

# Exhibit U

## Public Services

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**Wagon Trail Solar Project**  
**January 2022**

**Prepared for**  
**NEXTera<sup>®</sup>**  
**ENERGY**   
RESOURCES

**Prepared by**



**Tetra Tech, Inc.**

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## **Acronyms and Abbreviations**

ADT	average daily traffic
Applicant	Wheatridge East Wind, LLC c/o NextEra Energy Resources, LLC
BMP	best management practice
Council	Oregon Energy Facility Siting Council
ESCP	Erosion and Sediment Control Plan
FAA	Federal Aviation Administration
Facility	Wagon Trail Solar Project
I-84	Interstate Highway 84
NPDES	National Pollutant Discharge Elimination System
O&M	operations and maintenance
OR	Oregon Route
OAR	Oregon Administrative Rule
ODA	Oregon Department of Aviation
ODOT	Oregon Department of Transportation
OWRD	Oregon Water Resources Department
RV	recreational vehicle

## 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 U was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(u).

## 2.0 Analysis

This exhibit describes how the Facility could affect local employment, population, housing, and transportation, and the ability of affected communities in the analysis area to provide public services resulting from construction and operation of the Facility. This exhibit presents an impact analysis for public services to demonstrate compliance with the Public Services standard.

### 2.1 Analysis Area

The analysis area for public services is defined in the Project Order as “the area within and extending 15 miles from the site boundary” in Morrow County, Oregon (ODOE 2021). Figure U-1 shows the analysis area. The site boundary is defined in Exhibits B and C. Where noted in the exhibit, communities outside of the analysis area are considered in response to comments received on the Applicant’s Notice of Intent, filed June 11, 2021. Specifically, a 30-mile area is applied to the housing analysis to represent the commutable distance that construction workers may travel (see Section 3.3.2.5 and 3.4.6).

### 2.2 Assumptions Used to Evaluate Potential Impacts

*OAR 345-021-0010(1)(u) Information about significant potential adverse impacts of construction and operation of the proposed facility on the ability of public and private providers in the analysis area to provide the services listed in OAR 345-022-0110, providing evidence to support a finding by the Council as required by 345-022-0110. The applicant shall include:*

*(A) The important assumptions the applicant used to evaluate potential impacts.*

Potential impacts were evaluated based on assumptions for the number of employees needed to construct and operate the Facility, population shifts, and use of transportation routes, as described in the following sections.

#### 2.2.1 Employment

##### 2.2.1.1 Construction

The Applicant anticipates that construction may begin by as early as January 2023 and proposes to construct the Facility in phases. The size and construction schedule for each phase will depend on

market demand. For the purposes of analysis, Facility construction of any phase is assumed to take approximately 12 months from the time of permit approval to commercial operation.

During construction of any phase, an estimated average workforce of 150 people will be employed, with a maximum of 200 people during the peak months of construction, when multiple disciplines of contractors will complete their work simultaneously. Most construction workers will be employees of construction and equipment manufacturing companies under contract to the Applicant. Some specialty laborers will be required for installation of the solar components and battery storage but likely will not significantly affect the maximum number of employees at any given time.

Construction workers will include a mix of locally hired workers within a commutable distance of 30 miles from the site boundary (e.g., from Morrow, Umatilla, Gilliam, Klickitat, and Benton counties) for road and building construction, and specialized workers for solar energy generation construction (e.g., substation and electrical transmission construction, solar array, and battery storage). While not all of these counties are located in their entirety within the analysis area or within 30 miles of the Facility, housing data were reviewed for all of the counties because housing data are available at the countywide level.

For purposes of this analysis, the conservative assumption was made that 30 percent of construction workers will be hired locally and the remainder from outside the five-county commutable area. Very few, if any, of the non-local workers employed during the construction phase of the Facility will be expected to permanently relocate to the area. The Applicant's policy will be to hire locally to the extent practicable. Local hiring may be greater than anticipated due to the number of renewable energy projects being built in eastern Oregon and will depend on the availability of workers with the appropriate skill sets. Workers in some positions, such as construction foremen and inspectors, will be employed for the entire duration of the Facility, but many workers will only be employed for approximately 6 months. The Applicant assumes very few non-local construction workers will relocate their families because it is anticipated most construction workers will not be in the area for more than 6 months.

#### ***2.2.1.2 Operations***

An estimated three employees will be hired to operate and maintain the Facility. The actual number of operational staff will depend on the size of the Facility. The Applicant may also rely on operations and maintenance (O&M) staff from its existing operating Wheatridge Facilities in Morrow County to provide operational support for the Facility. O&M staff will be hired locally, to the extent that skilled workers are available. Some outside contractors may be required from time to time for specialized maintenance tasks, such as solar panel inspections, or for positions that require previous experience at other solar generation facilities.

#### ***2.2.1.3 Decommissioning***

When the Facility is decommissioned, operational jobs will be eliminated; however, there may be short-term contract jobs to monitor restored areas. Decommissioning of the Facility will require

removal of most Facility components, including removal of solar arrays and other related or supporting facilities, and restoration of disturbed areas. These activities will result in temporary decommissioning employment similar to the construction of the Facility (about 150 people).

## **2.2.2 Population**

### **2.2.2.1 Construction**

Population in the analysis area will change very little as a result of Facility construction. Approximately 30 percent of the construction workers are expected to be local residents (from Morrow, Umatilla, Gilliam, Klickitat, and Benton counties), and an average of about 105 and a maximum of about 140 workers will be temporary residents (in-migrants). The actual number of temporary residents may be fewer due to a combination of more local hiring and fewer workers bringing families or others with them. The in-migrants, and their families, will likely settle in hotels, motels, recreational vehicle (RV) parks, houses, and other temporary housing located within a commutable distance to the Facility (30 miles). An average household size of two is conservatively assumed for construction workers coming from outside the area, resulting in an estimated maximum of about 280 temporary residents during the peak construction period.

### **2.2.2.2 Operations**

The number of new permanent residents resulting from Facility operations will be small. An estimated three employees will be hired to operate and maintain the Facility, and some will already be local residents. Assuming conservatively that 50 percent (two) of these employees are in-migrants with an average household size of three (higher than for temporary employees), up to six new permanent residents could be added to the local population. It is assumed that these workers will live locally. The Applicant may also rely on O&M staff from its existing operating Wheatridge Facilities in Morrow County to provide operational support for the Facility.

## **2.2.3 Transportation**

Various transportation routes will provide access to the Facility during construction and operations. These routes will be utilized for the transportation of solar components, other equipment and materials, water, and workers from outside of the analysis area to the Facility and will include state, county, and private roadways. Major transportation routes are depicted on Figure U-2.

### **2.2.3.1 Primary and Alternate Transportation Routes**

The primary transportation route is assumed to carry a majority of construction-related heavy-duty and light-duty delivery vehicles, as well as workforce traffic. The primary route for construction vehicles and workforce traffic will be via Interstate Highway 84 (I-84) to southbound Oregon Route (OR) 207 near Hermiston, continuing southwest to exit onto Bombing Range Road (then traveling east/west on Grieb-Wood Road, Little Juniper Lane, or Grieb Lane) to access the northern site boundary, or exit west off of OR-207 onto either Base Line Lane, Barak Martin Road, or Strawberry

East Road (then traveling north/south on Juniper Canyon Road, Lindsay Road, or Barak Martin Road) to access the southern site boundary. This route is assumed to be the primary transportation route because most of the construction-related traffic will be from workforce commute trips, and communities that are most likely to provide temporary housing (e.g., Heppner, Boardman, Irrigon, Hermiston, Echo, Stanfield, Umatilla, and Arlington) are located along or near this route. This route will also be the preferred route for limited oversize deliveries for Facility construction, such as support poles for the transmission line or the main power transformers.

An alternate transportation route will be via I-84 to Bombing Range Road, southbound to the site boundary. Bombing Range Road will be used for large component or equipment deliveries to the northern site boundary of the Facility, and will also be used for other truck traffic including deliveries of aggregate, water, and other construction materials. Some workforce traffic may come from south of the Facility (e.g., Heppner), taking OR-74 to OR-207 then exiting west onto either Base Line Lane, Barak Martin Road, or Strawberry East Road (then traveling north/south on Juniper Canyon Road, Lindsay Road, or Barak Martin Road) to access the southern site boundary; or exiting north onto Bombing Range Road (then traveling east/west on Grieb-Wood Road, Little Juniper Lane, or Grieb Lane) to access the northern site boundary.

It is anticipated that operational staff will commute to the Facility site from nearby communities using similar routes as described above. Operational trips include employees traveling to work in their personal vehicles, as well as specialized personnel required for periodic inspections of Facility components who may travel in light-duty trucks. The occasional delivery truck may also access the site during operations.

### 2.2.3.2 *Truck Traffic*

For the purposes of the traffic impact analysis, the Applicant assumes an average of 100 truck trips per day (50 roundtrips), with a peak of 134 trips per day (67 roundtrips), will be needed over approximately 250 construction work days (about 12 months). This is based on the estimated average and maximum peak workforce, with a carpool factor of 1.5 persons per vehicle. Anticipated transportation volumes are discussed further in Section 3.4.7 below.

A variety of truck types will be required for material and equipment deliveries. These include heavy-duty trucks, such as semi-trailer dump trucks and 40-foot container trucks, that will be carrying gravel and other materials required to improve or construct new access roadways. These heavy-duty trucks will also provide concrete for component foundations and materials for the module blocks themselves. In addition to concrete and gravel, lighter-duty, single-unit water tank trucks delivering water to the site will be required. Water will be needed for dust control during road construction.<sup>1</sup> Semi-trailer flat beds carrying electrical equipment and materials required for

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<sup>1</sup> Note that other dust suppressants besides water may be utilized as necessary during extreme drought conditions (synthetic polymer emulsions, chemical suppressants, organic glues, and wood fiber materials) depending on the site and condition (to be applied by trained and certified vendors familiar with applicable environmental regulations including the federal Endangered Species Act, the Clean Water Act, the Salmon Recovery Act, and state and local regulations).

solar panel construction and power transmission also will be necessary. It is assumed construction crews will drive pick-up trucks to and from the Facility.

#### **2.2.3.3 Points of Origin**

During construction, an estimated average workforce of 150 people will be employed (105 in-migrants), with a potential maximum of up to 200 people (140 in-migrants) on site at one time, when multiple disciplines of contractors complete their work simultaneously during the peak months of construction. As identified in Section 3.2.1.1, local workers will most likely originate from areas within approximately 30 miles of the site boundary or will temporarily relocate to communities within this area. Workers needed for specialized construction (e.g., substation and electrical transmission construction, solar and battery storage installation) may originate from areas outside this commutable distance. Construction workers may find housing in several communities along the transportation routes (see Section 3.3.2.5, Housing).

An estimated 3 personnel will be hired for operation and maintenance of the Facility. It is assumed that these workers will live locally.

### **2.3 Affected Public and Private Service Providers**

*OAR 345-021-0010(1)(u)(B) Identification of the public and private providers in the analysis area that will likely be affected.*

The following sections address the existing socioeconomic conditions and public and private service providers within the analysis area that could be affected by construction and operation of the Facility.

#### **2.3.1 Counties, Cities, and Communities**

While the Facility itself is entirely within Morrow County, the 15-mile analysis area includes the western portion of Umatilla County and eastern edge of Gilliam County (Figure U-1). Table U-1 presents historical population estimates for communities in Morrow County within the analysis area. Although there are no incorporated communities in Umatilla County or Gilliam County that are within 15 miles of the Facility, the county as a whole was included due its proximity to the Facility. Boardman, located north of the Facility in Morrow County, is the largest community in the analysis area. Boardman had a 2020 population of approximately 3,828 people, 31.4 percent of Morrow County's population total.

**Table U-1. Historical Population of Counties and Communities within the Analysis Area**

Location	Population			2000-2010		2010 -2020	
	Census 2000	Census 2010	Estimated 2020	Absolute Change	Percent Change	Absolute Change	Percent Change
OREGON	3,421,399	3,831,074	4,237,256	409,675	12.0	406,182	25.3
<b>Morrow County</b>	<b>10,995</b>	<b>11,173</b>	<b>12,186</b>	<b>178</b>	<b>1.6</b>	<b>1,013</b>	<b>9.1</b>
Boardman	2,870	3,220	3,828	350	10.9	608	18.9
Heppner	1,392	1,291	1,187	-101	-7.3	-104	-8.1
Ione	321	329	337	8	2.5	8	2.4
Lexington	263	238	238	-25	-9.5	0	0
<b>Umatilla County</b>	<b>70,548</b>	<b>75,889</b>	<b>80,075</b>	<b>5,341</b>	<b>7.6</b>	<b>4,186</b>	<b>5.5</b>
<b>Gilliam County</b>	<b>1,915</b>	<b>1,871</b>	<b>1,995</b>	<b>-44</b>	<b>-2.3</b>	<b>124</b>	<b>6.6</b>

Source: U.S. Census Bureau 2000, 2010, 2019, 2020

All communities within a commutable distance (30 miles) are considered in the housing analysis (see Sections 3.3.2.5 and 3.4.6). According to the most recent available U.S. Census Bureau (2015) residence to workplace data for 2011 to 2015, nearly 65 percent of Morrow County residents work within Morrow County (3,427 commuters per day). Morrow County receives 1,451 Umatilla County, Oregon commuters per day, 134 Benton County, Washington commuters per day, 61 Multnomah County, Oregon commuters per day, and 53 Lane County, Oregon commuters per day. The remaining 155 Morrow County commuters travel from multiple other, more distant counties.

