

# Final Environmental Impact Statement

## *Horse Heaven Wind Farm*

Chapter 2 - Proposed Action and Alternatives

October 2023

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## 2.0 CHAPTER 2 – PROPOSED ACTION AND ALTERNATIVES

This chapter describes the Horse Heaven Wind Farm (Project, or Proposed Action) proposed by Horse Heaven Wind Farm, LLC<sup>1</sup> (Applicant) and the alternatives to the Proposed Action that are being considered in this Environmental Impact Statement (EIS). Section 2.1 summarizes the proposed facility site, Proposed Action, and considerations concerning the Construction, Operation, and Decommissioning Stages of the Project. Unless otherwise noted, the information presented in Section 2.1 is sourced from the Final Application for Site Certification (ASC) (Horse Heaven Wind Farm, LLC 2023) and summarizes the Applicant-committed measures for the Project.

The Draft EIS for the Project was released in December 2022 and included the Applicant's proposed commitments to minimize or avoid impacts of the Project on each analyzed element of the environment. The effectiveness of the Applicant's proposed commitments in reducing impacts was analyzed for each resource in the subsections of Chapter 4. Within the Draft EIS, the Washington Energy Facility Site Evaluation Council (EFSEC) recommended additional mitigation measures beyond the Applicant's proposed commitments to minimize impacts. Both the Applicant commitments and the EFSEC-recommended mitigation measures were considered when characterizing the residual impacts (those remaining after application of mitigation) to determine whether a significant, unavoidable, adverse impact would result.

Comments on the Draft EIS were received from the public, Applicant, Tribes, and agencies related to the recommended mitigation during the public commenting period. Prior to the issuance of this Final EIS, mitigation measures were further developed by technical working groups convened to review and respond to public comments and concerns.

As requested by EFSEC in Data Request 9, the Applicant provided a memorandum summarizing the expected changes that the Applicant was making to the Project in response to comments received on the EIS, input from regulatory agencies, changes to applicable regulations, testimony from adjudicative hearings, and information received from the Bonneville Power Administration (BPA). The additional Applicant commitments were identified and finalized in the Applicant's Final ASC, as per Washington Administrative Code (WAC) 463-60-116 (Horse Heaven Wind Farm, LLC 2023). This regulation requires applicants to submit "application amendments which include all commitments and stipulations made by the applicant during the adjudicative hearings."

Chapter 2 has been updated using the Applicant's changes provided in the Final ASC, where applicable. Additional details regarding the Applicant's rationale for the changes proposed in the Final ASC are provided in Section 2.2. The Applicant's Final ASC included elements that were not previously submitted as part of the Project, nor evaluated as part of the Draft EIS, and therefore have not been analyzed as part of this final version of the EIS. Section 2.2.14 provides additional details regarding which elements from the Applicant's Final ASC were not analyzed for this EIS. Chapter 4 presents a complete analysis of the data and material available prior to the publication of the Draft EIS and subsequently provided by the Applicant to address the issues to be resolved identified in the Draft EIS. Additionally, a new section has been added to each resource's analysis summarizing the impacts related to the Applicant's modifications proposed in the Final ASC. Section 2.3 describes the alternatives considered for evaluation.

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<sup>1</sup> An entity of Scout Clean Energy.

## 2.1 Description of the Proposed Action

The Applicant is proposing to construct a renewable energy generation facility that would be located in the Horse Heaven Hills area of Benton County, Washington. The Project would have a nameplate generating capacity<sup>2</sup> of up to 1,150 megawatts (MW) output as alternating current (MWac) and would utilize both wind turbines and solar photovoltaic panels to convert energy from the wind and sun into electric power. The power would then be either directly transferred to the electric power grid or stored in up to two<sup>3</sup> battery energy storage systems (BESS). The final number of turbines and the extent of solar arrays used for the Project would not total more than 231<sup>4</sup> turbines and two solar arrays. The final number of turbines and solar arrays would depend on the turbine models and solar modules selected and selection of a final array layout.

### 2.1.1 Proposed Facility Site

The Project's Lease Boundary incorporates the parcels in which the Applicant has executed a lease to construct the turbines, solar arrays, and associated facilities. The Lease Boundary encompasses approximately 72,428 acres and is depicted in **Figure 2-1**.

The Project's Wind Energy Micrositing Corridor encompasses 11,850 acres within the Lease Boundary and consists of the areas where the turbines and supporting facilities would be sited during the final design. The Project's Solar Siting Areas, which are three locations under consideration for the two proposed solar arrays, encompass 10,755 acres within the Lease Boundary, but no more than 5,447 acres would be occupied by the solar arrays.<sup>5</sup> Proposed disturbance areas are shown in **Figure 2-2**. The Micrositing Corridor and the Solar Siting Areas are larger than the Project's permanent, designed footprint of the individual components to allow minor rerouting to optimize the design and avoid any sensitive resources discovered during the final design and pre-construction process.

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<sup>2</sup> Nameplate generating capacity is the amount of electricity a generator can produce when running at its maximum designed output.

<sup>3</sup> The Applicant provided three locations for consideration of constructing the two BESS. An analysis for all the components and distinct parts as presented in Table 2.1-1 of the ASC has been completed where enough information was provided to do so.

<sup>4</sup> The Final ASC decreased the total maximum number of turbines from 244 to 231 turbines (Horse Heaven Wind Farm, LLC 2023).

<sup>5</sup> The Final ASC decreased the total area to be occupied by the solar arrays from 6,570 acres to 5,447 acres due to the proposed decrease in the East Solar Array (Horse Heaven Wind Farm, LLC 2023).



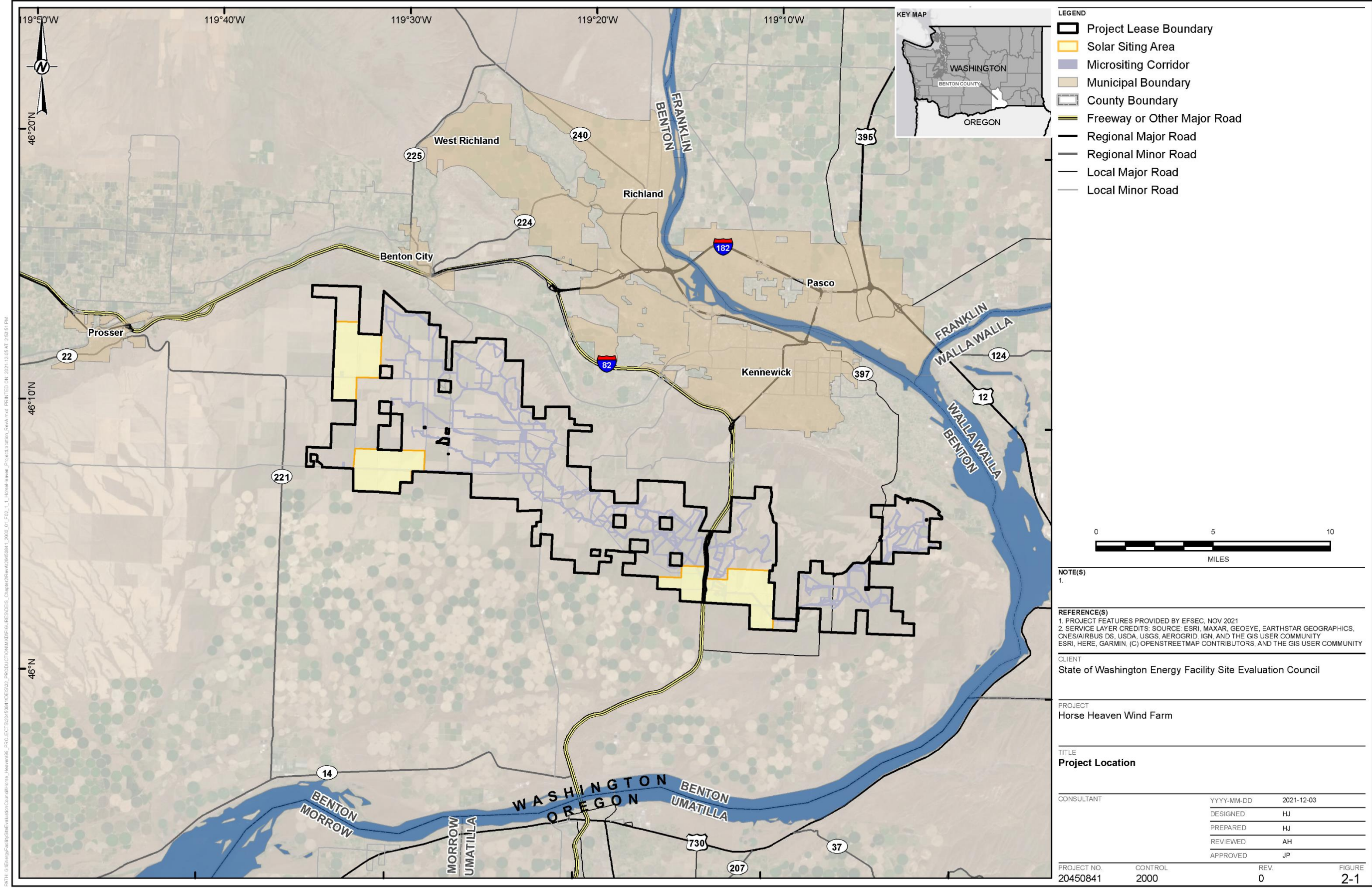


Figure 2-1: Project Location



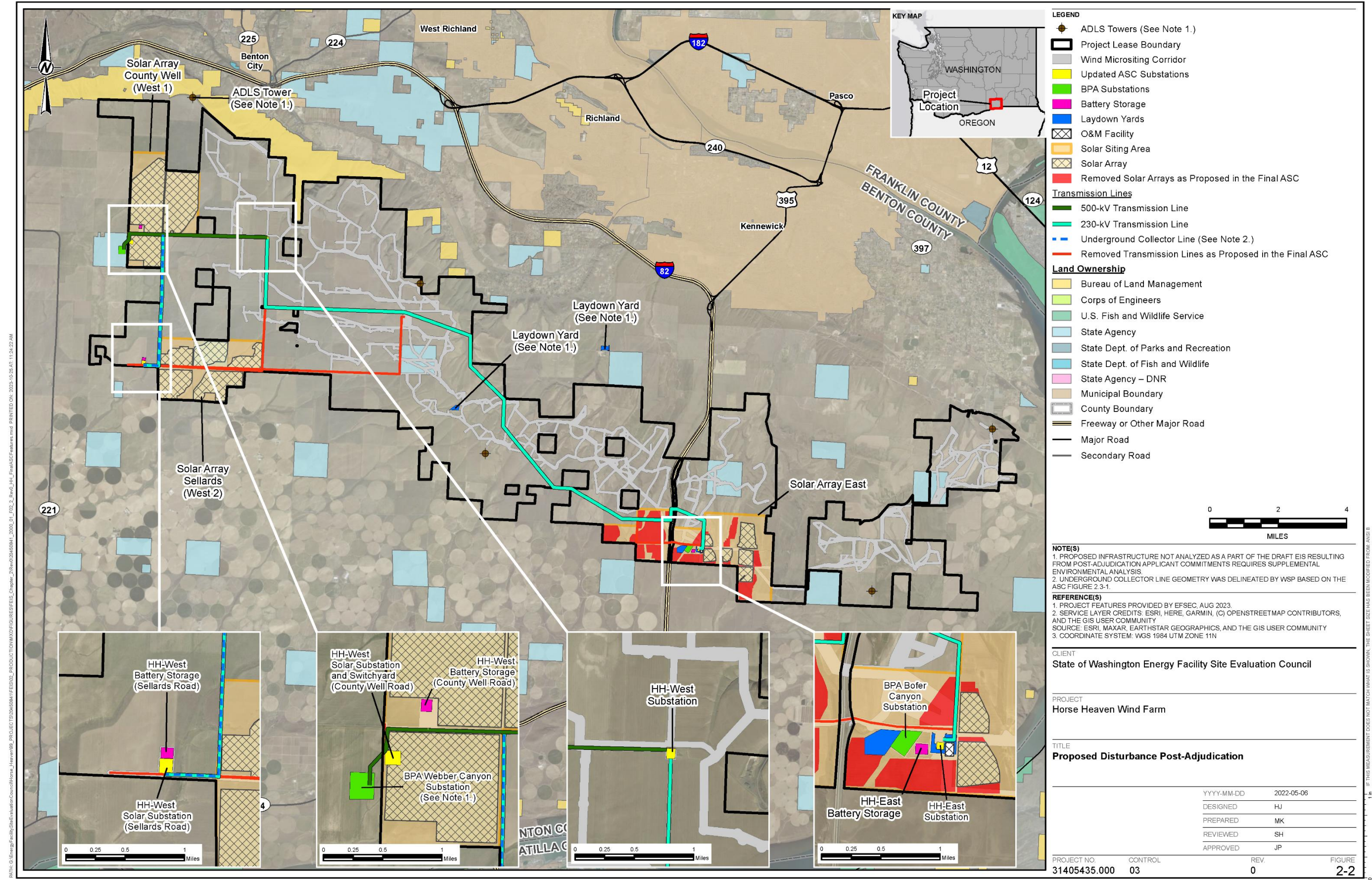


Figure 2-2: Proposed Disturbance



Much of the Project's Lease Boundary is privately owned; however, five Washington State Department of Natural Resources (DNR) parcels that are state trust lands fall within the Lease Boundary. Four of these parcels include proposed turbines and supporting facilities, and one could be crossed by the proposed transmission line and is a possible site for a Project solar component. Additionally, portions of the Lease Boundary may currently be enrolled in the U.S. Department of Agriculture's Conservation Reserve Program (CRP). Contracts for land enrolled in the CRP vary in length from 10 to 15 years (USDA n.d.). At the time of the Applicant's ASC, some lands within the Lease Boundary were enrolled in the CRP, but it is possible that CRP enrollment status may change between the time of the Applicant's ASC, the Draft EIS, and the Final EIS. The Project would be located on land designated as agricultural per the Growth Management Act as part of the Benton County Comprehensive Plan and outside any Urban Growth Area (Benton County 2022).

