Preliminary Application for Site Certificate for the Muddy Creek Energy Park

Exhibit L. Public Services

Submitted to the
Oregon Energy Facility Siting Council

Prepared for
Muddy Creek Energy Park, LLC

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
ADT	Average Daily Traffic
Applicant	Muddy Creek Energy Park, LLC
ASC	Application for Site Certificate
BESS	battery energy storage system
EFSC	Oregon Energy Facility Siting Council
Facility	Muddy Creek Energy Park
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
ODOT	Oregon Department of Transportation
ORS	Oregon Revised Statutes
pASC	preliminary Application for Site Certificate

1.0 Introduction

Muddy Creek Energy Park, LLC (Applicant) seeks to develop the Muddy Creek Energy Park (Facility), consisting of a 150-megawatt solar energy generation facility, a 150-megawatt battery energy storage system (BESS) project, and related or supporting facilities on approximately 1,590 acres of private land in Linn County, Oregon. This Application for Site Certificate (ASC) demonstrates that the proposed Facility will be designed, constructed, and operated consistent with the relevant Oregon Energy Facility Siting Council (EFSC) siting criteria and standards. In addition to meeting the minimum required EFSC criteria, the Applicant proposes to design, construct, and operate the Facility using agrivoltaics. Agrivoltaics co-locates the Facility with active farm operations to retain agricultural production and minimize agricultural impacts within the Facility Site Boundary.

The information contained herein supports the Facility's demonstration of compliance with the Public Services approval standard for Oregon Administrative Rules (OAR) 345-022-0110.

2.0 Impacts to Public Services – OAR 345-022-0110(4)(a)

(4) To assist the Council in determining whether the standard outlined in (1) through (3) has been met, the Applicant must submit:

(a) 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 OAR 345-022-0110. The applicant must include:

2.1 Analysis Area

In accordance with OAR 345-001-0010(35)(b), the Analysis Area for public services is typically 10 miles. However, as discussed in the Project Order (ODOE 2025), the Oregon Department of Energy determined a larger Analysis Area would be necessary based on the rural nature of the area and possible impacts from construction. Therefore, as defined in the Project Order, the Analysis Area for public services is the Site Boundary and extending 20 miles from the Site Boundary (Figure L-1). However, this exhibit also evaluated the area within 30 miles of the Facility Site Boundary to account for estimating population and workforce housing needs within a commutable distance to the Facility.

2.2 Methods

The following analysis was primarily based on secondary data compiled from federal, state, and local government agencies. State and local governments were also contacted directly for data on potentially affected public services. The potential effects of the Facility were evaluated with respect to the ability of public and private providers within the Analysis Area to provide sewers and sewage

treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, health care, and schools. Key variables used in this analysis include projected construction and operations employment, traffic volumes, and waste generation.

2.3 Assumptions Used to Evaluate Potential Impacts – OAR 345-022-0110(4)(a)(A)

(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.

2.3.1 Construction

For purposes of the analysis presented in Exhibit L, this analysis has conservatively assumed that the Facility would be constructed in phases over a period of approximately 18 months. During construction, it is estimated a maximum of 172 people will be employed during peak construction months. Average annual construction employment is assumed to be equivalent to peak construction employment (ECONorthwest 2026). The analysis assumes that the number of workers will fluctuate between 2027 and 2029; the actual start date for initiating the remaining construction effort will depend on when EFSC authorizes the ASC and when the Applicant is deemed to have completed its pre-construction requirements. The first quarter of 2029 is expected to be the peak months thatare expected to have 172 or more workers onsite. Generally, this workforce will be broken down by each Facility component. The number of workers needed for each Facility component ranges from month to month and is dependent on specialty. When feasible, preference will be given to local workers. Local workers will specifically be hired for road and turbine pad construction. The remaining number of workers will generally be from outside the local area.

The Facility is located entirely within Linn County; 20 communities in Oregon are located within a 30-mile radius of the Facility, which is considered as commutable distance for analysis purposes. Construction labor demand is expected to be met locally, with the exception of approximately 14 ironworkers who may need to be sourced from outside the local area (ECONorthwest 2026).

2.3.2 Operation

No operations and maintenance building is proposed. As a result, once construction is completed and the Facility is under operation, the Applicant expects to employ up to two full-time employees over the 20-year lifespan of the Facility. This employee will operate and maintain the Facility. It is anticipated that this employee will be hired locally, if possible.

2.3.3 Decommissioning

When the Facility is retired (decommissioned), the operational job will be eliminated. Retirement of the Facility will require removal of most Facility components and restoration of disturbed areas (see Exhibit F). These activities will result in temporary decommissioning employment similar to the construction of the Facility.

2.4 Affected Public and Private Providers – OAR 345-022-0110(4)(a)(B)

(B) Identification of the public and private providers in the analysis area that would likely be affected;

2.4.1 Population

The Facility is entirely within Linn County, but the Analysis Area includes a portion of Lane County and Benton County, and incorporated communities within a 30-mile commutable distance of the Facility. Table L-1 shows historical population estimates for Census Designated Places and incorporated communities in the Analysis Area. The City of Eugene, located approximately 10 miles south of the Facility in Lane County, is the largest community in the Analysis Area. Eugene had a 2024 population of approximately 179,591 people, 47 percent of Lane County's population total.

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

Location	Population			2010 - 2020		2020 - 2024	
	Census 2010	Census 2020	Estimated 2024	Absolute Change	Percent Change	Absolute Change	Percent Change
Oregon	**3,761,925**	**4,176,346**	**4,254,293**	**414,421**	**11.02**	**77,947**	**1.87**
Linn County	**114,315**	**127,216**	**130,706**	**12901**	**11.29**	**3,490**	**2.74**
Albany	48,560	54,442	56,839	5,882	12.11	2,397	4.40
Brownsville	1,789	2,139	1912	350	19.56	-227	-10.61
Crabtree	355	443	602	88	24.79	159	35.89
Harrisburg	3,419	3,852	3681	433	12.66	-171	-4.44
Lebanon	15,072	17,144	19,344	2,072	13.75	2,200	12.83
Peoria	0	216	130	0	0	-86	-39.81
Sweet Home	8,769	9,763	10,078	944	11.34	315	3.23
Tangent	1,091	1,394	1,290	303	0.28	-104	-7.46
Lane County	**347,156**	**377,749**	**384,207**	**30,593**	**8.81**	**6,458**	**1.71**
Coburg	884	1,384	1,626	500	56.56	242	17.49
Creswell	4,777	5,445	5,621	668	13.98	176	3.23
Eugene	153,288	170,457	179,591	17,169	11.20	9,134	5.36

Location	Population			2010 - 2020		2020 - 2024	
	Census 2010	Census 2020	Estimated 2024	Absolute Change	Percent Change	Absolute Change	Percent Change
Junction City	5,358	6,140	6,947	782	14.59	807	13.14
Lowell	822	1,027	1,228	205	24.94	201	19.57
Marcola	0	509	407	0	0	-102	-20.04
Santa Clara	0	11,020	10,551	0	0	-469	-0.04
Springfield	58,409	62,729	61,499	4,320	7.40	-1,230	-1.96
Veneta	4,222	5,010	5,200	788	18.66	190	3.79
Benton County	**84,158**	**92,168**	**96,303**	**8,010**	**9.52**	**4,135**	**4.49**
Bellfountain	40	8	66	-32	-80	58	7.25
Corvallis	53,435	58,612	59,960	5,177	9.69	1,348	0.02
Philomath	4,518	5,143	5,642	625	13.83	499	9.70

Source: U.S. Census Bureau 2010, U.S. Census Bureau 2020, U.S. Census Bureau 2024a.

2.4.2 Sewer and Water Services

As explained in Exhibit N, wastewater generated by the Facility will include construction waste consisting of sanitary wastewater, equipment washwater, and concrete washout water. Portable toilets will be provided during construction by a licensed subcontractor. They will be responsible for servicing the toilets at regular intervals and disposing of wastewater. The contractor will ensure there are enough portable toilets. Additionally, they will ensure the subcontractor complies with applicable regulations for waste holding tanks and waste transportation.

A potential source of water for construction of the Facility is the City of Harrisburg Public Works Department. The Applicant has emailed the City of Harrisburg Public Works Department to confirm that they are able to meet the Facility's water needs (See Exhibit O2). A response from the City is in Attachment L-1. Water will most likely be contracted with the Facility construction contractor, though the Applicant may contract directly with the supplier. Letters documenting formal commitments from the water supplier will be provided prior to construction.

2.4.3 Stormwater Drainage

Stormwater is expected to be generated during construction and operation of the Facility. Generally, stormwater from different surfaces, roadways, and solar panels will flow to the adjacent ground and infiltrate. Stormwater infrastructure in the vicinity is include existing drainages and ditches. Vegetation within the site boundary will serve as a buffer to promote infiltration and minimize erosion The nearest developed stormwater drainage facilities to the Facility would be the

cities of Coburg (4.6 miles) and Harrisburg (4.8 miles). The Facility will not connect to or otherwise impact either of these stormwater systems.

