

Request for Amendment 5 for the Biglow Canyon Wind Farm

Exhibit M. Wildfire Prevention and Risk Mitigation

**Submitted to
Oregon Energy Facility Siting Council**

Prepared for



Portland General Electric Company

Prepared by



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Attachment M-2. Draft Operations Wildfire Mitigation Plan (to be provided at a later date)

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
°F	degree Fahrenheit
AC	alternating current
BCWF or Facility	Biglow Canyon Wind Farm
BESS	battery energy storage system
BIGL 2 or Project Developer	BIGL 2, LLC
Certificate Holder or PGE	Portland General Electric Company
Council or EFSC	Energy Facility Siting Council
CWPP	Community Wildfire Protection Plan
FM	Fuel Model
gen-tie	generation tie
HVRA	highly valued resource and asset
kV	kilovolt
MW	megawatt
MWh	megawatt-hour
O&M	operations and maintenance
OAR	Oregon Administrative Rules
ODOE	Oregon Department of Energy
PGE	Portland General Electric Company
PUC	Public Utilities Commission
PV	photovoltaic
Site Certificate	Site Certificate on Amendment 4
Solar Facility	solar energy generation and battery storage components
WMP	Wildfire Mitigation Plan

1.0 Introduction

The Portland General Electric Company (PGE or Certificate Holder) submits this Request for Amendment (RFA) 5 to the Site Certificate on Amendment 4, issued March 27, 2026 (Site Certificate) for the Biglow Canyon Wind Farm (BCWF or Facility) to add a second phase of solar photovoltaic (PV) energy generation and battery storage capacity to the BCWF following the solar power generation and battery storage capacity approved under RFA 4.

BCWF, owned and operated by PGE, is located within an approved site boundary comprising approximately 25,000 acres, approximately 2.5 miles northeast of the town of Wasco in Sherman County, Oregon (Background Exhibit Figure 1). The BCWF operates under the Site Certificate from the Oregon Energy Facility Siting Council (Council or EFSC) as administered by the Oregon Department of Energy (ODOE). BCWF currently consists of 217 operating wind turbines, with a maximum blade tip height of 445 feet, and a peak generating capacity of 450 megawatts (MW) (Wind Facility). RFA 4, approved March 27, 2026, added 125 MW alternating current (AC) generating capacity from PV solar arrays and 500 megawatt-hours (MWh) in battery storage capacity. The solar energy generation and battery storage components (Solar Facility) described in RFA 4 are currently under construction.

In RFA 5, PGE proposes to add up to 200 MW AC generating capacity from PV solar arrays and 1,000 MWh in battery storage capacity (RFA 5 Solar Facility) by expanding the overall BCWF site boundary by approximately 839 acres. The RFA 5 Solar Facility is located across approximately 622 acres of the existing BCWF site boundary and 839 acres of expanded site boundary, for a total of approximately 1,461 acres (together, RFA 5 Site Boundary; see Background Exhibit Figure 4).

The RFA 5 Site Boundary provides a conservative estimate of the maximum area needed for development and micrositing through final design and construction for the RFA 5 Solar Facility, rather than the anticipated disturbance footprint. Primary infrastructure includes solar arrays, inverters, battery energy storage system (BESS) facilities and their subcomponents (i.e., inverters), one collector substation, and medium-voltage collector lines (herein collectively referred to as “Solar Components”). Additionally, the Solar Components include operations and maintenance (O&M) structures, site access roads, internal roads, perimeter fencing, facility entry gates, and temporary laydown areas. The maximum generating capacity from the Solar Components will be 200 MW AC. Power generated from the Solar Components will be transferred to the grid via a 230-kilovolt (kV) generation tie (gen-tie) transmission line, approximately 2.7 miles long. The RFA 5 Solar Facility includes the Solar Components and the gen-tie transmission line.

PGE will own and operate the RFA 5 Solar Facility as a part of the BCWF, which, to date, has been developed by BIGL 2, LLC (BIGL 2, or Project Developer). BIGL 2, in its capacity as the Project Developer, supports PGE in this RFA 5 and may construct and temporarily operate the RFA 5 Solar Facility on behalf of PGE under a Build-Transfer Agreement.

The information contained herein supports demonstration of compliance with the Wildfire Prevention and Risk Mitigation approval standard for Oregon Administrative Rules (OAR) 345-022-0115.

2.0 Wildfire Risk – OAR 345-022-0115(1)(a)

(1) To issue a site certificate, the Council must find, by way of supporting evidence from the applicant, that:

(a) The applicant has adequately characterized wildfire risk within the analysis area using current data from reputable sources, by identifying:

2.1 Analysis Area

Consistent with OAR 345-027-0360(3), ODOE concurred with the Certificate Holder’s use of a defined portion of the approved BCWF Site Boundary and an expansion area outside the approved site boundary (i.e., RFA 5 Site Boundary Area) to establish study area boundaries for RFA 5 under OAR 345-001-0010(35). The RFA 5 Site Boundary Area reflects the Solar Components, and all study areas within the meaning of Oregon Revised Statutes 345-001-0010(35) are measured from the RFA 5 Site Boundary. The analysis area for wildfire is the RFA 5 Site Boundary Area plus the area within one-half mile from the RFA 5 Site Boundary Area (Figure M-1). Approximately 5,825 acres are located within the wildfire analysis area.

2.2 Baseline Risk – OAR 345-022-0115(1)(a)(A)

(A) Baseline wildfire risk, based on factors that are expected to remain fixed for multiple years, including but not limited to topography, vegetation, existing infrastructure, and climate;

The Sherman County Multiple-Jurisdictional Natural Hazards Mitigation Plan describes a county-wide risk assessment of wildfire as “high” probability and identifies many areas in the county as “conducive for large and fast-moving wildfires” due to high winds typical for regional dry conditions and terrain. The plan identifies risk factors for starting wildfires in the county as highways, railroads, lighting, power lines, debris burning, and equipment (Sherman County 2024). The baseline wildfire risk within the RFA 5 Site Boundary Area and wildfire analysis area is high, based on the existing vegetation, relatively flat overall topography and slopes, existing infrastructure, and arid climate (NPS 2019). The following subsections describe the risks of wildfire for the RFA 5 Site Boundary Area and wildfire analysis area in further detail.

2.2.1 Topography

The wildfire analysis area is generally bounded by Interstate 84 to the north, the John Day River to the east, Highway 206 to the south, and Highway 97 to the west. As shown on Figure M-1, the entire wildfire analysis area has slopes ranging from 0 to 25 degrees (Table M-1; Figure M-1).

Table M-1. Slope

Slope (degrees)	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
0-25	100	5,825	100	1,461
25-50	0	0	0	0
50-75	0	0	0	0
Total	100%	5,825	100%	1,461

2.2.2 Vegetation

As discussed in Exhibit G, habitat categorization and special status wildlife surveys were performed in June 2024 by Tetra Tech within the RFA 5 Site Boundary Area and any additional lands that have since been omitted (Exhibit G, Attachment G-1). The Survey Area covered 4,636 acres, including the entire RFA 5 Site Boundary, the RFA 4 Solar Micrositing Area, and some additional lands that have since been omitted from consideration. The most prominent habitat category in the Habitat Categorization Survey Area was Category 6, Agriculture habitat type, which included Non-irrigated Croplands, and Developed habitat subtypes. Additional habitat types included Category 4 Grasslands habitat subtype, Category 3 Sagebrush Shrub-steppe and Upland Trees habitat subtypes, as well as Category 2 Intermittent and Riparian Tree habitat subtype (Attachment G-1).

The broad fuel model groups (reflective of vegetation type) are derived from data from the Community Wildfire Protection Plan (CWPP) Planning Tool (Oregon Explorer 2025). Fuel model groups within the wildfire analysis area consist almost entirely of grass and what with small amounts of fine, dead fuel, and shrubs. As shown on Figure M-2 and described below in Table M-2, the majority of the vegetation within the RFA 5 Site Boundary Area is Fuel Model (FM) 102 – Low Load, dry climate grass (76 percent) and FM 242 – burnable wheat fields (identical to FM 102) (22 percent). Within the wildfire analysis area, the most prominent FMs are also FM 102 (66 percent) and FM 242 (31 percent). A further discussion of FMs is provided in Section 2.3.2.

Table M-2. Fuel Models

Fuel Model #	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
91	0	0	0	0
93	0	3	0	0
99	0	16	0	1
101	1	34	1	10
102	66	3,869	76	1,111
121	0	24	0	4

Fuel Model #	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
122	0	2	0	0
123	0	0	0	0
162	0	0	0	0
182	0	1	0	0
242	31	1,792	22	317
251	0	1	0	0
252	1	82	1	18
Total	100%	5,825	100%	1,461
Note: All quantities may not result in 100 percent due to rounding adjustments.				

2.2.3 Existing Infrastructure

The BCWF is an operational wind power facility that includes 217 wind turbines, three meteorological towers, collector lines, Biglow Canyon Substation, transmission lines, O&M buildings, and access roads. The RFA 4 Solar Facility, approved on March 27, 2026, added 125 MW AC generating capacity from PV solar arrays, 500 MWh in battery storage capacity, and a new collector substation (Fox Canyon Substation) to the BCWF Site Boundary. The RFA 4 Solar Facility is currently under construction.

Paved roads within the wildfire analysis area generally include Medler Lane, Oehman Road, Emigrant Springs Road, Herin Lane, and Old Wasco Heppner Highway. There are many unnamed gravel turbine string roads within the wildfire analysis area that are currently in use for the BCWF. There are no hazardous liquid pipelines or gas transmission pipelines within 10 miles of the wildfire analysis area (NPMS 2026).

As shown on RFA 5 Background Exhibit Figure 3, RFA 5 is within 10 miles of multiple renewable energy projects, including Klondike III Wind Project and Golden Hills Wind Project.

2.2.4 Climate

Climate data were used for Arlington, Oregon, which is located approximately 22 miles northeast of the RFA 5 Site Boundary Area. Based on available monthly normals of climate data between 1991 and 2020 for Arlington, the driest months on average are June, July, and August (NOAA 2026a). These months have average monthly precipitation rates of 0.48 inch (June), 0.10 inch (July), and 0.15 inch (August). July, August, and September are the hottest months of the year with average temperatures of 76.3 degrees Fahrenheit (°F) (July), 75.5 °F (August), and 66.5 °F (September). The total average annual precipitation for Arlington is 9.3 inches per year (NOAA 2026a), which is indicative of an arid climate (NPS 2019). Additionally, Arlington receives approximately 5.3 inches of snow in the winter months, with the coldest month (January) having approximately 2.0 inches of

snowfall, an average daily maximum temperature of 40.8 °F, and an average daily minimum temperature of 29.7 °F (Table M-3; NOAA 2026a).