The Applicant's Final ASC seeks authorization for up to 231 turbine locations and a maximum of two solar arrays, with all possible turbine and solar array locations cumulatively reviewed to analyze potential resource impacts. Fewer turbines and solar arrays may be constructed for the Project and still achieve the nameplate generating capacity.

The maximum number of turbines and maximum turbine height carried forward for analysis as components of the Proposed Action are reflected in Turbine Option 1 and Turbine Option 2, as summarized in **Table 2-1**. Option 1 is shown in **Figure 2-3**, and Option 2 is shown in **Figure 2-4**. The final number and location of turbines within the proposed Wind Energy Micrositing Corridor would reflect the final engineering design, model selection, and any additional avoidance and mitigation identified in this EIS. The specific model used would depend on the commercial availability and technology at the time of construction. The number of turbines would not exceed 231, and the maximum turbine height (at blade tip) would not exceed 671 feet. This EIS assumes that the road disturbance associated with Turbine Option 1 and Turbine Option 2 would be identical. The Applicant would be required to site turbines within the Wind Energy Micrositing Corridor, to ensure that the Project's disturbance footprint does not exceed that allowed for in the site certification agreement (if approved) and to satisfy all pre-construction conditions.

**Table 2-1: Proposed Action - Wind Turbines**

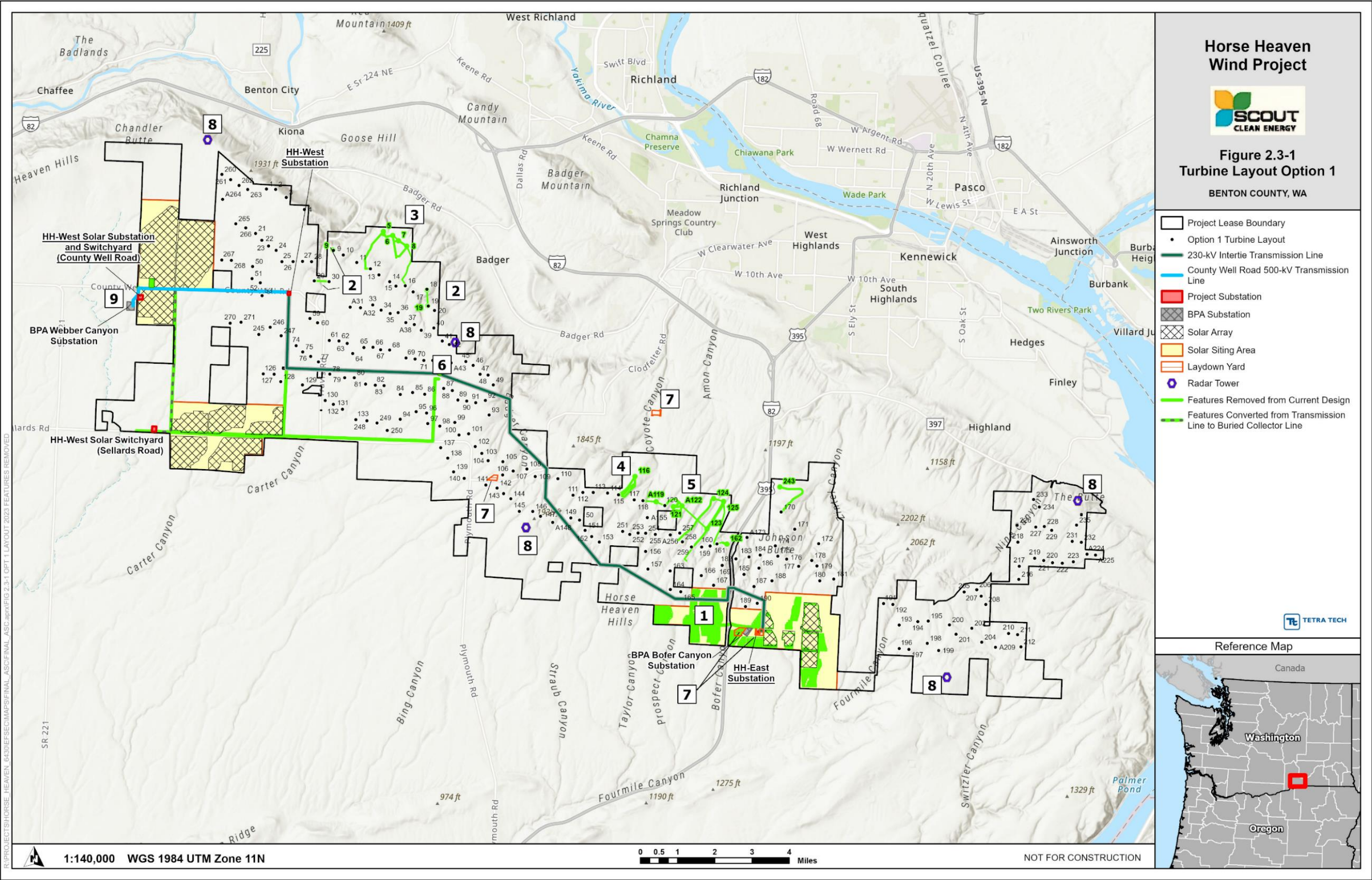
	<b>Turbine Option 1</b>	<b>Turbine Option 2</b>
<b>Wind Turbines</b>	231 turbines up to a maximum blade tip height of 499 feet <sup>(a)</sup>	147 turbines up to a maximum blade tip height of 671 feet <sup>(a)</sup>
Temporary Disturbance	1,014 acres <sup>(b)</sup>	
Permanent Disturbance	28 acres <sup>(c)</sup>	
Lease Boundary	72,428 acres	

Source: Table 2.1-1 and Table 2.3-1 of the Final ASC, Horse Heaven Wind Farm, LLC 2023

Note:

- <sup>(a)</sup> As proposed in the Final ASC, the presented value reflects the reduction in turbines from 244 turbines to 231 turbines for Option 1 and 150 to 147 for Turbine Option 2 (Horse Heaven Wind Farm, LLC 2023).
- <sup>(b)</sup> As proposed in the Final ASC, the acreage reflects the reduction in turbines from 1,070 acres of temporary disturbance to 1,014 acres of temporary disturbance (Horse Heaven Wind Farm, LLC 2023).
- <sup>(c)</sup> This value, specific to turbine-only disturbance, does not include supporting infrastructure, which is identified in Table 2-2 of this EIS. As proposed in the Final ASC, the acreage reflects the reduction in turbine disturbance from 30 acres of permanent disturbance to 28 acres of permanent disturbance (Horse Heaven Wind Farm, LLC 2023).

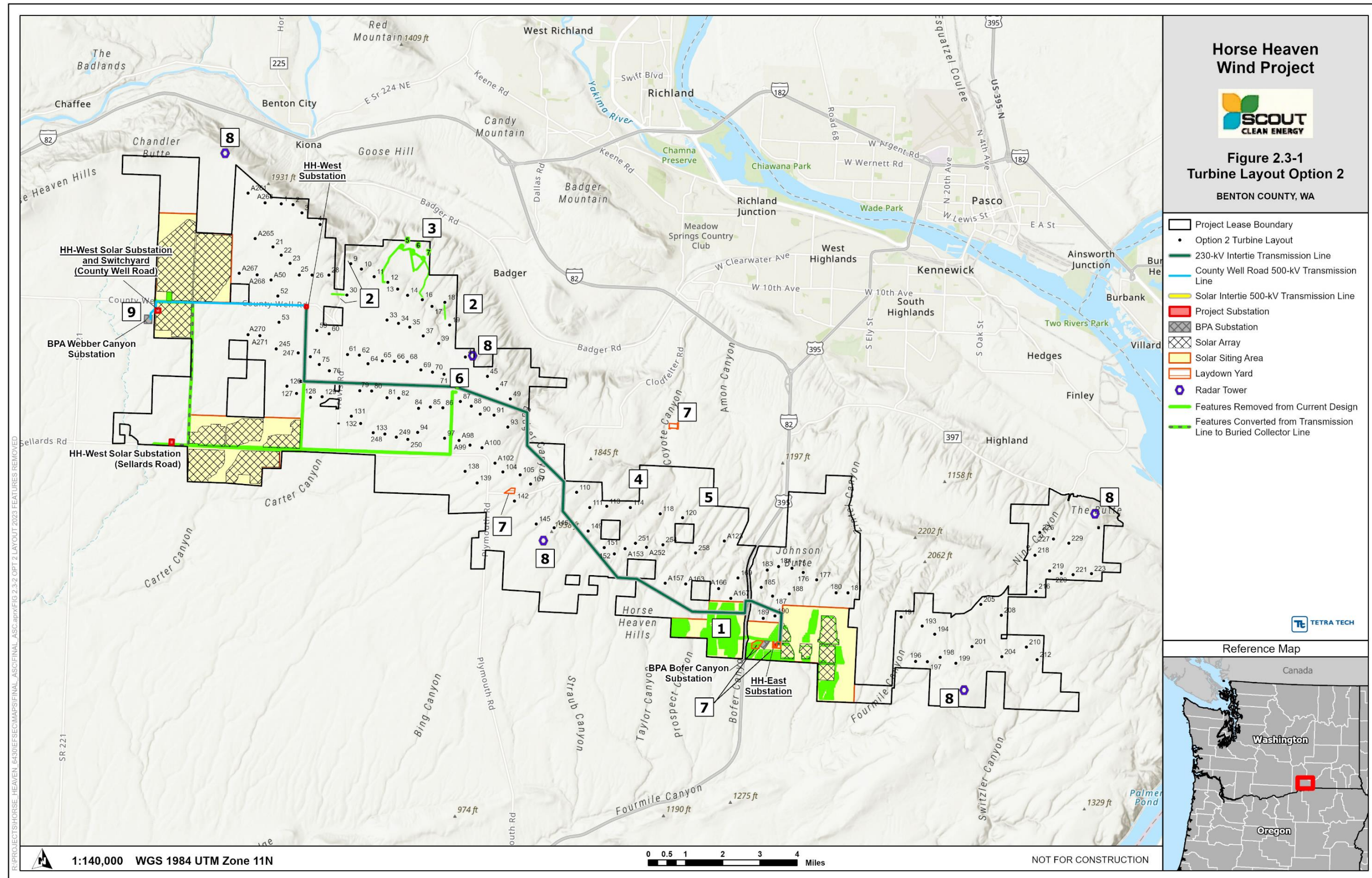
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Source: Horse Heaven Wind Farm, LLC 2023

Figure 2-3: Turbine Layout - Option 1





Source: Horse Heaven Wind Farm, LLC 2023  
**Figure 2-4: Turbine Layout - Option 2**

The wind energy components would be combined with the solar arrays, BESS, and other infrastructure supporting solar and wind energy and are summarized in **Table 2-2**. The disturbance, including supporting infrastructure, would only occur within the disturbance areas analyzed in the Draft EIS. The disturbance associated with the Project, as proposed in the Final ASC, would not total more than 2,660 acres of temporary disturbance and 5,447 acres of permanent disturbance (Table 2.1-1, Horse Heaven Wind Farm, LLC 2023). The combination of components selected would not have a greater disturbance footprint than allowed for in the site certification agreement (if approved) and must satisfy all pre-construction conditions.

