

January 31, 2023

Sonia Bumpus
EFSEC Director and SEPA Responsible Official
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RE: Horse Heaven Wind Farm Draft Environmental Impact Statement (Docket Number EF-210011)

Dear Director Bumpus,

This comment letter is submitted on behalf of Audubon Washington (“Audubon”), a state field office of the National Audubon Society, in response to the Horse Heaven Wind Farm project (“Project”) Draft Environmental Impact Statement (“DEIS”).

Audubon Washington supports the build out of renewable energy infrastructure to support Washington’s Clean Energy Transformation Act and its commitment to an electricity supply free of greenhouse gas emissions by 2045. Audubon’s climate science shows that two thirds of North American birds are at risk of extinction if we don’t limit warming associated with climate change (Bateman et al. 2020). Recent science also shows us what many bird enthusiasts know intuitively - there are 3 billion fewer birds in North America than there were 50 years ago (Rosenburg et al. 2019). We and our 50,000+ members and 25 chapters across the state care deeply about the shrub-steppe ecosystem and the birds and people that depend on it. An estimated 80% of historic shrub-steppe habitat has been lost in Washington and remaining areas are degraded, fragmented, and increasingly threatened by fire (WDFW 2022). Not surprisingly, a growing number of birds and wildlife associated with the shrub-steppe are in decline or at risk of local extinction (WDFW 2022).

Audubon supports clean energy and net zero emissions to help our birds, but short-sited permitting actions that exacerbate the biodiversity crisis are not the answer. This is why Audubon hopes to support EFSEC and project planners to ensure the build out of renewable energy infrastructure is completed with biodiversity, climate adaptation and landscape resilience in mind. To do otherwise is to threaten the long-term viability and productivity of our state’s lands and waters, not to mention tribal treaty rights, cultural heritage, and quality of life of Washingtons’ inhabitants. For this reason, it is essential that any proposal be carefully and comprehensively evaluated so that potential impacts are mitigated through avoidance, minimization, and compensatory mitigation.

The proposed Project will be the largest renewable energy project in our state’s history. According to the DEIS, the Proposed Action includes one of two proposed turbine options, up to three solar arrays, up to four substations, up to three battery energy storage systems, and supporting infrastructure (roads, collector lines, transmission lines, etc.). The Project would have a nameplate generating capacity of up to 1,150 megawatts (“MW”). The DEIS states that the Project’s Lease Boundary encompasses 72,428 acres, of which 11,850 acres are identified for the Wind Energy Micrositing Corridor and 10,755 acres are identified for the Solar Siting Area. The comprehensive Project would

result in approximately 9,821 acres of disturbance, 6,868 of which are permanent (*Table 4.5-5*), and approximately 75 acres of which are Washington Department of Fish and Wildlife (WDFW) Priority Habitats for conservation. Wildlife mortality, degradation and loss of habitat, and barriers to movement are expected to occur due to Project construction and ongoing operation. **Surprisingly, the DEIS does not consider or discuss any alternative proposals other than a no-action alternative.**

Based on our review of the DEIS, we have concluded that the DEIS fails to adequately address the following topics, as required by **WAC 197-11-440**. **The final EIS must include additional information and analyses to address to following areas of concern:**

Issue 1: DEIS does not provide enough information to analyze likely environmental impacts

Issue 2: DEIS does not identify sufficient specific mitigation measures that will avoid adverse impacts

Issue 3: DEIS evaluation and determination of significance is not supported by the findings and conclusions

Issue 4: DEIS lacks identification and analysis of reasonable alternatives

Further analysis and recommendations on how to address these issues are described below.

The DEIS does not provide enough information to analyze likely environmental impacts

Rule: SEPA WAC 197-11-440 (6)(a) requires that the EIS describe the existing environment that will be affected by the proposal, analyze significant impacts of alternatives including the proposed action, and discuss reasonable mitigation measures that would significantly mitigate these impacts.

Analysis: Project Design and Siting. The DEIS defers decisions on specific Project design and siting features to a future technical committee, and uses vague language regarding commitments to mitigation, leaving important decisions and information about turbine siting and mitigation plans to the discretion of Scout Clean Energy (“Applicant”) and a Technical Advisory Committee. However, these decisions have a direct bearing on the presence and significance of impacts, as well as the availability and reasonableness of mitigation measures to mitigate such impacts.

The number and locations of turbines within the micro-siting corridors has direct implications for the level of severity of direct and indirect impacts on wildlife. This is especially true for impacts to wildlife habitat connectivity, State Endangered Ferruginous Hawk mortality and foraging habitat, and avian impacts overall. In fact, the Department of Fish and Wildlife has already provided detailed recommendations to the Applicant and EFSEC on factors to consider when siting the Project components. Unfortunately, the deferral of mitigation plans and siting decisions to a technical committee with an unknown level of authority, public oversight, environmental review, and with undefined performance standards does not satisfy SEPA’s purposes of providing the public (and the environmental community) with an opportunity to review and comment before a decision is made. Nor does it provide decision-makers with enough information to adequately factor environmental impacts into Project decisions. Without this information, one simply cannot reasonably determine the magnitude, duration, likelihood or scope of the impacts to environmental resources.

Sections 4.5-4.6 of DEIS’s Chapter 4 identify “loss of Priority Habitats, loss of wildlife habitat, degradation of habitat (e.g., indirect habitat loss), wildlife mortality, and creation of barriers to movement and habitat fragmentation as potential impacts to vegetation, wildlife, and habitat.” The DEIS states that “the extent of these impacts may vary depending on the proximity of individual turbines

to sensitive habitats (e.g. nests, Priority Habitats, movement corridors), height of the turbines, and siting of ancillary components.” **However, the extent of these impacts must be disclosed, analyzed and considered now. Doing otherwise ignores the very purpose of SEPA and makes the EIS process almost meaningless.**

Conclusion: To meet the requirements of **WAC 197-11-440 (6)(a)**, the final EIS must include (A) an explicit design (or at the absolute minimum, more detailed parameters) for the siting of turbines and other Project components, (B) an alternative proposal that minimizes impacts to the environment through avoidance and mitigation in Ferruginous Hawk habitat and wildlife connectivity zones, and (C) clarification of the TAC’s scope and authority, and description and commitments to clear mitigation measures and associated performance standards.

