

Exhibit I

Soil Conditions

Wagon Trail Solar Project
January 2022

Prepared for



Prepared by



Tetra Tech, Inc.

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Acronyms and Abbreviations

Applicant	Wheatridge East Wind, LLC c/o NextEra Energy Resources, LLC
BMP	best management practice
ESCP	Erosion and Sediment Control Plan
Facility	Wagon Trail Solar Project
K factor	erosion factor that indicates the susceptibility of a soil to sheet and rill erosion by water
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OAR	Oregon Administrative Rule
ODEQ	Oregon Department of Environmental Quality
SPCC Plan	Spill Prevention, Control, and Countermeasure Plan

1.0 Introduction

Wheatridge East Wind, LLC c/o NextEra Energy Resources, LLC (Applicant) proposes to construct and operate the Wagon Trail Solar Project (Facility), a solar energy generation facility and related or supporting facilities in Morrow County, Oregon. This Exhibit I was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(i).

2.0 Analysis Area

The analysis area for soil resources is defined in the Project Order as “the area within the site boundary” (ODOE 2021). The site boundary is defined in Exhibits B and C and is shown on Figure I-1.

3.0 Identification and Description of Soil Types

OAR 345-021-0010(1)(i) Information from reasonably available sources regarding soil conditions and uses in the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0022, including:

(A) Identification and description of the major soil types in the analysis area.

According to the Natural Resources Conservation Service (NRCS) web-based soil survey (NRCS 2018), there are 17 major soil types in the analysis area (Table I-1; Figure I-1). These soil types are characterized as low to very high permeability, with areas of fertile silt loams in loess deposits (i.e., wind-blown silt with lesser and variable amounts of sand and clay) on the flatter surfaces and mixed origin alluvium soils. Soils within the analysis area have wind erodibility group numbers from 3 to 7, which is considered low to moderate in terms of wind erosion potential.

Soils within the analysis area have a K factor (erosion factor that indicates the susceptibility of a soil to sheet and rill erosion by water) that ranges from approximately 0.10 to 0.55, which could be considered slightly to moderately severe in erodibility, and subject to sheet erosion and rill erosion by water (NRCS 2018). However, precipitation is limited in the analysis area; the historical average of precipitation and snow received in nearby Lexington, Oregon, ranges between 1 and 11 inches annually, most of which occurs between November and April (USA.com 2020). Soils with slopes less than 7 percent compose approximately 84 percent of the analysis area.

Expansive soils are characterized by their ability to undergo significant volume change (shrink and swell) due to variation in soil moisture content. Expansive soils generally have high amounts of clayey content. However, it is noted that soil moisture is generally low in the vicinity of the Facility site and that expansive soils are not likely to be present.

Table I-1. General Description of Mapped Soil Units in the Analysis Area

Soil Type ID	Soil Unit	Acreage	Setting Within Project Area	Approximate Thickness	Formation Setting	Permeability	Runoff	Hazard for Erosion ¹ (WEG/K Factor)
22	Kimberly fine sandy loam	103.98	Nearly level (in floodplains)	> 7 feet	Mixed Alluvium	Very High	Low	3/0.32
78	Xeric Torriorthents	221.01	Nearly level	> 7 feet	Eolian sands and alluvium	Very High	Low	3/0.24
13D	Gravden very gravelly loam	0.32	5 to 20 percent slopes	> 7 feet	Gravelly alluvium and colluvium	Low	High	7/0.15
13E	Gravden very gravelly loam	117.08	20 to 40 percent slopes	> 7 feet	Gravelly alluvium and colluvium	Low	High	7/0.15
28E	Lickskillet very stony loam	87.96	7 to 40 percent slopes	43	loess mixed with colluvium from basalt	Low	High	7/0.2
29F	Lickskillet-Rock outcrop complex	0.31	40 to 70 percent slopes	0	loess mixed with colluvium from basalt	Low	High	No Data/0.2
45B	Ritzville silt loam	3,138.09	2 to 7 percent slopes	>7 feet	loess mixed with small amounts of volcanic ash	High	Moderately Low	5/0.49
45C	Ritzville silt loam	195.57	7 to 12 percent slopes	>7 feet	loess mixed with small amounts of volcanic ash	High	Moderately Low	5/0.49
47E	Ritzville silt loam	35.52	20 to 40 percent south slopes	>7 feet	loess mixed with small amounts of volcanic ash	High	Moderately Low	5/0.49
70B	Warden very fine sandy loam	90.44	2 to 5 percent slopes	>7 feet	loess over calcareous lacustrine deposits	High	Moderately Low	3/0.55
71A	Warden silt loam	516.12	0 to 2 percent slopes	>7 feet	loess over calcareous lacustrine deposits	High	Moderately Low	3/0.55
71B	Warden silt loam	998.32	2 to 5 percent slopes	>7 feet	loess over calcareous lacustrine deposits	High	Moderately Low	3/0.55
71C	Warden silt loam	23.89	5 to 12 percent slopes	>7 feet	loess over calcareous lacustrine deposits	High	Moderately Low	3/0.55

Soil Type ID	Soil Unit	Acreage	Setting Within Project Area	Approximate Thickness	Formation Setting	Permeability	Runoff	Hazard for Erosion ¹ (WEG/K Factor)
71D	Warden silt loam	19.89	12 to 20 percent slopes	>7 feet	loess over calcareous lacustrine deposits	High	Moderately Low	3/0.55
75B	Willis silt loam	1,207.12	2 to 5 percent slopes	>7 feet	loess over cemented alluvium	Moderate	Moderately High	5/0.55
75C	Willis silt loam	689.02	5 to 12 percent slopes	>7 feet	loess over cemented alluvium	Moderate	Moderately High	5/0.55
75D	Willis silt loam	4.84	12 to 20 percent slopes	>7 feet	loess over cemented alluvium	Moderate	Moderately High	5/0.55
<p>1. A wind erodibility group (WEG) consists of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.</p> <p>Erosion factor K (Kw for the whole soil) indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water</p>								

The 17 major soil types are grouped into soil series, which are discussed below along with the percentage of each soil in the overall site boundary. Soils given the same soil series name possess the same characteristics across the landscape.

- **Kimberly Fine Sandy Loam (1.4 percent)** — This soil series consists of well-drained soils that formed in alluvium of mixed origin. The approximate thickness is greater than 7 feet with a slope of 2 percent. The hazard for wind and water erosion is moderate. This soil has a very high permeability and low runoff.
- **Xeric Torriorthents (3.0 percent)** — This soil series consists of eolian sands and alluvium material. The approximate thickness is greater than 7 feet with a nearly level slope. The hazard for wind and water erosion is moderate. The soil has a very high permeability with a low runoff.
- **Gravden Very Gravelly Loam (1.6 percent)** — This soil series consists of poorly drained soils that formed in gravelly alluvium of mixed origin. The approximate thickness is greater than 7 feet with slopes varying from 5 to 40 percent. The hazard for wind and water erosion is low in slopes 5 to 20 percent and low to moderate in slopes 20 to 40 percent. This soil has low permeability and high runoff.
- **Lickskillet Very Stony Loam (1.2 percent)** — This soil series consists of poorly drained soils that formed in stony colluvium comprising loess, rock fragments, and residuum weathered from basalt and rhyolite. The approximate thickness is 43 feet with slopes between 7 to 40 percent. The hazard for wind and water erosion is low. The soil has a low permeability and high runoff.
- **Lickskillet-Rock Outcrop Complex (<0.1 percent)** — This soil series consists of shallow, poorly drained soils that formed in stony colluvium comprising mixed loess, rock fragments, and residuum weathered from basalt and rhyolite. The approximate thickness is 2 to 20 inches with a slope varying from 40 to 70 percent. The hazard for wind and water erosion is low to moderate. The soil has a low permeability and high runoff.
- **Ritzville Silt Loam (45.2 percent)** — This soil series consists of loess mixed with small amounts of volcanic ash. The approximate thickness is greater than 7 feet with slopes varying from 2 to 40 percent. The hazard for erosion is moderate in slopes between 2 and 7 percent and moderate to severe in slopes of 7 to 40 percent. The soil has a high permeability with a moderately low runoff. It is noted that most of the Ritzville Silt Loam soils (93 percent) have slopes between 2 and 7 percent.
- **Warden Very Fine Sandy Loam (1.2 percent)** — This soil series consists of well-drained, very fine sandy loess over a calcareous lacustrine deposit. The approximate thickness is greater than 7 feet with slopes of 2 to 5 percent. The hazard for wind and water erosion is moderate. The soil has a high permeability with a moderately low runoff.

- **Warden Silt Loam (20.9 percent)** — This soil unit consists of well-drained, very fine silty loess over a calcareous lacustrine deposit. The approximate thickness is greater than 7 feet with slopes of 0 to 20 percent. The hazard for wind and water erosion is moderate in slopes between 0 and 2 percent, moderate in slopes between 2 and 5 percent, and moderate to severe in slopes varying from 5 to 20 percent. The soil has a high permeability with a moderately low runoff. It is noted that most of the Warden Silt Loam soils (92 percent) have slopes between 0 and 5 percent.
- **Willis Silt Loam (25.5 percent)** — This soil unit consists of soils formed in loess over cemented alluvium. The approximate thickness is greater than 7 feet with slopes varying from 2 to 12 percent. The hazard for erosion is moderate in slopes varying from 2 to 5 percent and severe in slopes varying from 5 to 12 percent. The soil has a moderate permeability and moderately high runoff. The hazard of water erosion is high and the hazard of wind erosion is low to moderate. It is noted that most of the Willis Silt Loam soils (64 percent) have slopes between 2 and 5 percent.

4.0 Current Land Use within the Analysis Area

OAR 345-021-0010(1)(i)(B) Identification and description of current land uses in the analysis area, such as growing crops, that require or depend on productive soils.

The land uses within the analysis area consist of private agricultural land generally used for dryland winter wheat production with small areas of grassland. This land is primarily zoned Exclusive Farm Use by Morrow County with a small area zoned Public (see Exhibit K). The analysis area includes some areas with soils defined as High Value Farmland by the NRCS (2018). See Exhibit K for a definition and analysis of the High Value Farmland present within the analysis area.

5.0 Project Soil Impacts

OAR 345-021-0010(1)(i)(C) Identification and assessment of significant potential adverse impact to soils from construction, operation and retirement of the facility, including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.

5.1 Construction

Construction of the solar arrays will require a variety of activities that have the potential for adversely impacting soils. Activities that may result in potential adverse soil impacts include:

- Clearing and grubbing of vegetation in temporary construction areas, solar array, and new access roads;
- Constructing new access roads;

- Hauling heavy equipment and other truck traffic for the delivery of aggregates, concrete, water, solar components, and construction supplies; and
- Fueling or maintaining construction equipment or vehicles.

The portions of the analysis area that will be graded are expected to result in a balanced cut-and-fill quantity of earthwork to maintain the existing conditions to the extent practicable for the protection of the equipment and facilities.