During construction, numerous best management practices, 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, will be implemented to minimize erosion and sedimentation that could alter the surrounding stormwater drainages. Some of the erosion and sediment controls anticipated include sediment traps and sediment basins for stormwater storage and passive treatment. See Exhibit C for more details.

2.4.4 Solid Waste Management

As discussed in Exhibit N, solid waste produced by the facility during construction will include discarded construction materials, packaging materials, and spent erosion control materials. Other discarded construction materials could include scrap metal from conductor scrap and reels, wire scraps, damaged pilings or racking equipment, or unused wiring. Solar photovoltaic panels, battery parts, and associated electrical equipment will be delivered to the site in cardboard, metal, and plastic packaging, along with wood pallets. Packaging will be recycled to the extent practicable and disposed of off-site. Solid waste disposal for the Facility will be provided through a private contract with local commercial haulers. The public landfill closest to the Site Boundary is the Coffin Butte Landfill, located approximately 30 miles northeast of the Facility in Corvallis, Oregon (see Attachment L-1 for the record of correspondence).

During operation of the Facility, solid waste generated by the solar array, battery energy storage, and associated infrastructure will be minimal. This waste will be collected and transported offsite to Coffin Butte Landfill, consistent with applicable waste disposal requirements. Waste batteries from the BESS will be disposed of offsite at a facility designed and approved for disposal or recycling of batteries by a licensed third-party battery supplier. The Applicant may utilize the applicant's EcoRecycle program which provides onsite collection of damaged or replaced solar panels for recycling. See Exhibit N for additional information on waste generation.

At the time the Facility is retired (decommissioned), Facility components will be sold for reuse or scrap, to help minimize the amount of waste requiring disposal at the Coffin Butte Landfill. Since a large portion of site materials will be recycled or sold, the Applicant does not expect a significant impact to local waste facilities.

2.4.5 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. Note that no RV usage is proposed at the Facility itself but rather at existing RV parks and campgrounds.

The Applicant assumes that most construction workers will be in the area for approximately 6 to 12 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 L-2 presents housing supply and availability data for counties and communities within a commutable distance (60 minutes). The estimated number of vacant rental units is calculated as a percentage of total vacant housing units; that percentage is based on the ratio of renter-occupied dwellings to owner-occupied dwellings. Using this method, an estimated 2,620 housing units were available for rent in communities within a commutable distance. Housing vacancy rates for 2024 ranged from zero percent in several communities to 8.3 percent in Philomath. The 2024 five-county average rental vacancy rate of approximately 3.3 percent is slightly lower than the state of Oregon's rental vacancy rate of 4.2 percent. Two of the 19 communities experience vacancy rates greater than 5 percent.

Table L-2. Available Housing Estimates

Geographic Area	Distance from Site Boundary (miles)	Total Housing Units (2024)	Vacant Housing Units (2024)	Of Occupied Housing, Percentage Occupied by Renter (2024)	Estimated Number of Vacant Rental Units (2024)	Rental Vacancy Rate (2024)
Oregon	**0**	**1,857,992**	**139,570**	**36.7**	**27,635**	**4.2**
Linn County	**0**	**53,315**	**2586**	**33.1**	**399**	**2.3**
Albany	26	22,768	835	41.1	109	1.2
Brownsville	9	838	41	14.9	0	0.0
Crabtree	26	167	0	0.0	0	0
Harrisburg	5	1,302	25	15.7	0	0.0
Lebanon	19	8,149	499	44.7	150	4.2
Peoria	16	88	10	19.2	0	0.0
Sweet Home	16	4,310	48	33.1	0	0.0
Tangent	20	464	38	29.1	11	8.1
Lane County	**1**	**169,788**	**9,343**	**40.3**	**2,132**	**3.2**
Coburg	5	545	37	19.1	9	8.5
Creswell	20	2,014	0	24.9	0	0.0
Eugene	12	80,856	4,034	52.1	1,624	3.9
Junction City	7	2,987	65	40.7	32	2.6
Lowell	25	527	34	16.4	0	0.0
Marcola	10	150	0	9.3	0	0.0

Geographic Area	Distance from Site Boundary (miles)	Total Housing Units (2024)	Vacant Housing Units (2024)	Of Occupied Housing, Percentage Occupied by Renter (2024)	Estimated Number of Vacant Rental Units (2024)	Rental Vacancy Rate (2024)
Santa Clara	9	4,644	272	20.1	0	0.0
Veneta	19	2,099	45	26.4	0	0.0
Benton County	**7**	**40,951**	**2414**	**43.1**	**677**	**4.3**
Bellfountain	**16**	**37**	**0**	**24.3**	**0**	**0.0**
Corvalis	**23**	**25,628**	**1648**	**58.3**	**612**	**4.2**
Philomath	**25**	**2,660**	**151**	**31.8**	**72**	**8.3**
Source: U.S. Census Bureau 2024b.						

During construction of the Facility, a maximum of 172 employees are expected to be onsite. Eight percent (approximately 158) of these employees will be from out of the local area and will require temporary housing. Within the Analysis Area there are several temporary housing options including hotels and long-term rentals.

Table L-2 presents housing supply and availability data for counties and communities within a commutable distance (30 miles) from the Facility. An estimated 7,782 housing units were available in 2024 in communities within a commutable distance. The number of vacant housing units in 2024 ranged from 2.414 in Benton County to 9,343 in Lane County.

2.4.6 Traffic Safety and Operations

The provider of transportation services in Linn County is the Linn County Road Department. State transportation facilities are provided and maintained by the Oregon Department of Transportation (ODOT).

2.4.6.1 Transportation Routes

Description of the Routes

The transportation route for construction vehicles and the Facility's workforce will originate from several locations. As requested by Linn County and EFSC, transportation routes between Eugene, Springfield, Lebanon, and Sweet Home have been assessed in addition to the I-5 corridor. Facility traffic originating in Eugene and Springfield is anticipated to use I-5 to Diamond Hill Road traveling east, then turning south on to Gap Road as depicted on Figure L-2. Gap Road can be used to reach several of the eastern Facility parcels. Traffic can also continue south on Gap Road 2.8 miles to go west as the road transitions to Priceboro Road to reach additional project parcels to the west, adjacent to I-5.

Traffic traveling from Lebanon is anticipated to take South Santiam Highway (US-20) south to Walker Road, then continue west to Stoltz Hill Road. From there, traffic will turn south and follow the road to Rock Hill Drive, which continues south turns west to meet Sandridge Road. Sandridge Road transitions To Brownsville Road and continues south 5 miles, then after pass through Brownsville, OR, Facility traffic can continue 7 miles on Gap Road to reach the site. Alternatively, Facility traffic could follow State Highway 34 (OR-34) west to I-5, and continue to Diamond Hill Road to reach the site.

Facility traffic originating in Sweet Home is anticipated to travel on State Highway 228 (OR-228) west until it meets Washburn Street/Gap Road in Brownsville, OR. From there Gap Road continues south to reach the site.

Descriptions of Major Roadways

- I-5 is an interstate highway that runs north to south through western Oregon. In the vicinity of the Facility near exit 209, there are two lanes travelling in each direction with paved shoulders; these are separated by a grass median.
- US-20 is a heavily used east-west cross-state highway in the northern part of Oregon, serving residents, freight, and tourism. Near the Facility, in Sweet Home, there are two lanes travelling in each direction. In Sweet Home, there are no shoulders, but paved shoulders with guardrails exist along the highway outside of the town limits; the lanes are separated by an at-grade median.
- OR-34 is a state highway that runs east-west through western Oregon. In the Facility vicinity, between Corvallis and Lebanon, there are two lanes travelling in each direction with paved shoulders; these are separated by a flush median.
- OR-228 is an approximately 21-mile long state highway that runs east-west between Halsey and Sweet Home in western Oregon. In the vicinity of the Facility, there is one lane traveling in each direction with paved shoulders; these are separated by a centerline median with rumble strips.
- Surrounding the Facility, Dimond Hill Road is a two-lane asphalt local county road with lane markings. It has gravel shoulders on both sides. Gap Road is also a two-lane asphalt local county road with lane markings and gravel shoulders.
- Brownsville Road is a two-lane asphalt local county road with lane markings and gravel shoulders extending north-south between Brownsville and Sandridge Road. Sandridge Road is also a two-lane asphalt local county road with lane markings and gravel shoulders.
- Priceboro Road is a two-lane asphalt local county road with lane markings and gravel shoulders which runs east-west through the Facility area, extending into the north-south running Gap Road on the east side of the Facility.
- Walker Road is a two-lane local county road within the limits of Lebanon that runs east-west with lane markings, bike lanes, and paved shoulders.