The DEIS does not identify sufficient specific mitigation measures that will avoid adverse impacts

Rule: SEPA WAC 197-11-440 (6)(b)(iii) requires that the EIS clearly indicate those mitigation measures, if any, that could be implemented or might be required, as well as those, if any, that agencies or applicants are committed to implement. **WAC 197-11-440 (6)(b)(iv)** requires that the EIS indicate what the intended environmental benefits of mitigation measures are for significant impacts and may discuss their technical feasibility and economic practicability if there is concern about whether a mitigation measure is capable of being accomplished.

Analysis Issue 2.A - Habitat Fragmentation

According to *Section 4.6.2.2* of the DEIS, *“The Project is predicted to result in new fragmentation where Project components bisect native shrubsteppe habitat, predominantly along the northern edge of the Lease Boundary. Further fragmentation may occur where roads and other ground disturbance is proposed over canyons and draws. The operation of turbines, solar arrays, power lines, roadways, and other infrastructure could result in barriers to wildlife movement and fragmented habitat. Operation of the comprehensive Project operation is predicted to have a medium impact on barriers to wildlife movement and habitat fragmentation that is long term, probable, and confined to the Lease Boundary”*

The Washington Department of Fish and Wildlife (“WDFW”) submitted a letter on April 21, 2021 (WDFW 2021) that provides detailed review, analysis and comment on the Applicant’s Application for Site Certification, Appendix K (Biological Reports) and Appendix M (Bird and Bat Conservation Strategy). In this letter, WDFW shares serious concerns that the geographic scale of the Project is likely to compromise ecological connectivity in Benton County in ways that will be “difficult if not impossible to mitigate.” The letter provides specific recommendations to reduce the extent and severity of habitat fragmentation through Project design and siting considerations.

However, despite the state’s submission of this letter nearly two full years ago, the DEIS and the siting information therein suggests that the Applicant has not adopted these recommendations. Based on our review, the DEIS suggests that the Applicant has failed to identify (and certainly failed to adopt) sufficient mitigation measures to avoid adverse impacts. As a result, without significant revisions (or absent some clarification), the DEIS suggests the Project is likely to have high magnitude, constant, unavoidable and regional scale impacts on wildlife connectivity.

The WDFW letter describes the available science on the importance of the Project area and vicinity for core area and linkage conservation in the Columbia Plateau, as follows:

“The Arid Lands Initiative Core Team produced a map of shared priority areas that was developed based on two scientific analysis specifically for the Columbia Plateau Ecoregion that includes the HWSB project. These two analyses are: *The Spatial Conservation Priorities in the*

Columbia Plateau Ecoregion – Methods and data used to identify collaborative conservation priority areas for the Arid Lands Initiative and The Washington Connected Landscapes Project: Analysis of the Columbia Plateau Ecoregion. Not only does the shared priorities map identify the north/south linkage but also identifies an important east/west linkage along the entire Horse Heaven Hills ridgeline that encompasses, very likely, the entire HWSB project site. Both linkages provide landscape connectivity, native habitats, and provide important ecological functions and values for resident and migratory wildlife in an already fairly developed landscape. The proposed construction of the HWSB project represents a significant landscape-level impact to habitat connectivity and to wildlife that will require mitigation. ALI is an analysis that looked at the entire Columbia Plateau across three states, Washington, Oregon and Idaho. This vast three state analysis resulted in a conservation network of core areas and linkages. Fracturing this network by developing in key locations is a significant concern.”

WDFW goes on to make further recommendations about turbine and solar siting parameters which would help mitigate habitat fragmentation. For example, in instances of “solar arrays that have any draws/canyons and or ephemeral drainages through them,” WDFW advises that “these areas should be maintained as open and connected to adjacent and offsite habitats. There should be no roads, fencing, or underground utilities across these areas.” For turbines, the Department recommended that “removing turbines from [the ridge between Webber and Sheep Canyons] and canyon rims or from crossing [Sheep Canyon] would provide additional buffer and habitat for the variety of raptors that have utilized these areas for nesting and foraging for decades.”

Based on our review of turbine layouts in Section 2.1.1; Figure 2.3-1 and Figure 2.3-2, the proposed Project has not followed this recommendation, and still includes turbines between Webber and Sheep Canyon. The FEIS must clarify why the Applicant disregarded WDFW’s professional guidance. As a matter of SEPA compliance, it must also explain the environmental impacts of not adopting these clear and achievable mitigation measures, so that the public is fully informed and EFSEC officials are able to fully understand the environmental ramifications of their decision as required by SEPA.

In WDFW’s June 10, 2021 EIS scoping comments (WDFW 2021b), WDFW again repeated these concerns about the potentially significant landscape-level impact on habitat fragmentation from the Project:

“We would like to reiterate our comments from our April letter that the Project focus only on solar development (no wind energy development) on agricultural and grasslands in the southern edge of the lease area and to the southwest. This includes transmission corridors and all supporting infrastructure. This would help preserve the integrity of the Horse Heaven Hills ridge line as the only documented and scientifically-validated east/west ecological corridor supporting native habitats and wildlife in Benton County.”

Once again, the DEIS does not make clear whether this recommendation has been considered and/or adopted by the Applicant. The FEIS must clarify why these comments were disregarded and explain the environmental impacts of not adopting these clear and achievable mitigation measures.

The June 2021 letter also includes recommendations for solar siting areas and micrositing:

“...micrositing should not cross, or otherwise impact, “waters of the state” or canyons/draws. All collector and transmission lines should be set south of the ridgeline and run parallel to it (roughly east/west), with perpendicular collector lines to each turbine.”