Acres of temporary and permanent disturbance by disturbance type are identified in Exhibit C. Impacts to soil, such as erosion, resulting from construction activities would be limited through:

- Avoiding sensitive soil areas to the extent practicable;
- Maintaining a Spill Prevention, Control, and Countermeasure Plan (SPCC Plan);
- Implementing a Dust Control Plan prior to construction;
- Implementing the erosion and sediment control best management practices (BMPs) included in the final Erosion and Sediment Control Plan (ESCP), as required by the Oregon Department of Environmental Quality (ODEQ) National Pollutant Discharge Elimination System (NPDES) 1200-C Construction Stormwater Discharge General permit (see draft application in Attachment I-1); and
- Implementing appropriate site restoration practices following construction as described in the ESCP (Attachment I-1) and the Draft Reclamation and Revegetation Plan (see Exhibit P, Attachment P-3).

5.2 Operation

Operational activities will not result in impacts to soils as activities will be restricted to access roads and no ground disturbance will occur. Construction and post-construction revegetation efforts identified in the Draft Reclamation and Revegetation Plan (see Exhibit P, Attachment P-3) will provide for long-term soil stability during operation in areas that were temporarily disturbed.

The inverters, transformers, and the battery storage system will be stored in completely contained, leak-proof modules on concrete pads to capture any leaks that may occur (see Exhibit B). Operation and maintenance staff will conduct inspections of the inverters, transformers, and battery system according to the manufacturer's recommendations, which are assumed to be monthly inspections. In addition, an SPCC Plan will be developed to manage, prevent, contain, and control potential releases, and provide provisions for quick and safe cleanup of hazardous materials (see Exhibit G). The potential for soil contamination will be limited by not maintaining substantial supplies of hazardous materials on site, and by observing appropriate safety measures during maintenance procedures.

5.3 Decommissioning

In the event of decommissioning, potential erosion hazards will be similar to those occurring during construction. Measures similar to those employed during construction and operation will be used

during decommissioning to prevent and control erosion, to prevent spills, and to revegetate disturbed areas.

6.0 Mitigation Measures

OAR 345-021-0010(1)(i)(D) A description of any measures the applicant proposes to avoid or mitigate adverse impact to soils.

The Applicant will rely on the following measures to avoid or minimize adverse impacts on soils.

- **Preserve Existing Vegetation** – To the extent practicable, existing vegetation will be preserved. Where vegetation clearing is necessary, root systems would be conserved if possible.
- **Erosion Control Measures** – During construction, the Applicant will implement BMPs for erosion, including perimeter controls (e.g., silt fence), soil stabilization (e.g., mulching or tackifiers), and dust control as outlined in the Facility-specific ESCP and the 1200-C Construction Stormwater Discharge General Permit (see draft application in Attachment I-1).
- **Reclamation and Revegetation** – The Applicant will provide long-term soil stability by reseeded disturbed areas to reestablish vegetation. Temporarily impacted areas that are reseeded will be monitored for restoration and reclamation success according to the Applicant's Draft Reclamation and Revegetation Plan (see Exhibit P, Attachment P-3).
- **Pollutant Management** – During construction, source control measures will be implemented to reduce the potential of chemical pollution to surface water or groundwater during construction. SPCC plans for construction and operation will be prepared for each phase of the Facility that outline the site-specific handling and reporting measures (see Exhibit G).

7.0 Monitoring Program

OAR 345-021-0010(1)(i)(E) The applicant's proposed monitoring program, if any, for adverse impact to soils during construction and operation.

Erosion and sediment control measures will be inspected and maintained regularly during construction as required by the ODEQ NPDES 1200-C Construction Stormwater Discharge General Permit. The Applicant will monitor the restoration success of temporarily disturbed areas according to the Draft Reclamation and Revegetation Plan and ESCP. No adverse impacts to soils are expected from operation; therefore, no monitoring program for operation is proposed.

8.0 Conclusions

The evidence provided in this exhibit demonstrates that the requirements specified in OAR 345-022-0022 have been met because the Facility is not likely to result in significant adverse impacts to soils. The potential impacts from erosion during construction are anticipated to be minimal and are addressed through erosion-control measures as described above and in the ESCP as required by the NPDES 1200-C Construction Stormwater Discharge General Permit. Subsequent revegetation efforts identified in the Draft Reclamation and Revegetation Plan (see Exhibit P, Attachment P-3) will provide for long-term soil stability during operation. Restricting operational activity to permanent roads will minimize erosion. Taking this into account, the Oregon Energy Facility Siting Council may conclude that the design, construction, and operation of the Facility, as proposed, is not likely to result in a significant adverse impact to soils.

9.0 Submittal Requirements and Approval Standards

9.1 Submittal Requirements

Table I-2. Submittal Requirements Matrix

Requirement	Location
OAR 345-021-0010(1)(i) Information from reasonably available sources regarding soil conditions and uses in the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0022, including:	–
(A) Identification and description of the major soil types in the analysis area.	Section 3.0
(B) Identification and description of current land uses in the analysis area, such as growing crops, that require or depend on productive soils.	Section 4.0
(C) Identification and assessment of significant potential adverse impact to soils from construction, operation and retirement of the facility, including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.	Section 5.0
(D) A description of any measures the applicant proposes to avoid or mitigate adverse impact to soils.	Section 6.0
(E) The applicant's proposed monitoring program, if any, for adverse impact to soils during construction and operation.	Section 7.0

9.2 Approval Standards

Table I-3. Approval Standard

Requirement	Location
OAR 345-022-0022 Soil Protection	
To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in a significant adverse impact to soils including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.	Sections 5.0, 6.0, 7.0, and 8.0

10.0 References

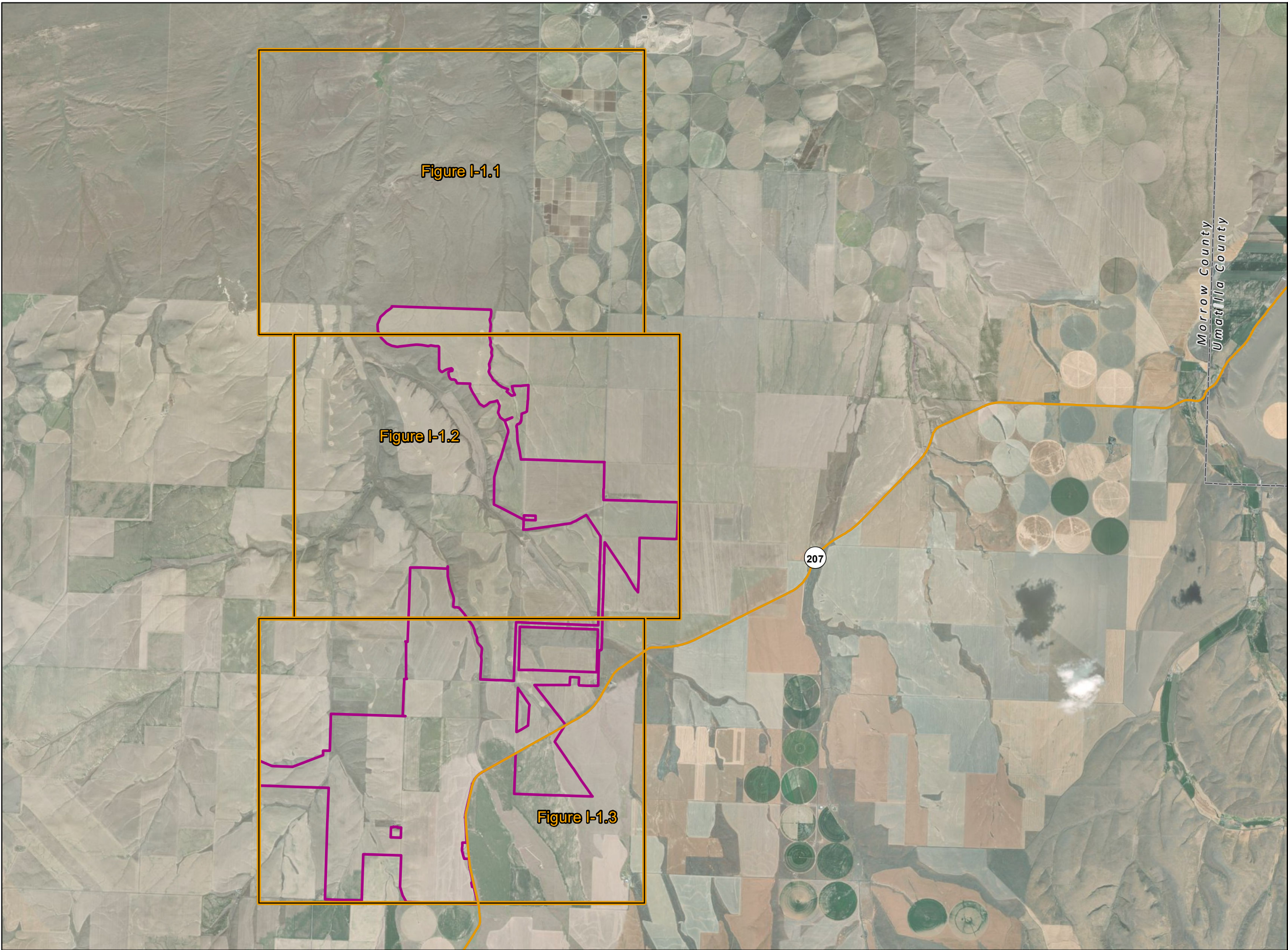
USA.com. 2020. "Lexington, OR Weather." <http://www.usa.com/lexington-or-weather.htm>

NRCS (Natural Resources Conservation Service). 2018. United States Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) Database for Oregon.
<http://soildatamart.nrcs.usda.gov>

ODOE (Oregon Department of Energy). 2021. Wagon Trail Solar Project. First Amended Project Order. Issued August 17, 2021. Salem, OR. Available online at:
<https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2021-08-17-WTS-APP-NOI-Amended-Project-Order.pdf>

Figures





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**Wagon Trail
Solar Project**

**Figure I-1
Soil Type
Index Map**

MORROW COUNTY, OREGON

-  Site Boundary
-  Map Grid
-  State Highway
-  County Boundary



Data Sources

NextEra-Project Infrastructure;
USDA-Aerial Imagery; ESRI-
County Boundaries; USA NRSC Soil Survey-Soils

