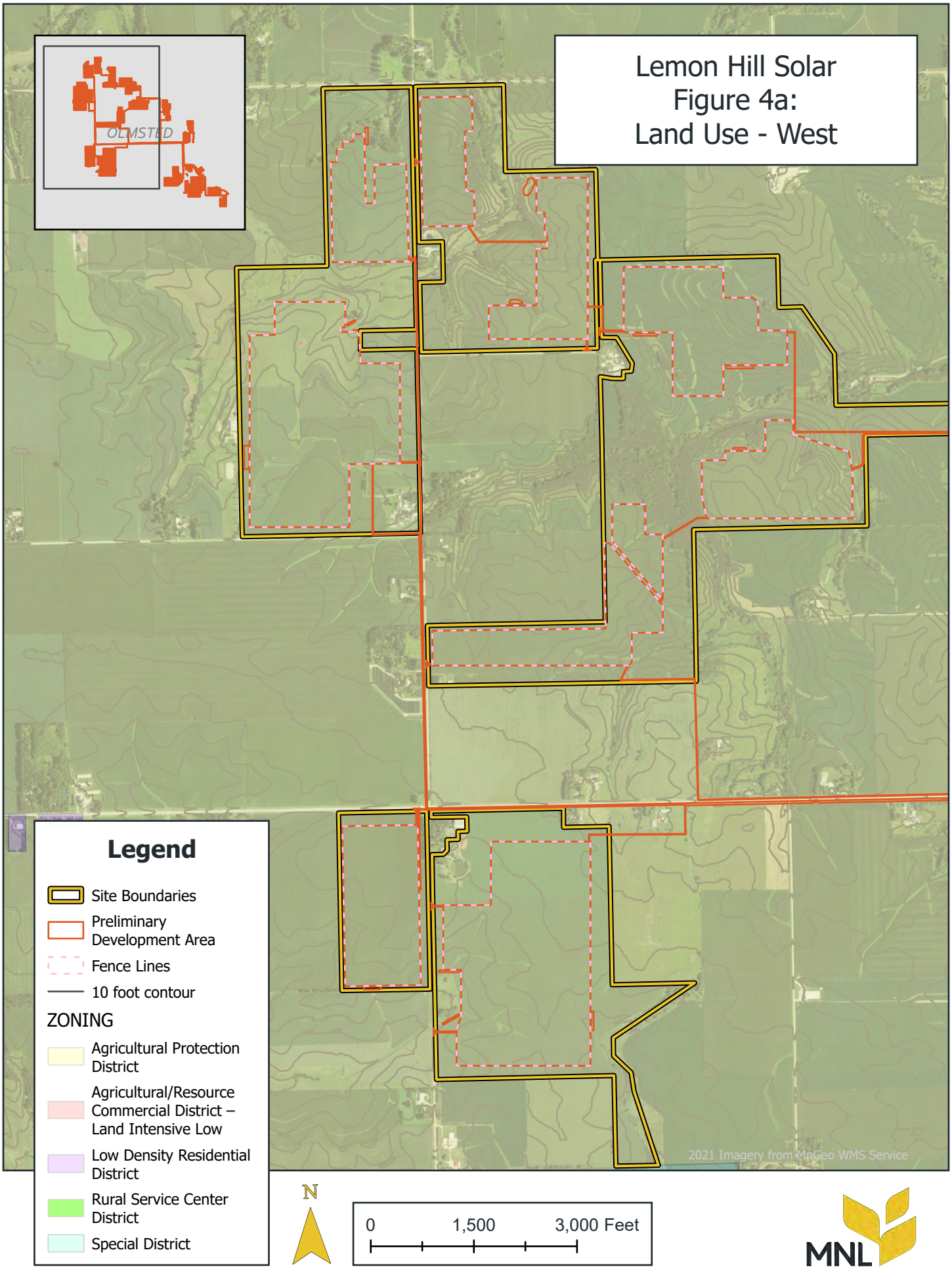
DRAFT
OVERALL LAYOUT

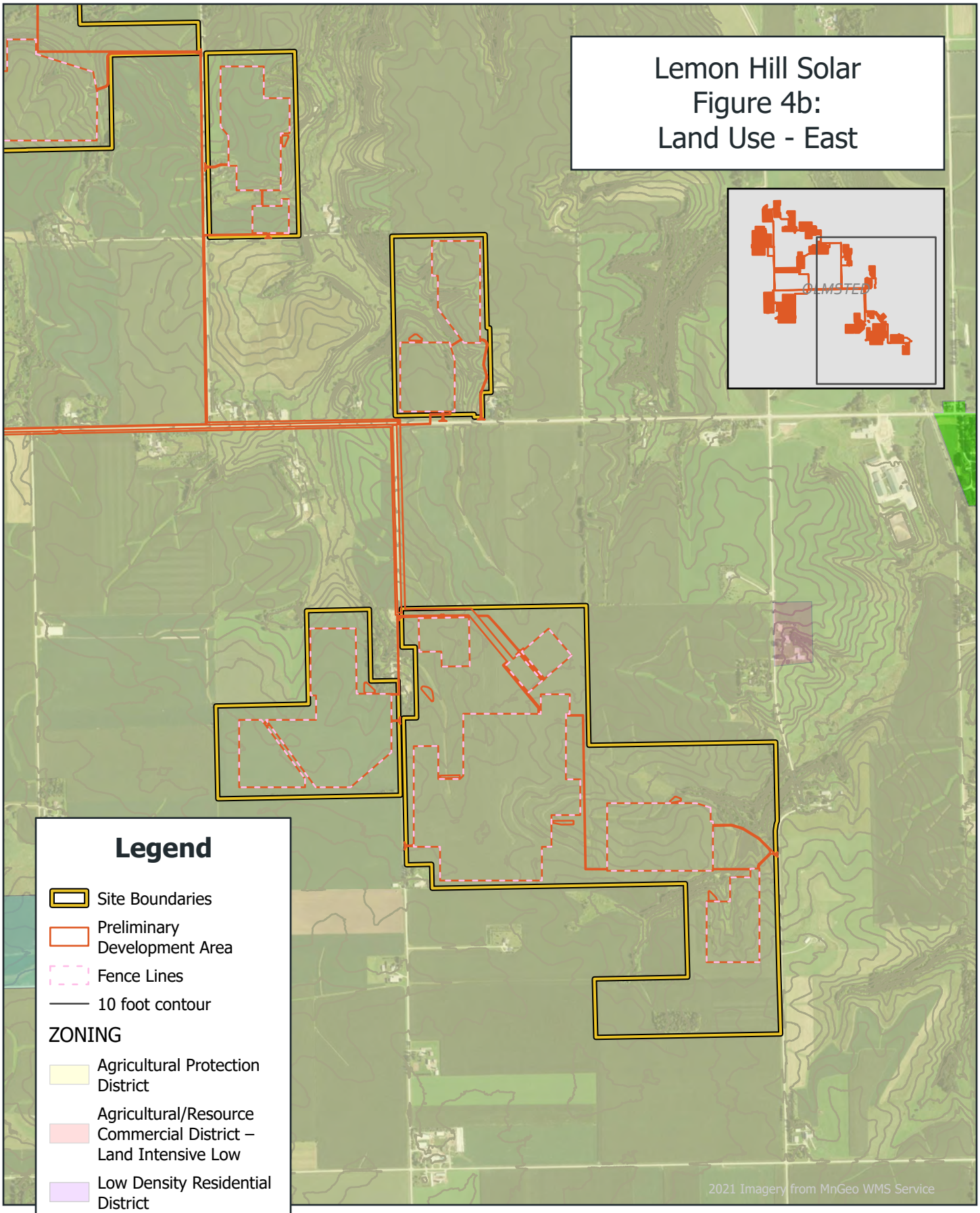
LEMON HILL SOLAR
Figure 3 PRELIMINARY PROJECT LAYOUT
OLMSTEAD COUNTY, MINNESOTA