**Table M-3. Summary of Monthly Normal Temperature and Precipitation at Arlington, OR
(1991–2020)**

Month	Maximum Temp (°F)	Average Temperature (°F)	Precipitation (inch)
January	40.8	35.3	1.47
February	46.9	38.7	0.98
March	55.6	45.6	0.83
April	63.7	52.8	0.61
May	73.2	61.7	0.75
June	79.7	68.2	0.48
July	89.5	76.3	0.10
August	88.9	75.5	0.15
September	80.0	66.5	0.33
October	65.5	53.7	0.81
November	50.4	42.4	1.13
December	41.1	35.5	1.66
Source: NOAA 2026a			

2.2.5 Burn Probability

Burn probability is an estimate of the average annual likelihood that a wildfire will occur at any given location and is simulated using a model that integrates information about the physical landscape, historical fire occurrence, and historical weather observations (McEvoy et al. 2023). The burn probability classes range from non-burnable (fuel types such as water, agriculture, or urban) to very high burn probability.

As shown in Table M-4 and on Figure M-3, 73 percent of the wildfire analysis area has a High (0.002-0.01 percent) burn probability. The remaining acreage of the wildfire analysis area has a High (0.01-0.02 percent) burn probability (27 percent). There is a very small portion of the wildfire analysis area (4 acres) that has a Low (0-0.0002 percent) burn probability and is the site of residential and farm structures. As shown on Figure M-3, there are several areas that have a burn probability of zero. These areas have existing BCWF infrastructure including wind turbines and the Biglow Canyon Substation and are categorized as non-burnable land cover.

Similarly, 50 percent of the RFA 5 Site Boundary Area has a High (0.002-0.01 percent) burn probability and the other 50 percent is considered to have a High (0.01-0.02 percent) burn probability.

Table M-4. Burn Probability

Burn Probability	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
0	0	15	0	1
Low (0-0.0002 percent)	0	4	0	0
Moderate (0.0002-0.002 percent)	0	0	0	0
High (0.002-0.01 percent)	73	4,261	50	732
High (0.01-0.02 percent)	27	1,545	50	728
Very High (0.02-0.1 percent)	0	0	0	0
No Data	0	0	0	0
Total	100%	5,825	100%	1,461
Note: All quantities may not result in 100 percent due to rounding adjustments.				

2.3 Seasonal Risk – OAR 345-022-0115(1)(a)(B)

(B) Seasonal wildfire risk, based on factors that are expected to remain fixed for multiple months but may be dynamic throughout the year, including but not limited to, cumulative precipitation and fuel moisture content;

Seasonal wildfire risk was assessed based on factors that are anticipated to remain consistent for several months but may vary throughout the year and over time. These factors include annual and monthly cumulative precipitation levels, weather advisories (including fuel moisture content data), and average flame length (the average length of flames expected during a fire given local fuel and weather conditions). The seasonal wildfire risk within the RFA 5 Site Boundary Area and wildfire analysis area is low for most of the year, but moderate to high in the summer months based on the warmer semi-arid climate, moderate average flame lengths, high burn probability, and low average rainfall during the summer months.

2.3.1 Precipitation

See Section 2.2.4 and Table M-3 for a discussion of precipitation within the wildfire analysis area.

2.3.2 Fuel Moisture Content

Fuel moisture content is a primary variable when observing wildfire behavior. Fuel moisture content “is a measure of the amount of water in a fuel (vegetation) available to a fire and is expressed as a percent of the dry weight of that specific fuel” (NOAA 2026b). Fuel moisture content varies with weather, both seasonally and during short periods. The higher the fuel moisture content, the greater difficulty for fires to ignite and propagate. Living plants and dead fuels respond

differently to weather changes; the drying and wetting processes of dead fuels is such that the moisture content of these fuels is strongly affected by weather changes. These moisture contents are influenced by precipitation, air moisture, air and surface temperatures, wind, cloudiness, as well as by fuel factors such as surface to volume ratio, compactness, and arrangement. Fuel moisture content within the wildfire analysis area and RFA 5 Site Boundary Area is dependent on current weather conditions, fuel moisture data, and seasonal weather patterns.

Fuel moisture varies with vegetation type. For instance, annual grasses are highly flammable whereas broadleaf vegetation is less flammable (USFS 1970). Additionally, live evergreen trees and shrubs can burn despite having a moisture content of over 100 percent.

Fuel model groups within the wildfire analysis area consist mostly of grass and wheat with small amounts of fine, dead fuel, and shrubs. As shown on Figure M-2 and described earlier in Table M-2, the majority of the vegetation within the RFA 5 Site Boundary Area is FM 102 – Low Load, dry climate grass (76 percent) and FM 242 – burnable wheat fields (identical to FM 102) (22 percent). Within the wildfire analysis area, the most prominent FMs are also FM 102 (66 percent) and FM 242 (31 percent). The primary carriers of fire in FM 102 are grass and small amounts of dead fuel. If shrubs are present, they typically do not affect fire behavior. During the hot summer months, the fuel moisture content in these areas is typically low.

2.3.3 Flame Length

Fire intensity, measured by average flame length, shows the average length of flames expected, given local fuel and weather conditions (Oregon Explorer 2025). Flame lengths have potential to exceed the mapped values shown, even under normal weather conditions. Flame length is commonly used as a direct visual indication of fire intensity and is a primary factor to consider for firefighter safety and for gauging potential impacts to resources and assets.

As shown in Table M-5 and Figure M-4, 97 percent of the wildfire analysis area and 98 percent of the RFA 5 Site Boundary Area have average flame lengths of 4 to 6 feet. These flame heights, typical of dryland grasses and burnable wheat fields, can spread quickly in dry, hot conditions when fueled by wind. Two percent of the wildfire analysis area and RFA 5 Site Boundary Area have average flame lengths of 0 to 2 feet. Areas within the wildfire analysis area and RFA 5 Site Boundary Area that have no data are where there is existing BCWF infrastructure including wind turbines and the Biglow Canyon Substation.

Table M-5. Average Flame Length

Average Flame Length (feet)	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
0-2	2	137	2	23
2-4	0	23	0	4
4-6	97	5,650	98	1,433
6-8	0	0	0	0
8-12	0	0	0	0
>12	0	0	0	0
No Data	0	16	0	1
Total	100%	5,825	100%	1,461
Note: All quantities may not result in 100 percent due to rounding adjustments.				

2.4 Areas of Heightened Risk – OAR 345-022-0115(1)(a)(C)

(C) Areas subject to a heightened risk of wildfire, based on the information provided under paragraphs (A) and (B) of this subsection;

Areas of heightened risk are described using the CWPP Planning Tool “Wildfire Risk to Individual Highly Valued Resources” and specifically “Wildfire Risk to Infrastructure and People and Property” (Oregon Explorer 2025). Wildfire Risk to Infrastructure represents the conditional wildfire risk to critical infrastructure, namely energy, communication, transportation infrastructure, as well as other essential facilities. Wildfire Risk to People and Property represents the wildfire risk to residential and non-residential structures. The risk assessment framework assumes that there are no beneficial impacts of wildfire on infrastructure or structures, and so risk is characterized only by the degree of expected loss.

As discussed in Section 2.2.3, existing infrastructure within the wildfire analysis area includes the BCWF and existing transmission lines.

Note that the majority of the RFA 5 Site Boundary Area and wildfire analysis area do not have high value assets or resources including infrastructure; this is represented under the “no data” risk rating. As shown on Figure M-5, the only areas that have infrastructure data available are where there are existing transmission lines and the Biglow Canyon Substation. As shown in Table M-6, directly around the substation but within the wildfire analysis area, there is a very high expected risk to infrastructure. Areas of low to moderate loss are the 115-kV and 230-kV transmission lines that run through the wildfire analysis area and RFA 5 Site Boundary Area.

Table M-6. Expected Risk to Infrastructure

Expected Risk	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
Very High	0	6	0	0
High	0	0	0	0
Moderate	1	69	0	4
Low	6	323	1	12
Non-Burnable/Very Low	0	0	0	0
No Data ¹	93	5,427	99	1,445
Total	100%	5,825	100%	1,461
Note: All quantities may not result in 100 percent due to rounding adjustments.				
1. There are no high value assets or resources including infrastructure.				

As shown on Figure M-6, the majority of the RFA 5 Site Boundary Area and wildfire analysis area do not have high value assets or resources including residential and non-residential structures; this is represented under the “no data” risk rating. However, the areas with data available within the RFA 5 Site Boundary Area show the Biglow Canyon Substation as having low to very high loss. Additionally, there are existing residences and agricultural buildings in the southeastern portion of the site. This area also shows a low to very high loss risk rating if a wildfire were to occur. Similarly, within the wildfire analysis area, areas that are mapped are existing residences and agricultural buildings and range from having low to very high loss risk.

Table M-7. Expected Risk to People and Property

Expected Risk	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
Very High	1	47	0	0
High	1	42	0	0
Moderate	0	1	0	0
Low	2	91	0	1
Non-Burnable/Very Low	0	0	0	0
No Data	97	5,645	100	1,459
Total	100%	5,825	100%	1,461
Note: All quantities may not result in 100 percent due to rounding adjustments.				
1. There are no high value assets or resources including residential and non-residential structures.				

2.5 High-Fire Consequence Areas – OAR 345-022-0115(1)(a)(D)

(D) High-fire consequence areas, including but not limited to areas containing residences, critical infrastructure, recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat; and

The CWPP data on wildfire risk (Figure M-7) are used to identify high-fire consequence areas (Oregon Explorer 2025). Integrated Expected Wildfire Risk is a representation of cumulative risk at any location based on which highly valued resources and assets (HVRAs) are present, fire intensity, and the likelihood of a fire occurring (burn probability). The integrated risk maps synthesize risk across all resources and assets present at a specific location and the result is either net beneficial or net adverse impacts. Areas that do not have data available represent that not all resources and assets are present at every location, and the integrated wildfire risk class at a specific location reflects only the resources and assets located there.

The percentages of the RFA 5 Site Boundary Area and the wildfire analysis area that fall into each Fire Risk Rating are shown in Table M-8 and displayed on Figure M-7. The RFA 5 Site Boundary Area has a 97 percent high loss risk rating. As shown on Figure M-7, the areas that are considered to have a neutral risk rating within the wildfire analysis area and RFA 5 Site Boundary Area are where there are existing roads.