Reference Map



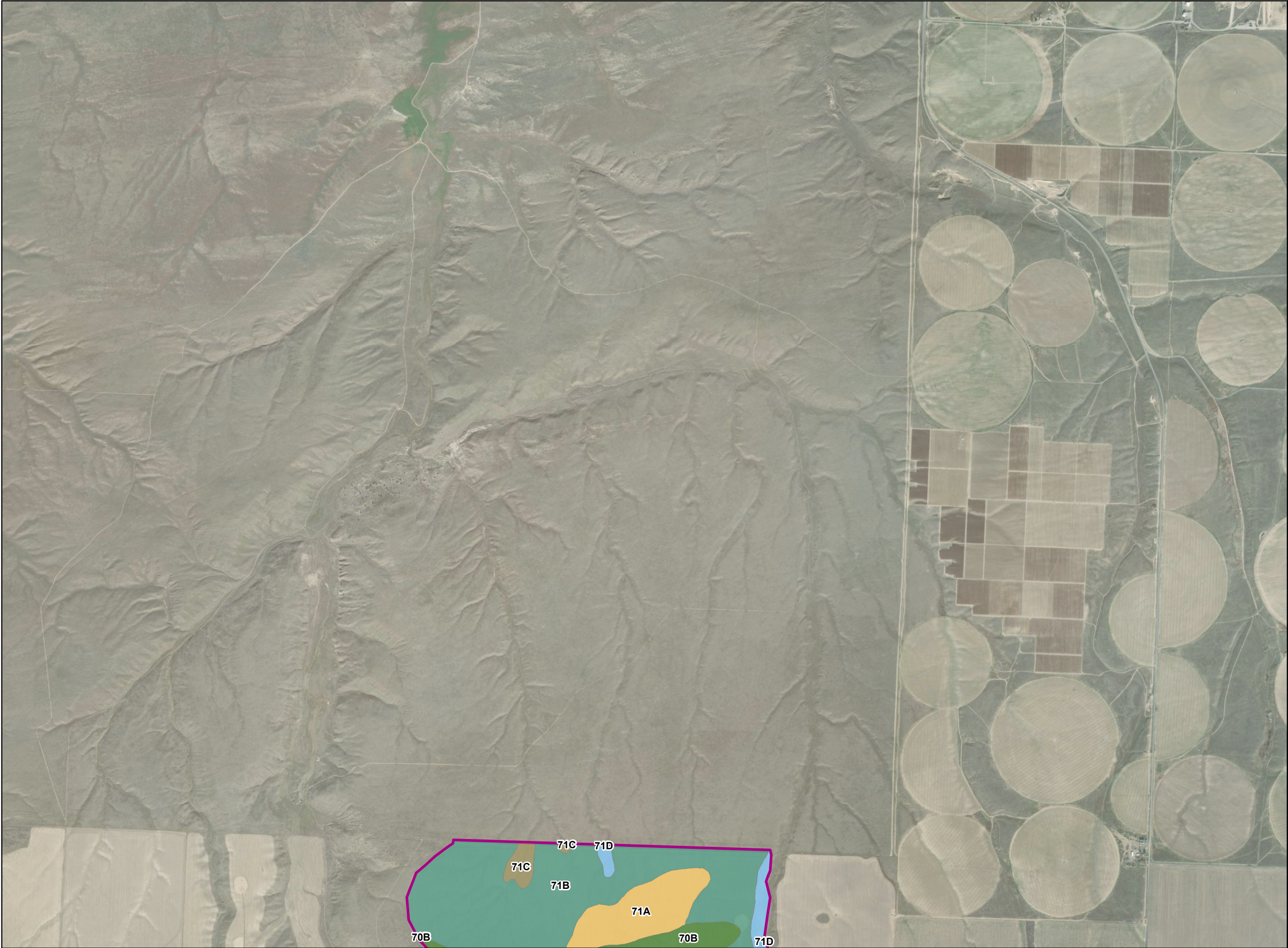
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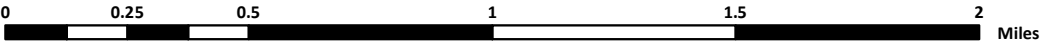
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Wagon Trail Solar Project

Figure I-1.1
Soil Type

MORROW COUNTY, OREGON

Site Boundary

Soil Map Unit

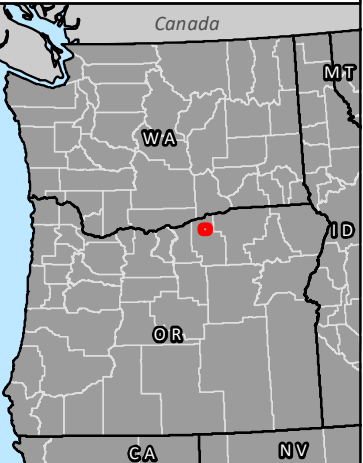
- 70B: Warden very fine sandy loam, 2 to 5 percent slopes
- 71A: Warden silt loam, 0 to 2 percent slopes
- 71B: Warden silt loam, 2 to 5 percent slopes
- 71C: Warden silt loam, 5 to 12 percent slopes
- 71D: Warden silt loam, 12 to 20 percent slopes



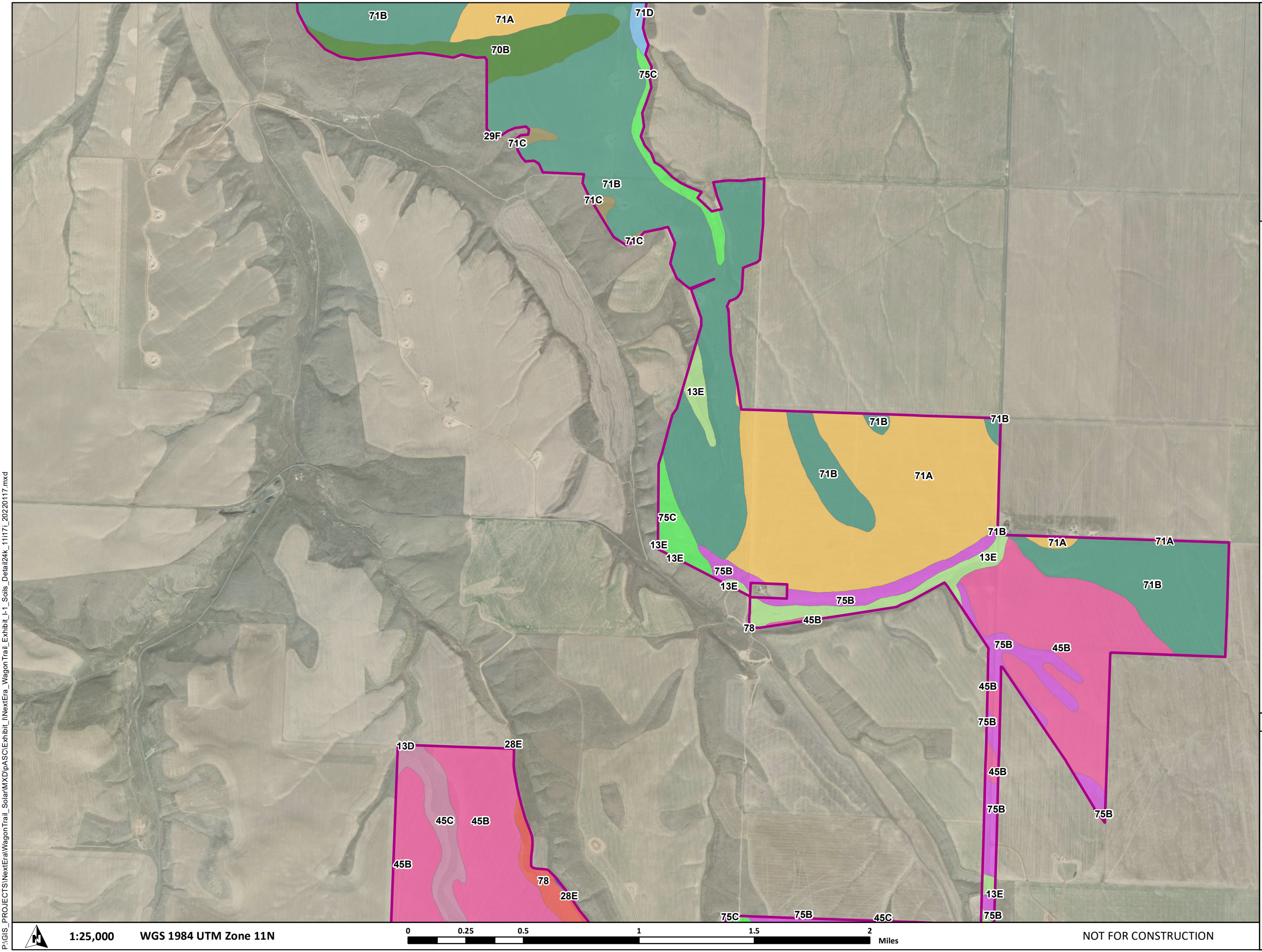
Data Sources

NextEra-Project Infrastructure;
USDA-Aerial Imagery; ESRI-
County Boundaries; USA NRSC Soil Survey-Soils

Reference Map



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Wagon Trail
Solar Project

Figure I-1.2
Soil Type

MORROW COUNTY, OREGON

Site Boundary

Soil Map Unit

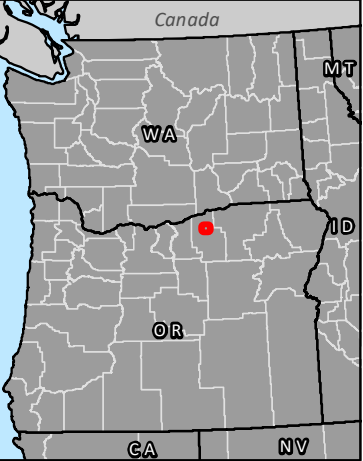
- 13D: Gravden very gravelly loam, 5 to 20 percent slopes
- 13E: Gravden very gravelly loam, 20 to 40 percent slopes
- 28E: Licksillet very stony loam, 7 to 40 percent slopes
- 29F: Licksillet-Rock outcrop complex, 40 to 70 percent slopes
- 45B: Ritzville silt loam, 2 to 7 percent slopes
- 45C: Ritzville silt loam, 7 to 12 percent slopes
- 70B: Warden very fine sandy loam, 2 to 5 percent slopes
- 71A: Warden silt loam, 0 to 2 percent slopes
- 71B: Warden silt loam, 2 to 5 percent slopes
- 71C: Warden silt loam, 5 to 12 percent slopes
- 71D: Warden silt loam, 12 to 20 percent slopes
- 75B: Willis silt loam, 2 to 5 percent slopes
- 75C: Willis silt loam, 5 to 12 percent slopes
- 78: Xeric Torriorthents, nearly level



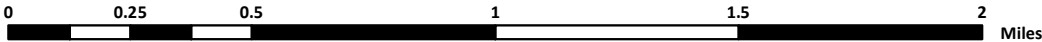
Data Sources

NextEra-Project Infrastructure;
USDA-Aerial Imagery; ESRI-
County Boundaries; USA NRSC Soil Survey-Soils