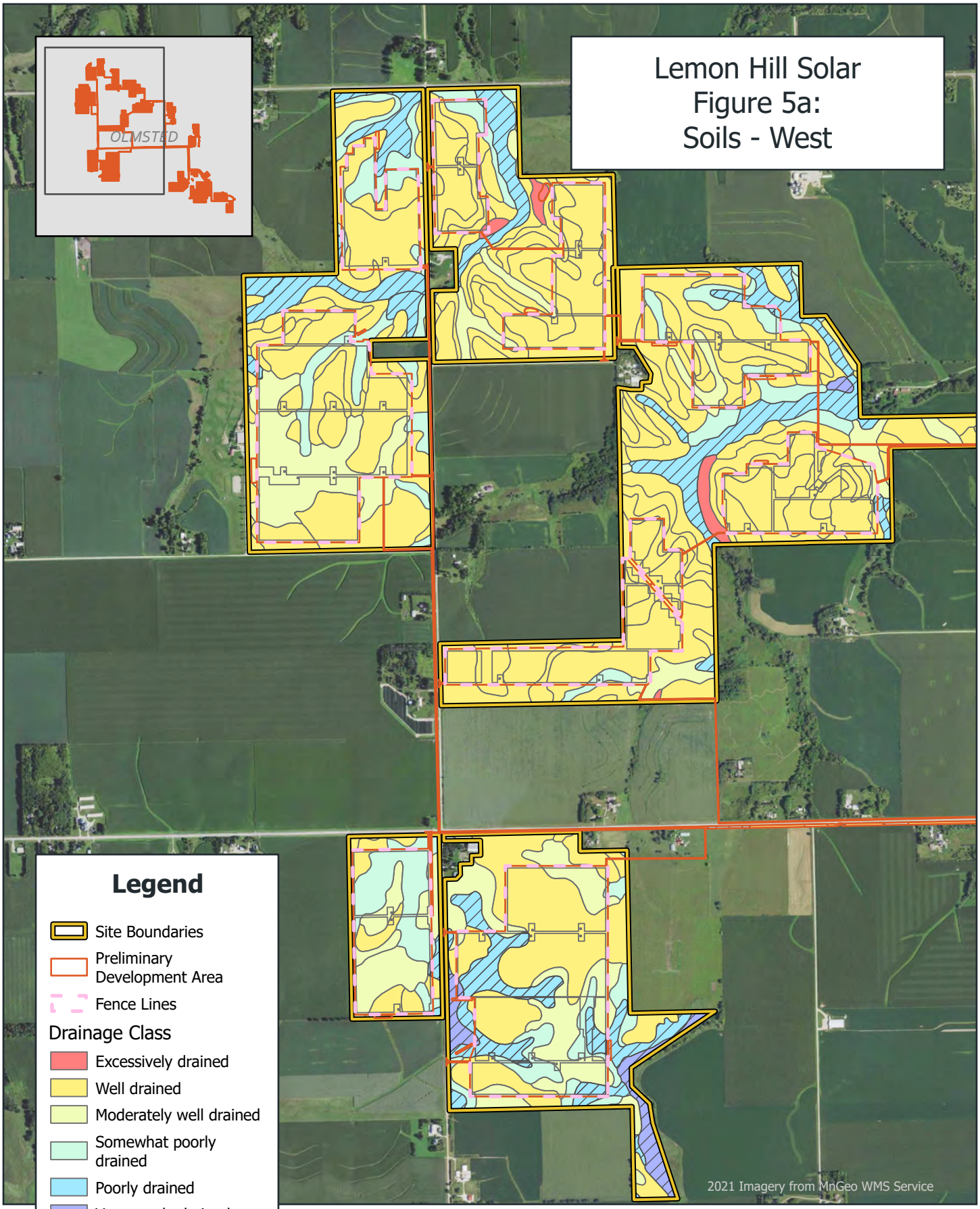
SCALE: 1 : 2500 | BY: JC | DATE: 6/20/2025 | SHEET 1 OF 19

