February 1, 2023

Via Email to EFSEC and the EFSEC SEPA Comment Page Web Form

RE: Comments on the DEIS for the Horse Heaven Hills Wind Farm Project Draft Environmental Impact Statement

On behalf of TC Cares and Save Our Ridges, and numerous individual reviewers, we are submitting the attached comments on the Horse Heaven Hills Wind Farm Project Draft Environmental Impact Statement.

We do not believe this project should move forward in its current condition. The SEPA process is flawed and the DEIS is filled with errors, omissions, and misrepresentations regarding the Project's purpose and need, premise, financial feasibility and viability, proposed action, lack of feasible reasonable alternatives, lack of mitigation measures, and the significance of environmental and community impacts that cannot be avoided.

Even in spite of these flaws and issues, the DEIS clearly demonstrates that the Project will bring about more harm than good. It is imperative that EFSEC search, develop, analyze and present alternative solutions that actually meet the need for power generation and do not impose such damage on the environment and the communities of Benton City, Richland, Kennewick, and Finley, as well as the rest of Benton County and the Tri-Cities and beyond.

The following summarizes the list of contestable issues describing the many flaws of the project, the DEIS, and EFSEC's review of the project:

The EIS is Poorly Done

- The DEIS is lengthy, complex, piecemeal, filled with obfuscation, and contains a plethora of would's and may's vs wills.
- The DEIS fails to describe the project, impacts, and mitigations with any certainty which makes a mockery of the SEPA process and abuses the SEPA process and the public.
- The developer appears to be using the SEPA process to push a foregone conclusion without proper rationale and justification.
- There are repeated and re-iterated errors, omissions, and misrepresentations. The DEIS contains cascading errors and omissions that render the document unusable for rational decision-making.
- The DEIS is poorly done and uses out-of-date publishing technology. It contains poor maps that are too small and fuzzy with misleading coloration and not enough detail. It is very difficult to see the project component locations which means the public is unable to identify exact turbine locations in order to complete an accurate analysis of the impacts. We needed to create our own turbine location maps.
- The DEIS fails to make use of digital GIS mapping tools to help the agencies explore and fully understand the environment and the impacts of proposed actions and alternatives.
- The DEIS does not contain maps of the project that identify micrositing corridors and turbine locations suitable for a reasonably accurate analysis of the impacts.

Integrity of the SEPA Process Is Questionable

- The ASC was updated on December 1 without proper public notice. The scope and magnitude of the changes in the ASC Update on December 1, 2022, makes the entire SEPA Process questionable. The ASC should be revoked and reissued and the DEIS should be reissued with a new comment period.
- EFSEC did not perform independent validation of the data contained in the many SEPA Elements of the Environment. Any proof of quality validation by EFSEC is lacking and there are a myriad of errors, omissions, and misrepresentations throughout the DEIS that should not be there if a validation had been properly performed.
- The EFSEC consultant repeatedly just incorporated the developer's consultant's work verbatim using copy and paste. This raises serious conflict of interest issues since work done for the Applicant carries a risk of inherent bias in favor of the Applicant's project.
- The DEIS lacks "impartial discussion" and is plagued from beginning to end by a noteworthy lack of detail and a verifiable lack of commitment to WAC requirements and mitigation.

Purpose and Need for the Project

- The DEIS fails to adequately establish a feasible purpose and need for this project. The project's funding and high price tag, as much as $1.7 billion, is not described and renders the project impracticable.
- The DEIS does not contain a reasonably detailed description of how this project is being funded. Who is going to pay for this project and how? Who paid for the consultants and how much did they get paid?
- No off-taker for the power has been identified at all.
- The DEIS fails to explain the purpose and need for a 19-mile transmission line.
- The DEIS fails to identify and analyze the impact the project will have on climate change.
    - The DEIS fails to identify, document, and demonstrate that the project does anything at all to mitigate the cited near-term and long-term impacts from climate change.
    - The DEIS fails to establish a pressing need for the energy that will be produced by this project.

Proposed Action and Alternatives

- The history of the power generation requests (BPA LGIP) are not consistent with the Project's nameplate power generation claims. They claim to have the necessary authorizations to provide 1150 MW, but the documentation only indicates 850 MW.
- The project nameplate capacity of 1,150 MW is not supported by the record. The DEIS and the Updated Redlined ASC repeatedly describe the nameplate capacity in error.
- Fails to justify the need for the proposed action at 1150 with interconnection capability, is only supported at 850 (LGIP requests), and fails to clarify the Boffer Canyon Substation limit of 350 MW.
- The DEIS fails to identify and analyze the impacts the project will have on the Nine Canyon project.
    - There has been no identification or analysis of the effects and impacts of a phenomenon known as blocking, which decreases turbine performance when an upwind wind project is too close to a downwind project.
- The DEIS dismisses consideration of alternatives other than the proposed action without a rational basis and justification.

- The DEIS fails to identify and evaluate the costs and benefits of any reasonable alternatives that can be demonstrated to feasibly attain or approximate the project's objectives, but at a lower environmental cost or decreased level of environmental damage.

Impacts on People in the Affected Environment

Visual

- The DEIS fails to adequately identify and evaluate the visual impacts of the project on people in the Tri-Cities.
- The DEIS Visual Assessment Report contains numerous errors, omissions and misrepresentations which render the document ineffective as a basis for decision-making under SEPA.
- The DEIS fails to describe and evaluate the project based on the CESA Guidance 2021 regarding "Unreasonable or Undue Visual Impacts".
- The DEIS visual simulations contain numerous errors and omissions and misrepresentations.
- The DEIS fails to accurately describe the visual impacts of Option 1 and Option 2 on people.
- The Applicant's commitments to mitigation of visual impacts in the DEIS are minimal, ineffective, and unacceptable.
- The DEIS fails to recognize that visual impacts on Benton County are significant and disproportionate when compared to every other wind project in the State of Washington.
- The DEIS visual assessment fails to apply the BLM and CESA Guidance adequately to describe and evaluate the impacts on people in proximity to the project. An area of analysis of 25 miles will be more appropriate in midwestern and western landscapes, open terrain, drier air, and larger wind projects (hundreds vs. dozens of turbines) creating a larger mass visible over greater distances.
- The Applicant's, and therefore the DEIS's, visual assessment did not select Key Observation Points and Representative Viewpoints adequately.
- The DEIS fails to describe and evaluate the value of the dark skies at night on the Horse Heaven Hills project.
- The DEIS fails to describe and commit to commonly used, FAA-approved light mitigation technology utilizing aircraft detection lighting systems to mitigate light pollution.

Population

- The DEIS fails to characterize, analyze, or provide enough information to allow reviewers to quantify the level of impact to population.
- The DEIS fails to accurately identify and quantify that a large number of mid-range viewers, in particular, are impacted. There is no substantiative mitigation offered.
- The DEIS fails to identify and evaluate the Benton County policy goals meaningfully and then fails to recognize the importance that the features hold for the County and its residents.
- The DEIS fails to describe and evaluate the visual impacts on wineries.
- The DEIS fails to accurately describe and evaluate the scenic resource attributes and sensitivity levels.
- The DEIS does not accurately describe and evaluate the location, proximity, and impact on people who live in close proximity to the project. The distances described in the DEIS are in error and misrepresent the real conditions found at the present time.
- The ASC and the DEIS fail to identify and evaluate the impact of the project and feasible alternatives using a suitable analysis of population within the affected environment.

Fugitive Dust Emissions

- The DEIS fails adequately identify, describe, and evaluate the significant and unhealthy adverse impacts fugitive dust emissions that will be caused by the project.
- The DEIS fails to identify, describe, and evaluate feasible alternatives that can reasonably control and mitigate the health hazards from the fugitive dust emissions caused by the project.
- The DEIS fails to adequately identify, describe, and evaluate that unacceptable conditions will occur from the road construction disturbance and cause significant environmental impacts that will affect over 100,000 people in the Tri-Cities. Project monitoring of PM2.5 and PM 10 is inadequate.
- The DEIS does not provide for adequate project air monitoring and mitigation plans do not identify and commit to any increased monitoring of PM 10 and PM 2.5.

Wildlife

- The DEIS fails to describe and evaluate special status wildlife and their habitats.
- The DEIS contains numerous errors, omissions, and misrepresentations regarding the project wildlife resources and the impacts on wildlife and their habitats.
- The DEIS assessment of wildlife is shallow and fails to adequately describe and evaluate the significant near-term and cumulative impacts the project will have on 20 special status wildlife species (two are endangered) and on their habitat and prey.
- The DEIS ignores and disregards the mitigation recommendations in the several Washington Department of Fish and Wildlife letters.
- The DEIS fails to identify and evaluate specific turbine locations that are known to cause significant impacts.
- The DEIS fails to propose or even contemplate any remedy if that remedy entails turbine elimination or relocation.
- The DEIS makes no mention of the elimination or relocation of turbines located in essential wildlife corridors that preserve connectivity of wildlife habitat and foraging areas.
- The DEIS does not identify, describe, and evaluate wildlife resources, in particular special species, outside the boundary area even though they are clearly in the affected environment under the WAC.
- The DEIS fails to evaluate impacts the project will have on wildlife outside the project boundary.
- The DEIS contains no analysis of cumulative effects to habitat, especially the east/west wildlife corridor along the ridgeline of the Horse Heaven Hills.

Inadequate Mitigation

- The DEIS avoids mitigation commitments and defers the development and selection of mitigation measures to the FEIS and a Technical Advisory Committee selected by the Applicant.
- The DEIS does not include an adequate planning horizon that considers mitigation.
- The DEIS fails to provide adequate information about the indirect and cumulative impacts from the proposed action, and any reasonable feasible alternatives.
- The DEIS fails to identify and describe reasonable measures that can be taken to mitigate and minimize the visual impacts on the environment.
- The DEIS fails to adequately identify and describe effective mitigations for wildlife habitat and special species.

The Horse Heaven Hills Project isn't green at all. The project need for the project is unproven and will force dependence on giant, mechanical monsters which have very little impact on climate change at all.

This project has nothing to do with protecting the earth from the impacts of climate change and power. Instead, it is dedicated to corporate profits at the expense of the public and the impact on the local environment. Spending $1.7 billion dollars on this project, much of it is taxpayer money, is irresponsible, unnecessary, unacceptably damaging and wasteful.

I. Legal Background

Under Washington State law, EFSEC is responsible for siting and licensing the construction and operation of major energy facilities in Washington State. EFSEC is conducting its review process as outlined in Chapter 80.50 Revised Code of Washington (RCW) and Title 463 of the Washington Administrative Code (WAC) for the Proposed Facility.

As the state lead agency, EFSEC is charged with preparing the Draft EIS in accordance with the Washington State Environmental Policy Act SEPA Rules. Chapter 197-11 WAC.

EFSEC is required to obtain missing or incomplete information in accordance with WAC 197-11-080, Incomplete or unavailable information, which states in part:

> (1) If information on significant adverse impacts essential to a reasoned choice among alternatives is not known, and the costs of obtaining it are not exorbitant, agencies shall obtain and include the information in their environmental documents.
>
> (2) When there are gaps in relevant information or scientific uncertainty concerning significant impacts, agencies shall make clear that such information is lacking or that substantial uncertainty exists.

Nearly all of the comments presented below are based on requirements found in the provisions of the SEPA Rules Chapter 197-11 WAC. Several of them refer to other sections of the WAC.

Significant unavoidable impacts are those impacts that remain significant, even after all mitigation measures committed to by the Applicant or recommended by EFSEC have been applied.

The Draft EIS is required to identify mitigation measures to address potentially significant adverse environmental impacts from the Proposed Facility. These measures cannot be deferred to the FEIS.

In some instances, the identified mitigation would reduce but not completely eliminate the significant adverse impacts and the DEIS must identify these as unavoidable and significant adverse environmental impacts.

II Comments on the Horse Heaven Hills DEIS

The DEIS is Poorly Done

<u>The Project is Not a Farm</u>

The use of the word “Farm” in the title of the DEIS, is a misrepresentation from the very start which is repeated a myriad of times throughout the cover letter, summary document, the DEIS and appendices, the historic records associated with the ASC, and all associated project documentation. The use of the word “farm” is misleading since it is not growing any crop for harvest at all. The use of the words "farm" and "windmill" gives the impression of innocence, insignificance and American as apple pie.

The project is not an agricultural activity under the regulations at all. The use of the words “wind farm” terminology is a distortion used in public relations to bias the view of the public towards something perceived to be green, eco-friendly, and not industrial and more damaging.

The Project is an “Alternative Energy Source” using wind and solar to generate electricity under Chapter 183 RCW 80.50.020 (1) (a) and (b). It is also considered to be an “Energy Facility” under Chapter 183 (11)(a).

Recommended Action: The DEIS and all associated documentation with the Project should be revised and utilize the definitions in the WAC accurately and consistently.

Cascading Errors and Omissions Render the Document Unusable for Rational Decision-Making

> **WAC 197-11-400 (2) states:**
>
> **An EIS shall provide impartial discussion of significant environmental impacts and shall inform decision makers and the public of reasonable alternatives, including mitigation measures, that would avoid or minimize adverse impacts or enhance environmental quality.**

In almost every case, the errors, omissions and misrepresentations contained in the DEIS are failures and flaws which are first identified in the beginning sections of the DEIS, namely, the Purpose of the EIS, Description of the Proposal or in the Description of the Affected Environment.

These failures and flaws then cascade into subsequent sections of the DEIS and are causally connected to additional flaws and failures found in the Lack of Alternatives, the Impacts of the Proposed Action, the Mitigation Measures, and the Cumulative Impacts Sections of the DEIS.

Remedying these errors, omissions, and misrepresentations must be done carefully and EFSEC must recognize that all the sections of the EIS are interrelated and must be made consistent with the necessary changes identified in the public review and adjudication processes. Examples include:

- The DEIS fails identify, quantify and analyze power generation needs and capabilities.
- The DEIS simply copies and pastes numerous reports created by the developer’s consultant for the ASC and fails to conduct any independent validation of the information contained in those reports.
- The DEIS fails to identify, characterize and analyze numerous elements of the environment adequately and understates the impacts on the affected environment and people.
- The DEIS fails to identify feasible alternatives that can meet the project objective and result in far less degradation and destruction of the affected environment.
- The DEIS fails to identify mitigation measures to protect the environment from long-term degradation and destruction of the environment.

These and other errors and omissions trigger a cascade of subsequent failures that spiral through the DEIS starting with the failure to identify and analyze the impacts to the affected environment, which then results in no suitable alternatives being identified and analyzed, and then in no suitable mitigation being identified and analyzed, and no cumulative impacts being identified and analyzed.

These issues occur throughout the DEIS and thus render the document useless as a rationally prepared document for proper decision-making under the laws of the State of Washington.

Recommended Action: The DEIS needs to be completely redone. EFSEC needs to start over and do a properly researched EIS that recognizes the elements of the affected environment adequately, includes alternatives that would, by design, and by location, mitigate the egregious and significant impacts to any reasonable alternative actions.

The DEIS Publication is Poorly Done and Uses Out-of-Date Publishing Technology

> WAC 197-11-425 Style and size.
>
> (4) The text of an EIS (WAC 197-11-430(3)) normally ranges from thirty to fifty pages and may be shorter. The EIS text shall not exceed seventy-five pages; except for proposals of unusual scope or complexity, where the EIS shall not exceed one hundred fifty pages. Appendices and background material shall be bound separately from the EIS if they exceed twenty-five pages, except if the entire document does not exceed one hundred pages or a FEIS is issued under WAC 197-11-560(5).

The DEIS published by EFSEC online is lengthy, complex, piecemeal, filled with obfuscation, and is exceedingly difficult to read and use online. The website is a list of links to pdf files that are hundreds of pages long. Reading each major section of the EIS is a huge undertaking. Chapter 3 – Affected Environment contains 370 pages. Chapter 4 Analysis of Potential Impacts contains 647 pages. All told, the DEIS is a huge document containing over 1,300 pages and over 150 pages of attachments.

The manner in which this document has been published is out of date with current digital publishing technology and methods. The way this document was published resulted in a disrespectful, massive waste of valuable time on the part of everyone who sought to read, review, and comment on this document.

> **WAC 197-11-425 Style and size.** (1) Environmental impact statements shall be readable reports, which allow the reader to understand the most significant and vital information concerning the proposed action, alternatives, and impacts, without turning to other documents, as provided below and in WAC 197-11-402.
>
> (6) Agencies shall incorporate material into an environmental impact statement by reference to cut down on bulk, if an agency can do so without impeding agency and public review of the action (WAC 197-11-600 and 197-11-635).

Recommended Action: The DEIS and all the associated documentation needs to be thoroughly edited by skilled technical editors familiar with the styles and technologies used in digital publishing.

The DEIS Table of Contents needs to be thoroughly book-marked with live links that go directly to the internal sections of the document. This will save every reader and potential reviewer inordinate amount of time having to scroll through hundreds of pages to find the right section of the document. If the Table of Contents properly linked to bookmarks in all the internal sections, paging through the documents will no longer be needed.

A similar approach using links needs to be adopted and utilized everywhere in the document and all associated documents to make using these materials quicker and more efficient. Right now, every time one encounters and seeks to refer to an external document that is mentioned, one needs to open up a new browser to search for, find, and then read the reference text.

In Chapter 2, Proposed Action and Alternatives, there are more than 50 references to various locations and Sections of the ASC. The ASC is published the exact same way.

Using links will eliminate this gigantic, monumental waste of time on the part of every user of these documents and make the act of going to a section of a document and every reference nearly instantaneous.

Recommended Action: Live, tested, validated hypertext links need to be utilized in every SEPA document:

- that contains text that utilizes internal text sections, appendices, or references information contained in the ASC or any other related documents;
- that contains text that uses of references to the WAC, the RCW, or any other law or legal citation;
- that contains text that uses or references any scientific reference, media interview or article, or any other reported documented reference.

This change will dramatically improve the readability of the document and cause a dramatic improvement in the efficiency, effectiveness, and quality of the public review and comment process, and will significantly improve the quality of the SEPA process outcomes.

The DEIS needs to be revised and re-issued once these changes have been completed and a new public comment should be conducted.

The DEIS Lacks "Impartial Discussion" and is plagued from beginning to end by a noteworthy lack of detail and a verifiable lack of commitment to WAC requirements and mitigation.

The WAC 197-11-400 (2) requirement for "impartial discussion" is overwhelmingly ignored in the DEIS.

There is an overwhelming predominance of sentences containing the words "would" and "may" instead of the word "will".

Chapter 2 - Proposed Action and Alternatives uses the word "would" 279 times. The word "may" is used 19 times (although some of those refer to the month of May). The word "will" is used once.

Chapter 3 – Affected Environment uses the word "would" 591 times. The word "may" is used 127 times (although some of those refer to the month of May). The word "will" is used 55 times (some are names and some are quotes from regulations).

Chapter 4 – Analysis of Potential Impacts and Mitigation uses the word "would" 3,587 times. The word "may" is used zero times (although some of those refer to the month of May). The word "will" is used 64 times (some are names and some are quotes from regulations).

Chapter 5 – Cumulative Impacts uses the word "would" 140 times. The word "may" is used 31 times (although some of those refer to the month of May). The word "will" is used zero times.

The failure to describe much of anything in detail in every Chapter of the DEIS with a grounded, well-substantiated, fact-based degree of certainty makes a mockery of the SEPA process. It appears that the developer is abusing the SEPA process and disrespecting EFSEC, and dishonoring the public.

EFSEC is allowing the developer to misuse the SEPA process and push a single proposed action. They are presenting a blank check proposed action, as a foregone all-or-nothing conclusion, without proper rationale and justification, repeated and re-iterated errors, omissions, misrepresentations.

Recommended Action: The DEIS needs to be completely redone. EFSEC needs to start over and include writing that provides details and appropriate alternatives that would, by design and location, mitigate the egregious and significant impacts to any reasonable alternative actions.

The DEIS Avoids Mitigation Commitments and Defers the Development and Selection of Mitigation Measures to the FEIS and a Technical Advisory Committee

The DEIS repeatedly states that the Applicant would wait to develop mitigation actions in coordination with a Technical Advisory Committee (TAC) prior to Project operation.

The DEIS Chapter 4 - Page 4-4 states

> Mitigation is identified in the Draft EIS, after considering the application of existing laws and rules and all applicant-identified commitments to the Project. In Chapter 4, it is referred to as "Recommended Mitigation." These mitigation measures may be imposed by EFSEC pursuant Fto their authority under Revised Code of Washington 80.50 or through the use of their SEPA "substantive authority," which provides the ability to condition or deny a proposal based on environmental impacts (WAC 197-11-660). Mitigation decisions are at the discretion of EFSEC. These may include, but not be limited to, mitigation identified in the EIS, other mitigation identified outside the EIS, or mitigation identified during adjudication.
>
> The development of mitigation is ongoing during the SEPA process and can even continue after that process is completed. That allows for mitigation to evolve and be refined as more information is collected during the whole EIS process, including the public comment period. ***Mitigation that may be applied to a project, should it be approved, does not have to be finalized during the SEPA process (e.g., development of mitigation by a Technical Advisory Committee formed for an approved project, or EFSEC imposed mitigation that is identified during adjudication)***. However, any mitigation that is applied to a project using SEPA substantive authority must meet the requirements of WAC 197-11-660 Substantive authority and mitigation. One requirement of WAC 197-11-660, section (1)(b), states: "Mitigation measures shall be related to specific adverse environmental impacts clearly identified in an environmental document on the proposal and shall be stated in writing by the decision maker." In this case, the environmental document is the Final EIS and the decisionmaker is EFSEC. Therefore, it is very important for the Final EIS to identify all the impacts of the proposal.

The Project is seeking to avoid specifying and making mitigation commitments. This creates a significant delay in the public and all the people in the affected environment being kept in the dark regarding whether they the significant impacts of the Project will be mitigated or not. This flies in the face of the requirements of WAC 173-11-440 (6)(c) which states:

> (c) This section of the EIS shall:
>
> (i) Succinctly describe the principal features of the environment that would be affected, or created, by the alternatives including the proposal under consideration. Inventories of species should be avoided, although rare, threatened, or endangered species should be indicated.
>
> (ii) 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, such as storage, handling, or disposal of toxic or hazardous material.

(iii) Clearly indicate those mitigation measures (not described in the previous section as part of the proposal or alternatives), if any, that could be implemented or might be required, as well as those, if any, that agencies or applicants are committed to implement.

(iv) 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. The EIS need not analyze mitigation measures in detail unless they involve substantial changes to the proposal causing significant adverse impacts, or new information regarding significant impacts, and those measures will not be subsequently analyzed under SEPA (see WAC 197-11-660(2)). An EIS may briefly mention nonsignificant impacts or mitigation measures to satisfy other environmental review laws or requirements covered in the same document (WAC 197-11-402(8) and 197-11-640).

(v) Summarize significant adverse impacts that cannot or will not be mitigated.

The developer has objected to developing alternatives, has not identified and evaluated elements of the environment, has failed to develop reasonable alternatives and is not seeking to defer making commitments to mitigation measures.

The developer has met with agency biologists and failed to make any commitments to address and commit to the recommendations received numerous times. The DEIS does not even mention or cite to these discussions.

This is just a delay and avoid tactic.

EFSEC may not have the authority to create and use a Technical Advisory Committee. The TAC convened by the Applicant lacks independence and will not be able to issue findings or recommendations to be used by those with decision-making power to act on the key Proposed Action and Alternatives.

Some Washington State Agencies have created and utilized TAC's under specific circumstances when expressly granted statutory authorization under the Revised Code of Washington and the Washington Administrative Code.

- A technical advisory committee authorized by RCW 79.66.010 shall provide professional advice and counsel to the board regarding land bank sales, purchases, and exchanges involving urban property. Notes Wash. Admin. Code § 332-21-050 Statutory Authority: Chapter 79.66 RCW. 84-19-008 (Resolution No. 465), § 332-21-050, filed 9/10/84.
- The Washington Department of Health has authority to appoint a TAC to assist in a number of activities. WAC 246-260-191 Technical advisory committee.
- The Washington RCW authorizes the Department of Education to create and manage a TAC. RCW 28A.175.075 Advisory committee—Composition—Duties—Reports. (2)
- Solid Waste Advisory Committees were created under RCW 70.95.040 and then repealed effective June 30, 2010.

SEPA has not been expressly authorized to create and utilize Technical Advisory Committees but EFSEC and other agencies nonetheless have done so on several occasions. EFSEC does not have rules regarding the use, management, and authority to use a TAC.

https://www.efsec.wa.gov/search/google/technical%20advisory%20committee#gsc.tab=0&gsc.q=technical%20advisory%20committee&gsc.sort=

EFSEC did create a TAC for the The Wild Horse Wind Facility. There are reports available here:

https://www.efsec.wa.gov/efsec-document/Wild%20Horse%20Wind%20Power%20Project/Compliance/docGroup/TAC%20%28Technical%20Advisory%20Committee%29

This is a pretty low-key effort and the track record from TACs like this example demonstrates that this vehicle cannot really be trusted to protect the environment or people. It is too little, too late.

Recommended Action: EFSEC should promulgate rules and specific detailed guidance regarding the creation, use, responsibilities, and authorities of Technical Advisory Committees on energy projects.

Using a TAC is not appropriate in the Horse Heaven Hills Project given the scope and magnitude of the Project, and the complexity and the controversies associated with the core issues that are being addressed through the SEPA Process.

On Tuesday January 31, 2023, President Biden said that climate change is a bigger threat to humanity than nuclear war.

Governor Inslee is on record that he is committed to achieving bold, "science-based limits" on the greenhouse gas emissions that are causing our climate to change".

Reference: https://www.governor.wa.gov/sites/default/files/ClimateBrief-Dec2020.pdf

The key question is whether the Horse Heaven Hills Project, and other projects like it, will be able to do anything at all to protect us from climate change.