Based on the location of the Project micro-siting corridors and proposed east solar field in *Section 2.1.1 Figure 2.2* the Project will disrupt east-west and north-south landscape connectivity and Ferruginous Hawk foraging habitat within the Arid Lands Initiative Fourmile Canyon Primary Linkage Area (PLA #36) (USFWS 2015) (Figure 1).

Proposing to minimize Project components to “the extent feasible” and promising a future corridor mitigation plan without any clear or enforceable performance standard, leaves too many important decisions to the Applicant’s discretion and shields them from public and decision-maker review during the EIS process. From a scientific perspective, we (and presumably EFSEC decision-makers) are unable to understand without further information how the Project could mitigate for the loss of a key movement corridor in a landscape that *is already* heavily fragmented. Few alternative routes exist. As stated earlier, WDFW has provided specific recommendations on how to avoid these impacts, which do not appear to have been adopted. Until the Applicant commits to the specific design features that would locate Project components outside of the Fourmile Canyon movement corridor and commits to mitigation measures and associated performance standards related to habitat fragmentation at the regional level, the mitigation measures identified by the Applicant are insufficient.

Conclusion: Issue 2.a - Habitat Fragmentation. The Applicant’s conclusion that habitat fragmentation will be confined to the Lease Boundary, rather than regional, is inconsistent with our knowledge of how wildlife move through and across the landscape, their sensitivity to the presence of the proposed Project components, and WDFW’s preliminary assessment of potential Project impacts. The location of the proposed micro-siting corridors and East Solar Field do not follow WDFW recommendations for avoiding Project impacts to connectivity corridors for wildlife like pronghorn antelope, which have cultural importance to area tribes, and the mitigation measures are not consistent with the regional scope of the impact.

Language indicating a commitment to follow proposed mitigation measures related to the siting of the Project “to the extent feasible,” rather than presenting an alternative design for the Project to avoid them, and the lack of performance standards for proposed mitigation introduces considerable uncertainty to the ultimate magnitude and scope of potential impacts on wildlife movement and landscape integrity in Washington state and beyond. The final EIS must identify specific design features, mitigation measures and performance standards that will avoid adverse impacts related to wildlife movement and habitat fragmentation within the Project lease boundary and at the regional level.

The FEIS must discuss the reasonable, clear, and achievable mitigation measures suggested by WDFW, and must analyze the impacts of the Applicant’s apparent decision to disregard them. We respectfully request that, informed by a more complete analysis in the FEIS, EFSEC adopt a project decision that incorporates the clear, reasonable, measurable, and achievable mitigation measures submitted by WDFW.

Analysis Issue 2B: Ferruginous Hawk. Ferruginous Hawk is a State Endangered species that is suffering steep declines, both locally in Benton and Franklin Counties and state-wide (Hayes and Watson 2021). *In Section 4.6.2.4 Special Status Species*, the DEIS states that “*PHS data document 41 Ferruginous Hawk nests within 2 miles of the Lease Boundary, including 10 within the Lease Boundary (WDFW 2022a).*” Breeding Ferruginous Hawks are sensitive to the density of wind turbines. A recent study of *Buteo* hawk nest success and post-fledgling survival in the Columbia Plateau Ecoregion observed decreased nest success for Ferruginous Hawks and lower *Buteo* hawk fledgling survival in association with greater wind turbine densities (Kolar and Becher 2016). According to Ferruginous Hawk nest data we acquired from WDFW, the Project is in an area of relatively high importance for Ferruginous Hawk nesting activity in Washington State, warranting careful consideration of potential impacts to the statewide population (Figure 2).

The DEIS calculates potential direct and indirect habitat loss based on a Ferruginous Hawk 2-mile core habitat and 6-mile range habitat for documented nest locations. There appears to be an issue with this analysis. For reasons that are unclear, the DEIS limits the analysis to just two active nests that were observed by the Applicant during field surveys, rather than all documented nests in the vicinity. According to the state Ferruginous Hawk species expert, Ferruginous Hawk may reoccupy vacant nest territories after many years of absence, and protection of nesting territory viability, including unoccupied nest territories, is a core component of species recovery in the state (J. Watson, pers. communication). The DEIS estimate of potential direct loss of ~7,800 acres of Ferruginous Hawk range habitat and indirect loss of ~42,849 acres of range habitat is based on just two nests and vastly underestimates potential impacts to the species. Based on telemetry data in Washington and Oregon, the average home range of a nesting pair is ~10km (6.2 miles) radius from the nest (unpublished data reference by J. Watson in Jansen et al. 2022). All nests within this radius of the project should be considered in the Applicant's calculation of direct and indirect loss. According to our analysis, there are 51 documented nest sites within 6 miles of the lease boundary, which would result in impacts to Ferruginous Hawk core and range habitat across the majority of the Project Lease Boundary area (Figure 3), including native shrub-steppe habitat within the Fourmile Canyon Linkage area.

Raptors like Ferruginous Hawk are at high risk for mortality from wind turbines because they have wind-specific flight behaviors that increase their likelihood of encountering turbine blades (Tethys.pnnl.gov: raptors). The Applicant's population viability analysis demonstrates that reduced survival and territory occupancy resulting from the project can have synergistic effects on ferruginous hawk populations viability (Jansen and Swenson 2022). The scale of habitat loss and risk of mortality, territory abandonment and reduced foraging and nest success associated with the proposed Project is clearly incompatible with the species' recovery in Washington. Proposed mitigation measures (below) to site Project components away from Ferruginous Hawk core habitat "when feasible" is insufficient and leaves too much discretion to the Applicant to reduce the potential impact of the Project on the population. The proposed micrositing corridors and layout of turbines under Option 1 and Option 2 include 69 and 41 turbines, respectively, within the 2-mile core area buffer for Ferruginous Hawk, and may cause decreased nest success and/or abandonment of those territories (Figure 4a, Figure 4b). All PHS Ferruginous Hawk nests within the Lease Boundary should be buffered at a minimum of 2 miles from turbine locations, and loss of core and range habitat for all documented nest territories within 6 miles of the turbines should be mitigated.