### **2.3.2 Service Providers**

#### **2.3.2.1 Sewers and Sewage Treatment**

No community in the analysis area currently provides sewers or sewage treatment to the Facility site. The nearest developed sewer system is located in the community of Heppner, approximately 12 miles from the site boundary. Sewage treatment in this rural area is limited to on-site private septic systems. During construction, sanitary waste will be collected on-site in portable toilets that will be provided and maintained by a licensed subcontractor. During operation, sanitary waste will be limited to domestic wastewater from the existing Wheatridge Facilities O&M building or a new O&M building, which will be discharged to licensed on-site septic systems located within the site boundary.

#### **2.3.2.2 Water**

Water sources in the site boundary are limited to private landowners' wells. Most communities within the analysis area have public water systems that serve their respective areas, but those systems will not be used or affected by the Facility. The nearest developed water systems are located in the communities of Lexington or Heppner, approximately 4.5 and 12 miles from the site

boundary, respectively. During construction, water will be trucked to the site from Hermiston Water Department, Stanfield Public Works, Boardman Public Works, and/or the Port of Morrow. These utility providers can provide sufficient water to meet the Facility requirements (see Exhibit O). During operations, water will be provided by a newly constructed well near the O&M building, or by the existing well at the Wheatridge Facilities O&M building, both providing no more than 5,000 gallons per day, or from an existing commercially available well. See Exhibit O for a more detailed discussion.

#### ***2.3.2.3 Stormwater Drainage***

No community in the analysis area currently provides stormwater drainage service to the Facility site, with the exception of minimal stormwater drainage facilities associated with public roads maintained by Morrow or Umatilla counties. The nearest developed stormwater drainage facilities in the vicinity of the Facility are located within the limits of the communities of Lexington and Heppner (4.5 and 12 miles from site boundary, respectively). The Facility will not connect to or otherwise impact either community's stormwater system. During construction, numerous best management practices (BMPs), outlined in the Facility's National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Discharge General Permit 1200-C and accompanying Erosion and Sediment Control Plan (ESCP), will be implemented to minimize erosion and sedimentation that could alter the surrounding stormwater drainages. A copy of the draft permit application is included as Attachment I-1 to Exhibit I.

#### ***2.3.2.4 Solid Waste Management***

The incorporated communities near the Facility will provide solid waste management services to their respective incorporated areas. Morrow, Umatilla, and Gilliam counties provide solid waste disposal and recycling services through franchise agreements with various private providers. Solid waste disposal for the Facility during construction and operations will be provided by private contract with a local commercial hauler or haulers. The public landfill closest to the Facility is the Finley Buttes Regional Landfill, located approximately 10 miles south of Boardman, Oregon and 4 miles north of the site boundary. The Finley Buttes Regional Landfill has confirmed that it has sufficient capacity to accommodate the Facility's solid waste needs and has projected that 110 years are left in landfill's current footprint (see Attachment U-1).

Morrow County has adopted a Solid Waste Management Ordinance that addresses solid waste disposal and recycling in the county. The Applicant will coordinate with waste and recycling franchisees servicing the Facility to maintain required records as needed for compliance with the ordinance.

#### ***2.3.2.5 Housing***

Varying degrees of housing options are provided in incorporated and unincorporated communities within the analysis area, and within a commutable distance from the Facility (30 miles) outside of

the analysis area. Typical housing options for temporary workers include hotels or motels, apartments, short-term rental homes, RV parks, and public or private campgrounds.

The Applicant assumes that most construction workers will be in the area for approximately 6 months, and that the housing for those workers will primarily be provided by hotels and RV parks.

Some construction workers, particularly those employed for the entire duration of construction, may rent a house or apartment during construction of the Facility. Table U-2 presents housing supply and availability data for counties and communities within a commutable distance. An estimated 716 housing units were available in 2020 in communities within a commutable distance. Housing vacancy rates for 2020 ranged from 3.5 percent in Stanfield to 14.4 percent in Lexington. The 2020 five-county average vacancy rate of approximately 11.5 percent is higher than the state of Oregon's average of 7.8 percent. Available housing units have increased for a majority of nearby communities (7 of 10 communities) and most communities continue to experience vacancy rates greater than 5 percent.

**Table U-2. Housing Supply in Counties and Communities within Commutable Distance**

Location	Total Housing Units		Average Annual Growth Rate (%) 2010-2020	Estimated Vacancy Rate (%) 2020	Vacant Housing Units Estimated 2020
	2010	Estimated 2020			
OREGON	1,675,562	1,813,747	0.8	7.8	141,764
<b>Morrow County</b>	<b>4,442</b>	<b>4,717</b>	<b>0.6</b>	<b>10.7</b>	<b>503</b>
Boardman	1,017	1,282	2.3	9.4	120
Heppner	647	608	-0.6	12.3	75
Ione	154	147	-0.5	9.5	14
Irrigon	640	691	0.8	3.9	27
Lexington	101	104	0.3	14.4	15
<b>Umatilla County</b>	<b>29,693</b>	<b>31,098</b>	<b>0.5</b>	<b>8.8</b>	<b>2,726</b>
Echo	256	277	0.8	8.6	24
Hermiston	6,373	6,962	0.9	4.4	306
Stanfield	735	800	0.9	3.5	28
Umatilla	1,766	1,865	0.5	3.9	72
<b>Gilliam County</b>	<b>1,156</b>	<b>1,095</b>	<b>-0.5</b>	<b>20.9</b>	<b>229</b>
Arlington	315	294	-0.7	11.9	35
WASHINGTON	2,885,677	3,202,241	1.0	7.1	227,549
<b>Benton County</b>	<b>68,618</b>	<b>80,076</b>	<b>1.6</b>	<b>4.6</b>	<b>3,707</b>
<b>Klickitat County</b>	<b>9,786</b>	<b>10,533</b>	<b>0.007</b>	<b>12.5</b>	<b>1,320</b>

Source: U.S. Census Bureau 2010, 2019, 2020

### 2.3.2.6 *Traffic Safety and Transportation*

The provider of transportation services in Morrow County is the Morrow County Road Department within the Public Works Department. The state transportation system in the Facility vicinity is provided and maintained by the Oregon Department of Transportation (ODOT).

#### **Primary Transportation Route**

The primary transportation route for construction vehicles and some workforce traffic will be via I-84 to OR-207 near Hermiston, continuing southwest to exit onto Bombing Range Road (then traveling east/west on Grieb-Wood Road, Little Juniper Lane, or Grieb Lane) to access the northern site boundary, or exit west off of OR-207 onto either Base Line Lane, Barak Martin Road, or Strawberry East Road (then traveling north/south on Juniper Canyon Road, Lindsay Road, or Barak Martin Road) to access the southern site boundary. The roads in the primary transportation route include interstate, state, and county roadways. I-84, also known as the Old Oregon Trail Number 6, serves as the primary east-west route through Morrow County. I-84 is a four-lane divided highway, with two lanes traveling in each direction and 6-foot paved shoulders. OR-207 is a two-lane highway, undivided, and is classified as a regional highway and minor arterial road (Morrow County 2012). County roadways on the primary transportation route include Bombing Range Road, a two-lane highway, and graveled Strawberry East Road, Grieb-Wood Road, Little Juniper Lane, Grieb Lane, Base Line Lane, Barak Martin Road, Juniper Canyon Road, and Lindsay Road. Bombing Range Road is considered a major collector road and all of the remaining county roads are not classified (Morrow County 2012).

#### **Alternate Transportation Route**

An alternate transportation route will be via I-84 to Bombing Range Road, southbound to the site boundary. Bombing Range Road begins at the I-84/Irrigon junction and continues south until it intersects with OR-207; it connects the northern and southern Facility site boundaries. Some workforce traffic may also come from south of the Facility (e.g., Heppner), taking OR-74 to OR-207 then exiting west onto either Base Line Lane, Barak Martin Road, or Strawberry East Road (then traveling north/south on Juniper Canyon Road, Lindsay Road, or Barak Martin Road) to access the southern site boundary; or exiting north onto Bombing Range Road (then traveling east/west on Grieb-Wood Road, Little Juniper Lane, or Grieb Lane) to access the northern site boundary. OR-74 is classified as a district highway and minor arterial road (Morrow County 2012).

#### **Traffic Volumes**

Table U-3 provides updated traffic volumes for the expected transportation routes. State highway volumes were published in the 2016 through 2020 Traffic Volume Tables (ODOT 2020). Table U-3 shows the average daily traffic (ADT) volumes for the most recent 5 years of data available at various milepost locations along the transportation routes.

**Table U-3. Transportation Route Average Daily Traffic Volumes**

<b>Highway<sup>1</sup></b>	<b>Location</b>	<b>Milepost</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Percent Change 2016-2020</b>
<b>I-84</b>								-2
I-84 (No. 6)	Boardman Jct. Automatic Traffic Recorder, Sta. 25-008, 0.60 mile southeast of Columbia River Highway No. 2 Interchange (US 730)	168.55	16,900	17,000	17,700	17,900	16,781	-0.7
I-84 (No. 6)	0.40 mile east of Paterson Ferry Interchange	171.53	17,200	17,400	18,200	18,400	17,237	+0.2
I-84 (No. 6)	0.30 mile east of Ordnance Interchange	178.28	18,300	18,100	19,000	19,100	17,982	-2
I-84 (No. 6)	0.60 mile east of McNary Interchange (I-82)	180.05	15,200	15,400	16,100	16,200	15,168	-0.2
I-84 (No. 6)	0.30 mile east of Westland Interchange	180.71	15,700	15,400	16,100	16,100	15,143	-4
I-84 (No. 6)	0.30 mile east of Hermiston Highway Interchange (OR207)	183.16	13,600	13,400	14,000	14,000	13,117	-4
<b>OR-207</b>								+5
OR-207 (No. 333)	0.08 mile north of Old Oregon Trail (I-84)	12.42	7,200	7,300	7,000	7,000	None	-3
OR-207 (No. 333)	0.10 mile south of Old Oregon Trail (I-84)	12.60	1,400	1,500	1,700	1,700	None	+21
OR-207 (No. 333)	0.10 mile north of Lexington-Echo Highway	17.71	1,400	1,400	1,500	1,500	1,429	+2
OR-207 (No. 320)	0.05 mile east of Hermiston Highway (OR207)	27.29	380	380	320	320	310	-18

Highway <sup>1</sup>	Location	Milepost	2016	2017	2018	2019	2020	Percent Change 2016-2020
OR-207 (No. 320)	0.05 mile south of Hermiston Highway (OR207)	27.19	1,000	1,000	1,100	1,100	1,059	+6
OR-207 (No. 320)	0.13 mile west of Gordon Creek Road	19.89	900	910	1,000	1,000	972	+8
OR-207 (No. 320)	On Butter Creek Bridge	19.48	840	850	860	850	830	-1
OR-207 (No. 320)	0.10 mile southwest of Grieb Lane	13.62	790	790	850	850	822	+4
OR-207 (No. 320)	0.02 mile northeast of Kilkenny Road	10.15	720	730	790	780	762	+6
OR-207 (No. 320)	0.02 mile north of Turner Lane	3.89	770	780	870	870	842	+9
OR-207 (No. 320)	0.11 mile east of Lexington Grange Road	2.48	780	790	880	870	850	+9
OR-207 (No. 320)	0.02 mile south of Lexington Grange Road	2.35	830	840	940	940	909	+10
OR-207 (No. 320)	North city limits of Lexington	0.25	900	910	1,000	1,000	991	+10
OR-207 (No. 320)	0.02 mile northeast of East Street	0.08	860	870	1,000	990	959	+12
OR-207 (No. 320)	0.02 mile northeast of Heppner Highway (OR74)	0.02	980	990	1,100	1,000	1,019	+4
<b>OR-74</b>								<b>+0.5</b>
OR-74 (No. 52)	0.02 mile northwest of Lexington-Echo Highway (OR207)	36.40	830	840	920	910	884	+7
OR-74 (No. 52)	0.02 mile southeast of Lexington-Echo Highway (OR207)	36.47	1,300	1,300	1,500	1,500	1,482	+14
OR-74 (No. 52)	0.02 mile southeast of "C" Street	36.62	1,200	1,300	1,400	1,400	1,317	+10

Highway <sup>1</sup>	Location	Milepost	2016	2017	2018	2019	2020	Percent Change 2016-2020
OR-74 (No. 52)	Lexington Automatic Traffic Recorder, Sta. 25-007, 1.38 miles southeast of Lexington-Echo Highway No. 320 (OR207)	37.83	1,400	1,400	1,400	1,400	1,444	+3
OR-74 (No. 52)	0.02 mile southeast of Bunker Hill Lane	41.58	1,300	1,300	1,400	1,400	1,318	+1
OR-74 (No. 52)	0.02 mile northwest of Dee Cox Road	44.27	1,500	1,500	1,500	None	None	0
OR-74 (No. 52)	0.07 mile northwest of Fuller Canyon Road	44.70	1,500	1,600	1,600	1,600	1,535	+2
OR-74 (No. 52)	North city limits of Heppner	45.00	1,500	1,500	1,400	1,400	1,374	-8
OR-74 (No. 52)	0.02 mile north of Quaid Street	45.52	2,000	2,000	2,100	2,100	2,023	+1
OR-74 (No. 52)	0.02 mile south of Quaid Street	45.56	2,000	2,000	2,000	2,000	1,941	-3
OR-74 (No. 52)	0.02 mile north of Center Street	45.72	2,300	2,300	2,300	2,300	2,261	-2
OR-74 (No. 52)	0.02 mile south of Center Street	45.76	2,300	2,300	2,300	2,300	2,252	-2
OR-74 (No. 52)	0.02 mile north of Wasco-Heppner Highway (OR206/OR207)	45.87	2,100	2,100	2,000	2,000	1,966	-6
OR-74 (No. 52)	0.02 mile east of Wasco-Heppner Highway (OR206/OR207)	45.91	1,800	1,800	1,700	1,700	1,613	-10

Source: ODOT 2016, 2017, 2018, 2019, 2020

The number in parenthesis is the internal ODOT number designation for each state highway.