What does the best science really tell us? And how are we going to identify good projects which can truly satisfy the needs identified from bad ones which cannot?

Recommended Action:

EFSEC, with concurrence of the Governor and in cooperation with the tribes and local counties and cities, should convene a blue-ribbon commission (or a panel or committee) of exceptional people who are appointed to independently investigate, study and analyze the difficult and complex problems being caused by climate change, global warming and energy generation in Washington and the underlying purposes and premises for projects like the Horse Heaven Hills Project.

The members of this blue-ribbon commission should be selected using a best and brightest approach to assure independence from political influence or authority.

The commission should be charged with utilizing their expertise and experience to consider and evaluate the "science-based limits" and then issue scientific, programmatic and project-specific findings and recommendations which can then be used by decision-makers to take action on energy facility projects and proposals such as the Horse Heaven Hills Wind and Solar Project.

The blue-ribbon commission should be charged with identifying, describing and evaluating the validity of the Purpose, Need, and Underlying Premises in energy projects to assure they can help achieve climate change goals and objectives.

Their review should also evaluate the project proposals and the alternatives proposed by the Horse Heaven Hills Project, to assure they that can meet the goals and objectives of the policies and requirements of the State of Washington.

The blue-ribbon commission should make specific recommendations regarding the need for the projects, the validity of the underlying purpose and need, the project components and their associated geographic locations, and an evaluation of whether key component can potentially be eliminated or relocated to reduce the significant impacts to people and the environment.

No formal action should be taken on the Horse Heaven Hills Project until the findings and recommendations regarding the validity of the underlying purpose and need for the project, are provided by the blue-ribbon commission.

This commission should prepare a draft report, give public presentations, take public comments, and then finalize its findings and conclusions and present recommendations for consideration by the Administration, the Legislature, as well as interested federal and state, tribal, and local government agencies, Tribal governments, other stakeholders, and the public.

Integrity of the SEPA Process Is Questionable

The ASC was Updated on December 1 without proper public notice.

Even the most cursory review of the ASC Update from December 1, 2022 shows massive numbers of revisions and substantive changes on dozens and dozens of pages. No public notice was provided.

In addition, there is a lengthy biological effects document that was only prepared and distributed on January 9, 2023.

EFSEC should have given those who submitted scoping comments or otherwise expressed interest in the project notice that the ASC had been amended.

Moreover, the DEIS itself should have provided notice that the ASC had been amended and adequate time should have been provided for a meaningful public review.

The Update to the ASC raises serious questions about the integrity of the SEPA process and compliance with the WAC.

Recommended Action: Both the ASC and the DEIS should be revoked and reissued with a new comment period.

The DEIS Public Comment Process is Being Poorly Conducted

WAC 197-11-455 defines the Issuance of the DEIS. WAC 197-11-502 talks about Inviting Comment

The DEIS was published on Dec 19 right before Christmas and New Year's holiday period. This poorly timed decision to release the DEIS immediately impacts the fair review of the DEIS by the public and unfairly cuts into the available time allowed for review.

The weather in the Tri-Cities was also snowy and poor which made it difficult to nearly impossible to do any field investigations of the Project area at all. Lack of access to the site was also hampered by road conditions. McBee Road was closed and access was not feasible directly from Benton City.

The DEIS is not available in Spanish and a significant number of minority citizens will be affected by the project. This basically ignores and impacts a large and disproportionate number of people who live in the adjacent affected environment.

The DEIS was distributed digitally and no paper versions were provided to the public.

The DEIS was not distributed to the Benton City Library and over 30 percent of the population of Benton City is hispanic. Minority populations are being needlessly harmed to advance the project and these practices should not be allowed.

Recommended Action: Re-issue the DEIS and publish a Spanish edition, conduct a focused effort to notify and engage with the minority populations in the affected environment, and make copies available in Benton City Library.

EFSEC did extend the period of review and comment to 45 days. Additional requests were submitted to EFSEC asking for an additional extension but the agency did not respond at all. An email was sent to request EFSEC clarify the confusion over the deadline for comments, and in response, EFSEC did extend the comment deadline by one day.

The amount of time allotted by EFSEC is not adequate for an DEIS as extraordinarily long and complicated and poorly constructed as this DEIS. A 30 day review and comment period with a 15 day extension may be appropriate for a 150 page long EIS.

But this EIS is not the size of the EIS contemplated by the WAC. It is logical to assume that an extended period of time, say 90 days, should be allowed for a DEIS that is nearly 2,000 pages long with all associated documentation.

Recommended Action: If the agency cannot exercise authority to extend the comment period on this DEIS, then this DEIS should be redone and re-issued, after all the major problems identified can be remedied. A new DEIS or a Supplemental DEIs should then be published and a new public comment period once a revised DEIS is published. Make the document user friendly and easy to read and comment on.

EFSEC is Not Using Social Media

Why isn't EFSEC On Facebook?

Many Federal and State and County Agencies are making routine use of social media for public education, public notice of things of interest, pending reviews, and of course, comment during NEPA and SEPA reviews.

EFSEC is only using the Internet and email and phone. At the present time, people must camp on the EFSEC website or be registered for email notifications to stay current on what EFSEC is doing. However, many people do not use email and only see the Internet on their cell phones. EFSEC is falling behind the technology being utilized by people. The presentation methods are cumbersome and slow. EFSEC needs to embrace the new technologies and come up to speed on how to make the best possible use of these technologies.

Recommended Action: EFSEC needs revamp how it communicates with the public using social media technology. EFSEC needs to hire a technology-savvy social media consultant to identify and deploy ways to improve the effectiveness of the everything the agency does that results in contact and

communication with the public. EFSEC needs to be on Facebook and Twitter and actively notify and engage with the public in real-time.

The DEIS fails to make use of digital GIS mapping systems that are now readily available to help the agencies and the public explore and fully understand the environment and the impacts of proposed actions and alternatives.

SEPA requires lead agencies conduct clear, concise and consistent evaluations, coordinate public review; and ensure the development and issuance of EIS's and proper SEPA records. EFSEC makes decisions on projects or other energy generation actions in the State of Washington. The EIS documents major environmental impacts of a proposal and describes measures that can be taken to mitigate those impacts. The manner in which these matters is presented determines the quality of the process and the outcome.

The DEIS uses an archaic decades old style of presenting text, tables, color graphics using paper styled maps. The resulting quality of the documents are poor. The maps in particular are poor - the scale of the maps is so large it makes it exceedingly difficult to show the elements of the environment of the entire site on one page. The resolution of digital GIS information resolves this quality problem.

This is the Map titled Proposed Disturbance Map Figure 2-2 from DEIS Chapter 2 – Project Background and Purpose.

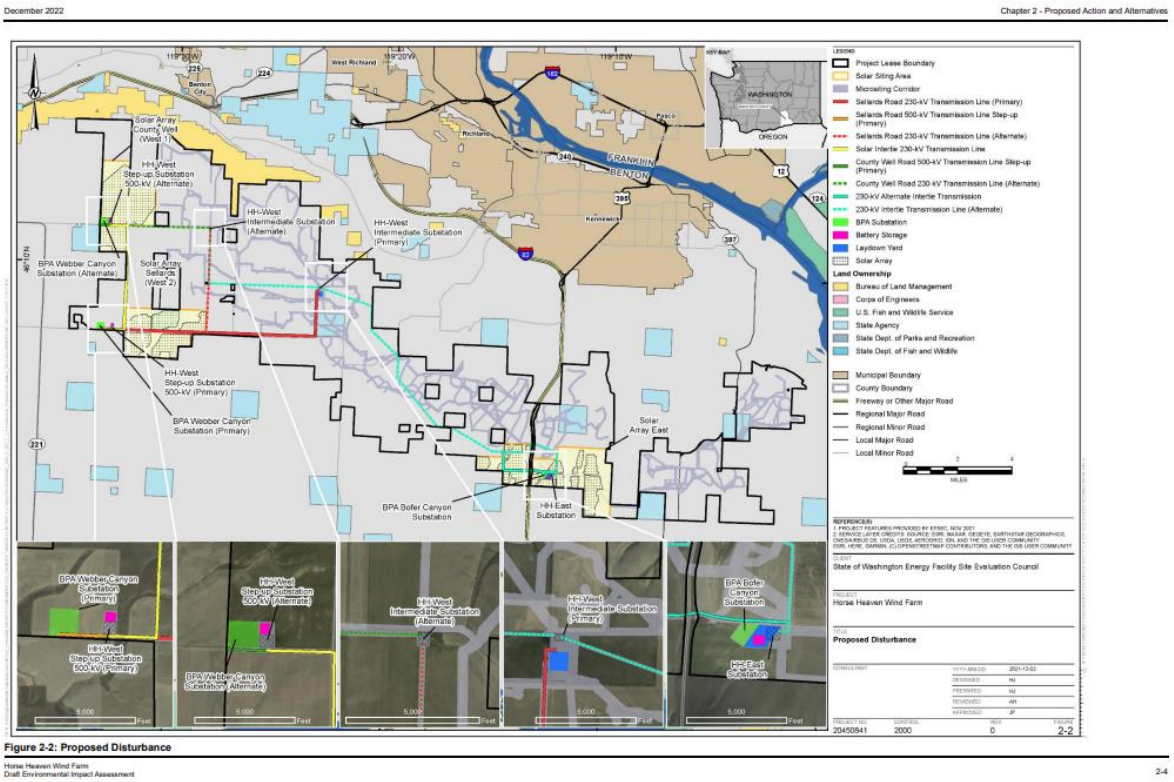


Figure 2-2: Proposed Disturbance

The details on the maps are fuzzy, the colors for the legends are often of such poor contrast it makes it exceedingly difficult to distinguish where specific elements are located and how they relate to project components. While the developer and EFSEC contracts may have used GIS tools to conduct their survey, they did not make use of these technologies in the DEIS effectively.

The DEIS did not carry forward the map sets that were used in the ASC, which did offer present information on relevant selected elements of the environment in sets of maps with 11 pages at a larger scale. These color maps were at a suitable scale for a reasonable analysis of the some of the elements of the environment.

But neither the DEIS nor the ASC presents maps that identify and number key project location including proposed micrositing corridors, turbines, solar arrays, roads, transmission lines, substations or other infrastructure components. These maps do not offer the detail needed at a scale that allows a reviewer or a government official charged with making decisions the ability to rationally understand and assess the proposed actions and alternatives, and the environmental and social impacts that result the proposed actions and alternatives.

GIS is a readily available tool that that can be used to assess the spatial distribution of social impacts. It makes it much easier to show how the proposed projects and alternatives intersect and conflict with elements of the environment. They can be used to create highly effective tools that depict and explain the conflicts at the intersection of engineering and environmental elements, political policies, developmental regulations, media influences, environmental pressures, globalization, and human rights.

References:

https://proceedings.esri.com/library/userconf/proc97/proc97/to200/pap171/p171.htm

https://storymaps.arcgis.com/stories/9f8caef8d9ee49f4ae73cf2df26b09a0

https://www.esri.com/en-us/lg/industry/government/stories/assessing-impact-new-developments-using-3d-gis-tools-lynwood-wa

Numerous federal, state, county and city agencies are utilizing digital interactive GIS tools to help navigate the governmental document and database management. Using these types of tools to navigate the SEPA process will dramatically improve the efficiency and effectiveness of all the agencies involved and make best use of the limited resources (staff and funding) that are tasked with the role of developing and reviewing SEPA documents in an expedited manner. Had digital interactive tools been developed for this Project, the SEPA Process would have been streamlined and there would have been a community input process that would have been more effective, far less time consuming and highly beneficial.

Project design layers need to be easy to access and imposed on the elements of the environment so people can readily explore and understand the effects of the proposed action on elements of the natural and built environment. Interactive maps can be panned and zoomed right down to reveal details at

specific trees, homes, and structures. Interactive GIS tools can be used in the DEIS to help people writing the EIS as well as by people reviewing and commenting on the EIS.

Recommended Actions: *The DEIS needs to use readily available digital interactive GIS tools to make it easier for reviewers and decision-makers to explore and explain the conflicts between the proposed action and alternatives and the required elements of the natural and built environment. Using GIS in the SEPA process and documents can dramatically improve the quality of the communication of key issues related to proposed actions and alternatives and the evaluation of the impacts to the environment and mitigations contemplated.*

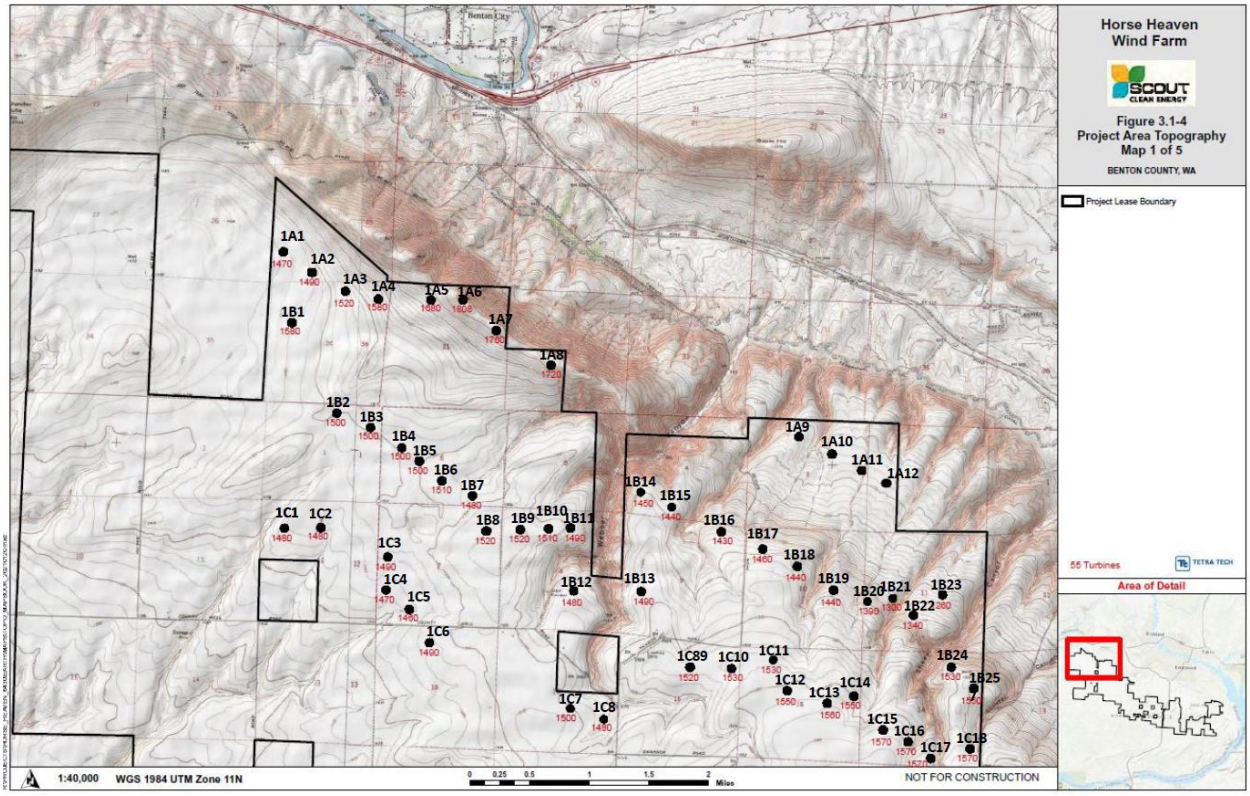
The DEIS does not contain maps of the project that identify micrositing corridors and turbine locations suitable for a reasonably accurate analysis of the impacts.

In particular, the lack of turbine numbers in the layout maps for Options 1 and Option 2 make it very difficult to identify and analyze conflicts with elements of the environment.

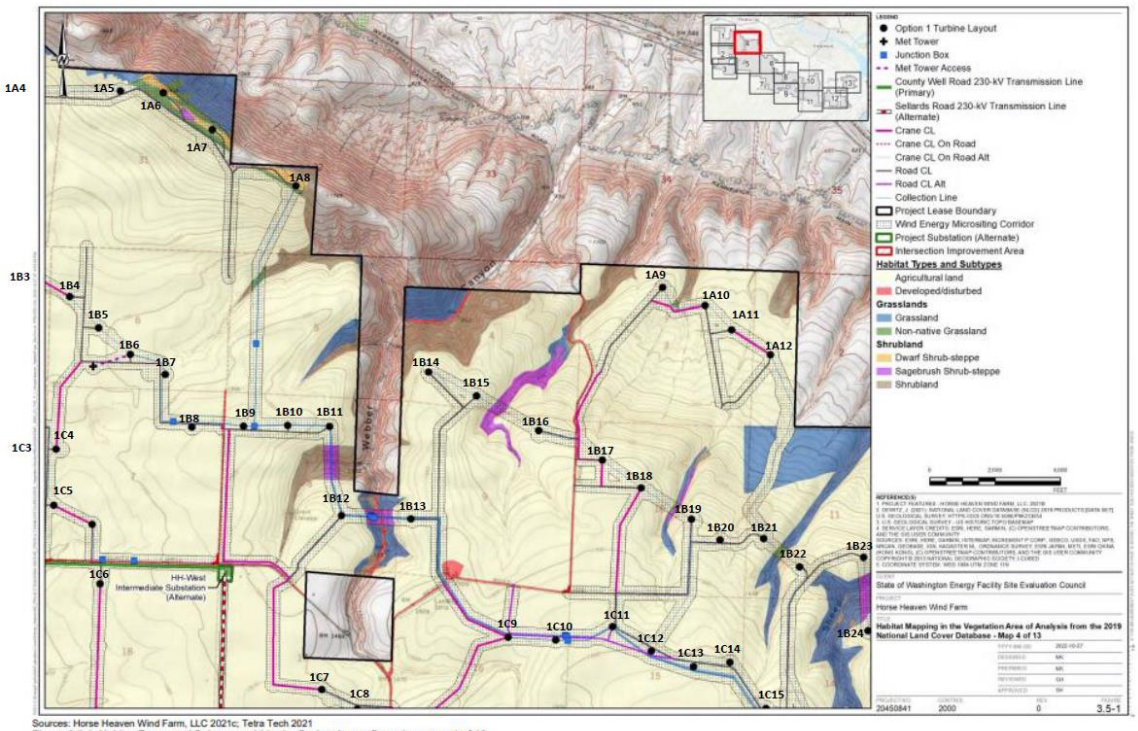
In order to conduct a proper review and develop comments that did identify problem project components, reviewers Dave Sharp and Paul Krupin made use of the Benton County Interactive GIS Data base systems and the Cal Topo Digital Mapping System.

Turbine location maps were created by transferring by hand, the location of the turbines on the Option 1 and Option 2 Project Component Maps to digital maps in the Benton County GIS and in Cal Topo.

These maps were then utilized to conduct analysis of the DEIS. Here is an example page – one of five that were created, that shows the Project turbine locations for Option 1 on a USGS Topographic Map Layer.



Here is another example of a project component map lay placed on top of Habitat Types and Subtypes Map on Page 3-58 of the DEIS. The turbine numbers make it much easier to identify and evaluate conflicts of the proposed action and potential alternatives that can reduce the impacts on the environment.



Sources: Horse Heaven Wind Farm, LLC 2021c; Tetra Tech 2021

Figure 3.5-1: Habitat Types and Subtypes within the Project Lease Boundary page 4 of 13

Recommended Action: Project component map layers with numbers need to be utilized in a digital interactive GIS mapping system along with data sets for all appropriate elements of the natural and built environment so that easy and efficient analysis of potential conflicts can be conducted and achieved.

Purpose and Need for the Project is Questionable

The DEIS fails to adequately establish a feasible purpose & need for this project

The statement of purpose and need are essential to the SEPA process as it establishes the lead agencies' scope of review. The statement of purpose and need forms the basis upon which the agency compares alternatives. It is not appropriate for an agency to comprise a purpose so vague or narrow as to dismiss reasonable alternatives from consideration without rational justification.

The DEIS Part 1 Project Background and Purpose lists four guiding principles from RCW 80.50.010. Pages 1-4 and 1-5 state in pertinent part (with emphasis added):

- It is the policy of the state of Washington to reduce dependence on fossil fuels by recognizing the need … [] … and *mitigate the significant near-term and long-term impacts from climate change* while conducting *a public process that is transparent and inclusive* to all with particular attention to overburdened communities.
- It is the policy of the state of Washington to recognize *the pressing need* for increased energy facilities, and to ensure through available and reasonable methods that the location and operation of all energy facilities and certain clean energy product manufacturing facilities will produce minimal adverse effects on the environment, ecology of the land and its wildlife, and the ecology of state waters and their aquatic life.

The DEIS fails to identify, document and demonstrate that the Project does anything at all to mitigate the cited near-term and long-term impacts from climate change.

The DEIS fails to present or even reference any evidence that the Project will have any positive impacts on climate change and global warming.

The DEIS fails to describe or justify how the Project contributes to helping solve climate change problem at all. The need for this particular project seriously needs to be questioned. Much of the alleged need for this project appears to come from well-stoked and poorly documented fears about global warming and climate change. In the haste for new sources of supposedly clean renewable energy, EFSEC runs the risk of being responsible for the destruction of the very environment they are charged with protecting.

This project deserves unprecedented scrutiny because of the significant environmental impacts it is going to cause. The statement of need and purpose cannot be nothing more than a post-hoc justification for an already decided project, rather than a well-founded trigger that prompts a well-coordinated, quality search for a well thought out solution to an established need.

Unless the project DEIS can demonstrate with a reasonable degree of rational scientific certainty that it will produce a benefits on climate change that outweighs the damage and destruction it causes, then the Project should be denied. There must be proof that the underlying premise meets the requirements of RCW 80.50.010. EFSEC must not just blindly assume that this Project is needed and can be supported. Too many people are going to be harmed.

Recommended Action: The DEIS must identify and describe the impact the Project will specifically have on climate change and global warming.

The DEIS Fails to Identify and Analyze the Impact Climate Change will have on the Project

The DEIS does not identify or present any information or evaluation of the impact climate change and global warming will have on the Project.

The state of Washington is forecast to experience several climate changes — summers are forecast to get hotter, storms may hit harder, wildfires may burn more frequently and burn longer, and extreme weather may also increase.

Will climate change undermine the ability of the Project to meet its stated purpose and need?

The types of climate changes that are forecast may have a profound and detrimental impact on the project. The best-informed and most up-to-date climate change projects are also accelerating the rates of warming globally and regionally.

The Washington State Department of Transportation, University of Washington, the U.S. Environmental Protection Agency and many other scientific organizations have written widely about the types of changes in store for the next few decades.

References:

Guidance for NEPA and SEPA Project-Level Climate Change Evaluations (cakex.org)

https://www.pugetsoundinstitute.org/2020/02/new-report-describes-anticipated-climate-change-effects-in-washington-state/

https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-wa.pdf

https://cig.uw.edu/learn/climate-impacts-in-brief/

https://cig.uw.edu/learn/climate-change/

In particular, will wind speeds and cloudy days change in a manner that will negatively affect the feasibility and viability of the project?

Will it reduce the amount of power that can be created during the life of the project in response to climate changes locally in the Project location?

These questions are not addressed in the DEIS at all. The DEIS must create a statement of purpose and need that takes climate change into account for this Project and carry that assessment into every section of the document as needed to properly forecast the impacts for rational decision-making.

Recommended Action: The DEIS must identify and describe the impact climate change and global warming will have on the Project.

The DEIS fails to establish a pressing need for the energy that will be produced by this Project

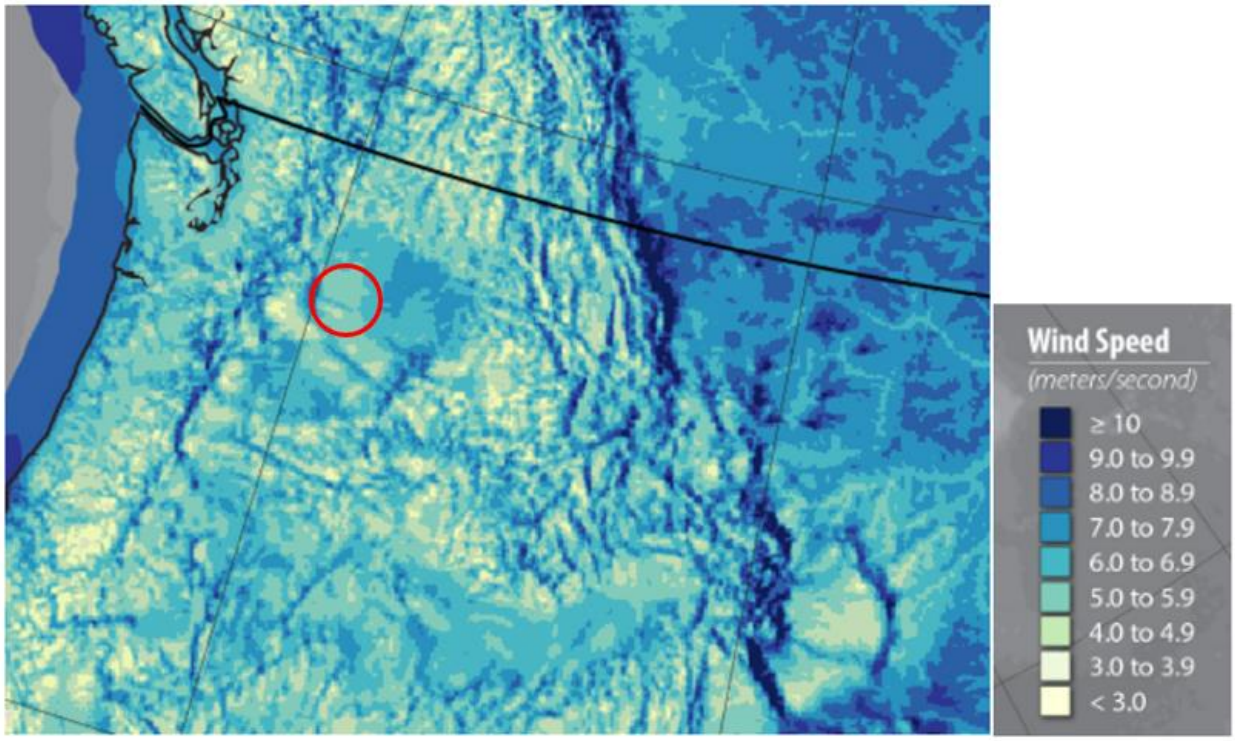
The DEIS Section 1.3 Purpose of the Proposed Action states in pertinent part:

> The purpose of the proposed Project is to provide 1,150 MW of renewable energy using wind energy and solar energy. The Applicant selected the Project location because it meets the following feasibility and viability criteria:
>
> - Commercially viable above-average wind speeds
> - Close proximity to existing transmission lines with sufficient available capacity to carry the Project's output to the grid

DEIS does not provide any data or information that validates the feasibility or viability of the Project whatsoever. There are no reports, data or other evidence in the record that EFSEC has utilized utility and power experts to guide them in what is needed to meet Washington State's power needs and that the Project is able to meaningfully contribute to them.