- Stoltz Hill Road two-lane asphalt local county road with lane markings and paved shoulders extending south from Lebanon.
- Rock Hill Drive is a two-lane asphalt local county road with lane markings and gravel shoulders extending south from Lebanon.

2.4.6.2 Traffic Volumes

Table L-3 provides the traffic volumes for the anticipated transportation routes for the Facility. Interstate highway volumes were published by ODOT from 2020 through 2024. Table L-3 also shows that from 2020 to 2024, Average Daily Traffic (ADT) volumes for I-5 increased by approximately 6 to 19 percent. Overall, the section of I-5 near the Facility has an average ADT of approximately 52,000 from 2020 to 2024. From 2020 to 2024, average ADT volumes for Average ADT volumes for the section of US-20 near the Facility decreased by approximately 1 to 7 percent in some sections and increased by approximately 0 to 25 percent in other sections. Overall, the section of US-20 near the Facility has an average ADT of approximately 12,700 from 2020 to 2024. Average ADT volumes for the section of OR-228 near the Facility increased by approximately 8 to 40 percent. Overall, the section of OR-228 near the Facility has an average ADT of approximately 5,120 from 2020 to 2024. Average ADT volumes for the section of OR-34 near the Facility increased by approximately 11 to 71 percent. Overall, the section of US-20 near the Facility has an average ADT of approximately 21,300 from 2020 to 2024.The local and county roads within the proposed transportation routes do not have any available recent data, as discussed with the Linn County Road Department. Linn County is a rural jurisdiction and does not conduct or monitor traffic volumes on a yearly basis.

Table L-3. Available Roadway Traffic Volumes

Highway	Location	Mile Post	2020 ADT	2021 ADT	2022 ADT	2023 ADT	2024 ADT	Percent Change 2020 -2024
I-5 (No.1)	0.20 miles south of McVay Highway Connection	190.1	43,919	50,555	49,783	47,053	46,537	6%
I-5 (No.1)	Eugene-Glenwood Automatic Traffic Recorder, Sta. 20-025, 1.06 miles south of Glenwood Interchange	190.9	52,204	58,210	57,379	58,022	57,470	10%
I-5 (No.1)	0.10 miles south of Pacific Highway West (OR99)	192.2	56,653	63,715	62,804	65,343	64,940	15%
I-5 (No.1)	0.50 miles south of Eugene-Springfield Highway Interchange (I-105)	193.4	51,669	58,590	57,690	59,023	58,629	13%
I-5 (No.1)	0.35 miles south of Belt Line Road Interchange (OR569)	195.1	66,921	79,105	78,731	77,081	77,342	16%
I-5 (No.1)	0.30 miles south of Van Duyn Road Interchange	198.9	40,874	46840	46,473	48,269	48,725	19%
I-5 (No.1)	0.30 miles south of Diamond Hill Interchange	208.8	36,219	41,827	41,431	41,610	42,133	16%
I-5 (No.1)	Lake Creek Automatic Traffic Recorder, Sta. 22-016, 2.01 miles south of Halsey-Sweet Home Highway No. 212 Interchange (OR228)	214.6	36,153	41,794	41,386	41,300	42,331	17%
I-5 (No.1)	0.40 miles south of Corvallis-Lebanon Highway Interchange (OR34)	227.7	37,390	43,507	43,212	42,088	42,606	14%
I-5 (No.1)	0.30 miles south of Santiam Highway Interchange (US20)	232.9	46,448	54,130	54,147	53,632	54,081	16%
US-20 (No. 16)	0.02 miles west of Burkhart Street SE (OR99E)	0.13	12,540	14,195	14,067	14,447	14,476	15%
US-20 (No. 16)	0.02 miles west of Waverly Drive	0.47	19,859	22,480	17,870	18,352	18,389	-7%

Highway	Location	Mile Post	2020 ADT	2021 ADT	2022 ADT	2023 ADT	2024 ADT	Percent Change 2020 -2024
US-20 (No. 16)	0.08 miles west of southbound Pacific Highway (I5) ramps	0.79	21,350	24,168	23,950	24,597	24,646	15%
US-20 (No. 16)	0.07 miles east of northbound Pacific Highway (I5) ramps	1.37	16,196	17,929	20,157	20,298	20,298	25%
US-20 (No. 16)	0.02 miles east of Scravel Hill Road	2.63	8,913	9,867	8,734	8,795	8,795	-1%
US-20 (No. 16)	West of Albany-Lyons Hwy (OR226) and Knox Butte Rd	6.4	9,234	10,222	9,750	9,818	9,818	6%
US-20 (No. 16)	0.1 miles southeast of AlbanyLyons Highway (OR226)	6.65	7,317	8,100	7,086	7,136	7,136	-2%
US-20 (No. 16)	0.05 miles south of Bohlken Drive	8.58	7,412	8,205	7,229	7,280	7,280	-2%
US-20 (No. 16)	0.02 miles south of KGAL Drive	10.92	9,068	10,038	9,036	9,099	9,099	0%
US-20 (No. 16)	0.02 miles south of Reeves Parkway	12.27	9,867	10,923	10,847	10,923	10,923	11%
US-20 (No. 16)	0.05 miles south of CorvallisLebanon Highway (OR34/Morton Street)	12.85	9,066	10,036	9,626	9,693	9,693	7%
OR-228 (No. 212)	0.02 miles east of Albany-Junction City Highway (OR99E)	0.02	3,524	3,989	4,798	4,928	4,938	40%
OR-228 (No. 212)	0.02 miles west of Bond Road	1.45	3,873	4,384	4,064	4,174	4,182	8%
OR-228 (No. 212)	0.10 miles west of Pacific Highway (I-5)	2.30	4,888	5,533	5,674	5,827	5,839	19%
OR-228 (No. 212)	0.10 miles east of Pacific Highway (I-5)	2.50	6,191	6,853	7,403	7,455	7,455	20%
OR-228 (No. 212)	0.02 miles east of Fisher Road	4.71	3,649	4,039	4,902	4,936	4,936	35%
OR-228 (No. 212)	0.02 miles west of Washburn Street	6.14	3,923	4,343	5,047	5,082	5,082	30%
OR-228 (No. 212)	0.02 miles west of Main Street	6.21	4,523	5,007	5,906	5,947	5,947	31%

Highway	Location	Mile Post	2020 ADT	2021 ADT	2022 ADT	2023 ADT	2024 ADT	Percent Change 2020 -2024
OR-34 (No. 210)	0.50 miles west of Albany-Junction City Highway (OR99E)	7.15	22,981	26,014	23,134	30,990	31,052	35%
OR-34 (No. 210)	0.20 miles east of Albany-Junction City Highway (OR99E)	7.85	21,078	23,860	22,024	29,503	29,562	40%
OR-34 (No. 210)	0.30 miles west of Pacific Highway (I-5)	9.74	22,464	25,429	31,830	35,501	35,572	58%
OR-34 (No. 210)	0.20 miles east of Pacific Highway (I-5)	10.24	15,144	16,764	20,373	22,280	22,280	47%
OR-34 (No. 210)	East of Seven Mile Ln	10.79	16,815	18,614	21,025	22,994	22,994	37%
OR-34 (No. 210)	West of Red Bridge Road	13.99	18,111	20,049	22,540	24,650	24,650	36%
OR-34 (No. 210)	East of Red Bridge Road	14.03	17,241	19,086	18,952	19,085	19,085	11%
OR-34 (No. 210)	East of Langmack Rd	15.9	5,503	6,092	8,618	9,425	9,425	71%
Source: ODOT 2024.								

2.4.6.3 Pavement Conditions

Road pavement conditions can affect traffic safety. Roads that have poor pavement conditions may have potholes or large cracks. These conditions can cause drivers to swerve or brake suddenly resulting in unsafe driving conditions. The Applicant reviewed the ODOT 2024 Pavement Condition Report for the state highways within Facility transportation routes, and describes each condition level used (Table L-4, Table L-5; ODOT 2024).

Table L-4. ODOT 2024 Pavement Conditions within Analysis Area

Roadway	Approximate Milepost	Pavement Condition
I-5 (No. 1)	192.86-197.40	Good
I-5 (No. 1)	197.40-203.55	Fair
I-5 (No. 1)	203.55-209.06	Under Construction
I-5 (No. 1)	209.06-216.12	Under Construction
I-5 (No. 1)	216.12-227.68	Good
I-5 (No. 1)	227.68-234.62	Good
I-5 (No. 1)	234.62-237.74	Good
I-5 (No. 1)	237.74-240.34	Good
US-20 (No. 16)	0.12-2.00	Poor
US-20 (No. 16)	2.00-2.64	Very Good
US-20 (No. 16)	2.64-11.71	Very Good
US-20 (No. 16)	11.71-12.13	Very Good
US-20 (No. 16)	12.13-12.93	Poor
OR-228 (No. 212)	0.00-2.64	Fair
OR-228 (No. 212)	2.64-5.98	Fair
OR-228 (No. 212)	5.98-6.80	Very Poor
OR-34 (No. 210)	6.40-10.06	Good
OR-34 (No. 210)	10.06-16.89	Good
Source: ODOT 2024.		