Table U-3 shows that from 2016 to 2020, ADT volumes decreased by approximately 2 percent on average for I-84, while volumes for OR-207 and OR-74 roadway segments increased by approximately 5 and 0.5 percent, respectively, on average over the same time period.

OR-207 and OR-74, which generally carry much lower volumes than I-84 (11,754 and 21,410 trips per day, respectively, compared to 95,428 trips per day on I-84, as of 2020), saw a decrease of 7,996 and 1,620 trips per day, respectively, between 2016 and 2020.

Due to the rural nature of the analysis area, recent traffic counts for county roads that are proposed as transportation routes are not available. The counties do not monitor traffic volumes on a yearly basis. The most recent version of the Morrow County Transportation System Plan (Morrow County 2012) indicates that the County only has one year of traffic-count data (2005) for a select group of roadway segments in the County. Traffic data in the Transportation System Plan indicate that Bombing Range Road had an ADT of 1,250 in 2005, one of the highest counts of the roads included in the analysis (Morrow County 2012); no other ADT values were provided for the remaining county roads proposed as transportation routes. However, in general, traffic volumes on Morrow County roadways are low. Existing volume-to-capacity ratios are low for county roads, and thus it is assumed that existing capacity deficiencies on any county roadways are unlikely (Morrow County 2012). County roadway volumes are minimal, with some increase during the summer and early fall for harvest of various crops in the area.

### **Pavement Conditions**

Pavement conditions can influence traffic safety issues. Poor pavement with potholes might cause vehicles to swerve, resulting in unsafe vehicle operation. ODOT's 2020 Pavement Condition data were reviewed for state highway transportation routes (ODOT 2021). Table U-4 shows the conditions for state highways anticipated to be used as part of the primary and alternate transportation routes.

**Table U-4. Pavement Condition for State Highway Transportation Routes**

Roadway	Approximate Milepost	Pavement Condition
I-84 (No. 6)	MP 167.58 to 180.00	Very Good
I-84 (No. 6)	MP 180.00 to 188.04	Good
OR-207 (No. 333)	MP 12.59 to 17.81	Fair
OR-207 (No. 320)	MP 0.00 to 10.15	Good
OR-207 (No. 320)	MP 10.15 to 19.53	Good
OR-207 (No. 320)	MP 19.53 to 27.24	Fair
OR-74 (No. 52)	MP 36.45 to 38.82	Good
OR-74 (No. 52)	MP 38.82 to 45.38	Good
OR-74 (No. 52)	MP 45.38 to 45.89	Good

Source: ODOT 2021

The majority of the state highway transportation routes are in good condition. There are two segments on OR-207 with a fair rating, from approximately MP 12.59 to 17.81 and MP 19.53 to 27.24, between I-84 to the Oregon Trail Road/Echo junction and south to Butter Creek Road. A fair rating indicates minor or low severity pavement deficiencies that typically lead to treatment such

as chip seal or light resurfacing (ODOT 2021); however, fair conditions do not indicate a safety hazard.

Local county roadways are either paved or graveled, with Bombing Range Road being paved, and all of the remaining county roads being graveled.

### **Air Transportation**

Federal Aviation Administration (FAA) and Oregon Department of Aviation (ODA) notification will occur prior to beginning construction of the Facility. The Applicant will use the FAA Notice Criteria Tool to identify if a Form 7460-1 is required. If required, the Applicant will submit FAA Form 7460-1 to the FAA and the Oregon Department of Aviation (ODA) in accordance with ORS 836.535(2)(a) requesting a determination of No Hazard in order to allow the agency to evaluate the effect of the proposed construction on air safety and navigable airspace.

Following the submittal of the Facility's notice to the FAA and ODA, if required, the agency will conduct an aeronautical study; a Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but will not have a substantial aeronautical impact to air navigation. A Determination of No Hazard may include conditional provisions, limitations to minimize potential problems, supplemental notice requirements, or requirements for marking and lighting, as appropriate. The Applicant will provide to the Council a record of all correspondence with FAA and ODA.

#### ***2.3.2.7 Police Protection***

Police service is primarily provided by county police departments; some of the communities in the analysis area have a community police department that operates within their respective communities but will not cover the site boundary. As necessary, the Applicant will seek assistance from the Morrow County Sheriff's Office, located in Heppner, Oregon. Additional law enforcement service is available through the Oregon State Police, with offices in Hermiston and Pendleton. Attachment U-2 is a record of correspondence with the Morrow County Sheriff's Office confirming that they can provide services in the analysis area.

#### ***2.3.2.8 Fire Protection***

Fire protection service in the analysis area will be provided by the Ione Rural Fire Protection District and the Heppner Volunteer Fire Department. Attachment U-3 is a record of correspondence with the Ione Rural Fire Protection District confirming that the construction and operation of the Facility will not impede their abilities to provide emergency services. The Heppner Volunteer Fire Department was contacted multiple times, but no response has been received to date. As the site boundary is completely within the fire protection districts of Ione and Heppner, any emergency fire response would be by one of these rural fire protection districts, and any assistance by another fire department would be in the service of one of these rural fire protection districts.

### 2.3.2.9 *Health Care*

Because population density in the analysis area is relatively low, hospitals and health care services tend to be regional. There are no hospitals within the analysis area. The nearest hospitals to the Facility are the Pioneer Memorial Hospital located 12 miles south in Heppner, and the Good Shepherd Medical Center, located approximately 25 miles northeast in Hermiston. The nearest Level III trauma center is the Mid-Columbia Medical Center in The Dalles (Oregon Rural Health Association 2022). Ambulance service in the area is provided by the Morrow County Health District's Emergency Medical Services (Oregon Licensed Ambulance Service Providers 2019). Some of the nearby fire districts also have First Response Vehicles, with equipment and crew trained to stabilize a patient until the arrival of an ambulance for transport. In the event of a serious injury during construction or operation of the Facility, the patient may be flown by helicopter (operated by Life Flight) to one of the two Level 1 hospitals located in Portland: Oregon Health & Science University Hospital or Legacy Emmanuel Medical Center.

### 2.3.2.10 *Schools*

The site boundary falls within one school district: Morrow County School District No. 1. The schools closest to the Facility are Echo High School and the Ione High School, located 24 miles and 7 miles from the Facility's northeast and southwest site boundary, respectively. Other nearby school districts (most of which are outside of the 15-mile analysis area) that may experience an increase in enrollment due to the Facility include the Hermiston, Stanfield, and Pendleton school districts in Umatilla County; the Ione School District in Morrow County; and the Richland, Kennewick, Prosser, Kiona-Benton City, and Finley school districts in Benton County, Washington.

## 2.4 Potential Impacts on Public and Private Providers

*OAR 345-021-0010(1)(u)(C) A description of any likely adverse impact to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110.*

*OAR 345-021-0010(1)(u)(D) Evidence that adverse impacts described in (C) are not likely to be significant, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts.*

### 2.4.1 *Economic and Demographic Impacts*

In total, the quantity of new temporary construction jobs and new operations jobs created from Facility construction and operations will represent less than 4 percent of total employment in Morrow County (a total of 5,827 jobs in Morrow County [U.S. Bureau of Labor Statistics 2020]). Additionally, the new temporary and permanent populations represent a small fraction of the total county population. Due to the Facility and the jobs being located in an unincorporated part of the county, they will not directly affect the employment base of a specific community. The jobs created by the Facility will result in short-term and long-term benefits to overall county employment.

#### ***2.4.1.1 Population and Housing***

Limited in-migration for construction-related employment and permanent O&M employment are anticipated to occur as a result of the Facility. Temporary, in-migrant construction-related jobs are anticipated to last no more than 12 months, with a majority lasting approximately 6 months. During construction, in-migrant workers likely will stay at area motels or RV parks, eat at local restaurants, and purchase other amenities such as gas and groceries, all resulting in a beneficial impact on the local economy. An estimated three staff will be employed at the Facility for O&M. Some O&M staff will be hired locally, and some will be hired from outside the area for those positions that require previous experience at other solar generation facilities. It is assumed that these permanent O&M workers will live locally. Making the conservative assumption that 50 percent (two) of the O&M positions are filled from outside the analysis area and the average household size is three (higher than for temporary employees), approximately six new residents could be added to the local population. That amount is small in comparison to the populations of Morrow, Umatilla and Gilliam counties. Thus, it is not anticipated that the Facility will cause adverse impacts to communities within the analysis area.

Impacts on housing could occur if there were an inadequate supply of housing in relation to the demand from the new temporary and permanent residents associated with the Facility. Permanent housing for about two new households may be required starting at the beginning of operations. It is not yet known where the new temporary and permanent residents associated with the Facility will settle as well as what type of housing they will select. No significant adverse impacts to available housing are expected from construction and operations (see Section 3.4.6 for additional information).

#### ***2.4.1.2 Economic Activity and Tax Revenues***

Revenue generated for the local economy will benefit public services, including schools and others services Morrow County offers to its citizens. Counties outside Morrow County would not gain revenue from Facility operation through tax payments, but would gain employment opportunities for residents from communities within those counties to be employed during construction and operation of the Facility. Income earned by those individuals due to the Facility will contribute to the local economy indirectly through local purchases. In addition, the Facility itself will purchase goods and services from local and regional businesses to the extent practicable, from Facility maintenance services to office equipment to business services. Lease payments to local landowners will also benefit the local economy because it is likely that a portion of the lease payments will be spent in nearby communities. These activities will result in a net inflow of dollars into the local economy that will have a beneficial effect beyond that of the new employment.

#### ***2.4.2 Sewers and Sewage Treatment***

The only sewage services required by the Facility during construction will be related to the handling of sewage from contract portable toilets. Portable toilet sewage will be pumped regularly and disposed of at a local treatment facility. The Applicant will install wastewater facilities in the

O&M building or use existing facilities at the Wheatridge Facilities O&M building. The domestic-strength waste will be treated by the building's on-site, licensed septic system. No other sewage treatment will be needed for Facility operations. Due to the distance to the nearest developed sewer system, the Applicant does not anticipate that connection to sewers or sewage treatment facilities will be required. Because the Facility's sewage needs will be minimal during both construction and operations, the Facility will not have any significant adverse impact on the ability of any community in the area to provide sewers or sewage treatment.

#### **2.4.3 Water**

An estimated maximum of 40.2 million gallons of water (71.4 million gallons, worst-case) will be required for the Facility during construction (per phase) and 965,008 gallons per year required for module washing<sup>2</sup> during operations (see Exhibit O). Most water required for construction will be used for dust control and compaction of access roads. Water for construction will be purchased from Hermiston Water Department, Stanfield Public Works, Boardman Public Works, and/or the Port of Morrow pursuant to an existing municipal water right held by the water utilities. The Facility's water demand is not expected to injure the utilities' existing water right or exceed the amount of water available to the service provider (see Exhibit O). Alternatively, water may be provided from an existing or newly constructed well under a limited water use license, municipality-approved source, or other source that has regulatory approval for construction use.

Kitchen and bathroom facilities will be installed in a new O&M building or existing facilities will be used at the Wheatridge Facilities O&M building. The Applicant expects to rely on an exempt well allowed under Oregon Revised Statute 537.545 to provide water to the new or existing O&M building. Nominal amounts of water will be needed for domestic purposes (hand washing, drinking, toilets) and an on-site exempt well will provide less than 5,000 gallons per day for domestic use. Given that the operational water needs of the Facility represent an insignificant fraction of the total municipal water use in the analysis area, existing water rights will not be negatively affected and sufficient water will be available for the intended uses. If water is needed for industrial uses, such as solar panel washing, it will come either from Hermiston Water Department, Stanfield Public Works, Boardman Public Works, and/or the Port of Morrow, or from an existing or newly constructed on-site well or wells permitted under a limited water use license issued by the Oregon Water Resources Department (OWRD). OWRD allows exempt well(s) to be used for long-term operational use such as for solar panel-washing as long as withdrawals maintain compliance with Oregon Revised Statute 537.545(1)(f) by not exceeding 5,000 gallons per day without securing a withdrawal permit. Therefore, no adverse impacts to water use and supply are anticipated during construction or operations.

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<sup>2</sup> Although solar panel washing is not anticipated and will be dependent on weather conditions, during drought conditions when there is more dust, the panels may require washing.

#### ***2.4.4 Stormwater Drainage***

During Facility construction, stormwater drainage impacts could occur as a result of constructing new and improved roads, temporary construction areas, and concrete foundations. Adherence to the erosion control measures included in the Facility's NPDES Construction Stormwater Discharge General Permit 1200-C and accompanying ESCP will prevent adverse impacts related to construction of these facilities. Exhibit I discusses the 1200-C permit in more detail. A copy of the draft permit application is included as Attachment I-1 to Exhibit I. The site boundary is located in a rural area where existing stormwater infrastructure is limited to minimal facilities associated with public roads. Erosion control BMPs used during construction will not affect the provision of stormwater management services by any public agency and Facility components will be designed to maintain existing stormwater drainage patterns. The site boundary is not within a designated drainage district or urban area and is mostly vegetated, which serves as a buffer to promote infiltration and minimize erosion. Therefore, Facility construction will not alter existing drainage patterns and will not have an adverse impact on the ability of any community in the area to provide stormwater drainage.

Stormwater management infrastructure put in place during construction will be left in place as needed, to continue functioning throughout the life of the Facility where impermeable or semi-impermeable surfaces (e.g., access roads) remain to support O&M activities. Such features may include roadside ditches, infiltration swales, or retention basins. These facilities will be located on private land and will not affect the provision of stormwater management services by any public agency.