The wildfire analysis area has a 90 percent high loss risk rating and a 6 percent moderate loss risk rating. Areas of moderate loss are generally where there are irrigated crop fields present or BCWF infrastructure. As shown on Figure M-7, the Biglow Canyon Substation does not have data present but the area directly around the substation is considered to have a very high loss risk rating. Roads throughout the wildfire analysis area have some data present and are considered to have a neutral risk rating.

Table M-8. Integrated Expected Wildfire Risk

Overall Fire Risk Rating	Percent of Wildfire Analysis Area	Acres of Wildfire Analysis Area	Percent of RFA 5 Site Boundary Area	Acres of RFA 5 Site Boundary Area
Very High Loss	0	22	0	0
High Loss	90	5,239	97	1,419
Moderate Loss	6	330	0	2
Low Loss	0	7	0	2
Neutral	1	81	1	12
Low Benefit	0	0	0	0
Moderate Benefit	0	0	0	0
High Benefit	0	0	0	0
No Data ¹	3	146	2	26
Total	100%	5,825	100%	1,461

Note: All quantities may not result in 100 percent due to rounding adjustments.

1. There are no highly valued resources or assets (such as critical infrastructure, developed recreation, or housing unit density) mapped in the area, or simulated wildfires did not burn the area due to low historical occurrence/absence of burnable fuel.

2.6 Sources and Methods – OAR 345-022-0115(1)(a)(E)

(E) All data sources and methods used to model and identify risks and areas under paragraphs (A) through (D) of this subsection.

Data from the CWPP Planning Tool (Oregon Explorer 2025) were used for the analyses provided in response to OAR 345-022-0115(1)(a) in Sections 2.1 through 2.4 of this Exhibit. The CWPP tool provides a range of data for fire behavior and effects to help communities assess wildfire risk in their area.

The following 2025 Oregon CWPP datasets were used throughout this analysis (Oregon Explorer 2025):

- Burn probability,
- Average flame length,
- Integrated Expected Wildfire Risk,
- Slope,
- Fuel models,
- Wildfire Risk to Infrastructure, and
- Wildfire Risk to People and Property.

Additionally, the Sherman County Multiple-Jurisdictional Natural Hazards Mitigation Plan was used to review the baseline fire risk in Sherman County (Sherman County 2024).

3.0 Wildfire Mitigation Plans – OAR 345-022-0115(1)(b)

(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:

(A) Identify areas within the RFA 5 Site Boundary Area that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and

(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.

PGE is an investor-owned utility regulated by the Oregon Public Utilities Commission (PUC). Under OAR 345-022-0115(2), the Council may rely upon a PUC-approved Wildfire Protection Plan that governs the construction and operation of a facility; however, because PGE's PUC-approved Wildfire Protection Plan does not include site-specific mitigation activities for individual facilities, PGE has prepared Construction and Operations Wildfire Mitigation Plans in accordance with OAR 345-022-0115(1)(b).

The Certificate Holder developed a Construction WMP for the BCWF Solar Components approved under RFA 4. The Construction WMP was approved in the Final Order on RFA 4 and will be updated to include RFA 5 Solar Components prior to construction (Attachment M-1). PGE is developing a draft Operations WMP for the Solar Components approved under RFA 4 and the RFA 5 Solar Components. The draft Operations WMP (Attachment M-2, to be submitted at a later time) will be finalized prior to beginning operation of the Solar Components approved under RFA 4, in accordance with Site Certificate Condition OPR-WF-01, and will be updated for the RFA 5 Solar Components prior to operation of the approved facility.

The Certificate Holder will integrate baseline wildfire-prevention and mitigation measures directly into the Construction WMP (Attachment M-1) and the Comprehensive Solar Revegetation and Soil Management Plan (Exhibit C, Attachment C-2). This ensures that vegetation management, defensible-space practices, and ignition-prevention standards are implemented immediately and are enforceable under the Site Certificate.

4.0 Conclusion

Per the data reviewed and presented here, wildfire risk and consequences of fire within the RFA 5 Site Boundary are typical for the vegetation type and fire regime encountered in Sherman County. Within the RFA 5 Site Boundary Area and wildfire analysis area, assets that could currently be impacted from a wildfire include BCWF infrastructure, residential structures, agricultural areas and farming operations, and roads. If a wildfire did ignite near those assets, they could be at risk. It is anticipated that, due to the existing infrastructure, high burn probability, moderate to high expected intensity as measured by average flame length, fuels, weather, and topography, overall fire risk within the RFA 5 Site Boundary would be moderate to high.

5.0 References

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<https://www.ncei.noaa.gov/access/monitoring/dyk/deadfuelmoisture#:~:text=Fuel%20moisture%20is%20a%20measure,content%20would%20be%20zero%20percent>
- NPMS (National Pipeline Mapping System). 2026. NPMS Public Viewer.
<https://pvnpm.phmsa.dot.gov/PublicViewer/>
- NPS (National Parks Service). 2019. Arid and Semi-arid Region Landforms. Available online at:
[https://www.nps.gov/subjects/geology/arid-landforms.htm#:~:text=Arid%20regions%20by%20definition%20receive,centimeters\)%20of%20rain%20per%20year.](https://www.nps.gov/subjects/geology/arid-landforms.htm#:~:text=Arid%20regions%20by%20definition%20receive,centimeters)%20of%20rain%20per%20year.)
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https://tools.oregonexplorer.info/oe_htmlviewer/index.html?viewer=wildfireplanning
- Sherman County. 2024. Sherman County Multiple-Jurisdictional Natural Hazards Mitigation Plan.
<https://storage.googleapis.com/proudcity/shermancountyor/2017/11/ShermanCountyNHMP2024.pdf>
- USFS (U.S. Department of Agriculture Forest Service). 1970. A Guide for Application of Meteorological Information to Forest Fire Control Operations: Chapter 11 - Weather and Fuel Moisture. Handbook 360. U.S. Department of Agriculture Forest Service.
<https://www.nwcg.gov/publications/pms425-1/weather-and-fuel-moisture>

6.0 Approval Standards and Submittal Requirements

Table M-9. Approval Standards and Submittal Requirements Matrix

Requirements	Location
OAR 345-022-0115 Wildfire Prevention and Risk Mitigation	–
Submittal Requirements	
(1) To issue a site certificate, the Council must find, by way of supporting evidence from the applicant, that:	–

Request for Amendment 5
Exhibit M. Wildfire Prevention and Risk Management

Requirements	Location
(a) The applicant has adequately characterized wildfire risk within the analysis area using current data from reputable sources, by identifying:	Section 2.0
(A) Baseline wildfire risk, based on factors that are expected to remain fixed for multiple years, including but not limited to topography, vegetation, existing infrastructure, and climate;	Section 2.1
(B) Seasonal wildfire risk, based on factors that are expected to remain fixed for multiple months but may be dynamic throughout the year, including but not limited to, cumulative precipitation and fuel moisture content;	Section 2.2
(C) Areas subject to a heightened risk of wildfire, based on the information provided under paragraphs (A) and (B) of this subsection;	Section 2.3
(D) High-fire consequence areas, including but not limited to areas containing residences, critical infrastructure, recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat; and	Section 2.4
(E) All data sources and methods used to model and identify risks and areas under paragraphs (A) through (D) of this subsection.	Section 2.5
(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:	Section 3.0
(A) Identify areas within the RFA 5 Site Boundary Area that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;	Section 3.0
(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;	Section 3.0
(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;	Section 3.0
(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and	Section 3.0
(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.	Section 3.0
Approval Standards	
(2) The Council may issue a site certificate without making the findings under section (1) if it finds that the facility is subject to a Wildfire Protection Plan that has been approved in compliance with OAR chapter 860, division 300.	–
(3) This Standard does not apply to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 on or before the effective date of this rule.	–

Figures

**Biglow Canyon
Wind Farm Request
for Amendment #5**

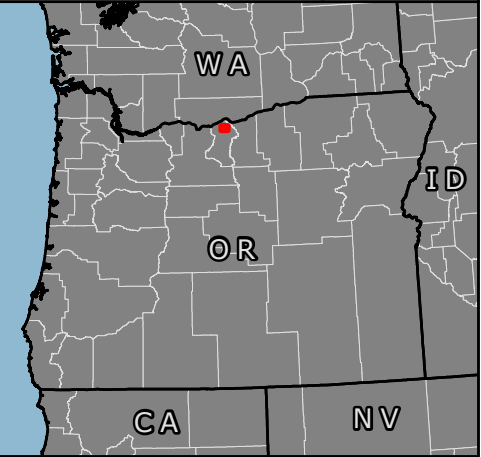
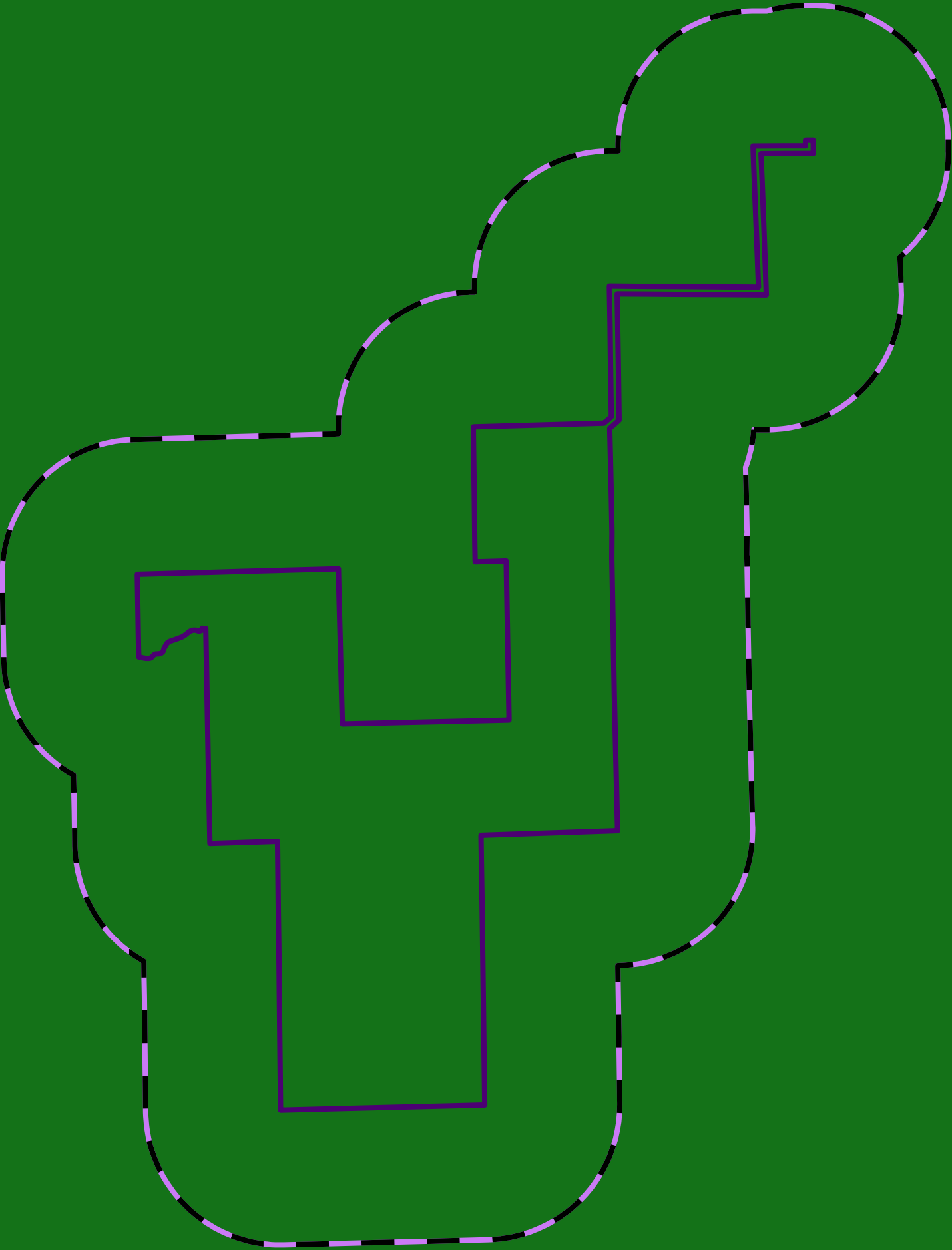
**Figure M-1
Slope**

