

Exhibit I

Soil Conditions

**Wheatridge Renewable Energy Facility East
December 2022**

**Prepared for
Wheatridge East Wind, LLC**

Prepared by



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Attachment I-1. Draft Erosion and Sediment Control Plan

Acronyms and Abbreviations

BMP	Best management practices
Certificate Holder	Wheatridge East Wind, LLC
Council	Energy Facility Siting Council
ESCP	Erosion and Sediment Control Plan
Facility	Wheatridge Renewable Energy Facility East
MW	megawatts
OAR	Oregon Administrative Rules
RFA	Request for Amendment

1.0 Introduction

The Wheatridge Renewable Energy Facility East (Facility) is an approved, but not yet constructed, wind energy generation facility consisting of up to 66 turbines and related or supporting facilities with a peak generating capacity of up to 200 megawatts (MW), to be located in an Approved Site Boundary of approximately 4,582 acres on over 42,000 acres of leased land in Morrow and Umatilla counties, Oregon. As part of Request for Amendment (RFA) 1 to the Facility Site Certificate, Wheatridge East Wind, LLC (Certificate Holder) is proposing to expand wind power generation at the Facility to provide the opportunity for increased power capacity and availability. This includes expanding the Site Boundary and micrositing corridors, increasing the peak generating capacity by adding more and newer turbines, change the intraconnection routes, and extending the construction date. See the RFA 1's Division 27 document (*Request for Amendment #1 for the Wheatridge Renewable Energy Facility East*) for a more detailed summary of the proposed changes.

This Exhibit I was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(i). Analysis in this exhibit incorporates and/or relies on reference information, analysis, and findings found in the Application for Site Certificate, previous RFAs, and Oregon Department of Energy Final Orders to demonstrate that the Facility, as modified by RFA 1, continues to comply with applicable Site Certificate conditions and the approval standard in OAR 345-022-0022.

2.0 Analysis Area

The Analysis Area for soil resources is the Amended Site Boundary (Figure I-1). The Amended Site Boundary is inclusive of portions of the Approved Site Boundary.

3.0 Identification and Description of Soil Types – OAR 345-021-0010(1)(i)(A)

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:

OAR 345-021-0010(1)(i)(A) Identification and description of the major soil types in the analysis area.

The Soil Survey Geographic Database for Morrow and Umatilla counties in Oregon (NRCS 2021) was used to identify the near-surface soils in the Analysis Area. The survey describes the soils in the top 7 feet of subsurface and the areas land-use classifications. According to the Natural Resources

Conservation Service (NRCS; NRCS 2021), there are 63 major soil types (soil units) in the Analysis Area (Table I-1; Figure I-1).

The eight soil units that make up 5 percent or more of the Analysis Area are as follows:

- **Lickskillet Very Stony Loam (7–40% slopes)** — These are shallow, well-drained soils formed in stony colluvium. They are composed of loess, rock fragments and residuum weathered from basalt and rhyolite. Lickskillet soils are on uplands, about 1.4 inches thick. The erosion hazard is moderate. Most slopes in the Analysis Area are between 7 and 40 percent. The soil has low permeability and high runoff.
- **Lickskillet-Rock Outcrop Complex (40–70% slopes)** — These are shallow, well-drained soils composed of loess and colluvium from basalt. Lickskillet soils are on uplands, less than 1.4 inches thick. The erosion hazard is severe. Most slopes in the Analysis Area are between 40 and 70 percent. The soil has low permeability and high runoff.
- **Morrow Silt Loam (20–35% slopes)** — These are shallow, well-drained soils of silt loam and silty clay loam. Morrow soils are about 26 inches thick. The erosion hazard is severe. Most slopes in the Analysis Area are between 20 and 35 percent. The soil has moderate permeability and moderately high runoff.
- **Bakeoven-Morrow Complex (2–20% slopes)** — These are shallow, well-drained soils formed in loess mixed with residuum weathered from basalt. The soil is very cobbly loam and extremely cobbly loam. Bakeoven-Morrow complex soils are on uplands, about 7 inches thick. The erosion hazard is moderate. Most slopes in the Analysis Area are between 2 and 20 percent. The soil has low permeability and high runoff.
- **Rhea Silt Loam (20–35% slopes)** — These are well-drained soils formed in loess mixed with small amounts of volcanic ash. The soil is silt loam. Rhea silt loam soils are on uplands, more than 76 inches thick. The erosion hazard is severe. Most slopes in the Analysis Area are between 20 and 35 percent. The soil has high permeability and moderately low runoff.
- **Rhea Silt Loam (35–50% slopes)** — These are deep, well-drained soils formed in loess mixed with small amounts of volcanic ash. The soil is silt loam. Rhea silt loam soils are on uplands, more than 76 inches thick. The erosion hazard is severe. Most slopes in the Analysis Area are between 35 and 50 percent. The soil has high permeability and moderately low runoff.
- **Bakeoven-Valby Complex (12–20% slopes)** — These are shallow, well-drained soils formed in loess over basalt and loess mixed with residuum weathered from basalt. The soil is silt loam, very cobbly loam, and extremely cobbly loam. Bakeoven-Valby complex soils are on uplands, between 7 and 30 inches thick. The erosion hazard is moderate. Most slopes in the Analysis Area are between 2 and 20 percent. The soil has low permeability and high runoff.

- **Valby Silt Loam (12–20% slopes)** — These are shallow, well-drained soils formed in loess over basalt and consisting of silt loam. Valby silt loam soils are on hillslopes, about 30 inches thick. The erosion hazard is severe. Most slopes in the Analysis Area are between 12 and 20 percent. The soil has moderate permeability and moderately high runoff.

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Table I-1. General Description of Mapped Soil Units in the Amended Site Boundary

Soil Type ID	Soil Unit	Setting Within Amended Site Boundary	Approximate Thickness (feet)	Formation Setting	Permeability	Runoff	Hazard for Erosion	Wind Erosion Rating ¹	K-factor ¹	Percent of Amended Site Boundary
11	Endersby fine sandy loam	-	> 7	alluvium from loess and volcanic ash	Very High	Low	Slight	3	(0.17-0.32)	0.41
12	Esquatzel silt loam	-	> 7	silty alluvium	High	Moderately Low	Slight	2	(0.64-0.64)	0.05
121B	Willis silt loam	2–7% slopes	> 7	loess over cemented alluvium	Moderate	Moderately High	Moderate	5	(0.55-0.64)	0.06
121D	Willis silt loam	12–30% slopes	> 7	loess over cemented alluvium	Moderate	Moderately High	Severe	5	(0.55-0.64)	0.16
15B	Burke silt loam	1–7 % slopes	> 7	loess over strongly cemented alluvium	Moderate	Moderately High	Moderate	5	(0.55-0.64)	0.33
15C	Burke silt loam	7–12% slopes	> 7	loess over strongly cemented alluvium	Moderate	Moderately High	Severe	5	(0.55-0.64)	0.33
18B	Condon silt loam	1–7% slopes	76	loess	Moderate	Moderately High	Moderate	6	(0.43-0.49)	0.00
18C	Condon silt loam	7–12% slopes	76	loess	Moderate	Moderately High	Severe	6	(0.43-0.49)	0.10
19D	Condon silt loam	12–20% north slopes	76	loess	Moderate	Moderately High	Severe	6	(0.43-0.49)	0.00
22	Kimberly fine sandy loam	-	> 7	mixed alluvium	Very High	Low	Slight	3	(0.28-0.32)	0.10
28E	Lickskillet very stony loam	7–40% slopes	43	loess mixed with colluvium from basalt	Low	High	Moderate	7	(0.37-0.43)	19.41
29F	Lickskillet-Rock outcrop complex	40–70% slopes	0	loess mixed with colluvium from basalt	Low	High	Severe	7	(0.37-0.43)	9.54
2D	Bakeoven very cobbly loam	2–20% slopes	18	loess mixed with residuum weathered from basalt	Low	High	Moderate	8	(0.37-0.43)	2.07
30B	Mikkalo silt loam	2–7% slopes	89	loess	Moderate	Moderately High	Moderate	5	(0.49-0.64)	1.01
30C	Mikkalo silt loam	7–12% slopes	89	loess	Moderate	Moderately High	Severe	5	(0.49-0.64)	0.51
30D	Mikkalo silt loam	12–20% slopes	89	loess	Moderate	Moderately High	Severe	5	(0.49-0.64)	0.06
31B	Morrow silt loam	1–7% slopes	66	loess	Moderate	Moderately High	Moderate	6	(0.43-0.55)	0.55
31C	Morrow silt loam	7–12% slopes	66	loess	Moderate	Moderately High	Severe	6	(0.43-0.55)	0.46
32D	Morrow silt loam	12–20% north slopes	66	loess	Moderate	Moderately High	Severe	6	(0.43-0.55)	0.53
32E	Morrow silt loam	20–35% north slopes	66	loess	Moderate	Moderately High	Severe	6	(0.43-0.55)	4.56
33E	Morrow silt loam	20–30% south slopes	66	loess	Moderate	Moderately High	Severe	6	(0.43-0.55)	0.96
34F	Nansene silt loam	35–70% slopes	114	loess	High	Moderately Low	Severe	5	(0.43-0.64)	0.67
35	Onyx silt loam	-	> 7	silty alluvium	High	Moderately Low	Slight	5	(0.43-0.49)	1.18
36	Pedigo silt loam	-	> 7	silty alluvium mixed with volcanic ash	Moderate	Moderately High	Slight	5	(0.43-0.55)	0.35
3D	Bakeoven-Morrow complex	2–20% slopes	18	loess; loess mixed with residuum weathered from basalt	Low	High	Moderate	6	(0.37-0.55)	6.57
43A	Kimberly silt loam	0–3% slopes	> 7	mixed alluvium	Very High	Low	Slight	5	(0.32-0.49)	0.10
43B	Rhea silt loam	1–7% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Moderate	6	(0.43-0.49)	0.08
43C	Rhea silt loam	7–12% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	6	(0.43-0.49)	0.31
43D	Rhea silt loam	12–20% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	6	(0.43-0.49)	1.48
43E	Rhea silt loam	20–35% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	6	(0.43-0.49)	6.25
43F	Rhea silt loam	35–50% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	6	(0.43-0.49)	7.11

Soil Type ID	Soil Unit	Setting Within Amended Site Boundary	Approximate Thickness (feet)	Formation Setting	Permeability	Runoff	Hazard for Erosion	Wind Erosion Rating ¹	K-factor ¹	Percent of Amended Site Boundary
45B	Ritzville silt loam	2–7% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Moderate	5	(0.49-0.64)	0.65
45C	Ritzville silt loam	7–12% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	5	(0.49-0.64)	0.17
45D	Ritzville silt loam	12–20% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	5	(0.49-0.64)	0.06
47E	Ritzville silt loam	20–40% south slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	5	(0.49-0.64)	0.01
48E	Licksillet very stony loam	7–40% slopes	46	loess mixed with colluvium from basalt	Low	High	Moderate	7	(0.37-0.37)	0.66
49F	Licksillet-Nansene association	35–70% slopes	46	loess; loess mixed with residuum weathered from basalt	Low	High	Severe	5	(0.37-0.55)	0.00
4D	Bakeoven-Valby complex	2–20% slopes	18	loess mixed with residuum weathered from basalt; loess over basalt	Low	High	Moderate	6	(0.37-0.55)	4.93
50F	Licksillet-Rock outcrop complex	40–70% slopes	0	loess mixed with colluvium from basalt	Low	High	Severe	8	(0.37-0.37)	0.38
54B	Mikkalo silt loam	2–7% slopes	56	loess	Moderate	Moderately High	Moderate	5	(0.49-0.64)	0.33
54C	Mikkalo silt loam	7–12% slopes	56	loess	Moderate	Moderately High	Severe	5	(0.49-0.64)	0.80
54D	Mikkalo silt loam	12–20% slopes	56	loess	Moderate	Moderately High	Severe	5	(0.49-0.64)	0.49
54E	Mikkalo silt loam	20–35% slopes	56	loess	Moderate	Moderately High	Severe	5	(0.49-0.64)	0.00
59D	Morrow-Bakeoven complex	2–20% slopes	20	loess	Moderate	Moderately High	Severe	6	(0.32-0.55)	0.00
60F	Nansene silt loam	35–70% slopes	> 7	loess	High	Moderately Low	Severe	5	(0.43-0.55)	0.00
63B	Valby silt loam	1–7% slopes	76	loess over basalt	Moderate	Moderately High	Moderate	5	(0.43-0.55)	2.94
63C	Valby silt loam	7–12% slopes	76	loess over basalt	Moderate	Moderately High	Severe	5	(0.43-0.55)	3.49
64D	Valby silt loam	12–20% north slopes	76	loess over basalt	Moderate	Moderately High	Severe	5	(0.43-0.55)	6.32
65D	Valby silt loam	12–20% south slopes	76	loess over basalt	Moderate	Moderately High	Severe	5	(0.43-0.55)	2.13
65E	Valby silt loam	20–30% south slopes	76	loess over basalt	Moderate	Moderately High	Severe	5	(0.43-0.55)	2.44
75B	Willis silt loam	2–5% slopes	> 7	loess over cemented alluvium	Moderate	Moderately High	Moderate	5	(0.55-0.64)	0.96
75C	Willis silt loam	5–12% slopes	> 7	loess over cemented alluvium	Moderate	Moderately High	Severe	5	(0.55-0.64)	0.02
77F	Wrentham-Rock outcrop complex	35–70% slopes	0	loess mixed with colluvium derived from basalt	Moderate	Moderately High	Severe	6	(0.28-0.49)	0.87
78	Xeric Torriorthents	nearly level	> 7	eolian sands and alluvium	Very High	Low	Slight	3	(0.15-0.32)	1.33
80B	Ritzville silt loam	2–7% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Moderate	3	(0.49-0.64)	0.12
80D	Ritzville silt loam	12–25% slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	3	(0.49-0.64)	0.51
80F	Licksillet-Nansene association	35–70% slopes	46	loess; loess mixed with colluvium from basalt	Low	High	Severe	5	(0.37-0.55)	0.04
81E	Ritzville silt loam	25–40% north slopes	> 7	loess mixed with small amounts of volcanic ash	High	Moderately Low	Severe	3	(0.49-0.64)	0.31
82B	Condon silt loam	1–7% slopes	76	loess	Moderate	Moderately High	Moderate	6	(0.43-0.49)	0.05
83D	Condon silt loam	12–20% north slopes	76	loess	Moderate	Moderately High	Severe	6	(0.43-0.49)	0.14
85C	Condon silt loam	7–12% slopes	76	loess	Moderate	Moderately High	Severe	6	(0.43-0.49)	0.31
89B	Shano silt loam	2–7% slopes	> 7	loess over calcareous, lacustrine deposits	High	Moderately Low	Moderate	5	(0.55-0.64)	2.81
89C	Shano silt loam	7–12% slopes	> 7	loess over calcareous, lacustrine deposits	High	Moderately Low	Severe	5	(0.55-0.64)	1.46

Soil Type ID	Soil Unit	Setting Within Amended Site Boundary	Approximate Thickness (feet)	Formation Setting	Permeability	Runoff	Hazard for Erosion	Wind Erosion Rating ¹	K-factor ¹	Percent of Amended Site Boundary
<div>1. A wind erodibility group 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. 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 and the Revised Universal Soil Loss Equation 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 silt, sand, and organic matter percentage and on soil structure and saturated hydraulic conductivity. 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</div>										

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4.0 Current Land Use within the Analysis Area – OAR 345-021-0010(1)(i)(B)

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 Analysis Area is zoned Exclusive Farm Use by Morrow County (see Exhibit K). It is private agricultural land generally used for dryland wheat production or as rangeland. The analysis area includes some areas with soils defined as High Value Farmland by the NRCS (2021). See Exhibit K for a definition and analysis of the High Value Farmland present within the analysis area.