Conclusion Issue 2B - Ferruginous Hawk. Once again, the DEIS fails to identify and consider sufficient mitigation measures for Ferruginous Hawk. The turbine-siting and curtailment mitigation measures suggested by the Applicant are insufficient to account for and mitigate the loss of habitat and potential mortality, territory abandonment and reduced nest success likely to occur relative to the importance of the area for the statewide population.

The DEIS also fails to use the best available science in the calculation of direct and indirect habitat loss and the exposure index for Ferruginous Hawk (Adams et al. 2017; see Issue 3). The omission of this science will render decisionmakers and the public unable to fully analyze and consider the ramifications of the proposal.

Based on the omission of this analysis, the DEIS erroneously concludes that impacts associated with the operation of turbines, solar arrays, and comprehensive Project will be limited to the Project Lease Boundary, when they should be regional in scale (e.g., Kolar and Bechard 2016). The final EIS must commit to specific siting decisions that eliminate turbines within 2 miles of Ferruginous Hawk locations and mitigate appropriately for habitat loss across the entire Project Lease Boundary area to

avoid high magnitude, constant, unavoidable impacts to the Ferruginous Hawk population at the regional level.

If the FEIS does not include such commitment, it must clarify the extent of these avoidable adverse environmental impacts, so that decisionmakers and the public can fully understand the ramifications of the decision that is being made.

The DEIS evaluation and determination of significance is not supported by the findings and conclusions

Rule: SEPA WAC 197-11-440 (6)(c) requires that the EIS describe and discuss significant impacts that will narrow the range or degree of beneficial uses of the environment or pose long term risks to human health or the environment.

Analysis 3a - Species Exposure Index. *In Section 4.6.2.2, the DEIS describes the use of a “species-specific exposure index to assess the risk of bird mortality from collisions with proposed turbines. The index is a relative measure of species-specific risk to turbine collisions that considers local abundance, proportion of observations in flight, and observed flight heights (GAL 2022: Appendix 4.6-1)”.* However, the best available science indicates that criteria related to flight behavior and population vulnerability should be included when evaluating bird exposure and vulnerability to turbines (Adams et al. 2017).

The DEIS goes on to conclude that the bird fatality rate associated with the Project is likely to be like that of the 16-year average fatality rate at Nine Canyon Wind Project in Benton County. It’s not clear that Nine Canyon Wind, with 63 turbines, is a biologically appropriate analog (e.g., habitat, wildlife density), and unless avian mortality data was collected using protocol-level surveys, incidental reporting of avian mortality is misleading, potentially biased, and inappropriate for comparison for this Project.

Analysis 3b - Magnitude of Impact. *In Section 4.6.1, the DEIS explains the methods used to determine impact magnitude, which includes a consideration of species adaptability, defined as the species’ ability to accommodate disturbance through changes in behavior, physiology, or population characteristics, and resilience, the ability of a species or ecosystem to recover from disturbance.*

However, an analysis of the potential magnitude of impact of the Project on population regulation must consider both compensatory mortality and additive mortality, which is mortality that has population-level effects. Species with low populations levels and low reproductive rates like Ferruginous Hawk are more vulnerable to population level effects from mortality due to collision with turbines or other direct and indirect impacts. This contrasts with a compensatory source of mortality, which causes no reduction in total survival until it reaches some threshold value.

The DEIS omits this scientific analysis and does not explain the reasons for and ramifications of this omission. The FEIS should include these and other scientific best practices.

Analysis 3c - Best Available Science. Specific claims relevant to the determination of the scale and magnitude of impacts in Section 4.6 lack citations or fail to use the best available science. Examples related to birds include:

4.6.2.2 Wildlife Mortality from Operation of Turbines

On p. 4-156, DEIS states that *“available data from existing facilities suggest that passerine mortalities associated with turbine collisions may not result in population-level changes.”* However, evaluation of indirect impacts to wildlife should consider the findings of Conkling et al. 2022, which found that 48% of

23 priority bird species killed at wind and solar facilities in California were vulnerable to population-level effects from added fatalities caused by renewables and other sources.

On p.4-157, the DEIS states that *“raptors are reported to have higher exposure indices for shorter turbines than taller turbines and therefore are considered to be more susceptible to collisions with turbines under Option 1.”* Citation needed.

4.6.2.4 Burrowing Owl

On p. 4-170, the DEIS states that *“modified habitat under solar facilities may continue to provide burrowing owls with habitat, particularly where post-construction remediation may improve plant diversity, such as within existing agricultural land.”* We know of no science that supports this claim.

On p. 4.-171, the DEIS states that *“Burrowing owls are not expected to interact with turbines because the rotors would be above the general flight height of this species.”* This statement is untrue; Burrowing Owl are one of the top four raptors killed by turbine collision at Altamont Wind Pass, with estimates of up to 100 deaths/year (Smallwood et al. 2010).

4.6.2.4 Golden Eagle

On p. 4-174, the DEIS states that *“The Project may result in direct and indirect foraging habitat loss, though foraging habitat is not expected to be limited on the landscape or a limiting factor to golden eagle populations.”* Citation needed; the Washington Department of Fish and Wildlife states that Golden Eagle are a species of concern in Washington due to “declines in the distribution and abundance of its primary prey species, jackrabbits and ground squirrels,” (wdfw.wa.gov), suggesting that loss of foraging habitat is in fact a limiting factor for the species.

Conclusion Issue 3 a-c: At this time, the predicted magnitude of impact of turbine operation is not supported by the DEIS evaluation and findings. The final EIS should 1) include a species exposure index for wind turbines that accounts for flight behavior and population vulnerability, 2) address additive mortality for low population size/low reproductive rate species like Ferruginous Hawk, 3) use the best available science to evaluate potential impacts to special status species such as Burrowing Owl and Golden Eagle.