Table L-5. ODOT Condition Level Descriptions

Image	Condition	Description
	Very Good	Pavement structure is stable with no cracking, patching or deformation evident. Roadways in this category are usually new. Riding quality is excellent; nothing would improve the roadway at this time.
	Good	Stable, minor cracking, generally hairline and hard to detect. Minor patching and possible some minor deformation evident. Dry or light-colored appearance. Very good riding quality: rutting is less than ½ inch.
	Fair	Pavement structure is generally stable with minor areas of structural weakness evident. Cracking is easier to detect. The pavement may be patched, but not excessively. Although riding quality is good, deformation is more pronounced and easily noticed. Rutting is less than ¾ inch.
	Poor	Includes areas of instability, marked evidence of structural deficiency, large crack patterns or "alligatoring," heavy and numerous parches. Deformation is very noticeable. Riding qualities range from acceptable to poor. Rutting is greater than ¾ inch.

Image	Condition	Description
	Very Poor	Pavement is extremely deteriorated. Numerous areas of instability are present. Majority of the section shows structural deficiency. Riding quality is unacceptable; drivers may slow down.
Source: ODOT 2024.		

As stated in Table L-4, I-5 is in fair to very good condition in the region of the Facility access. Two sections of I-5 near the Facility are rated as having been under construction in 2024. US-20 is in poor to very good condition in the region of the Facility access.

Most of the state highways along the proposed transportation routes are in "Good" or "Very Good" condition. There are three portions of the proposed transportation route classified in "Fair" condition: I-5 milepost 197.4 to 203.6, US-20 milepost 0.0 to 2.6 and US-20 milepost 2.6 to 6.0. There are two portions of the proposed transportation route classified in "Poor" condition: US-20 milepost 0.12 to 2.0 and milepost 12.1 to 12.9. There is one portion of the proposed transportation route classified in "Very Poor" condition: OR-228 milepost 6.0 to 6.8. The pavement along these two sections includes areas of instability and structural deficiency. The riding quality ranges from poor to unacceptable. This may present a hazard to frequent heavy use such as during construction prior to it being repaired.

ODOT did not include county roads within the 2024 Pavement Condition Report. The Wasco County Road Department has teamed up with the Association of Oregon Counties to inspect and report pavement conditions on county roads. The Association of Oregon Counties has created the Integrated Road Information System and Pavement Condition Management Report. These reports are not available to the public. The Association of Oregon Counties and Wasco County have been contacted to obtain access to these reports; Tetra Tech has not been granted permission at the time of this exhibit.

Additional roads along the Facility transportation routes do not have assessments by ODOT as they are county roads. The condition of these roads has been evaluated based on the criteria described in Table L-5 using Google Streetview and Maps satellite imagery (Google Streetview 2026) as follows:

- Diamond Hill Road is in poor to fair condition in the region of the Facility access, showing cracking asphalt throughout the surface of the roadway, mostly in the longitudinal direction. Brownsville Road is in fair to good condition in the region of the Facility access. Cracks and potholes are observed throughout the roadway which have been sealed or repaired previously. Priceboro Road is in fair condition in the region of the Facility access.

- Walker Road is in poor to good condition in the region of the Facility access. Alligator cracks can be observed in sections. Stoltz Hill Road is in fair condition in the region of the Facility access, showing cracking asphalt throughout the surface of the roadway, mostly in the longitudinal direction along the edges of the road.
- Rock Hill Drive is in fair to poor condition in the region of the Facility access. Alligator cracking can be observed throughout the roadway, particularly in the longitudinal direction along the centerline.

2.4.7 Police and Fire Protection

2.4.7.1 Police

The Linn County Sheriff's Office provides law enforcement services, corrections, and emergency services to Linn County. The Sheriff's Office currently employs 190 people and is located approximately 25 miles from the Facility Site Boundary, in Albany, Oregon (LCSO 2026a and 2026b). As necessary, the Applicant will seek assistance from the Linn County Sheriff's Office. The Applicant has confirmed with Sheriff Michelle Duncan that the Linn County Sheriff's Office will provide service for any crimes reported at the Facility (see Attachment L-1 for record of correspondence).

2.4.7.2 Fire

The Facility Site Boundary is located within the Harrisburg Fire & Rescue District and Linn County Fire Defense Board in Linn County (LCGD 2026 and Linn County Fire Defense Board 2020). This fire district is primarily staffed by volunteers with some career personnel and serves as a local fire department in Harrisburg Oregon. The station is located approximately 6 miles from the Facility Site Boundary. The Applicant has inquired with the Harrisburg Fire & Rescue District about the ability to provide fire protection services to the Facility, if needed (see Attachment L-1 for record of correspondence). A response from the Fire District is still pending as of the date of submittal of this pASC.

2.4.8 Health Care

The closest hospitals to the Facility are the PeaceHealth Sacred Heart Medical Center at Riverbend, located approximately 18 miles south, in Springfield, and the Samaritan Albany General Hospital, located approximately 30 miles north, in Albany. The closest Level III trauma center is the McKenzie-Willamette Medical Center in Springfield (Mckenzie-Willamette Medical Center 2026). Ambulance service in the area is provided by Mid-Valley Ambulance of Springfield (Mid-Valley Ambulance 2026). 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 and Science University Hospital or Legacy Emmanuel Medical Center (OHSU 2026 and Legacy Health 2026).

2.4.9 Schools

The Facility is located within Harrisburg School District. The schools closest to the Facility are Harrisburg Elementary (428 students), Middle (228 students) and High (242 students) Schools, located 8 miles east from the Facility site boundary (Niche 2024, US News 2024a, US News 2024b). Other nearby schools in the Linn County School District that are within the 20-mile Analysis Area that may experience an increase in enrollment due to the Facility include schools in Junction City, Coburg, Springfield, Eugene, or Albany.

2.5 Potential Impacts to Public and Private Providers – OAR 345-022-0110(4)(C)(D)

(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;

(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; and

2.5.1 Sewer and Water Services

Sewage services required by the Facility during construction will be for the use of portable toilets. As mentioned above in Section 2.4.2 of this exhibit, the subcontractor will provide portable toilets for the Facility and will be responsible for servicing the toilets at regular intervals and disposing to wastewater. Wastewater will be disposed of at a local treatment facility. Because the sewage demands of the Facility will be minimal and temporary, no adverse impacts are anticipated.

As discussed in Exhibit O2, water used for construction will be for dust control throughout the construction site, road compaction, mixed into concrete for foundations, and provided for on-site worker drinking and sanitation use. The Facility anticipates using approximately 2.5 million gallons/month over an 18-month construction period. As discussed in Section 2.4.2, the Applicant has reached out to the City of Harrisburg Department of Public Works, an existing municipal water source with valid water rights, to confirm if they have the ability to provide water to the Facility during construction.

Water needed for operation of the Facility will be minimal. The Facility will rely on naturally occurring rainfall to remove dust from solar panels. No operations and maintenance building is proposed. Bottled water will be used for employee drinking and portable toilets will be used for sanitation during operations. When needed for operations or maintenance, water will be brought to the Facility or delivered.

2.5.2 Stormwater Drainage

Due to the seasonally wet conditions at the proposed Facility, it is expected that stormwater generated during construction will be managed through evaporation and infiltration into the ground, flow to existing drainages, and with erosion and sediment control best management practices.

Construction-related stormwater runoff will be managed according to an NPDES 1200-C permit and the Applicant will follow Oregon Department of Environmental Quality rules governing construction stormwater runoff. Various erosion and sediment controls will be implemented including sediment traps and sediment basins for stormwater storage and passive treatment. In addition, vegetation within the site boundary will serve as a buffer to promote infiltration and minimize erosion.

2.5.3 Solid Waste Management

Linn County and adjacent Benton County 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 through a private contract with a local commercial hauler (or haulers) and is not anticipated to cause adverse impacts to services already being provided in the county or nearby communities. The public landfill closest to the Facility is the Coffin Butte Landfill, located approximately 33 miles north of the Facility in Benton County.

Solid waste produced from construction will include discarded construction materials, packaging materials, and spent erosion control materials. Other discarded construction materials could include scrap metal from damaged pilings or racking equipment, or unused wiring. Solar photovoltaic modules, battery parts, and associated electrical equipment will be delivered to the site in cardboard and plastic packaging, along with wood pallets. This packaging will be recycled to the extent practicable and disposed of off-site. Erosion control material (e.g., straw wattles, silt fencing) will be removed following site stabilization and disposed of at a landfill, as these materials are typically nonrecyclable.