5.0 Facility Soil Impacts – OAR 345-021-0010(1)(i)(C)

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 Soil Impacts During Construction

Facility construction will require many activities that could adversely impact soils including:

- Clearing and grubbing vegetation around temporary construction areas, turbine pads, the Intraconnection Line, the battery energy storage system foundation, collector circuits, substation construction areas, and new access roads;
- Constructing new access roads;
- Operating and moving cranes;
- Using heavy equipment and hauling trucks to delivery aggregates, concrete, water, turbine components, cranes, and construction supplies; and
- Fueling or maintaining construction equipment or vehicles.

While the Facility would permanently impact up to approximately 149 acres of soil, construction would temporarily disturb up to approximately 1,045 acres. Soil impacts from construction, like erosion, would be limited by:

- Avoiding sensitive soil areas whenever practical;
- Maintaining a Spill Prevention Control and Countermeasures Plan (Conditions PRE-SP-01 and PRO-SP-01);

- Implementing appropriate site restoration practices following construction (Condition PRE-SP-02); and
- Implementing the erosion and sediment control best management practices (BMPs) in the final Erosion and Sediment Control Plan (ESCP), as required by the National Pollutant Discharge Elimination System Construction Stormwater Discharge General permit 1200-C (Conditions CON-SP-01 and CON-SP-02; see Attachment I-1 for the draft ESCP; the Certificate Holder will apply for the permit before construction via the Oregon Department of Environmental Quality's online Your DEQ Online platform¹).

5.2 Soil Impacts During Operation

Turbine operation would not impact soil erosion. Following Condition OPR-SP-01, the Certificate Holder will routinely inspect and maintain all Facility components and maintain or repair erosion and sediment control measures as needed. Vehicles will stay on constructed access roads to avoid unnecessary compaction, erosion, or spill risk (Condition OPR-SP-01). Facility operations are not expected to cause any additional ground disturbances. Condition OPR-SP-01 also states that the Certificate Holder must obtain approval from the Energy Facility Siting Council (Council) before completing any significant road modification or construction. The potential for soil contamination would be limited by not maintaining substantial supplies of hazardous materials on-site, and by observing appropriate safety measures during maintenance procedures. In addition, Condition CON-SP-01 requires the Certificate Holder to provide a copy of an Oregon Department of Environmental Quality-approved operational Spill Prevention Control and Countermeasures Plan, if needed.

5.3 Soil Impacts During Decommissioning

In the event of decommissioning, erosion hazards would be similar to construction. Measures like those used in construction and operation through required Site Certificate conditions would be used to prevent and control erosion, mitigate soil compaction, prevent spills, and revegetate disturbed areas.

6.0 Mitigation Measures – OAR 345-021-0010(1)(i)(D)

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

As noted above, many Site Certificate conditions require the use of minimizing measures and BMPs throughout the construction, operation, and decommissioning (if necessary) of the Facility. The graded portions of the Analysis Area are expected to create a balanced cut-and-fill quantity of earthwork to maintain the existing conditions and protect equipment and facilities. BMPs that may

¹ <https://ordeq-edms-public.govonlinesaas.com/pub/login?web=1>

be implemented (depending on seasonal conditions, final siting, etc.) along with other measures identified in the ESCP include:

- **Stabilized Construction Entrances/Exits** – Stabilized construction entrances or exits will be installed where construction vehicles move from newly constructed roads or disturbed areas to paved roads. The stabilized construction entrances and exits will be inspected and maintained for the life of the Facility.
- **Dust Abatement Measures** – Compact filling and appropriate dust abatement measures such as restricting vehicle speeds; watering active areas stockpiles, and roadways; track-out control at site exits; and other measures may be used.
- **Preserving Existing Vegetation** – To the extent practicable, existing vegetation will be preserved. Where vegetation clearing is necessary, root systems would be conserved if possible.
- **Silt Fencing** – Silt fencing will be installed throughout the construction area as a perimeter control, material stockpile perimeter control, and on the contour downgradient of excavations.
- **Straw Wattles** – Straw wattles may be used to decrease the velocity of sheet flow stormwater to prevent erosion. Wattles will be used along the downgradient edge of access roads adjacent to slopes or sensitive areas.
- **Mulching** – Mulch will be used to stabilize areas of soil disturbance quickly and during reseeding.
- **Stabilization Matting** – Jute matting, straw matting, or turf reinforcement matting may be used with mulching to stabilize steep slopes exposed during access road installation.
- **Soil Binders and Tackifiers** – Soil binders and tackifiers may be used on exposed slopes to stabilize them until vegetation is established.
- **Concrete Washout Area** – Concrete chutes and trucks will be washed out in dedicated areas near foundation construction locations. This will keep concrete washout water in a localized area. Soil excavated for the concrete washout area will be used as backfill for the completed footing to ensure that the surface soils maintain infiltration capacity.
- **Stockpile Management** – Soil from excavations will be temporarily stockpiled and used onsite. Soils will be stockpiled and reused to prevent productive topsoils from mixing with deeper subsoils. Silt fence will be installed around the stockpile material as a perimeter control. Mulch or plastic sheeting will be used to cover the stockpiled material, if needed. Stockpiles will be watered, if needed, to reduce erosion.
- **Revegetation** – The site will be revegetated with an approved seed mix after construction activities. When required, the seed will be applied with mulch or stabilization matting to protect the growing grass seed. Revegetation will occur as soon as is practicable following construction.

- **Check Dams and Sediment Traps** – Check dams and sediment traps will be used during the construction of low-impact ford crossings or culvert installations. The check dams and sediment traps will minimize downstream sedimentation during the construction of the stream crossings.
- **Pollutant Management** – During construction, source control measures will be implemented to minimize the likelihood of chemicals polluting surface water or groundwater. Chemical pollution could occur as a release of diesel fuel or lubricating oils or improper debris and waste handling. Small quantities of fuels and oils may be kept onsite in a dedicated area during construction and operation. Construction vehicles will be fueled and maintained only in dedicated areas. Any spills would be cleaned up immediately.
- **Construction Timing** – Whenever possible, construction activities will be scheduled in the dry season when soils are less susceptible to compaction. Similarly, soil disturbance will be postponed when soils are excessively wet (e.g., following a precipitation event).

7.0 Monitoring Program – OAR 345-021-0010(1)(i)(E)

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

As discussed in Section 5.1, Conditions CON-SP-01 and CON-SP-02 require the Certificate Holder to implement a final ESCP including construction monitoring requirements as approved by Oregon Department of Environmental Quality. In addition, Section 5.2 identified Condition OPR-SP-01, which requires the Certificate Holder to inspect and maintain all Facility components routinely, and, as necessary, maintain or repair erosion and sediment control measures.

8.0 Conclusions

During construction, the potential for soil erosion and contamination will be minimized by avoiding problematic areas to the extent practical and by adhering to the Site Certificate conditions outlined above. Specific construction and site restoration practices will mitigate construction impacts on soil productivity. There will be no adverse impacts on productive farmland soils except where permanent impacts are proposed. Considering the existing Site Certificate conditions, Council may conclude that the design, construction, and operation of the proposed Facility is unlikely to have a significant, adverse impact on soils.

9.0 References

NRCS (Natural Resources Conservation Service). 2021. Soil Survey Staff. Gridded Soil Survey Geographic (SSURGO) Database for Oregon. United States Department of Agriculture, Natural Resources Conservation Service. October 2021. Available online at <https://gdg.sc.egov.usda.gov/>.

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Figures

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Wheatridge
Renewable
Energy Facility East

Figure I-1
Soil Type
Index Map

MORROW AND UMATILLA COUNTIES, OR

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



Reference Map



P:\GIS\PROJECTS\NextEra\Wheatridge_East\Maps__RFA\1\Exhibit_1\NextEra_WheatridgeEast_Exhibit1_Layout_11171_20220922.aprx

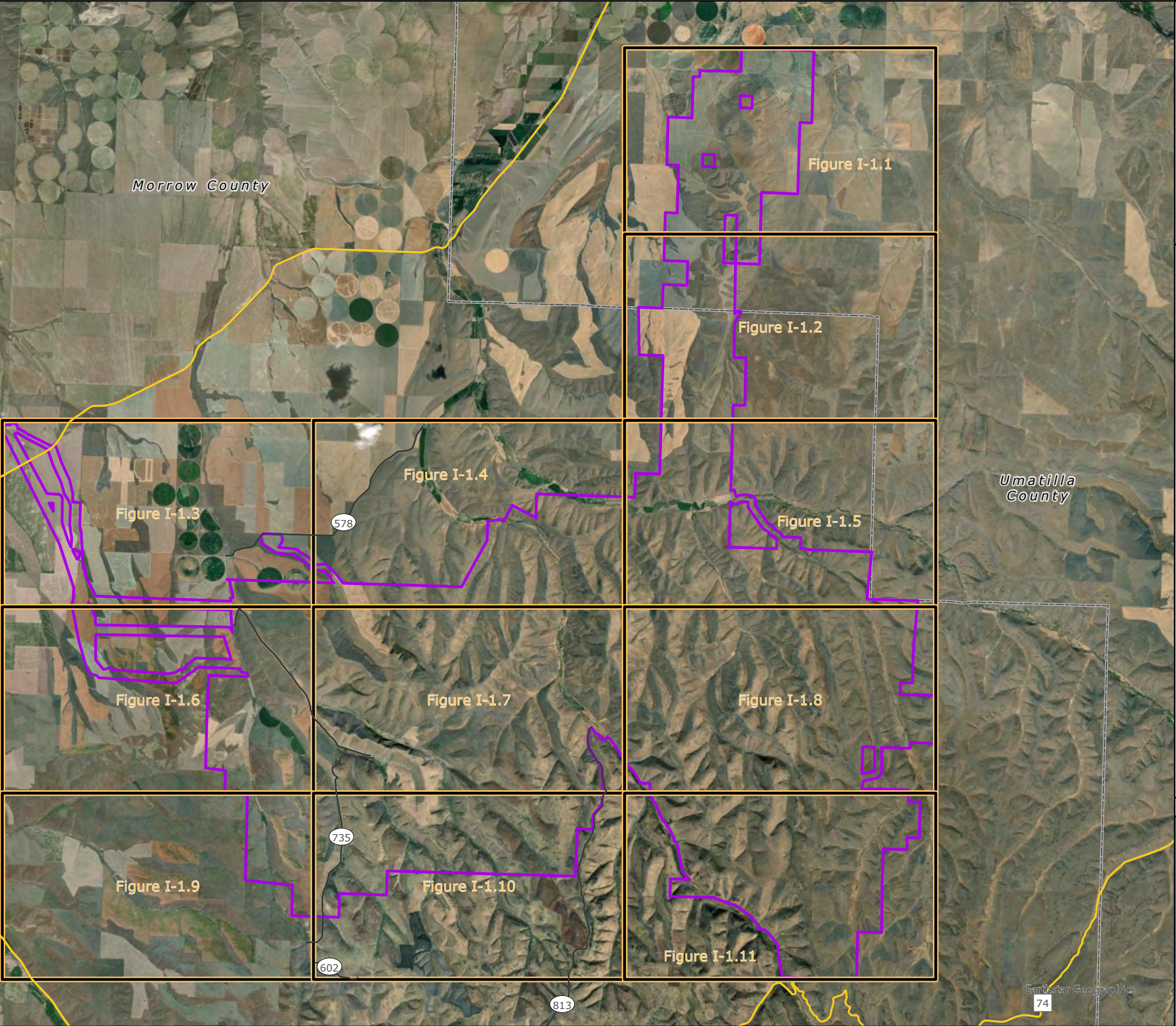


1:135,000

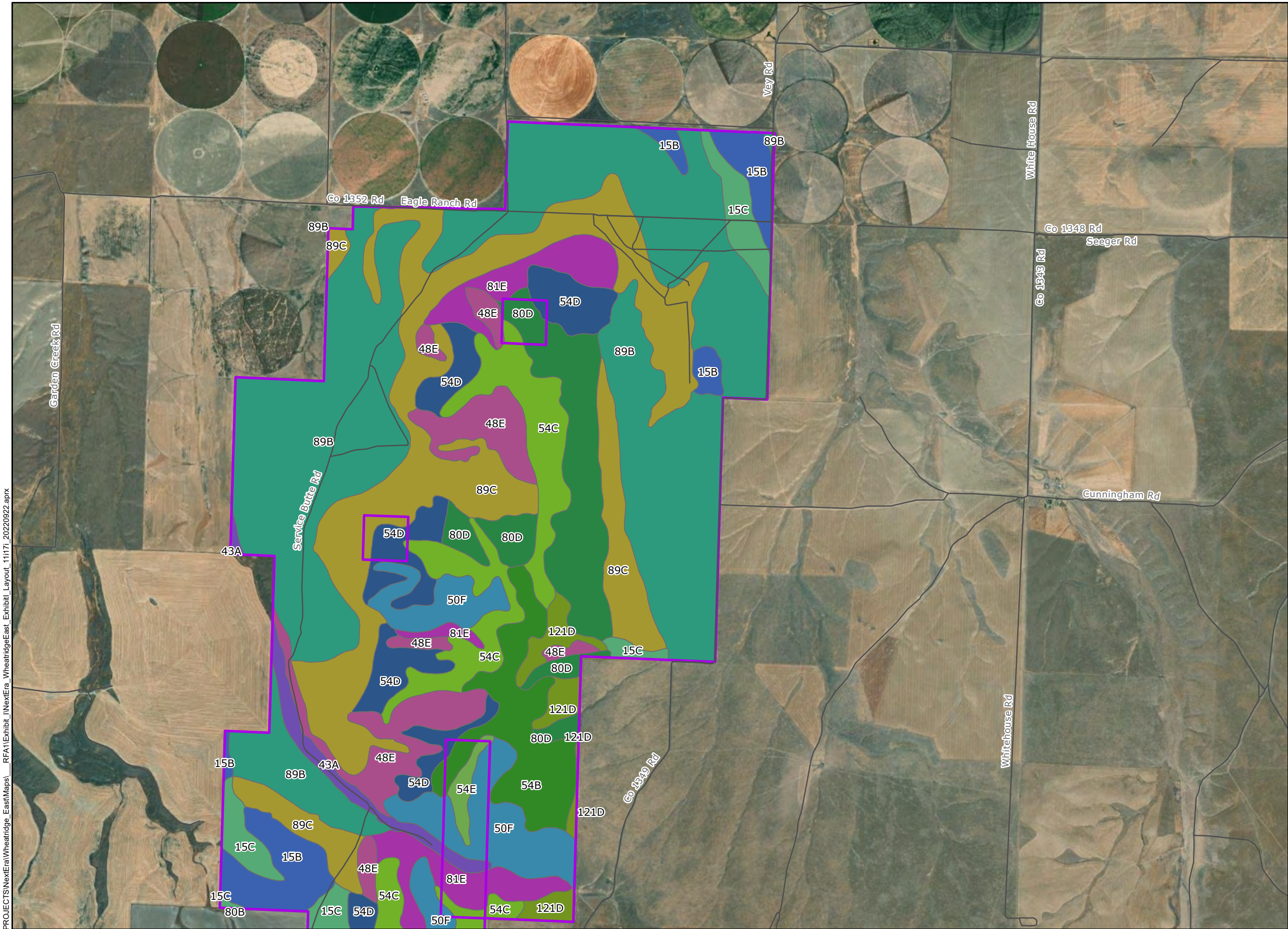
WGS 1984 UTM Zone 11N

0 1 2 4 6 8 Miles

NOT FOR CONSTRUCTION



P:\GIS\PROJECTS\NextEra\Wheatridge_East\Map\1_RFA\1\Exhibit_1\NextEra_WheatridgeEast_Exhibit_Layout_11171_20220922.aprx