SHERMAN COUNTY, OR

-  RFA5 Site Boundary
 -  Analysis Area (0.5-mile Buffer)
 -  State Boundary
 -  City/Town
- Slope
-  0 - 25 degrees



Reference Map



Wasco



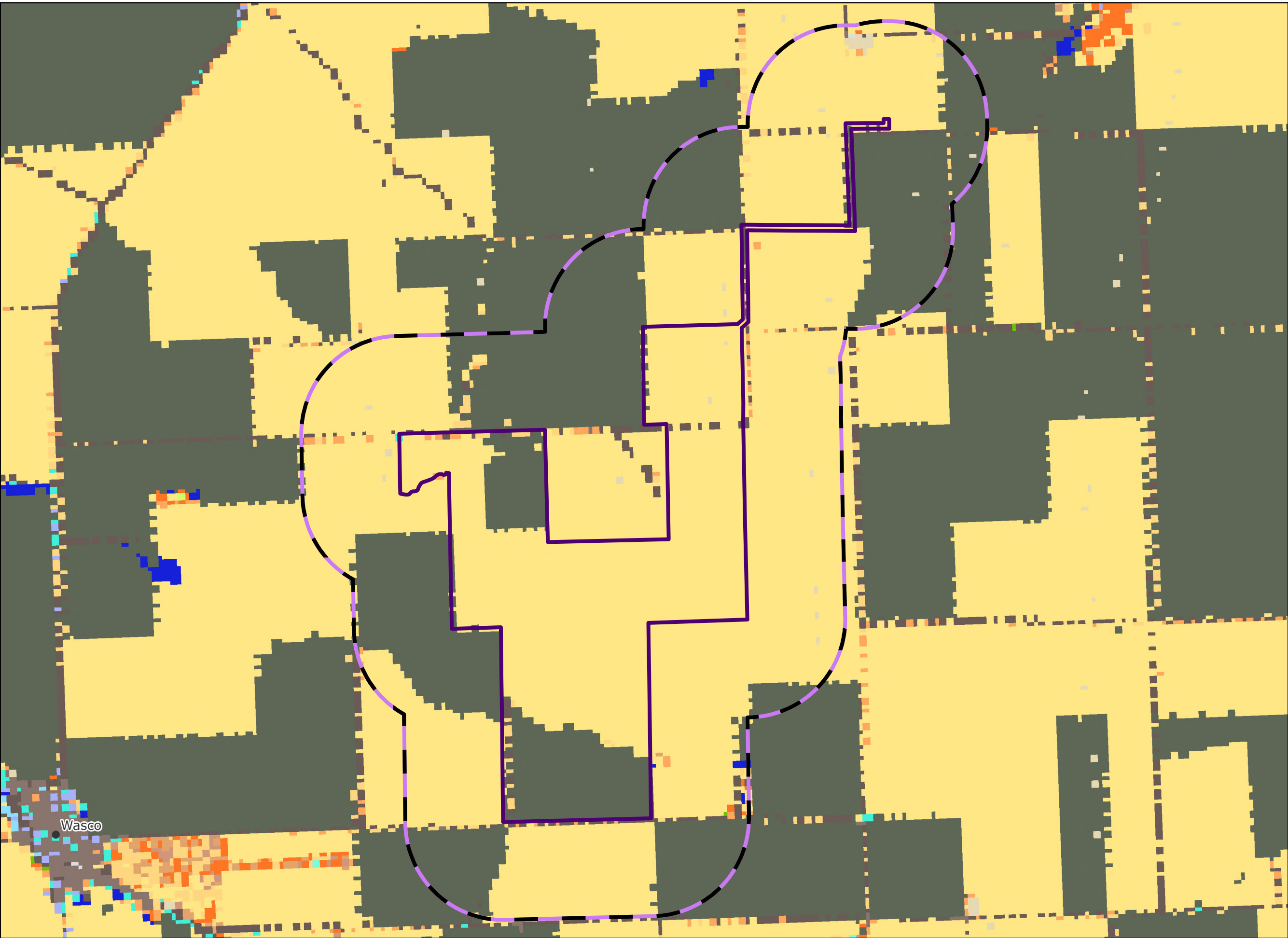
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0 1 2 Miles

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Biglow Canyon Wind Farm Request for Amendment #5

**Figure M-2
Fuel Models**

SHERMAN COUNTY, OR

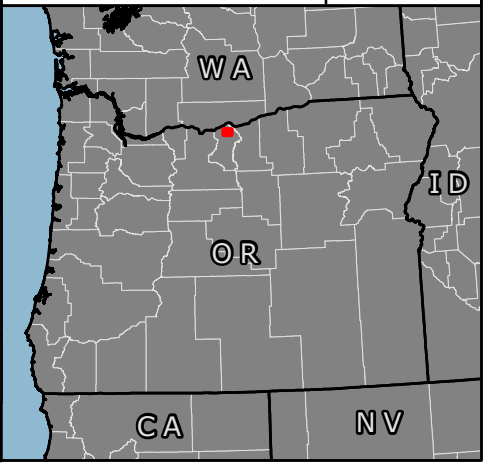
- RFA5 Site Boundary
- Analysis Area (0.5-mile Buffer)
- City/Town

Fuel Model

- 91
- 93
- 99
- 101
- 102
- 121
- 122
- 123
- 142
- 161
- 162
- 181
- 182
- 183
- 185
- 242
- 251
- 252

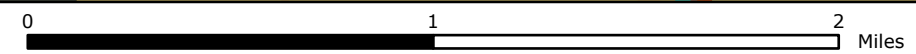


Reference Map



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WGS 1984 UTM Zone 10N



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**Biglow Canyon
Wind Farm Request
for Amendment #5**

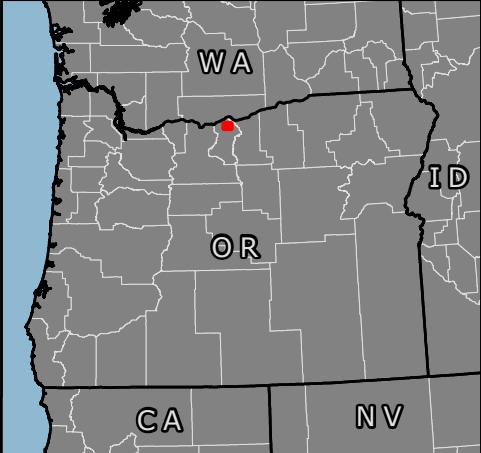
**Figure M-3
Burn Probability**

SHERMAN COUNTY, OR

-  RFA5 Site Boundary
 -  Analysis Area (0.5-mile Buffer)
 -  City/Town
- Burn Probability
- 0
 -  0 - 0.0001 Low ($\leq$ 1-in-10,000)
 -  0.002 - 0.01 High (1-in-500 to 1-in-100)
 -  0.01 - 0.02 High (1-in-100 to 1-in-50)



Reference Map

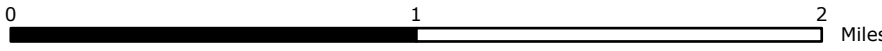


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**Biglow Canyon
Wind Farm Request
for Amendment #5**