The DEIS fails to provide any wind speed information that validates this statement. There is no validation of the 1,150 MW being proposed, no validation of the wind speeds needed to make the project viable, no analysis of the capacity of the existing transmission lines to carry the output of the Project to the grid. There is no challenge to prove that the underlying purpose of the Proposed Action can truly and meaningfully fulfill the goals elucidated by the Legislature in RCW 80.50.010.

Experts will dispute that the area has commercially viable above-average wind speeds. Washington as a State is viewed as moderate wind speed, and the existing Nine Canyon Wind Project is at the heart of the best wind speeds available in the HHH. The National Renewable Energy Laboratory rates the overall state wind resource as moderate. The Horse Heaven Hills is not as well situated as sites in Idaho, Wyoming, and Montana. The best places in Washington are over by Ellensburg and the Gorge. The red circle on this digital map from the NREL Geospatial Data Science Wind Resource Maps and data website shows the approximate location of the Project.



North American Annual Average Wind Speed at 100 Meter level above Surface Level
https://www.nrel.gov/gis/assets/images/wtk-100-north-america-50-nm-01.jpg

Utility Integrated Resource Plans developed by Puget Sound Energy indicate that Montana has much better wind resources in the Winter months, and utilities looking toward the highest wind resources they can obtain. The Northwest utilities also have a pressing need, and it is not a pressing need for power. It is a pressing need for power at times of high demand. The hottest months, and the coldest months, when both solar and wind effectively fall on their faces; particularly wind. Very cold days are generally calm, while very cold days are usually sunny for at least solar works during the higher load day period. The Project will not produce power reliably to satisfy power on demand.

Power generation in the Pacific Northwest is a competitive situation and if this project gets built, it can expect it to run at a low-capacity factor. Northwest Utilities are focusing on power generation they can call on when needed. The Horse Heaven Hills Project could be stranded financially and operationally because it will not be able to produce and deliver power when it is needed.

In the July 2020 report "Wind Power and Clean Energy Policy Perspective". Rick Dunn, General Manager for the Benton PUD states,

"While Benton PUD acknowledges wind power development in the PNW will likely continue as Washington State utilities respond to the 2025 CETA deadline for eliminating coal-fired energy and in response to nearby state and corporate clean energy mandates and goals, we do not support further development of wind power in the PNW for the following primary reasons…"

The report then lists and explains six primary reasons why the Benton PUD does not support further development of wind power in the Pacific Northwest.

On page 14-15, the report concludes: "Benton PUD strongly supports the efforts of the NWPP, but we do not support further development of wind power in the PNW. We believe continued investments in large-scale wind farm development in the PNW will: (1) contribute very little to keeping the regional

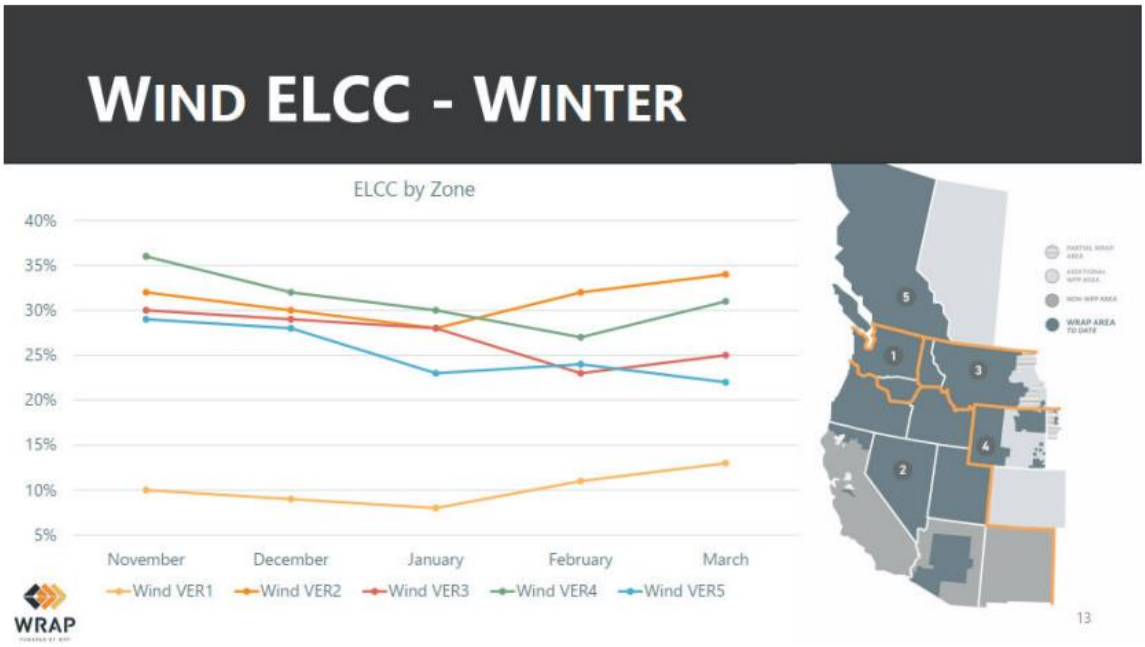
power grid reliable and will not help Benton PUD solve our seasonal energy deficit problems; (2) contribute to the devaluation of hydro-generation assets and put upward pressure on retail rates Benton PUD and other utilities charge our customers; (3) risk underinvestment in needed dispatchable capacity today and future investments in visionary advancements in nuclear energy technology; (4) further sacrifice scenic hillsides, canyons and desert vistas in our region for little if any net environmental benefit."

References:

https://www.bentonpud.org/getattachment/Safety-Education/Safety/Wind/Wind-Power-and-Clean-Energy-Policy-Perspectives-Report-Benton-PUD-FINAL-July-14-2020-(1).PDF.aspx?lang=en-US

The January 27, 2023 Report by Benton County PUD, Rick Dunn General Manager raises concerns serious concerns about the ability of the Project to generate power during certain times of the year. Page 1 to 2 states in pertinent part with a graphic depiction of wind ELCC for November to March:

> "What the WRAP team determined was Washington based wind power (Zone 1) provides the lowest effective capacity in the winter months of December through February of any region, with effective load-carrying capability (ELCC) ranging between 8% to 11% as shown by the "Wind VER1" graph. This is not surprising to us who live through winters in eastern Washington where we experience many days of high-pressure inversions resulting in deeply cold and windless days. Clearly the WRAP assessment shows not all wind farms are created equal. And when it comes to Washington wind, the science of power grid physics and analysis shows a stark difference in performance compared to other regions and should be a serious consideration, especially when wind farm development results in significant environmental and ecological impacts."



https://www.bentonpud.org/getattachment/Newsroom/Wind-Power-Development-Questioned-(1)/Washington-Wind-Farms-Rated-Lowest-for-Effective-Capacity-in-Winter-Benton-PUD-Perspective-FINAL-January-27-2023-(1).PDF.aspx?lang=en-US

The January 27, 2023 Report by Benton County PUD, Rick Dunn General Manager expresses a critical perspective and viewpoint as follows:

> So, when Governor Inslee says, "we have to succeed", we think it is reasonable to ask for a more comprehensive definition of success that is not 100% based on Washington state CO2 emission reductions in a vacuum defined by the state border. Success must be linked to the global problem you insist will be mitigated by our actions. And it seems reasonable to include limits on land-use informed by a sober and comprehensive assessment of what Washington's natural and rural landscapes will look like in the next ten to twenty years if your clean energy policy dominated by preferences for the most material and land-use intensive technologies in existence today (wind and solar farms) plays out. From our perspective Governor Inslee and Washington State officials have not developed or offered a compelling and convincing argument to justify the sacrifice of vast natural landscape including those near populated areas like the Tri-Cities. And clearly, Governor Inslee's expressed bias undermines the legitimacy of the Energy Facility Site Evaluation Council (EFSEC) process being used by wind and solar farm developers to bypass local planning authorities. In fact, taking the governor at his word, EFSEC is just what the state wants in place to implement "regulatory reforms…needed to prevent local opponents from delaying projects".

https://www.bentonpud.org/getattachment/Newsroom/Wind-Power-Development-Questioned-(1)/Governor-Inslee-Words-Undermine-State-Energy-Strategy-EFSEC-Process-Benton-PUD-Perspective-FINAL-January-27-2023.PDF.aspx?lang=en-US

EFSEC needs to engage, receive and incorporate relevant information from the Northwest Power Pool.

The DEIS needs to identify and describe the references and the detail the interface with integrated resource plans from Northwest IOU's.

DEIS does not identify, describe and evaluate the relationship between the Project and the Western Resources Adequacy Program (WRAP) and the Effective Load Carrying Capacity (ELCC) of renewable resources during high load months. Those initiatives show that both wind and solar power production, already intermittent and unreliable, drops even further during high load months in the Summer and Winter. Northwest Utilities are using this tool to validate and grade future possible generation sources. The data for the Horse Heaven Hills location does not rate well and does not appear to support the underlying premise for the Project.

While the Project is in proximity to transmission lines, BPA and the utilities in the Pacific Northwest are recognizing that a project with 30% capacity that has to secure 100% of the transmission line is not an effective use of the infrastructure. If a low-capacity wind project has large chunks of transmission tied up, that blocks others from using those transmission lines, and adds significant unnecessary costs for upgraded infrastructure.

The DEIS lacks information developed by power specialists to describe and quantify the proper balance of wind, solar and battery that can be utilized efficiently in the region and then explain how the Project will impact the present and future situation.

Recommended Action: The DEIS must be revised to validate the underlying premise that the Project can meet the legislative goals in RCW 80.50.010. The purpose and Need for the Project must be validated and a real need for the project must be demonstrated with a reasonable degree of certainty.

The DEIS does not include an adequate planning horizon

The DEIS does a very poor job setting a project planning horizon with a time frame selected to anticipate reasonably foreseeable events but long enough to capture events that will develop and cause conflicts over the course of several years of project operation.

The DEIS does not identify and discuss planning horizon at all in Chapter 1, Chapter 2, Chapter 3, Chapter 4, or Chapter 5 of the DEIS.

The DEIS does not analyze the impacts and alternatives the Project will have over a sufficient period of time to satisfy the requirements of SEPA.

A complete environmental assessment must extend through the period in which reasonably foreseeable circumstances would occur.

The basic purpose of the SEPA rules are to predict the environmental effects of a proposed action and the alternatives before the action is taken, so that the effects are fully known, and can be effectively mitigated.

The DEIS does not identify a planning horizon effectively, although the project life span is estimated to be 25 years. Without clearly establishing a planning horizon, there is no way for EFEC to analyze the impact of the Project and the efficacy of the project in the years to come. There is also no reasonable measure to select the best alternative or to analyze the impacts of the project, and SEPA's purpose is frustrated and its requirements rendered irrelevant.

Recommended Action: The DEIS needs to identify and describe a planning horizon and then carry that date forward consistently through the SEPA process from the beginning of the SEPA analysis into all required sections of the EIS, including socioeconomics and cumulative impacts and the final recommendations to the Governor.

The DEIS makes no mention of the projects financing, how it will be funded, and these relate to the benefits the project is supposed to achieve.

The developer has been quoted in the media that the cost of the Horse Heaven Hills Project is $1.7 billion. The DEIS does not contain any information that explains how the developer calculated this figure or how this is going to be funded. There is no breakdown of the costs and expenditures that contribute to this total. There is no way for the agency or the public to see that this number is correct.

The project feasibility and viability is based in large part on the Production Tax Credit (PTC) that allows owners and developers of wind energy facilities (land-based and offshore) to claim a federal income tax credit on every kilowatt-hour (kWh) of electricity sold to an unrelated party for a period of 10 years after a facility is placed into service. The high cost of the project may very well be the reason why the Project is being split into Phases to lower construction costs. The strategy also appears to seek to utilize the SEPA process to cover all future activities as a blanket, even though there is great uncertainty in how much can of the project can really be completed and over what period of time. Given the uncertainty in the power generation capacity, there is a strong possibility that the developer may seek to increase the project scope at some later period of time.

The financing and benefits that the Project receives is therefore of particular interest and needs to be subject to scrutiny during the SEPA process. The financial information should be disclosed to allow reviewers and EFSEC to understand the funding situation and validate the feasibility and viability of the Project. The financial considerations can have significant implications for traffic forecasts, land use

projections, the location and amount of disturbance, the level and location of air pollution sources, and many other environmental factors. EFSEC need to clarify what the actual project costs are in the DEIS. The DEIS needs to be revised to include this information for the project while in the planning process in a manner that allows for thorough review and meaningful public participation regarding the decision to proceed.

Recommended Action: This financial information for the Project and the EFSEC's management of the SEPA Review for the Project needs to be made available publically to achieve full disclosure and the transparency the legislature requires under RCW 80.50.010.

The DEIS does not contain any information regarding the costs for consultants for the Preparation of the DEIS and conducting the SEPA review and process.

> RCW 43.21C.034 Use of Existing Documents states in pertinent part with emphasis added:
>
> Lead agencies are authorized to use in whole or in part existing environmental documents for new project or nonproject actions, if the documents adequately address environmental considerations set forth in RCW 43.21C.030. The prior proposal or action and the new proposal or action need not be identical, but must have similar elements that provide a basis for comparing their environmental consequences such as timing, types of impacts, alternatives, or geography. ***The lead agency shall independently review the content of the existing documents and determine that the information and analysis to be used is relevant and adequate. If necessary, the lead agency may require additional documentation to ensure that all environmental impacts have been adequately addressed.***

The Project developer hired consultants to provide data and analyses in the ASC. These documents were cited and often times copied and pasted verbatim, directly into the DEIS by the EFSEC contractor. There is no information detailing the work that the EFSEC Contractor performed in the development of the DEIS or the costs entailed. There is no indication or documentation that shows that EFSEC has independently reviewed and determined that the information and analysis used is relevant and adequate. There is an inherent conflict of interest issue in utilizing studies paid for by the Contractor.

Recommended Action: The cost of the consultants hired by EFSEC to support the development of the DEIS and the SEPA Review for the Project needs to be made available publically to achieve full disclosure and the transparency the legislature requires under RCW 80.50.010. EFSEC needs to independently review the content of the existing documents and determine that the information and analysis to be used is relevant and adequate. If necessary, the lead agency may require additional documentation to ensure that all environmental impacts have been adequately addressed in accordance with the requirements in RCW 43.21C.034.

The Project Nameplate Capacity of 1,150 MW is Not Supported by the Record

The DEIS repeatedly cites the Project Nameplate Capacity to be 1,150 MW. This is not supported by the documentation on record.

> *Chapter 2, Proposed Action and Alternatives, Section 2.1.2 Pages 2-13 to page 2-18 including the Phased Operations section and Table 2-6 states in pertinent part:*
>
> *Table 2-6: Example of Project Planning*
>
> *Energy Generation*

Phase 1 650 MW with 350 MW generated via wind (consisting of 58 to 124 turbines, depending on the turbine size selected, plus 300 MWac generated via solar (consisting of the eastern solar siting area)

Phase 2 Alternative 1 500 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

The HH Wind Project generation capacity has been stated in the DEIS and the ASC as 1150mw.

However, an analysis of the BPA LGIP database records shows the maximum generation capability of the project is 350mw for Phase 1, and 500mw for Phase 2 for a total power generation capacity of 850mw. Energy storage is not included as nameplate as it is not considered a generating source.

The draft Environmental Impact Statement was issued with no alternatives other than the single proposed action and the no action. This is very unusual, particularly for a project that is so large and is impactful geographically and impacts resources at so many locations in so many ways. If EFSEC maintains this position, the Agency is saying in effect that there are no reasonable alternatives for this project that can be identified and evaluated that can meet project objectives with lower impacts and degradation.

A comprehensive review of the underlying records and data developed for the power generation needs in the Project is warranted and indicates that the ASC and the DEIS are in error and that the project can be completed with much less impact on the environment. The number of turbines needed can be reduced significantly and other turbines can be relocated to the south and protect the environment and reduce the impacts on people. Alternatives can be developed to use more solar and less wind.

The scope and magnitude of the changes in the ASC Update on December 1, 2022 makes the entire SEPA Process Questionable

WAC 197-11-440 EIS contents

(5) Alternatives including the proposed action

(b) Reasonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.

ASC Section 1.8 Full Disclosure by Applicant

WAC 463-60-065: It is recognized that these guidelines can only be comprehensive in a relative sense. Therefore, and in addition to the other guidelines contained herein, the council adopts the basic guideline that an applicant for site certification must identify in the application all information known to the applicant which has a bearing on site certification.

Applicant Response *"The Applicant has provided in this ASC and accompanying documentation all information known to the Applicant that might have a bearing on the applicable site certification for the Project."*

RCW 80.50.130 Revocation or suspension of certification—Grounds.

Any certification may be revoked or suspended:

(1) For any material false statement in the application or in the supplemental or additional statements of fact or studies required of the applicant when a true answer would have warranted the council's refusal to recommend certification in the first instance; or

(2) For failure to comply with the terms or conditions of the original certification; or

(3) For violation of the provisions of this chapter, regulations issued thereunder or order of the council.

There are troubling aspects to the path the applicant and EFSEC are utilizing to conduct the SEPA review and the DEIS Issuance and review and comment.

The DEIS does not identify, describe or evaluate new project components being identified in an Updated ASC that was released without notice and has not undergone public review.

On December 1, 2022, EFSEC uploaded an Updated ASC tho the website quietly with no public notice or announcement. The DEIS, issued on December 19, 2022, does not describe the Updated ASC and the voluminous changes made by the Applicant.

In the new Updated ASC, in Section 2.3.10, on page 2-81-83, the developer states:

2.3.10 Transmission Line

The Project will require two new 230 kV single-circuit overhead transmission lines (one for the eastern and another for the western portions of the Project), an optional 230 kV single-circuit overhead transmission east-west intertie, and a 500 kV single-circuit overhead transmission line.

Even though the revised ASC adds language describing additional transmission and substation infrastructure, (reference section 2, pages 2-81 to 2-83), it appears that the maps associated with that infrastructure additions have not been updated, and undermining the process that is supposed to allow proper time for substantive review and comment.

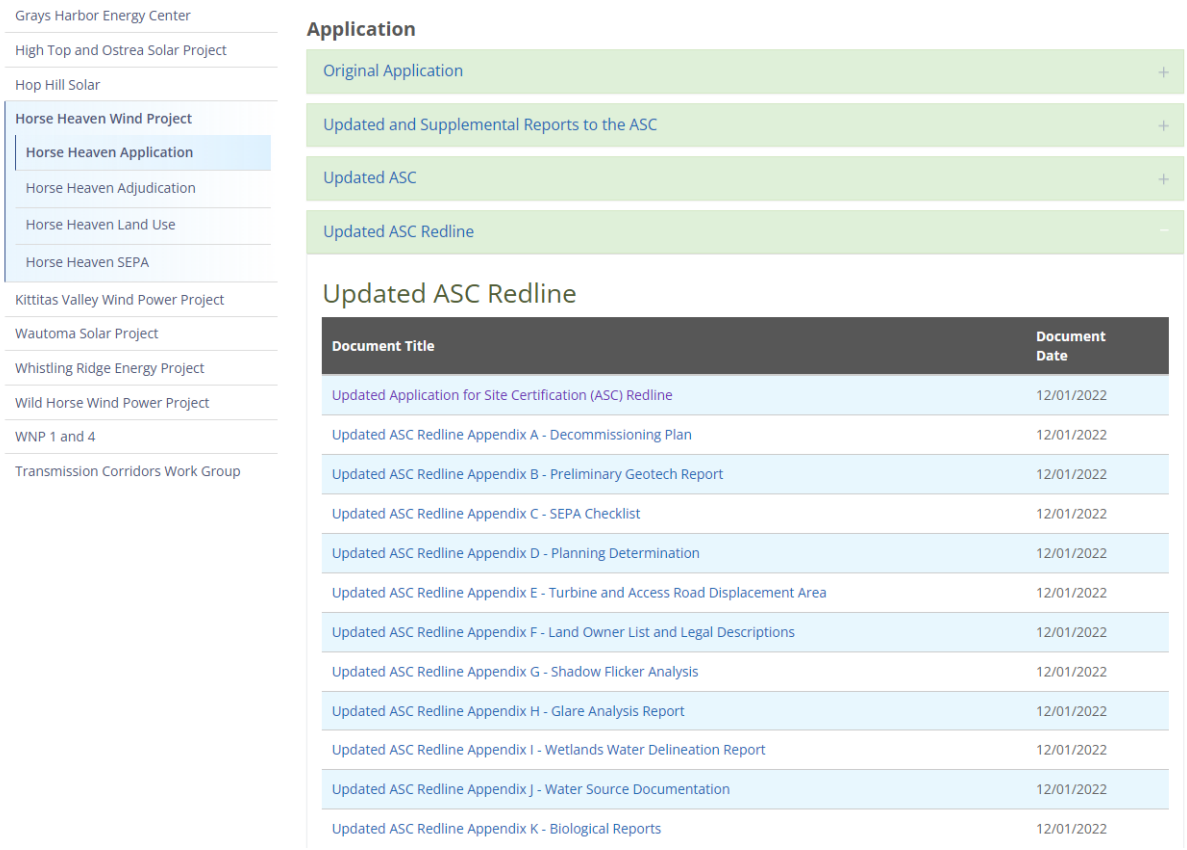
The scope, magnitude, and timing of this “update” is unacceptable. It forces and imposes an arduous and voluminous undertaking on the public during an already stressed and objectionable public comment period which focuses on the 2,000 page DEIS.

The Updated revisions not only updates the ASC but also updates every Attachment to the Application.

There is no way for a reviewer to know what changes have been made because the Updated Attachments do not identify the redlined changes to the DEIS and the underlying documentation in the ASC.

The magnitude and scope of these changes undermines the integrity of the SEPA process and the review and comment of the DEIS. This is very confusing and troubling. How is anyone supposed to reliably know which application is to be utilized to identify the project in the DEIS? How is anyone supposed to be able to track the changes that are being made to the ASC and the DEIS and the underlying documentation day by day during the SEPA process.

Here is a screenshot of the EFSEC Web page taken at 9 AM on Sunday Jan 29, 2023.



https://www.efsec.wa.gov/energy-facilities/horse-heaven-wind-project/horse-heaven-application

As of today, December 29, 2023, Dave Sharp and I both experienced difficulties successfully downloading complete copies of Updated Redlined Attachments to the ASC. This makes it doubtful that the public is getting the access required by the WAC.

The references in the DEIS also repeatedly and consistently only refer to the ASC and not the updated ASC. It is not clear whether the public should be using the Updated ASC or the Updated Redlined ASC. Which document should be used?

The sheer number of pages and sections reintroduced in this updated ASC warrant extra time for a systematic review. There was no notice of the Updated ASC by EFSEC when it was reissued on December 1, 2022.

SEPA requires that adequate time be allotted for the review of the ASC and the DEIS to determine whether the elements of the environment including cultural resources receive a fair evaluation to determine consideration of the Project adverse environmental effects.

The lack of notice of the updated ASC violates the requirements of the WAC coupled with the failure to even present an executive level summary of the changes contained in the ASC. This constitutes a failure by EFSEC to conduct a fair SEPA process which insures the professional and scientific integrity of the discussions and analyses in ASC and the environmental impact statements.

The information contained in the update indicates that the developer knew this material wasn't contained in the original application. Section 1.5 on page 1-3 states:

> "This updated ASC has been revised to consolidate information that was previously provided to EFSEC in response to individual data requests between June 2021 and May 2022, and to provide clarification and additional information where it was available."

The Applicant admits this information was available and could readily notify EFSEC and the public that an Update with substantive material changes was necessary, but they instead chose to release it quietly, surreptitiously with no notice to the public, on December 1, 2022.

Recommended Action: WAC 197-11-055 describes the requirements for the Timing of the SEPA Process. The Issuance of the Updated ASC requires a new public comment period.

> WAC 463-60-055 Form and Number of Copies
>
> (1) Applications shall be on 8-1/2 by 11" sheets, in loose-leaf form with a hard cover binder. The applicants shall supply a sufficient number of copies of the application to the council, the number to be determined by the council in consultation with its staff, consultants and the applicant. The applicants shall also supply two copies to each county, two copies to each city, and one copy to each port district in which the proposed project would be located. In addition, one copy shall be supplied to each intervenor on admission to the proceedings. Information later submitted shall be page-for-page substitutions suitable for insertion in the application binder, bearing the date of the submission

Instead of submitting hard paper copies in accordance with WAC 463-60-055, the applicant changes the commitment to read as follows:

> In accordance with this requirement, the Applicant ~~is~~ will submit~~ting~~ ~~6~~ hard copies and ~~20~~ electronic copies of this updated ASC to EFSEC and ~~2 hard copies to~~ Benton County upon request. In addition, one copy of ~~the~~ Benton County's Comprehensive Plan and Zoning Ordinances in effect as of the original ASC ~~has been~~ was provided to EFSEC at the time of initial application.