Reference Map

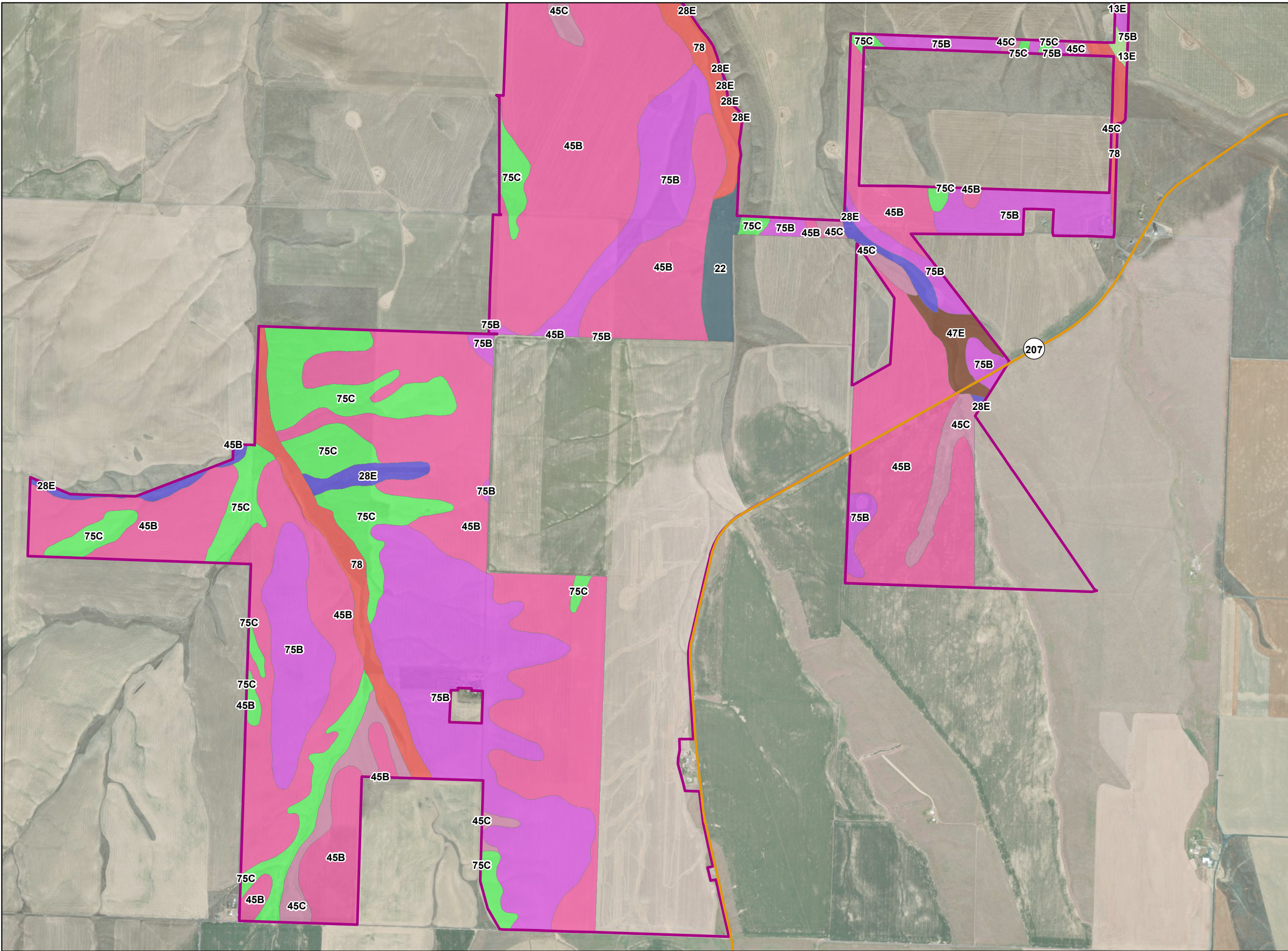


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Wagon Trail Solar Project

Figure I-1.3
Soil Type

MORROW COUNTY, OREGON

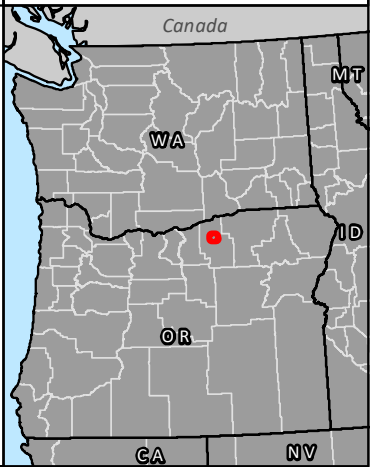
- Site Boundary
- State Highway
- Soil Map Unit**
- 13E: Gravden very gravelly loam, 20 to 40 percent slopes
 - 22: Kimberly fine sandy loam
 - 28E: Licksillet very stony loam, 7 to 40 percent slopes
 - 45B: Ritzville silt loam, 2 to 7 percent slopes
 - 45C: Ritzville silt loam, 7 to 12 percent slopes
 - 47E: Ritzville silt loam, 20 to 40 percent south slopes
 - 75B: Willis silt loam, 2 to 5 percent slopes
 - 75C: Willis silt loam, 5 to 12 percent slopes
 - 78: Xeric Torriorthents, nearly level



Data Sources

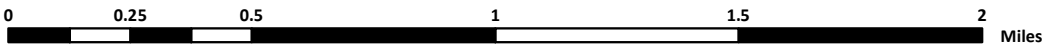
NextEra-Project Infrastructure;
USDA-Aerial Imagery; ESRI-
County Boundaries; USA NRSC Soil Survey-Soils

Reference Map



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WGS 1984 UTM Zone 11N



NOT FOR CONSTRUCTION

**Attachment I-1. Draft NPDES 1200-C
Construction Stormwater Discharge
General Permit Application**



Application For New NPDES General Permit 1200-C Coverage

Instructions for Completion of 1200-C Construction Stormwater Application: For stormwater discharges to surface waters from construction activities, disturbing one acre or more, or less than an acre but is part of a common plan of development or sale that do not meet automatic coverage requirements (see page 3 for additional information).

A. PROJECT INFORMATION

1. Enter the legal name of the responsible person (i.e. applicant). This must be the legal Oregon name (i.e., Acme Products, Inc.) or the legal representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752, (http://egov.sos.state.or.us/br/pkg_web_name_srch_inq.login), unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.
 - Permit coverage may be transferred from one party to another. For example, a developer may apply for a permit and then transfer the permit to a contractor. Transfer forms: <https://www.oregon.gov/deq/FilterPermitsDocs/1200Cpermittransfer.pdf>
2. Provide invoice contact information for billing of DEQ annual permit fee if different from the applicant in #1 above. This is the person or entity legally responsible for payment of the annual fee invoice. This must be the same company as the applicant, not a third party independent of the applicant.
3. Provide contact information for the Architect or Consulting Engineer who designed the Erosion and Sediment Control Plan (ESCP) and Dewatering Plan, if applicable.
4. Provide information on the Erosion and Sediment Control Visual Monitoring Inspector. This is not a DEQ or DEQ Agent inspector; this is an inspector employed by the applicant. Include the inspectors' qualification program, certification number and expiration date
5. Provide the common name of the project (for example, the name of the subdivision), the location of the site, and, if available, a street address.
6. Check the box that best describes the nature of the construction activity. If "other" is selected, describe the use and include a Standard Industrial Classification Code (visit <http://www.osha.gov/pls/imis/sicsearch.html> for codes). For projects that have submitted a joint permit application, please provide the US Army Corps of Engineers assigned number.
7. Enter latitude and longitude for the approximate center of the site, to the nearest 15 seconds. Latitude and longitude can be obtained from DEQ's location finder web site at <https://hdcgex2.deq.state.or.us/HVR291/?viewer=wqslit>. To get the longitude and latitude to appear you can also zoom in and re-center until you find the area. You may want to turn off DEQ interests to eliminate the yellow dots and you may want to turn on the Aerial Photos to help you locate the site (note that the aerial photos are over ten years old). The latitude and longitude will be indicated on the left side of the page once you have checked the locate place at the top of the page and clicked on a location.
8. If known, specify approximate start date. Provide information on the project size as indicated (based on the total project and not just a single phase). If the project is less than an acre and part of a common plan of development there is no annual fee.
9. If a proposed construction site has a DEQ assigned Environmental Cleanup Site Information (ECSI) number associated with the property, an Environmental Management Plan must be submitted to DEQ. DEQ maintains the ECSI database to track sites in Oregon with known or potential contamination from hazardous substances, and to document sites where DEQ has determined that no further action is required. For projects that anticipate contaminated soils, contaminated groundwater, or hazardous materials will or have the potential to be encountered during construction activities or the need for active treatment system, an Environmental Management Plan is required. This includes a plan review fee (Table 70F) for treatment of contaminants beyond sediment (See Appendix A and at: <http://www.oregon.gov/deq/Rulemaking%20Docs/340-045-0075WQFeeTables.pdf>.)
10. Indicate the name(s) of the receiving water(s) (i.e., indicate where stormwater runoff during construction will flow). Request information from local authority or other resource to determine the name of the receiving waterbody. The receiving water may be a lake, stream, river, wetland or other waterbody, and may or may not be located adjacent to the site. Stormwater from the project site may discharge directly to the receiving water or indirectly via a storm sewer system, an open drain or ditch, or other conveyance structure. Do NOT list a human-made conveyance, such as a storm sewer system, as the receiving water. If the site discharges to an irrigation channel or ditch, the applicant must also indicate the owner or operator of the irrigation channel or ditch. Indicate the first natural receiving water the stormwater discharge from the project site enters.

For example, if the project site discharge enters a storm sewer system, that empties into Trout Creek, which flows into Pine River, the receiving water is Trout Creek, because it is the first natural waterbody the project site discharge will reach. Similarly, a discharge into a ditch that feeds Spring Creek should be identified as "Spring Creek" since the ditch is a human-made conveyance. If your site discharges into a municipal separate storm sewer system (MS4), the applicant must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.

11. Indicate whether stormwater runoff during construction will discharge directly to or through a storm sewer or drainage system that discharges to a Total Maximum Daily Load (TMDL) or 303(d) listed waterbody for turbidity or sedimentation. To make this determination, the following tools are available on DEQ's website:
- WQ Assessment page: <https://www.oregon.gov/deq/wq/Pages/epaApprovedIR.aspx> to search criteria: waterbody and listing status Category 5 (303d) and Category 4a (TMDL approved).

B. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

DEFINITION OF LEGALLY AUTHORIZED REPRESENTATIVE:

Please also provide the information requested in brackets []

- **Corporation** - president, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities that is authorized in accordance to corporate procedure to sign such documents.
- **Partnership** - General partner [list of general partners, their addresses, and telephone numbers].
- **Sole Proprietorship** - Owner.
- **City, County, State, Federal, or other Public Facility** - Principal executive officer or ranking elected official.
- **Limited Liability Company** - Member [articles of organization].
- **Trusts** - Acting trustee [list of trustees, their addresses, and telephone numbers].