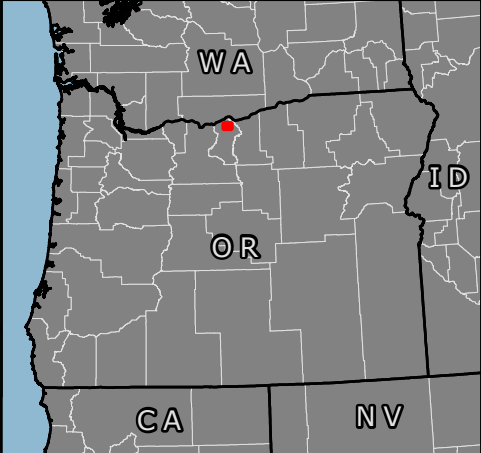
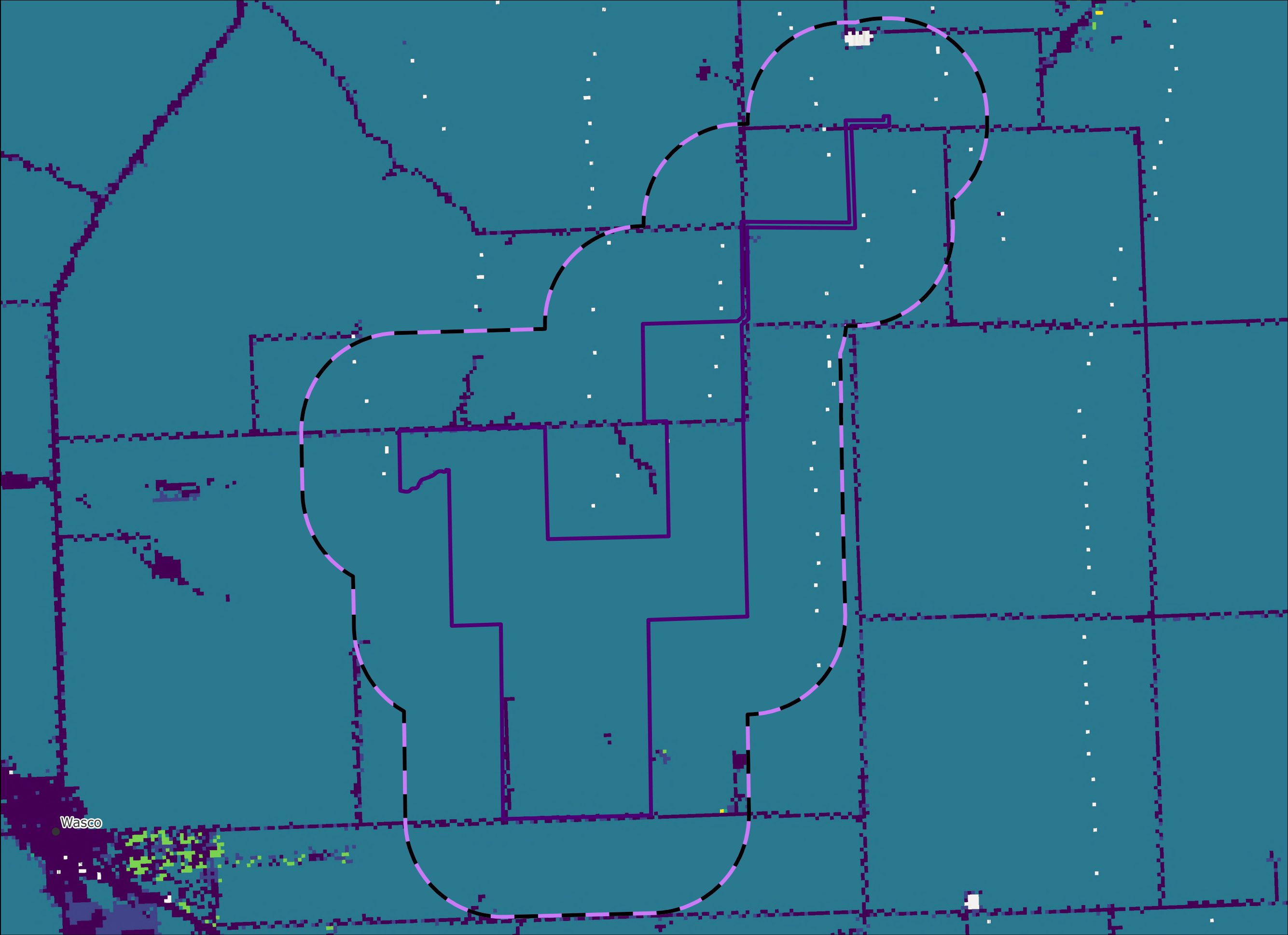
**Figure M-4
Average Flame Length**

SHERMAN COUNTY, OR

-  RFA5 Site Boundary
 -  Analysis Area (0.5-mile Buffer)
 -  City/Town
- Average Flame Length
-  0 - 2 ft.
 -  2 - 4 ft.
 -  4 - 6 ft.
 -  6 - 8 ft.
 -  8 - 12 ft.
 -  Greater than 12 ft.



Reference Map

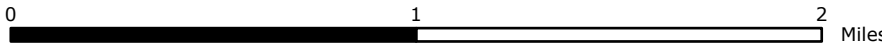


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**Biglow Canyon
Wind Farm Request
for Amendment #5**

**Figure M-5
Expected Risk to
Infrastructure**

SHERMAN COUNTY, OR

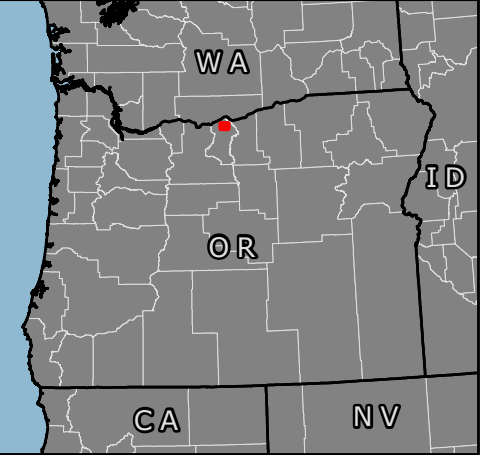
-  RFA5 Site Boundary
-  Analysis Area (0.5-mile Buffer)
-  City/Town

Expected Risk to Infrastructure

-  Very High Loss
-  High Loss
-  Moderate Loss
-  Low Loss



Reference Map



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WGS 1984 UTM Zone 10N

0 1 2 Miles

NOT FOR CONSTRUCTION

Biglow Canyon Wind Farm Request for Amendment #5

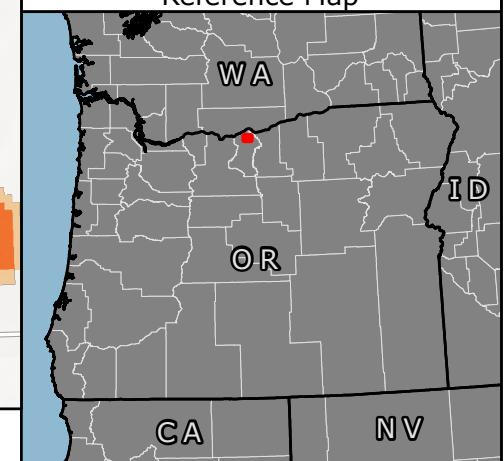
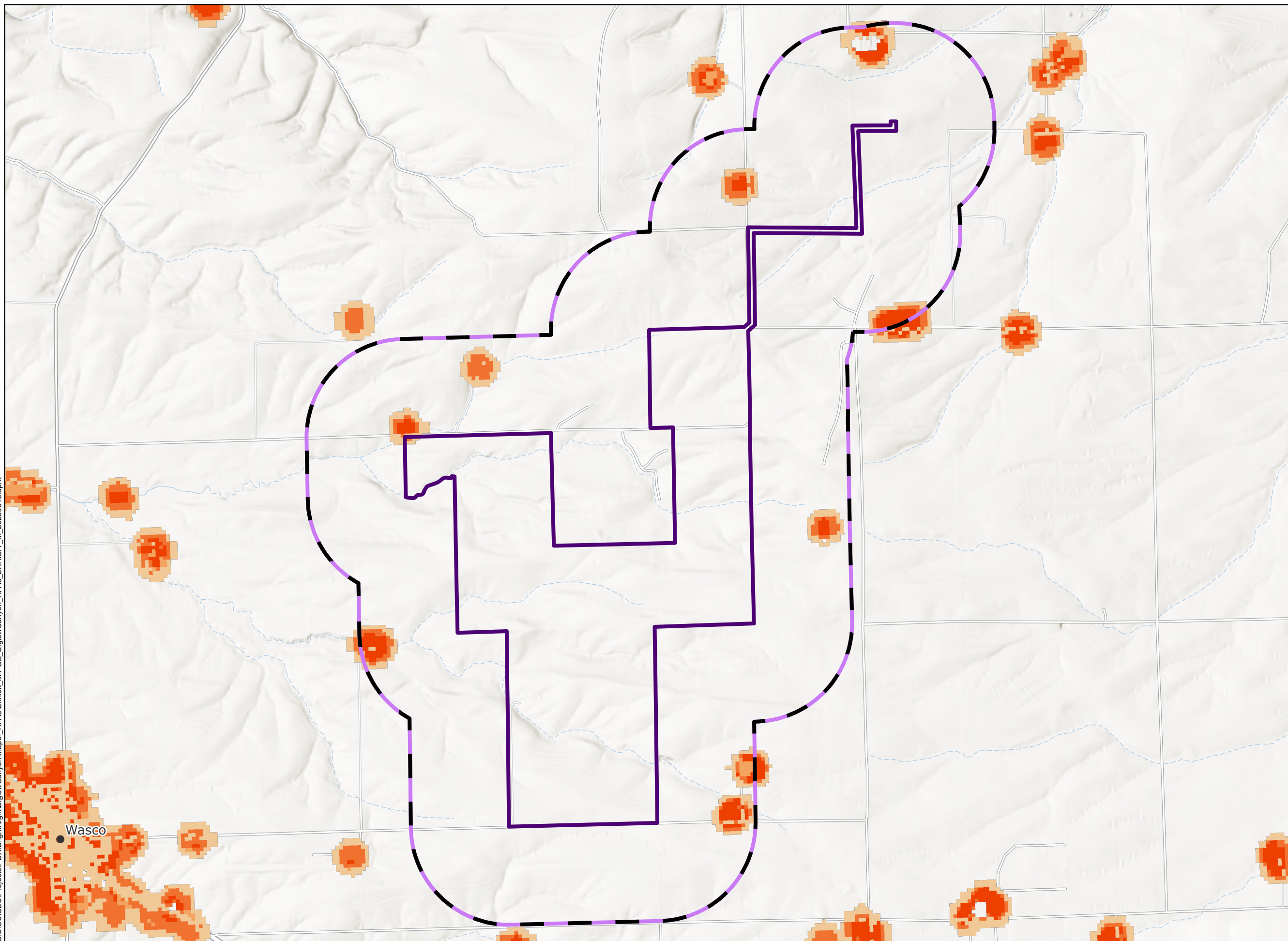
**Figure M-6
Expected Risk to
People and Property**

SHERMAN COUNTY, OR

- RFA5 Site Boundary
 - Analysis Area (0.5-mile Buffer)
 - City/Town
- Expected Risk to People and Property
- Very High Loss
 - High Loss
 - Moderate Loss
 - Low Loss