The EIS describes potential impacts specific to each proposed turbine option, solar array, substation, and BESS where the information was available in the ASC and supporting documents for individual components. Potential impacts related to the Project's components are generalized for the analysis of the Proposed Action when impacts are common within the Micrositing Corridor or Solar Siting Areas.

**Table 2-2: Proposed Action - Solar Siting and Supporting Infrastructure for Wind and Solar Facilities**

	Temporary Disturbance (acres)	Permanent Disturbance (acres)
Solar Arrays in Fields		
East Solar Field <sup>(a)</sup>	12	639
County Well Solar Field	18	2,641
Sellards Solar Field	22	1,935
Total Disturbance Acreage of Solar Arrays in Fields	52	5,215
BESS <sup>(a)(b)</sup>		
BESS adjacent to the Bofer Canyon - HH-East Substation	1	16
BESS adjacent to the Primary HH-West Step-Up Substation		
BESS adjacent to the Alternate HH-West Step-Up Substation		
Substations <sup>(a)</sup>		
HH-East Substation	1.9	27
HH-West Substation		
HH-West Solar Substation and Switchyard		
Primary HH-West Step-Up Substation <sup>(c)</sup>		
HH-West Solar Switchyard		
Supporting Infrastructure <sup>(a)</sup>		
Roads, <sup>(d)</sup> Crane Paths, Laydown Yards, <sup>(e)</sup> O&M Facilities, Met Towers	580.8 <sup>(f)</sup>	185.5
Collector Lines		
Overhead	0.5 <sup>(f)</sup>	<0.01
Underground	787 <sup>(f)</sup>	0.06
Transmission Lines		
230 kV	235	0.02
500 kV	12 <sup>(f)</sup>	<0.01
Total Disturbance Acreage of Supporting Infrastructure	1,618.2	228.6

Source: Table 2.1-1 of the Final ASC, Horse Heaven Wind Farm, LLC 2023

**Notes:**

For new and unevaluated components to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization. The proposed disturbance for these components has been omitted from analysis within this EIS.

- (a) Acreage reflects the disturbance proposed in the Final ASC, where warranted, and may be different than what was analyzed in the Draft EIS (Horse Heaven Wind Farm, LLC 2023). EFSEC has identified new and unevaluated components in the Applicant's Final ASC, that have been omitted from this analysis.
- (b) The Applicant provided three locations for consideration of constructing the two BESS.
- (c) Removed in the Final ASC.
- (d) Includes new access roads and road modification (turning radius widening). This EIS assumes that road disturbance would be identical under both Option 1 and Option 2.
- (e) In the Applicant's Final ASC, a third laydown yard was proposed to the north and outside of the Project Lease Boundary and the western laydown yard was proposed outside of the Micrositing Corridor, outside of previously analyzed proposed disturbance.
- (f) Additional disturbance was proposed in the Applicant's Final ASC. Calculations of specific elements, omitting newly proposed disturbance, were completed independently using the spatial layers provided by the Applicant (Horse Heaven Wind Farm, LLC 2023). Newly proposed disturbance has been omitted from analysis within this EIS.

ASC = Application for Site Certification; BESS = battery energy storage system; EFSEC = Washington Energy Facility Site Evaluation Council; HH = Horse Heaven; kV = kilovolt; met tower = meteorological tower; O&M = operations and maintenance



The temporary and permanent disturbances, calculated independently using spatial data provided by the Applicant, are provided for the Wind Energy Micrositing Corridor for Turbine Option 1 and Solar Siting areas in **Table 2-3**. Temporary and permanent disturbance acreage was not provided for Turbine Option 2 in the ASC. Turbine Option 2 includes fewer turbines within the same corridors as Turbine Option 1, and the requirements for roads and collector lines for Turbine Option 2 are expected to be similar to or less than the requirements for Turbine Option 1. Therefore, the temporary and permanent disturbance acreage for Turbine Option 1 is conservatively used as an upper bound for expected disturbance from Turbine Option 2. Disturbance includes the supporting infrastructure required for each component.

**Table 2-3: Temporary and Permanent Disturbance for Turbine Option 1 and Solar Siting Areas**

Habitat Type	Micrositing Corridor (Turbine Option 1)		Solar Siting Areas	
	Temporary Disturbance (acres)	Permanent Disturbance (acres)	Temporary Disturbance (acres) <sup>(a)</sup>	Permanent Disturbance (acres)
Agriculture Land	2,263.9	391.2	200.6	5,032.0
Developed/Disturbed	19.3	1.5	3.5	<0.1
Grassland	411.1	40.2	32.6	146.7
Shrubland	185.3	43.8	46.6	75
<b>Total</b>	<b>2,879.6<sup>(b)</sup></b>	<b>476.7<sup>(b)</sup></b>	<b>283.3<sup>(b)</sup></b>	<b>5,253.7<sup>(b)</sup></b>

Note: Acreage calculations were completed independently using the spatial layers provided by the Applicant (Horse Heaven Wind Farm, LLC 2021, 2023). A detailed breakdown of disturbance by habitat is provided in Table 4.5-5 of this EIS.

(a) Updated spatial layers for temporary disturbance were not provided for the Final ASC, therefore, the acreage remains the same as previously provided by the Applicant in their 2021 spatial layers (Horse Heaven Wind Farm, LLC 2021).

(b) Areas of overlap between temporary and permanent disturbance are only counted toward permanent disturbance. The sum of the acres within disturbance areas of the Micrositing Corridor and Solar Siting Areas will not equal the disturbance of the comprehensive Project due to overlapping areas.

## 2.1.2 Project Construction, Operation, and Decommissioning Activities

Three stages would occur if the Project were authorized:

- Construction (including pre-construction)
- Operation
- Decommissioning

Chapter 4 presents the analysis of impacts for each of the three Project stages concerning the elements of the environment identified in Chapter 3. This analysis is largely based on information provided in the Project's 2022 ASC (Horse Heaven Wind Farm, LLC 2022) and supporting documents, additional information obtained from publicly available sources, and communications with stakeholders, including other agencies and tribes.

For this EIS, an additional section has been added for each resource analyzed in Chapter 4 to address the changes the Applicant provided to the Final ASC. This section can be found after the section summarizing EFSEC-proposed mitigation, in each Chapter 4 resource section. The Applicant provided changes in the Final ASC following comments and input from regulatory agencies, changes to applicable regulations, testimony from

adjudicative hearings, and information received from the BPA. Additional Applicant commitments were identified and finalized in the Applicant's Final ASC, as per WAC 463-60-116 (Horse Heaven Wind Farm, LLC 2023).

### **2.1.2.1 Project Construction**

Before construction could commence, a site survey would be performed during the micrositing process to stake out the final locations of the turbines, solar arrays, site roads, electrical cables, transmission line poles, access entryways, substations, BESS, and other supporting infrastructure. Once the survey is complete, the following would occur:

- Detailed geotechnical investigation
- Installation of stormwater pollution prevention measures
- Flagging of sensitive areas to be avoided during clearing activities
- Completion of any pre-construction surveys required by EFSEC or applicable regulatory agencies

The Applicant would also complete all required resource surveys within any unsurveyed portions of the proposed Project for supplemental analysis by EFSEC prior to the commencement of construction. Next, construction would be performed in several steps and would include the following main elements and activities:

- Grading the field construction office area (also used for operations and maintenance [O&M] facilities)
- Constructing site roads, turnaround areas, and 36-foot-wide crane paths
- Constructing the turbine tower foundations and transformer pads
- Assembling and erecting the turbines
- Installing the electrical collection system – underground and some overhead lines
- Constructing the foundations and installing the posts and tracking system for the solar arrays
- Assembling the solar arrays
- Constructing and installing the substations
- Assembling the BESS
- Erecting the security fence around the solar arrays, substations, and O&M facilities
- Plant commissioning and energization

Construction material and equipment would be transported to the site primarily via road systems. The primary transportation route would follow Interstate 82 (I-82) before reaching local and county roads that lead into the Project's Lease Boundary. Section 4.14 discusses the effects of improvements to the road systems required to transport construction materials and equipment. Up to two<sup>6</sup> laydown yard areas<sup>7</sup> would be established within the

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<sup>6</sup> In the Applicant's Final ASC, a third laydown yard was proposed to the north and outside of the Project Lease Boundary.

<sup>7</sup> The eastern laydown yard is non-contiguous and would be located on agricultural land east of I-82 within the identified siting areas analyzed for impacts, while the western laydown area would be located on agricultural land outside of analyzed areas.

Lease Boundary to facilitate the delivery and assembly of materials and equipment.<sup>8</sup> Equipment typically used in the construction of wind and solar facilities is listed in **Table 2-4**.

**Table 2-4: Construction Equipment**

Type of Equipment	Construction Use
<b>Heavy Vehicles</b>	
Bulldozer (medium)	Access road and driveway leveling
Scraper	Access road and driveway leveling
Drum Compactor	Compacting
Skid Steer Loader	Light soils work for slabs and foundations
Road Grader	Access road and driveway leveling
Excavator	Trenching and foundations
Trenching Equipment/Cable Plows	Trenching
Backhoe Loader	Moving materials
Tracked Pile Driver	Driving piles into ground
Cable Reel Truck	Dispensing cable
Concrete Pump Truck	Delivering concrete
Mobile Hydraulic Crane/Truck-mounted Crane	Moving materials
2,000 kW Generators	Turbine commissioning
Load Banks	Turbine commissioning
Large Crawler Crane	Moving materials
Water Trucks	Dust control
Fuel Trucks	Refueling equipment
<b>Non-heavy Vehicles</b>	
Forklifts/Telehandler	Moving materials, loading and unloading of trucks
Personnel Transport Vehicles	Transporting workers
Other Material Handling Equipment	Moving materials
Service Trucks	Maintaining heavy equipment
<b>Other Equipment</b>	
Disposal Containers	Disposing of and removing construction debris
Other General Industrial Equipment	Assembling structures
Plate Compactors/Jumping Jacks	Compacting soil for concrete slabs and foundations
Pressure Washers	Cleaning
Storage Containers	Storing on-site materials
Welders	Assembling structures
Air Compressors	Miscellaneous maintenance

Source: Table 4.3-6, Horse Heaven Wind Farm, LLC 2023

kW = kilowatt

<sup>8</sup> For the third laydown yard and western laydown yard to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization.



## ***Turbines***

The Applicant would construct up to 231 turbines within the Wind Energy Micrositing Corridor. Wind turbines are composed of three major components: the tower, the nacelle (the housing for electrical and mechanical structures that sits atop the tower), and the blades. The tubular towers proposed for the Project would be conical steel structures or a combination of steel and concrete, depending on final turbine selection. Each tower would have a lockable access door, internal lighting, and an internal ladder and lift to access the nacelle. The towers would be painted off-white per Federal Aviation Administration (FAA) regulations. Turbine blades, composed of laminated fiberglass and carbon fiber, would be attached to the rotor hub mounted to the nacelle's front. Aviation lighting would be mounted on turbine nacelles per FAA requirements. Each turbine tower is secured to a foundation, typically of reinforced concrete, spread-foot style design. Each tower's actual foundation type and design may differ depending on the on-site geotechnical studies and in-situ soil properties.

## ***Solar Facilities***

The major components of the proposed solar energy generation systems are solar modules, tracking systems, posts, and related electrical equipment. The Applicant would construct solar arrays within the Solar Siting Areas. Three potential Solar Siting Areas are analyzed:

- East Solar Siting Area, located on the east side of the Lease Boundary near Bofer Canyon
- County Well Solar Siting Area, located on the west side of the Lease Boundary near County Well Road
- Sellards Solar Siting Area, located on the west side of the Lease Boundary near Sellards Road

A 6-foot-tall security fence would enclose the solar arrays constructed in these siting areas. To calculate impacts, it is assumed that all acreage (up to 5,447 acres, a summation of permanent acreage included in **Table 2-2**) within the fenced area would be permanently impacted by the construction and operation of the solar arrays.