Wheatridge Renewable Energy Facility East

Figure I-1.1 Soil Type

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- Local Roads

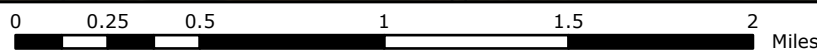
Soil Map Unit

- 121D
- 15B
- 15C
- 43A
- 48E
- 50F
- 54B
- 54C
- 54D
- 54E
- 80B
- 80D
- 81E
- 89B
- 89C



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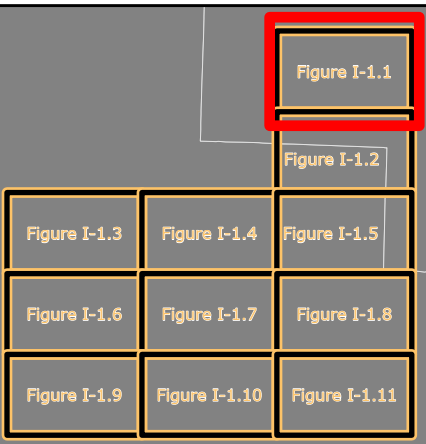

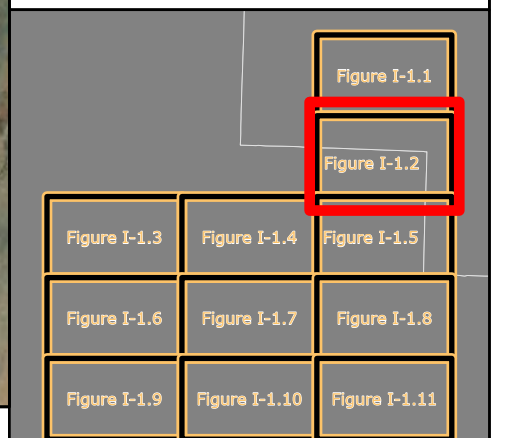


























Figure I-1.2 Soil Type

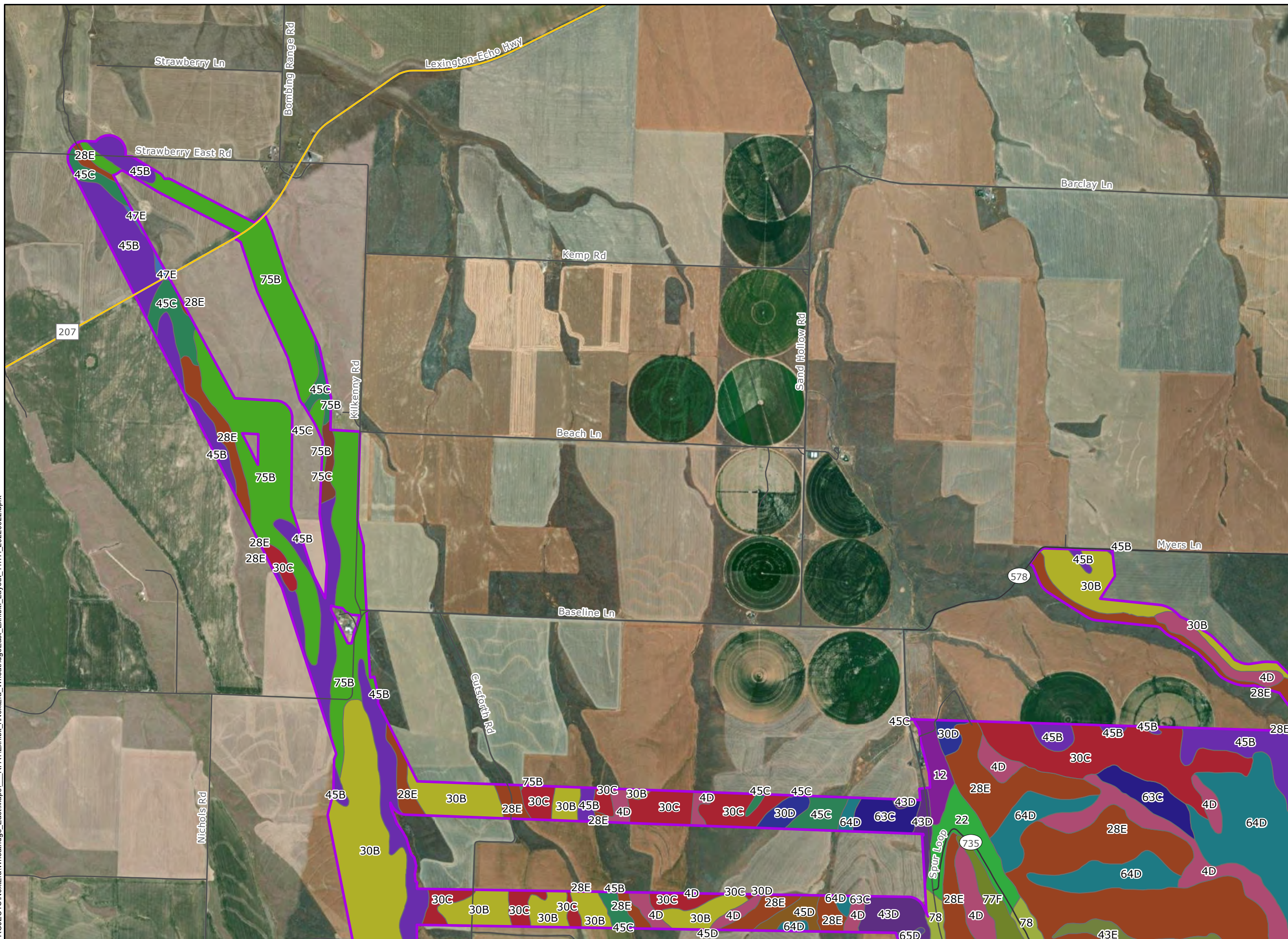
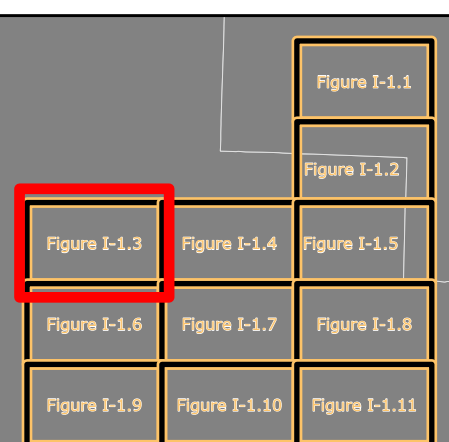
 Amended Site Boundary
 Local Roads



**Figure I-1.3
Soil Type**

 Amended Site Boundary
 State Highway
 County Highway
 Local Roads

Soil Map Unit		45D
	12	 47E
	22	 4D
	28E	 63C
	30B	 64D
	30C	 65D
	30D	 75B
	43D	 75C
	43E	 77F
	45B	 78
	45C	



NOT FOR CONSTRUCTION

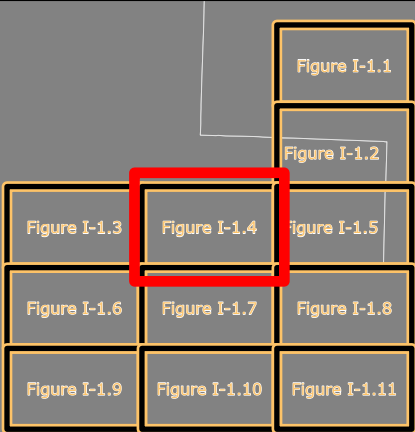
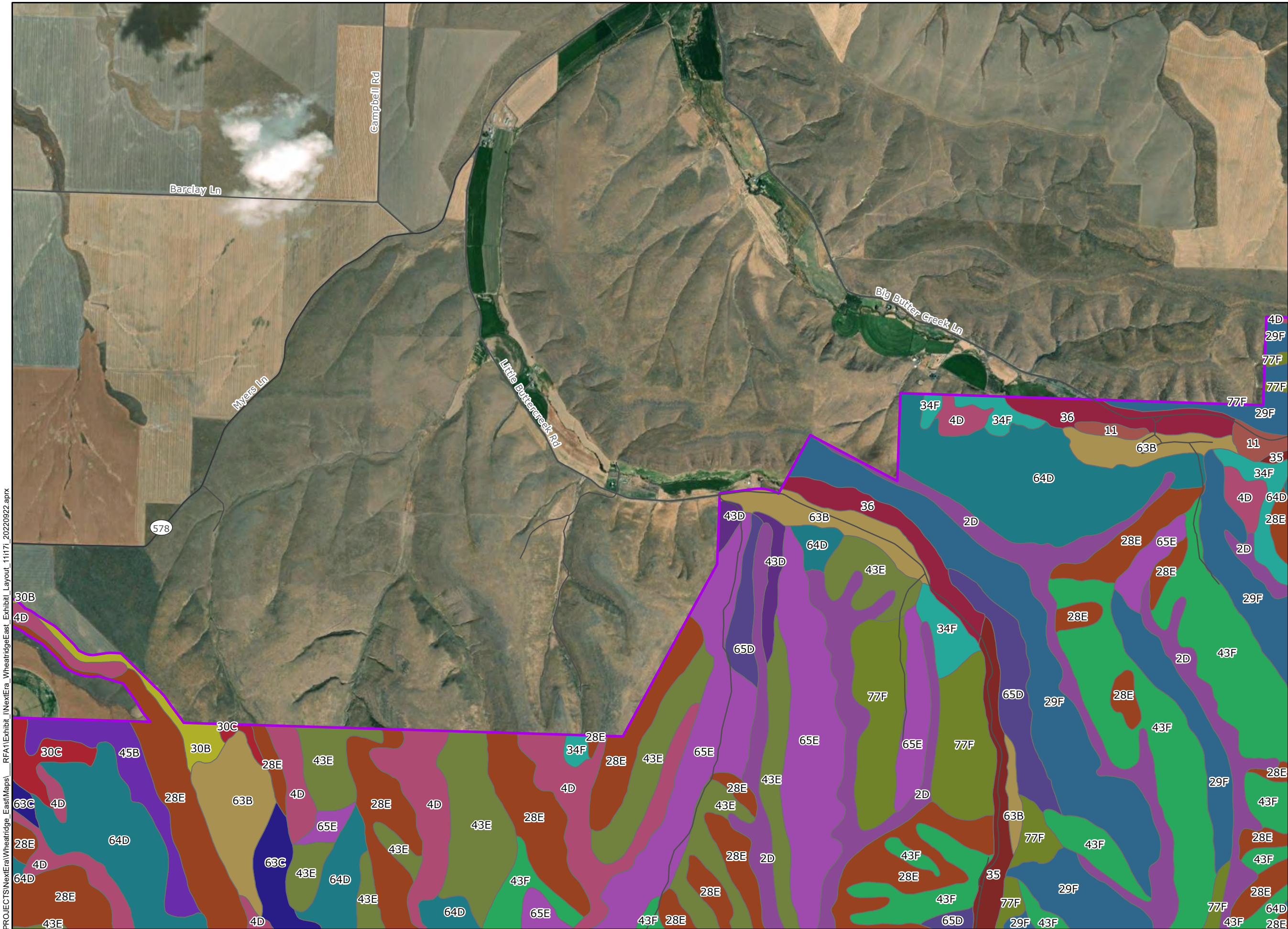
Wheatridge
Renewable
Energy Facility East

Figure I-1.4
Soil Type

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- County Highway
- Local Roads

Soil Map Unit	
11	43E
28E	43F
29F	45B
2D	4D
30B	63B
30C	63C
34F	64D
35	65D
36	65E
43D	77F

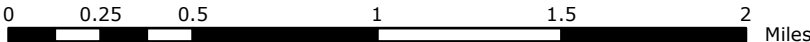


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Wheatridge
Renewable
Energy Facility East

Figure I-1.5
Soil Type

MORROW AND UMATILLA COUNTIES, OR

Amended Site Boundary

Local Roads

Soil Map Unit	
11	43F
28E	48E
29F	49F
2D	4D
32E	50F
34F	59D
35	60F
36	63B
3D	63C
43B	64D
43C	65D
43D	65E
43E	77F
	80F



Figure I-1.3

Figure I-1.4

Figure I-1.5

Figure I-1.6

Figure I-1.7

Figure I-1.8

Figure I-1.9

Figure I-1.10

Figure I-1.11



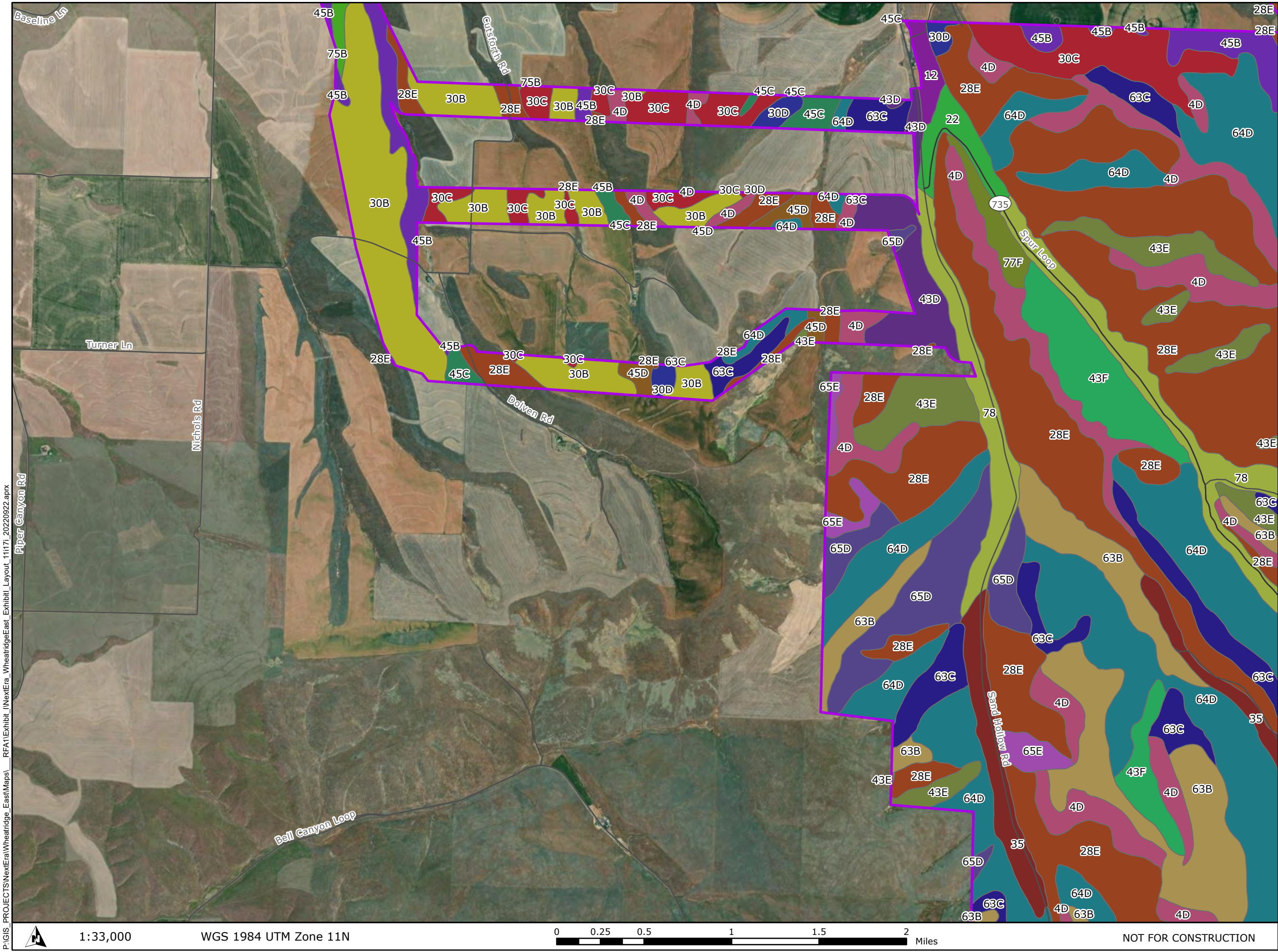
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0 0.25 0.5 1 1.5 2 Miles