There does not demonstrate compliance with the requirements of WAC 463-60-055. There are no paper copies being delivered to any of the recipients identified for delivery of paper copies per the WAC.

The DEIS repeatedly refers back to "the ASC on the EFSEC website", however there is no way to reasonably identify which Application and understand the substantial and substantive changes that have been made to the original ASC.

The major changes that appear in the Updated ASC include the addition of Communications with Stakeholders tables showing the notes and content of consultations with the public and engaged agencies and Tribal representatives.

Even a cursory review of the additional information shows a troubling pattern of behavior on the part of the meetings with the Stakeholders including Wildlife agencies and Tribal representatives. The developer demonstrates a callous indifference and a profit driven disregard of the Tribes input, which they also do with the WDFW input over numerous meetings.

On page 1-1 of the Updated ASC contains material information regarding the company Applicant, Scout Clean Energy and the Horse Heaven Hills Wind Farm, LLC, as the indirect owner of 100 percent of the Horse Heaven as a portfolio company of Brookfield Renewable, which in turn is a "flagship listed renewable power company of Brookfield Asset Management".

This is the very first time this description of the Applicant is provided to the public.

The redlined notes available for review for the very first time in the Updated ASC as of December 1, 2022 indicate that the Project developer is unwilling to discuss any elimination or relocation of turbines in these sacred places, which will make the project fall below the needed nameplate capacity of their unsupported 1,150MW proposal when LGIP requests indicate they can only generate 850mw.

This demonstrates an entrenched pattern that they are operating in bad faith. This pattern of bad faith negotiations in meetings is carried forward into the DEIS which results in only one proposed action and no reasonable alternatives and no mitigation.

SEPA does not allow for the dismissal of alternatives that are controversial without documentation and a rational basis. The developer needs to present adequate detailed information that demonstrates and documents that the reasons for feasible and reasonable alternatives not being considered are sound.

Recommended Action: Revoke and suspend the ASC per RCW 80.50.130. Revise and reissue the ASC and DEIS to provide for additional review and to specifically allow for identification and evaluation of reasonable alternatives even if they are controversial.

The 1150 mw nameplate generation is repeatedly cited by the applicant as an impediment to identifying and evaluating reasonable alternatives that could achieve the intent of WAC197-11-440, section 5(b).

This "all-or-nothing" approach results in EFSEC maintaining a posture and promulgating an approach that they will not seek to reduce the impacts of the Project at all.

Specifically, an Application for a Generation Interconnect does not change project capacity. What governs the project capacity is how much power can be put on the grid.

The DEIS and the Updated Redlined ASC repeatedly describe the nameplate capacity in error.

Here is an example statement:

> "Phase 1 is assumed to have a nameplate capacity of up to 650 MW, with 350 MW generated via wind and 300 MWac generated via solar. Phase 1 also includes a BESS capable of storing up to 150 MW of energy."

The LGIP records show the history of requests the Applicant developer has made to the Bonneville Power Administration over time.

https://www.bpa.gov/energy-and-services/transmission/interconnection/large-generator

The Applicant applied for an additional 300mw, but elected not to proceed and withdrew the application after being told by BPA that no more than 350mw could be injected through the Phase 1 (HHE) substation without an estimated $83 million dollar upgrade.

Page 1 of the G0661 Interconnection Report Conclusion states the following in pertinent part:

> "As identified in the system study for G)635, no additional generation can be interconnected at Bofer Canyon beyond the 350 MW identified for the G0559/G0635 wind project, without a reinforcement of the McNary=Bofer Canyon 230 kV line. …[]… A non-binding good faith estimated cost to build the facilities associated with the interconnection of G0661 is $83.4 million."

https://www.bpa.gov/-/media/Aep/transmission/interconnection-reports/G0661_R1-ISIS.pdf

As of the date of the DEIS, the Interconnection requests identify 850 MW of interconnection capability.

The DEIS Executive Summary, Section ES-2.2-Alternatives to the Proposed Action states **"***Several alternatives were considered for analysis but were eliminated from detailed evaluation in the Draft EIS because they would not generate the designed nameplate generating capacity required by the Applicant***".**

The 1,150mw nameplate generation is repeatedly cited as an impediment to any mitigation measures that would require turbine elimination of relocation.

> Section ES Section 4.4.1 Curtailment and Exclusion of Turbines to Address Impacts on Ferruginous Hawk**; "***Where siting features away from ferruginous hawk habitat is not feasible, the mitigation measure would require using options such as turbine curtailment to reduce potential strikes with ferruginous hawks in core habitat while nests are active (i.e., during the breeding season).*"

Here is a screenshot of the newly added section of the Updated Redlined ASC where the contractor Project manager is responding to tribal concerns about the need to protect viewshed from sacred places presented by a Tribal representative, along with a map identifying wind turbines of concern.

Date	Nature of Communication and Participants	Topics Discussed
6/18/22	Kobus/Scout to Landess/Scout, Lughes/Scout, Huseby/Scout, Tim Thompson/Thompson Consulting Group, Ryan Thompson/Thompson Consulting Group, McMahan/Stoel	Project representatives had a conference call with Jessica Lally of the Yakama Nation on Thursday June 16th. The discussion topics were as follows: • Dave Kobus shared the completed visual simulations prepared for the points of interest requested by Jessica Lally. Dave also shared the Figure 5 visual simulation. • The YN believes that viewshed from their sacred places are "cultural resources". • Jessica Lally requested a response to her previously shared map identifying wind turbines of concern. Dave Kobus stated that the project has just filed a redline of the EFSEC application that has maintained the original project scope which includes all wind turbines previously requested for approval. Dave also stated that many of these wind turbines are the most productive on the site and their loss would severely impact the projects economic viability. • Dave Kobus stated that the independent Draft Environmental Impact Statement (DEIS) is nearly complete and will be the subject of a public comment period. Dave also stated that the project will not make commitments for project scope changes until all parties comments are collected from the public process. • We revisited the issue of proceeding forward with a tour of the site, funding a Traditional Cultural Property study and funding a full time Cultural Resources person that would work for the Tribe and agreed to take those issues up after the DEIS is completed. • SCOUT agreed to develop a proposal for the Tribe's consideration shortly after the DEIS is released.

A key phrase is:

> "Dave also stated that many of these wind turbines are the most productive on the site and their loss would severely impact the projects economic viability."

This is not consistent with the BPA Large Interconnection Protocol requests on record, to date, which 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 objects, and that turbines and the many miles of micrositing corridors and roads, can be eliminated from consideration and still meet the underlying purpose of the project.

This table and associated referenced LGIP documentation illustrate that reasonable alternatives exist that can attain the project's objectives at a lower cost and a decreased level of environmental degradation.

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**	**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	Wind Nameplate (mw)	250	0
Turbines Required-#	88	88	Turbines Required	88	70	Turbines Required	88	0	Turbines Required	45	45	Turbines Required	45	0
Total Project Need #	176		Total Project Need #	158		Total Project Need #	88		Total Project Need #	90		Total Project Need #	45	
Unnecessary Turbines #	**68**		**Unnecessary Turbines #**	**86**		**Unnecessary Turbines #**	**156**		**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 Heavn 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

Recommended Action: The ASC should be revoked and suspended. The Applicant is required to accurately state correct generation information in the ASC. A new ASC should be reviewed and approved with public comment. In addition, the DEIS needs to be revised to accurately describe the power generation records and limitations. EFSEC should establish a maximum nameplate generation limit of 350mw for HH East, and 500mw for HH West.

The SEPA review and EIS process should not result in a situation where the developer can grow the power generation in the future and claim that an expansion of the scope of the Project is allowed under the existing approvals and documentations submitted.

The chronology of the project using publicly available documentation provides insights into how the developer has expanded the project and the expected power generation has changed over time.

The first time the public was told that the project generation capacity was 1150mw nameplate was the day the ASC was posted.

This is a summary compilation of the chronological history of the Horse Heaven Wind Project. Only public sources are utilized, primarily Scout Clean Energy Press Releases, news and business articles published on the Scout Website, and information from the Bonneville Power Administration Large Generation Interconnection Procedures[1], primarily the Interconnection Queue log and associated studies. The BPA Procedures and information are open to the public.

Project history is summarized in the following chronology (with references provided below) as follows:

1. Mar 1, 2017-Application for interconnection made for 250mw of wind. The point of interconnection is Bofer Canyon switchyard. Applicant appears to be WPD.
2. 2019 Date Uncertain. Scout purchased WPD's assets including studies and interconnection rights.
3. Jan 7, 2020 Application for interconnection for an additional 100 mw of wind at Bofer Canyon (=350mw total). System Impact Statement was completed Feb 1, 2021.
4. Feb 3, 2020-The project upscaled from 250mw to 600mw wind. 212 Turbines. Tri-City Herald Article (WPD's 250mw, Scout's 250mw, and Scout additional 100mw).
5. Aug 31, 2020, Scout Press Release- Project Expanded from 600mw to 850mw with hybrid generation-Wind, Solar, Energy Storage-Phase 1, 350mw, Phase 2, 500 mw. Quote: *"Scout recently acquired additional wind farm assets from wpd which will enable the company to scale up to 850 MW of combined wind, solar and battery power. Scout and wpd will continue to cooperate in the development of the Horse Heaven project. "The project will seek permits to likely come online in phases:*
   - *Phase 1: up to 350 megawatts (MW), anticipated to begin operations in 2022*
   - *Phase 2: up to 500 MW, anticipated to begin operations by 2024.*
6. Dec 15, 2020-An Interconnection Request was made to BPA for 300mw solar, 250mw battery for HHE Bofer Canyon
7. Dec 15, 2020-Scout announces will go directly to EFSEC (S&P Global Article).
8. Nov 5, 2020, Scout Website- "WPD partners on 850mw hybrid Project." Renewable Energy Biz Journal-Article on Scout Website dated October 19. *"WPD and Scout Clean Energy are joining forces to combine two onshore wind farms into one 850MW hybrid project development that also includes solar and energy storage in Washington State in the US". WPD sold project assets to Scout in 2019 including interconnection queue positions, land leases and wind data*".
9. Dec 17, 2020, S&P Global Market Intelligence Article on Scout Website News-Date Dec 18, 2020- *"Scout Clean Energy LLC on Dec. 15 said it will ask a Washington state agency for a permit to build an ambitious hybrid renewable energy project that the Colorado-based developer hopes will provide up to 850 MW of wind and solar power, along with battery storage, in Benton County, Wash. Scout Clean Energy recently acquired new interconnection agreements for the addition of solar and battery storage to scale the Horse Heaven project up to 850 MW*
10. Feb 8, 2021-Scout files ASC with EFSEC-First mention of 1150mw nameplate[3].
11. Feb 8, 2021-EFSEC posts ASC on Website- "*The ASC proposes the construction of a renewable energy generation facility that would have a nameplate energy generating capacity of up to 1,150 megawatts*[2] *(MWs) for a combination of wind and solar facilities as well as battery energy storage systems (BESS)".*
12. Feb 8, 2021-Scout Press Release - "*Horse Heaven Wind Farm Makes Application to State*." Following quote was included in Press Release: "Scout recently acquired an additional interconnection queue position, which will enable the company to scale up to 1150 MW

of wind, solar and battery power. Scout and wpd continue to cooperate in the development of the Horse Heaven project"

13. Sep 13, 2021 Application for Interconnection Request for 100mw solar, and 30mw Energy Storage through Bofer Canyon BPA response states Boffer Canyon cannot exceed 350mw.
14. September 13, 2021 or before - The Dec 15, 2020 application for 300mw was withdrawn. Date of not certain best estimate is before Sep 13, 2021. A second request would not have been made on top of an earlier open request.
15. Dec 22, 2021-Application was made for 0MW, but 4 turbines of 3.4mw each previously removed. Bofer Canyon substation cannot exceed 350mw.
16. March 15, 2022-Application was made for 20mw of energy storage
17. Dec 16, 2022 DEIS is issued.

Notes. In the BPA Interconnection Application Database Spreadsheet, the names of the Developers are not disclosed. It can be assumed that all of these applications with exception of the initial application were made by the Applicant for the HH Wind Project.

[1]Reference BPA Queue Requests-For Horse Heaven East, Bofer Canyon- G0559, G0635, G0661, G0691, GO721, G0734 and associated Studies

[2]The term nameplate is the maximum generation a source can generate. Wind and Solar are considered generating sources. Batteries are not considered generators, and are not included as nameplate generation.

[3]After nearly two years of interaction and communication from Scout, the public first saw the 1150mw nameplate number on the EFSEC website on February 8, 2021.

References and Links for the Chronology:

WPD Partners on 850 MW US Hybrid Scheme – Scout Clean Energy

Wind Farm Plan Adds Solar and Battery Energy Storage – Scout Clean Energy

Horse Heaven Wind Farm Submits Application to State Board – Scout Clean Energy

Scout Clean Energy advances ambitious hybrid renewable energy project – Scout Clean Energy

Scout-Clean-Energy-Advances-Hybrid-Wind-Solar-Storage-Project-in-WA.pdf (scoutcleanenergy.com)

Horse Heaven Clean Energy Center Permitting Process Moves Forward with Release of Draft Environmental Impact Statement – Scout Clean Energy

BPA LGIP Link Large Generator Interconnection Procedures (LGIP) - Bonneville Power Administration (bpa.gov) Generation Queue Report is on Home Page-Related Links

Recommended Action: The DEIS needs to accurately present the detailed history of the project and in the interests of full disclosure and transparency explain any relationships and uncertainties that exist in the power generation arrangements for the Project.

Proposed Action and Alternatives Are Inadequate

The DEIS dismisses consideration of alternatives other than the proposed action without a rational basis and justification

WAC 197-11-440(5)(a) & (b) state:

(5) Alternatives including the proposed action.

(a) This section of the EIS describes and presents the proposal (or preferred alternative, if one or more exists) and alternative courses of action.

(b) Reasonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.

See also WAC 197-11-786, WAC 197-11-660, and WAC 197-11-792.

WAC 463-47-110 states with emphasis added:

Policies and procedures for conditioning or denying permits or other approvals.

(1)(a) The overriding policy of the council is to avoid or mitigate adverse environmental impacts which may result from the council's decisions.

(b) The council shall use all practicable means, consistent with other essential considerations of state policy, to improve and coordinate plans, functions, programs, and resources to the end that the state and its citizens may:

(i) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(ii) Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

(iii) Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(iv) Preserve important historic, cultural, and natural aspects of our national heritage;

(v) Maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(vi) Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(vii) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

(c) The council recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

(d) The council shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.

(2)(a) When the environmental document for a proposal shows it will cause significant adverse impacts that the proponent does not plan to mitigate, the council shall consider whether:

(i) The environmental document identified mitigation measures that are reasonable and capable of being accomplished;

(ii) Other local, state, or federal requirements and enforcement would mitigate the significant adverse environmental impacts; and

(iii) Reasonable mitigation measures are sufficient to mitigate the significant adverse impacts.

(b) The council may:

(i) Condition the approval or recommendation for approval for a proposal if mitigation measures are reasonable and capable of being accomplished and the proposal is inconsistent with the policies in subsection (1) of this section.

(ii) Reject or recommend rejection of the application if reasonable mitigation measures are insufficient to mitigate significant adverse environmental impacts and the proposal is inconsistent with the policies in subsection (1) of this section.

(c) The procedures in WAC 197-11-660 must also be followed when conditioning, denying or recommending permits or rejecting applications.

In Section 2.2 of the DEIS on page 2-31, Alternatives to the Proposed Action, Alternatives Considered, Alternatives 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 required by the Applicant* (emphasis added). The No Action Alternative was carried forward for analysis in the Draft EIS.

The DEIS fails to identify and evaluate the costs and benefits of a reasonable alternatives that can be demonstrated to feasibly attain or approximate the Projects objectives, but at a lower environmental cost or decreased level of environmental damage. The DEIS is clearly biased towards reaching a final decision before the EIS process has been completed.

As described above, the DEIS fails to cite and present the most current information regarding feasible power generation interconnection levels for the Project.

A review of the current BPA Large Interconnection Protocol requests on record indicates 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 objects, and that turbines and the many miles of micrositing corridors and roads, 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.

Recommended Action: The DEIS needs to be revised and reissued to include and evaluate reasonable alternatives. Since the Proposed Action goes beyond the power generation connectivity levels available, it contains over 70 unnecessary turbines. The micrositing corridors, turbine locations and other infrastructure should be eliminated and relocated to avoid and prevent significant conflicts with important resources and elements of the environment namely, wildlife corridors, wildlife habitat, fire safety and visual impacts. Reasonable alternatives must be identified and evaluated so that mitigation can be achieved to protect the natural and the built environment from damage and harm.

The DEIS fails to explain the purpose and need for a 19-mile transmission line

The DEIS Phased Construction Section Phase 2b, calls for a 19-mile intertie transmission line but does not explain its purpose or need at all. Since these are two separate and distinct projects why is this transmission line needed? Each project should be independently connected to the grid. The transmission line will create a significant environmental impact. The SEPA review an analysis of this project element is inadequate to comply with the requirements of WAC 197-11-440.

Recommended Action: The DEIS needs be revised to explain the purpose and need for the 19-mile transmission line. to explain it. This element of the project then needs to be analyzed in accordance with SEPA.

The DEIS Fails to Identify and Analyze the Impacts the Project Will Have on the Nine Canyon Project

WAC 197-11-440 EIS contents states in pertinent part with emphasis added:

Alternatives including the proposed action. (vi) Present a comparison of the environmental impacts of the reasonable alternatives, and include the no action alternative.

WAC 197-11-444 Elements of the environment-

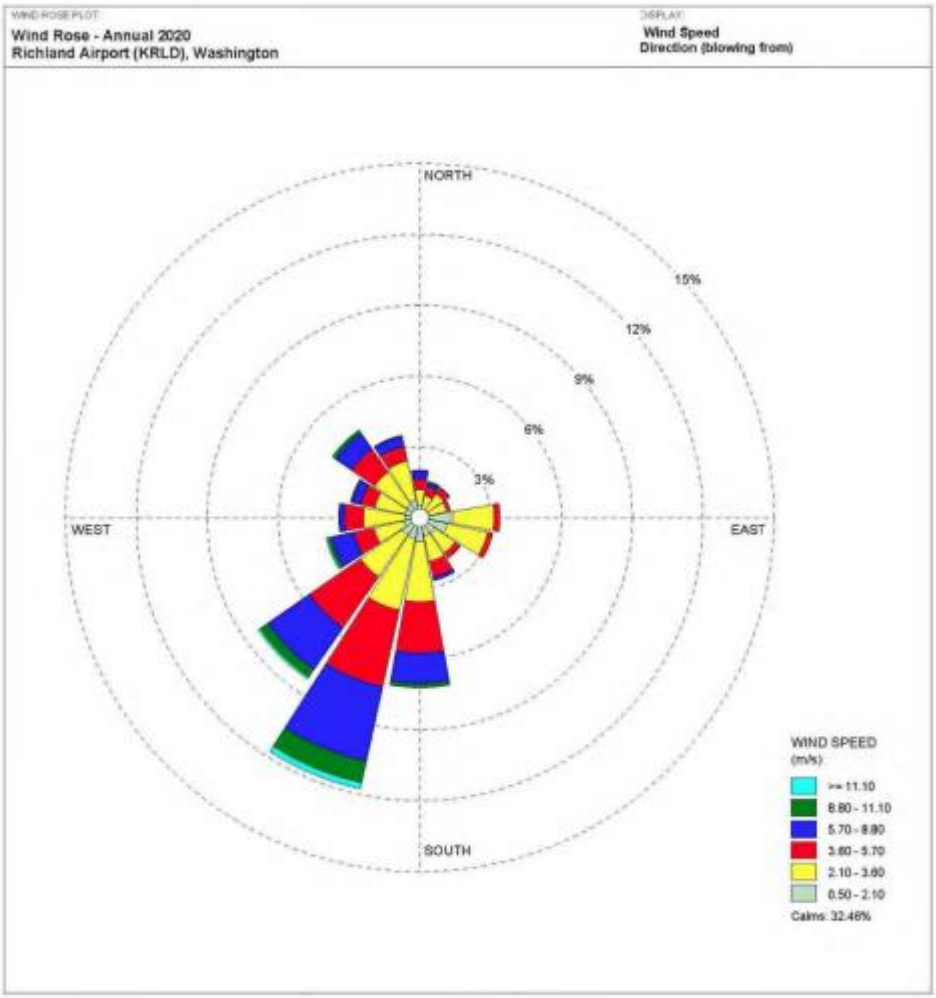
(e) Energy and natural resources:

(i) Amount required/rate of use/efficiency;

DEIS does not analyze and determine significance of the negative performance effect that the upwind HHH project will have on the Nine Canyon Project.

Research on wind turbine projects around the world indicates that the Horse Heaven Wind Project will degrade the performance of the existing Nine Canyon Project. The project “wraps around” the existing Nine Canyon Project and as the industry data shows, the upwind turbines will decrease the energy available from the wind and the downwind project will lose power generation capability. There is no discussion or evaluation of this factor in the DEIS.

The DEIS on page 3-29 provides a wind rose for the annual 2020 data for the Richland Airport.

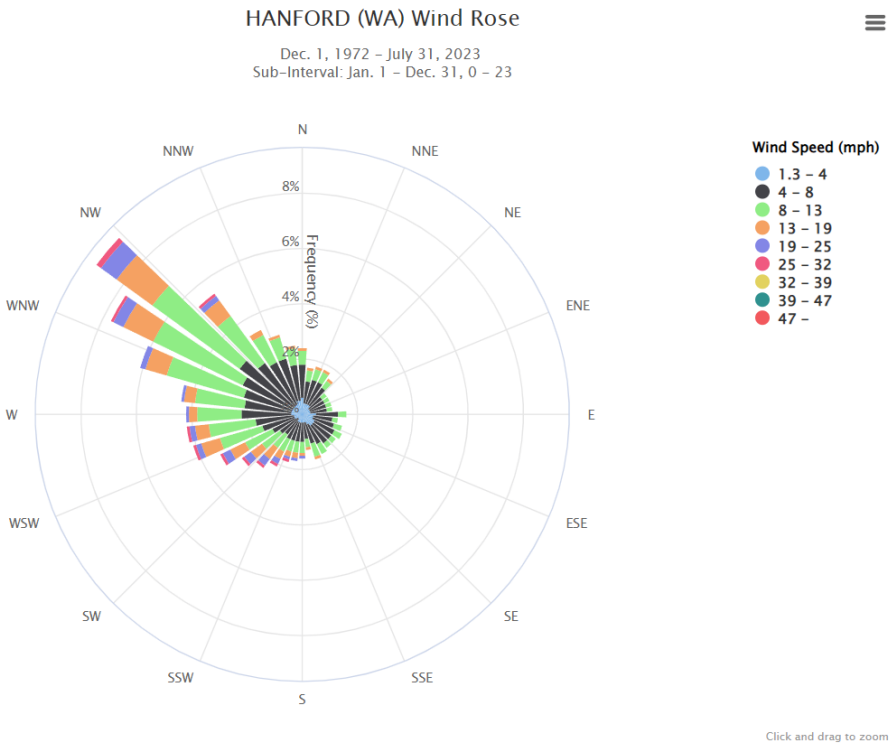


Source: Horse Heaven Wind Farm, LLC 2021b

Figure 3.3-1: 2020 Wind for Richland, Washington, Meteorological Station

Th following wind rose graphically depicts the wind speeds for the Hanford Weather station for the available period of record.

The DEIS discussion on page 3-30 describes considerable variability in the direction and speed of the winds



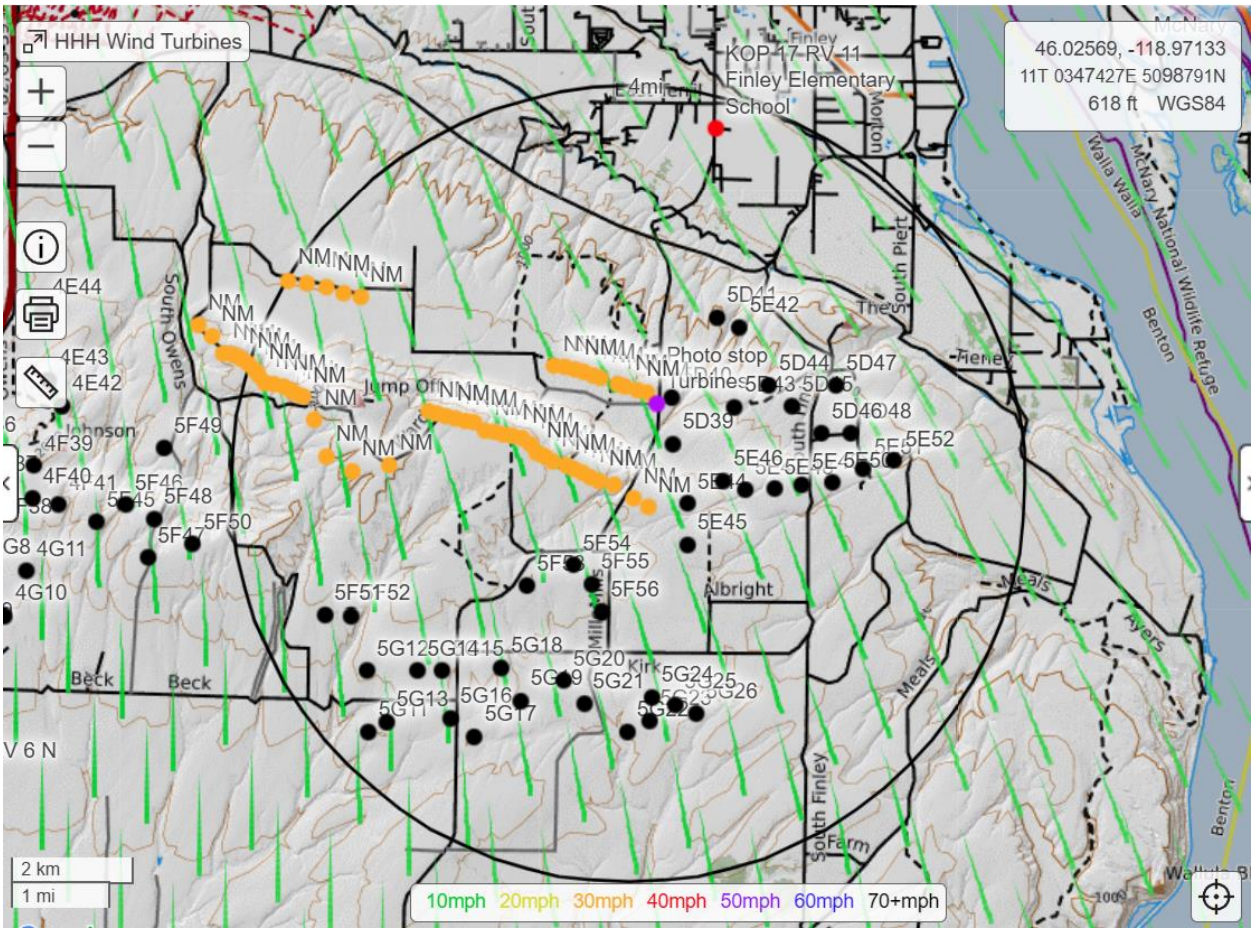
https://mrcc.purdue.edu/CLIMATE/stnhourly2.jsp?state=WA&loc=co&selectCounty=BENTON

The DEIS needs to include wind rose data using the closest weather stations to the project.