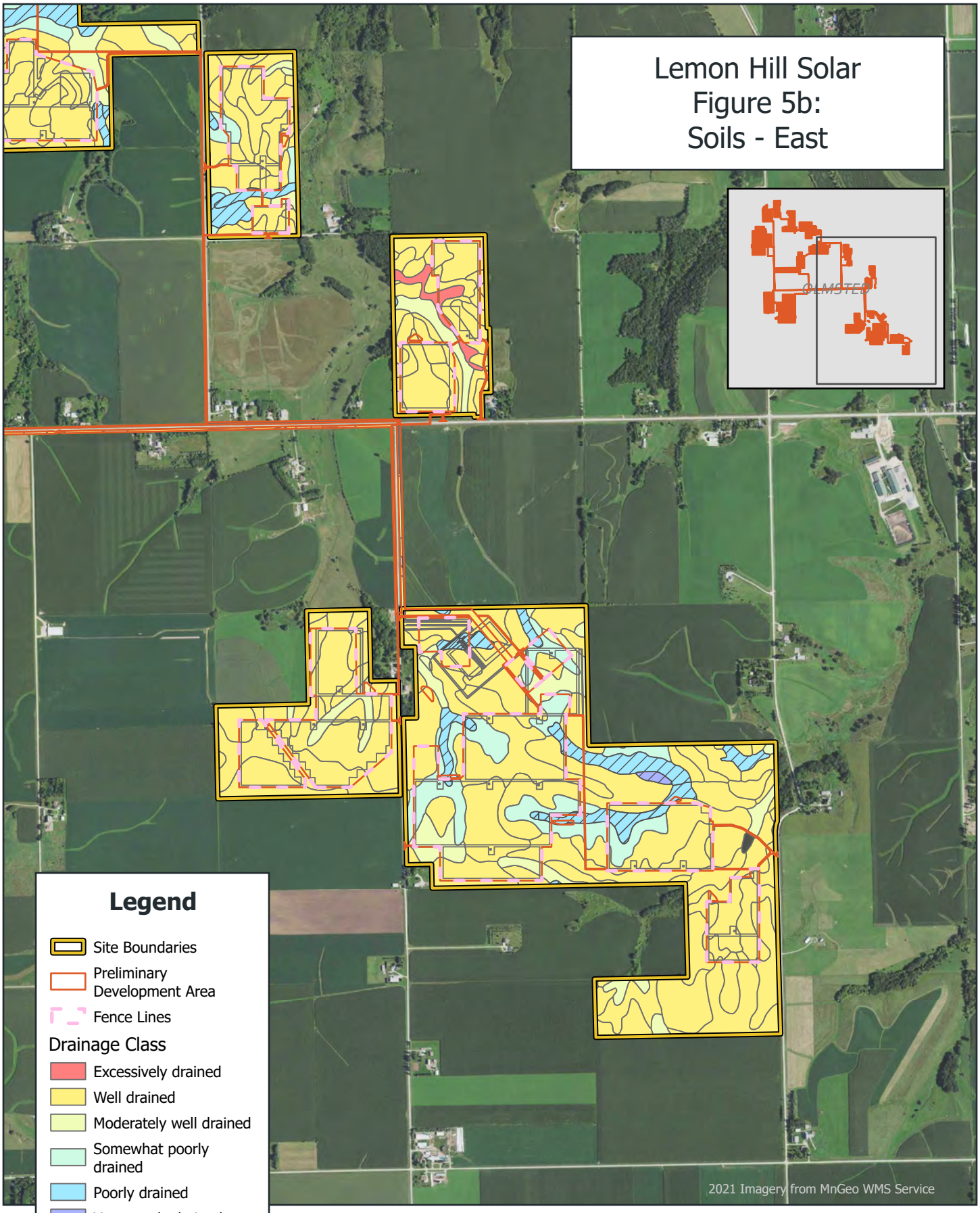
merjent

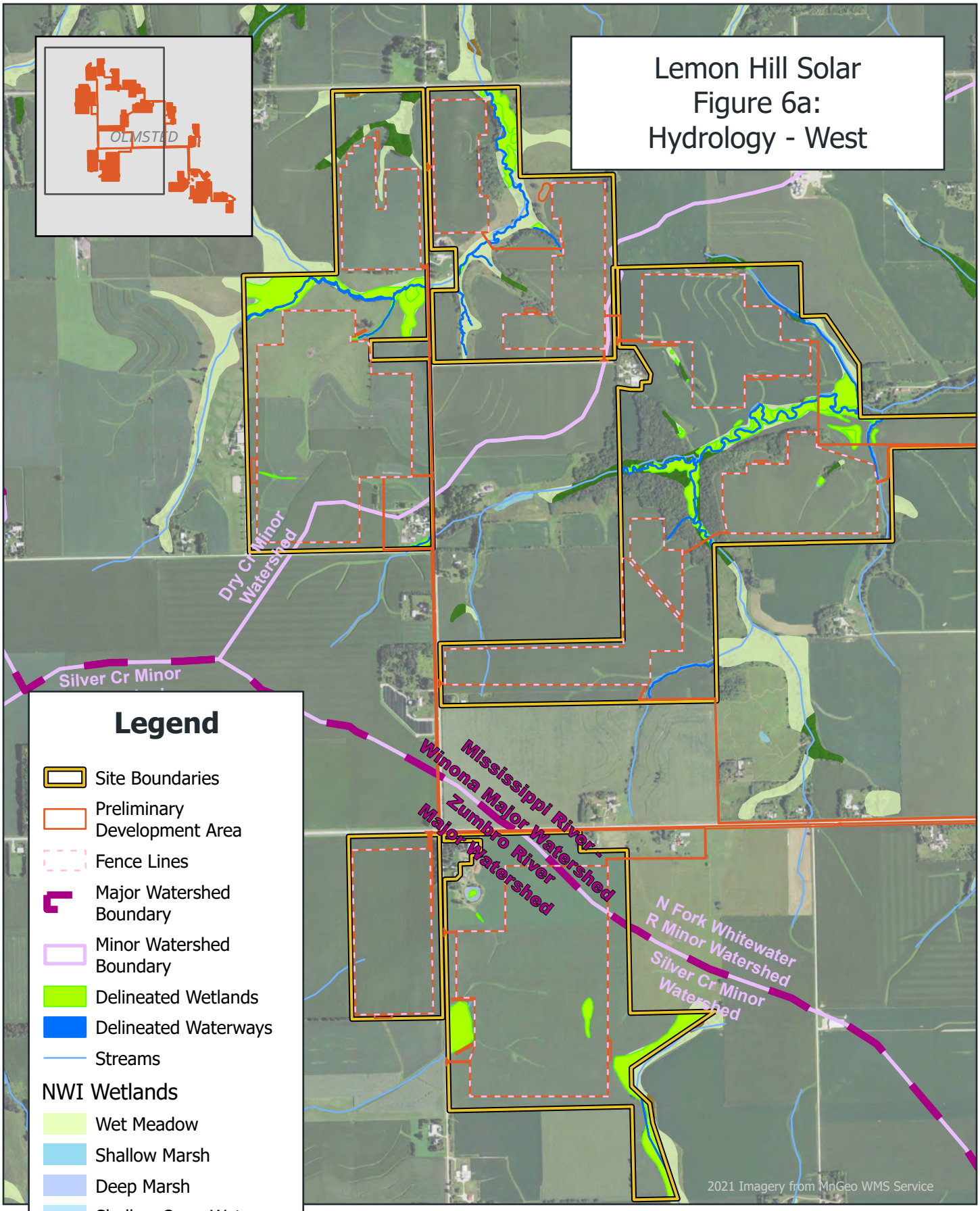
PLOTTED SIZE: ANSI expand A (8.50 x 11.00 Inches)