An industrial stormwater permit will not be required for Facility operations because no ground-disturbing activities will occur during operations, no stormwater will be discharged to surface waters of the state, and the area inside the Facility fence line will be revegetated as required by the NPDES Construction Stormwater Discharge General Permit 1200-C. No adverse impacts on the ability of any community to provide stormwater drainage are anticipated from Facility operations.

#### ***2.4.5 Solid Waste Management***

Potential impacts on the ability of communities to provide solid waste management services could occur if the solid waste management needs from the Facility during construction or operations cannot be met through existing facilities or if meeting those demands interferes with the ability of service providers to meet other community waste management needs (e.g., if local landfill capacity is inadequate to handle the needs of the Facility). Most waste will be removed from the site and reused, recycled, or disposed of at the nearby Finley Buttes Regional Landfill if necessary. The Finley Buttes Regional Landfill has indicated that they have adequate capacity to serve the Facility and does not anticipate reaching full capacity for another 110 years (see Attachment U-1). As further described in Exhibit G, little construction waste will require off-site disposal, and only small amounts of solid waste will be generated during Facility operations. Solid waste disposal for the Facility during construction and operations will be provided through a private contract with a local,

licensed commercial hauler or haulers and is not anticipated to disrupt services already being provided in any incorporated communities or in the larger Morrow County area. Additionally, as mandated by Morrow County's Solid Waste Management Ordinance, the Applicant will coordinate with waste and recycling franchisees servicing the Facility to maintain required records. The Facility, therefore, will not have any significant adverse impact on the ability of any community in the area to provide solid waste management services.

#### **2.4.6 *Housing***

Potential impacts to housing could occur if there were an inadequate supply of housing in relation to the demand from the new temporary and permanent residents associated with the facility. It is not yet known where the new temporary and permanent residents will settle and what type of housing they will select.

The number of skilled local workforce is continuously growing as more solar energy projects are built in eastern Oregon. As discussed below, additional workers are likely to commute daily from communities outside the analysis area (e.g., Heppner, Boardman, Irrigon, Hermiston, Echo, Stanfield, Umatilla, Arlington, Lexington, and Ione), which would lessen impacts to housing associated with the in-migration of outside workers.

Based on the projected Facility employment and population amounts, additional temporary housing could be required for up to 140 new households during the peak construction period and about 105 new households on average during the 12-month construction period. However, this is based on the conservative assumption that 30 percent of construction workers will be hired locally—and thus not require temporary housing—while the remainder would be from outside the 30-mile commuting distance. Additionally, it is assumed that most construction workers will be in the area for approximately 6 months as opposed to the full construction period. The actual number of temporary residents may be fewer if more locals are hired. In addition, while the household estimates assume the entire Facility would be constructed in one period, construction of the Facility is proposed to take place over multiple phases (see Exhibit B). Thus, any Facility-related housing demand would be less than the maximum estimates provided.

Hotels, motels, and trailer or RV parks will likely be the most viable available housing option for temporary residents. Publicly available hotel and motel occupancy data show an estimated statewide year-to-date occupancy rate of 44.3 percent in August from 2020 (OTC 2020). Hotel and motel occupancy rates also vary by region, with occupancy rates in Oregon generally higher in the Portland Metro area. Based on desktop sources, more than 350 hotel and motel rooms in communities within a commutable distance (30 miles) to the Facility are available (Travel Oregon 2022; Tripadvisor.com 2022). Some hotels and lodges are available in Heppner (12.0 miles away), Boardman (14.5 miles away), Hermiston (21.9 miles away), Umatilla (24.1 miles away), and Arlington (26.7 miles away). The communities listed above as well as Irrigon (19.4 miles away), Echo (21.1 miles away), and Stanfield (21.6 miles away) also have campground and RV park options available (Travel Oregon 2022; Tripadvisor.com 2022). Most rooms were found in Boardman and Hermiston. Additional rooms may be available in establishments that do not have

information available online. Additional temporary housing will be available in overnight facilities located at private RV campgrounds.

If all migrant (non-local) construction workers sought temporary housing within the 15-mile analysis area, there would not be enough supply to meet that demand, and mitigation, such as on-site temporary housing facilities, would be required to diminish the significant housing impact to local communities. However, this cannot be assumed to occur. Industry experience indicates that construction workers are unlikely to relocate if commuting to work is an option, and that commuting an hour or more is common. Therefore, a 30-mile commute distance is certainly a conservative estimate based on keeping commute times to an hour or less. That distance includes the communities of Heppner, Boardman, Irrigon, Hermiston, Echo, Stanfield, Umatilla, Arlington, Lexington, and Ione that have greater housing availability as noted above, as well as other amenities when compared to options within 15 miles, which would attract workers in need of temporary housing. Although it cannot be assumed that housing facilities will have vacancies at any given time, adequate supplies are available within a commutable distance in relation to the number of temporary workers, especially given a phased construction approach (see Exhibit B). Additionally, experience with energy facility construction, for example during the peak of wind power construction in 2009 and 2010 near the community of Arlington, Oregon, demonstrates that multiple facilities can be built in an area comparable to the analysis area without creating local housing issues. Therefore, no significant adverse housing impacts from Facility construction are anticipated.

Permanent housing for about two new households (with up to three people per household) may be required starting at the beginning of operations. For the maximum six new permanent residents expected because of Facility operations, it is anticipated that adequate opportunities will be available to purchase housing or to construct new housing in the analysis area, or within a commutable distance from the Facility outside of the analysis area. Given the reasoning described in this section as well as the general availability of housing opportunities, no significant adverse impacts on the ability of communities to provide housing are anticipated from Facility construction or operations.

## **2.4.7 *Transportation: Traffic Safety and Roadway Impacts***

### **2.4.7.1 *Construction Impacts***

#### **Traffic Volumes**

It is estimated that an average of 100 trips per day (50 roundtrips), with a peak of 134 trips (67 roundtrips), will be needed over approximately 250 construction work days (about 12 months). This is based on the estimated average and maximum peak workforce, with a carpool factor of 1.5 persons per vehicle. The majority of these trips are commuting trips by the workforce followed by material deliveries and construction equipment deliveries.

I-84 and OR-207 will see the largest number of trips, as delivery of aggregate, concrete, and water may originate from these roads and most of the communities likely to provide temporary housing are located along or near these roads. Overweight or oversize deliveries, such as the transmission line poles and main power transformers, will be delivered via this route. As noted earlier, workforce traffic will also be divided among the primary and alternate routes, with some traffic also using OR-74 from south of the Facility up to OR-207 and Bombing Range Road. Bombing Range Road will also be used for some truck traffic (i.e., aggregate, water, and material deliveries) and large component or equipment deliveries when supplies are needed at the northern site boundary of the Facility.

As described in Section 3.3.2.6, in 2020 I-84 carried an ADT volume of approximately 95,428 vehicles between Boardman and the Hermiston Highway Interchange (OR-207), Oregon. Based on the above ADT estimates, for the construction period, construction vehicles will cause an increase in traffic of less than 1 percent through I-84. This increase is expected to be inconsequential on the primary and alternate transportation routes.

Also, on the primary transportation route, peak construction trips will increase ADT volumes on OR-207 (between I-84 and Lexington) by approximately 5 to 6 percent (less just south of the OR-207, Oregon Trail Road intersection and greatest near I-84). This increase represents a low amount of traffic along most of OR-207. The OR-207 road segment with the greatest potential for impact is the section that includes the Oregon Trail Road/Echo exit, which could see as much as a 43 percent increase; Short-term delays are likely to occur during construction in this section of OR-207. OR-207 is also part of the primary transportation route to access recreation opportunities such as the Oregon Trail Well Spring Interpretive Site, though traffic impacts are anticipated to be temporary, intermittent, and minimal due to most construction traffic occurring during non-peak recreational hours (i.e., weekend) and an alternate transportation route being available (northern portion of OR-74; see Exhibit T).

On the alternate workforce traffic route along OR-74 between Heppner and Lexington, construction vehicles will increase the ADT by less than 1 percent. This increase represents a negligible amount of traffic and thus impacts are not anticipated.

Along Bombing Range Road at its peak level, ADT may increase by as much as 10 percent; however, given the lack of recent ADT information for Bombing Range Road (2005 ADT data; Section 3.3.2.6), the increase could be much less. Bombing Range Road is part of the route used to access the Oregon Trail Well Spring Interpretive Site; however, impacts are anticipated to be minimal due to Facility construction traffic being intermittent and temporary in nature and due to the OR-74 alternate transportation route (see Exhibit L).

ADT values are unavailable for Strawberry East Road as well as the remaining county roads proposed as transportation routes; however, capacity deficiencies on any county roads are not anticipated due to the low volume-to-capacity ratios (Section 3.3.2.6; Morrow County 2012). Thus, construction of the 230-kilovolt transmission line along Strawberry East Road is not anticipated to cause severe traffic impacts. During construction of the transmission line (0.6 mile to interconnect to the Blue Ridge Substation), a short segment of one lane of traffic on the graveled Strawberry East

Road may need to be temporarily closed over several weeks to a month to accommodate construction crews and equipment.

While construction-related traffic may cause short-term traffic delays (because of large, slow-moving delivery trucks and increased congestion), the delays will be temporary and can be minimized by implementing the following measures as necessary:

- Coordinate the timing and locations of road closures or oversize load movements in advance with emergency services such as fire, paramedics, and essential services such as mail delivery and school buses.
- Maintain emergency vehicle access to private property.
- Minimize movements of normal heavy trucks (dump trucks, concrete trucks, standard size tractor-trailers or flatbeds, etc.; essential deliveries only) and prohibit movements of oversize trucks, to the extent practicable, during peak traffic times.
- Develop plans as required by county or state permit to accommodate traffic where construction would require closures of state- or county-maintained roads for longer periods.
- Consult with and notify the landowners prior to the start of construction to minimize disruptions to ranching and farming operations (e.g., harvest time activities requiring tractor movement between fields or trucks delivering agricultural products to market) due to construction activities such as equipment delivery.
- Construct a majority of the Facility during the summer months when school is not in session to prevent traffic interference.
- Post signs on county- and state-maintained roads, where appropriate, to alert motorists of construction and warn them of slow, merging, or oversize traffic.
- Use traffic control measures such as traffic control flaggers, warning signs, lights, and barriers during construction to ensure safety and to minimize localized traffic congestion. These measures will be required at locations and during times when trucks will be entering or exiting highways frequently.
- Use chase vehicles as required (or police vehicles, if required by the Oregon Department of Transportation) to give drivers additional warning.
- Maintain at least one travel lane at all times will be required so that roadways will not be closed to traffic due to construction vehicles entering or exiting public roads.

In addition, the Applicant will use the detailed traffic count estimates described above to develop a Construction Traffic Management Plan as part of a Road Use Agreement in consultation with the Morrow County Road Department. The Road Use Agreement will ensure that public roads impacted by Facility construction and operation will be left in “as good or better” condition than that which existed prior to the start of construction. Note that the Applicant’s parent company, NextEra Energy

Resources, LLC, has already obtained a Road Use Agreement with Morrow County for the Wheatridge Solar Project, which required coordination with the Morrow County Road Department and approval by the Morrow County Board of Commissioners (see Attachment U-4). Note that traffic management is included within the Road Use Agreement.

Therefore, with the above measures and development of a Construction Traffic Management Plan as part of the Road Use Agreement with Morrow County, no significant adverse traffic impacts are expected from construction of the Facility.

### **Traffic and Design Standards**

#### *Traffic Standards*

State highways are designed and constructed to handle legal loads of 80,000 pounds without a permit. During construction, it may be necessary for trucks exceeding the legal load limit to access the site via state highways. These trucks would potentially be used to deliver the substation transformers or heavy construction equipment. Before construction, the transportation contractor will consult with the Morrow County Road Department and ODOT to determine whether any segments of roadway or bridges are restricted for travel, and to obtain any oversize/overweight permits required to allow transport of these loads. There are no permanent restrictions on state highways proposed for transportation routes. Because the state highways are built to accommodate overweight vehicles with permits, impacts to safety or roadway pavement conditions are not expected. Currently, the primary and alternate transportation routes have very good or good pavement conditions, with two segments of fair conditions (see above Section 3.3.2.6). Vehicles up to 75 feet in length are allowed without special permitting on the primary and alternate transportation routes. The requirements imposed by Morrow County and ODOT effectively prevent significant impacts to traffic safety or maintenance needs along the transportation routes identified in this exhibit.

#### *Design Standards*

County and local roadways are expected to safely accommodate Facility construction traffic. Note that no county or local roadways are anticipated to require improvement prior to construction. Note that road conditions could change, thus the Road Use Agreement will reflect what is actually needed at the time of preconstruction compliance for the Facility. To ensure the integrity of local roads, the Applicant will coordinate with local transportation officials to make improvements where necessary to accommodate Facility construction traffic, and improvements will be restricted to areas within the respective rights-of-way.

The Applicant will work with ODOT and the Morrow County Road Department to ensure that any unusual damage or wear to state or county roads that is caused by Facility construction is repaired by the Applicant. All county roads on the primary transportation route will be evaluated prior to and after construction of the Facility to determine what, if any, degradation has occurred.

Inspections will include monitoring of roadway conditions after the completion of construction activities. Monitoring may include the use of video footage, photographs, and engineer field notes to

document road conditions. During construction of the Facility, the contractor will obtain authorization from ODOT and Morrow County before proceeding with overweight loads on state- or county-maintained roadways. The Applicant will strictly abide to travel conditions and transportation equipment requirements enforced by either ODOT or Morrow County. Upon completion of construction, the Applicant will restore county roads to their pre-construction condition or better, to the satisfaction of the County Road Department. Regardless of existing pavement conditions, roadway segments will be reviewed prior to any added construction traffic, and a system for monitoring safety or degradation to pavement will be developed for the necessary roadways prior to construction. The Applicant will ensure that the construction and operation of the Facility will maintain ODOT's and Morrow County's road systems in as good or better quality than prior to the Facility's construction.