Access road construction and grading are expected to produce negligible amounts of dirt and rock spoils that will need disposal, because cut and fill measures are expected to balance the need for and use of soils. Excavations for the solar array foundations, support structures, and the collector substation are not expected to produce significant amounts of dirt and rock spoils. These materials will be spread over areas previously disturbed during construction. If off-site soil disposal is necessary, the contractors disposing of the material will obtain a signed agreement with the party receiving the earth materials and will confirm that the disposal sites have been inspected as to not disturb sensitive environmental resources.

An insignificant amount of solid waste is anticipated to be generated during the operation and maintenance of the Facility. This waste may include equipment and components that are replaced, packing materials for replacement components, and waste typical of a small office employing one individual. It is estimated that no more than two cubic yards of solid waste will be produced

monthly during operations, to be disposed of at the Coffin Butte Landfill. The waste will be handled consistent with the Linn County Solid Waste Disposal Code.

When the Facility is decommissioned, and the site restored to a useful, non-hazardous condition for other planned uses, the amount of solid waste can be inferred from the materials inventory provided in the Background Information exhibit. At the time of decommissioning, the components as well as other aboveground equipment will be disassembled and the materials will be recycled or reused, sold for scrap, or taken to a landfill. The decommissioning of the battery energy storage system will involve disposing of battery components at an off-site facility designed and approved for disposal or recycling of batteries by licensed third-party battery suppliers, who will be responsible for transporting batteries to and from the Facility in accordance with applicable regulations, as required through their licensure. The Applicant has inquired with the Coffin Butte Landfill regarding capacity for any non-recyclable waste (see Attachment L-1). A response from the Coffing Butte Landfill is still pending as of the date of submittal of this pASC.

The amount of solid waste produced by the Facility is not anticipated to have a significant impact on local disposals or landfills since a large portion of the solid waste will be recycled or sold for reuse.

2.5.4 Housing

2.5.4.1 Construction

An average of approximately 172 construction workers will be present on-site during Facility construction. This number will fluctuate during periods where multiple teams of contractors perform their work simultaneously. During the construction period, the Applicant estimates that a maximum of 172 employees will be on-site at one time, when multiple disciplines of contractors complete their work simultaneously during periods of the highest activity.

Construction workers will include a combination of local and nonlocally hired workers for road and facility construction, and specialized workers for certain types of specialized construction (e.g. solar array installation and testing). Some workers are expected to come from outside of the study area and will require temporary housing. The percentage of the construction workforce that is hired locally will depend on the availability of workers with appropriate skills. Additional workers may commute daily from communities outside the study area (e.g., Eugene, Corvallis, Albany, Lebanon, and Springfield), which will lessen impacts to housing associated with the in-migration of outside workers.

Construction workers hired from areas outside a commutable distance may choose to stay in local motels or other rental units for the duration of their stay, which could have temporary impacts on short-term housing if there is an inadequate supply of such short-term housing. Typical housing options for temporary workers include motels, hotels, apartments, short-term rental homes, and campgrounds or other areas where workers can park trailers or other mobile housing. Availability of temporary housing is best in larger communities within a commutable distance of the construction site, where hotels, motels, and trailer parking are available. Communities that could potentially house temporary workers include Eugene, Corvallis, Albany, Lebanon, and Springfield.

Because workers can spread out to many communities within a commutable distance, the impact to short-term housing in the immediate vicinity of the Facility will be minimal in each community. Workers from outside the area will also benefit the communities and local businesses by renting rooms, eating at local restaurants, and purchasing goods and services from local stores.

2.5.4.2 Operations and Maintenance

As previously mentioned, the Applicant expects to employ up to two full-time employee over the 20-year lifespan of the Facility. This employee will operate and maintain the Facility. It is anticipated that this employee will be hired locally, if possible. Therefore, the operation of the Facility will not adversely affect housing availability in the Analysis Area.

2.5.5 Traffic Safety and Operations

2.5.5.1 Construction

Traffic Volumes

It is estimated that construction for the Facility will generate, on average, up to 154 trips per day (308 round trips), with a peak of 164 trips per day (328 round trips). This estimate is based on the anticipated average and maximum peak workforce, with an assumed carpool factor of 5 percent. Most of the trips generated are due to the workforce commuting to the site. The trips generated also include the delivery of construction materials and equipment. Construction is anticipated to begin in 2028 and end in 2029 for a total of 18 months. The maximum peak workforce is expected to occur in 2028.

To determine the Facility's impact on the state highways along the transportation route, the ADT for 2027 was estimated using the ODOT 2024 traffic data with a 2 percent growth rate (ODOT 2024). The estimated Construction ADT value was then used to determine the percent increase due to the Facility, which can be found in Table L-6.

Table L-6. Anticipated Facility Impact to Transportation Route

Highway	Location	Mile Post	2024 ADT	2027 Expected ADT	Construction ADT	Percent Change from Construction
I-5 (No.1)	0.20 miles south of McVay Highway Connection	190.1	46,537	49.385	49.713	1%
I-5 (No.1)	Eugene-Glenwood Automatic Traffic Recorder, Sta. 20-025, 1.06 miles south of Glenwood Interchange	190.9	57,470	60.988	61.316	1%
I-5 (No.1)	0.10 miles south of Pacific Highway West (OR99)	192.2	64,940	68.915	69.243	0%
I-5 (No.1)	0.50 miles south of Eugene-Springfield Highway Interchange (I-105)	193.4	58,629	62.218	62.546	1%
I-5 (No.1)	0.35 miles south of Belt Line Road Interchange (OR569)	195.1	77,342	82.076	82.404	0%
I-5 (No.1)	0.30 miles south of Van Duyn Road Interchange	198.9	48,725	51.707	52.035	1%
I-5 (No.1)	0.30 miles south of Diamond Hill Interchange	208.8	42,133	44.712	45.040	1%
I-5 (No.1)	Lake Creek Automatic Traffic Recorder, Sta. 22-016, 2.01 miles south of Halsey-Sweet Home Highway No. 212 Interchange (OR228)	214.6	42,331	44.922	45.250	1%
I-5 (No.1)	0.40 miles south of Corvallis-Lebanon Highway Interchange (OR34)	227.7	42,606	45.214	45.542	1%
I-5 (No.1)	0.30 miles south of Santiam Highway Interchange (US20)	232.9	54,081	57.391	57.719	1%
US-20 (No. 16)	0.02 miles west of Burkhart Street SE (OR99E)	0.13	14,476	15.362	15.690	2%
US-20 (No. 16)	0.02 miles west of Waverly Drive	0.47	18,389	19.515	19.843	2%

Highway	Location	Mile Post	2024 ADT	2027 Expected ADT	Construction ADT	Percent Change from Construction
US-20 (No. 16)	008 miles west of southbound Pacific Highway (I5) ramps	0.79	24,646	26.155	26.483	1%
US-20 (No. 16)	0.07 miles east of northbound Pacific Highway (I5) ramps	1.37	20,298	21.540	21.868	2%
US-20 (No. 16)	0.02 miles east of Scravel Hill Road	2.63	8,795	9.333	9.661	4%
US-20 (No. 16)	West of Albany-Lyons Hwy (OR226) and Knox Butte Rd	6.4	9,818	10.419	10.747	3%
US-20 (No. 16)	0.1 miles southeast of Albany Lyons Highway (OR226)	6.65	7,136	7.573	7.901	4%
US-20 (No. 16)	0.05 miles south of Bohlken Drive	8.58	7,280	7.726	8.054	4%
US-20 (No. 16)	0.02 miles south of KGAL Drive	10.92	9,099	9.656	9.984	3%
US-20 (No. 16)	0.02 miles south of Reeves Parkway	12.27	10,923	11.592	11.920	3%
US-20 (No. 16)	0.05 miles south of Corvallis Lebanon Highway (OR34/Morton Street)	12.85	9,693	10.286	10.614	3%
OR-228 (No. 212)	0.02 miles east of Albany-Junction City Highway (OR99E)	0.02	4,938	5.240	5.568	6%
OR-228 (No. 212)	0.02 miles west of Bond Road	1.45	4,182	4.438	4.766	7%
OR-228 (No. 212)	0.10 miles west of Pacific Highway (I-5)	2.3	5,839	6.196	6.524	5%
OR-228 (No. 212)	0.10 miles east of Pacific Highway (I-5)	2.5	7,455	7.911	8.239	4%
OR-228 (No. 212)	0.02 miles east of Fisher Road	4.71	4,936	5.238	5.566	6%

Highway	Location	Mile Post	2024 ADT	2027 Expected ADT	Construction ADT	Percent Change from Construction
OR-228 (No. 212)	0.02 miles west of Washburn Street	6.14	5,082	5.393	5.721	6%
OR-228 (No. 212)	0.02 miles west of Main Street	6.21	5,947	6.311	6.639	5%
OR-34 (No. 210)	0.50 miles west of Albany-Junction City Highway (OR99E)	7.15	31,052	32.953	33.281	1%
OR-34 (No. 210)	0.20 miles east of Albany-Junction City Highway (OR99E)	7.85	29,562	31.371	31.699	1%
OR-34 (No. 210)	0.30 miles west of Pacific Highway (I-5)	9.74	35,572	37.749	38.077	1%
OR-34 (No. 210)	0.20 miles east of Pacific Highway (I-5)	10.24	22,280	23.644	23.972	1%
OR-34 (No. 210)	East of Seven Mile Ln	10.79	22,994	24.401	24.729	1%
OR-34 (No. 210)	West of Red Bridge Road	13.99	24,650	26.159	26.487	1%
OR-34 (No. 210)	East of Red Bridge Road	14.03	19,085	20.253	20.581	2%
OR-34 (No. 210)	East of Langmack Rd	15.9	9,425	10.002	10.330	3%

I-5 is anticipated to see on average a 1 percent increase in the overall ADT. This increase is anticipated to be negligible, and I-5 will be able to handle the increase.