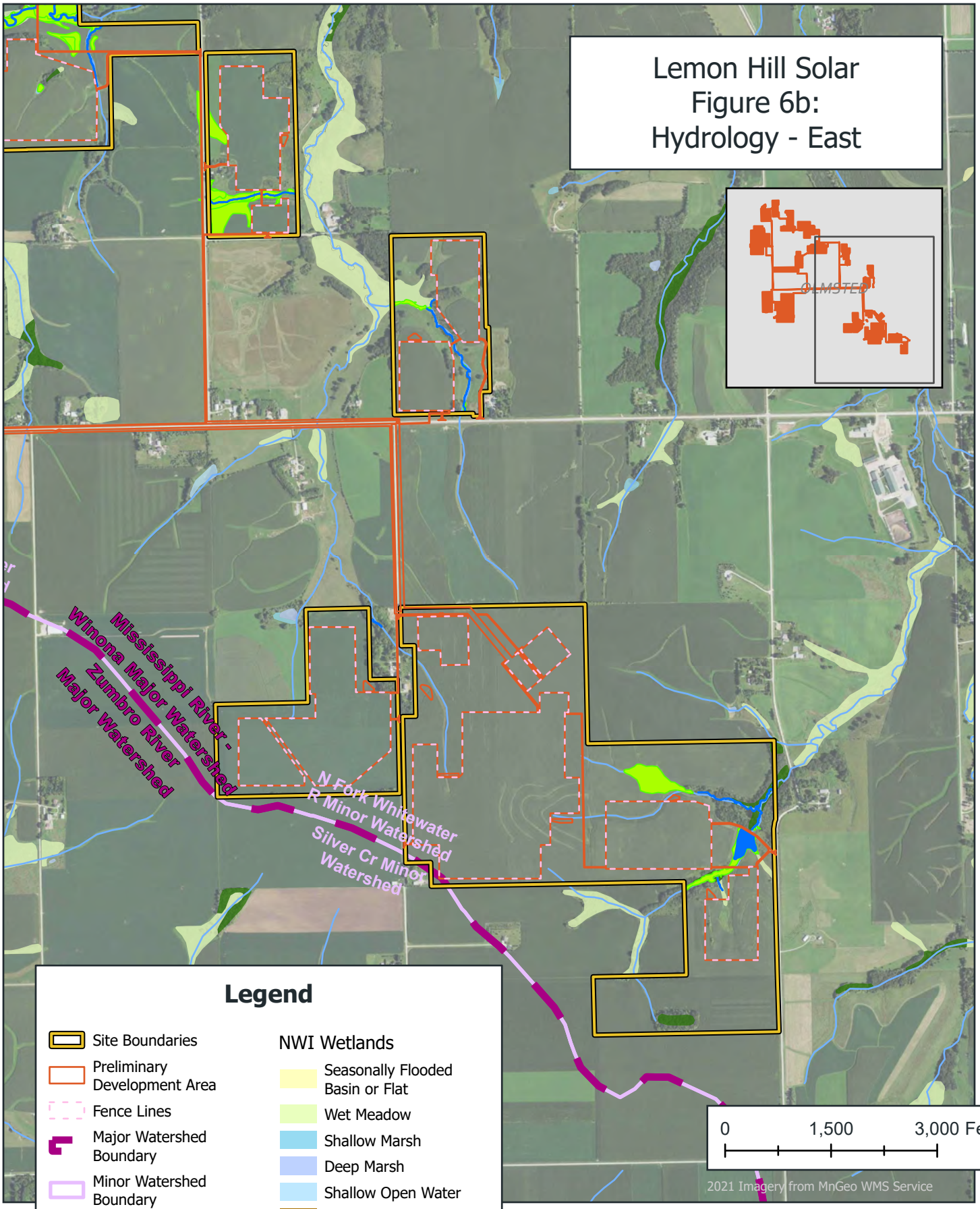

Lemon Hill Solar
Figure 4a:
Land Use - West
OLMSTED
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
10 foot contour
ZONING
Agricultural Protection District
Agricultural/Resource Commercial District – Land Intensive Low
Low Density Residential District
Rural Service Center District
Special District
N
0
1,500
3,000 Feet
2021 Imagery from MnGeo WMS Service
MNL

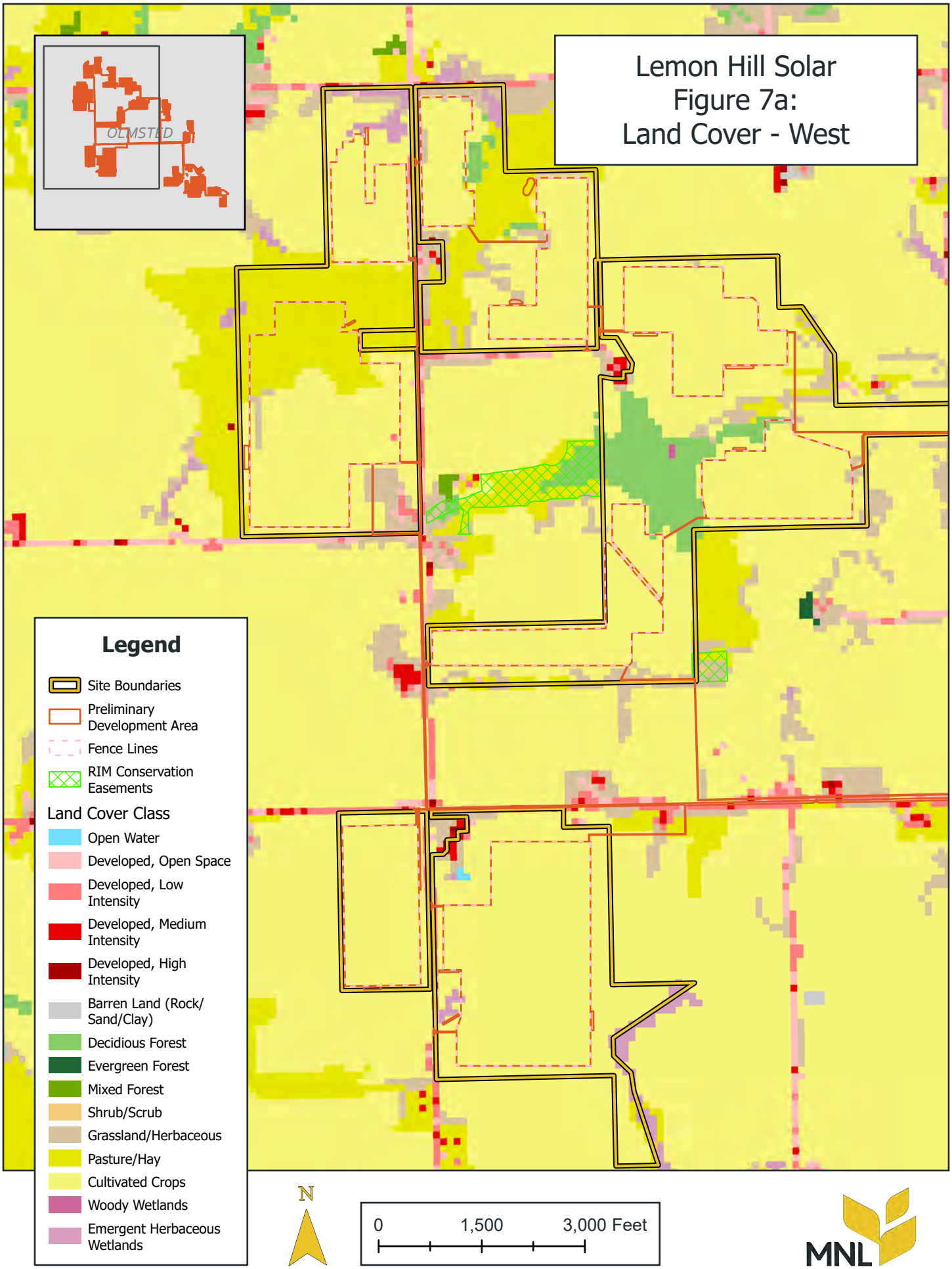

Lemon Hill Solar
Figure 4b:
Land Use - East
OLMSTED
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
10 foot contour
ZONING
Agricultural Protection District
Agricultural/Resource Commercial District – Land Intensive Low
Low Density Residential District
Rural Service Center District
Special District
2021 Imagery from MnGeo WMS Service
N
0
1,500
3,000 Feet
MNL