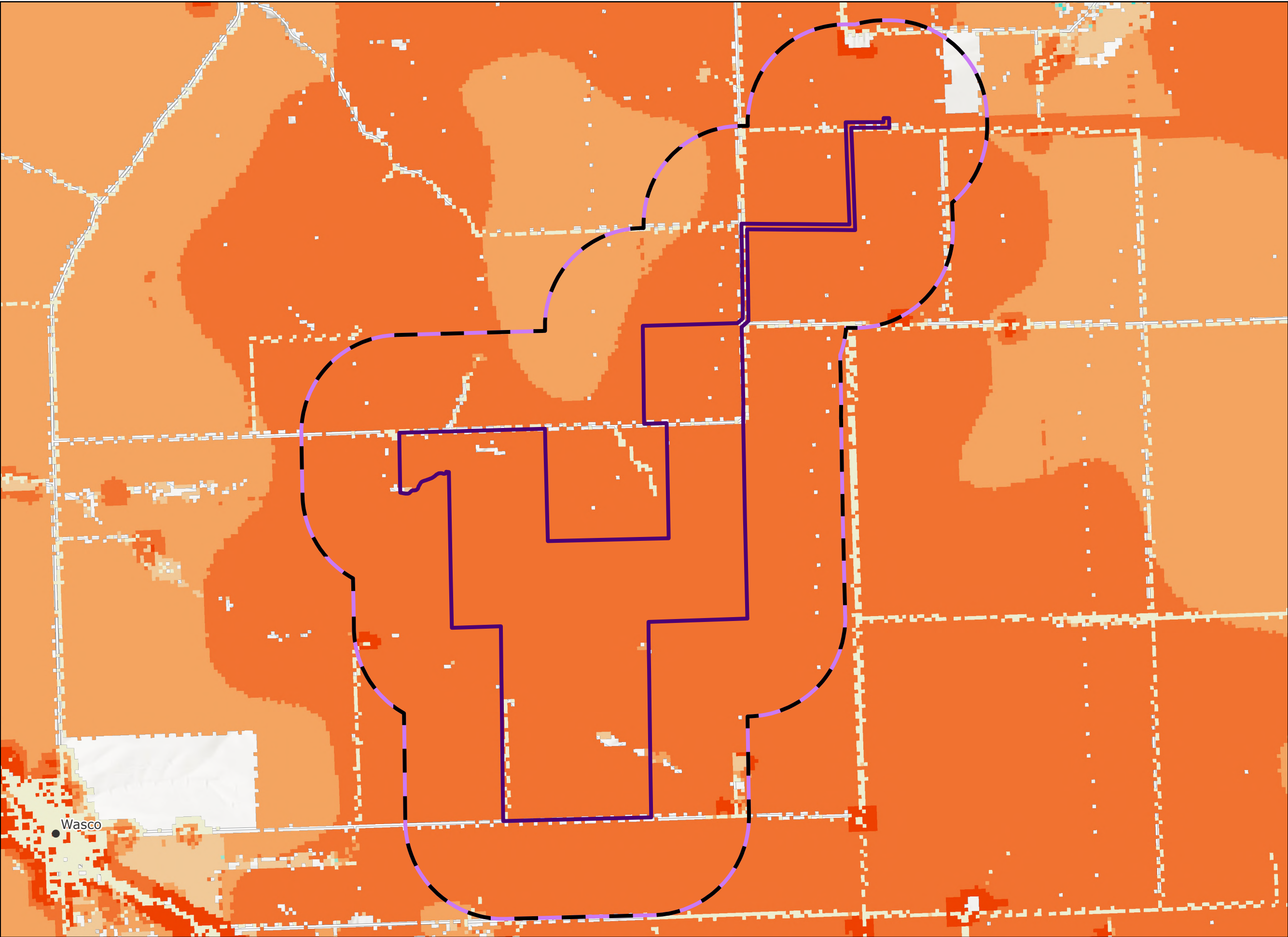


Reference Map



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**Biglow Canyon
Wind Farm Request
for Amendment #5**

**Figure M-7
Integrated Expected
Wildfire Risk**

SHERMAN COUNTY, OR

-  RFA5 Site Boundary
 -  Analysis Area (0.5-mile Buffer)
 -  City/Town
- Integrated Expected Wildfire Risk
-  Very High Loss
 -  High Loss
 -  Moderate Loss
 -  Low Loss
 -  Neutral
 -  Low Benefit
 -  Moderate Benefit

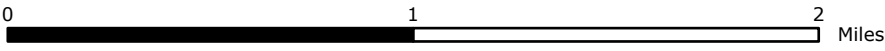


Reference Map



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WGS 1984 UTM Zone 10N



NOT FOR CONSTRUCTION

Attachment M-1. Draft Construction Wildfire Mitigation Plan

Construction Wildfire Mitigation Plan

Biglow Solar and BESS Facility

Prepared for

Portland General Electric Company

Prepared by



TETRA TECH

October 2026

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1.0 Introduction

The Oregon Energy Facility Siting Council (EFSC) approved Portland General Electric Company's (PGE or Certificate Holder) Final Construction Wildfire Mitigation Plan (WMP) as part of the Request for Amendment (RFA) 4 to the Site Certificate for the Biglow Canyon Wind Farm (BCWF or Existing Facility), which added photovoltaic solar energy generation and battery storage (Solar Components) to the operating BCWF in Sherman County, Oregon. This approved Construction WMP will guide activities at the RFA 5 Solar Facility and will be finalized prior to construction of the RFA 5 Solar Components.

This plan is intended to satisfy the approval standards under Oregon Administrative Rules (OAR) 345-022-0115(1)(b), which requires the Plan to:

(A) Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and

(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.

This plan is submitted in adherence to the following Site Certificate Conditions relating to RFA 5:

Wildfire Prevention and Risk Mitigation Condition 1 (PRE-WF-01): Prior to construction of any component or phase of the solar facility, the certificate holder shall finalize and submit to the Department, for review and approval, a Construction Wildfire Mitigation Plan (WMP), consistent with Attachment G to the Final Order on RFA 4.

Wildfire Prevention and Risk Mitigation Condition 2 (CON-WF-01): During construction of the solar facility, the certificate holder shall require onsite contractors and employees to adhere to the Construction Wildfire Mitigation Plan (WMP) approved under Condition PRE-WF-01.

2.0 Final Wildlife Mitigation Plan Checklist (Prior to Construction)

2.1 Update Applicable Sections of Construction WMP

To finalize this Construction WMP prior to construction of the RFA 5 Solar Components, the Certificate Holder will update the following sections:

- Section 4.0, based on final Solar Component design, will include a brief description of areas within the site that are subject to high wildfire risk and fire prevention features at the site, such as road dimensions, setbacks, fire breaks, entry/exit locations, location of water trucks, and fire protection equipment locations.
- Section 4.1 will be updated and the Facility site maps described in Section 4.1.6 will be included in this WMP.
- Section 4.3 will be updated with contact information and emergency response procedures for the fire department, Certificate Holder, and operational manager. Section 4.3 will be updated with analysis area residence contact information and will confirm that analysis area residence contact letter were sent to residences within the site boundary and 0.5 miles from the Facility.
- Section 4.6 will be updated to describe vegetation management and areas that will be managed to be vegetation-free, noncombustible space, or gravel surface.

3.0 Prior to Construction Task List (PRE)

Prior to construction of the Solar Facility, the activities in Sections 3.1 and 3.2 will be completed.

3.1 Training

The Certificate Holder will organize and hold an on-site training with the Certificate Holder, contractors, and construction personnel, inviting specialty contractors, local fire departments, participating and adjacent landowners, emergency management office personnel, Oregon Department of Energy (ODOE), and any other emergency management agency that covers:

- Description of construction phasing;
- The type, location, and proper use of fire protection equipment;
- Fire protection equipment usage and maintenance requirements;
- The locations of water sources and proper usage, storing and maintenance for the pump, hose nozzle, and water hose;
- Overview of smoking policy and locations;

- Overview of procedures and restrictions of construction maintenance activities during Fire Season and Red Flag Warnings designated in this Plan:
 - Rescue, Alarm, Contain and Extinguish (RACE) procedures including:
 - Rescue anyone in danger (if safe to do so);
 - Alarm – call the control room, who will then determine if 911 should be alerted;
 - Contain the fire (if safe to do so); and
 - Extinguish the incipient fire stage (if safe to do so); and
- Provide information and encourage attendees to sign up for the County’s emergency management notification system.

The training attendee list and training materials will be provided to ODOE to demonstrate compliance. The Certificate Holder will fill out and submit to ODOE the template residence outreach letter provided as Attachment 1 of this WMP. Once ODOE confirms the letter to be sufficient, the letter will be mailed to each residence within the 0.5-mile analysis area. The mailing will be confirmed and submitted to ODOE.

3.2 RFA 5 Site Boundary Area Site Maps Submission

The Certificate Holder will update site maps from Section 4.1.6 concurrently to local fire departments and ODOE.

4.0 Construction Wildfire Mitigation Plan (CON)

4.1 Summary of Solar Component Design Features and Fire Protection Equipment

4.1.1 Construction Phasing

The Certificate Holder and contractors will maintain vegetation within the RFA 5 Site Boundary and will also maintain a defensible space clearance along Facility features. Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle.

During construction clearing, grubbing, and grading, the contractor will establish a clear, brush-free area extending a minimum of 10 feet inside the fence line and a graveled, vegetation-free area extending a minimum of 10 feet outside the fence line. Vegetation within the 10-foot buffer area inside the fenceline will be managed in accordance with the recommendations of the local fire official and the Comprehensive Solar Revegetation and Soil Management Plan (see Exhibit C, Attachment C-1).

While hot work permits are not generally anticipated for the construction of the Solar Components, such permits or formal approval will be required during fire season if any hot work is to be conducted.

Fuel storage and handling protocols include the following:

- Any equipment or vehicles carrying fuel must remain parked at a designated location along the county-right-of way.
- Vehicles leaving the right-of-way must not carry fuel containers, with the exception of a single five-gallon container used to operate the water truck pump.
- Smoking will be restricted to designated areas within the Facility only.

4.1.2 Wildfire Risk

The data sources used in this Plan to identify areas within the RFA 5 Site Boundary Area subject to heightened risk of wildfire include the Oregon Community Wildfire Protection Plan (CWPP) Planning Tool (Oregon Explorer 2025) and the Sherman County Multiple-Jurisdictional Natural Hazards Mitigation Plan (Sherman County 2024).

The Sherman County Multiple-Jurisdictional Natural Hazards Mitigation Plan describes a county-wide risk assessment of wildfire as “high” probability and identifies many areas in the county as “conducive for large and fast-moving wildfires” due to high winds typical for regional dry conditions and terrain. The plan identifies risk factors for starting wildfires in the county as highways, railroads, lighting, power lines, debris burning, and equipment.

Exhibit M, Figure M-7 shows the integrated expected wildfire risk at the Biglow Solar and BESS Facility site. The RFA 5 Site Boundary Area is considered a high loss risk rating. Areas with the highest risk rating are generally around the Biglow Canyon Substation and existing residences and farm structures.

4.1.3 Fire Prevention

The greatest risk of fire is during construction, when welding and metal cutting will take place, and vehicles and construction equipment may be used in areas of tall, dry grass. To prevent fires from occurring, the construction contractor will implement a number of systems and procedures. These will include requirements to conduct welding or metal cutting only in areas cleared of vegetation, and to keep firefighting equipment on-site, as discussed in Section 4.4. Construction workers will keep vehicles on roads during the dry months of the year, unless off-road activities are required for emergency purposes, in which case fire precautions will be observed. Construction workers will be prohibited from parking vehicles in areas of tall, dry vegetation to prevent fires caused by contact with hot mufflers or catalytic converters. In the event of a large fire, emergency responders will be dispatched.