For issues 3.a through 3.c above, DEIS omits this scientific analysis, and does not explain the reasons for and ramifications of this omission. The FEIS should include these and other scientific best practices, or explain their omission so that EFSEC decisionmakers and the public can be fully informed about the impacts of the Project.

The DEIS lacks identification and analysis of reasonable alternatives

Rule: SEPA WAC 197-11-440 (5)(b) requires that the EIS identify and analyze reasonable alternatives, including the proposed action, that can reasonably attain the project’s objectives at a lower cost and a decreased level of environmental degradation.

Analysis: The DEIS dismisses consideration of alternatives other than the proposed action. In *Section 2.2.2 Alternative Carried Forward for Detailed Analysis*, the Solar Only and Wind Only alternatives were eliminated from detailed analysis because they would not generate the 1,150 MW generating capacity required by the Applicant. Only the No Action Alternative was carried forward for analysis in the Draft EIS. Both the Confederated Tribes and Bands of the Yakama Nation and the Confederated Tribes of the Umatilla Indian Reservation expressed concerns about cultural resources within the Project Lease Boundary and the uncertain relationship between the proposed generating capacity of the Project and hydroelectric power management in their scoping comments (Yakama 2021; Umatilla 2021).

Together with our concerns about environmental impacts, it is not clear why a 1,150 MW generating capacity was selected or whether it is even feasible, or reasonable. In fact, according to Paul Krupin, (pers. communication) the 1,150 MW objective is inconsistent with BPA capacity.

It is also not clear why the DEIS includes no alternative that incorporates any of the recommended mitigation measures set forth by WDFW, as further discussed above. The FEIS must remedy or explain this omission.

Reproduced from P. Krupin, with permission:

“As illustrated and explained in Table 1, the current BPA Large Interconnection Protocol requests on record, to date, indicate that the project is 850 MW, with up to 350 MW going through the Boffer Substation and up to 500 MW going through the Webber Canyon Substation. Within that 850 MW, there are a range of reasonable solar and wind turbine generation combination options that can readily be analyzed and discussed. This analysis also indicates that the proposed action in the DEIS contains turbines in excess of the number of turbines needed to attain the Project objectives, and that turbines and associated project components can be eliminated from consideration and still meet the underlying purpose of the project. These proposals clearly illustrate that alternatives exist that can attain the project’s objectives at a lower cost and a decreased level of environmental degradation.”

Table 1. Reproduced with permission from Paul Krupin

Horse Heaven Wind Project Power Generation Analysis Five Options-Wind/Solar Mixes and Turbine Sizes														
Small Turbine Size-Limit 244 Turbines						Large Turbine Size Limit-150 Turbines								
Option A		Option B		Option C		Option D		Option E						
HHE-250mw Wind+100mw Solar=350mw		HHE-250mw Wind+100mw Solar=350mw		HHE-250mw Wind+100mw Solar=350mw		HHE-250mw Wind+100mw Solar=350mw		HHE-250mw Wind+100mw Solar=350mw						
HHW 250mw Wind+250mw Solar=500mw		HHW-200mw Wind+300mw Solar=500mw		HHW-No Wind+500mw Solar=500mw		HHW 250mw Wind+250mw Solar=500mw		HHW-No Wind+500mw Solar=500mw						
Total Project Nameplate-850mw		Total Project Nameplate-850mw		Total Project Nameplate-850mw		Total Project Nameplate-850mw		Total Project Nameplate-850mw						
2.82mw Turbines-244	HHE	HHW	2.82mw Turbines-244	HHE	HHW	2.82 Turbines-244	HHE	HHW	5.5mw Turbines-150	HHE	HHW			
Wind Nameplate (mw)	250	250	Wind Nameplate (mw)	250	200	Wind Nameplate (mw)	250	0	Wind Nameplate (mw)	250	250			
Turbines Required-#	88	88	Turbines Required	88	70	Turbines Required	88	0	Turbines Required	45	45			
Total Project Need #	176		Total Project Need #		158		Total Project Need #		90		Total Project Need #	45		
Unnecessary Turbines #	68		Unnecessary Turbines #		86		Unnecessary Turbines #		60		Unnecessary Turbines #		105	
Notes														
1 HHE-Horse Heaven East, Phase 1 BPA Future Substation In Bofer Canyon Vicinity														
2 HHW-Horse Heaven West, Phase 2, BPA Future Substation in Webber Canyon Vicinity														
3 Horse Heaven East (Bofer Canyon, Phase 1) and Horse Heaven West (Webber Canyon, Phase 2) are separate and distinct Projects.														
4 Project Capacity-850mw Nameplate Based Upon BPA Transmission Limit of 350mw on The Franklin McNary Line servicing Phase 1 of the Project Horse Heaven East														

Conclusion: Reasonable Alternative. The final EIS must include the identification and analysis of reasonable alternatives to meet the requirements of **WAC 197-11-440(6)(A)** and **(6)(B)**.

We request, and believe that SEPA and good governance practices require, that the FEIS consider an new alternative configuration that unequivocally adopts WDFW’s recommended mitigation measures, including:

- Eliminating turbines within a 2-mile radius of Ferruginous Hawk nests and between Sheep and Webber Canyons;
- Reducing the density of turbines in the Fourmile Canyon linkage area (e.g., Figure 4a, 4b);
- Designing the East Solar Field to eliminate the creation of a pinch point for wildlife connectivity, and;
- Conducting habitat restoration within the Fourmile Canyon linkage area.