The DEIS needs to be analyzed for the significance of this issue. There are no specific regulations that specify minimum distances between turbines or projects. There is research and industry best practice guidance that wind developers generally follow to prevent losses other earlier wind projects.

Wind industry literature suggests that for turbines the size being proposed by the HHH developer, the project should be sited no closer than 4-5 miles distant from the nearest wind project. Losses could be significant depending upon the distance between the projects, prevailing wind direction, and size and layout of the upwind wind project.

This map was created using CalTopo. The yellow markers are the Nine Canyon Turbines. The Black markers are the Horse Heaven Hills turbines. The range ring is set at four miles from the wind turbine at the SE edge of the Nine Canyon string of turbines. The green arrows show the actual ground wind speed for January 28, 2023 at 8:00 AM, the time of this graphic was generated. This illustrates the turbines that would be impacted by blocking.



The DEIS Maps showing the Layout for Options 1 and Options 2, indicate that the distance between the Horse Heaven turbines and the Nine Canyon turbines as close as one mile, although neither the DEIS or the ASC provide proposed turbine coordinates for the project.

Nine Canyon Project generates approximately 250,000 mwh per year @30% efficiency or (capacity factor). A 5% loss, for example, would be a 12,600mwh loss per year.

The Nine Canyon Project is a public utility project. The recipients of the Nine Canyon power are Washington PUD's and other municipal, or public entities. The entire output of the Nine Canyon Project is consumed by utility customers in the state of Washington. Any loss of this renewable energy would have to be incrementally replaced.

References:

Wind Farm Blockage Effects: Comparison of Different Engineering Models
https://www.nrel.gov/docs/fy20osti/76855.pdf

Assessing the Blockage Effect of Wind Turbines and Wind Farms Using an Analytical Vortex Model

https://www.osti.gov/pages/biblio/1660123

Recommended Actions: The DEIS must be revised to adequately discuss and evaluate the effect blocking will have on the Nine Canyon Project. If the analysis indicates there will be a tangible loss of power generation capacity from the blockage effect, EFSEC should specify the required distances

between the Horse Heaven Hills Project and the Nine Canyon Project. Similarly, the DEIS must be revised to adequately discuss and evaluate the effect blocking from the Nine Canyon Project will have on the Horse Heaven Hill Project. If there will be a tangible loss of power generation capacity, EFSEC should specify the distance between the Nine Canyon Project and any downstream Horse Heaven Hills Project turbines that fall below adequate power generation levels needed to maintain project feasibility and viability.

Affected Environment, Significant Impacts on Environment & Cumulative Impacts

Visual Impacts

The DEIS Fails to Adequately Identify and Evaluate the Visual Impacts of the Project on People in the Tri-Cities

Aesthetics is a required element of the built environment that must be identified and evaluated in SEPA review and DEIS under WAS 197-11-440. Methods for analyzing visual impacts are provided in WAC 463-60-362 which states:

> The application shall describe the aesthetic impact of the proposed energy facility and associated facilities and any alteration of the surrounding terrain. The presentation will show the location and design of the facilities relative to the physical features of the site in a way that will show how the installation will appear relative to its surroundings. The applicant shall describe the procedures to be utilized to restore or enhance the landscape disturbed during construction (to include temporary roads).

The Benton County Comprehensive Plan (Benton County 2021) states the following:

> PL Goal 3: Conserve visually prominent naturally vegetated steep slopes and elevated ridges that define the Columbia Basin landscape and are uniquely a product of the ice age floods.
>
> o Policy 4: Consider the preservation of the ridges and hillside areas through various
>
> development regulations.

The DEIS fails to achieve the requirements set forth in the WAC and in the Benton County Comprehensive Plan. The construction of the wind turbines will essentially ignore the policy to conserve the ridges of the Columbia Basin.

The DEIS Visual Assessment Appendix 3.10-2 on page 4 states that the SWCA 2022 Visual Impact Assessment Report utilizes several key guidance documents to develop the visual inventory and analysis in the ASC and the DEIS.

References:

A Visual Impact Assessment Process for Wind Energy Projects, State Clean Energy Program Guide, Clean Energy State Alliance, May 2011.

https://www.cesa.org/wp-content/uploads/CESA-Visual-Impacts-Methodology-May2011.pdf

BLM.2013. Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands. BLM Wyoming State Office, Cheyenne.

https://blmwyomingvisual.anl.gov/docs/BLM_RenewableEnergyVisualBMPs_LowRes.pdf .

Sullivan, R. G., L. B. Kirchler, T. Lahti, S. Roché, K. Beckman, B. Cantwell, and P. Richmond. 2012. Wind Turbine Visibility and Visual Impact Threshold Distances in Western Landscapes (2022) https://blmwyomingvisual.anl.gov/docs/WindVITD.pdf

The DEIS Visual Assessment Report contains numerous errors, omissions and misrepresentations which render the document ineffective as a basis for decision-making under SEPA.

These problems include:

- Failure to recognize the visual character and viewer sensitivity accurately.
- Failure to define, identify and evaluate the visual impacts from appropriate representative viewpoints.
- Failure to properly characterize and evaluate the severity of the visual impacts on people, property, agriculture, the local wine industry, and tourism in the affected environment in close proximity to the Project.
- Failure to classify the impacts as Unreasonable and Unacceptable.

EFSEC needs to recognize and acknowledge the wide-spread expectation on the part of tens of thousands of home owners that there is a real risk of harm that will be caused by the visual impacts of the project. The openly voiced concerns focus on the risk of negative impacts on real estate valuations, access to recreation, the wine industry, and to tourism.

Very clearly, the project, if constructed as proposed, will dominate and replace the highly sensitive natural views of the Horse Heaven Hills with that of a massive, complex industrial energy facility. This will change the image people have of the entire region as a whole for decades to come.

The DEIS fails to even consider turbine elimination and relation as mitigation measures that can be used to reduce the visual impacts of the project.

EFSEC has historically just taken the developers costs and interests into account at face value and given property owners and public benefits short shrift when weighing the regulatory acceptability of the project.

The DEIS underestimates the expectations of homeowners and developers who purchased land and built homes believing that the basic natural visual character of the Horse Heaven Hills would be maintained and not destroyed by wind turbines.

The DEIS fails to even identify the fact that the Red Mountain AVA and the new Goose Mountain AVA both lie immediately adjacent to and due north of the Project boundary and the construction and operation of the Project. There is no evaluation of the potentially significant adverse impacts the Project will have on this billion-dollar wine industry.

As a lead agency WAC 197-11-600 expressly grants EFSEC Substantive Authority and Mitigation responsibilities. It states in pertinent part:

> (1) Any governmental action on public or private proposals that are not exempt may be conditioned or denied under SEPA to mitigate the environmental impact…[]…

<u>Recommended Action:</u> EFSEC needs to specifically identify turbines and micrositing corridors and other infrastructure from the Project that need to be eliminated or relocated to prevent significant adverse environmental impacts from being caused by the Project.

<u>The DEIS fails to characterize and analyze, and provide information to allow reviewers to quantify the level of impact to population.</u>

The Key Observation Points and Visual Simulation understate mid-range residential and business properties, have errors and present an inaccurate picture.

Chapter 3 Affected Environment-Part 1

3.10 Visual Aspects-Light and Glare

Chapter 3 Affected Environment-Part 2

APPENDIX 3.10-2 SWCA 2022 Visual Impact Assessment Report

Attachment A-Maps

Attachment B-Visual Simulations

<u>The DEIS fails to accurately identify and quantify that a large number of mid-range viewers, in particular, are impacted. There is no substantiative mitigation offered.</u>

WAC 197-11-080 Incomplete or unavailable information.

(1) If information on significant adverse impacts essential to a reasoned choice among alternatives is not known, and the costs of obtaining it are not exorbitant, **agencies shall obtain and include the information in their environmental documents.**
(2) (2) When there are gaps in relevant information or scientific uncertainty concerning significant impacts**, agencies shall make clear that such information is lacking or that substantial uncertainty exists.**
(3) This section discusses alternatives if the data is unavailable, speculative, or has exorbitant cost to obtain. None of the reasons for proceeding without the data are applicable.

The Benton County Policy Guidelines for Visual Impact in the **Benton County Comprehensive Plan** state:

▪ *Public Lands designation Goal 3: Conserve visually prominent naturally vegetated steep slopes and elevated ridges that define the Columbia Basin landscape and are uniquely a product of the ice age floods.*

▪ *Policy 3: Pursue a variety of means and mechanisms such as the preparation of specific and area plans, conservation easements, clustered developments, land acquisitions and trades, statutory requirements to protect the natural landform and vegetative cover of the Rattlesnake uplift formation, notably Rattlesnake, Red, Candy, and Badger Mountains and the Horse Heaven Hills.*

▪ *Policy 4: Consider the preservation of the ridges and hillside areas through various development regulations*.

<u>The DEIS fails to identify and evaluate the Benton County policy goals meaningfully and the fails to recognize the importance that the features hold for the County and its residents</u>.

Wind Developers generally have looked to **General Industry Best and Customary Practices** in rural areas to analyze visual impacts of their project. However, the guidance does not cover a situation where the project wind project is located in close proximity to a major metropolitan area. The State of Washington is a good example. None of the wind projects in the State have been developed near a metropolitan area, or even a mid-sized town.

The BLM VRM methods were generally developed prior to the increase in wind industry projects around the world and the nation. The most recent method to be commonly referenced is the Visual Impact Assessment Process for Wind Energy Projects from the Clean Energy States Alliance (CESA), which were developed to address the unique visual characteristics of wind energy projects (CESA 2011).

The DEIS fails to accurately apply the visual assessment guidance to describe and evaluate visual impacts.

The DEIS primarily uses Developer Graphical Information and Tools. These are inadequate, and do not allow a full picture of the affected environment making an effective evaluation impossible. There are numerous errors, omissions and misrepresentations.

Project Map Viewshed Mapping (Zone of Visual Influence) DEIS provides a Viewshed Assessment Map that extends the zone of influence to 25 miles. However, there is no indication of the degree of impact and influence that the views of the project will create. How many residents are within 25 miles? Unknown. How many residences are in the Mid-range viewpoint, which CESA recognizes as one of the more problematic locations. The answer is approximately 100,000 population within 6 miles,[2] 50,000 within 5 miles.

Identification of Public Natural and Cultural Resources and Features - Project maps are provided, Option 1 Shown. There is no identification of Natural and Cultural Resources and Features. There are other maps scattered through the section 3.XX SEPA topics that have numerous parks, trailheads, points of interest, etc., but not called out in Section 3.10 Visual Aspects-Light and Glare

Identification of Viewpoints - The Applicant has identified the viewpoints, KOP's, Key Observation Points. However, they skew toward rural and low trafficked areas, and away from residential areas.

Here are just a few of the specific errors and flaws.

KOP 3# taken near Chandler Butte. Viewpoint Focus-This is a very untraveled viewpoint. The access to the Butte is locked to prevent public access, and it is off project property be over two miles. In spite of that, nearly every turbine is visible from hub height. This is not an appropriate site when a key highly used point, McBee Hill on Chandler ridge just as easily could be used.

KOP #5-Picture from top of Badger Mountain. This has light to moderate hiker traffic. This KOP had only a single frame picture, and 101 of 101 turbines are visible from hub height. A panorama would be nearly 180-degree field of view and every turbine at hub height would be visible. We do not understand why the Applicant would not have provided the entire panorama. Additionally, the photo quality of this one picture of all of the other crystal-clear photos was heavily grayed out, and photoshopped toward the base.

This video from the Benton County GIS system shows what the view is from the location of the photograph used. The panorama is taken on the ridge crest between Little Badger and Badger Mountain. View of Horse Heaven Hills using Benton County GIS Benton County GIS (arcgis.com)

KOP #9-From Benton City-This Visual Representation photo location mis-represents the dominance of the turbines on Chandler Ridge. Two of the 4 are hidden, one behind a sign, and the other behind a tree. Instructions to the developer during the SEPA scoping phase were to take the photograph from an

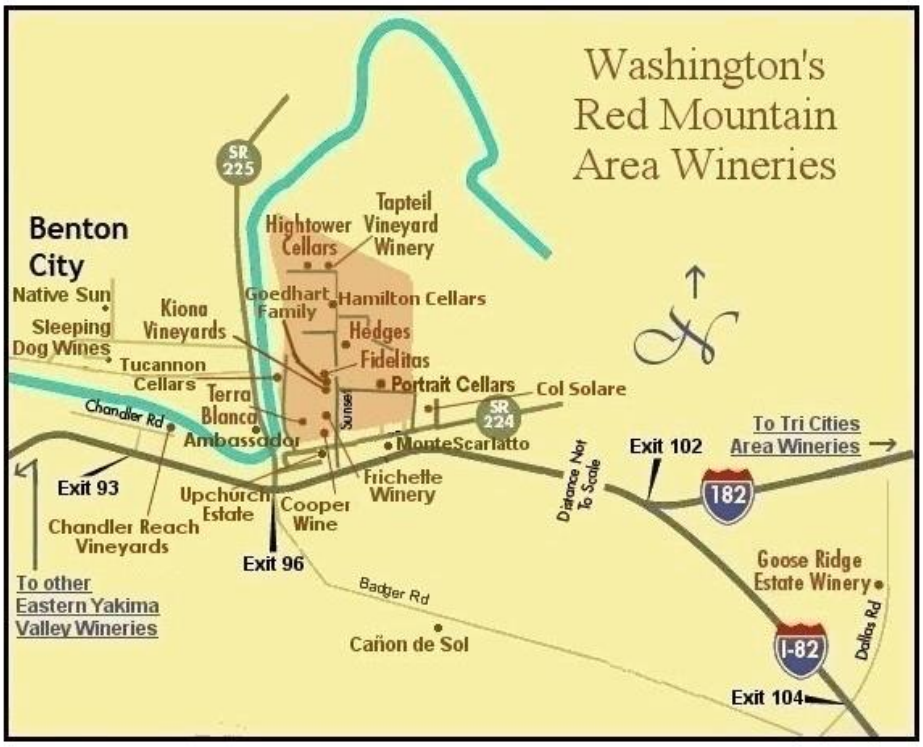
unobstructed location. There are many unobstructed views from Benton City. The one is from 988 Babs Avenue on State Route 221 through Benton City.

KOP #10 -This KOP was added as a result of SEPA Scoping. The picture location is about 2.5 miles to the Southwest of where was supposed to be taken. As incorrectly taken, the photo is marked high impact and correctly characterize the impact.

The is where KOP was supposed to be taken. As can be seen, there will be much greater visual Impact.

Documentation of the Area's Existing Character (Photo Illustrations), (Visualizations) - The Horse Heaven Hills, particularly the Chandler Ridge are the most photographed of features in our area, and the local Red Mountain Wineries provide a high traffic stopping and relaxing point. This was taken from a drone in the Col Solare winery location, Hedges is on the left side of the picture. Fidelitas, Tapteal, Kiona, Frichette, Hamilton Cellars are just some of the wineries that have outdoor seating areas.

The Red Mountain AVA Wineries are in the shadow of Chandler Ridge and the Southern rim of the Horse Heaven Hills. These wineries do not have it easy. Competition is fierce in the Columbia Valley. The Project will not be viewed positively by the tens of thousands of customers to the Red Mountain Wineries.



This is the View from Goose Ridge Winery Outdoor Area Toward Chandler Ridge

<u>The DEIS fails to describe and evaluate the visual impacts on the Wineries</u>

The Project proposed 244, 499-foot high turbines, miles of transmission lines, over 100 miles of roads, at least 3 switchyards, and will have red flashing strobe lights on all night long. The topography of the HHH is such that for the central portion of the project there is a general upslope for about 3 miles, a crest, and then a downslope. This means mid-range distance from the project will be most visually impactful. More than one string to turbines will be seen. There are no intervening ridges, trees, or other objects to diminish the strong contrast that the turbines installation will generate.

The Project will produce and impose a glaring industrial facility on what is presently a landscape characterized by rolling hills, canyons and arroyos, and steep slopes which historically and presently provide a wonderful palate for artists, or photographers, and recreationists. The stunning visual contrast coming from the sun highlighting features is invigorating.

<u>The DEIS fails to accurately describe and evaluate the scenic resource attributes and sensitivity levels accurately.</u>

Scenic Quality and Intactness of Resource - As can be seen from the photos, and from many sources, this is truly a scenic resource. John Clement, a local photographer provided the photo below. As you can see below, a great deal of the Horse heaven Hills is untouched.

The next photo shows Right to Left-Chandler Ridge, Webber Canyon, Sheep Canyon, Scouten Canyon, and Badger Canyon.

Viewer Expectations - Consider a highway traveler driving from Yakima South to the Tri-Cities coming down a pastoral Valley with a river, hops, vineyards, fruit orchards and then rounding a corner just North of Benton City and encountering a swarm of these huge industrial machines. If the driver was rounding and heading to Portland, ahead would be a 50-mile drive with turbines. At night the flashing lights. Coming from North to South they would be visible from nearly Othello to Pendleton, Oregon, nearly 70 miles.

Uniqueness of Resources - `The rims of these hills look like they do because of repeated carvings and runoff from the ice age floods. The Developer continues to assert that the Ice Age Floods flowed around the Horse Heaven Hills. The HHH were a lakeshore, up to a level of about 1250' above sea level. Approximately 15 turbines will be installed below that elevation. This is the only geologic feature in the world like this.

Number of Users - There are 300,000 population living in the immediate area, 100,000 within 6 miles, many thousands more drive through the transportation hub with Interstate Highways, Amtrack, a mid-sized regional airport that has multiple airlines. Compare that to the other 10 counties in Washington that house wind projects. This is a routine travel and visitation route of travelers from Western Washington for a stop at the Red Mountain wineries and then traveling on to Walla Walla, and then returning. Just as the Developer failed to provide zonal population information, we are unable to tabulate users of the different facilities other than using census data, and wind turbine proximity, which had to be manually entered for coordinate locations

Beyond visual impacts, the DEIS fails to identify and evaluate the socio-economic impacts of the Project on the wine industry.

DEIS at Page 3.16.1.4 Economic Conditions states:

> The economy in Benton and Franklin Counties has largely been dependent on federal funding for Hanford Site projects. Employment in the Hanford area has decreased in recent years as part of federal spending cuts. This decrease was part of a region-wide decline in employment between 2012 and 2013 and the end of American Recovery and Reinvestment Act funding (BFCOG 2021). As the Hanford Site's role in the region's economy decreases, agriculture, food processing, and transportation services have experienced growth in recent years. Additional economic trends within the study area relate to increases in agricultural tourism. These changes in economic conditions are often associated with an emerging viticulture (wine) industry and specialty crop farming and tourism-related commercial and recreational activities. The region's tourism activities are often associated with the Snake, Columbia, and Yakima Rivers (Benton County 2021a).

The Draft Environmental Impact, Section 3.16.1.4 fails to analyze the impacts that the proposed project would have to the wine industry and tourism, in the region. It does not identify and evaluate the impacts on the workers that support the wine industry adequately. Benton City has the lowest family income of all the communities impacted by the Project. The KIBE school district has the largest number of non-proficient english speaking students compared to the other communities. Any impact to the wine industry not only impacts the wineries, but also the workers and their families.

The DEIS fails to accurately describe and evaluate the way the Project will be and experienced from Important viewing Locations in the surrounding area.

The Project developer expresses the opinion that visual presence and impacts of the existing Nine Canyon Project are similar to that of the proposed Horse Heaven Hills Project. The DEIS fails to recognize that the sheer expanse and size of the Project dwarf the Nine Canyon Project with higher turbines that occupy more landscape that people will see.

The DEIS fails to describe and evaluate the visual impacts consistent with the CESA 2001 guidance factors in a way that enables the population that will be affected to become aware of and understand the magnitude of the impacts of the proposed project.

Project Scale (Size) The HHH project is the biggest in the State. Other wind projects tallest towers are significantly shorter than the turbines on the proposed project.

Distance from Viewpoints-There are multiple viewpoints as this project occupies over 100 sq miles. The CESA guidelines are for very small installations, in rural areas, significant distances from major municipalities. The focal point in the guidelines was a 5 - turbine installation in relatively rural Vermont.

View Duration -The DEIS does not discuss the impacts of viewing the Project turbines while travelling from a range of highway distances.

Angle of View/Area of View Occupied-Much of the project will be seen at a 120- to 150- degree field of view. The most prominent affected will be from mid-range, up to 5 and 6 miles. Many more people will see the project from 6 to 10 miles.

Panoramic vs. Narrow View-There are both views depending upon where one looks from.

Project Relation to Regional Focal Points- They will be built on one of the most notable focal points, Chandler Ridge.

Numbers of Turbines in Views-According to the KOP tables and the viewpoint chart, up to 244, or all of them in a number of places.

Visual Clutter -It will be when done. This is multiple strings of turbines that will be visible by virtue of the topography. Mix in the transmission lines, substations, solar arrays and Battery banks, there will be a lot going on.

FAA Lighting-Not offered or mentioned. At one time was on their website as a mitigation to "preserve Dark Skies" Since then has been completely ignored. However, it was removed and the Project Manager has stated publically that ADLS will not be offered, unless the EFSEC requires it, as South Dakota Public Utilities Commission did on the last project for this developer, which had about 1/3 the number of turbines in a much less impacted area.

Shadow Flicker -There will be limited amount, but there should be none for residents, even participating residents.

The DEIS fails to describe and evaluate the project based on the CESA 2021 Guidance 2021 regarding "Unreasonable or Undue Visual Impacts"

Documentation of Scenic Values: Will the project violate a clear written standard intended to protect the scenic values or aesthetics of the area or a particular scenic resource? The County intended to protect them through guidelines. There is no specific written guidance other than the County Comprehensive Plan.

Degree of Dominance: Will the project dominate views from highly sensitive viewing areas or within the region as a whole? Yes, prominence, field of view, vertical dominance, number of turbines. Recreational spots, winery outdoor seating areas, Elementary School, Parks, River Activities. None of these are described or evaluated in the DEIS adequately.

Recommended Action: The Visual Assessment in the DEIS must be revised and reissued to properly describe and evaluate the impacts to the environment.

The DEIS fails to identify and describe reasonable measures that can be taken to mitigate and minimize the visual impacts on the environment.

Mitigation is discussed in the DEIS, Section 4.10.2.4 Applicant Commitments and Identified Commitments.

The DEIS fails to specifically and expressly make identify mitigation measures to reduce impacts on landscape character and views and to minimize any incompatibility with state and local visual management requirements.

The DEIS cites the BMPs in the Project ASC but very selectively presents "recommended measures instead of specific mitigations particularly those that will require turbine elimination and relocation.

References:

BLM's Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands (BLM 2013)

CESA's visual impact assessment process (CESA 2011)

The existing turbine layouts identified as Option 1 and 2 in the DEIS, contain no turbine numbers to help identify visual impact conflicts and evaluation in the visual assessment.

Turbine elimination and relocation are not discussed at all as a reasonable means to reduce impacts on visual resources. Clearly, reducing the number of turbines in view can dramatically reduce the impacts on the visual resources.

The mitigation measures proposed by the Applicant DEIS for the design, construction, operation, and decommissioning stages will produce minimal meaningful protection of the visual resources. They are only focused on mitigation of the Proposed Action with no changes and will have no impact whatsoever on the significant impact on visual resources of the Project itself.

The DEIS Visual Simulations Contain numerous errors and omissions and misrepresentations.

The Visual Simulations provided from KOP's 9 in Benton City. There are four turbines in a dominating position on or along the ridgeline that are visible below hub height. This KOP #9 was as a result of SEPA scoping and comments from the public. In the discussion between the Developer and EFSE, it was clear that obstructed views were to be avoided. In the KOP 9 Visual Simulation, two of the 4 turbines are obscured; one behind a sign, and the other behind a tree. There are numerous locations where unobstructed views can be used for photos. One is attached to this comment. Also, looking from a blow up of KOP #3, Chandler Butte, it appears that 3 of the 4 are on the ridge line, and at least one is off of Ag land. Of course, the Developer did not provide coordinate locations, so most likely this would be found out after the turbine is installed. This appears to be an error, or miscommunication between parties, but it is still an error, and understates the impact of those ridge turbines.