#### **2.4.7.2     *Operation Impacts***

Operational traffic impacts associated with the Facility are not expected. Operational trips would include employees traveling to work in their personal vehicles, as well as specialized personnel who may travel in light-duty trucks. As stated previously, three full-time staff may be employed during Facility operations. The occasional delivery truck may also access the site during operations. Daily traffic generated by this Facility is not expected to affect operations on any of the state or county roads, since operations vehicles will constitute a tiny fraction of the daily traffic.

Thus, adverse operational impacts to traffic safety or travel times from the Facility are not anticipated. Therefore, adverse impacts to the transportation network are not anticipated during operation of the Facility.

#### **2.4.8     *Police Protection***

Potential adverse impacts on the ability of communities to provide police protection could result if the Facility itself caused an increased need for police services (e.g., from vandalism or other crime during construction or operations) or if the additional temporary or permanent population from the Facility resulted in such increased need. The additional temporary and permanent workforce is not expected to create any significant concerns. The Applicant will provide 24-hour on-site security such as cameras with remote monitoring during construction and effective communications will be established between on-site security personnel and the Morrow County Sheriff's Office. As necessary, back-up law enforcement will be available from the Oregon State Police, with offices in Hermiston and Pendleton. The estimated maximum 140 new temporary residents and the 3 new permanent residents are not expected to place significant new demands on police in the area. The Morrow County Sheriff has indicated that they can provide services to the Facility without impacting their current customer service base (Attachment U-2). Therefore, the Facility will not have a substantial adverse impact on the ability of local communities to provide police protection or law enforcement services.

## 2.4.9 *Fire Protection and Emergency Response*

Potential adverse impacts on fire protection services could result if Facility construction or operation or the increased population associated with either caused an increase in fires or other needs for fire protection services beyond the ability of local fire departments to provide those services. During Facility construction, there could be some risk of accidental grass fires on the site due to metal cutting, welding, smoking, refueling vehicles and equipment, and operating or parking vehicles and other equipment off roadways in areas of tall dry grass. Solar panels contain a number of safety features designed to provide increased fire protection. The battery storage system also introduces an element that could pose a fire hazard. Lithium-ion batteries must be kept in a temperature-controlled facility with individual battery modules isolated to prevent the spread of fire if it were to occur. The battery storage system will incorporate a fire response system as designed by the battery manufacturer. During the operational phase of the Facility, fire danger will be minimal.

The following measures could be implemented to minimize fire and safety risks:

- Adequate firefighting equipment and water supplies will be maintained and made available during operations that carry a high fire risk (e.g., metal cutting, welding, parking in high, dry grass).
- The solar array will have shielded electrical cabling to prevent electrical fires.
- The collector system and substations will have redundant surge arrestors to deactivate the Facility during unusual operational events that could start fires.
- Facility infrastructure will be spaced sufficiently to prevent the spread of fire.
- All electrical equipment will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards.
- Smoke/fire detectors will be placed around the site that will be tied to the Supervisory Control and Data Acquisition system and will contact local firefighting services.
- Vehicles and equipment will drive and park on maintained graveled areas and roads to the extent practicable; roads will be established before accessing the site to keep vehicles away from grass.
- Vehicles will avoid idling in grassy areas, and cutting torches and similar equipment will be kept away from grass.
- Diesel vehicles will be used whenever possible to prevent potential ignition by catalytic converters.
- Facility roads will be sufficiently sized for emergency vehicle access.
- Fire prevention and response training will be administered to all on-site employees.

- A Facility Site Plan will be submitted to fire protection officials including current contact information for personnel.
- A Health and Safety Plan as well as an Emergency Response Plan will be developed with response procedures in the event of an emergency, such as a fire.
- Off-site, 24-hour monitoring of the battery energy storage system will be implemented and will include shutdown capabilities.
- The battery systems will be stored in completely contained, leak-proof modules, and O&M staff will conduct frequent inspections of the battery storage systems according to the manufacturer's recommendations.
- Transportation of lithium-ion batteries is subject to 49 Code of Federal Regulations 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. The regulations include requirements for prevention of a dangerous evolution of heat, short circuits, and damage to the terminals, and require that no battery come in contact with other batteries or conductive materials. Adherence to the requirements and regulations, personnel training, safe interim storage, and segregation from other potential waste streams will minimize any public hazard related to transport, use, or disposal of batteries.
- Design of battery energy storage system will be in accordance with applicable Underwriters Laboratories (specifically, 1642, 1741, 1973, 9540A), National Electric Code, and National Fire Protection Association (specifically 855) standards, which require rigorous industry testing and certification related to fire safety and/or other regulatory requirements applicable to battery energy storage at the time of construction.
- The portions of the Facility that will be graded will be replanted with a low-growing mix of grasses.
- The site will be mowed as needed for fire safety requirements and to keep vegetation from interfering with O&M activities.

A statement from the Ione Rural Fire Protection District indicated that they had no concerns with Facility construction or operations with respect to providing fire protection services (see Attachments U-3). Note that the Heppner Volunteer Fire Department was contacted multiple times, but no response has been received to date. As the site boundary is completely within the fire protection districts of Ione and Heppner, any emergency fire response would be by one of these rural fire protection districts, and any assistance by another fire department would be in the service of one of these rural fire protection districts.

The relatively small number of new temporary residents and new permanent residents are not expected to place significant new demands on the fire protection forces that serve the area. For the reasons provided above, the Facility will not have an impact on the ability of surrounding communities to provide fire protection and emergency response services during construction or operations.

#### **2.4.10 Health Care**

Impacts to health care could occur if Facility construction activities or increases in temporary residents (during construction) and permanent residents (during operations) resulted in an increase in the use of emergency and routine health care services that exceeded the current capacity of local providers. However, due to the relatively small number of new temporary residents and new permanent residents, significant new demands are not anticipated to health care facilities that serve the area. Therefore, no significant adverse impacts on the ability of communities to provide health care are anticipated as a result of Facility construction or operation.

#### **2.4.11 Schools**

Since construction work for the Facility will be short term and therefore few workers will bring their families with them, few if any students are expected in association with Facility construction. Additionally, much of the peak construction work period will occur during the summer months when school is not in session. Therefore, little to no construction-related impacts on schools will result.

With the assumption that up to 3 new permanent households will result from the Facility, an estimated maximum of 6 new schoolchildren (assuming 2 children per household) could move to the analysis area. Approximately 156 students are currently enrolled at the Ione High School in the analysis area. The school can accommodate the addition of 6 students, or slightly less than a 4 percent increase. Additionally, there are many other schools that can accommodate the new schoolchildren outside the 15-mile analysis area. As such, facility operation is not anticipated to have an adverse impact on schools.

No demand for school facilities is expected during Facility construction, and only minimal demand is anticipated from the small increase in local population from new permanent employees during Facility operations. The actual impacts on schools will dependent upon the housing choices of the new residents and their children, which are currently unknown. Given the relatively rural, dispersed area in which new residents are likely to settle, the relatively small number of expected new schoolchildren, and the number of schools available, it is unlikely that any one school will receive more new students than they are able to accommodate. Therefore, no significant adverse impacts on the ability of communities to provide school services are anticipated as a result of Facility construction or operation.

### **2.5 Proposed Monitoring Programs**

*OAR 345-021-0010(1)(u)(E) The applicant's proposed monitoring program, if any, for impacts to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110.*

The Facility will not result in significant adverse impacts to the ability of service providers identified in Section 3.3 to provide services in the analysis area. Therefore, a monitoring program is not proposed.

## 3.0 Conclusion

This exhibit provides the required information pursuant to OAR 345-021-0120(1)(u) and approval standard OAR 345-022-0110. Based on the evidence presented in this Exhibit U, the Applicant has demonstrated that the construction and operation of the Facility, taking into account mitigation, is not likely to result in significant adverse impacts on the ability of the providers within the analysis area to provide the following services: sewers and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, healthcare, and schools.

## 4.0 Submittal Requirements and Approval Standards

### 4.1 Submittal Requirements

**Table U-5. Submittal Requirements Matrix**

Requirement	Location
OAR 345-021-0010(1)(u) Information about significant potential adverse impacts of construction and operation of the proposed facility on the ability of public and private providers in the analysis area to provide the services listed in OAR 345-022-0110, providing evidence to support a finding by the Council as required by 345-022-0110. The applicant shall include:	-
(A) The important assumptions the applicant used to evaluate potential impacts.	Section 3.2
(B) Identification of the public and private providers in the analysis area that would likely be affected.	Section 3.3
(C) A description of any likely adverse impact to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110.	Section 3.4
(D) Evidence that adverse impacts described in (C) are not likely to be significant, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts.	Section 3.4
(E) The applicant's proposed monitoring program, if any, for impacts to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110.	Section 3.5

## 4.2 Approval Standards

**Table U-6. Approval Standard**

Requirement	Location
<b>OAR 345-022-0110 Public Services</b>	
(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.	Sections 2.0 through 3.0
(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.	Sections 2.0 through 3.0
(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.	N/A

## 5.0 References

FAA (Federal Aviation Administration). 2018. Technical Guidance for Evaluating Selected Solar Technologies on Airports. Version 1.1. Washington, DC: Office of Airports, Office of Airport Planning and Programming Airport Planning and Environmental Division. April. Available online at: [https://www.faa.gov/airports/environmental/policy\\_guidance/media/FAA-Airport-Solar-Guide-2018.pdf](https://www.faa.gov/airports/environmental/policy_guidance/media/FAA-Airport-Solar-Guide-2018.pdf).

Morrow County. 2012. Morrow County 2012 Transportation System Plan. Effective February 22, 2012. Available online at: [https://www.co.morrow.or.us/sites/default/files/fileattachments/planning/page/12211/tsp\\_complete\\_document.pdf](https://www.co.morrow.or.us/sites/default/files/fileattachments/planning/page/12211/tsp_complete_document.pdf)

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>

ODOT (Oregon Department of Transportation). 2016. Traffic Volumes on State Highways. Accessed online at: <http://www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx>.

ODOT. 2017. Traffic Volumes on State Highways. Accessed online at: <http://www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx>

ODOT. 2018. Traffic Volumes on State Highways. Accessed online at: <http://www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx>

ODOT. 2019. Traffic Volumes on State Highways. Accessed online at:  
<http://www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx>

ODOT. 2020. Traffic Volumes on State Highways. Accessed online at:  
<http://www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx>

ODOT. 2021. 2020 Pavement Condition Report. Pavement Services Unit. January 2021. Accessed online at:  
[https://www.oregon.gov/odot/Construction/Documents/Pavement/2020 condition report maps.pdf](https://www.oregon.gov/odot/Construction/Documents/Pavement/2020%20condition%20report%20maps.pdf)

Oregon Licensed Ambulance Service Providers. 2019. Accessed online at:  
<http://www.morrowcountyhealthdistrict.org/emergency-medical-services/>

Oregon Rural Health Association. 2022. ORHA Website. Accessed online at:  
<https://orha.wildapricot.org/>

OTC (Oregon Tourism Commission). 2020. Oregon Lodging Statistics, August 2020. Available online at: <https://industry.traveloregon.com/wp-content/uploads/2020/09/Statewide-Lodging-Performance-Statistics-for-August-2020.pdf>

Travel Oregon. 2022. Places to Stay. Available online at: <https://traveloregon.com/plan-your-trip/places-to-stay/>

TripAdvisor.com. 2022. Hotels and Places to Stay. Available online at: <http://www.tripadvisor.com>

U.S. Bureau of Labor Statistics. 2020. County Employment and Wages in Oregon – Fourth Quarter 2020. Accessed online at: [https://www.bls.gov/regions/west/news-release/countyemploymentandwages\\_oregon.htm](https://www.bls.gov/regions/west/news-release/countyemploymentandwages_oregon.htm)

U.S. Census Bureau. 2000. Online Census 2000 Results. American Fact Finder. Accessed online at: <http://factfinder.census.gov/>

U.S. Census Bureau. 2010. Online Census 2010 Results. American Fact Finder. Accessed online at: <http://factfinder.census.gov/>

U.S. Census Bureau. 2015. 2011-2015 5-Year American Community Survey Commuting Flows. Accessed online at: <https://www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html>

U.S. Census Bureau. 2019. American Community Survey 5-Year Estimates. Accessed online at: <http://factfinder.census.gov/>

U.S. Census Bureau. 2020. 2020 DEC Redistricting Data (PL 94-171). Accessed online at: <http://factfinder.census.gov/>