The alternative proposal should include meaningful discussion, analysis and consideration of the siting measures recommended by WDFW in their 2021 comment letters (WDFW 2021; 2021b) and in their direct correspondence with EFSEC and the Applicant. It should also reduce the overall number of turbines and remove any turbines that are located within 2 miles of Ferruginous Hawk nests. Similarly, impacted tribes should be consulted about the development and design of an alternative proposal in a manner consistent with their sovereign and treaty rights.

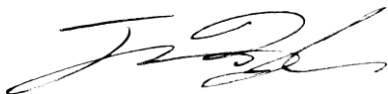
Conclusion

To reiterate, Audubon is a steadfast proponent of the efficient adoption of renewable and clean energy across Washington State. But to allow for adequate environmental review, the final EIS for Horse Heaven Hills must include a specific site design, identification and analysis of a reasonable alternative that minimizes impacts to environmental resources, a closer examination of the likely environmental impacts associated with specific siting decisions, and specific mitigation measures and associated performance measures that address the regional-scale impact to species populations and habitat connectivity.

Audubon firmly believes that the build out of renewable energy infrastructure in Washington can be accomplished in a way that is compatible with birds, wildlife, and tribal rights and cultural heritage. To achieve this, Project proponents and EFSEC must work closely with Native American Tribes, the Washington Department of Fish and Wildlife, and natural resource stakeholders like Audubon to design and incorporate siting solutions that avoid and minimize impacts to at-risk wildlife and tribal cultural resources and maintain landscape connectivity linkages.

Thank you for your consideration of our comments. We look forward to working with you as this process moves forward.

Sincerely,

A handwritten signature in black ink, appearing to read 'Trina Bayard', written in a cursive style.

Trina Bayard, Ph.D.
Director of Bird Conservation

References

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Figure 1. Arid Lands Initiative Core Areas and Linkages (USFWS 2015).

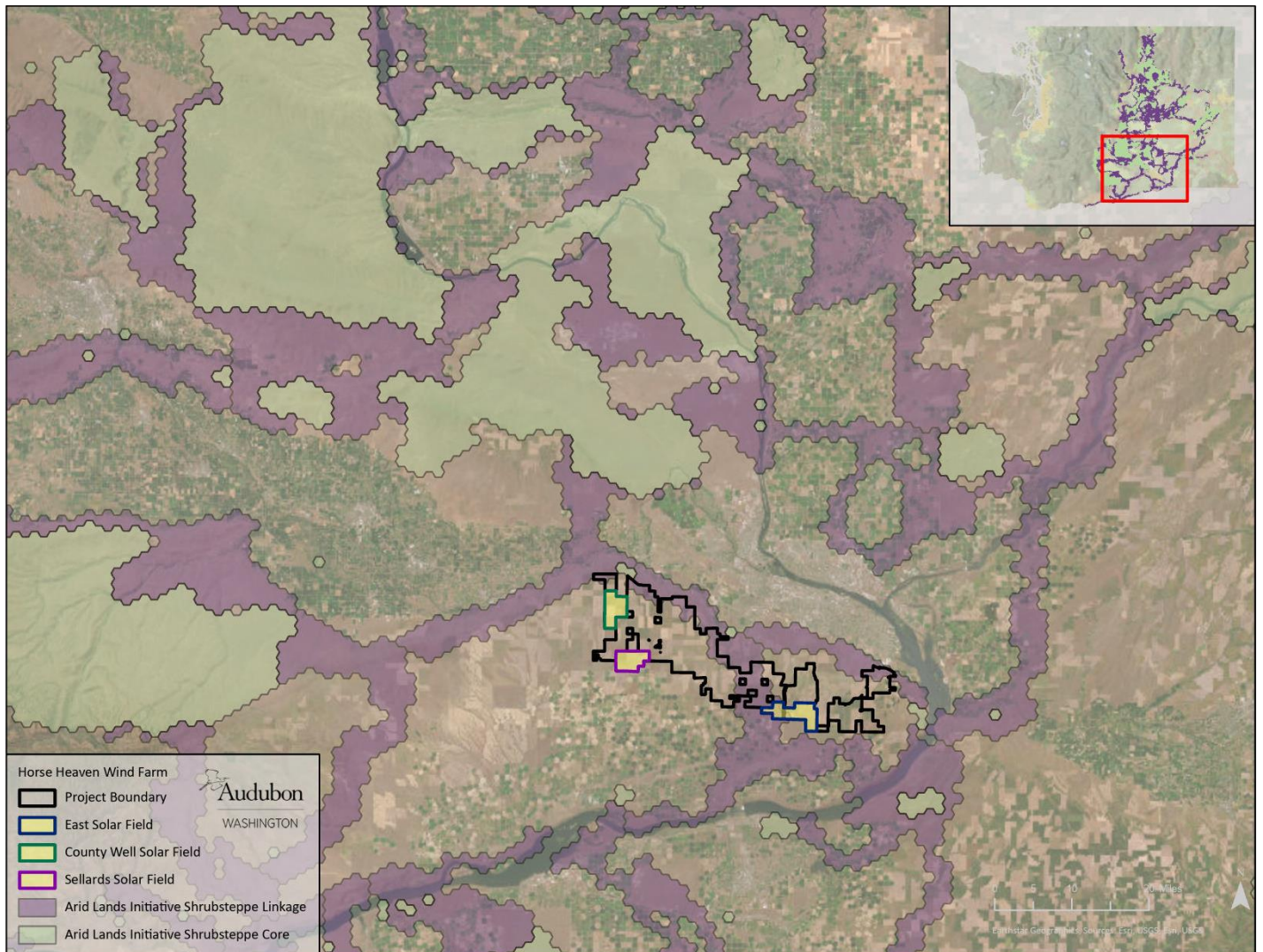


Figure 2. Ferruginous Hawk Nest Density (source: WDFW).