US-20 is anticipated to see on average a 3 percent increase in overall ADT. This increase is anticipated to be negligible, and US-20 will be able to handle the increase.

OR-228 is anticipated to see on average a 6 percent increase in overall ADT. OR-228 is anticipated to be able to handle the increase in overall ADT. Most of the construction traffic is estimated to be from workers commuting to the Facility. The impact to OR-228 is likely to be temporary and minimal due to most construction traffic occurring during non-peak hours. Mitigation of any safety issues presented by any delays related to construction will be accomplished with appropriate signage and traffic control measures.

US-34 is anticipated to see on average a 1 percent increase in overall ADT. This increase is anticipated to be negligible, and US-34 will be able to handle the increase.

The ADT along the local roads (Brownsville Road, Priceboro Road, Walker Road, Stoltz Hill Road, Rock Hill Drive) is expected to increase; however, due to the lack of recent traffic count data, it is unknown by how much. The local roads likely have a low ADT due to the rural nature of the Facility's location. These roads may see short-term delays during the Facility's peak construction. The delays are expected to be intermittent and temporary. Facility construction is not anticipated to cause severe traffic impacts along the local roads, and safety concerns associated with delays will be mitigated with traffic control measures in accordance with the Linn County Building and Land Development Code, Chapter 907, Transportation Plan Code (Linn County 2005).

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 Linn 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 existing safety or roadway pavement conditions are not expected. The requirements imposed by ODOT effectively prevent significant impacts to traffic safety or maintenance needs along the transportation routes identified in this exhibit.

During construction of the Facility, Linn County and ODOT traffic control measures will be followed to facilitate continued safe use of the roadway for all users. This may include, but is not limited to, warning lights, signage, flaggers, cones, and channelizing devices.

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. To ensure the integrity of local roads, the Applicant, prior to the beginning of construction, will conduct a Road Impact Assessment/Geotechnical Report for roads used for the Facility. This assessment shall be submitted to the Oregon Department of Energy and Linn County, including an analysis of Facility-related traffic routes to be used during phases of construction, Facility operation, and decommissioning. The Applicant will also apply for a Road Use Permit and an Informational Letter to Linn County. The Applicant would 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 ensure that the construction and operation of the Facility will maintain ODOT's and Linn County's road systems in as good or better quality than prior to the Facility's construction and will coordinate with ODOT and the Linn County Road Department. 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. The Applicant will strictly abide by travel conditions and transportation equipment requirements enforced by either ODOT or Linn County. Any damage to county roads that is caused by construction or related or supporting facilities will be repaired by the Applicant, and such county roads will be restored to pre-construction conditions or better.

Operations and Maintenance

Two full-time employees will manage operations remotely and travel to the Facility for maintenance activities. Any required maintenance will be provided by staff travelling to the site on an as-needed basis. The panels and associated equipment will need maintenance regularly and will require the technicians to travel to the Facility. The BESS will be on a monthly maintenance cycle that will be concentrated in the lower solar irradiance months. If there are any problems or faults found with equipment, technicians will visit the Facility to perform repairs. Daily traffic generated by this Facility is not expected to affect operations of any of the state or local county roads. Adverse impacts on the transportation network due to the operations of the Facility are not anticipated.

2.5.6 Police and Fire Protection

2.5.6.1 Police

As previously mentioned, law enforcement services within the Analysis Area are provided by the Linn County Sheriff's Office. The Applicant has confirmed the Linn County Sherrif's Office can provide police services for the Facility in the event there is an emergency (see Attachment L-1).

As mentioned in the Background Information Exhibit, the locations of specific access points and gates will depend on the final configuration of the solar array and related infrastructure. Chain-link perimeter fencing, 6 feet in height, will enclose the solar array as well as other infrastructure within

the Facility Site Boundary. The perimeter fencing will have lockable vehicle and pedestrian access gates.

If police services are necessary, the Applicant anticipates it will be due to theft of equipment, trespassing, or destruction of property. However, the Applicant does not anticipate construction or operation of the Facility to significantly impact police services due to the safety precautions the Applicant will put in place. The Applicant has confirmed with the Linn County Sheriff in the event of an emergency they will be able to provide police services to the Facility (see Attachment L-1)

2.5.6.2 Fire

The Applicant will work with the Harrisburg Fire & Rescue District and Linn County Fire Defense Board to address potential needs for a construction phase fire prevention and management plan (LCGD 2026). The Applicant will also develop First Aid and Emergency Response procedures for the construction and operation phases for the Facility. Development of these plans will involve consultation with local emergency response agencies. The Applicant will notify the fire protection districts of construction plans, identify the location of and access to Facility facilities, and assist (if able) in the case of fire in or around the Facility.

The Facility will be equipped with fire protection equipment in accordance with the Oregon Fire Code. Fire danger during construction will be reduced through implementation of safe working practices, such as maintaining adequate firefighting equipment and water supplies on hand during operations that carry a high fire risk, conducting welding within a cleared or graveled area, and preventing parking of vehicles in areas with high, dry grass. Given the inherent fire-safety features of Facility components and the relatively small number of new temporary and permanent residents, significant new demands on the fire protection forces that serve the area are not anticipated. The Applicant has inquired with the Harrisburg Fire & Rescue District in the event of an emergency they will be able to provide fire emergency services to the Facility (see Attachment L-1). A response from the Fire District is pending as of the date of submittal of this pASC.

2.5.7 Health Care

Potential impacts to surrounding health care services could occur due to the increase in temporary residents accessing health care. Temporary employees are anticipated to be accessing services in the surrounding communities during the 18-month construction period. As previously mentioned, during construction, it is estimated that a maximum of 172 people will be employed during peak construction months. The Applicant expects to employ one full-time employees over the 20-year lifespan of the Facility

Because population density in the study area is relatively low, hospitals and health care services tend to be regional. The nearest hospitals are the PeaceHealth Sacred Heart Medical Center at Riverbend, approximately 18 miles south in Springfield and Samaritan Albany General Hospital, approximately 30 miles north in Albany. The nearest Level III trauma center is the McKenzie-Willamette Medical Center in Springfield (Oregon Health Authority 2023a). Ambulance service in

the area is provided by Mid-Valley Ambulance of Springfield (Oregon Health Authority 2023b). 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 (Oregon Health Authority 2023a).

As previously mentioned, the Applicant will develop First Aid and Emergency Response procedures for the construction and operation phases for the Facility. Overall, there could be a potential impact on health care providers during construction of the Facility due to the influx of employees. The Applicant does not anticipate a significant impact on health care providers during operation due to the limited number of permanent employees.

2.5.8 Schools

The Facility is located within Harrisburg School District. The schools closest to the Facility are Harrisburg Elementary, Middle and High Schools, located 8 miles east from the Facility site boundary. Other nearby schools in the Linn County School District that may experience an increase in enrollment due to the Facility include schools in Junction City, Coburg, Springfield, Eugene, or Albany. Because construction work for the Facility will be short-term and temporary, and because peak construction will occur during the summer months, no new students are anticipated in association with Facility construction. Only minimal demand is expected from the small increase in local population resulting from any non-locally hired permanent employees during Facility operations. Actual impacts on schools will depend on the housing choices of new residents with children, which is unknown. Given the dispersed area in which new residents are likely to settle, the small number of new school children expected, and the number of schools available, it is unlikely that any one school will receive more new students than it can accommodate. As a result, no significant adverse impacts on the ability of communities to provide school services are anticipated because of Facility operation.

2.6 Monitoring Program – OAR 345-022-0110(4)(E)

> *(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 2.0 to provide services in the Analysis Area. Therefore, a monitoring program is not proposed.

3.0 Materials Analysis – OAR 345-022-0110(4)(b)

(b) A materials analysis, including:

(A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;

(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills; and

(C) The applicant's plans to manage non-hazardous waste materials during construction and operation.

The materials analysis for the Facility can be found in Section 5.3 of the Background Information Exhibit.