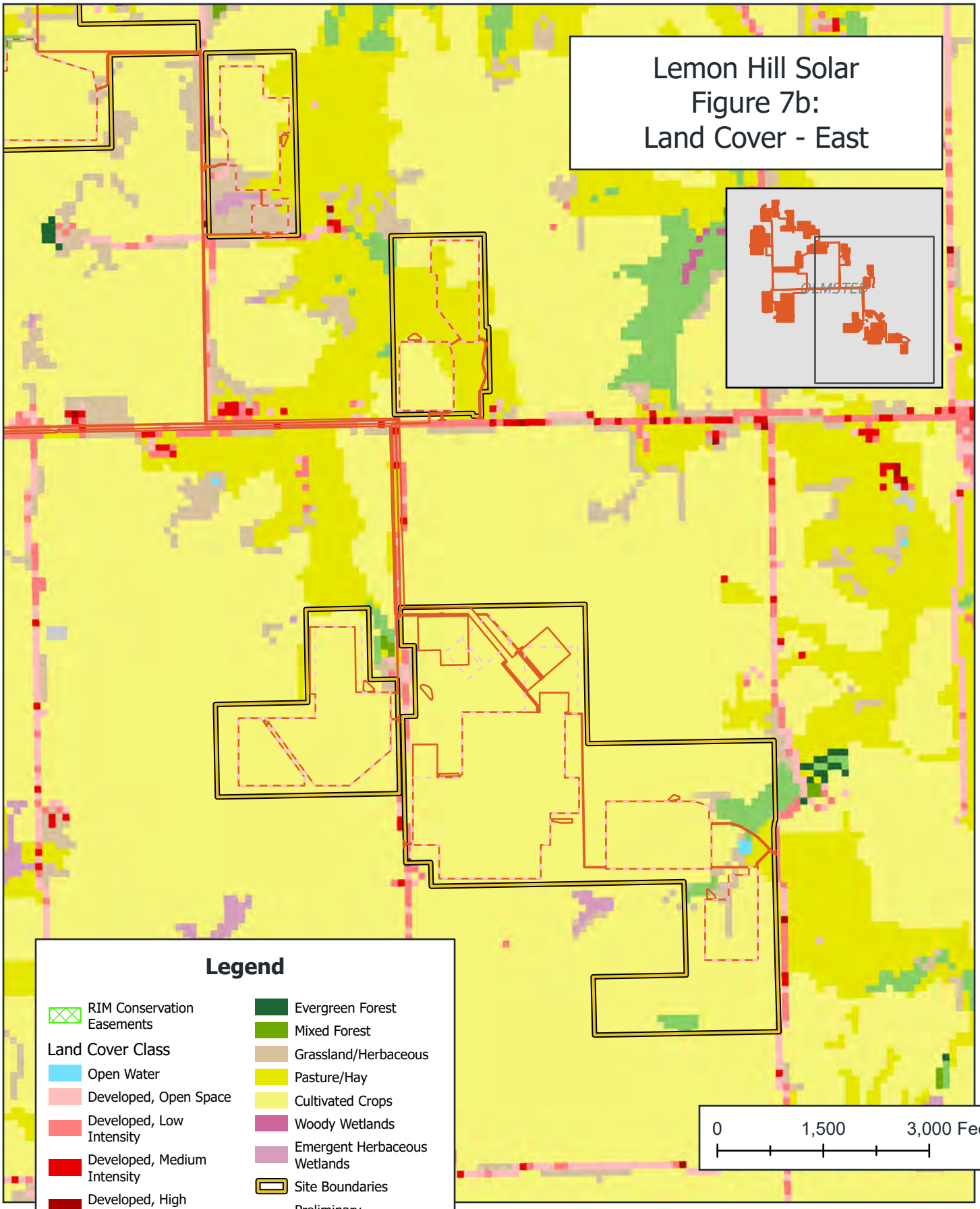

OLMSTED
Lemon Hill Solar
Figure 5a:
Soils - West
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
Drainage Class
Excessively drained
Well drained
Moderately well drained
Somewhat poorly drained
Poorly drained
Very poorly drained
Hydric Soils
Yes
2021 Imagery from MnGeo WMS Service
N
0
1,500
3,000 Feet
MNL

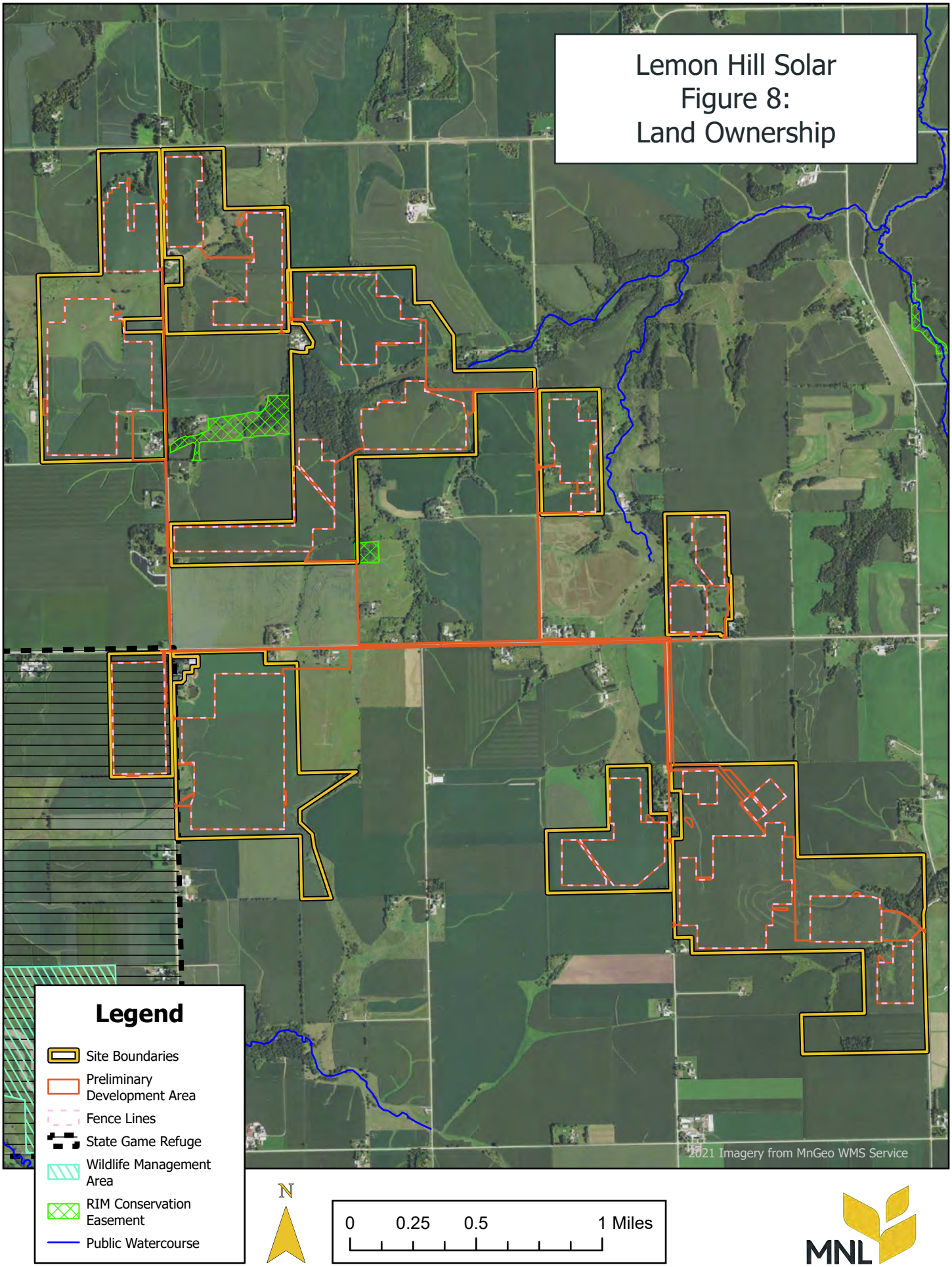

Lemon Hill Solar
Figure 5b:
Soils - East
OLMSTED
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
Drainage Class
Excessively drained
Well drained
Moderately well drained
Somewhat poorly drained
Poorly drained
Very poorly drained
Hydric Soils
Yes
2021 Imagery from MnGeo WMS Service
N
0
1,500
3,000 Feet
MNL