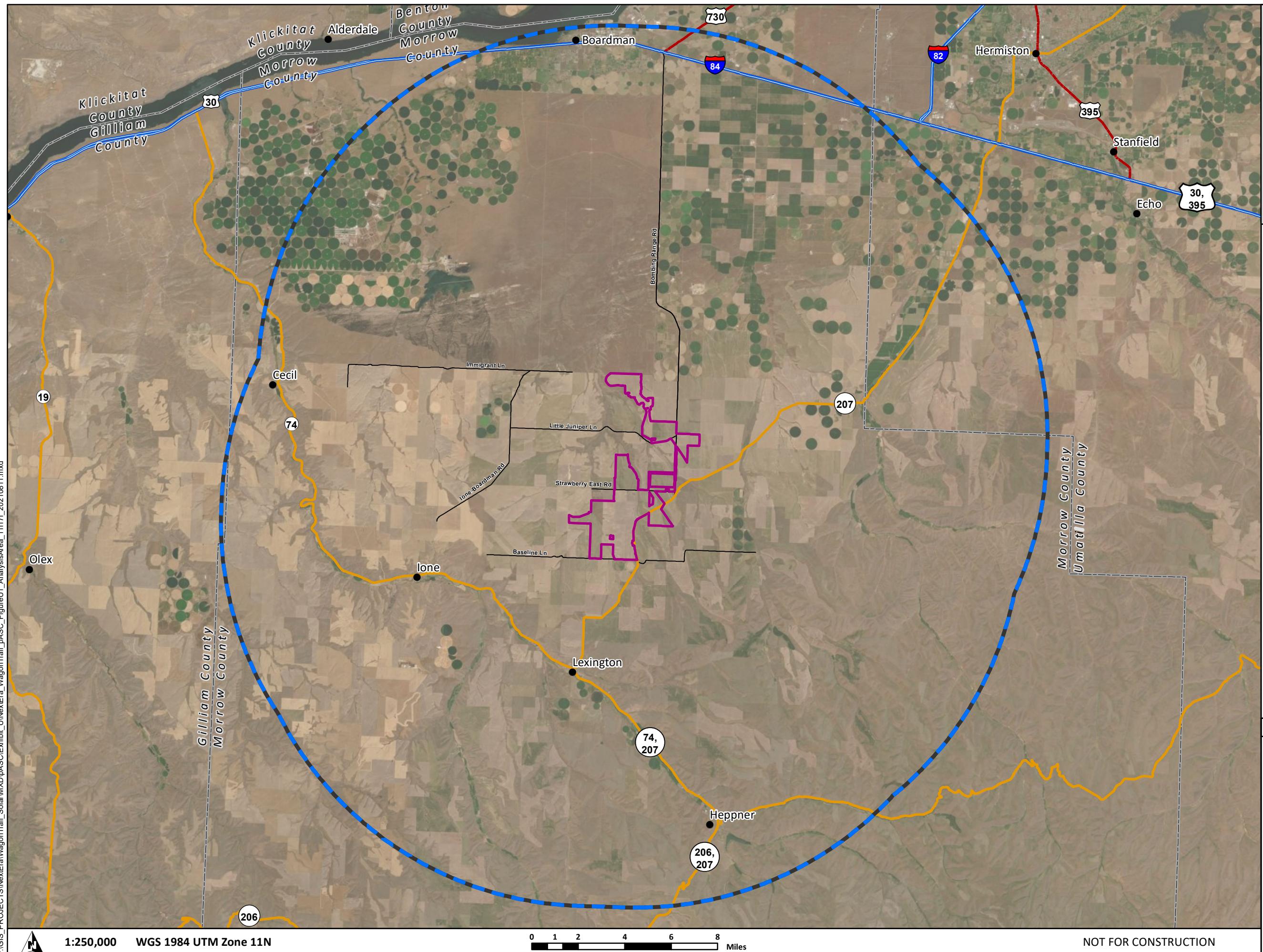
# **Figures**

# Wagon Trail Solar Project

Figure U-1  
Analysis Area

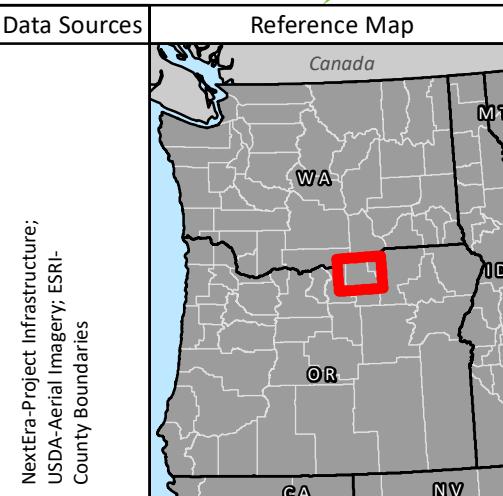
MORROW COUNTY, OREGON

- Site Boundary
- Analysis Area (15-mile Buffer)
- City/Town
- Interstate Highway
- US Highway
- State Highway
- Local Road
- County Boundary



TETRA TECH

NEXTERA  
ENERGY  
RESOURCES



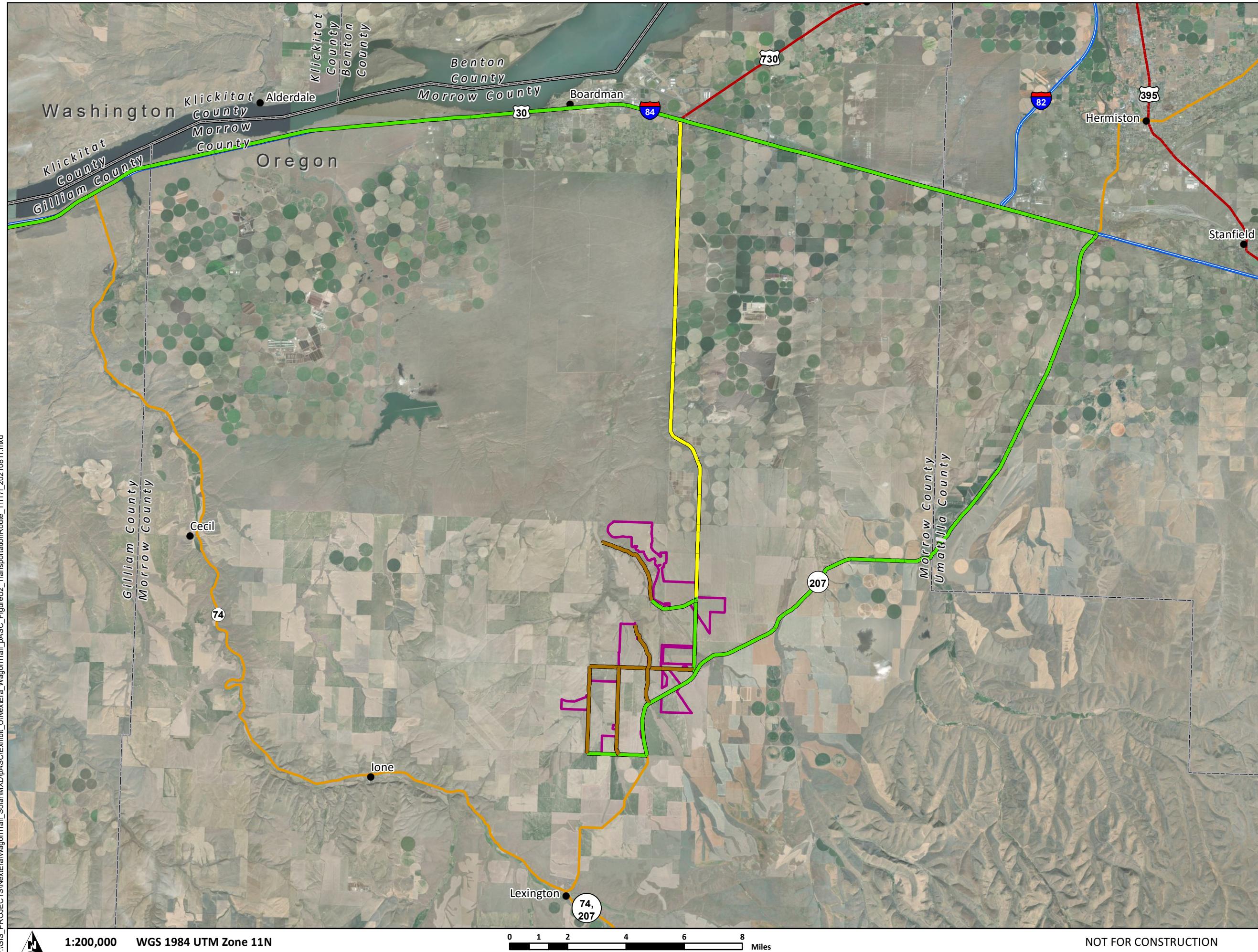
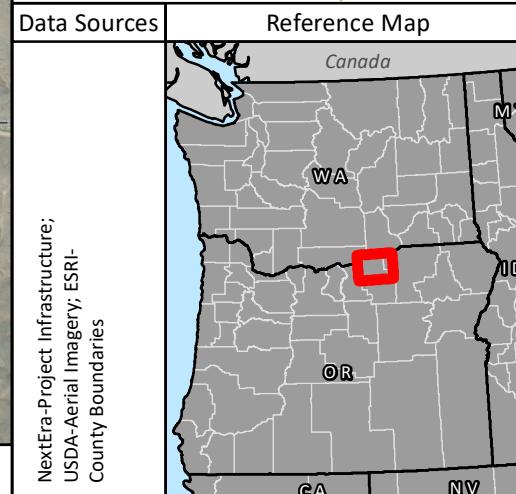
## Wagon Trail Solar Project

Figure U-2  
Primary and Alternate Construction  
Transportation Routes

MORROW COUNTY, OREGON

- Site Boundary
- Primary Transportation Route, Paved
- Primary Transportation Route, Unpaved
- Alternate Transportation Route, Paved
- City/Town
- Interstate Highway
- US Highway
- State Highway
- County Boundary
- State Boundary

 **TETRA TECH**  **NEXTERA ENERGY**  
RESOURCES



# **Attachment U-1. Record of Correspondence with Finley Buttes Regional Landfill**

**From:** [Jocelyn Jones](#)  
**To:** [Gulick, Kristen](#)  
**Cc:** [CUSTOMERSERVICE2050](#)  
**Subject:** RE: Finley Buttes Landfill Agreement with Wagon Trail Solar Project/Wheatridge Wind/Solar Project  
**Date:** Friday, December 4, 2020 9:45:02 AM

---

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Hi Kristen,

Yes, consistent with my previous correspondence, Finley is able to provide waste disposal services for approximately 110 years.

**Jocelyn Jones** | Landfill Sales  
Wasco County and Finley Buttes  
**Western Region – Waste Connections**  
501 SE Columbia Shores Blvd. Ste 350 Vancouver, WA 98661  
Mobile: 360.936.0386 | [jocelynr@wcnx.org](mailto:jocelynr@wcnx.org)



---

**From:** Gulick, Kristen [mailto:[Kristen.Gulick@tetrtech.com](mailto:Kristen.Gulick@tetrtech.com)]  
**Sent:** Thursday, December 3, 2020 11:34 AM  
**To:** Jocelyn Jones  
**Cc:** CUSTOMERSERVICE2050  
**Subject:** Finley Buttes Landfill Agreement with Wagon Trail Solar Project/Wheatridge Wind/Solar Project

WARNING: This email is from outside of Waste Connections; Exercise caution.

Hello,

I am contacting you on behalf of the proposed Wagon Trail Solar Project (Wagon Trail). Wagon Trail would be collocated and operated by the same owners (NextEra) as the Wheatridge Wind/Solar Project (Wheatridge). Wagon Trail would be an up to 500-megwatt solar energy generation facility with related or supporting facilities including a battery energy storage system in Morrow County, Oregon. More information on Wheatridge can be found here:

<https://www.oregon.gov/energy/facilities-safety/facilities/Pages/WREF-II.aspx>.

Correspondence was received from you in 2018 confirming that the Finley Buttes Landfill will be able to accommodate the waste produced by Wheatridge. Please see attached records of correspondence. Therefore, we are hoping you could provide an updated letter confirming that you can accommodate an updated amount of 100cy per week for Wagon Trail (non-hazardous waste). This is our current, conservative, estimate of waste anticipated for facility construction over a 9 to

12-month period.

Tetra Tech is under contract to NextEra through the Oregon Dept. of Energy's (ODOE) permitting process. To this end, we will provide to ODOE evidence of consultation with local municipalities that we have been in contact regarding waste services for the construction of Wagon Trail. At this point in the process, NextEra is not required to have entered into a contract with the Finley Buttes Landfill, we just need to demonstrate to ODOE that we have been in consultation with the Finley Buttes Landfill and that yes, you are able to provide waste services, as well as any constraints you may have. Any letter from you to me on this subject does not constitute a contract and you are under no obligation to supply waste services for the facility.

If you could please provide an updated letter addressing the Wagon Trail Solar Project as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like, or even a reply to this email. A mention of when the landfill is projected to reach capacity would be great to include, for Wagon Trail has an anticipated lifespan of up to 50 years, which would include retirement and decommission waste disposal.

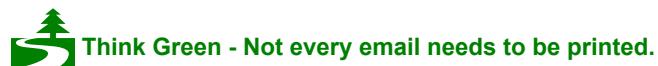
Thank you!

**Kristen Gulick** | Environmental Planner  
[Kristen.Gulick@tetrtech.com](mailto:Kristen.Gulick@tetrtech.com)

**Part-time Schedule: Monday – Friday**

**Tetra Tech | Portland**  
1750 S Harbor Way, Suite 400 | Portland, OR 97201 | [www.tetrtech.com](http://www.tetrtech.com)  
Direct: 503.721.7216 x 2241 | Fax: 503.227.1287 | Cell: 541.740.3316

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**Attachment U-2. Record of  
Correspondence with Morrow County  
Sheriff's Department**



# MORROW COUNTY SHERIFF

325 Willow View Drive -- P.O. Box 159  
Heppner, Oregon 97836  
Phone: (541) 676-5317  
Fax: (541) 676-5577

Kenneth W. Matlack, Sheriff  
John A. Bowles, Undersheriff

**To: Kristen Gulick**  
**From: John A. Bowles, Undersheriff**  
**Re: Wagon Trail Solar Project (Wagon Trail)**

**Date: 12-15-2020**

The Morrow County Sheriff's Office is the primary Law Enforcement agency for the area in which the Wagon Trail Solar Project will be located. This project is in a low to medium crime area in our county.

The Sheriff's Office will respond appropriately and as necessary to all complaints that come from the Wagon Trail Project. We do not expect this project to adversely affect the Morrow County Sheriff's Office in terms of additional workload.

Sincerely,

A handwritten signature in blue ink that reads "John A. Bowles".