## ***Battery Energy Storage Systems***

Up to two BESS would be constructed. Each would consist of a series of containers and would be placed adjacent to the substations, enclosed by a separate fence. Each BESS would be capable of storing and later deploying energy generated by the Project using lithium-ion batteries. The BESS would help provide consistent and predictable power to the grid—for example, by minimizing short-term fluctuations in power generation from solar arrays. The details for the BESS would depend on the final system selected. Each BESS would include, but not be limited to, the following components:

- Battery storage equipment, including batteries and racks or containers, inverters, isolation transformers, and switchboards
- Plant equipment, which may include medium-voltage and low-voltage electrical systems
- Fire suppression
- Heating, ventilation, and air conditioning systems
- Building auxiliary electrical systems
- Network/supervisory control and data acquisition (SCADA) systems

- Cooling system, which may include a separate chiller plant located outside the battery racks with chillers, pumps, and heat exchangers
- High-voltage (HV) equipment, including a step-up transformer, HV circuit breaker, HV current transformers and voltage transformers, a packaged control building for the HV breaker and transformer equipment, HV towers, structures, and HV cabling

These components are commonly placed in standard-sized shipping containers on a concrete slab. By connecting multiple containers, the BESS can be scaled to the desired capacity. Containers may be stacked up to two levels high, with an estimated maximum height of approximately 40 feet above grade.

### ***Substations***

This EIS analyzes the impacts of the construction of substations at five locations, including alternate locations. Up to four substations would be constructed for the Project. **Table 2-5** summarizes the five substation locations and their purposes. Two of the substations would be co-located with the Project's O&M facilities. Each substation would permanently occupy a 4-acre site enclosed within a security wire mesh fence and consist of the following:

- Substation transformers
- Circuit breakers
- Switching devices
- Auxiliary equipment
- A control enclosure
- Other associated equipment and facilities

The area within the Project substations' fence lines would be graded/flattened and contain a bed of crushed rock.

**Table 2-5: Substation Descriptions**

<b>Project Region</b>	<b>Substation Name</b>	<b>Purpose</b>
Eastern Project Area	HH-East Substation	Connects the eastern portion of the Project to the grid via the existing 230-kV BPA transmission line.
Western Project Area	HH-West Substation <sup>(a)</sup>	A substation that would step up the voltage of the 34.5-kV wind energy collection system to 500 kV.
	HH-West Solar Substation and Switchyard (County Well Road) <sup>(b)</sup>	A substation located adjacent to the County Well Road solar array that would step-up the voltage of the 34.5kV collection system from the western solar arrays to 500kV.
	HH-West Solar Switchyard (Sellards Road) <sup>(c)</sup>	A switchyard located adjacent to the Sellards Road solar array that would collect the power generated by the Solar array from the 34.5 kV collection system for transmission to the HH-West Solar Substation at County Well Road.
	<del>HH-West Intermediate Substation (Primary – Badger Canyon Road)<sup>(d)</sup></del>	<del>An intermediate western substation, connected to the electrical collection system, would step up the voltage of the 34.5-kV collection system to 230 kV before sending the power to the secondary substation.</del>

Source: Table 2.3-2, Horse Heaven Wind Farm, LLC 2023

**Notes:**

- (a) Previously known within the Draft EIS as the HH-West Intermediate Substation [Alternate County Well Road]
- (b) Previously known within the Draft EIS as the HH-West Step-Up Substation 500 kV (Alternate County Well Road)
- (c) Previously known within the Draft EIS as the HH-West Step-Up Substation 500 kV (Primary – Sellards Road)
- (d) Location removed from the Final ASC (Horse Heaven Wind Farm, LLC 2023)

ASC = Application for Site Certification; BPA = Bonneville Power Administration; HH = Horse Heaven; kV = kilovolt; O&M = operations and maintenance

For purposes of analysis, with the exception of analyses for transportation, socioeconomics, and air impacts, this Final EIS conservatively assumes impacts from construction and operation of substations at the five potential locations analyzed in the Draft EIS.

### **Supporting Infrastructure**

Supporting infrastructure includes existing roadway improvements and new roads, crane paths, laydown yards, O&M facilities, meteorological towers (met towers), collector lines, transmission lines, and any SCADA and communication systems. The Final ASC identified up to approximately 30.4 miles of 36-foot-wide crane paths that would be constructed between turbine locations (Table 2.1-1, Horse Heaven Wind Farm, LLC 2023). Crane paths would be placed within the Micrositing Corridor.

Where necessary, existing public and private roads may be temporarily widened and the turning radii increased. New access roads would be constructed within the Micrositing Corridor between existing roadways and the Project's components. The permanent access roads would be all-weather, gravel surfaces, and generally 16 feet in width for the drivable area and additional width for the shoulder and drainage (if necessary).

The Project would require up to two O&M facilities, each of which would be located directly adjacent to the Project's substations. One O&M facility would be located adjacent to the Project's eastern substation, and a second would be located adjacent to one of the western Project substations. Each facility would comprise a one- or two-story building that would house operating personnel, offices, operations and communication equipment, parts storage and maintenance activities, and a vehicle parking area. An area for outdoor storage of larger

equipment and materials would also be included within the fenced area, permanently occupying approximately 4 acres.

Up to four permanent met towers would be installed as part of the Project. These met towers would be used to obtain wind data for performance management once the Project is operational. The final locations of the met towers would be within the Micrositing Corridor on land leased for the Project. The towers would be free-standing, with heights not to exceed the maximum hub height of the turbines (up to 411 feet). The permanent met towers would be marked and lighted as specified by the FAA. Construction of each met tower would temporarily disturb a 150-foot-radius area, and each tower and its foundation would occupy a permanent footprint of up to approximately 42 by 42 feet, for a total of 1,764 square feet for each tower.

### ***Project Phasing***

The Project may be built using a “phased approach”<sup>9</sup> with distinct, fully functional portions of the Project potentially being built and implemented sequentially. **Table 2-6** provides the Applicant’s example of the phased construction approach that is considered in the analysis of air, transportation, and socioeconomics in Chapters 3 and 4. For all other elements of the environment analyzed in this EIS, the Project as a whole (reflecting the potential for all components to be built irrespective of the Applicant’s phased construction approach) was analyzed.

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<sup>9</sup> This EIS is not providing a phased, or tiered, review as defined by Washington Administrative Code 197-11-060(5)(b).



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Table 2-6: Example of Project Phasing

Project Components	Phases		
	Phase 1	Phase 2 (Alternative A)	Phase 2 (Alternative B)
Energy Generation	450 MW with 350 MW generated via wind (consisting of 58 to 124 turbines, depending on the turbine size selected, plus 100 MWac generated via solar (consisting of the eastern solar siting area)	500 MW, with 250 MW generated via wind (consisting of up to 89 turbines, depending on the turbine size selected), plus 250 MWac generated via solar (consisting of the western solar siting area adjoining the BPA Webber Canyon Substation)	500 MW generated via wind (consisting of up to 177 turbines, depending on the size selected)
BESS	100 MWac-coupled BESS (400 MW-hr) located at the HH-East Substation	200 MWac-coupled BESS (800 MW-hr) located at the HH-West Solar Substation and Switchyard (County Well Road)	
BPA POI Location	Bofer Canyon Substation	Webber Canyon substation	Webber Canyon substation
Project Substations	HH-East Substation	<ul style="list-style-type: none"><li>HH-West Substation, which collects and steps up to 500 kV</li><li>HH-West Solar Substation and Switchyard (County Well Road) (adjacent to BPA Webber Canyon Substation), which steps up to 500 kV</li><li>HH-West Solar Switchyard (Sellards Road), which collects the power generated by the Solar array from the 34.5 kV collection system for transmission to the HH-West Solar Substation at County Well Road</li></ul>	HH-West Substation, collects and steps up to 500 kV
O&M Facilities	One O&M facility located directly adjacent to the HH-East Substation	One O&M facility located directly adjacent to the HH-West Substation	One O&M facility located directly adjacent to the HH-West Substation
Transmission	Up to 0.5 miles of 230 kV transmission line would be built during Phase 1. The HH-East Substation would be sited adjacent to BPA Bofer Canyon Substation.	<ul style="list-style-type: none"><li>Up to 4.6 miles of 500 kV gen-tie from the HH-West Substation to the BPA Webber Canyon substation</li><li>Up to 0.35 mile of 500 kV gen-tie from the HH-West Solar Substation and Switchyard (County Well Road) to the BPA Webber Canyon substation</li><li>Up to 5.4 miles of 34.5 kV solar intertie, connects the Sellards Road Solar Array to HH-West Solar Substation and Switchyard (County Well Road)</li></ul>	Up to 19.4 miles of 230-kV intertie between the HH-East Substation and HH-West Substation
Transportation	I-82 to Coffin Road and Bofer Canyon Road; I-82 to Highway 397 to Nine Canyon Road and S. Finley Road, to Kirk Road and Beck Road and local farm roads and new Project access roads	<ul style="list-style-type: none"><li>For solar components: I-82 to Wine Country Road, Frontier Road, Highway 221, County Well Road, Sellards Road, Webber Canyon Road, and Badger Canyon Road.</li><li>For wind components: I-82 to Webber Canyon Road, Denis Road to Henson Road, E Badger Road, County Well Road to Henson and Clouds Road, Cemetery Road, S Clodfelter Road, and new Project access roads.</li></ul>	<ul style="list-style-type: none"><li>No solar components proposed in this phase.</li><li>For wind components, I-82 to Webber Canyon Road to Denis Road and Henson Road, E Badger Road, County Well Road, Cemetery Road, S Clodfelter Road, and new Project access roads.</li></ul>

Source: Table 2.15-1, Horse Heaven Wind Farm, LLC 2023

Notes: The air, transportation, and socioeconomic impact analyses of this EIS were developed based on the example phasing approach originally presented in this table (i.e., 650 MW for Phase 1 and 500 MW for Phase 2). This table provides the Applicant’s example of the phased construction approach that is considered in the analysis of air, transportation, and socioeconomics in Chapters 3 and 4. For all other elements of the environment analyzed in this EIS, the Project as a whole (reflecting the potential for all components to be built irrespective of the Applicant’s phased construction approach) was analyzed. This is a conceptual example and does not total the disturbance analyzed in Table 2-2 nor does it include analyzed haul routes completed for transportation as a part of this EIS. For new and unevaluated components to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization. New and unevaluated components have been omitted from analysis within this EIS. ASC = Application for Site Certification; BESS = battery energy storage system; BPA = Bonneville Power Administration; gen-tie = generation tie; I-82 = Interstate 82; kV = kilovolts; MW = megawatts; MWac = megawatts of alternative current; MW-hr = megawatt hours; O&M = operations and maintenance; POI = point of interconnection

### **2.1.2.2 Project Operation**

The Project is anticipated to have an operating life of up to 35 years, which may be extended by repowering (Horse Heaven Wind Farm, LLC 2023). An on-site operations team of up to 20 personnel would be employed at the Project to operate and maintain Project components. The team would perform scheduled preventative maintenance on the turbines, solar modules, BESS, and any support infrastructure. The on-site team would coordinate with off-site operations staff at a Remote Operation Control Center in accordance with Federal Energy Regulatory Commission guidelines. The off-site team would assist in identifying Project components operating at non-peak efficiency and help on-site staff quickly locate potential operating issues.

Project operations would require water for solar panel washing and limited needs at the O&M facilities. Solar modules require little routine maintenance but would be washed periodically during operations, requiring an estimated 2,025,000 gallons of water annually for all three Solar Siting Areas. In addition, no more than 5,000 gallons of water a day are estimated to be needed for consumption and domestic use for kitchen and washroom facilities at the O&M facilities (Horse Heaven Wind Farm, LLC 2023).

The Project is expected to generate approximately one or two dumpsters of solid, non-hazardous waste per week at the O&M facilities (Horse Heaven Wind Farm, LLC 2023). All waste would be stored within designated temporary waste collection areas until it is collected for transport to an approved landfill. Materials that can be recycled would be stored and transported separately.

### **2.1.2.3 Project Decommissioning**

The Applicant would comply with WAC 463-72, Site Restoration and Preservation requirements. The Applicant submitted a preliminary Decommissioning Plan with the ASC for EFSEC's review and would submit an initial Site Restoration Plan to EFSEC at least 90 days before the beginning of construction. Upon Project decommissioning, the Applicant would restore occupied land for agricultural use or as consistent with zoning requirements and landowner agreement and would remove all aboveground infrastructure and belowground infrastructure to 3 feet or more below grade. The Applicant would replace topsoil and areas where concrete pads were located would be reseeded with native grasses and other vegetation approved by the landowner(s). Financial assurance would remain in place until decommissioning is completed to the satisfaction of EFSEC.