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Wheatridge Renewable Energy Facility East

Figure I-1.6 Soil Type

MORROW AND UMATILLA COUNTIES, OR

Amended Site Boundary

County Highway

Local Roads

Soil Map Unit

12	45D
22	4D
28E	63B
30B	63C
30C	64D
30D	65D
35	65E
43D	75B
43E	77F
43F	78
45B	

TETRA TECH

NEXTera ENERGY RESOURCES

Figure I-1.1

Figure I-1.2

Figure I-1.3

Figure I-1.4

Figure I-1.5

Figure I-1.6

Figure I-1.7

Figure I-1.8

Figure I-1.9

Figure I-1.10

Figure I-1.11

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WGS 1984 UTM Zone 11N

0 0.25 0.5 1 1.5 2 Miles

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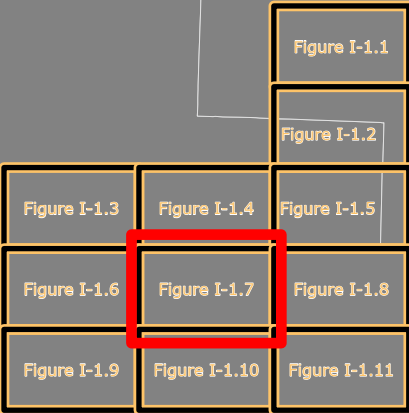
Wheatridge
Renewable
Energy Facility East

Figure I-1.7
Soil Type

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
County Highway
Local Roads

Soil Map Unit	
11	43E
28E	43F
29F	45B
2D	4D
30B	63B
30C	63C
31B	64D
32E	65D
34F	65E
35	77F
3D	78
43D	W



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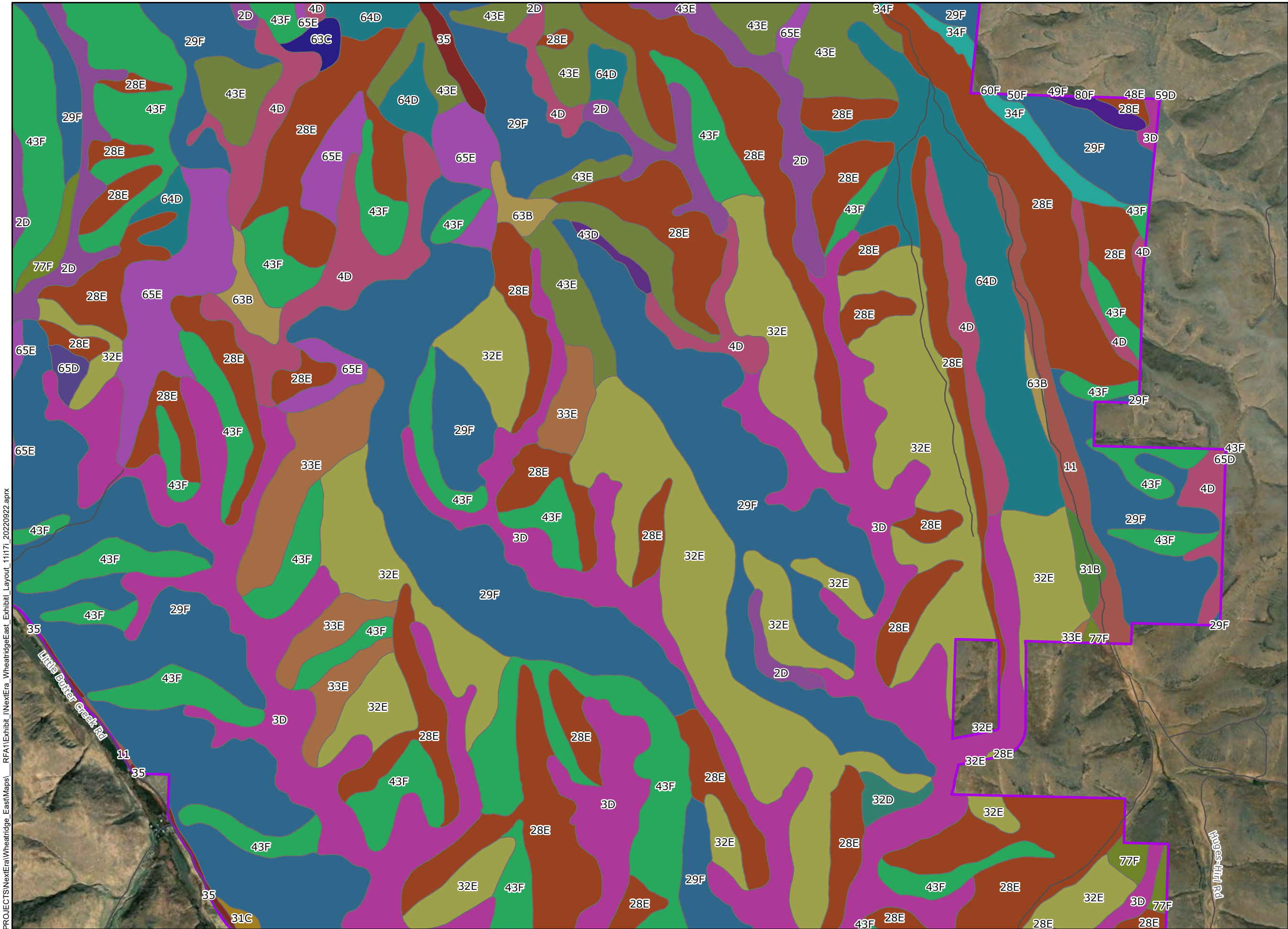
WGS 1984 UTM Zone 11N

0 0.25 0.5 1 1.5 2 Miles

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Wheatridge Renewable Energy Facility East

Figure I-1.8 Soil Type

MORROW AND UMATILLA COUNTIES, OR

Amended Site Boundary
 Local Roads

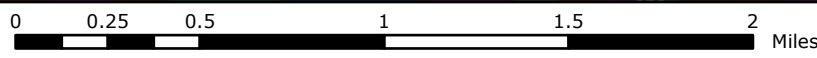
Soil Map Unit

	43F
	11
	48E
	28E
	49F
	29F
	2D
	4D
	50F
	31B
	59D
	31C
	60F
	32D
	63B
	32E
	63C
	33E
	64D
	34F
	65D
	35
	65E
	3D
	77F
	43D
	80F
	43E

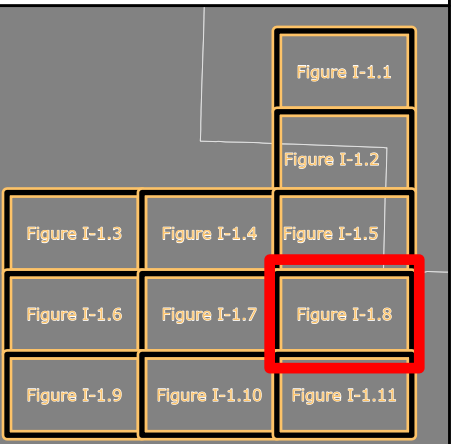


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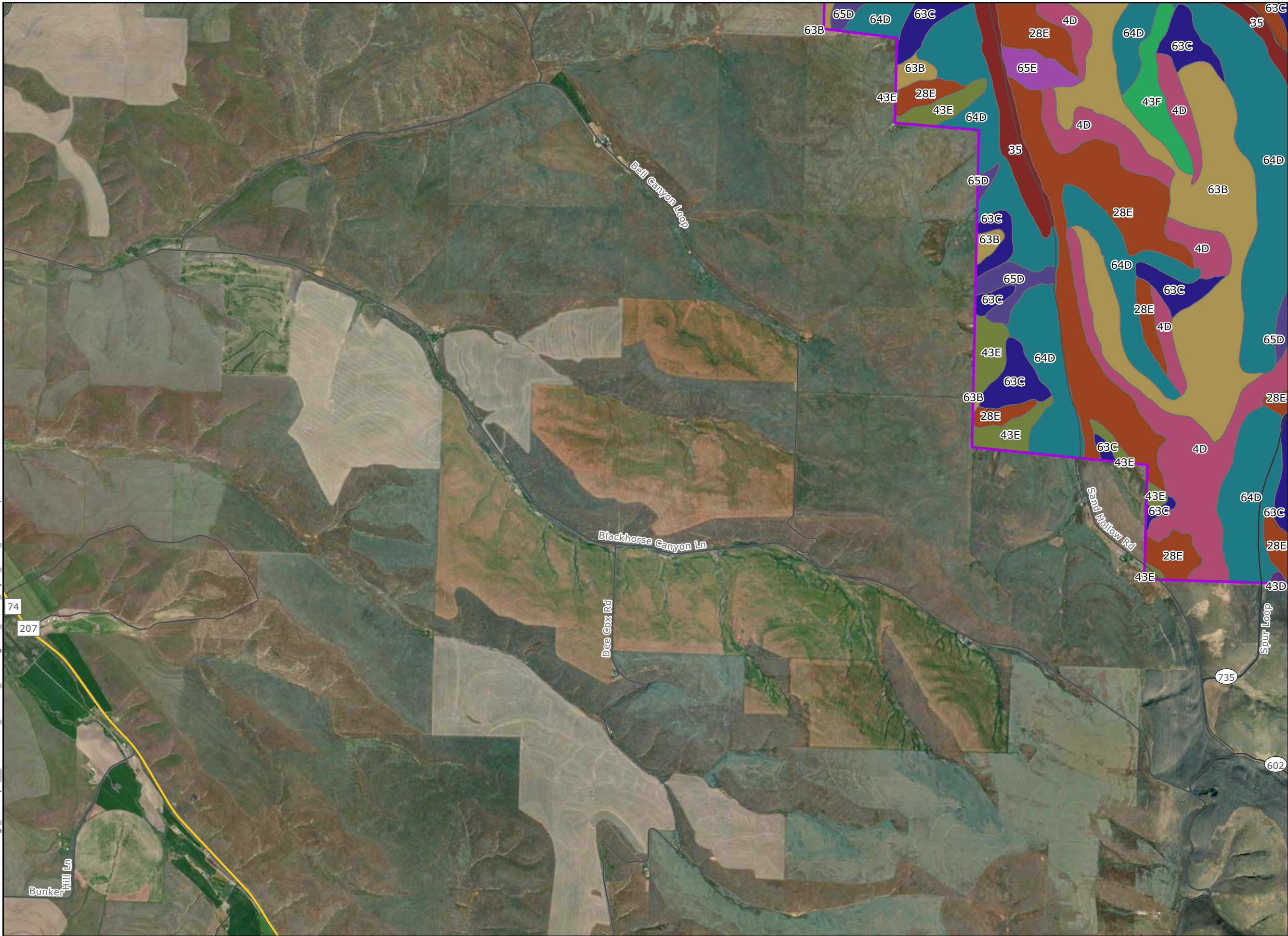
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Wheatridge Renewable Energy Facility East

Figure I-1.9 Soil Type

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- State Highway
- County Highway
- Local Roads

Soil Map Unit

- 28E
- 35
- 43D
- 43E
- 43F
- 4D
- 63B
- 63C
- 64D
- 65D
- 65E

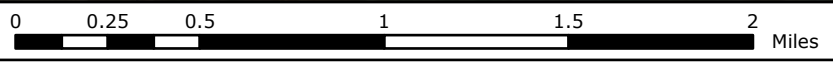


		Figure I-1.1
		Figure I-1.2
Figure I-1.3	Figure I-1.4	Figure I-1.5
Figure I-1.6	Figure I-1.7	Figure I-1.8
Figure I-1.9	Figure I-1.10	Figure I-1.11



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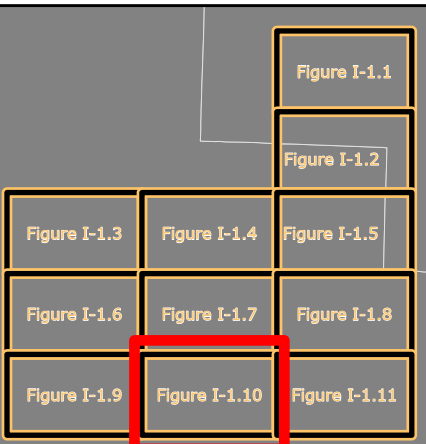
Wheatridge Renewable Energy Facility East

Figure I-1.10
Soil Type

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- County Highway
- Local Roads

Soil Map Unit	
11	43D
28E	43E
29F	43F
2D	4D
31B	63B
31C	63C
32D	64D
32E	65D
35	78
3D	W

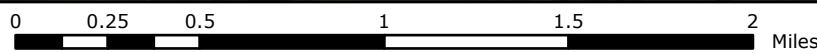


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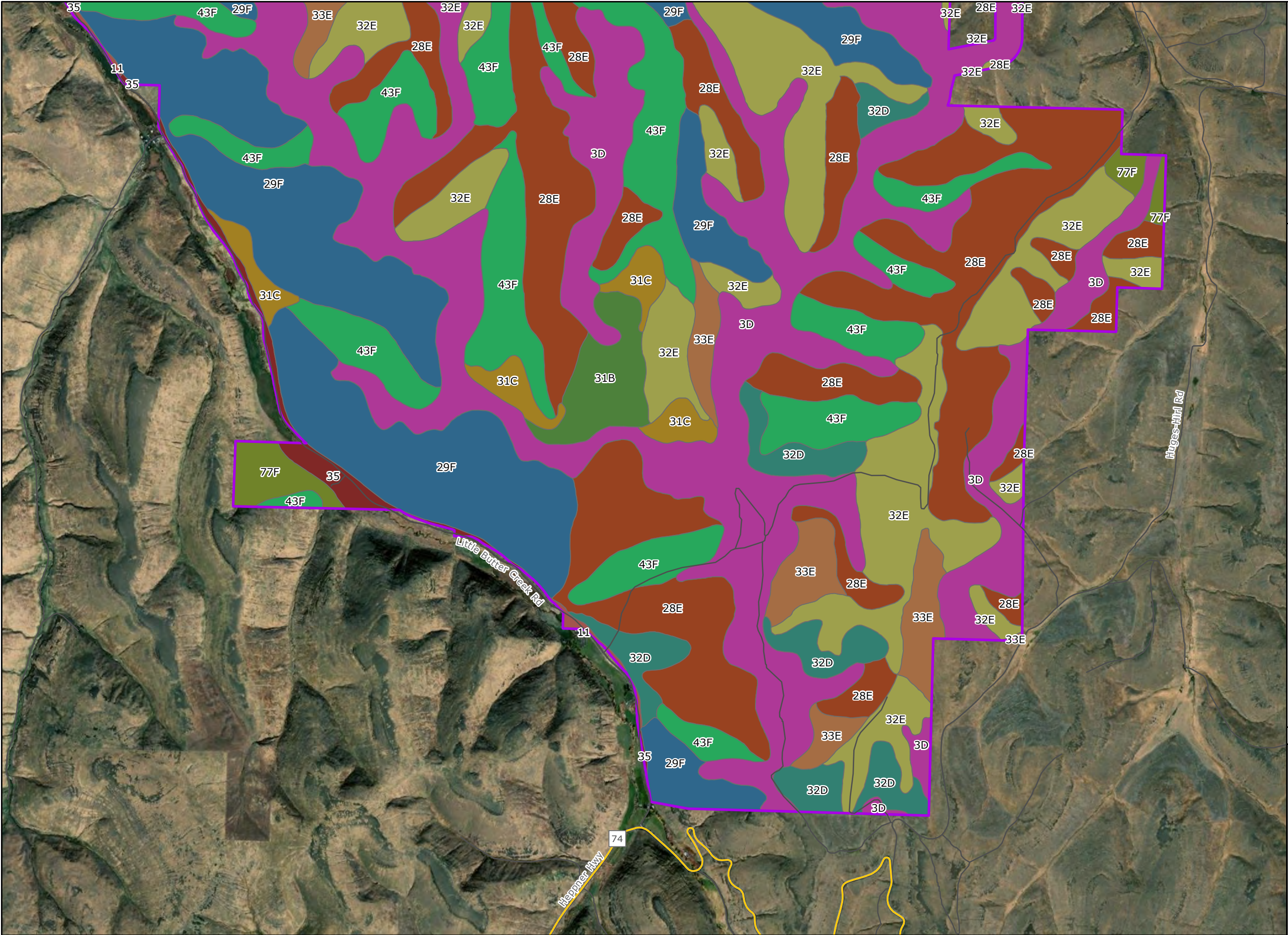
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**Wheatridge
Renewable
Energy Facility East**