Fire prevention specific to solar arrays is dependent on proper installation and maintenance of electrical equipment to prevent short-circuits and consequent sparking, and reduction in fuel to

reduce the chance of fire spreading. Qualified staff will be employed to install and maintain electrical equipment. The solar array will have shielded electrical cabling, as required by applicable code, to prevent electrical fires. All electrical equipment will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards. With proper maintenance and safety checks, the electrical collection system and generation tie (gen-tie) lines are unlikely to cause a fire. The substrate on the ground inside the solar array fence line will be gravel where needed for maintenance and access roads or where gravel already exists, and vegetation where gravel is not needed or already present. Weeds will be managed in accordance with the weed management procedures described in the Comprehensive Solar Revegetation and Soil Management Plan.

New roads needed for emergency access shall be sufficiently sized and designed for emergency vehicles in accordance with 2022 Oregon Fire Code requirements, including Section 503 and Appendix D - Fire Apparatus Access Roads. Road approaches up to the solar array will be 20 feet wide. Within the solar array fencing, the facility has been designed with 16-foot interior access roads. Roads accessing the substation and battery energy storage system (BESS) will be 24 feet wide. Interior access roads for the substation will be 20 feet wide and 24 feet wide for the BESS. Vegetation along service roads will be managed by mowing or other vegetation removal. The areas immediately around the operations and maintenance (O&M) buildings, proposed substation, and BESS will be graveled, with no vegetation present.

Additionally, the RFA 5 solar arrays, BESS, and associated components will be set back at least 50 feet from all property lines of non-participating landowners.

4.1.4 Battery Energy Storage System Fire Prevention

The Certificate Holder will implement the following fire prevention and control methods to minimize fire and safety risks for the lithium ion (Li-ion) batteries proposed for the BESS:

- The batteries will be stored in completely contained, leak-proof modules.
- The Li-ion battery system will be kept in a temperature-controlled facility with individual battery modules isolated to prevent the spread of fire if it were to occur.
- The batteries will be based on lithium iron phosphate chemistry, which has a lower risk of fire.
- The Li-ion battery system will comprise multiple temperature-controlled battery enclosures, each with its own fire detection, monitoring, and fire protection systems. The battery enclosures will be spaced at a minimum recommended distance from each other as required by the battery supplier, Authority Having Jurisdiction requirements, and applicable codes and standards. Minimum spacing isolates each battery enclosure and reduces the risk of fire propagation between battery enclosures in the unlikely event of a fire.
- Ample working space will be provided around the BESS for maintenance and safety purposes.

- Twenty-four-hour monitoring of the BESS will be implemented and will include shutdown capabilities.
- Transportation of Li-ion batteries is subject to 49 Code of Federal Regulations (CFR) 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. This regulation contains requirements for prevention of a dangerous evolution of heat, prevention of short circuits, prevention of damage to the terminals, and prevention of batteries coming into 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 the BESS will be in accordance with applicable Underwriters Laboratories (UL 2023; 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 storage at the time of construction.
- Additionally, the Certificate Holder will employ the following design practices, as applicable to the available technology and design at time of construction:
 - Employment of an advanced and proven battery management system;
 - Qualification testing of battery systems in accordance with UL 9540A (Revision 4) at the battery cell, module, and unit level;
 - Installation of fire sensors, smoke and hydrogen and/or carbon monoxide detectors, alarms, emergency ventilation systems, cooling systems within each battery enclosure;
 - Employment of fire control panels with 24-hour battery backup;
 - Installation of doors that lock with restricted access to authorized personnel only;
 - Implementation of locks and fencing to prevent entry of unauthorized personnel;
 - Installation of remote power disconnect switches; and
 - Clear and visible signs to identify remote power disconnect switches.

4.1.5 Facility Access

Facility access will primarily come from existing County roads. The perimeter fencing will have lockable vehicle access gates. The number of gates will be included in the finalized plan. Each solar array would be enclosed by wire mesh, chain link, or similar perimeter fencing, up to 7-8 feet in height.

4.1.6 Facility Site Maps

Facility site maps can be found attached to the Background Exhibit as Figure 2. The site maps include the proposed RFA 5 Site Boundary Area, access roads, gen-tie line, BESS, project substation, and O&M building. As discussed above, locations of specific access points and gates will depend on final configuration of the Solar Components and related infrastructure. As discussed in Exhibit M, integrated expected wildfire risk is used to identify high-fire consequence areas. Integrated expected wildfire risk is shown on Figure M-7.

The following information will be verified and provided on a figure included in the revised final Construction WMP prior to construction:

- The phasing for construction of facility features and components.
- Location of vegetation-free, noncombustible, defensible spaces.
- Location and dimensions of facility roads.
- The location of facility access points.
- A description and the location of emergency access procedures, including how emergency responders and/or adjacent landowners may access the site for fire protection equipment or to extinguish an on-site fire when personnel will not be onsite.
- The type and location of fire protection equipment on site.
- The locations of water sources that will be on site during construction.
- High-fire consequence areas/resources (includes existing infrastructure, residences, sensitive habitat, or cultural resources).

4.2 Specifications for Fire Protection Equipment

The following fire suppression equipment will be carried in vehicles conducting maintenance activities and stored on site at the O&M building at all times:

- Fire Extinguisher: Dry chemical. 2A:10BC (5-pound), properly mounted or secured;
- Pulaski;
- Hand Shovel: Round point. 26 to 28 inches "D" Handle, blade - 12 inches long and 10 inches wide; and
- Collapsible Pail or Backpack Pump: 5-gallon capacity.

During fire season (designated Fire Season or June to October each year), water trucks/water source, water buffalo, or tank with minimum 500-gallon capacity must be on site. The water truck or water supply shall include the following, approved by ODOE:

- Pumps should be maintained ready to operate and capable of providing a discharge of not less than 20 gallons per minute at 115 pounds per square inch at pump level. Note: Volume

pumps will not produce the necessary pressure to effectively attack a fire start. Pressure pumps are recommended.

- Provide enough hose (500 feet minimum) not less than ¾-inch inside diameter to reach areas where power driven machinery has worked.
- Water supply, pump, and at least 250 feet of hose with nozzle must be maintained as a connected, operating unit ready for immediate use.

All internal combustion engines must be equipped with exhaust systems, mufflers and screens, or include an appropriate spark arrester, and must be kept in good operating condition. All combustion engines (including but not limited to off road vehicles, chainsaws, and generators) will be equipped with a spark arrester that meets U.S. Forest Service Standard 5100-1.

All power-driven machinery will be kept free of excess flammable material that may create a risk of fire.

4.3 Solar Component Contact Information and Emergency Response Procedures

Local fire department and county emergency management contact information is as follows:

- North Sherman County Rural Fire Protection District: (541) 442-5252 or 911
- Sherman County Emergency Services: (541) 565-3100 or 911

Fire department response times to the site: 15 to 20 minutes

Certificate Holder primary contact and contact of construction contractor managers:

Certificate Holder Primary Contact Information	
Name	Dan Wilson
Company	Portland General Electric Company
Street Address	121 SW Salmon Street, 3WTC0403
City/State/Zip	Portland, OR 97204
Phone	503-630-8138
Email	Dan.Wilson@pgn.com
Construction Contractor Manager Contact Information	
Name	(Will be updated prior to construction)
Title	
Street Address	
City/State/Zip	
Phone	
Email	

Residence addresses within and 0.5 mile from the RFA 5 Site Boundary:

- The residence/landowner outreach letter, provided as Attachment 1, was provided to residences within the analysis area for RFA 4 and will similarly be provided to residences within the analysis area for RFA 5 before the start of construction.
- A list of property owners within the RFA 5 Site Boundary and a 0.5-mile radius is included in the Background Information Exhibit as Attachment 2.

Contact 911 in the event of:

- A fire or emergency on-site that cannot be addressed by personnel on-site and requires the assistance of fire or emergency medical personnel;
- A fire ignition on-site that spreads out of the fence line;
- Any fire off-site that does not have emergency responders on site.
 - To the extent that construction personnel can safely assist and/or provide equipment to help extinguish off-site fires until emergency responders are on site, it is encouraged to do so to assist in the spread of the fire, loss of life, property and damage to the environment.

4.4 Use of Vehicles and Power-Driven Machinery at Site

The following best management practices (BMPs) to minimize fire risk from vehicle travel, equipment use, and fueling activities will be implemented at the site during construction:

- The movement of vehicles will be planned and managed to minimize fire risk.
- The contractors will be responsible for identifying and marking paths for all off-road vehicle travel. All off-road vehicle travel will be required to stay on the identified paths. No off-road vehicle travel will be permitted while working alone. Travel off road or parking in vegetated areas will be restricted during fire season as designated in this Plan.
- Areas with grass that are as tall or taller than the exhaust system of a vehicle must be wetted or mowed before vehicles travel through them.
- Workers will be instructed to shut off the engine of any vehicle that gets stuck and periodically inspect the area adjacent to the exhaust system for evidence of ignition of vegetation. Stuck vehicles will be pulled out rather than “rocked” free, and the area will be inspected again after the vehicle has been moved.
- The contractors will designate a location for field fueling operations at the temporary construction yards. Any fueling of generators, pumps, and the like shall take place at this location only.
- Fuel containers, if used, shall remain in a vehicle or equipment trailer, parked at a designated location alongside a county right-of-way. No fuel containers shall be in the vehicles that exit the right-of-way except the five-gallon container that is required for the water truck pump.

- All power-driven machinery will be kept free of excess flammable material that may create a risk of fire.

4.5 Fire Weather Monitoring and Restrictions during Fire Season

4.5.1 Definitions

- **Non-Fire Season** – Approximately October–May
- **Fire Season** – Approximately June–September, formally designated by the Oregon Department of Forestry (ODF). Under Oregon Revised Statutes (ORS) 478.960 (4), a Fire Chief can establish Fire Season within a Fire District when ODF, under ORS 477.505, declares Fire Season. This begins a period of seasonal restrictions for public and industry.
- **Fire Weather Watch** – A fire weather watch is issued when there is a high potential for the development of a red flag event. A watch is issued 18 to 96 hours in advance of the expected onset of criteria. The intent of a fire weather watch is to alert forecast users at least a day in advance for the purposes of resource allocation and fire fighter safety. A watch means critical fire weather conditions are possible but not imminent or occurring.
- **Red Flag Weather Warning** – A red flag warning is used to warn of impending or occurring red flag conditions. Its issuance denotes a high degree of confidence that weather and fuel conditions consistent with local red flag event criteria will occur in 48 hours or less. Specific Red Flag criteria differ for each situation and district in Oregon. Be extremely careful with open flames and other activities that emit sparks.
- **Hot Work** – Any cutting, grinding, welding, or other activity that creates spark or open flame.