The Visual Simulation Rating of Moderate for Contrast, and Medium for Magnitude of Impact. There are many locations where the turbines are not obstructed, and the table ignores the rest of the Yakima Valley and Wineries that are impacted.

The Visual Simulation provided from KOP 10 along Badger Road. That photo was not taken at the location that the KOP map shows. It was taken approximately 3 miles further to the West on Badger Road just past a County Fire station. KOP #10 again was requested through the public comment period, specifically in the location shown on the KOP map because of proximity of a relatively new large community close to the KOP location, and because the project Boundary came all the way into Badger Valley. The topography from the KOP site toward the HHH would be a gradual upslope for about miles and to a ridge line there would be many turbines visible, some almost to the base. That would be significantly more impactful of what the mistaken location shows. This was most likely an error, or mis-communication, but it misrepresented a critical Visual Simulation.

The Visual Simulation just after KOP 13, Table 4. Key Observation Point/Viewpoint Impact Table – Turbine Option 1 First there was no photo Visual Simulation, and second, that KOP would have been the closest KOP to residences. That fits a pattern that understates or omits information about key residential impacts. This is an omission.

In Table 3.10-2 with regard to the second KOP after KOP 13, Horse Heaven Recreation Area. First, for not having a photo Visual Simulation which we believe, if looking Southeast would have shown ridge line turbines down to Webber Canyon, and to the East of Dennis Road. Second, we object to the rating of moderate impact as it is 0.8 miles from the nearest turbine. More correctly, the nearest turbine is 0.8 miles from the kiosk, or recreation sign. The hiking trail leads from the kiosk to the ridge where the recreationalist would be leaning against a tower to rest. Again, the most impactful Visual Impacts have been ignored in the Visual Simulation Process.

The same problems occur with the Visual Simulations and evaluations for Turbine Option 2.

The DEIS fails to accurately describe the visual impacts of Option 1 and Option 2 on people.

The observation made by people reviewing the ASC was, "Where are the People"? For whatever reason, there was very little discussion of those impacted by the project except the 700 or so "Receptors" mentioned in the noise, noise and visual section of the DEIS. Maps and figures grayed out features that would allow residents to locate their homes with respect to the nearest turbine. The Applicant uses the work receptors throughout the ASC. They dehumanize people. We do not use that word; we prefer people, residents, or humans. A receptor can be an inanimate object.

The KOP's under represented mid-view residential impacts, this results in a spillover of errors, omissions, and mi-representations of the significance of the impacts on people. Even a small project such as Whistling Ridge, uses almost twice as many Key Observation points and Visual Representations as the Horse Heaven Project.

Visual impacts will be noticeable for extended durations of highway travel, from recreation spots, and outdoor leisure at local wineries. US Census data shows over 100,000 residents will be within 6 miles of the project boundaries. Several thousand residents in South Kennewick, South Richland, West Richland, Benton City and the lower Yakima Valley will lose the peace in tranquility of property owners to enjoy a quiet evening outdoors on their own property that was never zoned for, nor expected to be bordering a massive industrial complex.

Recommended Action: The Visual Analysis needs to be completely redone and reissued to adequately describe and evaluate the Project and alternatives to accurately describe and evaluate the visual impacts on people and the environment.

The Applicant Commitments to Mitigation of Visual Impacts in the DEIS are Minimal, Ineffective and Unacceptable.

Although mitigation recommendations by the Applicant are provided in the DEIS, they not effective in minimizing the impacts of the construction of the wind turbines near the people who live in Tri-Cities.

There is no substantive mitigation that that would relocate or remove objectionable sensitive turbines, or mitigate dark skies impact.

The DEIS fails to recognize that Visual Impacts on Benton County are Significant and Disproportionate When Compared to Every other Wind Project in the State of Washington

The visual impacts of this projects are unprecedented and far outside industry practices. Nowhere in Washington are there the number of people this close to this close to a large project. We request consideration of the unique nature of our landscapes and the beauty of the Horse Heaven Hills by pulling turbines back to the South while installing slightly more solar.

We are a fast-growing community that is trying to maintain our rural character. The Badger Valley is a natural barrier between urban and rural land use over the western half of the project. We believe there is a path where the developer can generate the have a viable project, and substantial turbine mitigation measures can be taken. An example of that will be submitted as a separate comment.

Recommended Actions:

The following mitigation measures are needed:

- Reasonable relocation of the most impactful wind turbines. This comment also is the same for wildlife, habitat, or any other issues that needs turbine relocation or removal.
- Require Mitigation of FAA Obstruction Lighting that would keep the flashing lights off a significant amount of time. This would have a dual purpose:
    - Protect Dark Skies, particularly in the West, Central, and South ends of the project.
    - Eliminate the synchronized flashing lights that will be objectionable to many thousands of Tri-City Residents. This is fast becoming the standard for wind projects, and the Developer is installing one in a South Dakota project.

The DEIS Visual Assessment Fails to Apply the BLM and CESA Guidance Adequately to Describe and Evaluate the Impacts on People in Proximity to the Project

The CESA Guidance section on page 9 ***Graphic Information Required for an Effective Assessment*** lists "information to be used to provide objective and quantitative data about the visual characteristics of the project". List several key Information Bullets with emphasis added):

> Identification of Natural and Cultural Resources and Features All area features should be identified on maps, including named mountains; rivers; lakes and ponds; parks; natural areas; **local, state, and federal highways; and town centers** and historic sites open to the public. These should be shown on a completed viewshed map(s) along with viewpoints.
>
> Identification of Viewpoints Viewshed analysis helps focus field assessment work in those areas where views of the project are likely and intersect with public resources such as parks, scenic highways, and town centers. Ideally, all public viewpoints should be identified. Where many viewpoints exist, representative locations may be selected that illustrate the areas of highest scenic quality and greatest visibility. ***Other viewing areas may also be illustrated, especially if they are well used or concern has been expressed, such as near residential areas.*** Visually

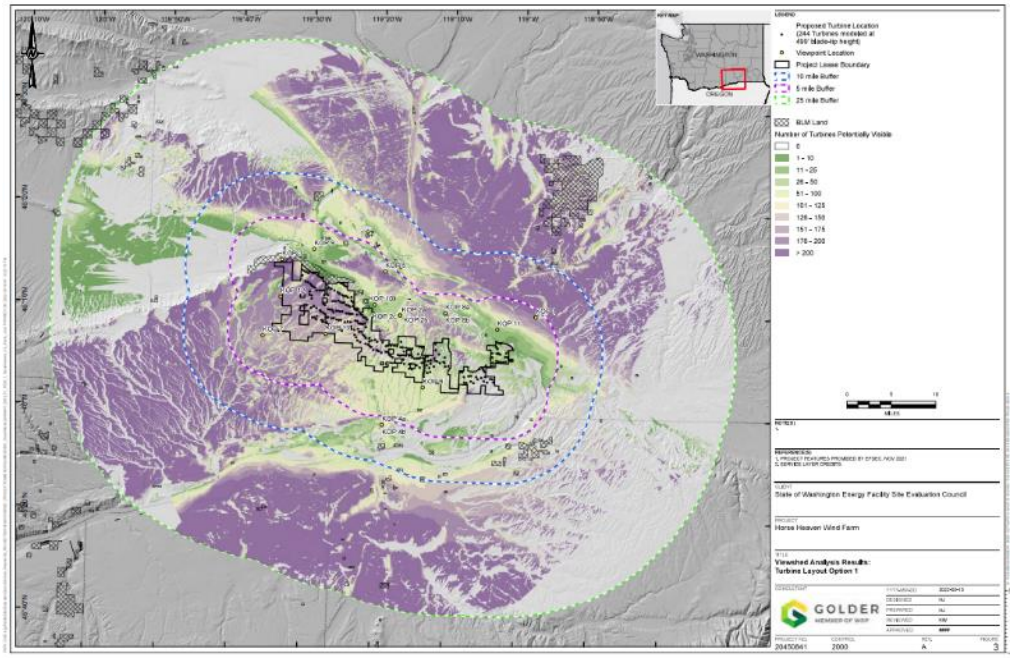
sensitive areas are publically accessible areas of identified and/or documented scenic, recreational, or cultural importance. These points should be included on a viewshed map and linked to photographs and written descriptions of the character of the area.

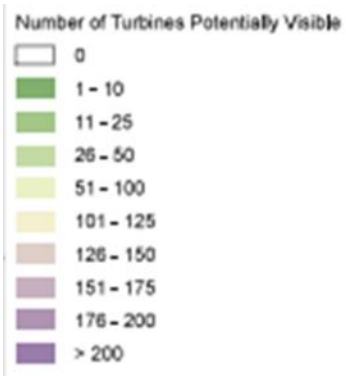
<u>The DEIS Visual Assessment did not select Key Observation Points and Representative Viewpoints Adequately</u>

Table 1 on Page 8 of DEIS Appendix 3.10-2 lists KOPs and RV's The KOPs descriptions are not easily located on a map. There are no geographic coordinates provided. There is no way to validate the location at all.

<u>Recommended Action:</u> The DEIS needs to be revised and reissued with proper coordinates of the KOPs.

Here is the Visual Assessment Map in Attachment A (there are no page numbers) for Viewshed Analysis Results Turbine Layout Option 1.



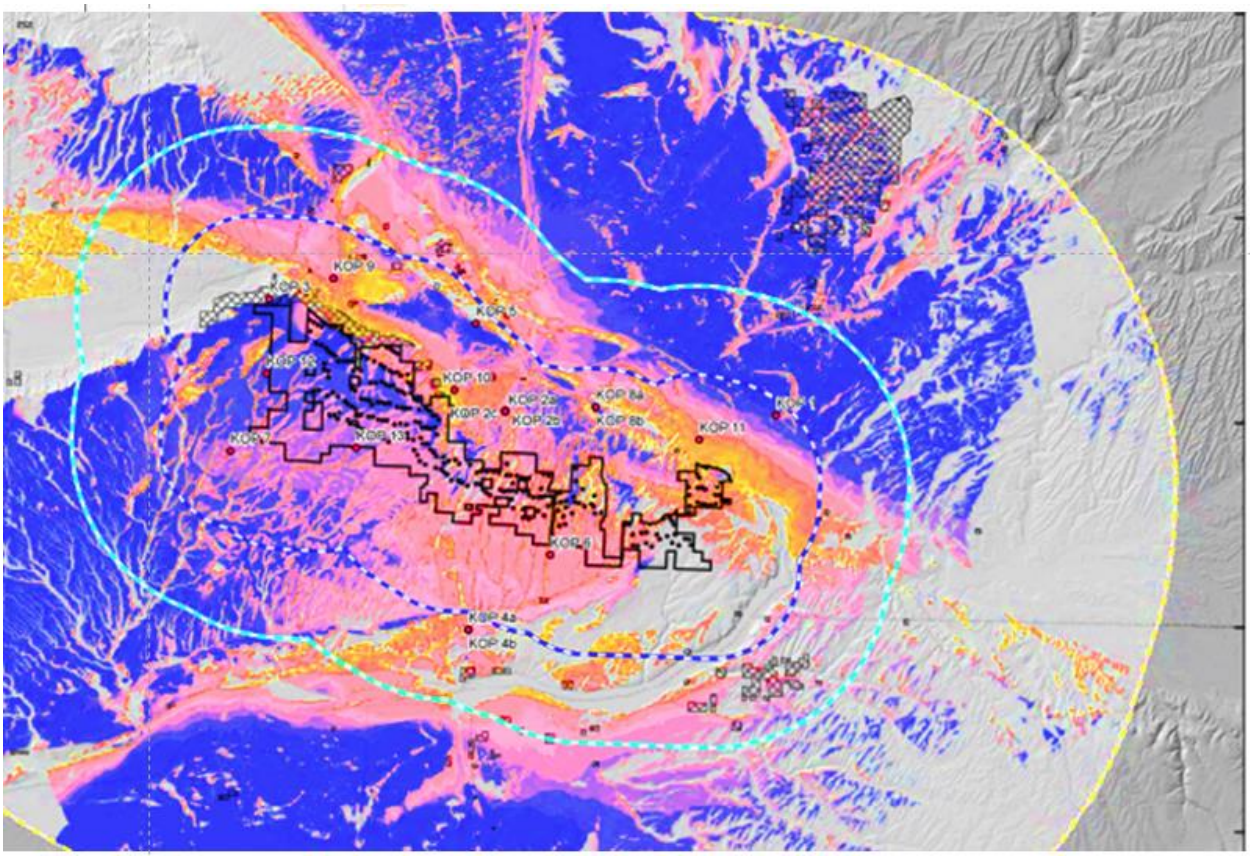


This map is pretty much impossible to use for a reasonable evaluation of the visual impacts by anyone in the affected areas.

Can you see the KOP's? Can you read the KOP number? Is it possible to determine where they are located? There are no reference location markers (Highways, cities, rivers, etc) on the map anywhere.

Even the color legend makes it difficult to interpret what the colors mean. The gradients for the number of turbines visible go from low to high. The color spectrum starts at white, goes to yellow, then to green, then to yellow again, and then to lavender and purple.

This was very confusing so Paul Krupin used Photoshop to recolor the legend and the map using a color spectrum found on the National Weather Service maps for temperature and precipitation. These maps use a color spectrum that goes from light to dark corresponding to low to high values.



Number of Turbines Potentially Visible

- 0
- 1 - 10
- 11 - 25
- 26 - 50
- 51 - 100
- 101 - 125
- 126 - 150
- 151 - 175
- 176 - 200
- > 200

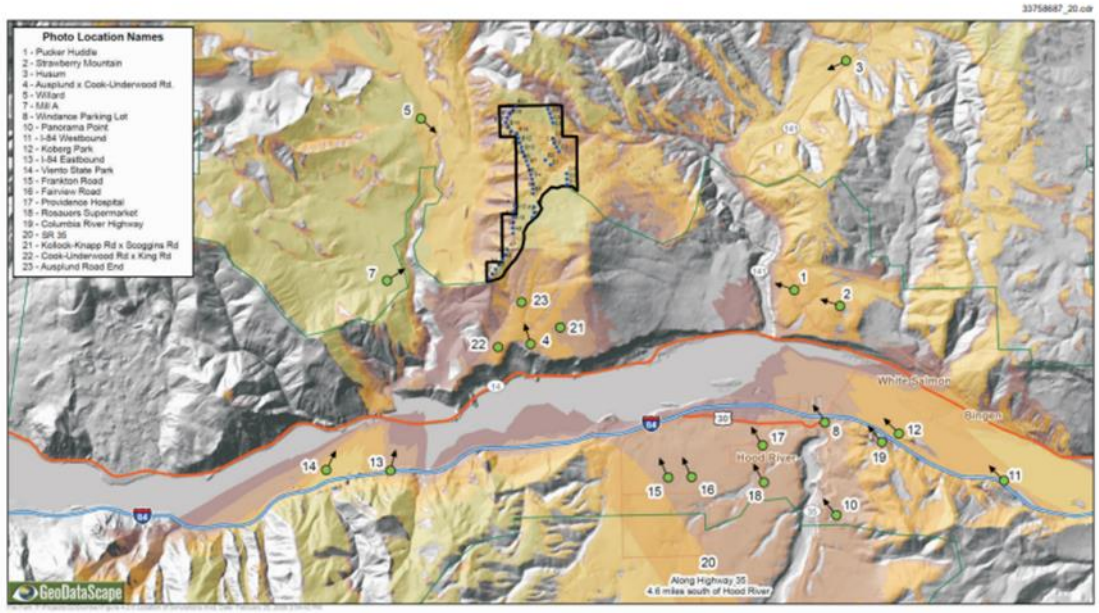
Even with the revised coloration, it is still extremely difficult to make reasonable use of this map. It is impossible to see the locations and details accurately.

With this map and legend, it is clear that a large portion of the people who live north of the Project will be seeing lots of turbines - 50 to 100, 100 to 200, 200 or more.

Recommended Action: The DEIS Visual Assessment and Maps need to be revised and redone. Using a digital GIS mapping system would also make these maps capable of being enlarged and panned so that people can see the impacts at known locations all across the region much more precisely.

The Horse Heaven Wind Project Visual Assessment includes 11 KOP's. This a very small number of KOPs given the size and geography of the Project. There needs to be more KOPs to properly sample and assess the visual impacts of the Project.

In comparison, the Visual Assessment in the FEIS for the Whistling Ridge Project, with a proposed 50 221 to 262 ft tall wind turbines contains 23 KOP RV locations.



Source: GeoDataScape.

Job No. 33758687

Figure 4.2-5

Locations of Simulation Viewpoints

URS

Whistling Ridge Energy Project
Skamania County, Washington

Reference: Whistling Ridge Original Application. The Aesthetics Section pages 4.2-27 to 4.2-72

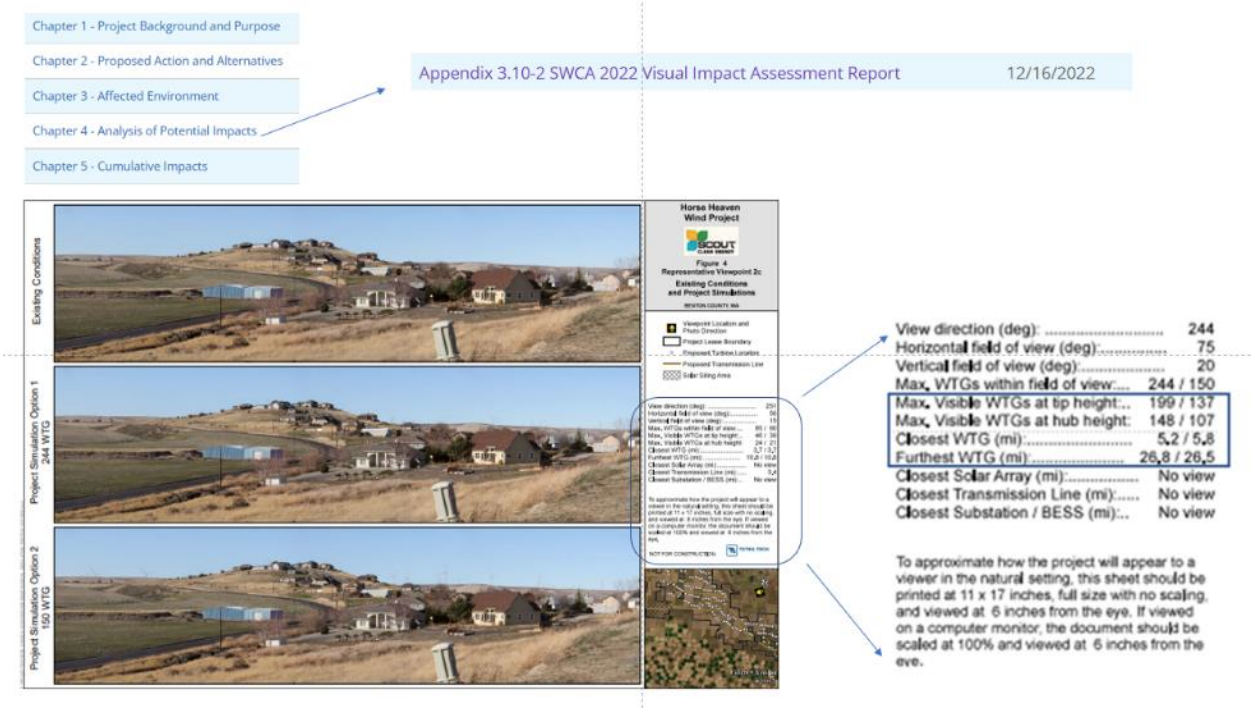
Recommended Action: A project the size of the Horse Heaven Hills Project needs more KOPs to accurately determine and evaluate the visual Impacts. More KOPs are needed.

The KOPs selected and utilized in the DEIS Visual Assessment do not accurately capture the number of people that will be affected by the visual impacts in the Tri-Cities.

Only three of the eleven KOPs are located in in residential areas. However, U.S. Census data from 2020 indicates that over 100,000 people live within six miles of the project boundary. The three locations do not properly sample or represent the number and location of the residential areas within this six-mile radius where people live. Residential areas with unobstructed views of a regionally important and memorable scene would be very sensitive to objects or structures that would impede views.

Most of the remaining KOPs are from rural areas where very few people live, or on rural roads, or from recreation areas. The ratings of KOPs from seldom traveled rural roads where infrequent motorists have only distant, oblique views of wind turbines in an unremarkable setting would likely not qualify as representative of the populations affected by the Project.

Each of the Visual Simulations in the DEIS contains fine print that details the number of wind turbines that will likely be seen from each KOP after the project is constructed.



If you enlarge the page on your computer, you can then read the fine print.

The DEIS does not provide a summary table so we tabulated the data and created an Excel spreadsheet.

KOP RV Simulation Data in the DEIS

Only three residential community lotions selected for visual simulation the rest are all in rural areas with low population

Figure - RV	Name	Direction	Field of View	WTGs Max	WTGs Tip Height	WTGs Hub Height	Closest 499	Closest 671	Furthest 499	Furthest 671
1-1	McNary	West 244	75	244/150	100/137	148/107	5.2	5.8	26.8	26.5
2-2a	S Clodfelter Rd	SE 132	57	75/38	56/29	50/24	3.9	4.8	13.4	13
3-2b	S Clodfelter Rd	South 189	57	37/19	36/19	30/17	3	3.5	6.2	5.9
4-2c	S Clodfelter Rd	West 251	56	85/60	46/39	24/21	3.7	3.7	10.8	10.8
5-3	Chandler Butte	SE 128	56	244/150	239/150	219/139	2.5	2.8	28.1	27.6
6-4a	I-82 South	North 350	57	163/110	51/40	34/26	7.3	7.3	19.6	19.4
7-4b	I-82 South	NE 46	57	85/42	66/37	58/33	7	7.3	16.2	15.8
8-5	Badger Mt.	SW 235	58	101/76	101/76	101/76	4.7	4.7	9.9	9.8
9-6	Bofer Canyon	North 360	60	41/17	37/17	29/17	1.7	1.8	5.7	5
10-7	Hwy 221	NE 60	58	122/90	118/87	110/85	5.8	5.8	11.9	11.8
11-8a	Canyon Lakes	South 193	57	43/20	40/19	37/15	3.6	5.4	7.4	7.3
12-8b	Canyon Lakes	West 258	57	153/105	137/101	102/83	5.9	6.1	16.8	16.6
13-9	Benton City	SE 195	73	61/47	5/5	4/4	2.7	2.7	9.7	9.6
14-10	Badger Road	SW 241	76	79/59	15/15	9/7	1.5	1.5	6.6	6.6
15-11	Finley Elementary	SE 169	73	33/47	23/12	19/11	2	2.5	6.6	6.6
16-12	County Well Road	NE 61	73	57/40	53/40	52/37	2.5	2.5	8.7	8.6
17-13	Travis Road	North 16	73	73/54	69/52	65/51	1.1	1.1	7.3	7.1

Spreadsheet created using the data in the Visual Simulations in DEIS Appendix 3.10-2

What this reveals is that the KOPs do not accurately correspond to or consistently represent what is presented in their Viewshed Maps for Options 1 and 2. Neither the table nor the viewshed maps

reasonably help a reviewer or an EFSEC decision-maker determine and evaluate the visual impacts on the Tri-Cities.

There is also no evidence of any ground truthing in the DEIS. So we enlisted the help of volunteer, Bruce Bjornstad, PhD. Geologist and he took drone photos at several proposed turbine locations on the Project. This is the view from the Proposed Turbine Location just east of Webber Canyon.

This photo is taken 500 feet above the ground at a proposed turbine location off Dennis Road and Weber Canyon. It provides perspective and insight into the question who can see this turbine. Photo Credit to Bruce Bjornstad. It reveals that people who live in Benton City, South Kennewick, Richland, Kennewick, Pasco and Finely will be seeing 100 to 200 turbines or more from their homes, on roads, and businesses, day in day out.

A 57 second drone video from this same location can be viewed here:

https://presari.com/media/dji_0005.mp4

The DEIS Viewshed Assessment does a very poor job describing what people will see from many critical residential areas in the Tri-Cities. There are free and Pro subscription versions readily available to the CalTopo Digital Mapping System (https://caltopo.com/). CalTopo can also be downloaded to a smart phone and used in the field if wireless access is available.