**John A. Bowles, Undersheriff/ Emergency Manager**  
**Morrow County Sheriff's Office**

**Attachment U-3. Record of  
Correspondence with Ione Rural Fire  
Protection District**

**From:** [Debbie Morgan](#)  
**To:** [Gulick, Kristen](#)  
**Subject:** Re: ATTENTION/RESPONSE REQUIRED: Ione Rural Fire Protection District's Agreement with Wagon Trail Solar Project/Wheatridge Wind/Solar Project  
**Date:** Friday, December 11, 2020 11:05:03 AM

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**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

To: Carrie Konkol, Tetra Tech Inc.  
Dec. 11, 2020

The Ione Rural Fire Protection District is one of the five departments that will provide protection to the areas where Wheatridge Wind/Solar project (including storage) & the Wagon Trail facility are located.

The Ione RFPD does not provide high angle or confined space rescue.

We find that these facilities will not have a significant impact on our ability to fight wildfires.

Sincerely,  
Ione Rural Fire Protection District  
Chief; Virgil L. Morgan  
12-11-2020  
Sent from my iPhone

On Dec 11, 2020, at 8:42 AM, Gulick, Kristen <[Kristen.Gulick@tetrtech.com](mailto:Kristen.Gulick@tetrtech.com)> wrote:

Hello,  
I am contacting you on behalf of the proposed Wagon Trail Solar Project (Wagon Trail). Wagon Trail would be collocated and operated by the same owners (NextEra) as the Wheatridge Wind/Solar Project (Wheatridge). Wagon Trail would be an up to 500-megwatt solar energy generation facility with related or supporting facilities including a battery energy storage system in Morrow County, Oregon. More information on Wheatridge can be found here: <https://www.oregon.gov/energy/facilities-safety/facilities/Pages/WREF-II.aspx> and more information on Wagon Trail can be found here: <https://www.oregon.gov/energy/facilities-safety/facilities/Pages/WTS.aspx>.

Correspondence was received from you in 2018 confirming that the Ione Rural Fire Protection District will be able to provide fire protection services as needed for Wheatridge (one of five fire departments in the area that can provide services). Please see attached record of correspondence. Therefore, we are hoping you could provide an updated letter confirming that you can provide the same services for Wagon Trail.

Tetra Tech is under contract to NextEra through the Oregon Dept. of Energy's (ODOE)

permitting process. To this end, we will provide to ODOE evidence of consultation with local municipalities that we have been in contact regarding fire protection for the construction of Wagon Trail. At this point in the process, NextEra is not required to have entered into a contract with the lone Rural Fire Protection District, we just need to demonstrate to ODOE that we have been in consultation with the lone Rural Fire Protection District and that yes, you are able to provide fire protection services, as well as any constraints you may have (high angle, confined space rescue). Any letter from you to me on this subject does not constitute a contract and you are under no obligation to supply fire protection services for the facility.

If you could please provide an updated letter addressing the Wagon Trail Solar Project as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like, or even a reply to this email.

Thank you!

**Kristen Gulick** | Environmental Planner  
[Kristen.Gulick@tetratech.com](mailto:Kristen.Gulick@tetratech.com)

**Part-time Schedule: Monday – Friday**

**Tetra Tech | Portland**  
1750 S Harbor Way, Suite 400 | Portland, OR 97201 | [www.tetratech.com](http://www.tetratech.com)  
Direct: 503.721.7216 x 2241 | Fax: 503.227.1287 | Cell: 541.740.3316

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Think Green - Not every email needs to be printed.

<Ione Rural Fire Protection District Correspondence.pdf>

## **Attachment U-4. Wheatridge Solar Project Road Use Agreement**

## ROAD USE AND MAINTENANCE AGREEMENT

THIS ROAD USE AND MAINTENANCE AGREEMENT ("Agreement") is entered into as of this 7<sup>th</sup> day of April, 2021 ("Effective Date") by and between Morrow County, whose address for purposes of this Agreement is 100 S. Court St., Heppner, Oregon, 97836 ("County") and Wheatridge Solar Energy Center, LLC, a Delaware limited liability company, whose address for purposes of this Agreement is 700 Universe Boulevard, Juno Beach, Florida 33408 ("Solar Operator").

### RECITALS

WHEREAS, Solar Operator is developing a commercial solar and energy storage electrical facility ("Project") on sites located in Morrow County, Oregon, as described in **Exhibit A**, (Overall map including racks, modules, inverters, battery storage units, haul routes, access permits, utility permits, O&M building and etc.) consisting of a nameplate capacity of 50 (AC) megawatts ("MW") of solar generation and a nameplate capacity of 30 MW of battery storage dispersed amongst the solar panels; and

WHEREAS, Solar Operator intends to obtain the necessary approvals to build, operate and maintain the Project; and

WHEREAS, in connection with the construction, operation and maintenance of the Project, the Parties desire to address certain issues relating to the roads owned, operated and maintained by the County and as shown on **Exhibit B** (Map to include all solar generation infrastructure, delivery routes, construction routes and other roads used during construction of the Project) attached hereto (collectively, the "Roads"), over which it will be necessary for Solar Operator and Solar Operator's Representative(s) to, among other things: (i) transport heavy equipment and materials which may be in excess of local design limits of certain Roads, (ii) transport locally sourced materials, such as concrete and gravel, on the Roads; (iii) make specific modifications and improvements (both temporary and permanent) to the Roads (including various associated culverts, bridges, cattle guards, road shoulders and other fixtures) to permit such equipment and materials to pass; and (iv) place overhead and underground electrical and communication cables (collectively "Cables") for the Project adjacent to, along, under or across such Roads; and

WHEREAS, Solar Operator and the County wish to set forth their understanding and agreement relating to the use of Roads during the construction and operation of the Project; and

NOW, THEREFORE, in consideration of the mutual terms and conditions set forth in this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Parties agree as follows:

### TERMS AND CONDITIONS

1. Solar Operator will undertake the following activities in accordance with the terms of this Agreement:

a. Designate a company representative with authority to represent Solar Operator. At any time the Solar Operator Designee is changed, Solar Operator shall notify County within 24 hours, informing County of new Designee name, physical and mailing addresses, email address, and contact phone number. As of the date of the Agreement, the company representative is David Lawlor;

b. At least ninety (90) days prior to beginning construction of the Project, provide the County with a site plan identifying solar generation infrastructure, locations, site access points, and road crossings, to be attached as **Exhibit A**, along with the transportation route for the Project including routes for heavy haul, construction materials, supplies and other construction traffic attached as **Exhibit B**, subject to amendment and approval from Morrow County Public Works Director, County Administrator or designee of County;

c. At least ninety (90) days prior to beginning construction of the Project, provide the County with all design and engineering specifications for Road improvements required for the Project, as attached as **Exhibit C**, subject to amendment and approval from Morrow County Public Works Director, County Administrator or designee of County, which design and engineering specifications shall be consistent with standards per the Morrow County Transportation System Plan;

d. Erect permanent markers indicating the presence of permitted Cables and install tape in any trench in which Solar Operator has placed or will place permitted Cables in a County right-of-way. All Cables shall comply with county permit requirements as specified in the permit. Cables and any other utilities shall be installed with the least intrusion and placement in County right-of-ways;

e. Notify the County Public Works Director in advance of all oversize transportation and crane crossings over, across or along any Road through the Oregon Department of Transportation permitting process;

f. Transport or cause to be transported oversize loads in a reasonable effort to minimize adverse impact on the local traffic;

g. Provide reasonable advance notice to the County when it is necessary for a Road to be closed due to a crane crossing or for any other reason relating to the construction of the Project. Notwithstanding the foregoing, Solar Operator will provide no less than forty-eight (48) hours' notice when reasonably practicable and will provide all materials necessary to close the Road; If a closure is approved by the Public Works Director, Solar Operator will provide a timeframe of the closure, if closure is more than 20 minutes, Solar Operator will provide public notice via variable message devices and an approved detour with map and signage on detour route;

h. Provide signage of all road closures and work zones in compliance with the Manual on Uniform Traffic Control Devices and as may be required by the County;

i. Maintain any Roads then used by Solar Operator as necessary for Solar Operator's use of such Roads, which maintenance shall at all times be in compliance with County standards

for general public use, and may include, but are not limited to, snow removal, blading of gravel roads, patching of paved roads, and dust abatement. For purposes of clarity, this Paragraph does not require County to modify its regular repair and maintenance schedule. If Solar Operator determines that maintenance and repair activities in addition to those regularly conducted by County are necessary for Solar Operator's use of the Roads, then such additional maintenance and repair activities shall be performed by Solar Operator at its sole cost and expense pursuant to this subparagraph;

j. Purchase and deliver applicable road materials for repairs to Roads that are damaged by Solar Operator, Solar Operator Representative, Solar Operator contractor, subcontractor, or employee during the hauling of materials and/or construction of the Project and bear the reasonable costs to restore any Roads that are damaged by Solar Operator and/or a Solar Operator Representative during the hauling of materials and/or construction of the Project to the condition enjoyed immediately prior to or better than prior to such damage occurring. It is the intent of this Agreement that the Roads will remain open for public use during construction, and Solar Operator will keep all Roads used by it in conditions approved by Morrow County Public Works Director that allow the continued public use of the Roads. If, despite using commercially reasonable efforts, Solar Operator or Solar Operator Representative is unable to repair damage caused by it within the time frame requested by County to Public Works Director's approval, County may, at its sole discretion, repair such damage and invoice Solar Operator for the cost for such repair. Solar Operator will pay such cost, plus an additional fee of 10% above said cost for County administration. Solar Operator shall reimburse County for the cost of such repairs within thirty (30) days of Solar Operator's receipt of an invoice for such costs. County and Solar Operator agree that this Section is not intended to require County to perform the needed road repairs with reimbursement from Solar Operator on a regular basis. It is the intent of County and Solar Operator that Solar Operator will maintain and repair roads as described in this Agreement, and will only request County assistance if required after exercise of commercially reasonable efforts to repair damage caused by it within the time frame requested by County. Solar Operator will provide a designated person who will be responsible to inspect County's requests for repairs and schedule those repairs within the time frame requested by County of notice by the County Public Works Director or his designated representative; and

k. Cables may cross a road, in which case, these Cables will be bored under the road, buried at a minimum depth of forty-eight (48) inches below the road surface and the crossing shall be restored to its pre-construction condition within forty-eight (48) hours; There will be No open-cut trenching in County roads or right-of-ways unless specifically authorized by the Public Works Director in writing.

l. All roads described in **Exhibit B** identified in the preconstruction inventory must be brought to the current County standard per the Morrow County Transportation System Plan, or to the standard necessary for the use by Solar Operator. Each road will be evaluated during the preconstruction inventory and mutually agreed upon by the County and Solar Operator and be added to **Exhibit C** for said improvements.

2. The County, in accordance with the terms of this Agreement, agrees that it shall:

a. Designate the County Public Works Director as the representative with authority to represent the County. As of the date of the Agreement, the County representative is: Public Works Director, 541-989-9500;

b. Timely review and approve all design and engineering specifications for Road improvements required for the Project, as attached as **Exhibit C**, which design and engineering specifications shall be consistent with standards per the Morrow County Transportation System Plan;

c. Timely complete Solar Operator's requested Road improvements pursuant to the design and engineering specification approved by County and set forth in **Exhibit C**;

d. Timely perform routine and regular maintenance of the Roads including: grading, snow removal, striping, routine signage, and regularly scheduled maintenance and repair, as per County normal maintenance schedule, at the availability and direction of the County Public Works Director;

e. Timely review and approve all Project-related access points and road crossings, which are submitted by Solar Operator in **Exhibit A and B**;

f. Timely review and approve plans for all Project-related utility encroachments on County rights-of-way; which are submitted by Solar Operator in accordance with **Exhibit A and B**; and

g. Authorize the Public Works Director to agree on behalf of County to revisions to **Exhibit A, B, and C** and the final location of Road crossings, access points, and utility encroachments as revisions are submitted to the County by or on behalf of Solar Operator.

3. Costs and Expenses. Prior to County's commencement of work on Solar Operator's requested Road improvements (**Exhibit C**), County and Solar Operator shall agree upon the costs of such requested Road improvements. Solar Operator will pay such agreed-upon costs, plus an additional fee of 10% above said cost for County administration of said Road improvements. Any changes to the agreed-upon costs caused by modifications to Solar Operator's design and engineering specifications shall, likewise, be agreed upon by the Parties prior to commencement of the relevant work and paid by Solar Operator, plus the administrative fee, as set forth in the aforementioned.

4. Pre-Construction Inventory. No later than thirty (30) days prior to construction, the Parties shall jointly perform a survey to record the condition of all Roads which will be used in the transport of equipment, supplies and personnel to the Project. During this survey, the entire length of the Roads shall be videotaped and if deemed necessary by the parties, photographs may also be taken. In addition, the County will provide Solar Operator, if available, with copies of any plans, cross-sections and specifications relevant to the existing Roads structure. Copies of all pre-construction documentation shall be provided to each of the Parties. Solar Operator will reimburse

the County for all costs associated with the Pre-Construction Inventory at a rate of seventy-five dollars (\$75.00) per hour and reimburse the County within forty-five (45) days of invoice date.

5. Post-Construction Inventory. Upon completion of construction of each phase of the Project, representatives of the County and Solar Operator will perform a Post-Construction Inventory, the methods of which shall be similar to those of the Pre-Construction Inventory described above. The two sets of pre-construction and post-construction data will be compared and if there are any wheel lane ruts, cracking or other damage in excess of the original survey, the County and Solar Operator will determine the extent of the repairs or improvements needed to return the roads to a pre-construction condition. All costs associated with the Post-Construction Inventory repairs shall be borne solely by Solar Operator. The timeframe of completion of said repairs shall be no later than forty-five (45) days after the Project begins commercial operations, and said repairs are to be scheduled as agreed to by the Parties.