4.5.2 Fire Watch Service

Fire watch shall:

- Be physically capable of and experienced in operating firefighting equipment.
- Have facilities for transportation and communications to summon assistance.
- Observe portions of the facility where equipment activity occurred during the day.

Upon discovery of a fire, fire watch personnel must first report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities, and then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire, consistent with firefighting training and safety.

4.5.3 Fire-Prevention Measures and Restrictions

The Certificate Holder shall maintain a log when construction activities are impacted by Fire Restrictions during Fire Season as designed in this section. The log will include:

- The date;
- Fire Precaution Level; and
- Description of actions taken, including if any measures were taken to reduce wildfire risk that are not identified in this Plan.

4.5.3.1 Non-Fire Season

- All hot work must be conducted on roads or on non-combustible surfaces.
- Smoking must occur in designated areas only.

4.5.3.2 Fire Season

- All hot work (any cutting, welding, or other activity that creates spark or open flame) must be conducted on roads or on non-combustible surfaces.
- Water source meeting specifications in this Plan will be on site during fire season.
- Following the completion of hot work, the Certificate Holder or contractors must maintain a fire watch for 60 minutes to monitor for potential ignition.
- Fire watch shall be on duty during any breaks and for one hour after all power-driven machinery used by the operator has been shut down for the day.
- Smoking in designated areas only.

4.5.3.3 Fire Weather Watch

- No hot work permitted.
- Driving and parking only permitted on graveled or paved surfaces.
- Fire watch shall be on duty during any breaks and for one hour after all power-driven machinery used by the operator has been shut down for the day.
- No smoking on site.

4.5.3.4 Red Flag Weather Warning

- No hot work permitted.
- On-site personnel must be aware of Red Flag Warning.
- Driving and parking only permitted on graveled or paved surfaces.
- Fire watch shall be on duty during any breaks and for one hour after all power-driven machinery used by the operator has been shut down for the day.
- No smoking on site.

Table 1. Fire Prevention Measures during Fire Season

Requirement	Non-Fire Season	Fire Season	Fire Weather Watch	Red Flag Warning
Fire weather advisory	Not required	Not required	Not required	On-site personnel must be aware of Red Flag Warning.
On-site water source	N/A	As specified in Section 4.2	As specified in Sections 4.2 and 4.3.	As specified in Sections 4.2 and 4.3.
Hot work	Only permitted on roads or on non-combustible surfaces.	Only permitted on roads or on non-combustible surfaces; fire watch required for 60 minutes after completion	Not Permitted	Not Permitted
Fire Watch Service	Not required	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.
Driving and parking	As described in Section 4.4.	As described in Section 4.4.	Only permitted on roads or on non-combustible surfaces and Section 4.4.	Only permitted on roads or on non-combustible surfaces and Section 4.4.
Smoking	Designated areas only	Designated areas only	Not permitted	Not permitted

4.6 Vegetation Management

4.6.1 *Vegetation-free, Noncombustible Space, and Vegetation Standards*

Vegetation within the fence line and below the solar arrays will be maintained in accordance with the Comprehensive Solar Revegetation and Soil Management Plan (see Exhibit C, Attachment C-2) for the facility.

- Vegetation within and adjacent to the Solar Components will be maintained as follows:
 - During the dry season (June to October), vegetation height will be limited to 4 to 8 inches. Vegetation will be mowed to a height of 4 inches prior to June of each year.
 - Outside the dry season (November to May), vegetation will be maintained at a maximum height of less than 12 inches.
- A minimum vertical clearance of 12 inches from electrical and mechanical equipment will be maintained at all times.

- Vegetation exceeding the heights listed above shall be removed or mowed. Mowing must be done in advance of fire season or in accordance with any fire restrictions.
- A minimum 20-foot clear, brush-free area will be maintained around the perimeter of fenced solar arrays (10 feet inside the fence consisting of managed vegetation and 10 feet outside the fence consisting of vegetation-free gravel). Activities necessary to maintain the area as clear, brush-free shall be based on consultation with the local fire code official.
- Vegetation along service roads will be managed by mowing or other vegetation removal.
- At no point shall vegetation come in contact with electrical equipment.
- Any vegetation removed from the site will be disposed of and not stored onsite.
- The Certificate Holder and contractors will prevent the accumulation of combustible burn piles on site.

The following areas will be managed to be vegetation-free, noncombustible space, or gravel surface:

- Fenced areas around the collector substation and operations and maintenance structure will be graveled, with no vegetation present.
- All newly constructed roads will be graded and graveled to meet load requirements for all equipment.
- Vegetation in these areas will be managed by the following techniques:
 - Mechanical Clearing: mowing, brushing, chipping, tree trimming/felling;
 - Manual Clearing: hand tools (chainsaws, machetes, handsaws); and
 - Chemical Treatment: use of approved herbicides by licensed applicators to control or suppress vegetation growth (broadcast spray, spot treatment, cut-stump/basal bark).

4.7 Construction Trainings

4.7.1 Safety Training

Once per year after construction begins, the Certificate Holder will organize and hold an on-site training with construction personnel, inviting equipment manufacturers, specialty contractors, local fire departments, participating and adjacent landowners, emergency management office personnel, ODOE, and any other emergency management agency that covers:

- The location of electrical facility components and the fire safety measures associated with each component that have been constructed;
- Description of remaining construction phasing;
- The type, location, and proper use of fire protection equipment;
- Fire protection equipment usage and maintenance requirements;

- The locations of water sources and proper usage, storing and maintenance for the pump, hose nozzle; and water hose;
- Overview of smoking policy and locations;
- Overview of procedures and restrictions of construction activities during Fire Season, Fire Weather Watches, and Red Flag Warnings designated in this Plan;
- RACE procedures including:
 - Rescue anyone in danger (if safe to do so);
 - Alarm – call the control room, who will then determine if 911 should be alerted;
 - Contain the fire (if safe to do so); and
 - Extinguish the incipient fire stage (if safe to do so).
- Provide information about the County’s emergency management notification system.

5.0 Plan Updates: Amendments and Reporting Requirements:

The following will be provided to ODOE in the semi-annual construction report required per OAR 345-026-0080:

- Sections 4.1 and 4.2: any changes in wildfire risk at the site or changes in facility components or preventative features.
- Section 4.3: any changes in local fire protection agency personnel and operational managers.
- Section 4.3: any changes in analysis area residence/landowner addresses or contact information.
- A copy of the Fire Season Restriction Log identified in Section 4.5.3.
- Changes in wildfire risk if different from the Site Plan provided prior to construction. Evaluation of wildfire risk will be consistent with the requirements of OAR 345-022-0115(1) using current data from reputable sources.

This information may be used to establish the performance of the Construction WMP. If determined by the Certificate Holder or ODOE, adjustments or improvements must be proposed to ensure the Construction WMP provides wildfire mitigation. Any ODOE-required updates shall be implemented within 14 days, unless otherwise agreed to by ODOE based on a good faith effort to address wildfire hazard.

This Plan may be amended from time to time by agreement of the Certificate Holder and EFSC or ODOE, acting within its delegated authority of EFSC. Such amendments may be made without amendment of the site certificate. EFSC authorizes ODOE to agree to amendments to this Plan. ODOE will notify EFSC of all amendments, and EFSC retains the authority to approve, reject, or modify any amendment of this Plan agreed to by ODOE.

6.0 References

Oregon Explorer. 2025. Oregon CWPP Planning Tool.

https://tools.oregonexplorer.info/oe_htmlviewer/index.html?viewer=wildfireplanning

Sherman County. 2024. Sherman County Multiple-Jurisdictional Natural Hazards Mitigation Plan.

Attachment 1. Residence/Landowner Outreach Letter



Portland General Electric
121 SW Salmon Street
Portland, Ore. 97204
PortlandGeneral.com

13123 E Emerald Coast Pkwy
Ste B #158
Inlet Beach, FL 32461
info@brightnightpower.com



[date], 2027
Biglow

Re: Community Outreach Letter for Biglow Solar Facility

My name is Dan Wilson and I'm the Director for Renewable Operations at Portland General Electric Company (PGE). We are the certificate holder of the Biglow Solar Facility, approved by the Oregon Energy Facility Siting Council (EFSC) in [month] 2027. Phase 1 of the Biglow Solar Facility, a 125-megawatt solar and battery storage facility located near Wasco in Sherman County, Oregon, was approved by Oregon EFSC in March 2026 and is currently under construction. The Project Developer, BrightNight (BN), will begin construction of the second phase of the Solar Facility in [month] 2027. Phase 2 of the Solar Facility is a 200-megawatt solar and battery storage facility located south of the Phase 1 facility. You are receiving this letter because your address is within 0.5 miles of the Phase 2 facility site boundary and we want to make sure you are aware of the following information:

- Safety at the facility is our highest priority. We have emergency procedures in place in the event of an emergency on site or off site that may impact the facility and adjacent areas. These procedures include a Wildfire Mitigation Plan (WMP) that addresses vegetation management, facility inspections, and maintenance protocols to minimize the risk of fire ignition and spread. The WMP also requires fire protection equipment to be on site and allows for emergency access to the site for fire departments in the event of a fire on site or off site.
- In the event of an emergency on site or off site that cannot be addressed by facility personnel, local emergency and law enforcement will be contacted and procedures designated by the Sherman County's Office of emergency management will be followed, as necessary.
- If you have not already done so, we recommend you sign up for Sherman County emergency notification system. You may sign up via the County's webpage or directly via this link: Link: <https://www.co.sherman.or.us/question/get-notified-county-emergency-alerts/#/city/answers/public-information/get-notified-county-emergency-alerts>

Please contact us if you have any questions about the facility, PGE or BrightNight, or any other concerns regarding construction and operation of the facility. Further, the Oregon Department of Energy (ODOE) is staff to EFSC and can be contacted if you have questions. Follow the link below for contact information:

<https://www.oregon.gov/energy/facilities-safety/facilities/Pages/Compliance-Program.aspx>

Sincerely,

Daniel Wilson
Director, Renewable Operations

Kathleen Campanella
Senior Director, Development



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Attachment M-2. Draft Operations Wildfire Mitigation Plan

To be provided at a later date