**Figure I-1.11
Soil Type**

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- State Highway
- Local Roads

Soil Map Unit

- 11
- 28E
- 29F
- 31B
- 31C
- 32D
- 32E
- 33E
- 35
- 3D
- 43F
- 77F



		Figure I-1.1
		Figure I-1.2
Figure I-1.3	Figure I-1.4	Figure I-1.5
Figure I-1.6	Figure I-1.7	Figure I-1.8
Figure I-1.9	Figure I-1.10	Figure I-1.11



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WGS 1984 UTM Zone 11N

0 0.25 0.5 1 1.5 2 Miles

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Soil Map Unit, Map Unit Name

- 11, Endersby fine sandy loam
- 12, Esquatzel silt loam
- 121B, Willis silt loam, 2 to 7 percent slopes
- 121D, Willis silt loam, 12 to 30 percent slopes
- 15B, Burke silt loam, 1 to 7 percent slopes
- 15C, Burke silt loam, 7 to 12 percent slopes
- 18B, Condon silt loam, 1 to 7 percent slopes
- 18C, Condon silt loam, 7 to 12 percent slopes
- 19D, Condon silt loam, 12 to 20 percent north slopes
- 22, Kimberly fine sandy loam
- 28E, Lickskillet very stony loam, 7 to 40 percent slopes
- 29F, Lickskillet-Rock outcrop complex, 40 to 70 percent slopes
- 2D, Bakeoven very cobbly loam, 2 to 20 percent slopes
- 30B, Mikkalo silt loam, 2 to 7 percent slopes
- 30C, Mikkalo silt loam, 7 to 12 percent slopes
- 30D, Mikkalo silt loam, 12 to 20 percent slopes
- 31B, Morrow silt loam, 1 to 7 percent slopes
- 31C, Morrow silt loam, 7 to 12 percent slopes
- 32D, Morrow silt loam, 12 to 20 percent north slopes
- 32E, Morrow silt loam, 20 to 35 percent north slopes
- 33E, Morrow silt loam, 20 to 30 percent south slopes
- 34F, Nansene silt loam, 35 to 70 percent slopes
- 35, Onyx silt loam
- 36, Pedigo silt loam
- 3D, Bakeoven-Morrow complex, 2 to 20 percent slopes
- 43A, Kimberly silt loam, 0 to 3 percent slopes
- 43B, Rhea silt loam, 1 to 7 percent slopes
- 43C, Rhea silt loam, 7 to 12 percent slopes
- 43D, Rhea silt loam, 12 to 20 percent slopes
- 43E, Rhea silt loam, 20 to 35 percent slopes
- 43F, Rhea silt loam, 35 to 50 percent slopes
- 45B, Ritzville silt loam, 2 to 7 percent slopes
- 45C, Ritzville silt loam, 7 to 12 percent slopes
- 45D, Ritzville silt loam, 12 to 20 percent slopes
- 47E, Ritzville silt loam, 20 to 40 percent south slopes
- 48E, Lickskillet very stony loam, 7 to 40 percent slopes
- 49F, Lickskillet-Nansene association, 35 to 70 percent slopes
- 4D, Bakeoven-Valby complex, 2 to 20 percent slopes
- 50F, Lickskillet-Rock outcrop complex, 40 to 70 percent slopes
- 54B, Mikkalo silt loam, 2 to 7 percent slopes
- 54C, Mikkalo silt loam, 7 to 12 percent slopes
- 54D, Mikkalo silt loam, 12 to 20 percent slopes
- 54E, Mikkalo silt loam, 20 to 35 percent slopes
- 59D, Morrow-Bakeoven complex, 2 to 20 percent slopes
- 60F, Nansene silt loam, 35 to 70 percent slopes
- 63B, Valby silt loam, 1 to 7 percent slopes
- 63C, Valby silt loam, 7 to 12 percent slopes
- 64D, Valby silt loam, 12 to 20 percent north slopes
- 65D, Valby silt loam, 12 to 20 percent south slopes
- 65E, Valby silt loam, 20 to 30 percent south slopes
- 75B, Willis silt loam, 2 to 5 percent slopes
- 75C, Willis silt loam, 5 to 12 percent slopes
- 77F, Wrentham-Rock outcrop complex, 35 to 70 percent slopes
- 78, Xeric Torriorthents, nearly level
- 80B, Ritzville silt loam, 2 to 7 percent slopes
- 80D, Ritzville silt loam, 12 to 25 percent slopes
- 80F, Lickskillet-Nansene association, 35 to 70 percent slopes
- 81E, Ritzville silt loam, 25 to 40 percent north slopes
- 82B, Condon silt loam, 1 to 7 percent slopes
- 83D, Condon silt loam, 12 to 20 percent north slopes
- 85C, Condon silt loam, 7 to 12 percent slopes
- 89B, Shano silt loam, 2 to 7 percent slopes
- 89C, Shano silt loam, 7 to 12 percent slopes
- W,Water

Wheatridge
Renewable
Energy Facility East

Figure I-1A
Soil Type Legend

MORROW AND UMATILLA COUNTIES, OR



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Attachment I-1. Draft Erosion and Sediment Control Plan

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NEXTERA ENERGY RESOURCES, LLC

WHEATRIDGE RENEWABLE ENERGY FACILITY EAST

EROSION AND SEDIMENT CONTROL PLAN (ESCP) DRAWINGS

1750 SW HARBOR WAY, SUITE 400

PORTLAND, OR 97201

PHONE: (503) 221-8636 FAX: (503) 227-1287



www.tetratech.com

NARRATIVE DESCRIPTIONS

PROJECT LOCATION:

APPROX. 15 MILES EAST OF LEXINGTON

MORROW & UMATILLA COUNTIES, OREGON

LATITUDE= 45°29'15" N LONGITUDE= 119°22'52" W

SITE SOIL CLASSIFICATION:

SEE SHEET ESC-1

EXISTING SITE CONDITIONS:

EXISTING CONDITIONS CONSISTS OF PRIVATE

AGRICULTURAL LAND GENERALLY USED FOR

DRYLAND WHEAT PRODUCTION OR AS

RANGELAND. THERE ARE NUMEROUS STEEP

CANYONS AND HILLS ACROSS THE SITE AS

WELL.

RECEIVING WATER BODIES:

WATERBODIES IN THE PROJECT AREA INCLUDE 2 PERENNIAL

STREAMS; BUTTER CREEK AND LITTLE BUTTER CREEK, AND

NUMEROUS INTERMITTENT/EPHEMERAL EROSIONAL

FEATURES.

PROPERTY DESCRIPTION:

LOCATED BETWEEN LEXINGTON AND PINE CITY IN

MORROW AND UMATILLA COUNTIES, OREGON.

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE:

NEXTERA TO CONSTRUCT THE WHEATRIDGE EAST WIND FARM WHICH WILL CONSIST OF:

ERECTION OF 106 2.82 MW WIND TURBINES; 94.7 MILES OF UNDERGROUND ELECTRIC COLLECTION LINES;

64 MILES OF GRAVEL ACCESS ROADS; TRANSMISSION LINE POLES WITH UP TO 26 MILES OF 230 KV LINE;

FIVE METEOROLOGICAL TOWERS; A LAYDOWN YARD; TWO PROJECT SUBSTATIONS AND UP TO 5 ACRES

OF BATTERY STORAGE SYSTEMS.

CLEARING/GRUBBING/ACCESS ROADS (DATES, FROM: FEB 2024 & TO: NOV 2024)

THE TOTAL SITE AREA FOR THE PROJECT IS APPROXIMATELY 79,666 ACRES. THE MAXIMUM PERMANENT

DISTURBED AREA IS 148.85 ACRES AND THE MAXIMUM TEMPORARY DISTURBED AREA IS 1,044.59 ACRES.

THERE WILL BE APPROXIMATELY 337,920 LINEAR FEET (64 MILES) OF ACCESS ROADS AND 60 ACRES OF

LAYDOWN YARD. THE TURBINES WILL HAVE A TEMPORARY DISTURBANCE AREA OF 223.7 ACRES AND A

PERMANENT DISTURBANCE AREA OF 8.8 ACRES. THE TWO SUBSTATIONS WILL TOTAL 7.1 ACRES AND 6.5

ACRES OF PERMANENT DISTURBANCE, AND WILL HAVE NO TEMPORARY DISTURBANCE. THE BESS AREA

WILL TOTAL 5 ACRES.

THE PERMITTEE IS REQUIRED TO MEET ALL THE CONDITIONS

OF THE 1200C PERMIT. THIS ESCP AND GENERAL CONDITIONS

HAVE BEEN DEVELOPED TO FACILITATE COMPLIANCE WITH

THE 1200C PERMIT REQUIREMENTS. IN CASES OF

DISCREPANCIES OR OMISSIONS, THE 1200C PERMIT

REQUIREMENTS SUPERCEDE REQUIREMENTS OF THIS PLAN.

SHEET INDEX

ESC-0	EROSION AND SEDIMENT CONTROL COVER SHEET
ESC-1	EROSION AND SEDIMENT CONTROL NOTES CONT'D
ESC-2	EROSION AND SEDIMENT CONTROL PLAN AREA 1
ESC-3	EROSION AND SEDIMENT CONTROL PLAN AREA 2
ESC-4	EROSION AND SEDIMENT CONTROL PLAN AREA 3
ESC-5	EROSION AND SEDIMENT CONTROL PLAN AREA 4
ESC-6	EROSION AND SEDIMENT CONTROL PLAN AREA 5
ESC-7	EROSION AND SEDIMENT CONTROL PLAN AREA 6
ESC-8	EROSION AND SEDIMENT CONTROL PLAN AREA 7
ESC-9	EROSION AND SEDIMENT CONTROL PLAN AREA 8
ESC-10	EROSION AND SEDIMENT CONTROL DETAILS
ESC-11	EROSION AND SEDIMENT CONTROL DETAILS

DEVELOPER

DEVELOPER/

COMPANY: NEXTERA ENERGY RESOURCES, LLC

CONTACT: DAVID LAWLOR

ADDRESS: 700 UNIVERSE BLVD

JUNO BEACH, FL 33408

PHONE: (403) 689-6285

EMAIL: DAVID.LAWLOR@NEXTERAENERGY.COM

PLANNING/ENGINEERING/

SURVEYING FIRM

COMPANY: TETRA TECH

CONTACT: KRISTEN GULICK

ADDRESS: 1750 SW HARBOR WAY, SUITE 400

PORTLAND, OR 97201

PHONE: (541) 740-3316

EMAIL: KRISTEN.GULICK@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, INCLUDING 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 NECESARRY 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

PROJECT LOCATION:

MORROW & UMATILLA COUNTIES, OREGON

CLIENT INFORMATION:

NEXTERA ENERGY RESOURCES, LLC

700 UNIVERSE BLVD

JUNO BEACH, FL, 33408

Tt PROJECT No.:

194-1109-0093

CLIENT PROJECT No.:

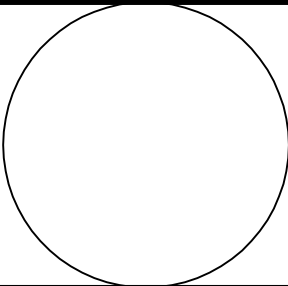
WHEATRIDGE RENEWABLE ENERGY FACILITY EAST

PROJECT DESCRIPTION / NOTES:

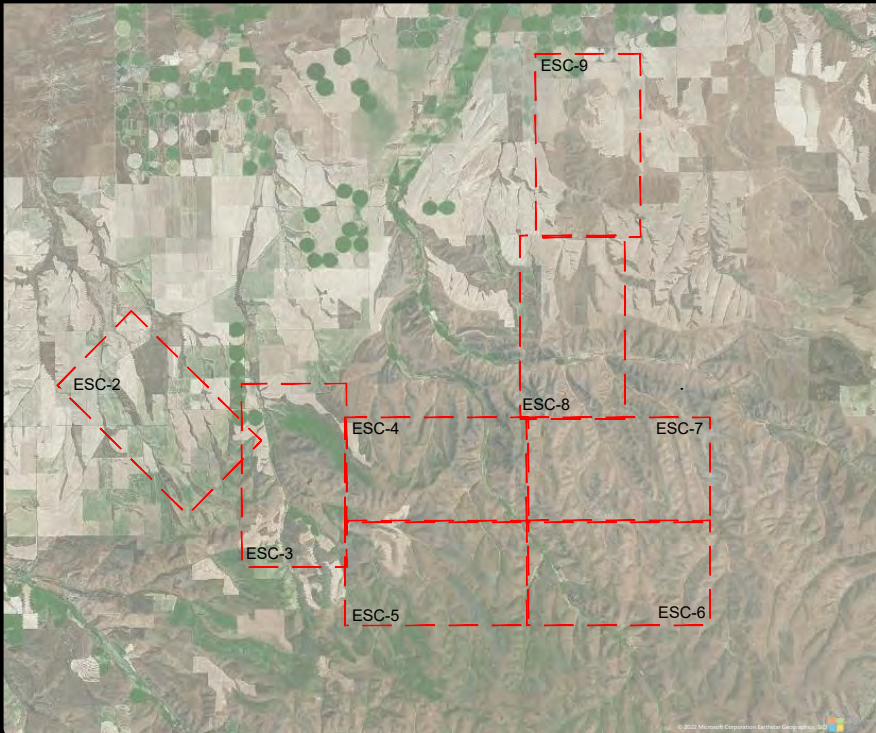
CONSTRUCT A 300 MW WIND POWER FACILITY IN MORROW AND UMATILLA COUNTIES

ISSUED:

ISSUED FOR EDQ REVIEW



VICINTY MAP



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

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E

D

C

B

A

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES:


- 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))
- ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS.
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS.
- 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)
- 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)
- 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))
- SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISIONS TO DEQ OR AGENT. (SCHEDULE A.12.C.III)
- 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))
- 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))
- 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))
- 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.I AND A.8.C)
- ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SCHEDULE A.8.C.I.(6))
- 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))
- ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SCHEDULE A.8.C.I.(7))
- 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))
- WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SCHEDULE A.7.D.II.(3))
- 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))
- 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.)
- USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SCHEDULE A.7.B.II)
- 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)
- 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)
- 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)
- 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.E.II.(2))
- CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND DURING WET WEATHER. (SCHEDULE A.7.A.I)
- 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)
- 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)
- 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)
- 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)
- 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)
- 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)
- 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)
- 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)

LOCAL AGENCY-SPECIFIC EROSION CONTROL NOTES:

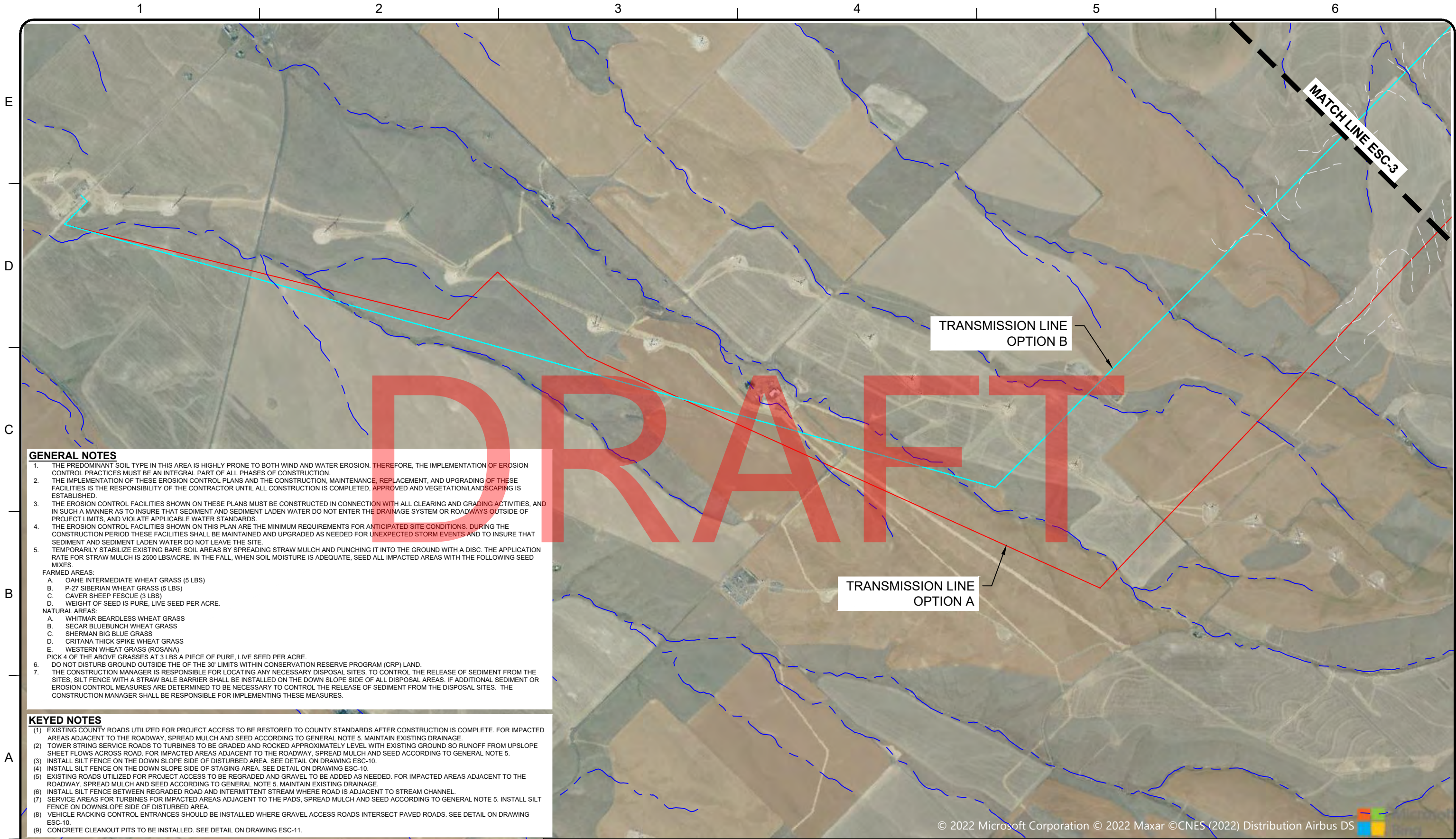
- OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
- PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY 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.
- PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPS THAT MUST BE INSTALLED ARE A GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPS MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- 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.
- 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).
- 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.
- THE ESC MEASURES SHOWN ON THIS PLAN 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.
- IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPS MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING OR OTHER APPROVED MEASURES.
- ALL EXPOSED SOILS MUST BE COVERED DURING THE WET WEATHER PERIOD.

SITE SOIL CLASSIFICATIONS:

- 2D BAKEOVEN VERY COBBLY LOAM, 2 TO 20 PERCENT SLOPES
- 3D BAKEOVEN-MORROW COMPLEX, 2 TO 20 PERCENT SLOPES
- 4D BAKEOVEN-VALBY COMPLEX, 2 TO 20 PERCENT SLOPES
- 11 ENDERSBY FINE SANDY LOAM
- 12 ESQUARTZEL SILT LOAM
- 22 KIMBERLY FIND SANDY LOAM
- 28E LICKSKILLET VERY STONY LOAM, 7 TO 40 PERCENT SLOPES
- 29F LICKSKILLET-ROCK OUTCROP COMPLEX, 40 TO 70 PERCENT SLOPES
- 30B MIKKALO SILT LOAM, 2 TO 7 PERCENT SLOPES
- 30C MIKKALO SILT LOAM, 7 TO 12 PERCENT SLOPES
- 30D MIKKALO SILT LOAM, 12 TO 20 PERCENT SLOPES
- 31B MORROW SILT LOAM, 1 TO 7 PERCENT SLOPES
- 31C MORROW SILT LOAM, 7 TO 12 PERCENT SLOPES
- 32E MORROW SILT LOAM, 20 TO 35 PERCENT NORTH SLOPES
- 33E MORROW SILT LOAM, 30 TO 30 PERCENT SOUTH SLOPES
- 34F NANSENE SILT LOAM, 35 TO 70 PERCENT SLOPES
- 35 ONYX SILT LOAM
- 36 PEDIGO SILT LOAM
- 43B RHEA SILT LOAM, 1 TO 7 PERCENT SLOPES
- 43C RHEA SILT LOAM, 7 TO 12 PERCENT SLOPES
- 43D RHEA SILT LOAM, 12 TO 20 PERCENT SLOPES
- 43E RHEA SILT LOAM, 20 TO 35 PERCENT SLOPES
- 43F RHEA SILT LOAM, 35 TO 50 PERCENT SLOPES
- 45B RITZVILLE SILT LOAM, 2 TO 7 PERCENT SLOPES
- 45C RITZVILLE SILT LOAM, 7 TO 12 PERCENT SLOPES
- 45D RITZVILLE SILT LOAM, 12 TO 20 PERCENT SLOPES
- 46E RITZVILLE SILT LOAM, 20 TO 40 PERCENT NORTH SLOPES
- 63B VALBY SILT LOAM, 1 TO 7 PERCENT SLOPES
- 63C VALBY SILT LOAM, 7 TO 12 PERCENT SLOPES
- 64D VALBY SILT LOAM, 12 TO 20 PERCENT NORTH SLOPES
- 65D VALBY SILT LOAM, 12 TO 20 PERCENT SOUTH SLOPES
- 65E VALBY SILT LOAM, 20 TO 30 PERCENT SOUTH SLOPES
- 75B WILLIS SILT LOAM, 2 TO 5 PERCENT SLOPES
- 75C WILLIS SILT LOAM, 5 TO 12 PERCENT SLOPES
- 75D WILLIS SILT LOAM, 12 TO 20 PERCENT SLOPES
- 77F WRENTHAM-ROCK OUTCROP COMPLEX, 35 TO 70 PERCENT SLOPES
- 78 XERIC TORRIORTHENTS, NEARLY LEVEL
- 82B CONDON SILT LOAM, 1 TO 7 PERCENT SLOPES
- 83D CONDON SILT LOAM, 12 TO 20 PERCENT NORTH SLOPES
- 85C CONDON SILT LOAM, 7 TO 12 PERCENT SLOPES
- 15B BURKE SILT LOAM, 1 TO 7 PERCENT SLOPES
- 15C BURKE SILT LOAM, 7 TO 12 PERCENT SLOPES
- 15E BURKE SILT LOAM, 12 TO 20 PERCENT SLOPES
- 18B CORDON SILT LOAM, 1 TO 7 PERCENT SLOPES
- 18C CORDON SILT LOAM, 7 TO 12 PERCENT SLOPES
- 19D CORDON SILT LOAM, 12 TO 20 PERCENT NORTH SLOPES
- 42A KIMBERLY FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES
- 43A KIMBERLY SILT LOAM, 0 TO 3 PERCENT SLOPES
- 48E LICKSKILLET VERY STONY LOAM, 7 TO 40 PERCENT SLOPES
- 50F LICKSKILLET-ROCK OUTCROP COMPLEX, 40 TO 70 PERCENT SLOPES
- 54B MIKKALO SILT LOAM, 2 TO 7 PERCENT SLOPES
- 54C MIKKALO SILT LOAM, 7 TO 12 PERCENT SLOPES
- 54D MIKKALO SILT LOAM, 12 TO 20 PERCENT SLOPES
- 54E MKKALO SILT LOAM, 20 TO 35 PERCENT SLOPES
- 80B RITZVILLE SILT LOAM, 2 TO 7 PERCENT SLOPES
- 80C RITZVILLE SILT LOAM, 7 TO 12 PERCENT SLOPES
- 81E RITZVILLE SILT LOAM, 25 TO 40 PERCENT NORTH SLOPES
- 87B SAGEHILL FINE SANDY LOAM, 2 TO 5 PERCENT SLOPES
- 88B SHANO VERY FINE SANDY LOAM, 2 TO 7 PERCENT SLOPES
- 88C SHANO VERY FINE SANDY LOAM, 7 TO 12 PERCENT SLOPES
- 88D SHANO VERY FINE SANDY LOAM, 12 TO 25 PERCENT SLOPES
- 89B SHANO SILT LOAM, 2 TO 7 PERCENT SLOPES
- 89C SHANO SILT LOAM, 7 TO 12 PERCENT SLOPES
- 89D SHANO SILT LOAM, 12 TO 25 PERCENT SLOPES
- 121B WILLIS SILT LOAM, 2 TO 7 PERCENT SLOPES
- 121D WILLIS SILT LOAM, 12 TO 35 PERCENT SLOPES

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							Designed By: CAN
						WHEATRIDGE EAST WIND ENERGY PROJECT	Drawn By: CAN
							Checked By: JPP
						EROSION AND SEDIMENT CONTROL PLAN NOTES CONT'D	ESC-1

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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.
5. 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 FOLLOWING SEED MIXES.
FARMED AREAS:
A. OAHIE INTERMEDIATE WHEAT GRASS (5 LBS)
B. P-27 SIBERIAN WHEAT GRASS (5 LBS)
C. CAVER SHEEP FESCUE (3 LBS)
D. WEIGHT OF SEED IS PURE, LIVE SEED PER ACRE.
NATURAL AREAS:
A. WHITMAR BEARDLESS WHEAT GRASS
B. SECAR BLUEBUNCH WHEAT GRASS
C. SHERMAN BIG BLUE GRASS
D. CRITANA THICK SPIKE WHEAT GRASS
E. WESTERN WHEAT GRASS (ROSANA)
PICK 4 OF THE ABOVE GRASSES AT 3 LBS A PIECE OF PURE, LIVE SEED PER ACRE.
6. DO NOT DISTURB GROUND OUTSIDE THE OF THE 30' LIMITS WITHIN CONSERVATION RESERVE PROGRAM (CRP) LAND.
7. 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 SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF ALL DISPOSAL AREAS. 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 5. MAINTAIN EXISTING DRAINAGE.
- (2) TOWER STRING SERVICE ROADS TO TURBINES 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 ACCORDING TO GENERAL NOTE 5.
- (3) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF DISTURBED AREA. SEE DETAIL ON DRAWING ESC-10.
- (4) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF STAGING AREA. SEE DETAIL ON DRAWING ESC-10.
- (5) EXISTING ROADS UTILIZED FOR PROJECT ACCESS TO BE REGRADED AND GRAVEL TO BE ADDED AS NEEDED. FOR IMPACTED AREAS ADJACENT TO THE ROADWAY, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 5. MAINTAIN EXISTING DRAINAGE.
- (6) INSTALL SILT FENCE BETWEEN REGRADED ROAD AND INTERMITTENT STREAM WHERE ROAD IS ADJACENT TO STREAM CHANNEL.
- (7) SERVICE AREAS FOR TURBINES FOR IMPACTED AREAS ADJACENT TO THE PADS, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 5. INSTALL SILT FENCE ON DOWNSLOPE SIDE OF DISTURBED AREA.
- (8) VEHICLE RACKING CONTROL ENTRANCES SHOULD BE INSTALLED WHERE GRAVEL ACCESS ROADS INTERSECT PAVED ROADS. SEE DETAIL ON DRAWING ESC-10.
- (9) CONCRETE CLEANOUT PITS TO BE INSTALLED. SEE DETAIL ON DRAWING ESC-11.

LEGEND

- 3

KEYED NOTES
- 1

EXISTING STREAM
- 2

UNNAMED TRIBUTARY
- 3

COLLECTOR LINE
- 4

ACCESS ROAD
- 5

SURFACE FLOW DIRECTION
- 6

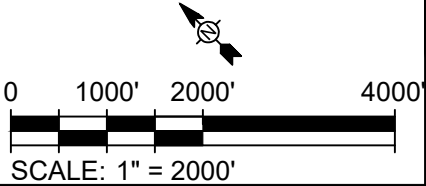
EXISTING 20' CONTOUR
- 7

WIND TURBINE LOCATION
- 8

SUBSTATION
- 9

LAYDOWN YARD
- 10

RAILROAD TIE



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MARK	DATE	DESCRIPTION	BY

NEXTERA ENERGY

WHEATRIDGE EAST WIND ENERGY PROJECT

EROSION AND SEDIMENT CONTROL PLAN
AREA 1

Project No.: 194-1109-0093
Designed By: CAN
Drawn By: CAN
Checked By: JPP

ESC-2

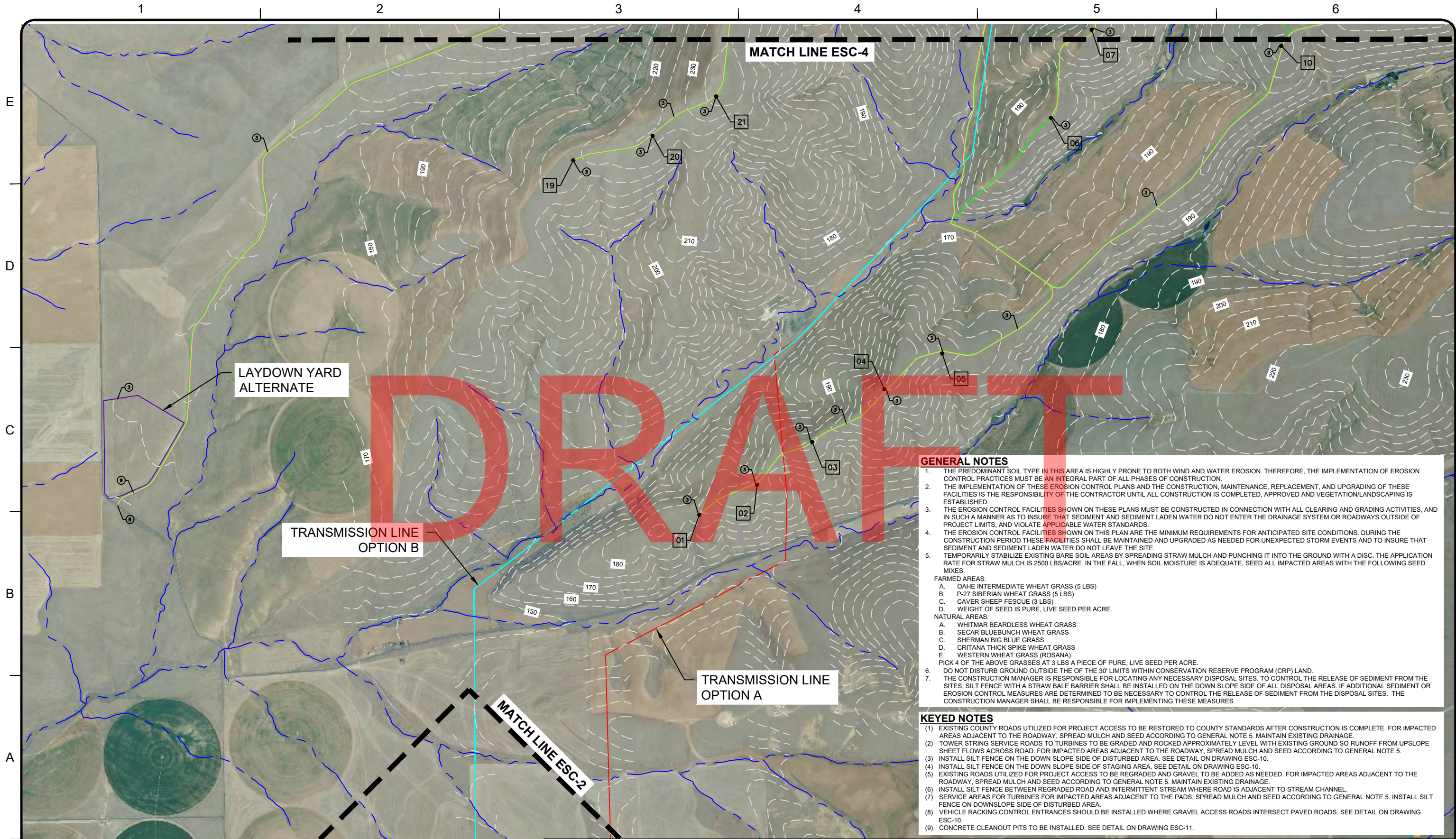
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Bar Measures 1 inch