(please see 40 CFR §122.22 for more detail, if needed)

APPLICATION AND FEE SUBMITTAL

To authorize permit registration, the following must be completed and submitted to the appropriate DEQ regional office or DEQ Agent

- ☐ Complete and accurate DEQ application form signed by the Legally Authorized Representative. DEQ LUCS and associated Findings.
- ☐ Erosion and Sediment Control Plan Narrative, if applicable.
- ☐ Environmental Management Plan, if applicable.
- ☐ Dewatering Plan, if applicable.
- ☐ Stormwater Erosion and Sediment Control Plan Drawings; full-sized hard copy and electronic file.
- ☐ Applicable permit fee. Appropriate fees are available at <http://www.oregon.gov/deq/Rulemaking%20Docs/340-045-0075WQFeeTables.pdf>. Please make check payable to DEQ. All stormwater permits charge an application fee and an annual fee upon registration. DEQ will invoice the annual fee amount if your project coverage extends more than a year. **Please note:** if submitting an Environmental Management Plan to address contaminants or operate an Active Treatment System, a review fee will be charged as indicated in Table 70H.

Submit this application, Narrative Parts I, II & III (if applicable), LUCS, Erosion and Sediment Control Plan (Electronic copy), Dewatering and/or Environmental Management Plan and the applicable fee to the appropriate DEQ regional office or DEQ Agent listed below. Please send electronic copy (CD or thumbdrive) of ESCP with permit application submission package.

AGENTS AND REGIONAL OFFICES CONTACTS

City of Eugene 99 W. 10th Avenue, Eugene, OR 97401 541-682-2706		City of Troutdale 342 SW 4th Street, Troutdale, OR 97060 503-674-3300			
Clean Water Services 2550 SW Hillsboro Highway, Hillsboro, OR 97123 503-681-5101 <i>Includes Banks, Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, North Plains, Sherwood, Tigard, Tualatin, and portions of Washington Co.</i>		Rogue Valley Sewer Services 138 West Vilas Road, P.O. Box 3130 Central Point, OR 97502 541-664-6300			
DEQ Northwest Region		DEQ Western Region		DEQ Eastern Region	
700 Lloyd Building 700 NE Multnomah St., Suite 600 Portland, OR 97232 503-229-5263 or 1-800-452-4011		165 East 7th Avenue, Suite 100 Eugene, OR 97401 541-686-7930 or 1-800-844-8467		800 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801 541-278-4605 or 1-800-304-3513	
Clackamas		Lane		Hood River	Sherman
Clatsop		Lincoln		Jefferson	Umatilla
Columbia		Linn		Klamath	Union
Multnomah		Marion		Lake	Wallowa
		Josephine	Jackson	Deschutes	Crook
Tillamook		Polk		Malheur	Wasco
Washington		Yamhill		Marrow	Wheeler
		Benton	Douglas	Grant	Gilliam
		Coos	Curry	Baker	Harney

DEQ USE ONLY

File #:

Application #: _____

LLID/RM: _____

River Mile: _____

Legal Name Confirmed: ☐

Notes: _____



APPLICATION FOR NEW NPDES GENERAL PERMIT 1200-C

For stormwater discharges to surface waters from construction activities disturbing one acre or more that do not meet automatic coverage requirements.*

DEQ USE ONLY

Date Received: _____

Amount: \$ _____

Check #: _____

Check Name: _____

Deposit #: _____

Receipt #: _____

Notes: _____

*A project *may* be eligible for “automatic coverage” under NPDES general permit 1200-CN if stormwater *does not* discharge to a waterbody with a TMDL or 303(d) listing for sediment or turbidity *and* it meets one of the following criteria (see 1200-CN at <http://www.oregon.gov/deq/FilterPermitsDocs/1200cnPermit.pdf>):

1. Disturbs less than one acre and is located in Gresham, Troutdale, or Wood Village.
2. Disturbs less than five acres and is located in Albany, Corvallis, Eugene, Milwaukie, Multnomah Co. (unincorporated areas), Springfield, West Linn, or Wilsonville.
3. Disturbs less than five acres and is within the jurisdictions of Clackamas Co. Water Environment Services [Gladstone, areas within Clackamas Co. Service Dist. #1 (excluding Happy Valley), and areas within the Surface Water Management Agency of Clackamas Co. (including Rivergrove)], Clean Water Services (Banks, Beaverton, Cornelius, Durham, Forest Grove, Hillsboro, King City, North Plains, Sherwood, Tigard, Tualatin, and Washington Co. within Urban Growth Boundary), or Rogue Valley Sewer Services.

A. PROJECT INFORMATION

1. Applicant (Responsible Person or entity legally responsible for permit)			2. Invoicing information (person or entity legally responsible for payment of annual fee invoice; not a third party independent of the applicant)		
Contact Name			Invoice Contact Name (if different from applicant)		
Address			Address		
City	State	ZIP Code	City	State	ZIP Code
Telephone		Email Address	Telephone		Email Address
3. Architect/Engineering Firm (Erosion and Sediment Control Plan)			4. Applicant's Designated Erosion and Sediment Control Inspector		
Project Manager			Company Name		
Telephone		Email Address	Telephone		Email Address
			Qualification program, certification number and expiration date		

5. Name of Project			6. Nature of Construction Activity <input type="checkbox"/> Single Family (SIC Code 1521) <input type="checkbox"/> Multi-Family Residential (SIC Code 1522) <input type="checkbox"/> Commercial (SIC Code 1542) <input type="checkbox"/> Industrial (SIC Code 1541) <input type="checkbox"/> Highway (SIC Code 1611) <input type="checkbox"/> Restoration (SIC Code 1629) <input type="checkbox"/> Utilities (SIC Code 1623): Transmission line <input type="checkbox"/> Other (SIC Code required): 1629-Heavy Construction (substation) <input type="checkbox"/> Army Corps No. (if any):		
Address or Cross Street					
City	State	ZIP Code			
County					
7. Approximate location of center of site.			8. Approximate start date:		
Latitude: Longitude:			Total Site Acreage (acres): If less than 1-acre, is site part of a common plan of development? <input type="checkbox"/> Yes <input type="checkbox"/> No Total Disturbed Area (acres): Total Number of Lots:		
**For assistance: DEQ Location Improvement Tool					
9. Is there soil or groundwater contamination located within the site boundary			<input type="checkbox"/> Yes		<input type="checkbox"/> No
Will you be dewatering during construction (plan review fee may apply)?			<input type="checkbox"/> Yes		<input type="checkbox"/> No
Has an ESCI Number been assigned to the site by DEQ?			<input type="checkbox"/> Yes		<input type="checkbox"/> No
Will construction activities impact the contaminated media?			<input type="checkbox"/> Yes		<input type="checkbox"/> No
Depth to Groundwater:			Data Source:		
10. Receiving waterbody - Must identify final discharge location of construction stormwater flows.					
Waters of the State (name or description):					
Municipal storm sewer or drainage system (include downstream receiving waterbody):					
Ditch (include downstream receiving waterbody):					
Irrigation channel or ditch (include owner or operator):					
Infiltration device(s) (construction stormwater discharge to underground injection control/drywell is prohibited):					
Other:					
11. Stormwater runoff during construction discharges directly to or through a storm sewer or drainage system that discharges to a waterbody with a Total Maximum Daily Load (TMDL) or 303(d) listing for turbidity or sedimentation? <input type="checkbox"/> Yes <input type="checkbox"/> No					
**For assistance: DEQ assessment database page at: https://www.oregon.gov/deq/wq/Pages/epaApprovedIR.aspx					
B. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE					
The legally authorized representative <i>must</i> sign the application (see instructions – Section C).					
I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-045. This includes a compliance determination fee invoiced annually by DEQ to maintain the permit.					
Name of Legally Authorized Representative (Type or Print)				Title	
Signature of Legally Authorized Representative				Date	

NEXTERA ENERGY
WAGON TRAIL SOLAR PROJECT
EROSION AND SEDIMENT CONTROL PLAN (ESCP)

STANDARD EROSION AND SEDIMENT
CONTROL PLAN DRAWING NOTES:

1. Hold a pre-construction meeting of project construction personnel that includes the inspector to discuss erosion and sediment control measures and construction limits. (Schedule A.8.c.i.(3))
2. All inspections must be made in accordance with DEQ 1200-C permit requirements.
3. Inspection logs must be kept in accordance with DEQ's 1200-C permit requirements.
4. Retain a copy of the ESCP and all revisions on site and make it available on request to DEQ, Agent, or the local municipality. During inactive periods of greater than seven (7) consecutive calendar days, retain the ESCP at the construction site or at another location. (Schedule B.2.a)
5. All permit registrants must implement the ESCP. Failure to implement any of the control measures or practices described in the ESCP is a violation of the permit. (Schedule A.8.a)
6. The ESCP measures shown on this plan are minimum requirements for anticipated site conditions. During the construction period, upgrade these measures as needed to comply with all applicable local, state, and federal erosion and sediment control regulations. (Schedule A.8.c.ii.(1)(c))
7. Submission of all ESCP revisions is not required. Submittal of the ESCP revisions is only under specific conditions. Submit all necessary revision to DEQ or Agent. (Schedule A.12.c.iii)
8. Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming a source of erosion. (Schedule A.8.c.ii.(1)(d))
9. Identify, mark, and protect (by fencing off or other means) critical riparian areas and vegetation including important trees and associated rooting zones, and vegetation areas to be preserved. Identify vegetative buffer zones between the site and sensitive areas (e.g., wetlands), and other areas to be preserved, especially in perimeter areas. (Schedule A.8.c.i.(1) & (2))
10. Preserve existing vegetation when practical and re-vegetate open areas. Re-vegetate open areas when practicable before and after grading or construction. Identify the type of vegetative seed mix used. (Schedule A.7.b.iii.(1) and A.7.b.iii.(3))
11. Erosion and sediment control measures including perimeter sediment control must be in place before vegetation is disturbed and must remain in place and be maintained, repaired, and promptly implemented following procedures established for the duration of construction, including protection for active storm drain inlets and catch basins and appropriate non-stormwater pollution controls. (Schedule A.7.d.1 and A.8.c)
12. Establish concrete truck washout areas before beginning concrete work. (Schedule A.8.c.i.(6))
13. Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses and for all roadways including gravel roadways. (Schedule A.8.c.ii.(2))
14. Establish material and waste storage areas, and other non-stormwater controls. (Schedule A.8.c.i.(7))
15. Prevent tracking of sediment onto public or private roads using BMPs such as: graveled (or paved) exits and parking areas, gravel all unpaved roads located onsite, or use an exit tire wash. These BMPs must be in place prior to land-disturbing activities. (Schedule A.7.d.ii.(1) and A.8.c.i.(4))
16. When trucking saturated soils from the site, either use water-tight trucks or drain loads on site. (Schedule A.7.d.ii.(3))
17. Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other cleaning and maintenance activities; and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, leftover paints, solvents, and glues from construction operations. (Schedule A.7.e.i.(2))
18. Implement the following BMPs when applicable: written spill prevention and response procedures, employee training on spill prevention and proper disposal procedures, spill kits in all vehicles, regular maintenance schedule for vehicles and machinery, material delivery and storage controls, training and signage, and covered storage areas for waste and supplies. (Sch A.7.e.iii.)
19. Use water, soil-binding agent or other dust control technique as needed to avoid wind-blown soil. (Schedule A.7.b.ii)
20. The application rate of fertilizers used to reestablish vegetation must follow manufacturer's recommendations to minimize nutrient releases to surface waters. Exercise caution when using time-release fertilizers within any waterway riparian zone. (Schedule A.9.b.iii)
21. If a stormwater treatment system (for example, electro-coagulation, flocculation, filtration, etc.) for sediment or other pollutant removal is employed, submit an operation and maintenance plan (including system schematic, location of system, location of inlet, location of discharge, discharge dispersion device design, and a sampling plan and frequency) before operating the treatment system. Obtain plan approval before operating the treatment system. Operate and maintain the treatment system according to manufacturer's specifications. (Schedule A.9.d)
22. Temporarily stabilize soils at the end of the shift before holidays and weekends, if needed. The registrant is responsible for ensuring that soils are stable during rain events at all times of the year. (Schedule A.7.b)
23. At the end of each workday soil stockpiles must be stabilized or covered, or other BMPs must be implemented to prevent discharges to surface waters or conveyance systems leading to surface waters. (Schedule A.7.a.ii.(2))
24. Construction activities must avoid or minimize excavation and creation of bare ground during wet weather. (Schedule A.7.a.i)
25. Sediment fence: remove trapped sediment before it reaches one third of the above ground fence height and before fence removal. (Schedule A.9.c.i)
26. Other sediment barriers (such as biobags): remove sediment before it reaches two inches depth above ground height. and before BMP removal. (Schedule A.9.c.ii)
27. Catch basins: clean before retention capacity has been reduced by fifty percent. Sediment basins and sediment traps: remove trapped sediments before design capacity has been reduced by fifty percent and at completion of project. (Schedule A.9.c.iii & iv)
28. Within 24 hours, significant sediment that has left the construction site, must be remediated. Investigate the cause of the sediment release and implement steps to prevent a recurrence of the discharge within the same 24 hours. Any in-stream clean up of sediment shall be performed according to the Oregon Division of State Lands required timeframe. (Schedule A.9.b.i)
29. The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments. (Schedule A.9.b.ii)
30. The entire site must be temporarily stabilized using vegetation or a heavy mulch layer, temporary seeding, or other method should all construction activities cease for 30 days or more. (Schedule A.7.f.i)
31. Provide temporary stabilization for that portion of the site where construction activities cease for 14 days or more with a covering of blown straw and A tackifier, loose straw, or an adequate covering of compost mulch until work resumes on that portion of the site. (Schedule A.7.f.ii)
32. Provide permanent erosion control measures on all exposed areas. Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. However, do remove all temporary erosion control measures as exposed areas become stabilized, unless doing so conflicts with local requirements. Properly dispose of construction materials and waste, including sediment retained by temporary BMPs. (Schedule A.7.b.iii(2) and A.8.c.iii)

NARRATIVE DESCRIPTIONS

PROJECT LOCATION

THIRTEEN MILES NORTH OF HEPPNER
MORROW COUNTY, OREGON
LATITUDE= 45°34'29" N LONGITUDE= 119°37'37" W

EXISTING SITE CONDITIONS

- UNDEVELOPED AGRICULTURE
- EXISTING WHEATRIDGE WIND AND SOLAR FACILITY

PROPERTY DESCRIPTION

CENTRAL MORROW COUNTY NEAR LEXINGTON

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

NEXTERA TO CONSTRUCT THE WAGON TRAIL SOLAR FACILITY
CONSTRUCTION TO CONSIST OF:

- INSTALLATION OF RACKING, PANELING, INVERTERS, AND ACCESS ROADS
- INTERCONNECTION AND TESTING

SCHEDULE: TBD
APPROXIMATE START DATE IN 2024

TOTAL SITE AREA: APPROX. 7,449 ACRES
POTENTIAL MAX DISTURBED AREA: TBD

SITE SOIL CLASSIFICATIONS:

13D/E - Gravelen very gravelly loam, 5 to 40 percent slopes
22 - Kimberly fine sandy loam
28E - Lickskilllet very stony loam, 7 to 40 percent slopes
29F - Lickskilllet rock outcrop complex, 40 to 70 percent slopes
45A/B/C/E - Ritzville silt loam, 0 to 40 percent slopes
70B - Warden very fine sand loam 2 to 5 percent slopes
71A/B/C/D - Warden silt loam, 0 to 20 percent slopes
75B/C/D - Willis silt loam, 2 to 20 percent slopes
78 - Xeric Torriorthents nearly level

RECEIVING WATER BODIES:

WATERBODIES IN THE PROJECT AREA INCLUDE 3 PERENNIAL
STREAMS WHICH COMBINE NEAR THE NORTH PROJECT EXTENTS.
THESE STREAMS SEEM TO TERMINUS INTO OPEN FIELDS. THIS IS
CONSISTENT WITH THE NATIONAL WATER MODEL WHICH SHOWS THIS
STREAM ENDING WITHOUT CONNECTION TO DOWNSTREAM RIVER.

THE PERMITTEE IS REQUIRED TO MEET ALL THE
CONDITIONS OF THE 1200-C PERMIT. THIS ESCP AND
GENERAL CONDITIONS HAVE BEEN DEVELOPED TO
FACILITATE COMPLIANCE WITH THE 1200-C PERMIT
REQUIREMENTS. IN CASES OF DISCREPANCIES OR
OMISSIONS, THE 1200-C PERMIT REQUIREMENTS
SUPERCEDE REQUIREMENTS OF THIS PLAN.

DEVELOPER

DEVELOPER/COMPANY: NEXTERA
CONTACT: TBD
ADDRESS: TBD
PHONE: TBD
EMAIL: TBD

PLANNING/ENGINEERING/
SURVEYING FIRM

COMPANY: TETRA TECH
CONTACT: CARRIE KONKOL
ADDRESS: 1750 SW HARBOR WAY, SUITE 400
PORTLAND, OR 97201
PHONE: (503) 721-7225
EMAIL: CARRIE.KONKOL@TETRATECH.COM

PERMITTEE'S SITE INSPECTOR

INSPECTOR: TBD
COMPANY/AGENCY: TBD
PHONE: TBD
EMAIL: TBD
DESCRIPTION OF EXPERIENCE: TBD

INSPECTION FREQUENCY: TBD

SITE CONDITION	MINIMUM FREQUENCY
1. ACTIVE PERIOD	DAILY WHEN STORMWATER RUNOFF, INCLUDIGN RUNOFF FROM SNOWMELT, IS OCCURRING.
2. PRIOR TO THE SITE BECOMING INACTIVE OR IN ANTICIPATION OF SITE INACCESSIBILITY.	ONCE TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE IN WORKING ORDER. ANY NECESSARY MAINTENANCE AND REPAIR MUST BE MADE PRIOR TO LEAVING THE SITE.
3. INACTIVE PERIODS GREATER THAN FOURTEEN CONSECUTIVE CALENDAR DAYS.	ONCE EVERY TWO WEEKS.
4. PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER.	IF PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT AND ACCESSIBLE DISCHARGE POINT OR DOWNSTREAM LOCATION.

- HOLD A PRE-CON MEETING OF PROJECT
CONSTRUCTION PERSONNEL THAT INCLUDES
THE EC INSPECTOR.
- ALL INSPECTIONS MUST BE MADE IN
ACCORDANCE WITH DEQ 1200-C PERMIT
REQUIREMENTS.
- INSPECTION LOGS MUST BE KEPT IN
ACCORDANCE WITH DEQ 1200-C PERMIT
REQUIREMENTS.
- REVISIONS TO THE APPROVED ESC PLAN MUST
BE SUBMITTED TO DEQ OR AGENT IN
ACCORDANCE WITH CURRENT 1200-C PERMIT

LOCAL AGENCY-SPECIFIC EROSION
CONTROL NOTES:

1. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER
INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL
MEASURES, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL
REGULATIONS.
2. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE
CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN
ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. DURING THE
CONSTRUCTION PERIOD, NO DISTURBANCE IS PERMITTED BEYOND THE
CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION
FOR THE DURATION OF THE PROJECT. NOTE: VEGETATED CORRIDORS TO BE
DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
3. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMP'S THAT MUST BE
INSTALLED ARE A GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT
CONTROL, AND INLET PROTECTION. THESE BMP'S MUST BE MAINTAINED FOR
THE DURATION OF PROJECT CONSTRUCTION.
4. IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE THE PLACE
NO LATER THAN SEPTEMBER 1; THE TYPE AND PERCENTAGES OF SEED IN
THE MIX MUST BE IDENTIFIED ON THE PLANS.
5. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE DISCHARGED OVER AN
UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT
CONTROL BMP I.E. (FILTER BAG).
6. THE ESC PLAN MUST BE KEPT ON SITE. ALL MEASURES SHOWN ON THE
PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT OR
SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE SYSTEM, ROADWAY,
OR OTHER PROPERTIES.
7. THE ESC MEASURES SHOWN ON THIS PAN ARE MINIMUM REQUIREMENTS FOR
ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD THESE
MEASURES SHALL BE UPGRADED AS NEEDED TO COMPLY WITH ALL
APPLICABLE LOCAL, STATE AND FEDERAL EROSION CONTROL REGULATIONS
CHANGES TO THE APPROVED ESC PLAN MUST BE SUBMITTED IN THE FORM
OF AN ACTION PLAN TO DEQ PER THE 1200 C PERMIT.
8. IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMP'S MUST BE USED
WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC
SHEETING, MULCHING OR OTHER APPROVED MEASURES.
9. ALL EXPOSED SOILS MUST BE COVERED DURING THE WET WEATHER PERIOD.