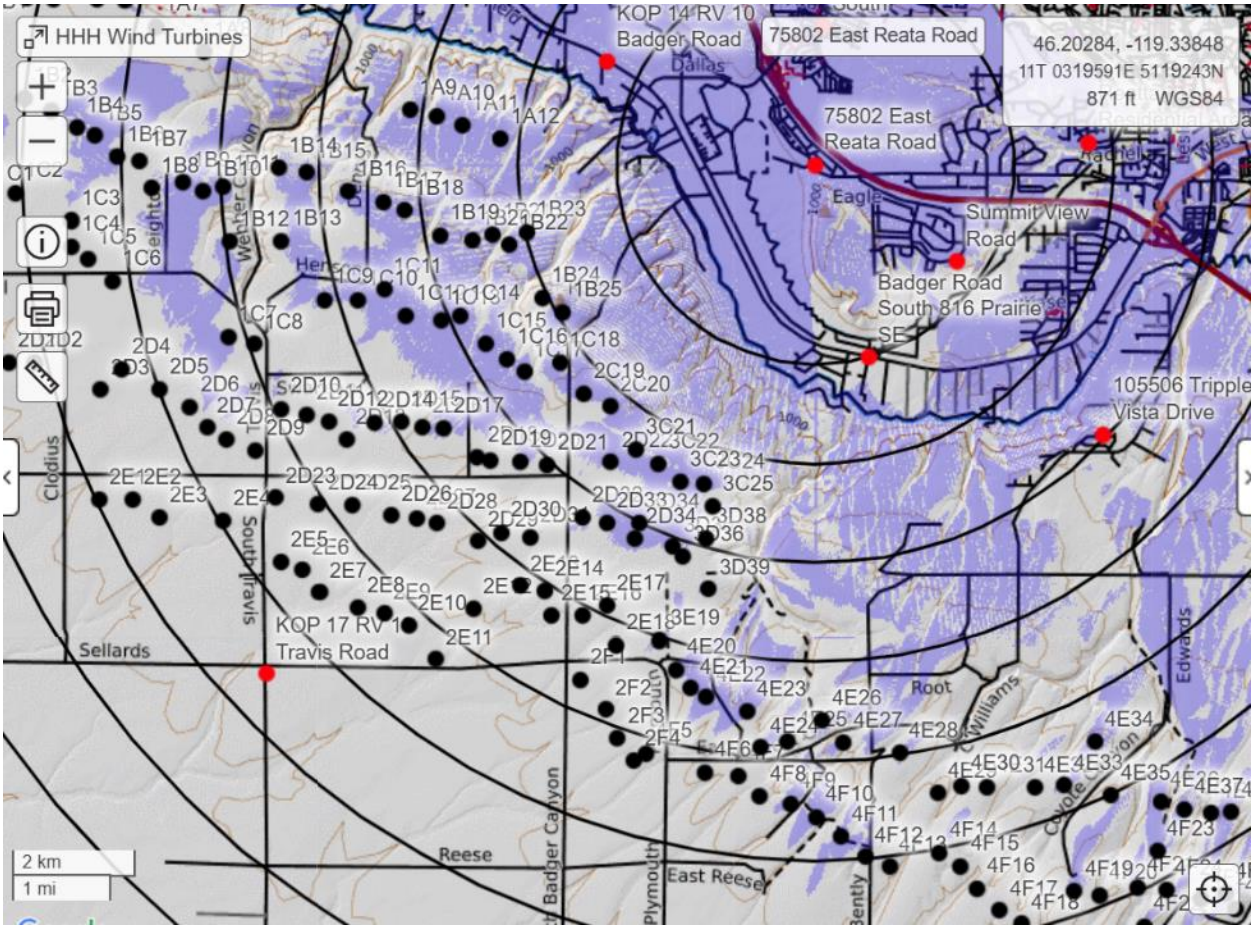
The desktop version was utilized to create a whole series of Viewsheds to cover the KOPs that the DEIS should have covered. Viewsheds were created for the dozens of turbine locations using the Option 1 and 2 Layout Maps, and the City Halls locations for each town, and for over 20 residential communities and other highly populated viewing locations.

Here are a few samples to illustrate what they reveal.

For each graphic, the viewpoint location is the red dot at the center of the range rings. The range rings are 2 to 10 miles in one-mile increments. The black markers are HHH turbines; the yellow markers = the existing Nine Mile turbines; Black marker on Purple = the hub is visible. Black on Gray = partially visible to not visible depending distance and on intervening topography.

The viewsheds are aimed at the hubs on the 499 ft. high turbines, you will see more if they build the 671 ft. high turbines, which are taller than the space needle.

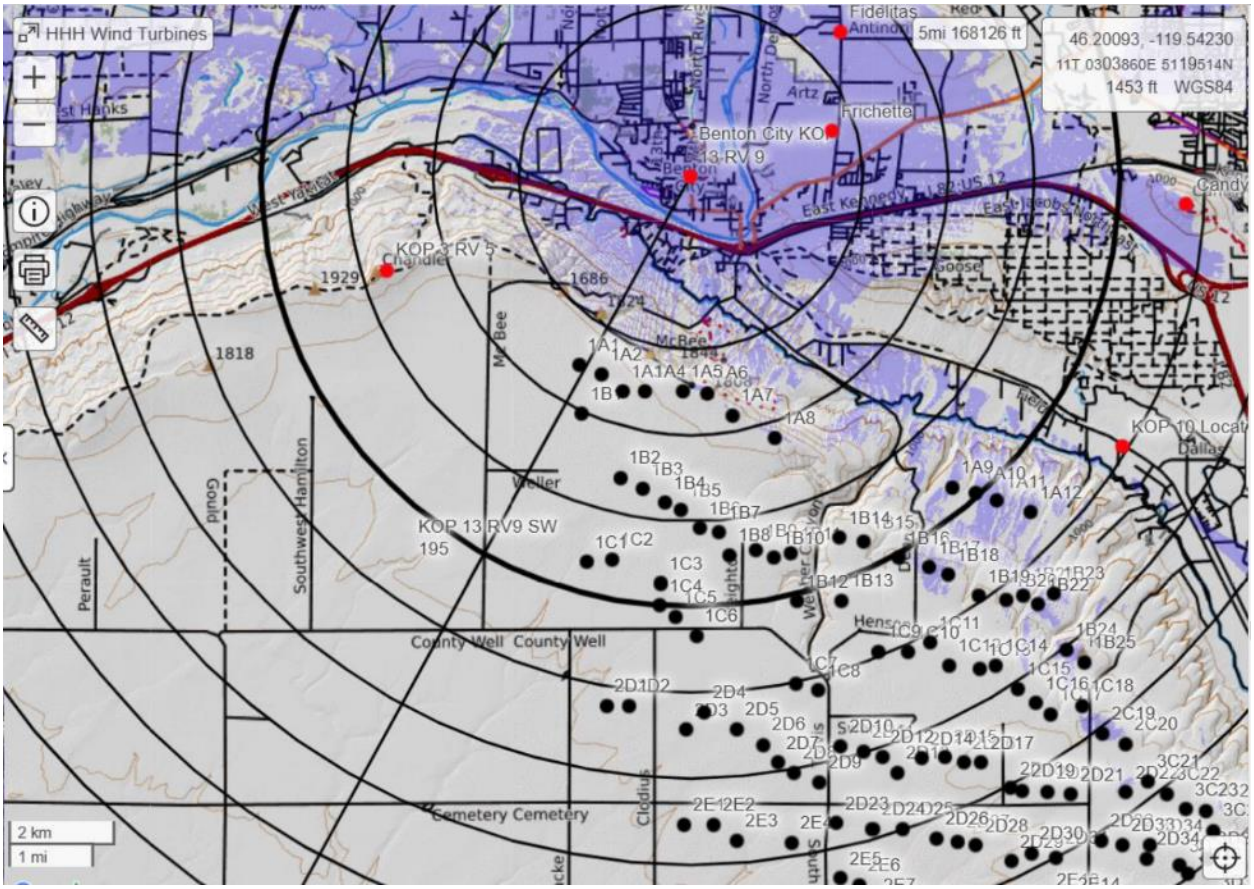
To offer some ground level perspective, here is a photo taken from East Reata Road in Kennewick, followed by the CalTopo Viewshed taken from the same location with the viewshed elevation set at the height of the hub on the 499 ft high turbine.


HHH Wind Turbines
KOP 14 RV 10
Badger Road
75802 East Reata Road
46.20284, -119.33848
11T 0319591E 5119243N
871 ft WGS84
75802 East
Reata Road
Summit View
Road
Badger Road
South 816 Prairie
SE
105506 Tripple
Vista Drive
KOP 17 RV 1
Travis Road
Sellards
Reese
East Reese
Root
2 km
1 mi

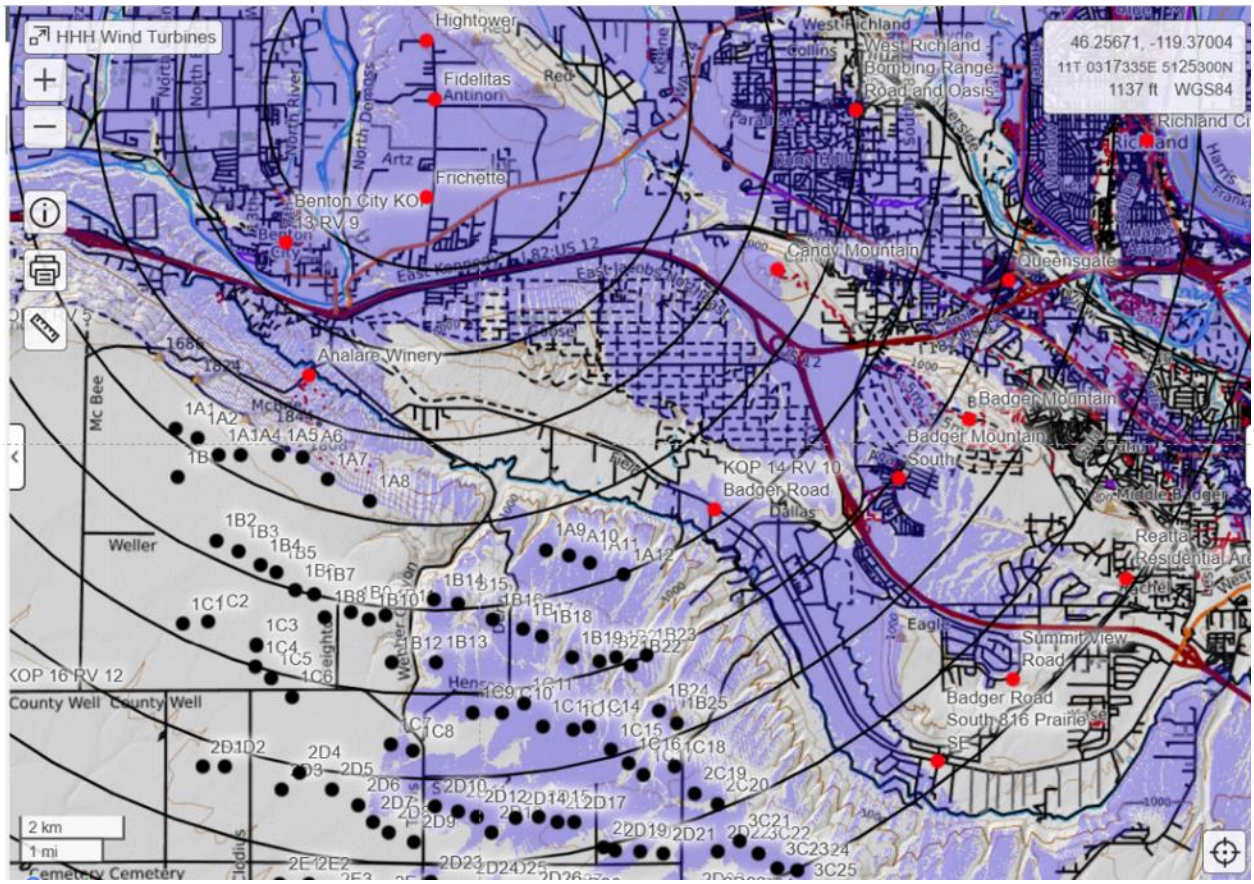
Both the picture and the viewshed face toward the Southwest. The photos indicates that people who live and drive in this neighborhood will be seeing full views of 150 to 200 turbines of the A, B, C and D Turbine Strings from the south east through the southwest. There will be more than a dozen turbines in full view from the flat bench in the center of the photo to the left (and to the south on the viewshed map).

Here is the Viewshed from Benton City corresponding to the location of the Computer Simulation with the gas station sign and trees obscuring the view of the turbines.

Figure 13
KOP 13
RV9
SE 195



This viewshed is located on the Fidelitas Winery on Sunset Road in the middle of the Red Mountain AVA. The nearest turbines are 4.5 miles away and they will be able to see a dozen or more 5 to 7 miles away. Right from the porch at the wine tasting room.



This viewshed is located on the Benton County Justice Center in Kennewick at Vista Field. Several dozen turbines will be visible 7 to 8 miles away. The Nine Canyon turbines are also visible from this location. They are smaller than the Horse Heaven turbines, which will be larger 499 feet high or 671 feet high, and will be visible face on.

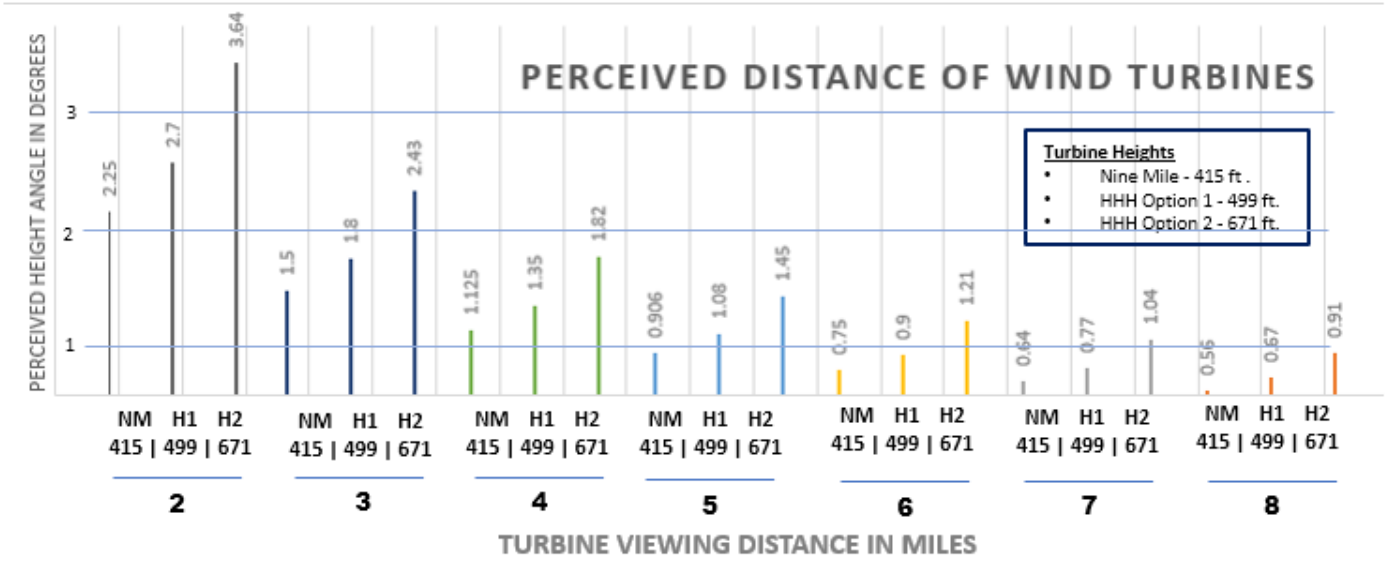
These samples indicate that the DEIS Visual Analysis is seriously flawed and does not provide a rational basis for decision-making. More work needs to be done to establish a better understanding of the visual impacts on the people affected by the Project especially near the residential areas two to ten miles away from the Project boundaries.

The DEIS fails to identify and discuss the perceived size of turbines with a proper scientific understanding of how big they will appear on prominent ridgelines to viewers in the town.

The wind turbines will appear differently depending on a variety of factors including distance.

The following graphic was prepared to compare the perceived size of the turbines for the existing Nine Canyon Project as compared to the proposed Horse Heaven Hills Project including the 499-foot turbines in Option 1 and the 671-foot turbines in Option 2.

This chart was prepared using online perceived angle distance calculators to compare the perceived height of wind turbines at increasing distances in miles.



Here is a photo taken from downtown Kennewick looking south towards the Nine Mile Project. The foreground turbines above the roof is a measured Amistad Elementary School is 6.4 miles away from the photo location using CalTopo's measuring tool (accurate to distance feet). The ridgeline is 7 miles away and more as one looks down the ridge to the east.

Compare this to the size of the turbines in the DEIS Visual simulations which state in the fine print that the turbines in the middle and lower photo simulations are three miles away.

The DEIS simulations appear smaller at 3 miles than the photo of the Nine Mile turbines at 6 tpo 7 miles.

<u>This raises serious concerns about the adequacy of the visual assessment presented in the DEIS.</u>

The DEIS fails to select an adequate number of KOPs. The KOPs in the DEIS are not representative of the people who live in the affected environment.

The DEIS and SCA Visual Simulations fail to provide accurate depictions of the Project viewsheds.

The analysis and the rating of viewer sensitivity and impacts is flawed. The DEIS fails to provide clear criteria regarding the threshold between “reasonable” and “unreasonable” visual impacts.

Viewsheds created with a digital GIS mapping program with the parcel data showing residential community locations and the radial distance rings are helpful in identifying threshold distances or ranges.

CESA 2021 recognizes the sensitivity of viewsheds to residential communities at five to ten miles.

There are three strings of turbines that are presently within four miles of several residential communities in south Kennewick near the Nine Canyon Projects.

Based on the guidance in the CESA 2011 Step 2, on page 25, a distance of six to seven miles may be deemed acceptable and defendable, since it is what people are used to seeing in south Kennewick.

However, the Horse Heaven Hill turbines will be much larger than the Nine Mile turbines, and there will be more of them, and they are proposed to be much closer than the Nine Mile turbines.

<u>Recommended Action:</u> The DEIS must be revised to accurately describe the visual impacts of the projects on people. Turbines at distances of less than six miles or seven miles may be deemed to be unacceptable, too sensitive, too visually intrusive and imposing to too many people in too many thousands of homes.

Recommended Actions: EFSEC needs to use turbine elimination and relocation and use more solar as mitigation measures to reduce the visual impacts on people from the turbines that are too close to people. EFSEC needs to revise the DEIS Visual Assessment and develop rationale criteria to determine the threshold when turbine distances are unreasonable and unacceptable.

Dark Skies, Flashing Red Lights at Night and Light Mitigation Technology

The DEIS fails to describe and evaluate the value of the dark skies at night on the Horse Heaven Hills Project.

The DEIS does fails to describe and evaluate light pollution cause by the flashing red lights on turbines at night that can been for great distances.

The DEIS fails to describe and commit to commonly used, FAA-approved light mitigation technology utilizing aircraft detection lighting systems.

The description of Light and Glare in Section 3.10.4.2 Chapter 3 – Affected Environment on page 3-175 fails to accurately describe the night time sky and set a baseline for comparison with the light pollution that will be caused by the Project.

The discussion of light pollution impacts in Section 4.10.2.2 Impacts During Operation on 4-340 fails to accurately describe the light pollution impacts on people in any meaningful way. Here is the way they describe the light impacts from 0.5 to 5.0 miles way.

From viewpoints where existing modifications do not currently attract attention, the Project would dominate views since a large portion of the viewshed would typically be occupied by large, spinning wind turbines. From this distance, the individual turbines tend to visually "merge" with other turbines in the string from some viewing angles, resulting in the turbines appearing larger in mass and scale.

From more distant views, within the background distance zone (more than 5 miles away), the proposed wind turbines would appear as vertical lines with a faint spinning motion of the blades—particularly when seen sky-lined above ridges or other highpoints within the landscape. The proposed solar arrays and other Project components would be mostly indiscernible from the background distance zone

This vague fuzzy qualitative discussion fails to identify the number of people who live in proximity to the Project and what the impacts of the flashing red lights at night will be on them. There is no mention of flashing red lights at all.

Flashing red lights at night are a problem at existing wind turbine projects, particularly along Highway 12 between Pasco and Walla Walla. People have described these lights as so mesmerizing and distracting that they cause accidents to people driving on the highway at night.

Here is a snapshot of the flashing red lights at night taken near Touchet Washington along highway 12 between Pasco and Walla.

Here are some short videos that document the nature of the red lights at night problem along Highway 12 near Touchet Washington.

Take your pick. In the last one, the cows came to visit me.

https://presari.com/s/R24060000120000

https://presari.com/s/I26065000130260

https://presari.com/s/O94235000471880

The first two are 30 seconds, the third one is about 15 seconds.

The DEIS fails to describe and evaluate the flashing red lights in any meaningful way.

Page 4-388 in Chapter 4 – Analysis of Potential Impacts fails to include the widely used and FAA approved light mitigation technology known as aircraft detection lighting systems.

This glaring omission flies in the face of the Horse Heaven Hills developer Scout Clean Energy having committed to an ADLS in the Sweetland Farms Wind Project a 200 MW Project in South Dakota.

https://www.energy.gov/sites/default/files/2021-09/draft-ea-2095-sweetland-wind-d-app-k-q-2019-11.pdf

This is a global problem.

Pilots flying aircraft at low altitudes at night rely on obstruction lights on wind turbines.

For many others, they are a disturbing eyesore and an invasive nuisance.

To address this problem House Bill 1173 has been proposed in the Washington House of Representatives. House Bill 1173 turns off the red flashing lights at night, unless they are needed to keep aircraft safe.

Unless light mitigation technology is used, the glaring flashing red lights at night become a significant adverse impact. The DEIS fails to identify and evaluate and mitigate the impact of this element of the environment at all.

The lights need not be on all the time. Out of sight is out of mind. Safe skies can be dark skies with light mitigation technology known as 'Aircraft Detection Lighting Systems' or ADLS.

This FAA-approved technology operates a lot like the motion sensors that automatically turn the lights on and off at WA DOT rest areas all across the state.

North and South Dakota, Vermont, New Hampshire – all require ADLS on wind energy projects. Colorado, Minnesota, and Kansas have bills under consideration. Federal, state, county and city government agencies routinely require ADLS on wind projects.

Using ADLS to reduce light pollution at night produces an enormous sense of relief to people near and far away from projects.

The Horse Heaven Hills Project is the largest wind farm proposed in the state of Washington, is nearly 30 miles across, and will entail the construction and operation of up to 244 – 499-foot high or 150 - 671-foot high turbines.

U.S. Census data from 2020 indicates this project will have a disproportionate impact on people who live in the Tri-Cities and in Benton County, compared to every other wind project in the state.

Benton County is the fastest growing county in Washington State.

Benton City, Richland, Kennewick, and Finley all have urban growth boundaries, with several hundred 3- to 5-acre plots, one to three miles from the project.

In addition, over 100,000 people live within six miles of the turbines, in numerous fast-growing, residential communities, mostly inside city limits.

This compares to about 19,000 people within 6 miles, for all the other projects in the state combined. And the average number of people within six miles, for the nine counties with 33 wind projects in the state, is just over 2,100.

Instead of trees, 150 to 200, Space Needle size wind turbines, will be visible throughout the Tri-Cities, even from 10 to 20 miles away.

At night, approximately 300,000 people in the Tri-Cities will likely be able to see the red lights from the wind turbines proposed in the Horse Heaven Hills Wind and Solar Project unless they are mitigated.

People in Tri-Cities are worried that visual impacts will harm their mental health, real estate values, the wine industry, and tourism. ADLs' can reduce the negative concerns people have. ADLS's improve the social acceptance of wind energy.

Wind farm operators concerned about costs often change their minds once they learn that the costs for ADLS are not prohibitive. A new radar site costs $1 to 2 million, plus additional infrastructure as necessary, which is barely noticed in the Capital Expense costs of a large project. Cost savings are produced when the ADLS takes the wind out of the publics' most vocal concerns – the night-time visual impacts.

Reduced public opposition can save time and projects can derive benefits from reduced litigation, faster permitting, and improved public and community relations.

References:

https://nawindpower.com/new-legislation-lights-north-dakota-wind-farms

Germany has adopted a national requirement that ADLS are required offshore by the end of 2023 and onshore by the end of 2024. https://www.frontiersin.org/articles/10.3389/fenrg.2022.984003/full

https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_70_7460-1L_-Obstuction_Marking_and_Lighting_-_Change_2.pdf

Recommended Action: The DEIS must be revised to properly identify and evaluate the light pollution impacts of the project. Light mitigation technology using FAA-Approved ADLS or equivalent must be required for the Project.

Water Supply

The DEIS, even with inclusion of the ASC Redlined Update from December 1, 2022, does not comply with the requirements of WAC 463-60-165 to identify the sources of water for the Project.

WAC 463-60-165:

(1) Water intake and conveyance facilities. The application shall describe the location and type of water intakes, water lines, pipelines and water conveyance systems, and other associated facilities required for providing water to the energy facility for which certification is being requested.

(2) Water supply and usage alternatives.

(a) The applicant shall consider water supply alternatives, including use of reclaimed water, water reuse projects, and conservation methods. The application shall describe all supply alternatives considered, including the associated cost of implementing such alternatives, and the resulting benefits and penalties that would be incurred.

(b) The application shall include detailed information regarding using air cooling as an alternative to consumptive water use, including associated costs.

(c) The application shall describe water conservation methods that will be used during construction and operation of the facility.

Neither the DEIS nor the Updated Redlined ASC identify a viable source of water for the Project.

2.6.2 Water Supply and Usage Alternatives

2.6.2.1 Construction Water Supply

Water for construction activities is planned to be sourced from the potential suppliers in close proximity to its use. Local public utilities are the likely source for the quantities anticipated. As

such, a permit was sought from the City of Kennewick recently, but the City indicated that their City code KMC 14.13.090 would allow use only on property located within either the City limits or the City's Urban Growth Boundary. As an alternative to the City of Kennewick, the Project may source water from either another local off-site public utility, private irrigator, or wells. As an example, refer to the Port of Walla Walla Availability of Water for Hire letter in Appendix J. It is anticipated that any necessary water volume mitigation for the impact will be provided in accordance with Ecology guidelines from new or existing regional sources. ~~Construction water would be supplied by the City of Kennewick Public Works.~~ Water conservation will be implemented to the extent practicable by use of less water-intensive methods of dust suppression, 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.

Bottom line. The developer has not yet identified a viable source of water for the project.

Recommended Action: Revoke and suspend the ASC and withdraw the DEIS. Revise and re-issue after the Developer can demonstrate compliance with the WAC requirements to identify the source of water.

Impacts on People in the Affected Environment

The DEIS Fails to Adequately Identify and Evaluate Significant Impacts on the Environment and People

> WAC 197-11-440(6)(a) states: (6) Affected environment, significant impacts, and mitigation measures.
>
> (a) This section of the EIS shall 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.
>
> (c) This section of the EIS shall:
>
> (i) Succinctly describe the principal features of the environment that would be affected, or created, by the alternatives including the proposal under consideration.
>
> ii) 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, such as storage, handling, or disposal of toxic or hazardous material.

(iii) Clearly indicate those mitigation measures (not described in the previous section as part of the proposal or alternatives), if any, that could be implemented or might be required, as well as those, if any, that agencies or applicants are committed to implement.