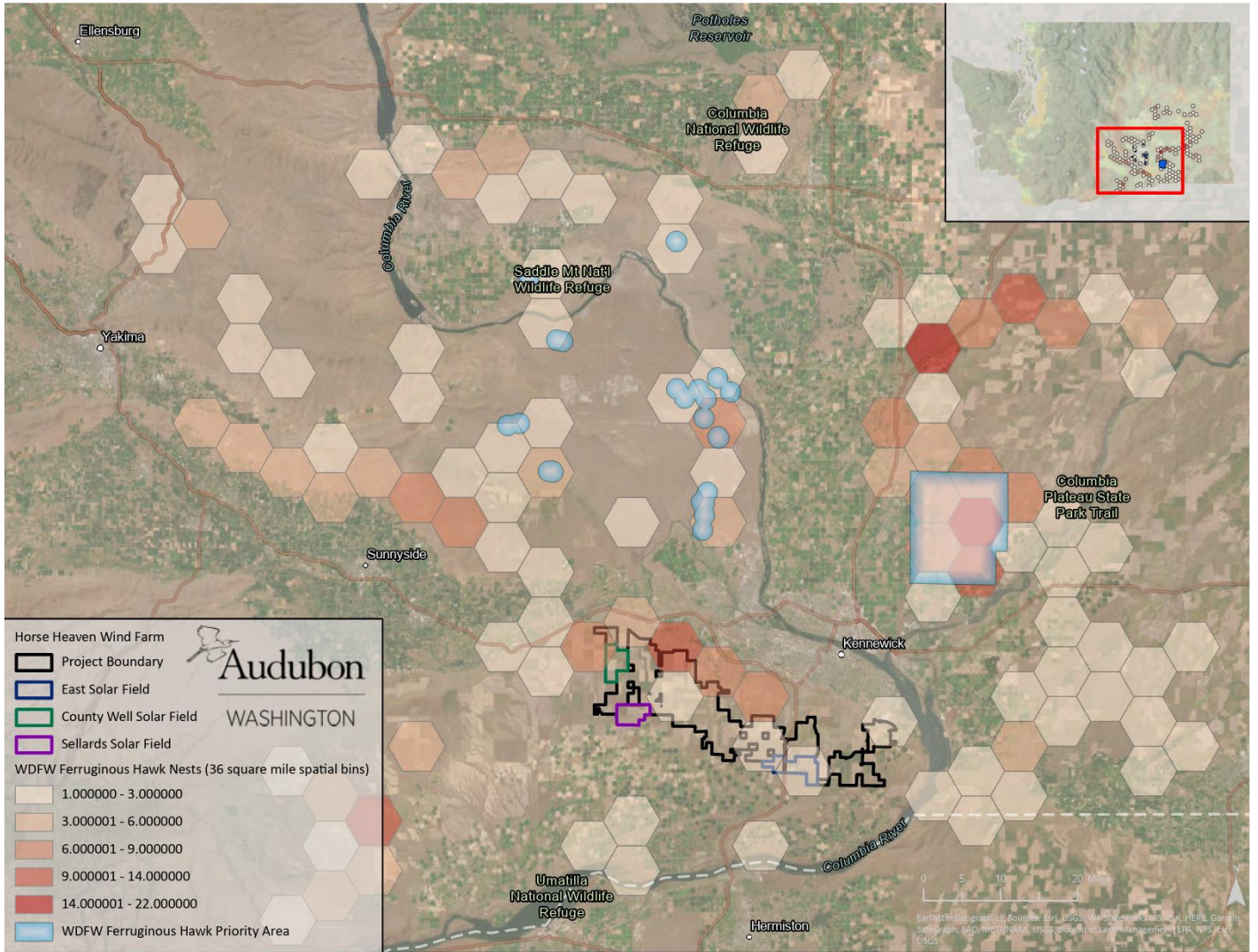


Figure 3. Proportion of Project Lease Boundary and habitat types within 6-miles (home range) of Ferruginous Hawk nests. Only the SW corner is outside the Hawk's home range.