BMP MATRIX FOR CONSTRUCTION PHASES
TO BE ADDED ONCE SCHEDULE HAS BEEN DETERMINED

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS
BASED ON DEQ'S GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION
AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP'S WERE NOT CHOSEN
BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION
AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS,
INCLUDING SOIL CONDITIONS TOPOGRAPHIC CONSTRAINTS ACCESSIBILITY TO THE SITE,
AND OTHER RELATED CONDITIONS, AS THE PROJECT PROGRESSES AND THERE IS A
NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

INITIAL

1750 SW HARBOR WAY, SUITE 400
PORTLAND, OR 97201
PHONE: (503) 221-8636 FAX: (503) 227-1287

www.tetratech.com



PROJECT LOCATION:

MORROW COUNTY, OREGON

CLIENT INFORMATION:

NEXTERA
700 UNIVERSE BLVD
JUNO BEACH, FL, 33408

PROJECT No.:

194-6496

CLIENT PROJECT No.:

Wagon Trail Solar Project

PROJECT DESCRIPTION / NOTES:

NEXTERA TO CONSTRUCT AND OPERATE THE WAGON TRAIL SOLAR FACILITY IN
MORROW COUNTY, OREGON. THE PROJECT WILL ENCOMPASS ROUGHLY 7,450 ACRES.
OPERATIONAL CAPACITY, IMPERVIOUS AREA, DISTURBED AREA, ETC. TBD

ISSUED:

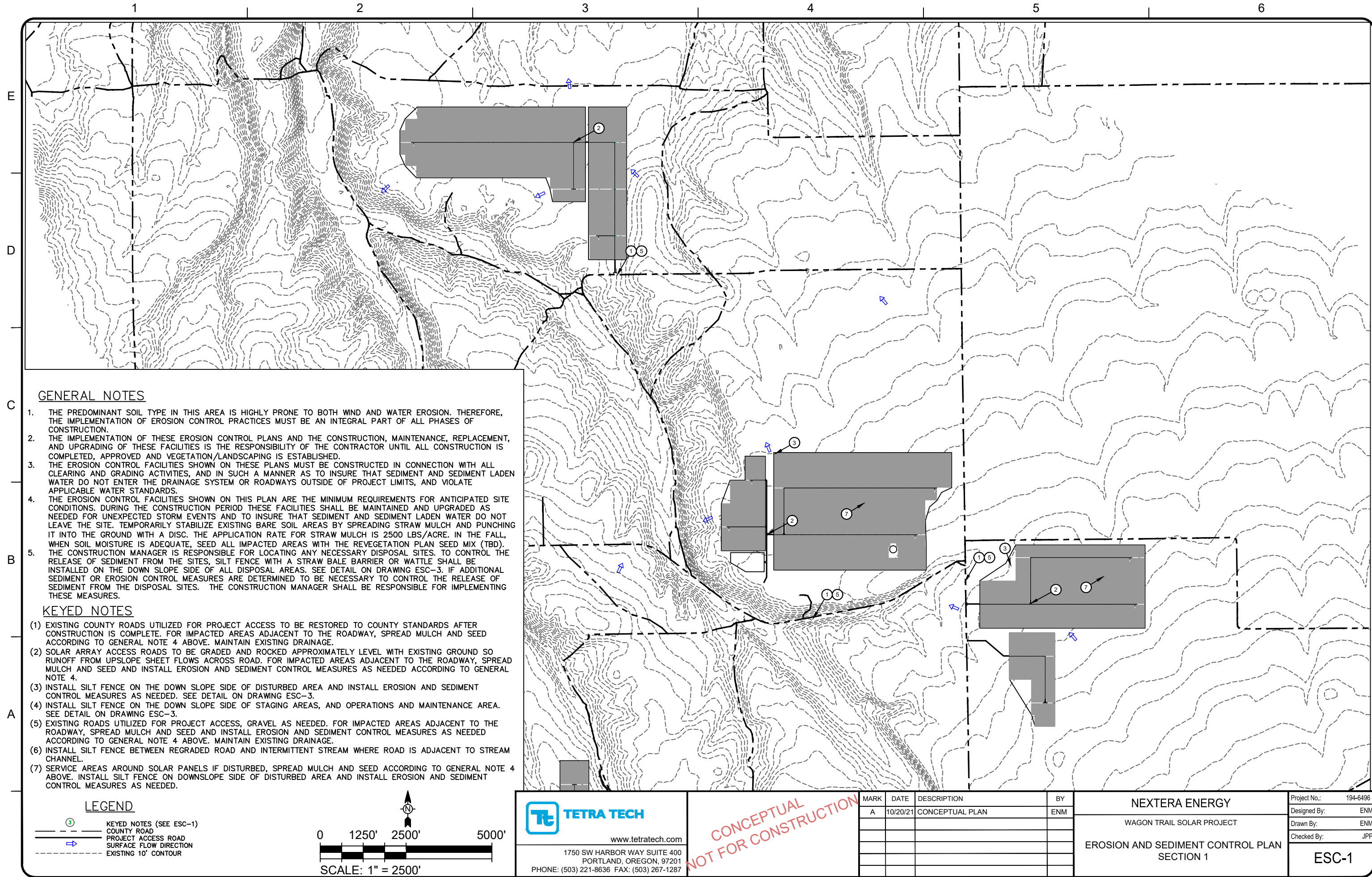
VICINTY MAP

..\\..\\..\\eric.mathers\\Desktop\\WORKING PROJECTS\\Wagon Trail ESC DESIGN\\01-CAD\\02-SUPPORT FILES\\Vicinity Map.png

SHEET INDEX

ESC-0 EROSION AND SEDIMENT CONTROL COVER SHEET
ESC-1 EROSION AND SEDIMENT CONTROL PLAN AREA 1
ESC-2 EROSION AND SEDIMENT CONTROL PLAN AREA 2
ESC-3 EROSION AND SEDIMENT CONTROL DETAILS

10/22/2021 5:31:30 AM - C:\USERS\ERIC.MATHERS\DESKTOP\WORKING PROJECTS\WAGON TRAIL\06-DESIGN\01-CAD\ESCP DRAFT SET.DWG - MATHERS, ERIC



GENERAL NOTES

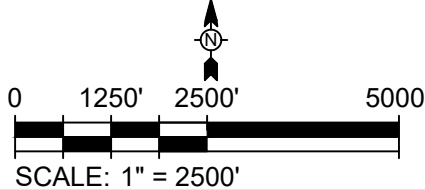
1. THE PREDOMINANT SOIL TYPE IN THIS AREA IS HIGHLY PRONE TO BOTH WIND AND WATER EROSION. THEREFORE, THE IMPLEMENTATION OF EROSION CONTROL PRACTICES MUST BE AN INTEGRAL PART OF ALL PHASES OF CONSTRUCTION.
2. THE IMPLEMENTATION OF THESE EROSION CONTROL PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED, APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. THE EROSION CONTROL FACILITIES SHOWN ON THESE PLANS MUST BE CONSTRUCTED IN CONNECTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM OR ROADWAYS OUTSIDE OF PROJECT LIMITS, AND VIOLATE APPLICABLE WATER STANDARDS.
4. THE EROSION CONTROL FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD THESE FACILITIES SHALL BE MAINTAINED AND UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE. TEMPORARILY STABILIZE EXISTING BARE SOIL AREAS BY SPREADING STRAW MULCH AND PUNCHING IT INTO THE GROUND WITH A DISC. THE APPLICATION RATE FOR STRAW MULCH IS 2500 LBS/ACRE. IN THE FALL, WHEN SOIL MOISTURE IS ADEQUATE, SEED ALL IMPACTED AREAS WITH THE REVEGETATION PLAN SEED MIX (TBD).
5. THE CONSTRUCTION MANAGER IS RESPONSIBLE FOR LOCATING ANY NECESSARY DISPOSAL SITES. TO CONTROL THE RELEASE OF SEDIMENT FROM THE SITES, SILT FENCE WITH A STRAW BALE BARRIER OR WATTLE SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF ALL DISPOSAL AREAS. SEE DETAIL ON DRAWING ESC-3. IF ADDITIONAL SEDIMENT OR EROSION CONTROL MEASURES ARE DETERMINED TO BE NECESSARY TO CONTROL THE RELEASE OF SEDIMENT FROM THE DISPOSAL SITES. THE CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE MEASURES.

KEYED NOTES

- (1) EXISTING COUNTY ROADS UTILIZED FOR PROJECT ACCESS TO BE RESTORED TO COUNTY STANDARDS AFTER CONSTRUCTION IS COMPLETE. FOR IMPACTED AREAS ADJACENT TO THE ROADWAY, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 4 ABOVE. MAINTAIN EXISTING DRAINAGE.
- (2) SOLAR ARRAY ACCESS ROADS TO BE GRADED AND ROCKED APPROXIMATELY LEVEL WITH EXISTING GROUND SO RUNOFF FROM UPSLOPE SHEET FLOWS ACROSS ROAD. FOR IMPACTED AREAS ADJACENT TO THE ROADWAY, SPREAD MULCH AND SEED AND INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED ACCORDING TO GENERAL NOTE 4.
- (3) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF DISTURBED AREA AND INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED. SEE DETAIL ON DRAWING ESC-3.
- (4) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF STAGING AREAS, AND OPERATIONS AND MAINTENANCE AREA. SEE DETAIL ON DRAWING ESC-3.
- (5) EXISTING ROADS UTILIZED FOR PROJECT ACCESS, GRAVEL AS NEEDED. FOR IMPACTED AREAS ADJACENT TO THE ROADWAY, SPREAD MULCH AND SEED AND INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED ACCORDING TO GENERAL NOTE 4 ABOVE. MAINTAIN EXISTING DRAINAGE.
- (6) INSTALL SILT FENCE BETWEEN REGRADED ROAD AND INTERMITTENT STREAM WHERE ROAD IS ADJACENT TO STREAM CHANNEL.
- (7) SERVICE AREAS AROUND SOLAR PANELS IF DISTURBED, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 4 ABOVE. INSTALL SILT FENCE ON DOWNSLOPE SIDE OF DISTURBED AREA AND INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED.

LEGEND

- KEYED NOTES (SEE ESC-1)
- COUNTY ROAD
- PROJECT ACCESS ROAD
- SURFACE FLOW DIRECTION
- EXISTING 10' CONTOUR



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CONCEPTUAL
NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION	BY
A	10/20/21	CONCEPTUAL PLAN	ENM