4.0 References

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5.0 Approval Standards and Submittal Requirements

Table L-7. Approval Standards and Submittal Requirements Matrix

Requirements	Location
OAR 345-022-0110 Public Services	–
Approval Standards	
(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.	

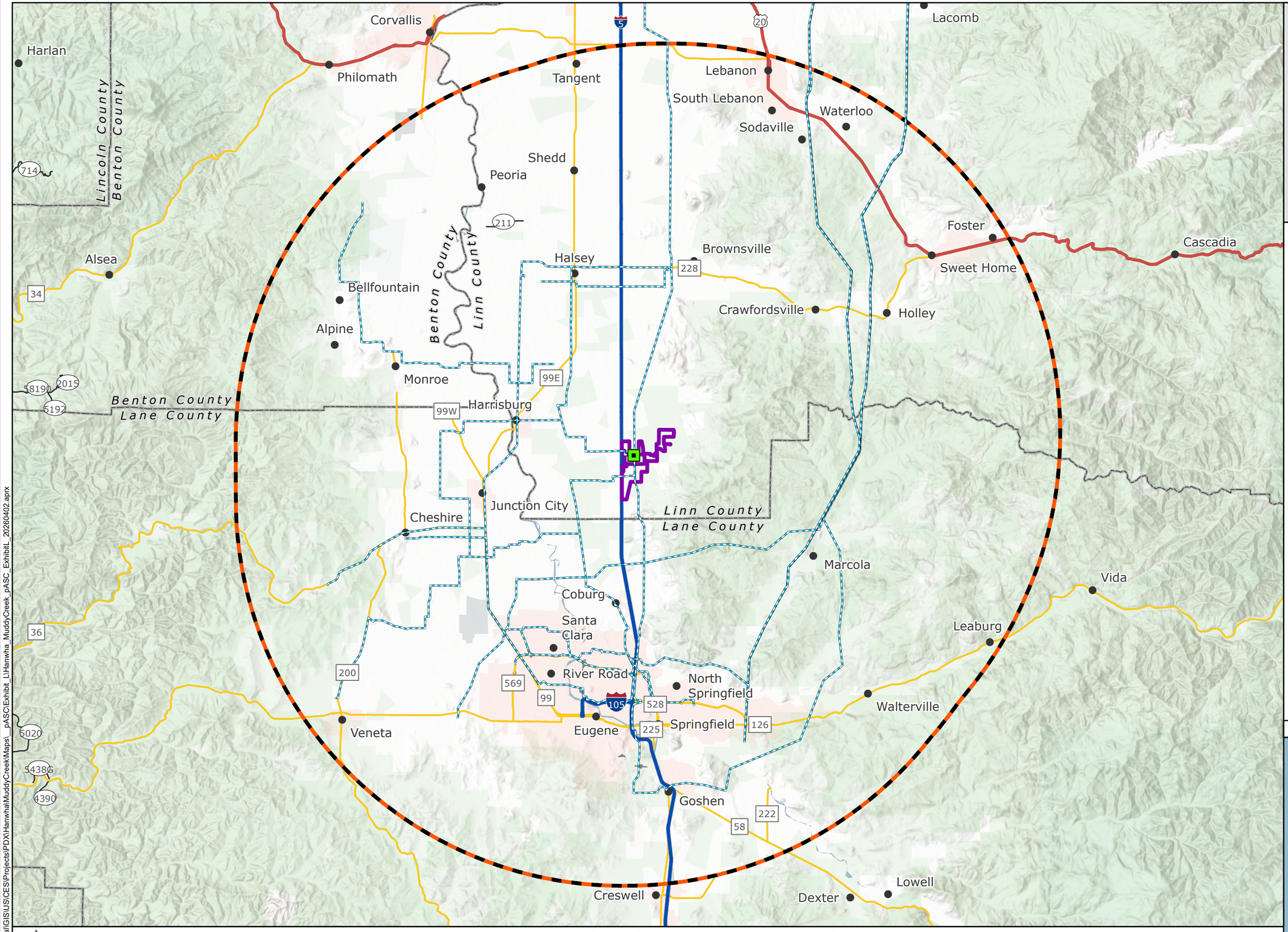
Requirements	Location
(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.	
(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.	
Submittal Requirements	
(4) To assist the Council in determining whether the standard outlined in (1) through (3) has been met, the Applicant must submit:	–
(a) 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 OAR 345-022-0110. The applicant must include:	Section 2.0
(A) The important assumptions the applicant used to evaluate potential impacts;	Section 2.3
(B) Identification of the public and private providers in the analysis area that would likely be affected;	Section 2.4
(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 2.5
(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; and	Section 2.5
(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 2.6
(b) A materials analysis, including:	Section 5.3 of the Background Information Exhibit
(A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;	Section 5.3 of the Background Information Exhibit
(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills; and	Section 5.3 of the Background Information Exhibit
(C) The applicant's plans to manage non-hazardous waste materials during construction and operation.	Section 5.3 of the Background Information Exhibit

Figures

Muddy Creek Energy Park

Figure L-1
Public Services Analysis Area

LINN COUNTY, OR

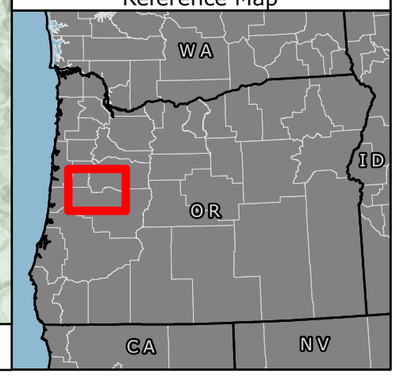


- Facility Site Boundary
- Analysis Area (20-mile Buffer)
- City/Town
- County Boundary
- Interstate Highway
- US Highway
- State Highway
- County Highway
- Existing Transmission Line
- Existing Substation

TETRA TECH

Hanwha Renewables

Reference Map



1:300,000

WGS 1984 UTM Zone 10N

0 2.5 5 10 15 20 Miles

NOT FOR CONSTRUCTION

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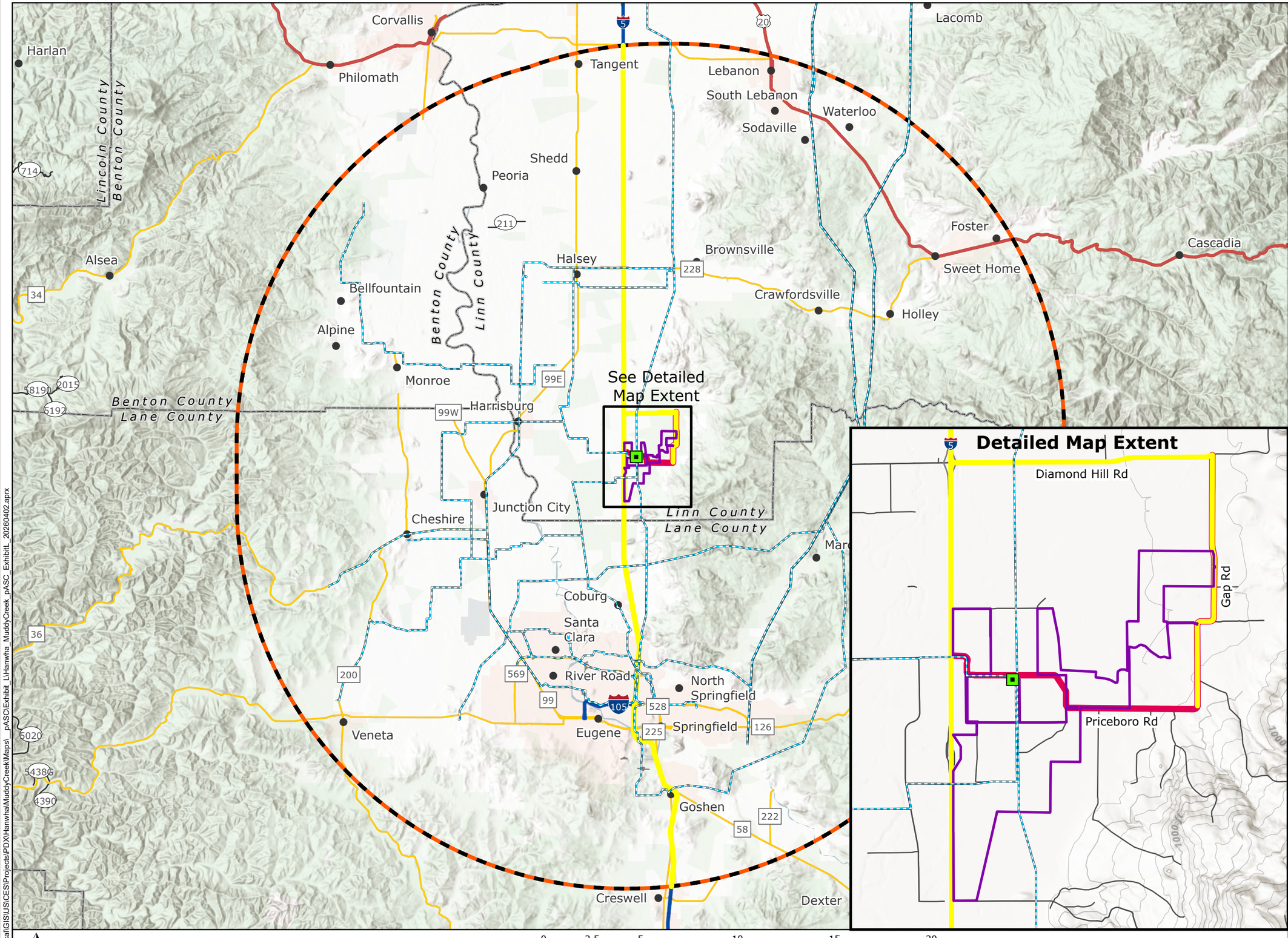
Muddy Creek Energy Park