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GENERAL NOTES

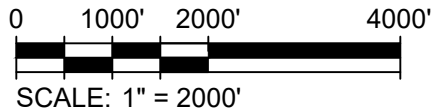
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7. THE CONSTRUCTION MANAGER IS RESPONSIBLE FOR LOCATING ANY NECESSARY DISPOSAL SITES. TO CONTROL THE RELEASE OF SEDIMENT FROM THE SITES, SILT FENCE WITH A STRAW BALE BARRIER SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF ALL DISPOSAL AREAS. IF ADDITIONAL 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 5. MAINTAIN EXISTING DRAINAGE.
- (2) TOWER STRING SERVICE ROADS TO TURBINES 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 ACCORDING TO GENERAL NOTE 5.
- (3) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF DISTURBED AREA. SEE DETAIL ON DRAWING ESC-10.
- (4) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF STAGING AREA. SEE DETAIL ON DRAWING ESC-10.
- (5) EXISTING ROADS UTILIZED FOR PROJECT ACCESS TO BE REGRADED AND GRAVEL TO BE ADDED AS NEEDED. FOR IMPACTED AREAS ADJACENT TO THE ROADWAY, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 5. MAINTAIN EXISTING DRAINAGE.
- (6) INSTALL SILT FENCE BETWEEN REGRADED ROAD AND INTERMITTENT STREAM WHERE ROAD IS ADJACENT TO STREAM CHANNEL.
- (7) SERVICE AREAS FOR TURBINES FOR IMPACTED AREAS ADJACENT TO THE PADS, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 5. INSTALL SILT FENCE ON DOWNSLOPE SIDE OF DISTURBED AREA.
- (8) VEHICLE RACKING CONTROL ENTRANCES SHOULD BE INSTALLED WHERE GRAVEL ACCESS ROADS INTERSECT PAVED ROADS. SEE DETAIL ON DRAWING ESC-10.
- (9) CONCRETE CLEANOUT PITS TO BE INSTALLED. SEE DETAIL ON DRAWING ESC-11.

LEGEND

- KEYED NOTES
- EXISTING STREAM
- UNNAMED TRIBUTARY
- COLLECTOR LINE
- ACCESS ROAD
- SURFACE FLOW DIRECTION
- EXISTING 5' CONTOUR
- WIND TURBINE LOCATION
- SUBSTATION
- LAYDOWN YARD



SCALE: 1" = 2000'



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MARK	DATE	DESCRIPTION	BY

NEXTERA ENERGY

WHEATRIDGE EAST WIND ENERGY PROJECT

EROSION AND SEDIMENT CONTROL PLAN
AREA 2

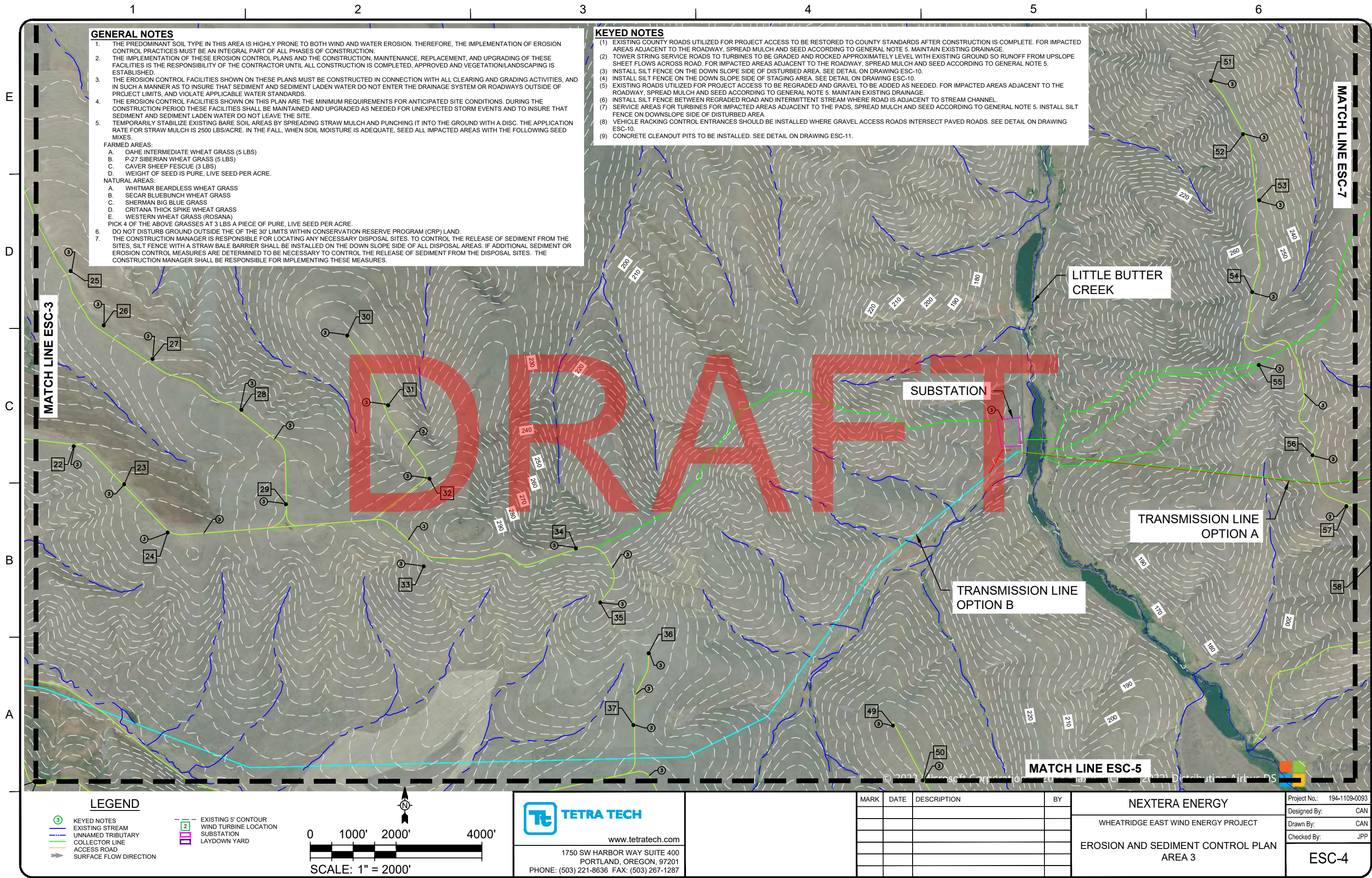
Project No.: 194-1109-0093
Designed By: CAN
Drawn By: CAN
Checked By: JPP

ESC-3

Bar Measures 1 inch

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11/2/2022 4:07:06 PM - C:\CIVIL 3D PROJECTS\WHEATRIDGE EAST\CAD\WHEATRIDGE EAST WND ESCP_MP.DWG - NIETEN, CATLIN



GENERAL NOTES

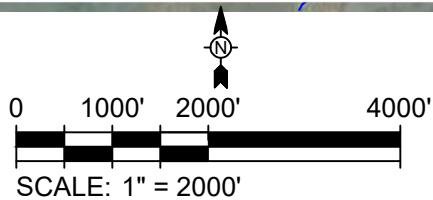
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3. THE EROSION CONTROL FACILITIES SHOWN ON THESE PLANS MUST BE CONSTRUCTED IN CONNECTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM OR ROADWAYS 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.
5. 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 FOLLOWING SEED MIXES:
FARMED AREAS:
A. OAHIE INTERMEDIATE WHEAT GRASS (5 LBS)
B. P-27 SIBERIAN WHEAT GRASS (5 LBS)
C. CAVER SHEEP FESCUE (3 LBS)
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NATURAL AREAS:
A. WHITMAR BEARLESS WHEAT GRASS
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D. CRITANA THICK SPIKE WHEAT GRASS
E. WESTERN WHEAT GRASS (ROSANA)
PICK 4 OF THE ABOVE GRASSES AT 3 LBS A PIECE OF PURE, LIVE SEED PER ACRE.
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LEGEND

- KEYED NOTES
- EXISTING STREAM
- UNNAMED TRIBUTARY
- COLLECTOR LINE
- ACCESS ROAD
- SURFACE FLOW DIRECTION
- EXISTING 5' CONTOUR
- WIND TURBINE LOCATION
- SUBSTATION
- LAYDOWN YARD



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MARK	DATE	DESCRIPTION	BY

NEXTERA ENERGY

WHEATRIDGE EAST WIND ENERGY PROJECT

EROSION AND SEDIMENT CONTROL PLAN
AREA 4

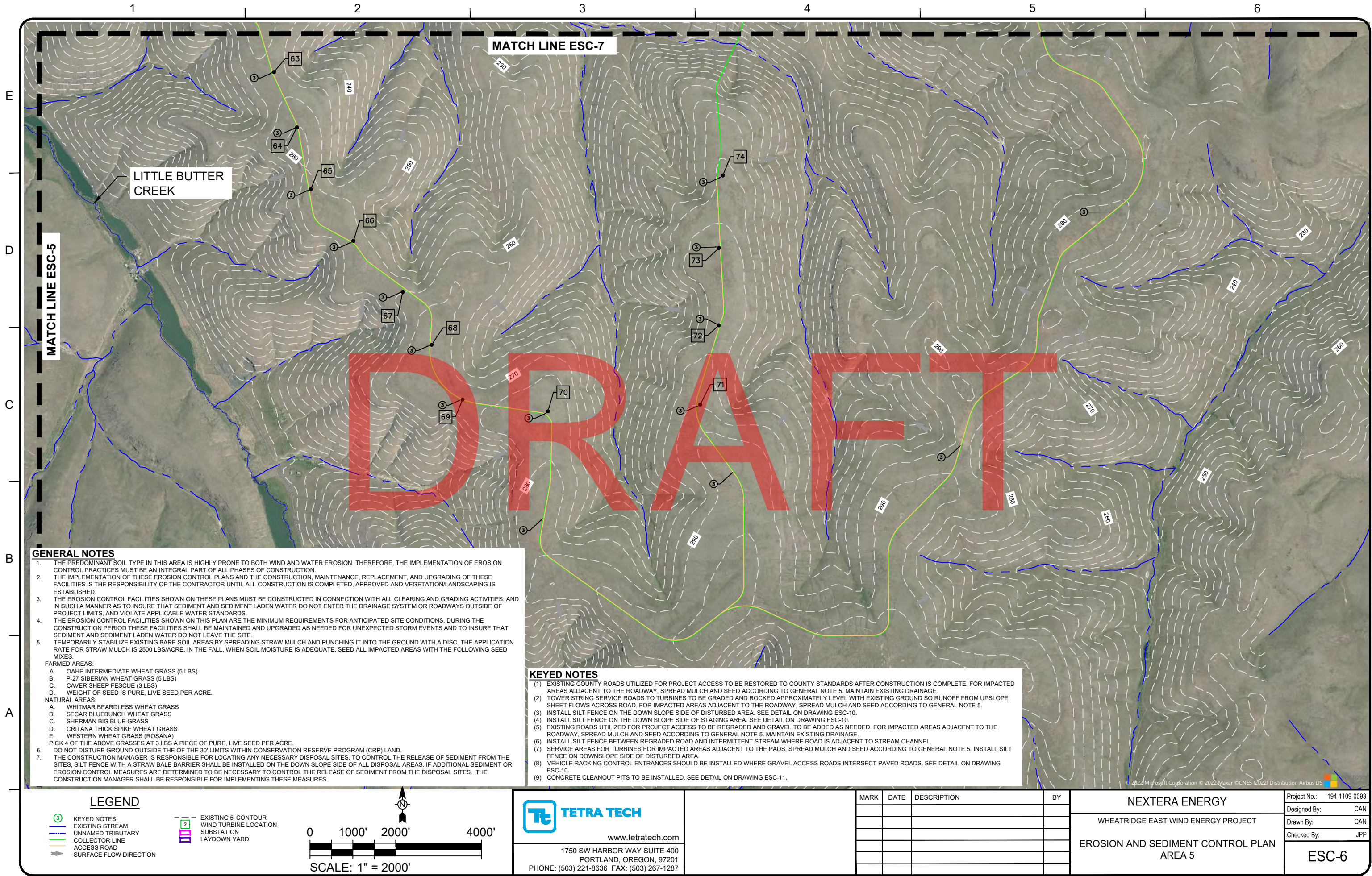
Project No.: 194-1109-0093
Designed By: CAN
Drawn By: CAN
Checked By: JPP

ESC-5

Bar Measures 1 inch

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11/2/2022 4:07:16 PM - C:\CIVIL 3D PROJECTS\WHEATRIDGE EAST\CAD\WHEATRIDGE EAST WND ESCP_MP.DWG - NIETEN, CATLIN



GENERAL NOTES

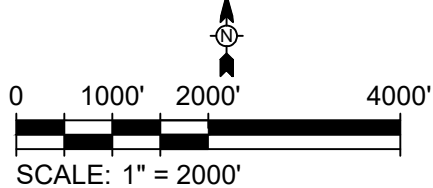
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D. CRITANA THICK SPIKE WHEAT GRASS
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LEGEND

- KEYED NOTES
- EXISTING STREAM
- UNNAMED TRIBUTARY
- COLLECTOR LINE
- ACCESS ROAD
- SURFACE FLOW DIRECTION
- EXISTING 5' CONTOUR
- WIND TURBINE LOCATION
- SUBSTATION
- LAYDOWN YARD