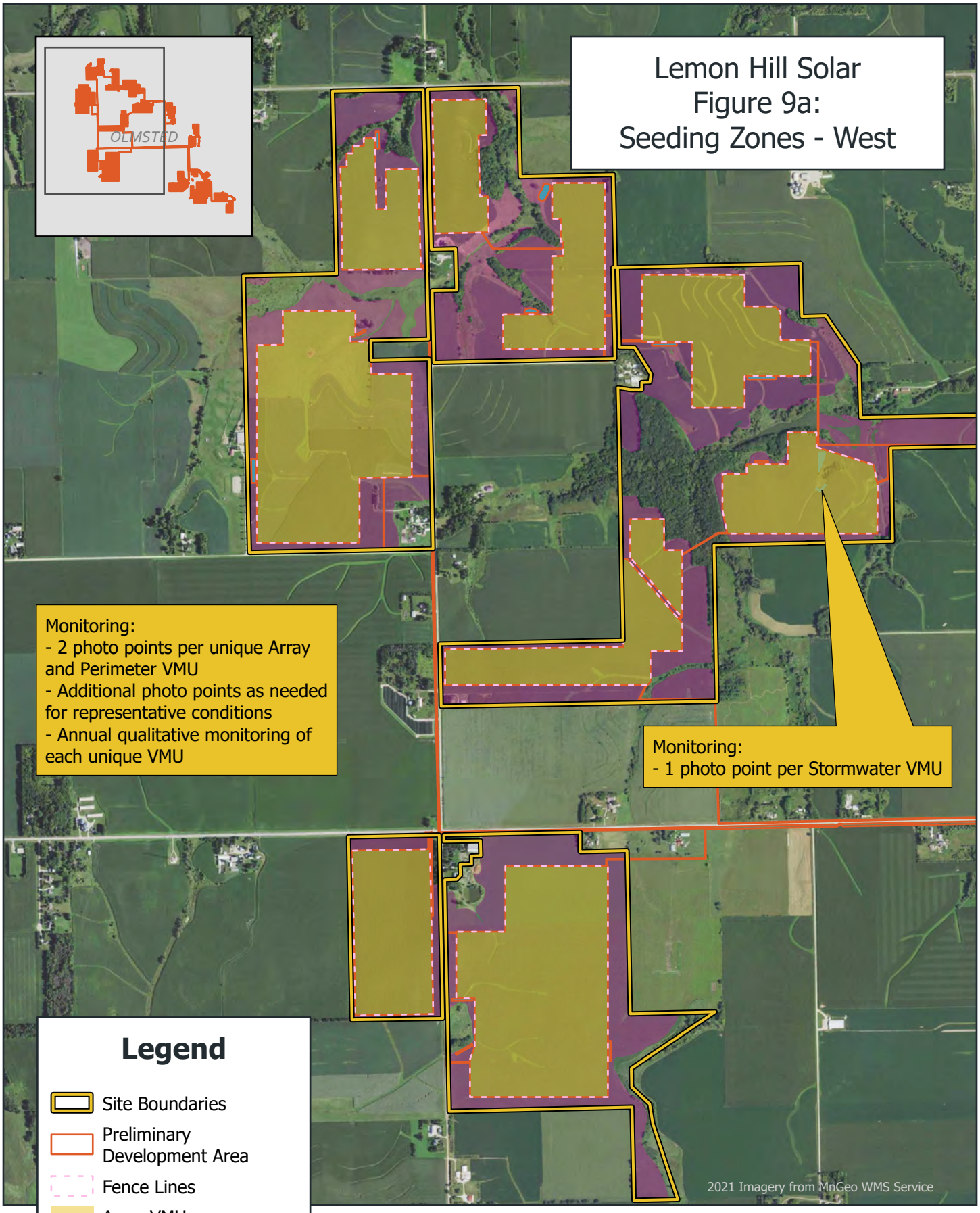

Lemon Hill Solar
Figure 6a:
Hydrology - West
OLMSTED
Dry Cr Minor Watershed
Silver Cr Minor
Mississippi River - Winona Major Watershed
Zumbro River Major Watershed
N Fork Whitewater R Minor Watershed
Silver Cr Minor Watershed
2021 Imagery from MnGeo WMS Service
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
Major Watershed Boundary
Minor Watershed Boundary
Delineated Wetlands
Delineated Waterways
Streams
NWI Wetlands
Wet Meadow
Shallow Marsh
Deep Marsh
Shallow Open Water
Shrub Swamp
Wooded Swamp
N
0
1,500
3,000 Feet
MNL

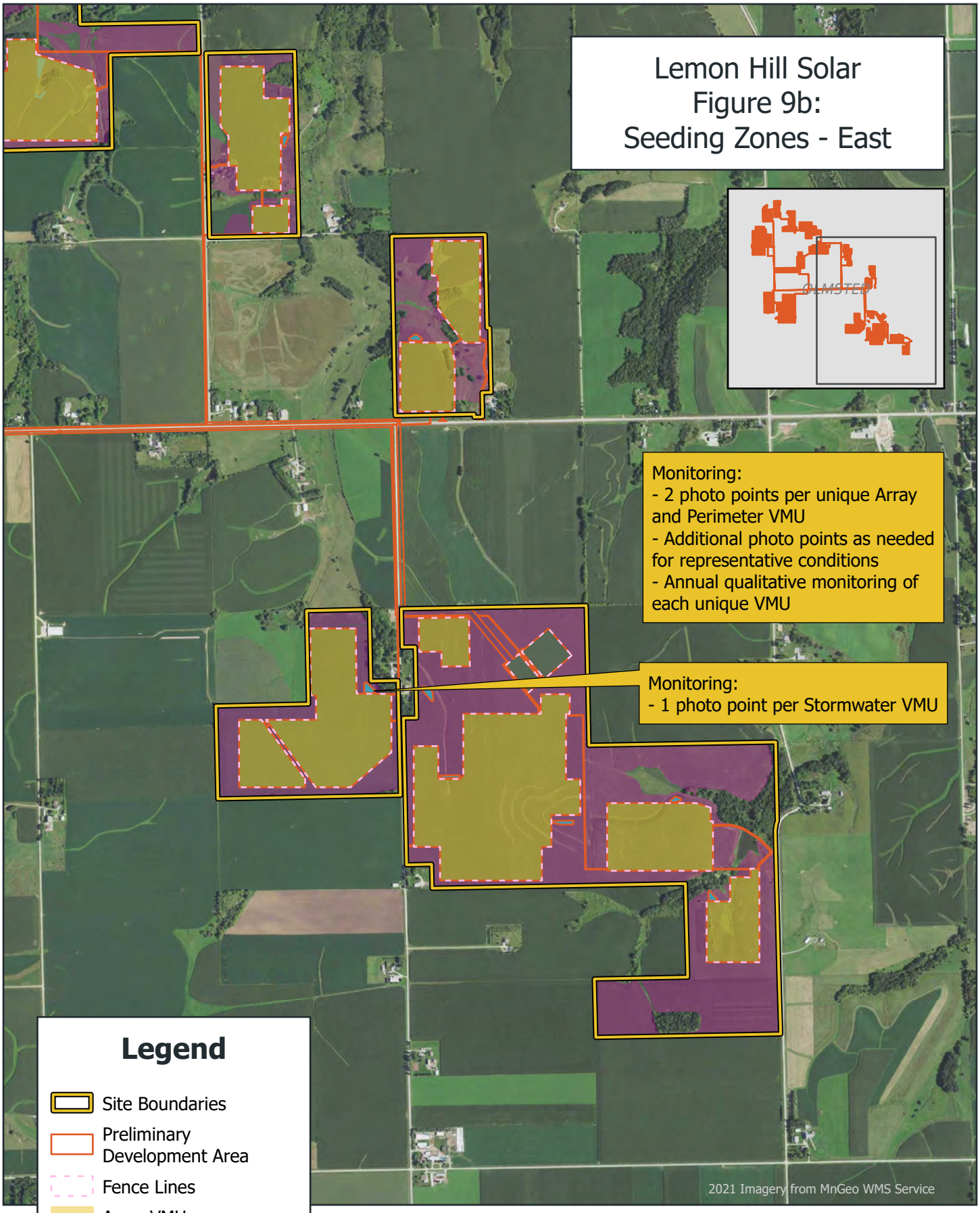

Lemon Hill Solar
Figure 6b:
Hydrology - East
OLMSTED
Mississippi River -
Winona Major Watershed
Zumbro River
Major Watershed
N Fork Whitewater
R Minor Watershed
Silver Cr Minor
Watershed
Legend
Site Boundaries
Preliminary
Development Area
Fence Lines
Major Watershed
Boundary
Minor Watershed
Boundary
Delineated Wetlands
Delineated Waterways
Streams
NWI Wetlands
Seasonally Flooded
Basin or Flat
Wet Meadow
Shallow Marsh
Deep Marsh
Shallow Open Water
Shrub Swamp
Wooded Swamp
0
1,500
3,000 Feet
2021 Imagery from MnGeo WMS Service
N
MNL