Figure L-2
Primary Construction Transportation Routes

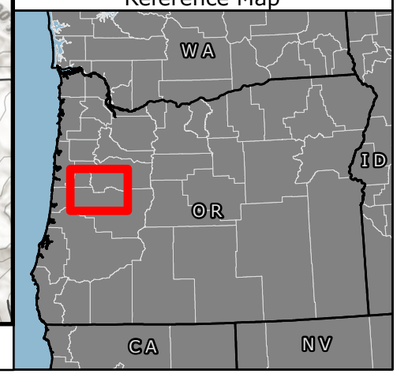
LINN COUNTY, OR



Facility Site Boundary
Analysis Area (20-mile Buffer)
Primary Transportation Route
Alternate Transportation Route
City/Town
County Boundary
Interstate Highway
US Highway
State Highway
County Highway
Existing Transmission Line
Existing Substation

TETRA TECH
Hanwha Renewables

Reference Map



1:300,000
WGS 1984 UTM Zone 10N
0 2.5 5 10 15 20 Miles
NOT FOR CONSTRUCTION

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Attachment L-1. Letters from Service Providers

Outlook

RE: Muddy Creek Water Supply Confirmation Request

From Chuck Scholz <cscholz@ci.harrisburg.or.us>
Date Tue 5/19/2026 11:00 AM
To Schmidt, Juliet <JULIET.SCHMIDT@tetratech.com>
Cc Andrews, Carrie <CARRIE.ANDREWS@tetratech.com>; Stebbins, Lauren <LAUREN.STEBBINS@tetratech.com>; Shahid, Saira <SAIRA.SHAHID@tetratech.com>

Hello

I received your voice mail and went back to look for your email(s), found them in my spam folder.

Currently, the City of Harrisburg water treatment facilities are under construction and will not be in operation until sometime in 2027. At that time, it will then take most of two years of operations to confirm actual production values. The current water project is not enlarging storage facilities. Based on your estimated volumes of water needed it would be 22%-32% of the city's total water produced annually, and possibly as high as 51% of our monthly water production at times. Harrisburg Municipal code states,

13.15.035 Authority of utility.

1. The utility shall have sole authority to make discretionary determinations required by this code. Such discretionary determinations are required where the code calls for approvals, determinations, reasonableness, authorization, standards (or reductions thereof), judgments, estimates, requirements, sufficiency, options, impacts upon the water system and/or customers thereof, and similar words or phrases. In each case where such words or phrases are stated or implied, they shall be understood to mean "subject to the approval or determination of the utility."

2. Said discretionary determinations shall be based upon the following criteria: anticipated impacts upon sufficiency and reliability of the water system; the water system facility plan; sound engineering practices in the field of municipal services; financial impacts; service to other properties; the potential to establish precedent; and the impacts of alternative actions.

Due to the potential impacts on the water system, current users, prior commitments to areas within the city limits, and unknown production capabilities of a not yet completed or tested water system infrastructure. The City of Harrisburg cannot confirm your request for water from our system.

Chuck Scholz

Public Works Director

From: Schmidt, Juliet <JULIET.SCHMIDT@tetratech.com>
Sent: Monday, May 18, 2026 4:35 PM
To: Chuck Scholz <cscholz@ci.harrisburg.or.us>
Cc: Andrews, Carrie <CARRIE.ANDREWS@tetratech.com>; Stebbins, Lauren <LAUREN.STEBBINS@tetratech.com>; Shahid, Saira <SAIRA.SHAHID@tetratech.com>
Subject: RE: Muddy Creek Water Supply Confirmation Request

Hi Chuck,

I just left you a voicemail and wanted to resend the service provider request below. If you have any questions, feel free to give me a call. We look forwarding to hearing from you.

Thanks!
Juliet Schmidt | Environmental Planner | Tetra Tech

Pronouns: she, her, hers
Mobile **(925) 817-8045** | juliet.schmidt@tetratech.com

TETRA TECH

From: Shahid, Saira <SAIRA.SHAHID@tetratech.com>
Sent: Monday, May 4, 2026 11:51 AM
To: cscholz@ci.harrisburg.or.us
Cc: Andrews, Carrie <CARRIE.ANDREWS@tetratech.com>; Stebbins, Lauren <LAUREN.STEBBINS@tetratech.com>; Schmidt, Juliet <JULIET.SCHMIDT@tetratech.com>
Subject: RE: Muddy Creek Water Supply Confirmation Request

Hi Chuck,

We have revised our water estimates to be 2.5 million gallons/month under average annual conditions to 3.6 million gallons/month under worst-case conditions over a construction period of 18 months. We would appreciate if you could *confirm that you are licensed to supply water to Hanwha, how much you are able to provide, your water right permit number(s), and any seasonal constraints.* Any letter from you to me on this subject does not constitute a contract and you are under no obligation to supply water for the facility.

Your response could be a statement on a letterhead with your signature or a reply to this email. Please let me know if you have any questions. I look forward to hearing back from you.

Thank you,

Saira Shahid | Environmental Planner and Deputy Project Manager | Tetra Tech
Pronouns: she/her
Direct **+1 (425) 482-7648** | saira.shahid@tetratech.com
Time Zone: Pacific Standard Time (UTC-8)

From: Schmidt, Juliet <JULIET.SCHMIDT@tetratech.com>
Sent: Wednesday, April 22, 2026 1:50 PM
To: cscholz@ci.harrisburg.or.us
Cc: Andrews, Carrie <CARRIE.ANDREWS@tetratech.com>; Stebbins, Lauren <LAUREN.STEBBINS@tetratech.com>; Shahid, Saira <SAIRA.SHAHID@tetratech.com>
Subject: Muddy Creek Water Supply Confirmation Request

Greetings,

I am contacting you on behalf of the proposed Muddy Creek Energy Park (Muddy Creek). Muddy Creek is a proposed up to 150-megawatt solar photovoltaic power generation facility and an up to 150 MW battery energy storage system in Linn County, Oregon owned by Hanwha Renewables. (Hanwha). More information on Muddy Creek can be found here: https://link.edgepilot.com/x/JtOyKW1V079o6_M3sDjieRE?u=https://www.oregon.gov/energy/facilities-safety/facilities/Pages/MCEP.aspx

Our current, conservative, estimate of water anticipated for facility construction dispersed over a 12 to 18-month period is 2 million gallons/month. Tetra Tech is under contract to Hanwha Renewables 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 obtaining water for the construction of Muddy Creek. At this point in the process, Hanwha is not required to have entered into a contract with the Harrisburg Public Works for water supply, we just need to demonstrate to ODOE that we have been in consultation with the Harrisburg Public Works and that yes, you are licensed to supply water to Hanwha, *how much you are able to provide, your water right permit number(s)*, and any seasonal constraints. *Any letter from you to me on this subject does not constitute a contract and you are under no obligation to supply water for the facility, we just need to demonstrate to ODOE that you have water to sell and that we could use as a water supplier if we, at a later date, come to an agreement to do so.*

If you could please provide a letter addressing Muddy Creek 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 in advance and let me know if you have any questions!

Sincerely,

Juliet Schmidt | Environmental Planner
Pronouns: she, her, hers
Mobile **+1 (925) 817-8045** | juliet.schmidt@tetratech.com

Tetra Tech | *Leading with Science*® | Environmental Services Divisions
1750 S Harbor Way, Suite 400, Portland, OR 97201 | tetratech.com

This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

From: MICHELLE DUNCAN
To: Schmidt, Juliet
Subject: Letter of coverage
Date: Thursday, April 23, 2026 11:44:50 AM

According to the map, this area is solely within Linn County. We will respond to calls for service for any crimes to be reported, as we would any other property within Linn County. At this time, no additional service or enhanced service will be provided.

Sheriff Michelle Duncan
Linn County Sheriff's Office
mduncan@linnsheriff.org
(541) 917-6671