NEXTERA ENERGY

WAGON TRAIL SOLAR PROJECT

EROSION AND SEDIMENT CONTROL PLAN
SECTION 1

Project No.: 194-6496

Designed By: ENM

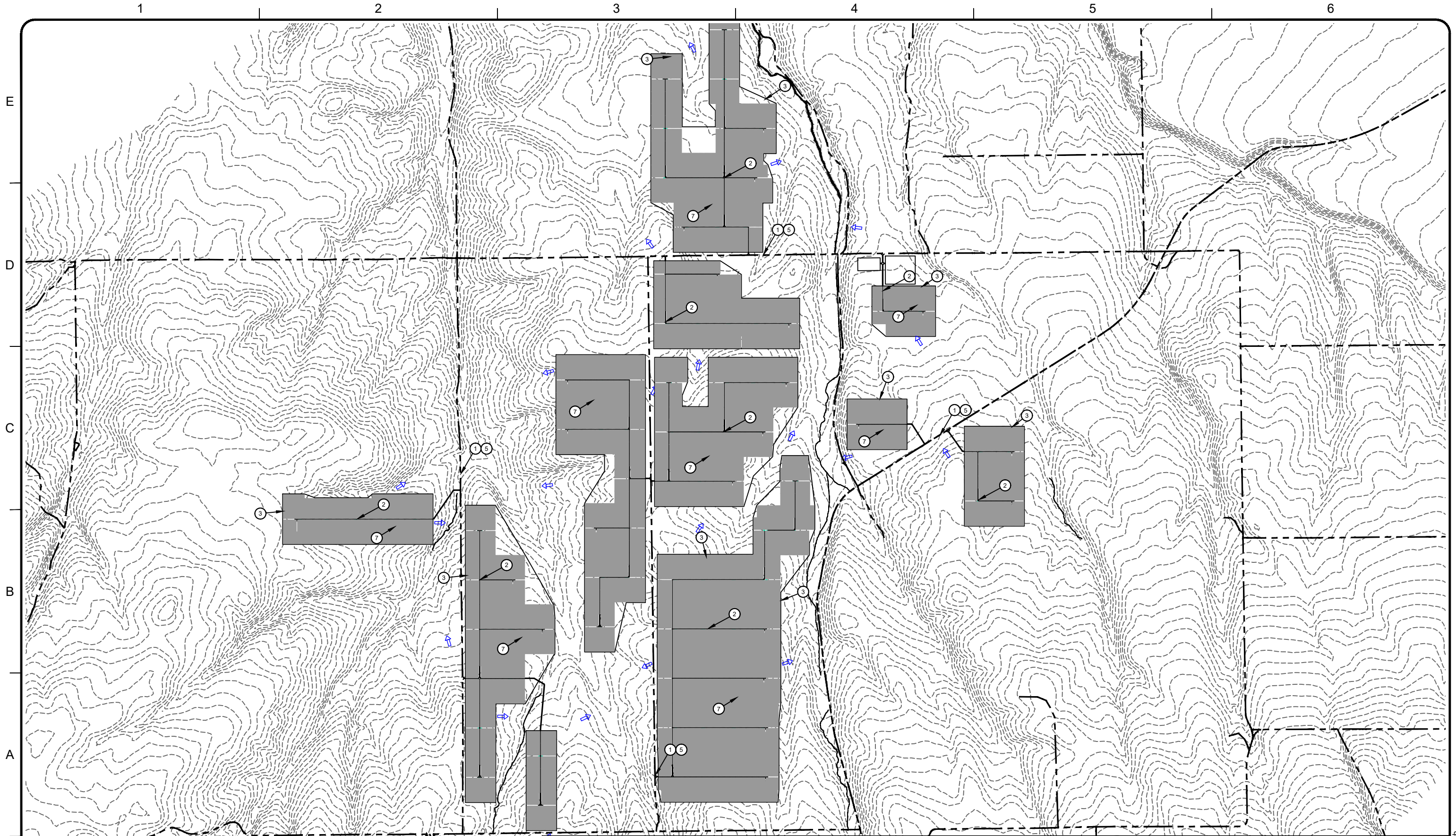
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Checked By: JPP

ESC-1

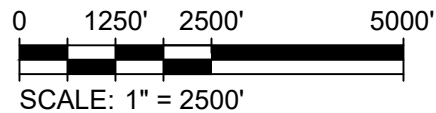
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LEGEND

- 3 KEYED NOTES (SEE ESC-1)
- COUNTY ROAD
- PROJECT ACCESS ROAD
- SURFACE FLOW DIRECTION
- EXISTING 10' CONTOUR



SCALE: 1" = 2500'



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A	10/20/21	CONCEPTUAL PLAN	ENM

NEXTERA ENERGY	
WAGON TRAIL SOLAR PROJECT	
EROSION AND SEDIMENT CONTROL PLAN	
SECTION 2	

Project No.:	194-6496
Designed By:	ENM
Drawn By:	ENM
Checked By:	JPP
ESC-2	

Bar Measures 1 inch

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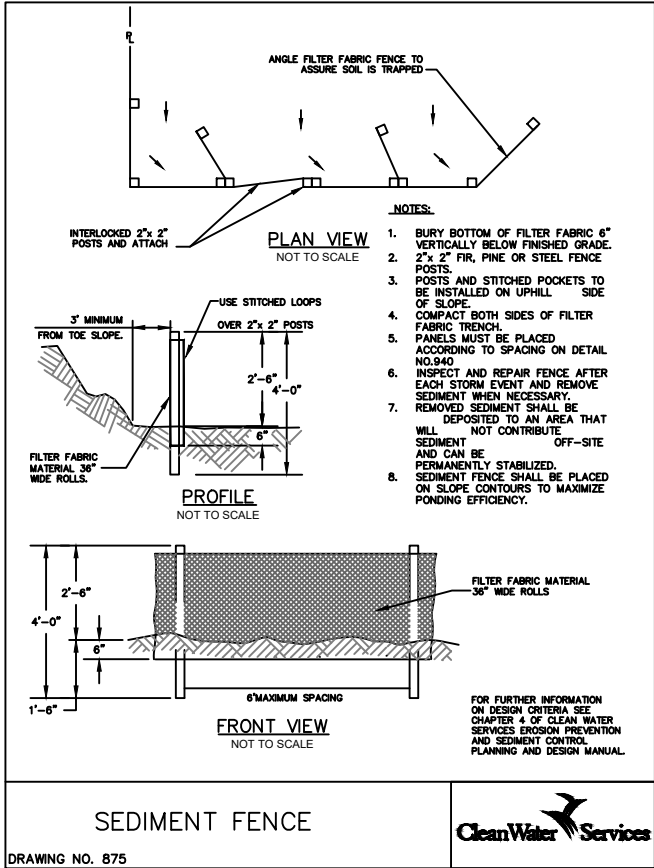
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D

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A



FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

SPACING FOR CHECK DAMS			
DITCH GRADE	6 INCH	12 INCH	18 INCH
6%	NOT ALLOWED	16 FT O.C.	26 FT O.C.
5%	NOT ALLOWED	20 FT	30 FT
4%	NOT ALLOWED	26 FT	40 FT
3%	15 FT	33 FT	50 FT
2%	25 FT	50 FT	80 FT

BARRIER SPACING FOR GENERAL APPLICATION

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS

% SLOPE	SLOPE	MAXIMUM SPACING ON SLOPE
10% OR FLATTER	10:1 OR FLATTER	300 FT
>10% OR <15%	>10:1 OR <7.5:1	150 FT
>15% OR <20%	>7.5:1 OR <5:1	100 FT
>20% OR <30%	>5:1 OR <3.5:1	50 FT
>30% OR <50%	>3.5:1 OR <2:1	25 FT

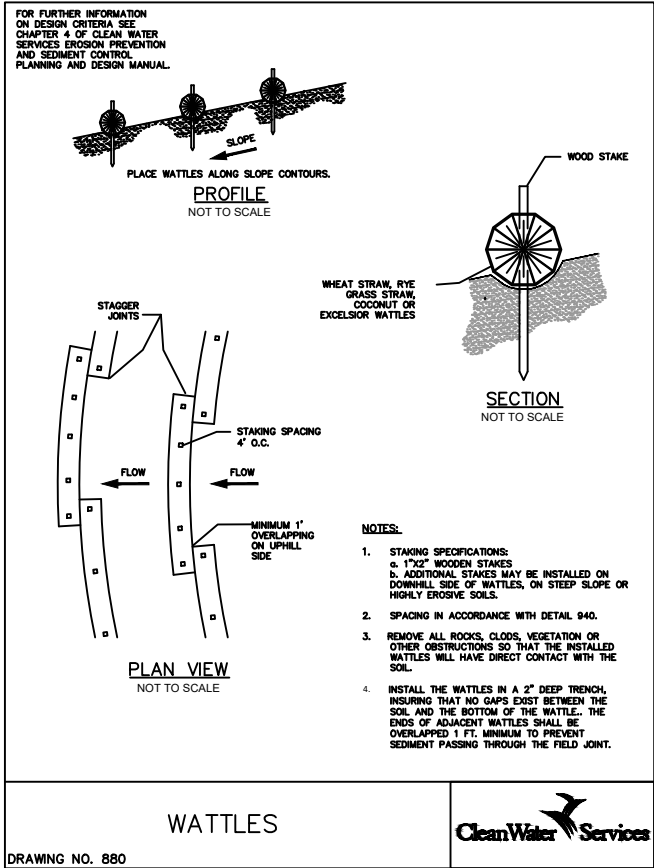
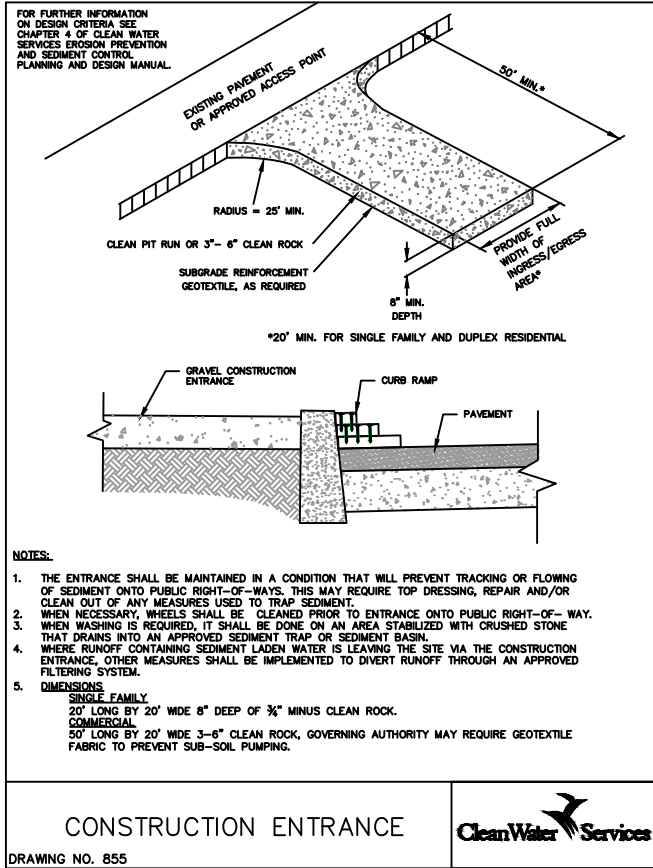
NOTES:

1. FOR MORE INFORMATION REGARDING THESE TABLES SEE CHAPTER 4 TABLES 4-3 AND 4-7 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL DESIGN MANUAL.

SPACING TABLES

DRAWING NO. 940

CleanWater Services



 www.tetrattech.com 1750 SW HARBOR WAY SUITE 400 PORTLAND, OREGON, 97201 PHONE: (503) 221-8636 FAX: (503) 267-1287	CONCEPTUAL NOT FOR CONSTRUCTION	MARK	DATE	DESCRIPTION	BY	NEXTERA ENERGY WAGON TRAIL SOLAR PROJECT EROSION AND SEDIMENT CONTROL DETAILS	Project No.: 194-6496
		A	10/20/21	CONCEPTUAL PLAN	ENM		Designed By: ENM
							Drawn By: ENM
							Checked By: JPP
							ESC-3

Bar Measures 1 inch