Lemon Hill Solar
Figure 7a:
Land Cover - West
OLMSTED
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
RIM Conservation Easements
Land Cover Class
Open Water
Developed, Open Space
Developed, Low Intensity
Developed, Medium Intensity
Developed, High Intensity
Barren Land (Rock/ Sand/Clay)
Decidious Forest
Evergreen Forest
Mixed Forest
Shrub/Scrub
Grassland/Herbaceous
Pasture/Hay
Cultivated Crops
Woody Wetlands
Emergent Herbaceous Wetlands
N
0
1,500
3,000 Feet
MNL


Lemon Hill Solar
Figure 7b:
Land Cover - East
OLMSTED
Legend
RIM Conservation Easements
Land Cover Class
Open Water
Developed, Open Space
Developed, Low Intensity
Developed, Medium Intensity
Developed, High Intensity
Barren Land (Rock/ Sand/Clay)
Decidious Forest
Evergreen Forest
Mixed Forest
Grassland/Herbaceous
Pasture/Hay
Cultivated Crops
Woody Wetlands
Emergent Herbaceous Wetlands
Site Boundaries
Preliminary Development Area
Fence Lines
0
1,500
3,000 Feet
N
MNL


Lemon Hill Solar
Figure 8:
Land Ownership
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
State Game Refuge
Wildlife Management Area
RIM Conservation Easement
Public Watercourse
2021 Imagery from MnGeo WMS Service
N
0
0.25
0.5
1 Miles
MNL


OLMSTED
Lemon Hill Solar
Figure 9a:
Seeding Zones - West
Monitoring:
- 2 photo points per unique Array and Perimeter VMU
- Additional photo points as needed for representative conditions
- Annual qualitative monitoring of each unique VMU
Monitoring:
- 1 photo point per Stormwater VMU
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
Array VMU
Perimeter VMU
Stormwater Basins VMU
N
0
1,500
3,000 Feet
2021 Imagery from MnGeo WMS Service
MNL


Lemon Hill Solar
Figure 9b:
Seeding Zones - East
OLMSTED
Monitoring:
- 2 photo points per unique Array and Perimeter VMU
- Additional photo points as needed for representative conditions
- Annual qualitative monitoring of each unique VMU
Monitoring:
- 1 photo point per Stormwater VMU
Legend
Site Boundaries
Preliminary Development Area
Fence Lines
Array VMU
Perimeter VMU
Stormwater Basins VMU
2021 Imagery from MnGeo WMS Service
N
0
1,500
3,000 Feet
MNL

APPENDIX A: SEED MIXES

Lemon Hill Solar
Array Shortgrass Pollinator Mix
Olmsted Co MN

Grass PLS lbs/ac:	6.40
Sedge PLS lbs/ac:	0.24
Forb PLS lbs/ac:	2.36
Species Count:	38
Grass/Sedge Seeds/SF:	37
Forb Seeds/SF:	35
Avg Height Range:	12-36"

	Scientific Name	Common Name	% of Mix	PLS lbs/ac	Bloom Season	Seeds/SF
Grasses:	Bouteloua curtipendula	Side-oats Grama	18.50	1.67		6.09
	Bouteloua gracilis	Blue Grama	4.00	0.36		5.29
	Bromus kalmii	Prairie Brome	4.15	0.37		1.10
	Elymus trachycaulus	Slender Wheat Grass	6.00	0.54		1.37
	Elymus villosus	Silky Wild Rye	6.00	0.54		1.09
	Elymus virginicus	Virginia Wild Rye	9.50	0.86		1.32
	Schizachyrium scoparium	Little Bluestem	18.00	1.62		8.93
	Sporobolus compositus	Rough Dropseed	5.00	0.45		4.96
Sedges:	Carex brevior	Plains Oval Sedge	1.50	0.14		1.44
	Carex molesta	Troublesome Sedge	1.00	0.09		0.83
	Juncus tenuis	Path Rush	0.15	0.01		4.96
Forbs:	Achillea millefolium	Yarrow	0.20	0.02	Summer	1.16
	Agastache foeniculum	Fragrant Giant Hyssop	0.30	0.03	Summer	0.89
	Allium stellatum	Prairie Onion	0.30	0.03	Summer	0.11
	Amorpha canescens	Leadplant	0.50	0.05	Summer	0.26
	Antennaria neglecta	Field Pussytoes	0.10	0.01	Spring	1.36
	Aquilegia canadensis	Columbine	0.40	0.04	Spring	0.50
	Asclepias syriaca	Common Milkweed	0.50	0.05	Summer	0.07
	Asclepias tuberosa	Butterfly Milkweed	0.25	0.02	Summer	0.04
	Chamaecrista fasciculata	Partridge Pea	5.00	0.45	Fall	0.45
	Dalea candida	White Prairie Clover	4.00	0.36	Summer	2.51
	Dalea purpurea	Purple Prairie Clover	6.00	0.54	Summer	2.98
	Drymocallis arguta	Prairie Cinquefoil	0.75	0.07	Summer	5.70
	Galium boreale	Northern Bedstraw	0.25	0.02	Summer	0.58
	Heliopsis helianthoides	Common Ox-eye	1.25	0.11	Summer	0.26
	Liatris aspera	Rough Blazing Star	0.25	0.02	Summer	0.13
	Monarda fistulosa	Wild Bergamot	0.30	0.03	Summer	0.69
	Penstemon grandiflorus	Large-flower Penstemon	0.35	0.03	Spring	0.16
	Pycnanthemum virginianum	Mountain Mint	0.25	0.02	Summer	1.82
	Ratibida columnifera	Long-headed Coneflower	0.70	0.06	Summer	0.97
	Rudbeckia hirta	Black-eyed Susan	2.00	0.18	Summer	6.08
	Solidago nemoralis	Gray Goldenrod	0.20	0.02	Fall	1.98
	Symphyotrichum laeve	Smooth Blue Aster	0.40	0.04	Fall	0.73
	Symphyotrichum lateriflorum	Calico Aster	0.40	0.04	Fall	3.31
	Symphyotrichum oolentangiense	Sky-blue Aster	0.40	0.04	Fall	1.06
	Tradescantia bracteata	Long-bracted Spiderwort	0.20	0.02	Spring	0.07
	Verbena stricta	Hoary Vervain	0.70	0.06	Summer	0.65
	Zizia aptera	Heart-leaf Golden Alexanders	0.25	0.02	Spring	0.10
Cover Crop:	Determined at the time of seeding	Oats/Winter Wheat		25.00		