### **2.1.3 Applicant Commitments**

The Applicant has committed to specific measures during the Project's Pre-Construction, Construction, Operation, and Decommissioning Stages. Applicant-committed measures presented in Section 1.10 of the Final ASC and taken into consideration in the characterization of potential impacts in each resource impact analysis (provided in Chapter 4) are summarized below. Some Applicant-committed measures may be existing requirements in rule or law. The requirements that were listed by the Applicant in Section 1.10 of the Final ASC are included here. Elements of the environment analyzed in Chapter 4 may have additional Applicant commitments from other Applicant-supplied plans, reports, or Project material. Additional Applicant commitments, if considered during the analysis of impacts, are provided in each element's analysis in Chapter 4. No Applicant-committed measures were proposed for wetlands, energy and natural resources, or light and glare; however, commitments for other elements of the environment (described in Chapters 3 and 4) may have aspects that provide protection for these resources.

Agency-recommended mitigation measures are provided in Chapter 4 for each element of the environment. A high-level summary of agency-recommended mitigation measures is also provided in the executive summary of this EIS.

### **2.1.3.1 Earth Resources**

The following commitments are proposed by the Applicant and described in detail in Section 3.1 of the ASC.

- The Project would comply with the National Pollutant Discharge Elimination System through pursuance of a Construction Stormwater General Permit.
- A Temporary Erosion and Sediment Control Plan (TESC Plan) would be developed and implemented, detailing specific best management practices (BMPs) that would be used and where they would be placed, as well as the total disturbance area. The TESC Plan includes measures to prevent erosion, contain sediment, and control drainage. The TESC Plan would also include installation details of the BMPs.
- A Stormwater Pollution Prevention Plan would be required, detailing the activities and conditions at the site that could cause water pollution and the steps the facility would take to prevent the discharge of any unpermitted pollution.
- A stabilized construction entrance/exit would be installed at locations where construction vehicles would access newly constructed roads and/or disturbed areas from paved roads. The stabilized construction entrance and exits would be inspected and maintained for the duration of the Project's lifespan.
- Clearing, excavation, and grading would be limited to the parts of the Project area where these activities are necessary for construction and decommissioning of the Project. Areas outside the disturbance limits would be marked in the field, and equipment would not be allowed to enter these areas or disturb existing vegetation. To the extent practicable, existing vegetation would be preserved. Where vegetation clearing is necessary, root systems would be conserved if possible.
- Vegetated areas that are disturbed or removed during construction and decommissioning would be restored as near as reasonably possible to pre-disturbance conditions.
- Excavated soil and rock from grading would be spread across the site to the natural grade and would be reseeded with native grasses to control erosion by water and wind.
- Silt fencing would be installed throughout the Project as a perimeter control, and on the contour downgradient of excavations, the O&M facilities, and substations.
- Straw wattles would be used to decrease the velocity of sheet flow stormwater to prevent erosion. Wattles would be used along the downgradient edge of access roads adjacent to slopes or sensitive areas.
- Mulch would be used to immediately stabilize areas of soil disturbance, and during reseeding efforts.
- Jute matting, straw matting, or turf reinforcement matting would be used in conjunction with mulching to stabilize steep slopes that were exposed during access road installation.
- Soil binders and tackifiers would be used on exposed slopes to stabilize them until vegetation is established.
- Concrete chutes and trucks would be washed out in dedicated areas near the foundation construction locations. This would prevent concrete washout water from leaving a localized area. Soil excavated for the concrete washout area would be used as backfill for the completed footing.
- To facilitate installation of the turbine footings, large excavations would be created. Soil from these excavations would be temporarily stockpiled and used as backfill for the completed footing. Silt fencing



would be installed around the stockpile material as a perimeter control. Mulch or plastic sheeting would be used to cover the stockpiled material. Soils would be stockpiled and reused in order to prevent mixing of productive topsoils with deeper subsoils.

- After construction and decommissioning are each completed, the site would be revegetated with an approved seed mix. When required, the seed would be applied in conjunction with mulch and/or stabilization matting to protect the seeds as the grass establishes. Revegetation would take place as soon as site conditions and weather allow following construction and decommissioning.
- If water crossings are needed, check dams and sediment traps would be used during the construction of low-impact ford crossings or culvert installations. The check dams and sediment traps would minimize downstream sedimentation during construction of the stream crossings.
- During construction and operation, source control measures would be identified in the Spill Prevention, Control, and Countermeasures (SPCC) Plan to reduce the potential of chemical pollution to surface water or groundwater during construction.
- To the extent practicable, construction activities would be scheduled to occur in the dry season, when soils are less susceptible to compaction. Similarly, soil disturbance should be postponed when soils are excessively wet such as following a precipitation event.
- Equipment oil-filling, fueling, or maintenance activities would take place a substantial distance from waterways or wetlands to prevent water quality impacts in the event of an accidental release. Any oily waste, rags, or dirty or hazardous solid waste would be collected in sealable drums at the construction yards, to be removed for recycling or disposal by a licensed contractor.
- All structures would be built in accordance with current code requirements and state-of-practice methods to limit potential for issues from slope instability/topography, liquefaction, and geologic hazards, including seismic events.

Agency-recommended mitigation measures are provided in Section 4.2 of this EIS.

### **2.1.3.2 Air**

The following commitments are proposed by the Applicant and described in detail in Section 3.2 of the ASC.

- Construction and operations vehicles and equipment would comply with applicable state and federal emissions standards.
- Vehicles and equipment used during construction would be properly maintained to minimize exhaust emissions.
- Operational measures such as limiting engine idling time and shutting down equipment when not in use would be implemented.
- Watering or other fugitive dust-abatement measures would be used as needed to control fugitive dust generated during construction.
- Construction materials that could be a source of fugitive dust would be covered when stored.

- Traffic speeds on unpaved roads would be limited to 25 miles per hour to minimize generation of fugitive dust.
- Truck beds would be covered when transporting dirt or soil.
- Carpooling among construction workers would be encouraged to minimize construction-related traffic and associated emissions.
- Erosion-control measures would be implemented to limit deposition of silt to roadways, to minimize a vector for fugitive dust.
- Replanting or graveling disturbed areas would be conducted during and after construction to reduce wind-blown dust.

Agency-recommended mitigation measures are provided in Section 4.3 of this EIS.

### **2.1.3.3      *Water***

- The following commitments are proposed by the Applicant and described in detail in Section 3.3 of the ASC. Water conservation would be implemented to the extent practicable by use of less water-intensive methods of dust suppression when possible, including use of soil stabilizers, tightly phasing construction activities, staging grading and other dust-creating activities, and/or compressing the entire construction schedule to reduce the time period over which dust suppression measures would be required.
- Impacts on waters of the state may be avoided by spanning (e.g., with the transmission line) or otherwise micro-siting away from the streams. If these impacts cannot be avoided, indirect impacts on water quality can be minimized by working within the ordinary high-water line during the dry season when no rain is predicted.
- To control erosion and surface-water runoff during construction and operation, the Applicant would comply with a Construction Stormwater General Permit.
- A Stormwater Pollution Prevention Plan meeting the conditions of the Construction Stormwater General Permit for Construction Activities would be prepared and implemented prior to construction and again during decommissioning.
- All final designs would conform to the applicable Stormwater Management Manual.
- An SPCC Plan would be prepared to prevent discharge of oil into navigable waters.

The Applicant has not proposed any commitments specific to wetlands because no wetlands are present within the Project's Micrositing Corridor or Solar Siting Areas. Agency-recommended mitigation measures are provided in Section 4.4 of this EIS.

### **2.1.3.4      *Habitat, Vegetation, Fish, and Wildlife***

The following commitments are proposed by the Applicant and described in detail in Section 3.4 of the ASC.

- To minimize impacts on wildlife, baseline studies were conducted for the Project consistent with the following guidance:
  - Washington Department of Fish and Wildlife (WDFW) Wind Power Guidelines (WDFW 2009)

- U.S. Fish and Wildlife Service's (USFWS) 2012 Final Land-Based Wind Energy Guidelines (USFWS 2012)
- 2013 USFWS Eagle Conservation Plan Guidance Module 1 – Land Based Wind Energy (USFWS 2013)
- USFWS 2016 Eagle Rule Revision (USFWS 2016)
- Project facilities were sited on previously disturbed (e.g., cultivated cropland) areas to the extent feasible to avoid impacts on native habitats and associated wildlife species.
- The Project would use industry standard BMPs to minimize impacts on vegetation, waters, and wildlife.
- The Project was sited outside of wetlands and waters to the extent feasible to avoid and minimize impacts on these resources, as described in Section 3.3 and Section 3.5 of the ASC, which would also avoid impacts on fish and minimize impacts on wildlife species that use these habitats.
- If the final design results in impacts on waters of the state that cannot be avoided, the Applicant would work with EFSEC and WDFW to determine whether a Hydraulic Project Approval is required and would prepare an application accordingly.
- During construction, WDFW-published seasonal buffers (per Larsen et al. 2004) for ferruginous hawk nests would be observed to avoid disturbing nesting ferruginous hawks. Brief human access and intermittent ground-based activities should be avoided within a distance of 250 meters (820 feet) of nests during the hawks' most sensitive period (March 1 to May 31). Prolonged activities (0.5 hour to several days) should be avoided, and noisy, prolonged activities should not occur, within 1 kilometer (0.6 mile) of nests during the breeding season (March 1 to August 15).
- During construction, WDFW-published seasonal buffers (per Larsen et al. 2004) for burrowing owl nests would be observed to avoid disturbing nesting burrowing owls, if present. If impacts on potentially suitable habitat cannot be avoided during final design, the Applicant would consult with WDFW regarding the need for burrowing owl surveys prior to construction, including surveys to determine habitat suitability for burrowing owls, and surveys for breeding owls if suitable habitat is present.
- The Applicant would minimize bird and bat collisions with Project infrastructure by implementing down-shield lighting (e.g., for permanent lighting at the substations and O&M facilities) that would be sited, limited in intensity, and hooded in a manner that prevents the lighting from projecting onto any adjacent properties, roadways, or waterways; lighting would be motion activated where practical (i.e., excluding security lighting).
- All permanent met towers would be unguyed to minimize collision risk for wildlife.
- The Applicant would acquire any required federal approvals as described in Section 2.23 of the ASC. The Applicant would continue ongoing coordination with the USFWS (Matthew Stuber, Eagle Coordinator, Columbia Pacific Northwest Region) regarding an eagle take permit for incidental take of bald and golden eagles and would continue to evaluate eagle risk to determine if an eagle take permit is appropriate considering the use of the Project area by bald and golden eagles.
- Sagebrush shrub-steppe habitat would be avoided to the extent possible. If avoidance is not possible, mitigation for impacts on sagebrush shrub-steppe habitat would be developed in consultation with the applicable agencies.

- If special status plant species are observed during pre-construction surveys, individuals and populations would be avoided to the extent possible. If avoidance is not possible, mitigation measures for impacts would be developed in consultation with the applicable agencies.
- Following construction, temporarily disturbed areas would be revegetated with native or non-invasive, non-persistent non-native plant species as described in the Revegetation and Noxious Weed Management Plan (Appendix N of the ASC).
- The Applicant does not anticipate using pesticides during Project construction or operation. If unforeseen circumstances arise that require the use of pesticides, the Applicant would consult with WDFW and EFSEC regarding use of pesticides to avoid and minimize impacts on burrowing owl (per Larsen et al. 2004).
- The Applicant would limit construction disturbance by flagging any sensitive areas (e.g., wetlands, rare plant populations) and would conduct ongoing environmental monitoring during construction to ensure flagged areas are avoided.
- The Applicant has prepared a Bird and Bat Conservation Strategy that describes the surveys conducted, avoidance and minimization, and potential impacts on birds and bats and their habitat as a result of construction and operation of the Project (Appendix M of the ASC).
- The Applicant would conduct two years of standardized post-construction fatality monitoring to assess impacts of turbine operation on birds and bats. Proposed post-construction fatality monitoring is described in the Applicant's Bird and Bat Conservation Strategy (Appendix M of the ASC). The Applicant would also conduct five years of post-construction raptor nest monitoring, with specific emphasis on determining whether documented ferruginous hawk nests are active.
- The Applicant developed a Habitat Mitigation Plan (Appendix L of the ASC) for the wind energy generation areas of the Project, consistent with the WDFW Wind Power Guidelines, where applicable (WDFW 2009). The Habitat Mitigation Plan separately addressed mitigation for the solar and battery storage facility elements, consistent with best available industry practices.
- The turbine layouts presented in the Final ASC feature a reduction in the total number of turbines (reduced from the previous maximum of 244 turbines to the current maximum of 231 turbines for Option 1, and reduced from the previous 150 turbines to the current maximum of 147 turbines for Option 2). In addition, solar panels in proximity to I-82 have been removed, such that all panels would be approximately 1 mile east of I-82.