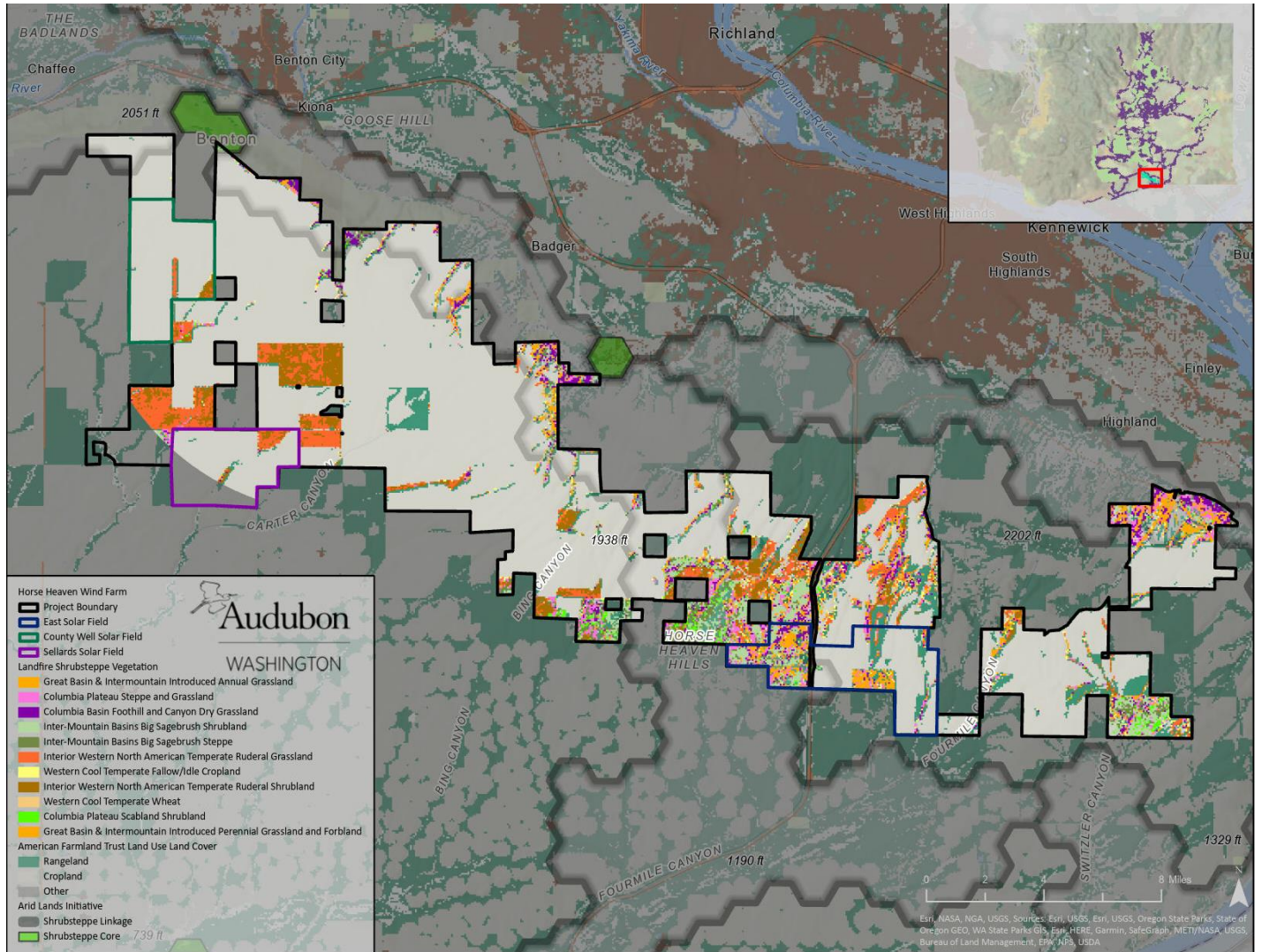


Figure 4a. Sixty-nine of the 244 proposed turbines in Layout Option 1 are within 2 miles of Ferruginous Hawk nests.

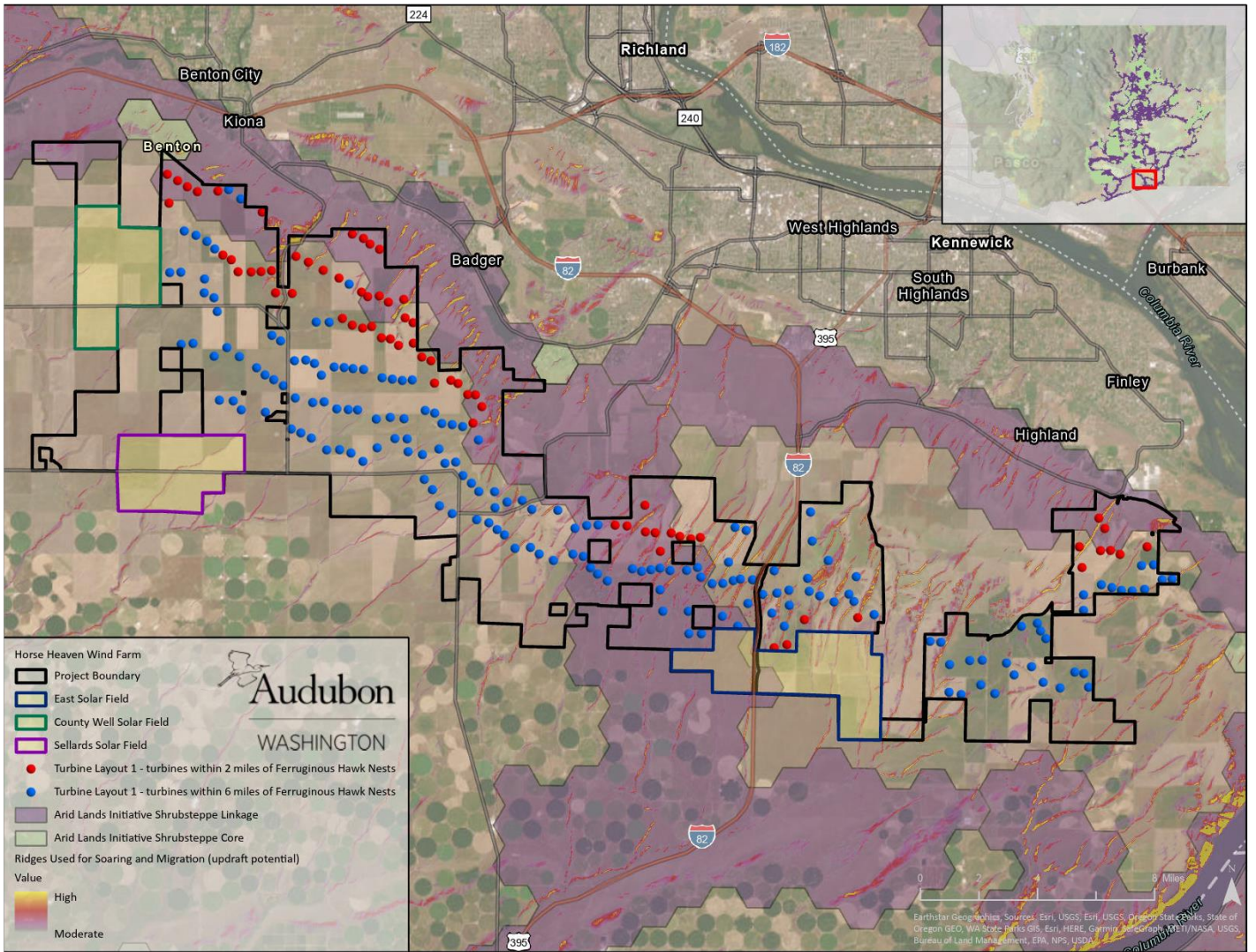


Figure 4b. Forty-one of the 150 proposed turbines in Layout Option 2 are within 2 miles of Ferruginous Hawk nests.