6. Routing and Access Approval. As soon as practical after execution of this Agreement and as necessary throughout the construction of the Project, Solar Operator and County shall meet to discuss routing for the transportation of equipment to the Project, Project-related access points, road crossings and Cable locations and the County shall review and approve the same in accordance with Section 2.

7. Agreement Violations. If County determines that a County road or right-of-way has been used by Solar Operator or any designee, employee, or contractor outside of those Roads authorized in **Exhibit B**, the County may, at its sole discretion, choose to terminate this Agreement, add the road or right-of-way to the list in **Exhibit B**, or come to a mutually agreed resolution with Solar Operator.

8. Mutual Indemnification/Hold Harmless and Liability Insurance Provisions.

a. Indemnity. Each Party (the "**Indemnifying Party**") agrees to indemnify, defend and hold harmless the other Party and such other Party's mortgagees, lenders, officers, employees and agents (the "**Indemnified Party**") against any and all losses, direct or indirect damages (including consequential damages), claims, expenses, and other liabilities, including, without limitation, attorneys' fees, resulting from or arising out of (i) any negligent act or negligent failure to act on the part of the Indemnifying Party or anyone else engaged in doing work for the Indemnifying Party, or (ii) any breach of this Agreement by the Indemnifying Party. This indemnification shall not apply to losses, damages, claims, expenses and other liabilities to the extent caused by any negligent or willful act or omission on the part of the Indemnified Party.

b. Limitations of Liability. In no event shall Solar Operator or any of its members, officers, directors or employees or the County or any of its Boards, officers or employees be liable (in contract or in tort, involving negligence, strict liability, or otherwise) to any other Party or their contractors, suppliers, employees, members and shareholders for indirect, incidental, consequential or punitive damages resulting from the performance, non-performance or delay in performance under this Agreement.

c. Required Insurance. Solar Operator shall upon commencement of construction of the Project and for the period of construction of the Project, maintain in full force and effect commercial general liability insurance, in the aggregate amount equal to Three Million Dollars (\$3,000,000). Solar Operator may utilize any combination of primary and/or excess insurance to satisfy this requirement and may satisfy this requirement under existing insurance policies for the Project.

#### 9. Miscellaneous

a. Remedies and Enforcement. The Parties acknowledge that money damages would not be an adequate remedy for any breach or threatened breach of this Agreement. Each of the parties hereto covenant and agree that in the event of default of any of the terms, provisions or conditions of this Agreement by any Party (the "**Defaulting Party**"), which default is not caused by the Party seeking to enforce said provisions (the "**Non-Defaulting Party**") and after notice and reasonable opportunity to cure has been provided to the Defaulting Party, then in such an event, the Non-Defaulting Party shall have the right to seek specific performance and/or injunctive relief to remedy or prevent any breach or threatened breach of this Agreement. The remedies of specific performance and/or injunctive relief shall be exclusive of any other remedy available at law or in equity.

b. Due Authorization. Solar Operator hereby represents and warrants that this Agreement has been duly authorized, executed and delivered on behalf of Solar Operator. The County hereby represents, and warrants that this Agreement has been duly authorized, executed and delivered on behalf of the County.

c. Severability. If any provision of this Agreement proves to be illegal, invalid, or unenforceable, the remainder of this Agreement will not be affected by such finding, and in lieu of each provision of this Agreement that is illegal, invalid, or unenforceable a provision shall be deemed added as may be possible to accurately reflect the intentions of the Parties and so as to make the unenforceable provision legal, valid, and enforceable.

d. Amendments. This Agreement constitutes the entire agreement and understanding of the parties and supersedes all offers, negotiations and other agreements. There are no representations or understandings of any kind not set forth herein. No amendment or modification to this Agreement or waiver of a Party's rights hereunder shall be binding unless it shall be in writing and signed by both Parties to this Agreement.

e. Notices. All notices shall be in writing and sent (including via facsimile transmission) to the Parties hereto at the addresses set forth in the Preamble (or to such other address as either such Party shall designate in writing to the other Party at any time).

f. This Agreement may not be assigned without the written consent of the Parties, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Solar Operator may assign this Agreement to its affiliates and may collaterally assign this Agreement to any lender in support of the Project.

g. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the instrument. Delivery of an executed counterpart of a signature page to this Agreement by telecopy shall be as effective as delivery of an originally signed counterpart to this Agreement.

h. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Oregon, irrespective of any conflict of laws provisions. Both parties desire that the transactions contemplated hereby be effected and carried out in a manner that is in compliance with all laws.

i. Successor and Assigns. This Agreement shall inure to the benefit of and shall be binding upon the Parties hereto, their respective successors, assignees, and legal representatives.

j. If any Term of this Agreement is found to be void or invalid, such invalidity shall not affect the remaining Terms of this Agreement, which shall continue in full force and effect.

k. Failure of County or Solar Operator to insist on strict performance of any of the conditions or provisions of this Agreement, or to exercise any of their rights hereunder, shall not waive such rights.

l. Whenever in this Agreement the approval or consent of either County or Solar Operator is required or contemplated, unless otherwise specifically stated, such approval or consent shall not be made the subject of a demand for additional compensation, nor otherwise unreasonably conditioned, withheld or delayed.

m. In any litigation arising from or related to this Agreement, the parties hereto each hereby knowingly, voluntarily and intentionally waive the right each may have to a trial by jury with respect to any litigation based hereon, or arising out of, under or in connection with this Agreement.

n. Nothing in this Agreement shall be construed as limiting or removing any applicable federal, state, city, county laws, rules, ordinances, or planning requirements.

*[remainder of page intentionally left blank]  
signatures begin on following page*

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed in their respective names by their duly authorized officers.

**Solar Operator:**

Wheatridge Solar Energy Center, LLC  
a Delaware limited liability company

By: Anthony Pedroni  
Anthony Pedroni, Vice President

**County:**

Don Russell  
Don Russell, Chair

April 7, 2021  
Date

Jim Doherty  
Jim Doherty, Commissioner

April 7, 2021  
Date

Melissa Lindsay  
Melissa Lindsay, Commissioner

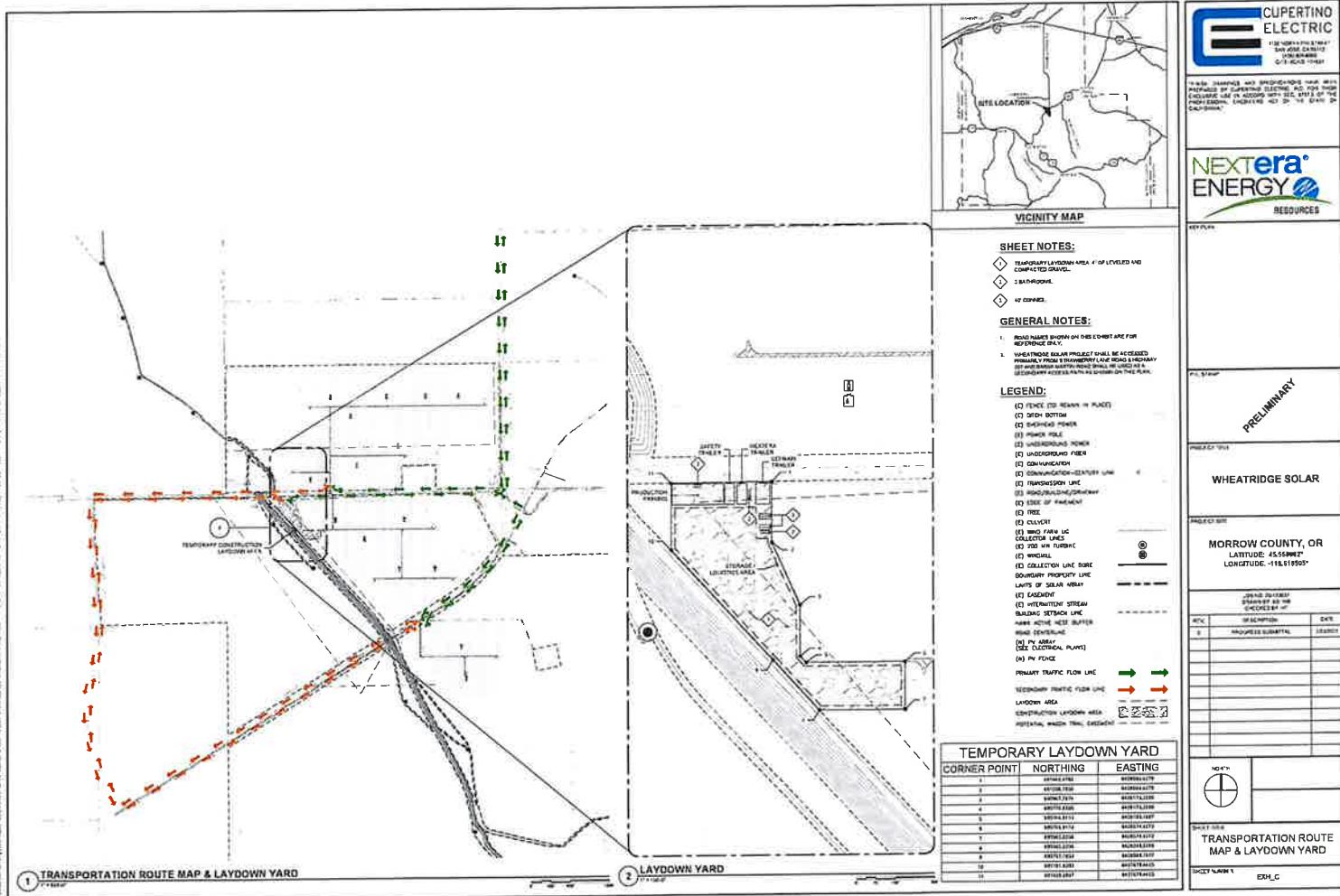
April 7, 2021  
Date

**Approved as to Form:**

By: \_\_\_\_\_  
Name: Josh McS.  
Title: County Attorney  
OSA #074460

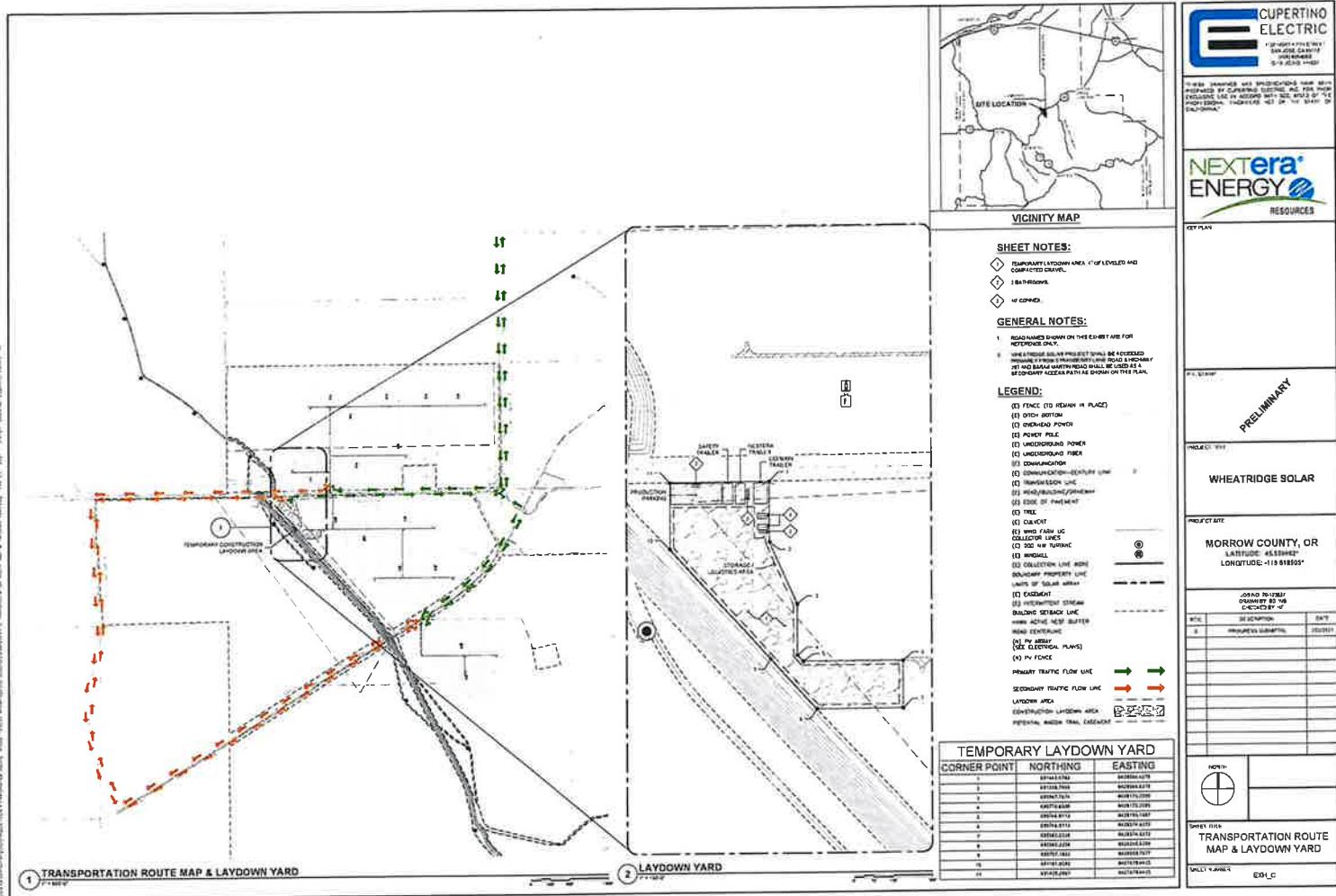
**EXHIBIT A**

**Site Plan**



**EXHIBIT B**

**Transportation Route – “Roads”**



**EXHIBIT C**

**Road Improvements**

n/a