Agency-recommended mitigation measures are provided in Section 4.6 of this EIS.

#### **2.1.3.5      *Energy and Natural Resources***

The Applicant has not proposed any new mitigation measures in Section 1.10 of the Final ASC. The Applicant does not anticipate that any new water rights will be necessary for the use of local off-site water sources. The Applicant anticipates that any necessary water volume mitigation for the impact would be provided in accordance with Washington State Department of Ecology guidelines from new or existing regional sources. Agency-recommended mitigation measures are provided in Section 4.4 of this EIS.



### **2.1.3.6 Noise and Vibration**

The following commitments are proposed by the Applicant and described in detail in Section 4.1.1 of the ASC.

- Maintain all construction tools and equipment in good operating order according to manufacturers' specifications.
- Limit use of major excavating and earth-moving machinery to daytime hours (7 a.m. to 10 p.m.).
- To the extent practicable, schedule construction activity during normal working hours<sup>10</sup> on weekdays when higher sound levels are typically present and are found acceptable. Some limited activities, such as concrete pours, would be required to occur continuously until completion.
- Equip any internal combustion engine used for any purpose on the job or related to the job with a properly operating muffler that is free from rust, holes, and leaks.
- For construction devices that utilize internal combustion engines, ensure that the engine's housing doors are kept closed and install noise-insulating material mounted on the engine housing consistent with manufacturers' guidelines, if possible.
- Limit possible evening shift work to low noise activities such as welding, wire pulling, and other similar activities, together with appropriate material handling equipment.
- Utilize a complaint resolution procedure to address any noise complaints received from residents.
- For the Option 1 layout using 2.82-MW turbines, to demonstrate compliance with the applicable nighttime WAC regulatory limits (WAC 173-60-040) at the Project property boundary adjacent to Class A lands, select turbines would need to operate in noise-reduced operation mode. For the Option 1 layout using 3.03-MW turbines, select turbines may need to be equipped with low noise trailing edge or other noise-reducing technology.

Agency-recommended mitigation measures are provided in Section 4.11 of this EIS.

### **2.1.3.7 Public Health and Safety**

The following commitments are proposed by the Applicant and described in detail in Section 4.1.2 of the ASC.

- All facilities will be designed per recommendations of the Institute of Electrical and Electronics Engineering Guide for Substation Fire Protection (979-2012) and the Unified Facilities Criteria (UFC) for Fire Protection Engineering for Facilities (UFC 3-600-01).
- During construction, trees and vegetation that pose a hazard to the collector lines may be topped or cleared from the right-of-way. During operation and maintenance of the Project, vegetation that is overgrown and could pose a hazard to the transmission line will be topped or cleared on an as-needed basis.
- Battery storage systems will include fire detection measures and would be installed according to the "remote, outdoor" installation requirements of National Fire Protection Association (NFPA) Standard 855, including vegetation control to prevent the spread of fire.

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<sup>10</sup> The Applicant has identified normal working hours as the hours outside the limitations provided under WAC 173-60-040.

- Appropriate coordination with local emergency personnel will be conducted.
- Precautionary measures will be taken during construction to reduce fire risk.
- Construction equipment will be monitored where activities may present safety issues.
- A Draft Emergency Response Plan, which addresses fire and other emergency procedures, has been developed and included as part of the ASC (Appendix P of the ASC). A finalized plan would be developed and implemented, in coordination with the Benton County Fire Marshal and other appropriate agencies before construction.
- All Project vehicles will be equipped with fire extinguishers.
- Fire station boxes with appropriate fire suppression equipment (e.g., shovels, water tank sprayers, sand) will be installed at multiple locations within the Project.
- No gas-powered vehicles will be allowed outside of graveled areas.
- High clearance vehicles will be used onsite if required to be operated off-road. Low clearance vehicles with catalytic converters will not be parked in tall grasses.
- Any constructing personal required to handle explosives will be state-licensed explosive specialist contractors. All explosives will be secured onsite in compliance with federal, state, and local requirements.
- Areas directly surrounding Turbines and substations would be cleared of vegetation and graveled.
- All portable generators would be fitted with spark arrestors on the exhaust system, and not allowed to operate in open grass areas.
- Hazardous material storage, spill prevention, and waste handling BMPs will be implemented and utilized during construction and operation of the Project in compliance with the Construction Phase and an Operational Phase SPCC Plan.
- Agency-recommended mitigation measures are provided in Section 4.13 of this EIS.

#### **2.1.3.8 Land-Use Plans and Zoning Ordinance**

The following commitments are proposed by the Applicant and described in detail in Section 4.2.1 and/or Section 4.2.6 of the ASC.

- Project construction, operation, and decommissioning stages would follow site-specific BMPs to minimize potential impacts on noise, traffic, vegetation, and air quality, as described in the respective resource sections of the ASC.
- Upon decommissioning of the Project, the Applicant would remove all above-grade infrastructure, as well as belowground infrastructure to 3 feet or more below grade.
- The Applicant would replace topsoil and reseed areas where facilities were located with grasses and/or other vegetation reasonably acceptable to the landowner.
- Upon Project decommissioning, occupied land would be restored for agricultural use and the Applicant would remove all aboveground infrastructure as well as belowground infrastructure to 3 feet or more below grade.

Agency-recommended mitigation measures are provided in Section 4.8 of this EIS.

### **2.1.3.9 Visual Aspects, Light and Glare**

The following are commitments proposed by the Applicant for visual aspects and described in detail in Section 4.2.3 of the ASC.

- Active dust suppression would be implemented during construction.
- Following completion of construction, temporarily disturbed areas (e.g., laydown yards, crane paths not used as Project access roads) would be returned to their previous conditions once construction is complete.
- Restoration of the laydown yards would involve pre-construction stripping and storing topsoil, including weed avoidance, as well as removing the gravel surface, regrading to pre-construction contours, restoring topsoil and decompaction of subsoils as needed, and reseeding with approved seed mixes.
- Following completion of construction, the temporary crane paths would be removed and the area restored, in accordance with the Project's Revegetation and Noxious Weed Management Plan (Appendix N of the ASC).
- The Applicant would provide a clean-looking facility free of debris and unused or broken-down equipment by storing equipment and supplies in designated areas within the O&M facilities and promptly removing damaged or unusable equipment from the site.
- The turbines and solar arrays would be uniform in design to present a trim, uncluttered, aesthetically attractive appearance.
- The Applicant would construct support facilities with non-reflective materials in muted tones and use white or light gray, non-reflective paint to eliminate the need for daytime aviation lighting and eliminate glare from the turbines.
- Sensors and switches would be used to keep security lighting turned off when not required, and all lights except aviation safety lighting would be hooded and directed downward to minimize light pollution.
- Any perimeter lighting at the O&M facilities and BESS would be activated only during maintenance or emergency activities at night.
- After construction is completed, vegetated areas that are temporarily disturbed or removed during construction of the Project would be restored to pre-disturbance conditions as reasonably possible in accordance with the Revegetation and Noxious Weed Management Plan (Appendix N of the ASC).
- The turbine layouts presented in the Final ASC include a reduction in the total number of turbines (reduced from the previous maximum of 244 turbines to the current maximum of 231 turbines for Option 1, and reduced from the previous 150 turbines to the current maximum of 147 turbines for Option 2). In addition, solar panel locations near I-82 have been eliminated, such that the nearest solar panels to I-82 would be approximately 1 mile away. These layout modifications result in a reduction of visual impact to certain viewers.

The Applicant has not proposed any commitments specific to light and glare. Agency-recommended mitigation measures are provided in Section 4.10 of this EIS.

### **2.1.3.10 Recreation**

The Applicant has not proposed any commitments specific to recreation. Site-specific BMPs implemented during construction and operation to minimize potential impacts on noise, traffic, and visual surroundings (as described in the respective resource sections of the ASC) would minimize impacts on recreational users (Section 4.2.4 of the ASC). Agency-recommended mitigation measures are provided in Section 4.12 of this EIS.

### **2.1.3.11 Historic and Cultural Resources**

The following are commitments proposed by the Applicant and described in detail in Section 4.2.5 of the ASC.

- Prior to construction of the Project, a qualified archaeologist would be retained and would provide a cultural resource briefing that includes:
  - All applicable laws and penalties pertaining to disturbing cultural resources
  - A brief discussion of the prehistoric and historic regional context and archaeological sensitivity of the area
  - Types of cultural resources found in the area
  - Instruction that Project workers would halt construction if a cultural resource is inadvertently discovered during construction
  - Procedures to follow in the event an inadvertent discovery (Inadvertent Discovery Plan discussed below) is encountered, including appropriate treatment and respectful behavior of a discovery (e.g., no posting to social media or photographs)

If requested, a local tribal representative(s) would be invited to participate in the environmental training to discuss or provide text from a tribal cultural perspective regarding the cultural resources within the region.

- The Applicant would retain a qualified archaeologist to prepare and implement a Cultural Resource Pre-construction Survey and Avoidance Plan. The plan would provide protocols for pre-construction surveys of areas that have not been previously surveyed (e.g., during final design, construction needs, etc., extend beyond previously surveyed areas) and outline cultural resource avoidance measures. Tribal representatives would be invited to monitor the site during construction.
- Recorded cultural and historic resources would be avoided through modification of Project design and through buffers and protective signage or flagging, as well as monitoring, as appropriate. Notably, for precontact resources, the Project's proposed design has considered the resource's buffered boundary during the design process. If a resource cannot be avoided, a qualified archaeologist would develop additional archaeological investigation measures and additional mitigation in coordination with the Department of Archaeology and Historic Preservation (DAHP) and tribes, as appropriate.
- An Archaeological Excavation and Removal Permit would be pursued if any alteration of any precontact archaeological site were to occur, regardless of the level of disturbance. For historic-era archaeological sites, permits would be pursued for any removal or excavation of those that are unevaluated for, eligible for, or listed on the National Register of Historic Places (NRHP).
- The Applicant would retain a qualified archaeologist to prepare an Inadvertent Discovery Plan for the Project and avoidance procedures. During Project-level construction, should subsurface archaeological resources be discovered, all activity in the vicinity of the find would stop and a qualified archaeologist would be



contacted to evaluate the resource for listing in the Washington Heritage Register (WHR) and NRHP criteria (for historic-period resources or to conduct other appropriate investigations per Revised Code of Washington [RCW] 27.53 for precontact resources) conducted under the appropriate permits. The archaeologist would determine, in consultation with the implementing agencies and local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation for any historic-period resources found to be NRHP/WHR-eligible and for all precontact resources. If a resource cannot be avoided, a qualified archaeologist would develop additional archaeological investigation measures, such as data recovery or other appropriate measures, in consultation with the implementing agency, DAHP, and appropriate Native American representatives.

- If evidence of human burials is encountered, all ground-disturbing activity in the vicinity would be halted immediately, and the DAHP, Benton County Planning and Community Development Department, Benton County Sheriff's Office, Applicant, and appropriate tribes would be notified immediately. No work would resume within a 100-foot radius (or appropriate distance) of the find until all appropriate approvals are received.

Agency-recommended mitigation measures are provided in Section 4.9 of this EIS.

#### **2.1.3.12    *Transportation***

The following commitments are proposed by the Applicant and described in detail in Section 4.3 of the ASC.

- Any road improvements made during the Project's construction would be removed and the area restored to pre-construction conditions to the extent practical unless otherwise requested by the landowner.
- All road improvement and construction would be done in conjunction with Benton County Public Works requirements following Benton County standards. The Applicant would maintain new access roads to access the turbine structures during operations.
- Prior to commencement of construction, the Applicant would consult with the Washington State Department of Transportation (WSDOT) and Benton County to develop a Construction-Stage Traffic Management Plan.
- A detailed haul plan would be developed once turbines have been selected and a construction schedule developed. The haul plan would confirm source locations and routes to be used during Project construction, as well as anticipated loads and haul schedule.
- The Transportation Study (Appendix V of the ASC) would be verified and updated to include detailed condition assessments of roads to be used, structural assessments, and plans for improvement and maintenance.
- Ingress and egress points would be located and improved (if needed) to ensure adequate capacity for existing and projected traffic volumes and to provide efficient movement of traffic, including existing and anticipated agricultural traffic.
- The Applicant would obtain all necessary WSDOT permits to access, modify ingress and egress to, or transport regulated loads on state-managed roadways.
- The Applicant would obtain WSDOT trip permits for oversize and overweight loads.