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MARK	DATE	DESCRIPTION	BY

NEXTERA ENERGY

WHEATRIDGE EAST WIND ENERGY PROJECT

EROSION AND SEDIMENT CONTROL PLAN
AREA 6

Project No.: 194-1109-0093
Designed By: CAN
Drawn By: CAN
Checked By: JPP

ESC-7

Bar Measures 1 inch

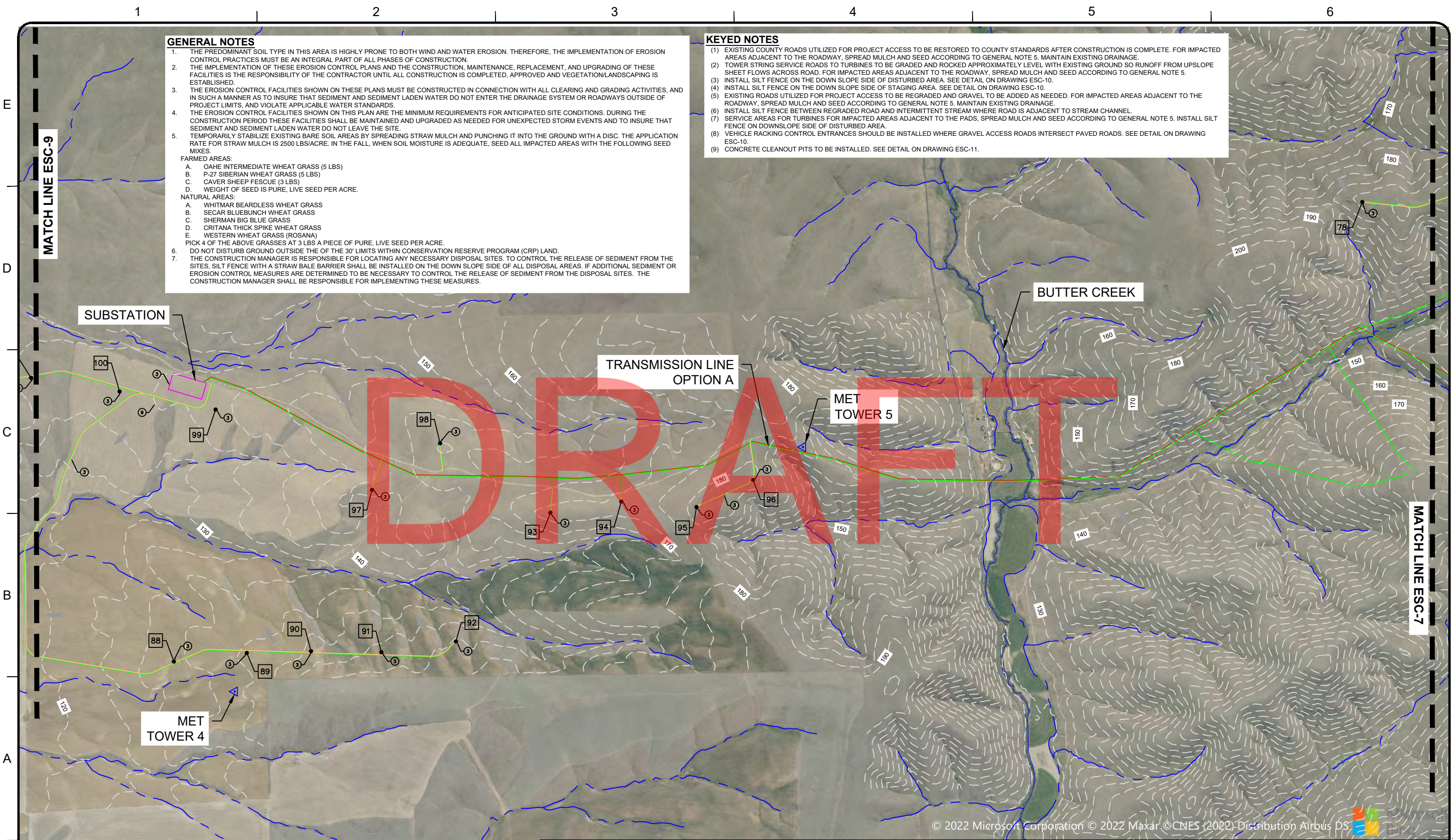
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GENERAL NOTES

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- 7. 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 SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF ALL DISPOSAL AREAS. 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.

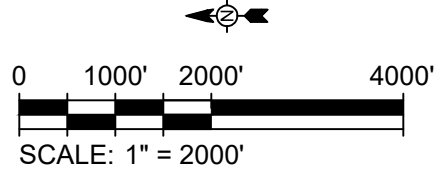
KEYED NOTES

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LEGEND

- KEYED NOTES
- EXISTING STREAM
- UNNAMED TRIBUTARY
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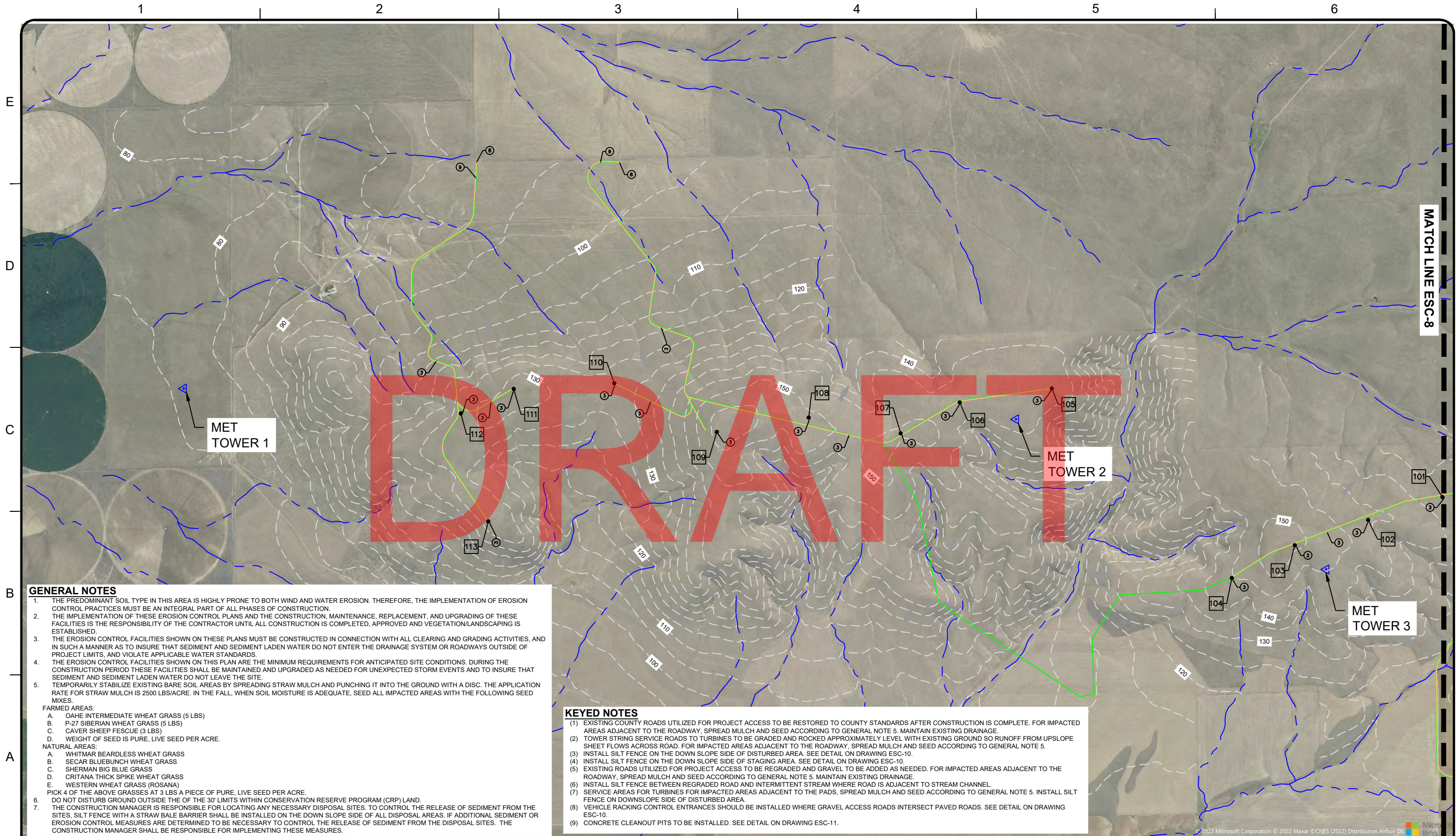
MARK	DATE	DESCRIPTION	BY	NEXTERA ENERGY		Project No.: 194-1109-0093
				WHEATRIDGE EAST WIND ENERGY PROJECT		Designed By: CAN
				EROSION AND SEDIMENT CONTROL PLAN		Drawn By: CAN
				AREA 7		Checked By: JPP
				ESC-8		

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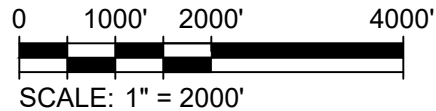


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- (1) EXISTING COUNTY ROADS UTILIZED FOR PROJECT ACCESS TO BE RESTORED TO COUNTY STANDARDS AFTER CONSTRUCTION IS COMPLETE. FOR IMPACTED AREAS ADJACENT TO THE ROADWAY, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 5. MAINTAIN EXISTING DRAINAGE.
 - (2) TOWER STRING SERVICE ROADS TO TURBINES 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 ACCORDING TO GENERAL NOTE 5.
 - (3) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF DISTURBED AREA. SEE DETAIL ON DRAWING ESC-10.
 - (4) INSTALL SILT FENCE ON THE DOWN SLOPE SIDE OF STAGING AREA. SEE DETAIL ON DRAWING ESC-10.
 - (5) EXISTING ROADS UTILIZED FOR PROJECT ACCESS TO BE REGRADED AND GRAVEL TO BE ADDED AS NEEDED. FOR IMPACTED AREAS ADJACENT TO THE ROADWAY, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 5. MAINTAIN EXISTING DRAINAGE.
 - (6) INSTALL SILT FENCE BETWEEN REGRADED ROAD AND INTERMITTENT STREAM WHERE ROAD IS ADJACENT TO STREAM CHANNEL.
 - (7) SERVICE AREAS FOR TURBINES FOR IMPACTED AREAS ADJACENT TO THE PADS, SPREAD MULCH AND SEED ACCORDING TO GENERAL NOTE 5. INSTALL SILT FENCE ON DOWNSLOPE SIDE OF DISTURBED AREA.
 - (8) VEHICLE RACKING CONTROL ENTRANCES SHOULD BE INSTALLED WHERE GRAVEL ACCESS ROADS INTERSECT PAVED ROADS. SEE DETAIL ON DRAWING ESC-10.
 - (9) CONCRETE CLEANOUT PITS TO BE INSTALLED. SEE DETAIL ON DRAWING ESC-11.

LEGEND

- KEYED NOTES
- EXISTING STREAM
- UNNAMED TRIBUTARY
- COLLECTOR LINE
- ACCESS ROAD
- SURFACE FLOW DIRECTION
- EXISTING 5' CONTOUR
- WIND TURBINE LOCATION
- SUBSTATION
- LAYDOWN YARD



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NEXTERA ENERGY

WHEATRIDGE EAST WIND ENERGY PROJECT

EROSION AND SEDIMENT CONTROL PLAN
AREA 8

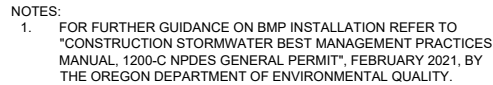
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ESC-9

Bar Measures 1 inch

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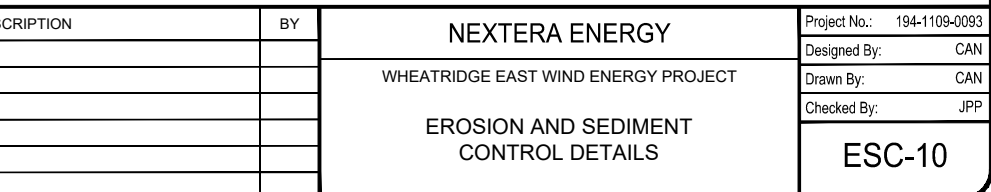
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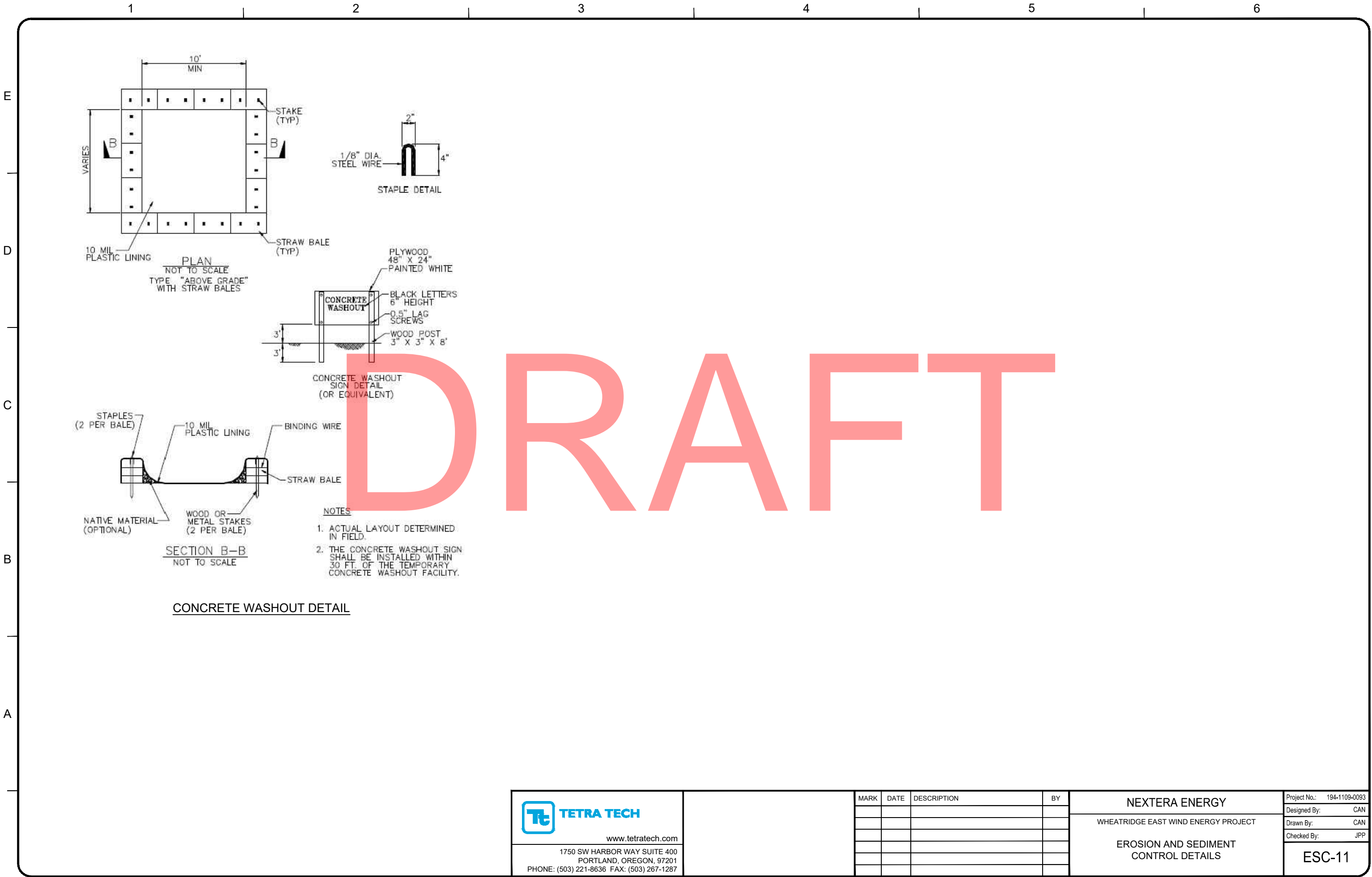
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NEXTERA ENERGY

WHEATRIDGE EAST WIND ENERGY PROJECT

EROSION AND SEDIMENT CONTROL DETAILS

Project No.: 194-1109-0093
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Drawn By: CAN
Checked By: JPP
ESC-11

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Bar Measures 1 inch