APPENDIX A: SEED MIXES

Lemon Hill Solar
Perimeter Shortgrass Pollinator Mix
Olmsted Co MN

Grass PLS lbs/ac:	7.18
Sedge PLS lbs/ac:	0.10
Forb PLS lbs/ac:	2.73
Species Count:	37
Grass/Sedge Seeds/SF:	33
Forb Seeds/SF:	31
Avg Height Range:	24-48"

	Scientific Name	Common Name	% of Mix	PLS lbs/ac	Bloom Season	Seeds/SF
Grasses:	Bouteloua curtipendula	Side-oats Grama	15.00	1.50		5.48
	Bouteloua gracilis	Blue Grama	4.50	0.45		6.61
	Bromus kalmii	Prairie Brome	5.00	0.50		1.47
	Elymus canadensis	Canada Wild Rye	10.00	1.00		1.91
	Elymus trachycaulus	Slender Wheat Grass	10.00	1.00		2.53
	Elymus virginicus	Virginia Wild Rye	8.25	0.83		1.27
	Schizachyrium scoparium	Little Bluestem	15.00	1.50		8.26
	Sporobolus compositus	Rough Dropseed	4.00	0.40		4.41
Sedges:	Carex brevior	Plains Oval Sedge	1.00	0.10		1.07
Forbs:	Achillea millefolium	Yarrow	0.20	0.02	Summer	1.29
	Agastache foeniculum	Fragrant Giant Hyssop	0.40	0.04	Summer	1.32
	Allium stellatum	Prairie Onion	0.40	0.04	Summer	0.16
	Amorpha canescens	Leadplant	0.25	0.03	Summer	0.15
	Asclepias incarnata	Swamp Milkweed	0.50	0.05	Summer	0.09
	Asclepias syriaca	Common Milkweed	1.50	0.15	Summer	0.22
	Astragalus canadensis	Canada Milk Vetch	0.55	0.06	Summer	0.34
	Boltonia asteroides	False Aster	0.50	0.05	Fall	2.94
	Chamaecrista fasciculata	Partridge Pea	3.00	0.30	Fall	0.30
	Coreopsis palmata	Prairie Coreopsis	0.25	0.03	Summer	0.09
	Dalea candida	White Prairie Clover	4.00	0.40	Summer	2.79
	Dalea purpurea	Purple Prairie Clover	5.00	0.50	Summer	2.75
	Desmodium canadense	Showy Tick-trefoil	1.00	0.10	Summer	0.20
	Drymocallis arguta	Prairie Cinquefoil	0.30	0.03	Summer	2.53
	Eryngium yuccifolium	Rattlesnake Master	1.00	0.10	Summer	0.28
	Heliopsis helianthoides	Common Ox-eye	1.00	0.10	Summer	0.23
	Liatris pycnostachya	Prairie Blazing Star	1.00	0.10	Summer	0.40
	Monarda fistulosa	Wild Bergamot	0.50	0.05	Summer	1.29
	Penstemon grandiflorus	Large-flower Penstemon	0.50	0.05	Spring	0.26
	Pycnanthemum virginianum	Mountain Mint	0.25	0.03	Summer	2.02
	Ratibida pinnata	Yellow Coneflower	0.75	0.08	Summer	0.83
	Rudbeckia hirta	Black-eyed Susan	2.00	0.20	Summer	6.76
	Solidago rigida	Stiff Goldenrod	0.40	0.04	Fall	0.60
	Symphyotrichum laeve	Smooth Blue Aster	0.40	0.04	Fall	0.81
	Symphyotrichum oolentangiense	Sky-blue Aster	0.40	0.04	Fall	1.18
	Tradescantia bracteata	Long-bracted Spiderwort	0.20	0.02	Spring	0.07
	Verbena stricta	Hoary Vervain	0.70	0.07	Summer	0.72
	Zizia aurea	Golden Alexanders	0.30	0.03	Spring	0.12
Cover Crop:	Determined at the time of seeding	Oats/Winter Wheat		25.00		

APPENDIX A: SEED MIXES

Lemon Hill Solar
Wetland/Stormwater Pond Native Mix
Olmsted Co MN

Grass PLS lbs/ac:	5.26
Sedge PLS lbs/ac:	0.74
Forb PLS lbs/ac:	2.00
Species Count:	32
Grass/Sedge Seeds/SF:	119
Forb Seeds/SF:	127
Avg Height Range:	36-60"

	Scientific Name	Common Name	% of Mix	PLS lbs/ac	Bloom Season	Seeds/SF
Grasses:	Beckmannia syzigachne	American Slough Grass	20.00	1.60		29.38
	Calamagrostis canadensis	Blue-joint Grass	0.50	0.04		4.11
	Elymus virginicus	Virginia Wild Rye	20.00	1.60		2.47
	Glyceria grandis	Reed Manna Grass	3.00	0.24		7.03
	Glyceria striata	Fowl Manna Grass	5.25	0.42		13.88
	Leersia oryzoides	Rice Cutgrass	10.00	0.80		9.99
	Spartina pectinata	Prairie Cordgrass	7.00	0.56		1.36
Sedges:	Carex hystericina	Porcupine Sedge	1.00	0.08		0.88
	Carex stipata	Awl-fruited Sedge	2.00	0.16		2.00
	Carex vulpinoidea	Fox Sedge	5.00	0.40		11.90
	Scirpus atrovirens	Green Bulrush	0.65	0.05		8.79
	Scirpus cyperinus	Woolgrass	0.55	0.04		27.47
Forbs:	Acorus americanus	Sweet Flag	1.00	0.08	Summer	0.19
	Asclepias incarnata	Swamp Milkweed	5.00	0.40	Summer	0.71
	Bidens cernua	Nodding Beggarstick	1.50	0.12	Summer	1.54
	Boltonia asteroides	False Aster	1.50	0.12	Fall	7.05
	Eryngium yuccifolium	Rattlesnake Master	1.50	0.12	Summer	0.33
	Eutrochium maculatum	Joe-pye Weed	0.50	0.04	Summer	1.77
	Eupatorium perfoliatum	Boneset	0.75	0.06	Fall	5.51
	Helenium autumnale	Sneezeweed	1.50	0.12	Fall	5.73
	Liatris pycnostachya	Prairie Blazing Star	2.00	0.16	Summer	0.65
	Lythrum alatum	Winged Loosestrife	0.50	0.04	Summer	13.88
	Mimulus ringens	Monkey Flower	1.00	0.08	Summer	67.58
	Monarda fistulosa	Wild Bergamot	0.50	0.04	Summer	1.03
	Solidago rigida	Stiff Goldenrod	1.00	0.08	Fall	1.20
	Sparganium eurycarpum	Giant Burreed	2.00	0.16	Summer	0.03
	Symphyotrichum novae-angliae	New England Aster	0.75	0.06	Fall	1.45
	Thalictrum dasycarpum	Purple Meadow Rue	0.75	0.06	Summer	0.44
	Verbena hastata	Blue Vervain	2.00	0.16	Summer	5.47
	Vernonia fasciculata	Ironweed	0.30	0.02	Summer	0.21
	Veronicastrum virginicum	Culver's Root	0.50	0.04	Summer	11.75
	Zizia aurea	Golden Alexanders	0.50	0.04	Spring	0.16

Photograph PP001 view East

Photograph PP001 view North

Photograph PP006 view North

Photograph PP006 view South

Photograph PP018 view West

Photograph PP019 view East

Photograph PP026 view West

Photograph PP027 view East

Photograph PP334 view Southwest

Photograph PP335 view Northeast

Photograph PP406 view West

Photograph PP407 view East

Photograph PP443 view East

Photograph PP443 view West