- The Applicant would coordinate with EFSEC and Benton County to identify a qualified third-party engineer who would document road conditions prior to construction and again within 30 days after construction is complete or as weather permits.
- A service agreement between the Applicant and Benton County would ensure post-construction road restoration to conditions as good or better than pre-construction.
- The Applicant or its contractor and EFSEC staff would meet prior to final site plan approval to outline steps for minimizing construction traffic impacts, including conflicts if state-imposed roadway restrictions could affect transporter routes.
- The Applicant or its contractor would provide advance notification to adjacent landowners and farmers through mailing, informal meeting, open house, or other similar methods when construction takes place in the vicinity of their homes and farms to help minimize access disruptions.
- All construction vehicles would yield to school-related vehicles (e.g., school buses) and would lower their speed when approaching a school bus or bus stop along the transporter route.
- Advanced warning and proper roadway signage would be placed on major state and county roads to warn motorists of potential Project-related vehicles entering and exiting the roadway.
- When slow or oversized wide loads are being hauled, appropriate vehicle and roadside signing and warning devices would be deployed. Pilot cars would be used as WSDOT dictates, depending on load size and weight.
- Carpooling among the construction workers would be encouraged to reduce traffic volume to and from the Project site.
- Detour plans and warning signage would be provided in advance of any planned traffic disturbances.
- The Project would utilize appropriate signage where needed to direct the public not to enter restricted areas. During construction, temporary barriers and traffic control measures will be utilized where applicable.
- Flaggers would be employed as necessary to direct traffic when large equipment is exiting or entering public roads to minimize risk of accidents. Should the Applicant or its construction contractor receive notice during Project construction of transportation events (e.g., WSDOT or Benton County transportation projects, roadway incident, other traffic events) that give rise to a safety concern, the Project construction manager would review the Traffic Management Plan in coordination with the applicable agency and address additional safety measures, including flagging, as may be appropriate for the situation.
- If lane closure must occur, adequate signage for potential detours or possible delays would be posted.
- Advance notification would be provided to emergency providers and hospitals when public roads may be partially or completely closed.
- Emergency vehicles would be given the right-of-way per local, state, and federal requirements.
- Site access roads and an entrance driveway to the O&M facilities on site would be constructed to service truck movements of legal weight and provide adequate sight distance.

- Traffic control requests would be coordinated through the WSDOT traffic engineer and the Benton County public works department, abiding by seasonal county road restrictions.
- A haul and approach route would be developed in coordination with the appropriate jurisdictional authorities.
- Permanent private Project access roads would be maintained by the Applicant for the life of the Project.
- Tracked vehicles and heavy trucks would be restricted to approved transporter roads to prevent damage to surface and base of county roads.
- Turbines and permanent met towers would be lit according to regulations established by the FAA.
- The Applicant would obtain Determinations of No Hazard to Air Navigation from the FAA.
- Advance warning and proper roadway signage would be placed on highways and county roads to warn motorists of potential vehicles entering and exiting the roadway.
- After construction, all-weather access roads (including graveled roads), suitable to handle emergency equipment, would be provided within 150 feet of any built structure or surface activity area.
- If the final Project construction schedule coincides with the County's planned paving operation on County Well Road, the Applicant will coordinate construction and transportation activities with Benton County Public Works to avoid conflicts between the two actions.

Appendix X of the Final ASC presents a Traffic Impact Analysis that includes additional detail on traffic and transportation safety measures. Agency-recommended mitigation measures are provided in Section 4.14 of this EIS.

#### **2.1.3.13    *Public Services and Utilities***

The Applicant has not proposed any commitments specific to public services and utilities. Agency-recommended mitigation measures are provided in Section 4.15 of this EIS.

#### **2.1.3.14    *Socioeconomic Environment***

The following commitments are proposed by the Applicant and described in detail in Section 4.4 of the ASC.

- Active dust suppression would be implemented during construction.
- Engine idling time would be limited, and equipment would be shut down when not in use, to limit air emissions.
- Noise mitigation measures would include maintaining all tools and equipment in good operating order, using properly muffled construction equipment, and scheduling construction activity during normal working hours on weekdays to the extent possible.
- Prior to commencement of construction, the Applicant would consult with WSDOT and Benton County on the development of a Construction-Stage Traffic Management Plan that would be designed to reduce and manage construction-related transportation impacts.
- The Applicant would coordinate with the Benton County Fire Marshal and other appropriate agencies to finalize an Emergency Response Plan, as well as coordinate with local emergency services personnel and provide training where necessary.

Agency-recommended mitigation measures are provided in Section 4.16 of this EIS.

## **2.2 Post-Adjudication Applicant Commitments and Effectiveness**

The Applicant provided changes in the Final ASC following comments and input from regulatory agencies, changes to applicable regulations, testimony from adjudicative hearings, and information received from the BPA. Additional Applicant commitments were identified and finalized in the Applicant's Final ASC, as per WAC 463-60-116 (Horse Heaven Wind Farm, LLC 2023).

The following sections identify the modifications proposed in the Final ASC and whether individual modifications were analyzed as part of this EIS. If analyzed in the EIS, additional context has been provided as to whether a change in the impact ratings provided in the Draft EIS has occurred due to the new commitment or modification. For this EIS, an additional section has been added for each resource in Chapter 4 to address the modifications the Applicant provided to the Final ASC and whether the modifications warranted changes to impact ratings for each resource analyzed.

### **2.2.1 Reduce East Solar Array**

In response to concerns expressed by stakeholders regarding impacts to wildlife connectivity, Priority Habitat, and visual resources in the area, the Applicant committed to reducing solar energy generation from 300 MWac to 100 MWac, as indicated in the Final ASC (Horse Heaven Wind Farm, LLC 2023). The extent of solar panels and associated infrastructure would be reduced and concentrated in areas with less sensitive habitat and would be located farther from I-82.

The reduction to the East Solar Array was analyzed as part of this EIS. Changes to resource impacts after the analysis of the post-adjudication Applicant commitments are described below.

The revised solar array fence alignment no longer overlaps areas rated as a moderate movement corridor by the Washington Wildlife Habitat Connectivity Working Group. Accordingly, the magnitude rating for impacts to general wildlife barriers to movement from solar arrays during Project Operation has been reduced from medium to low. Additional analysis of wildlife and habitat is provided in Chapter 4.6.

The high-magnitude impacts associated with views from I-82 (both key observation points [KOPs] 6 and 15) of the Bofer Canyon Solar Siting Area (East Solar Array) would be reduced to a medium level based on the reduction in the size of the proposed solar arrays, only occurring on the east side of I-82, which would result in the arrays being intermittently screened from view along the interstate, including from both KOP 6 and KOP 15. Further visual analysis is provided in Chapter 4.12.

### **2.2.2 Shift Turbine Infrastructure**

To address WDFW comments, Turbine Option 1 infrastructure has been shifted away from Webber and Sheep Canyons as much as possible to reduce the potential for direct or indirect impacts on wildlife (Horse Heaven Wind Farm, LLC 2023). Turbines 8, 18, and 19 of Turbine Option 1 were shifted.

The shift of turbine infrastructure was analyzed as part of the EIS. The overall impact remains similar due to the turbines and other Project infrastructure that remains. The shift of turbine infrastructure for the turbines identified in the Final ASC does not change the impact ratings previously provided for resources in the Draft EIS.



### 2.2.3 Remove Specific Wind Turbines

To reduce visual impacts on resources of concern to local residents, Turbines 5, 6, 7, and 8 have been removed from Turbine Option 1 to reduce these visual impacts. Turbine 116 was removed from Turbine Option 1 since it was in the closest proximity to the most recently occupied ferruginous hawk nest. Turbines 119, 121, 122, 123, 124, 125, 162, and 243 were removed from Turbine Option 1, and Turbines 5, 6, and 7 were removed from Turbine Option 2 to reduce visual impacts on resources of concern to local residents and in proximity to ferruginous hawk core areas.

The removal of the above turbine infrastructure was analyzed as part of the EIS. The overall impact remains similar due to the turbines and other Project infrastructure that remains. The removal of turbine infrastructure for the turbines identified in the Final ASC does not change the impact ratings previously provided for resources in the Draft EIS.

To further reduce impacts to visual resources, the ferruginous hawk, and cultural resources, Turbines 9, 28, 29, 30, 59, 60, 260, 261, and 261 have been removed from Turbine Option 1. For the same reasons, Turbines 9, 28, 30, 59, 60, and A261 have been removed from Turbine Option 2 (Scout Clean Energy 2023). This further proposed reduction was proposed following the submittal of the Final ASC and, because of the late stage at which it was received, has been omitted from analysis within this EIS. The removal of this additional turbine infrastructure will be available to the EFSEC Council for its consideration during deliberations but has not been reflected in this EIS.

### 2.2.4 Remove/Add/Modify Transmission Lines and Substation Infrastructure

The BPA confirmed the location of the new Webber Canyon substation during the review of the Draft EIS. The substation was confirmed to be close to County Well Road. As a result, the Applicant finalized the locations of other related infrastructure and removed duplicate/alternate locations. In the Final ASC, the Applicant proposed to extend the County Well Road 500 kV transmission line route to the BPA's planned new Webber Canyon substation extending outside of the previously surveyed Project Lease Boundary.

New and unevaluated disturbance, including the undergrounding of additional transmission lines and infrastructure outside of the Project Lease Boundary, has been omitted from analysis within this EIS. For new and unevaluated components to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization. The removal of duplicate/alternate locations has been analyzed as part of the EIS. The overall impact remains similar due to remaining infrastructure. The removal of duplicate/alternate locations for the infrastructure identified in the Final ASC does not change the impact ratings previously provided for resources in the Draft EIS.

### 2.2.5 Add/Modify Construction Laydown Areas

The Applicant identified specific Phase 1 and Phase 2 laydown areas in the Final ASC. In addition, the Applicant has stated that General Electric has determined that all turbine components will need to be staged at a central location rather than delivered directly to turbine locations as needed during construction; this 20-acre central location has been identified in the Final ASC.

New and unevaluated disturbance, including the Phase 2 laydown yard sited outside of the Micrositing Corridor and the new central laydown yard outside the Project Lease Boundary, have been omitted from analysis within this EIS. For new and unevaluated components to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization.

The location of the eastern laydown yard has been analyzed as part of the EIS. The overall impact remains similar and does not change the impact ratings previously provided for resources in the Draft EIS.

### **2.2.6 Add Aircraft Detection Lighting System Infrastructure**

The Applicant has proposed adding up to five FAA-compliant Aircraft Detection Lighting System (ADLS) radar sensor units, towers, and associated electrical infrastructure to meet Washington's new requirement under House Bill 1173 to include ADLS on wind energy facilities.

New and unevaluated disturbance, including the ADLS towers, has been omitted from analysis within this EIS. For new and unevaluated components to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization.

### **2.2.7 Update Fire Protection Systems Information**

Due to fire protection systems BMPs evolving in recent years, including since the time the original ASC was developed in 2020–2021, the Applicant has updated the thermal runaway<sup>11</sup> design of the Project's BESS to align with the updated guidance.

The updated fire protection systems information has been analyzed as part of the EIS. The overall impact remains similar, and impact ratings previously provided for resources in the Draft EIS remain the same.

### **2.2.8 Modification of Battery Energy Storage System(s)**

New information received from potential offtakers has caused the Applicant to adjust the optimal sizing of the battery storage for the Project. The two BESS would be capable of storing and later deploying up to 300 MW of energy generated by the Project using lithium-ion batteries. The following changes have been identified affecting both potential BESS facilities:

- The East BESS would be reduced to 100 MWac (on 6 acres).
- The West BESS would be increased to 200 MWac (on 10 acres).
- Modifications in net BESS capacity would occur on agricultural lands and have no effect on Priority Habitats.
- This would result in the combined BESS capacity being maintained at the original 300 MWac sizing across the Project.

The updated BESS sizing has been analyzed as part of the EIS. The overall impact remains similar, and impact ratings previously provided for resources in the Draft EIS remain the same.

### **2.2.9 Potential Use of Washington State Department of Natural Resources Could Well**

The Applicant continues to explore various options for water supply to the Project during construction and operations to minimize the transportation and environmental impact. The Applicant is currently working with the DNR to assess the potential for a lease agreement that would allow for use of a portion of the DNR's existing

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<sup>11</sup> The battery cells' safety and stability depend on maintaining internal temperatures within specific limits. If the temperature exceeds the critical level on either end, thermal runaway can occur, destroying the battery or, even worse, starting a fire.

water right associated with the Gould Well to be used during construction and operation of the Project. The Gould Well is located approximately 2 miles west of the Project Lease Boundary.

New and unevaluated disturbance and water use, including the use of a nearby water well, have been omitted from analysis within this EIS. For new and unevaluated components to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization.

### 2.2.10 Unevaluated Project Components

The Applicant's Final ASC included new elements that were not initially part of the project design, and therefore not evaluated as part of the Draft EIS. The new elements presented in the Final ASC have not been evaluated as part of this final version of the EIS. The elements include:

- Additional micrositing corridors or other disturbance outside the Lease Boundary.
- The addition of a laydown area located outside of the Lease Boundary for the purpose of providing an interim storage location for turbines. The need for the additional laydown area would be determined by the Applicant and its vendors as the Project's procurement progresses.
- The new location of the western laydown area outside of previously analyzed micrositing corridors.
- If authorized, the associated disturbance and unsurveyed micrositing corridors inside and outside of the Lease Boundary needed to accommodate ADLS, as required by State of Washington House Bill 1173, passed in 2023. Authorization of the ADLS would be at the discretion of the FAA.
- Potential use of the DNR Gould Well, outside of the Project Lease Boundary, for Water Supply
- Use of haul routes not evaluated in the Traffic Impact Analysis.
- While the construction of transmission lines within micrositing corridors is evaluated in this EIS, undergrounding of the line was not included as part of this analysis.

For any of these new and unevaluated components to be included as part of the Project, supplemental analysis would be required prior to EFSEC authorization.

## 2.3 Alternatives to the Proposed Action

### 2.3.1 Alternatives Considered

The following alternatives were considered for analysis:

- **Solar Only:** Under this alternative, only the solar facilities and supporting infrastructure would be constructed within the 10,755 acres of Solar Siting Areas, resulting in a permanent disturbance footprint of approximately 5,447<sup>12</sup> acres. The Applicant would consider all solar technology available at that time to design the most efficient and effective solar array layouts.

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<sup>12</sup> As proposed in the Final ASC. Reflects the reduction in acreage associated with solar arrays from 6,570 acres of permanent disturbance to 5,447 acres of permanent disturbance (Horse Heaven Wind Farm, LLC 2023).

- **Wind Only:** Under this alternative, only the wind turbines and supporting infrastructure would be constructed within the 11,850 acres of Wind Energy Micrositing Corridor, resulting in approximately 476.6<sup>13</sup> acres of permanent disturbance.
- **No Action:** Under the No Action Alternative, the Project would not be constructed or operated, power would not be supplied from the Project, and the potential environmental impacts associated with the Project would not occur. Existing agricultural use in the Lease Boundary would continue without interruption.

### 2.3.2 Alternative Carried Forward for Detailed Analysis

The Solar Only and Wind Only alternatives were eliminated from detailed analysis because they would not generate the designed nameplate generating capacity proposed by the Applicant. As the Proposed Action involves “a private project on a specific site,” the agency, per WAC 197-11-440(5)(d), is only required to consider a no-action alternative and reasonable on-site alternatives that achieve the proposed objective. Analyzing the Project as a whole allows the interpretation of the most probable worst-case scenario, while providing the impacts at the component level. This methodology allows EFSEC to identify components that have a higher impact than others.

EFSEC has the authority to recommend approval or denial of components of the Project to serve the purposes of RCW 80.50. Using this methodology, this Final EIS is inclusive of multiple design and construction alternatives to the Applicant’s Proposed Action.

**Figure 2-5** and **Figure 2-6** show Turbine Option 1 and Turbine Option 2, respectively, with the proposed solar siting fields. High impact areas on the figures are identified and are associated with areas with more than one high-magnitude impact, as identified in Chapter 4 of each resource. The figures are intended to provide EFSEC and its Council members with information that could be used in the identification of specific turbines that have multiple impacts and could require additional mitigation including the removal or relocation within the Micrositing Corridor. These figures lack identifying details for the public because impacts may be related to protected or confidential resources. EFSEC was provided with detailed versions of these figures to assist in the decision-making process for this Project.

The No Action Alternative was carried forward for analysis in the EIS.

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<sup>13</sup> Updated spatial layers for updated crane paths, collector lines, and roads were not provided for the Final ASC, therefore, the acreage remains the same as previously provided by the Applicant in their 2021 spatial layers (Horse Heaven Wind Farm, LLC 2021).



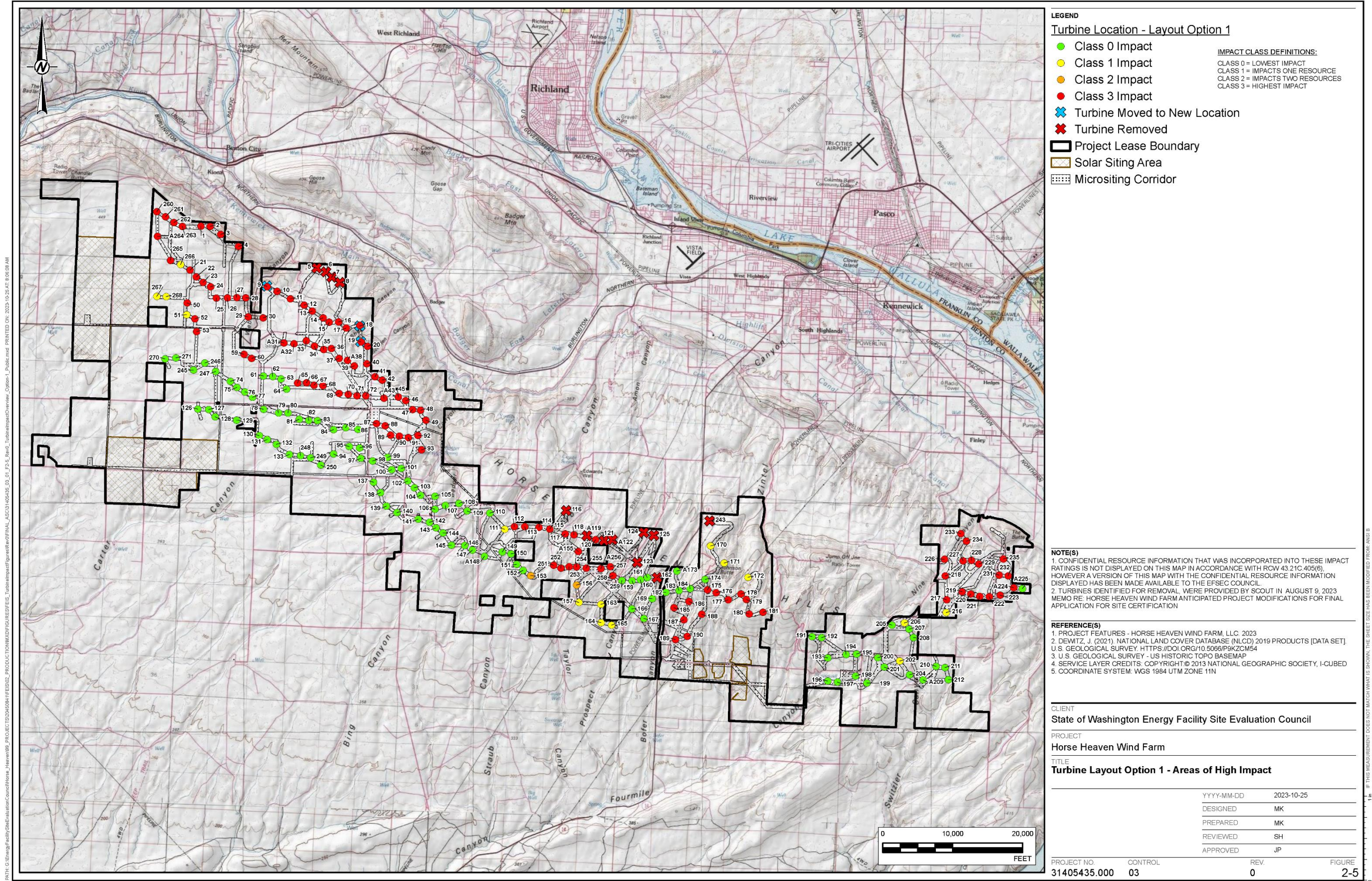


Figure 2-5: Turbine Layout Option 1 - Areas of High Impact



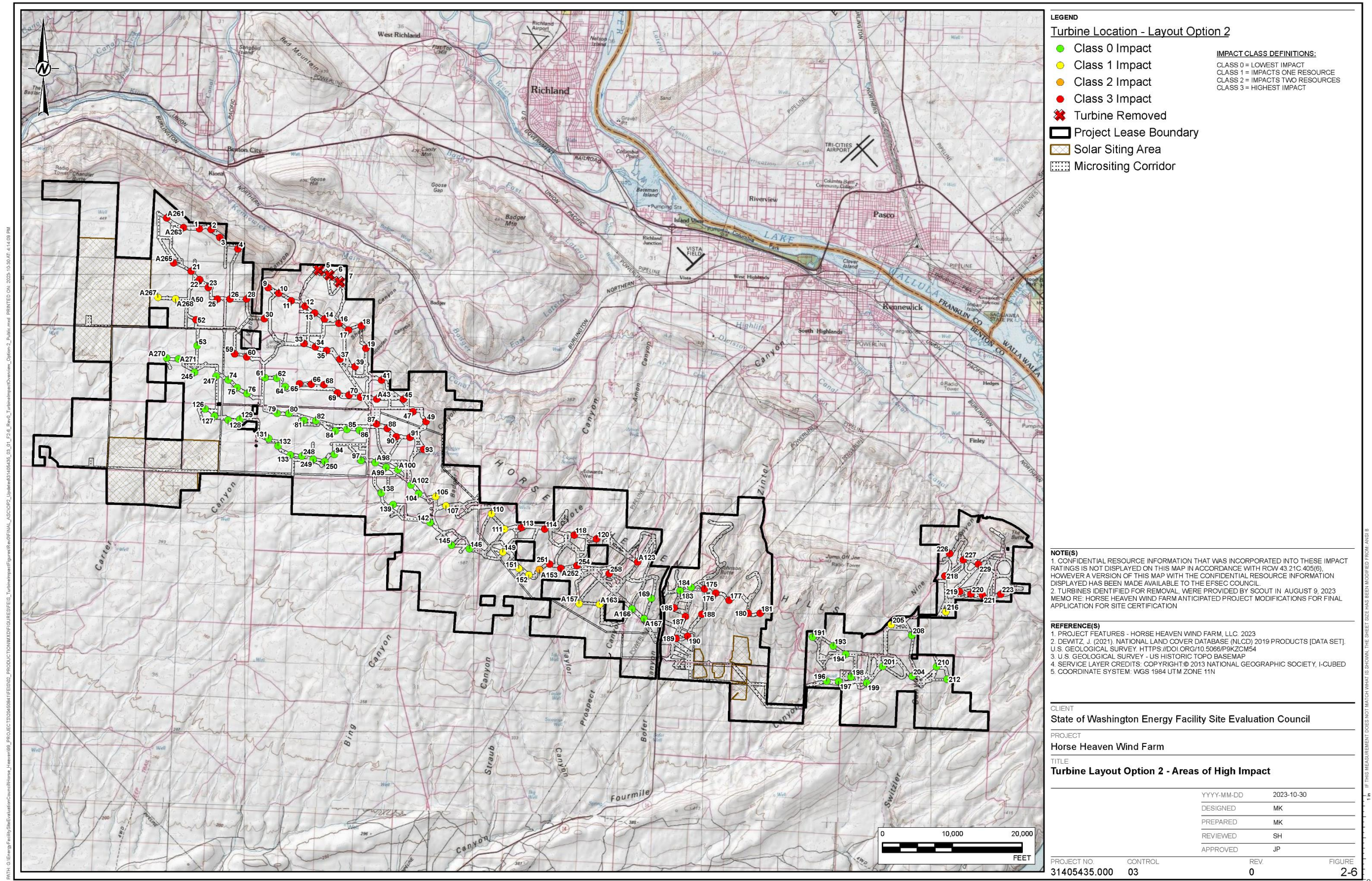


Figure 2-6: Turbine Layout Option 2 - Areas of High Impact