(iv) Indicate what the intended environmental benefits of mitigation measures are for significant impacts, and may discuss their technical feasibility and economic practicability

(v) Summarize significant adverse impacts that cannot or will not be mitigated.

The DEIS fails to take a adequately and appropriately identify and evaluate the impact the proposed action and any reasonable alternatives will have on people & the environment.

The December 19, 2022 cover letter from EFSEC to the public states:

> "The Proposed Facility would consist of a combination of wind and solar facilities, as well as battery energy storage systems, and would be located approximately 4 miles south/southwest of the city of Kennewick and the larger Tri-Cities urban area along the Columbia River in unincorporated Benton County.

The "four miles" is an error and this misrepresentation is carried through the entire DEIS.

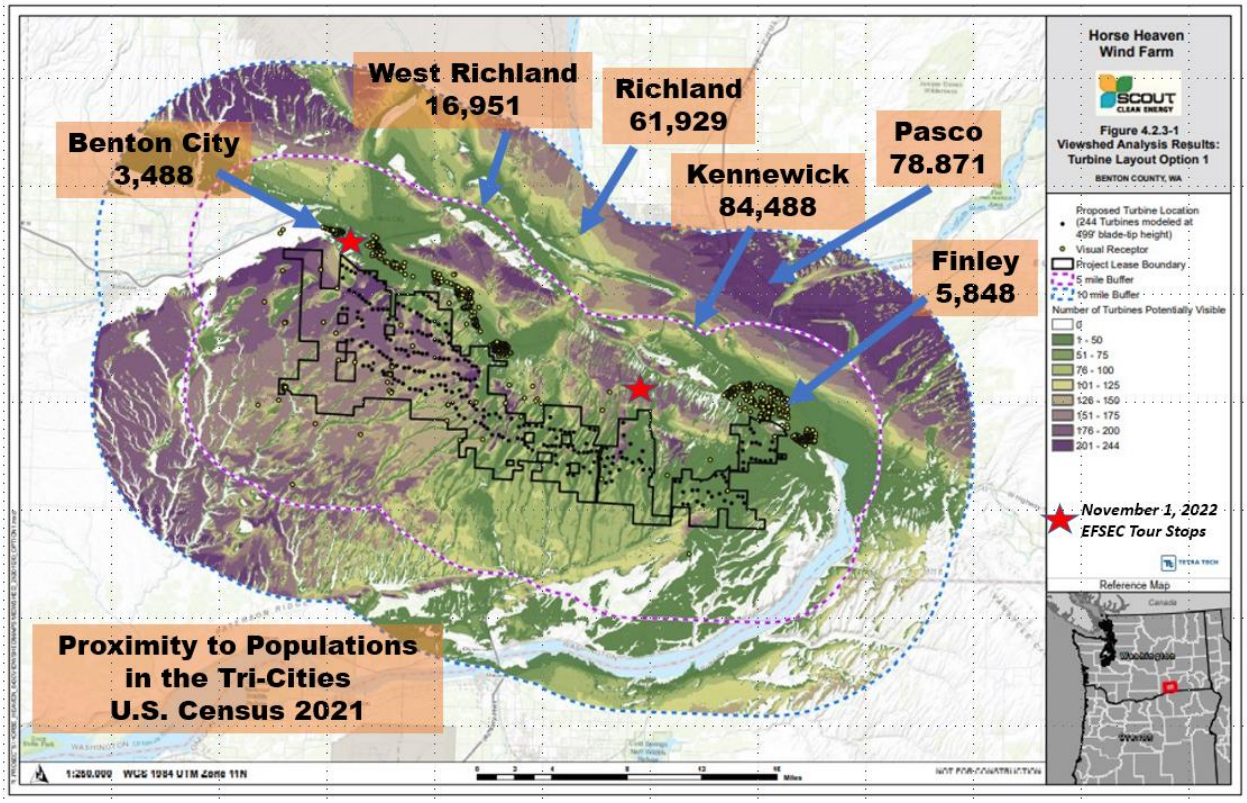
Recommended Action: The ASC and the DEIS needs to address this error and misrepresentation by accurately identifying and evaluating the numbers of people in the affected environment and then accurately identifying and evaluating the socio-economic impacts the Project will have on these people.

The November 1, 2022 road tour to the Horse Heaven Hills Project did not provide EFSEC with a reasonable means of describing, experiencing and evaluating the proposed Project, the affected environment, the lack of alternatives, and the need for mitigation measures to protect the environment.

Neither of the tour stop locations is on the HHH project property but are located about a mile north of the project boundary. EFSEC members did not view the actual proposed site locations and will not be able to gain a reasonable or realistic description of what and where the applicant has proposed facilities. Basically, from these locations, you will not be able to even set eyes on the actual project itself.

The project is 25 miles from west to east and is 8 to 10 miles across from north to south. The project lands cannot be readily viewed from the two locations identified. Very simply, the proposed stops are in the valley below the elevation of the project. From these locations, you get to look up and the Horse Heaven Hills ridgeline blocks the view of the project lands, so all you will see is the sky above just a few of the northern-most proposed turbine locations.

The road tour failed to describe the proximity of populations of people to the Project. The red stars on the following map shows the road tour stops were located where the hillside obscured the views of the residential areas where people live.



Neither the EFSEC Tour nor the DEIS accurately describe the populations in the affected environment accurately. The following table contains 2020 Census Data for the state and for the affected towns near the Horse Heaven Hills Project.

Horse Heaven Wind Project - Proximity to Populations in the Tri-Cities

	Sorted by Distance from Community		
	Community Data		
Project Name/Area	**Community**	**Dist-Miles**	**Population**
Horse Heaven - Finley	**Finley**	0.5	**5,858**
Horse Heaven - Mcbee	**Benton City**	1.3	**3,488**
Horse Heaven - Weber Canyon Badger	**Kennewick**	1.0/3.1	**84,488**
Horse Heaven - Weber Canyon Badger	Richland	3.1	**61,929**
Horse Heaven - Weber Canyon Badger	West Richland	4.5	**16,951**

Horse Heaven - Finley	Burbank	5.0	**3,522**
Horse Heaven - 395 - Finley	Pasco	8.1	78,871
Horse Heaven - McBee	West Pasco	8.3	1,592
Horse Heaven - McBee	Prosser	10.6	6,106

Tri-Cities Total with rural population	308,293
Benton County Adjacent Community Population	172,714
Franklin County Adjacent Community Population	83,985

Wind Turbine Data from National Wind Turbine Data Base

Population data from the U.S. Census 2021

Distances Measured from Map-Approximate

The DEIS fails to describe the disproportionate impact the Project has on people when compared to every other wind project in the State of Washington.

Washington State Wind Projects-Proximity to Population

Wind Project Data						**Community Data**		
Project Name	**# Turbines**	**Turbine Size-MW**	**Height-ft**	**Hub Height-Ft**	**Capacity-MW**	**Closest Community**	**Dist-Miles**	**Population**
HH Option 1	244	2.82	499	262	737	Finley/Benton C/Kenn	0.5/1.3/3.1	93,834
HH Option 2	150	5.5	671	410	825	Finley/Benton C/Kenn	0.5/1.3/3.1	93,834

Nine Mile Canyon	63	1.3/2.3	299/415	197	96	Finley-Note 2	1.8	6,000
Linden, WA-Note 3	25	2	409	257	50	Goldendale	4.5	3,459
Stateline WA Portion	454	0.4	241	164	181.6	Finley	6.2	357
Windy Point	175	2.3	414	262	402.5	Goldendale	7.0	3,459
Swauk Valley	5	0.8	276	180	4	Cle Elem	9.4	2,115
Kittitas Valley	48	2.1	407	262	100.8	Cle Elem	10.6	2,115
Rattlesnake Flat	58	2.7	497	262	156.6	Ritzville	12.5	1,680
Palouse Project	64	2	427	262	128	Colfax	12.5	2,891
Skookum Chuk	38	3.6	492	269	136.8	Bucoda	12.5	668
Goodnoe Hills	47	2.2	459	279	103.4	Goldendale	21.0	3,459
White Creek	87	2.3	415	262	204.7	Goldendale	22.0	3,459
Wild Horse	127	1.8	351	262	228.6	Ellensberg	25.0	21,579
Wild Horse	22	2	351	144	272.6	Ellensberg	24.0	21,579
Hopkins Ridge	87	1.8	351	220	156.6	Colfax	25.0	2,891
Marengo	78	1.8	384	220	140.4	Walla Walla	25.0	32,793
Tucannon	116	2.3	440	262	266.8	Walla Walla	25.0	32,793

Lower Snake River	119	2.3	428	262	273.7	Colfax	25.0	2,891
Vantage Pt	60	1.5	389	262	90	Ellensberg	26.3	21,579
Big Horn	133	1.5	389	262	199.5	Prosser/Goldendale	28.1	6,202
Big Horn	24	2	404	262	50	Prosser/Goldendale	28.1	6,202
Juniper Canyon	64	2.4	418	262	153.6	Prosser/Goldendale	28.1	6,202
Harvest	45	2.3	415	262	103.5	Goldendale	30.0	3,459

Wind Turbine Data from National Wind Turbine Data Base

Population data from the U.S. Census 2021

Distances Measured from Map-Approximate

Recommended Action: EFSEC needs to do another tour to revisit the site and actually get on the Project and see and understand first hand the disproportionate impact the Project has on the people in Tri-Cities and the degree to which the Project causes significant impacts. The DEIS needs to be revised to accurately describe and evaluate the populations and communities near the project and the impacts the Project will have on people.

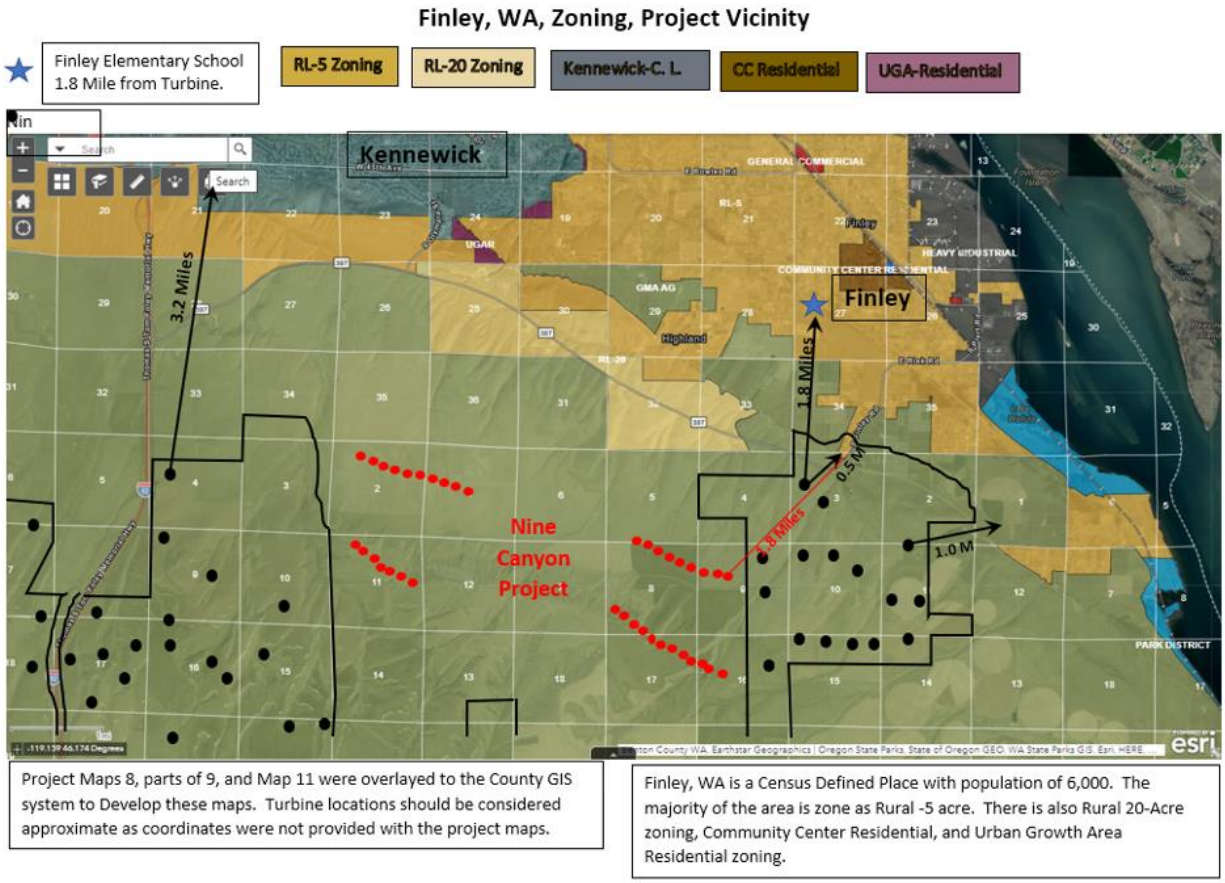
The DEIS does not accurately describe and evaluate the location, proximity, and impact on people who live in close proximity to the Project.

The Benton County GIS system, which is available to the public online at the following website https://benton-county-gis-bentonco.hub.arcgis.com/ can be used to create graphics which show describe and evaluate the Project, and depict the proximity of the project to people and the designated land use categories that are affected by the project at present and in the future.

The following map is for the area near Webber Canyon. The highlighted RL-5 Zoning Classification indicates the location of existing and planned residential communities.

Proximity of Wind Towers To Populated Areas-Township 8 & 9-Range 27

The following map is for the area south of Kennewick to Finley. The highlighted RL-5 Zoning Classification indicates the location of existing and planned residential communities.

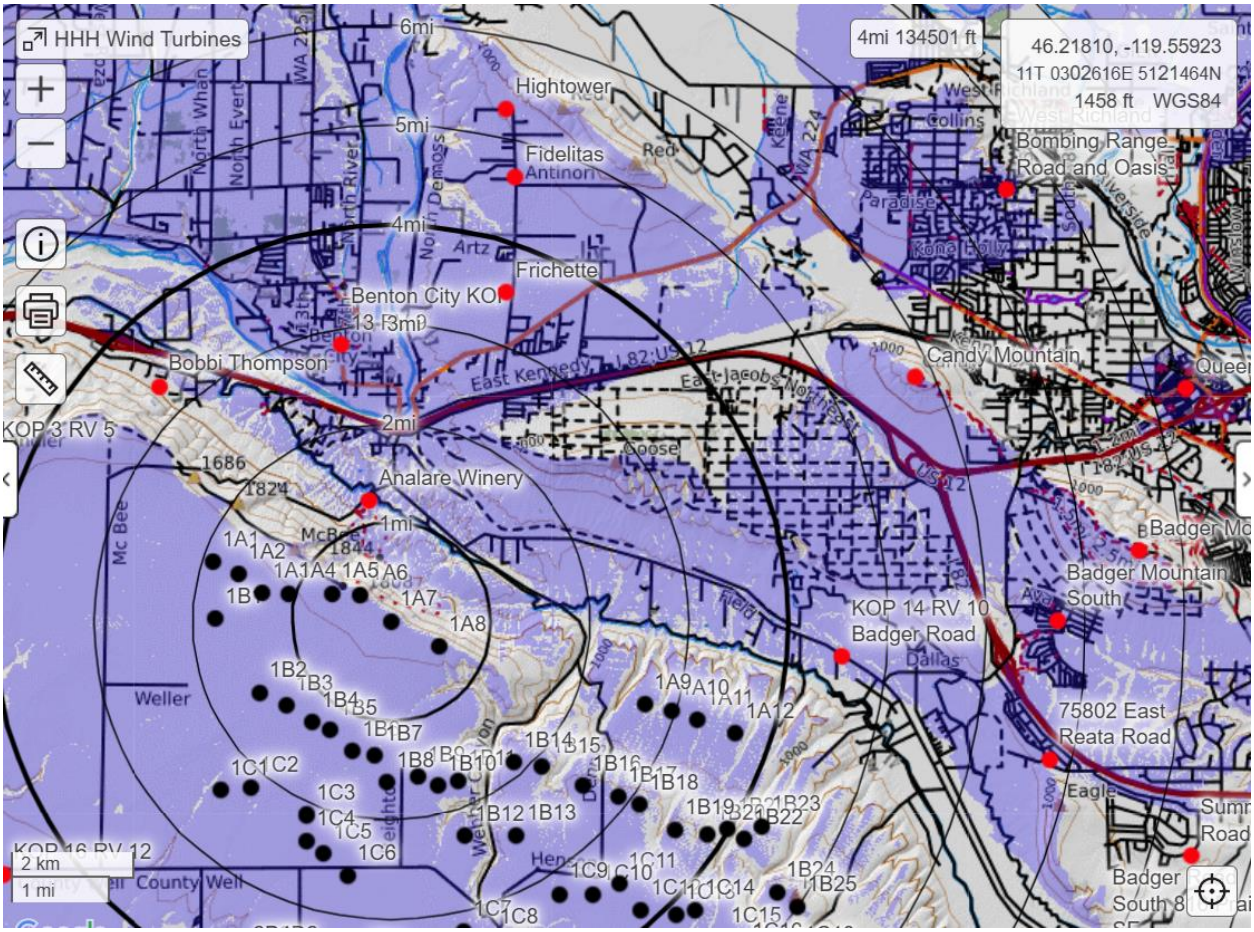


<u>The DEIS does not identify and evaluate the proximity of the Project to people adequately. The distances described in the DEIS are in error and misrepresent the real conditions found at the present time.</u>

The DEIS does not use digital GIS Mapping to identify and evaluate the elements of the environment and the significant impacts the project and alternatives will have. As noted in another section of the comment, CalTopo is an inexpensive and versatile digital mapping program that can be readily used to help understand and evaluate the relationships between features of interest and elements of the environment.

This following graphics are centered on a turbine we numbered 1A7. It is one of a dozen turbines labeled in the A String of turbines that can be seen south of Benton City, and south west of south Badger Road in south Kennewick. As noted in previous comments, the developer has not provided maps that show turbine and other project infrastructure coordinates and they do not number the turbines.

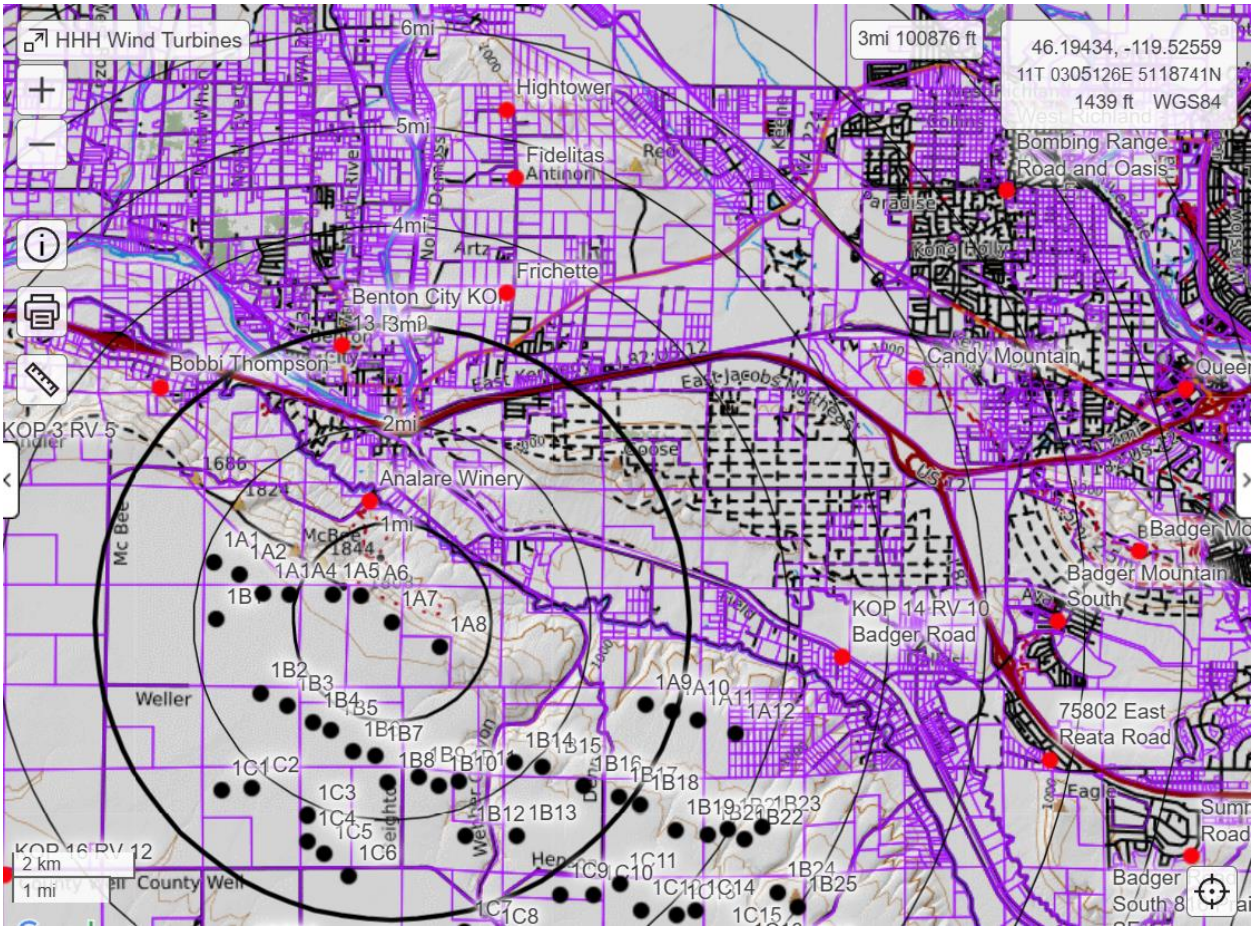
The first graphic is the a CalTopo viewshed from turbine 1A7 set at hub height on a proposed 499-foot high turbine.



CalTopo can be utilized to map parcel data on to maps with markers and range rings to illustrate and help understand the proximity of the Project to people in near the project and the wind turbines proposed.

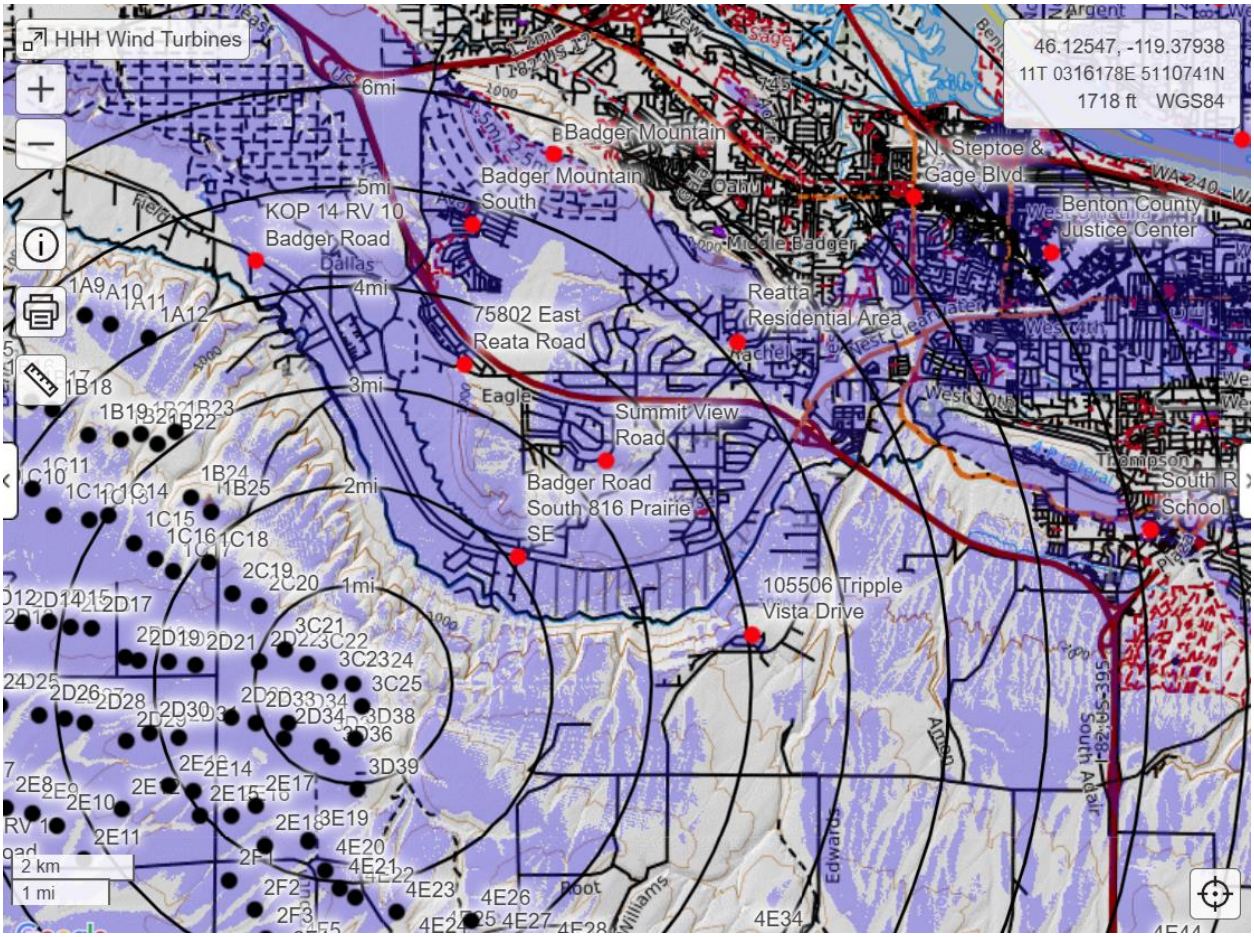
The next graphic is a screenshot with the ownership of land identified using a data layer in CalTopo.

The pink lines are the parcel boundaries the black circles are the range rings in one-mile increments going out to six miles around the seelcted turbine. If one zooms and pans inward, the land owner and parcel numbers can be readily seen.



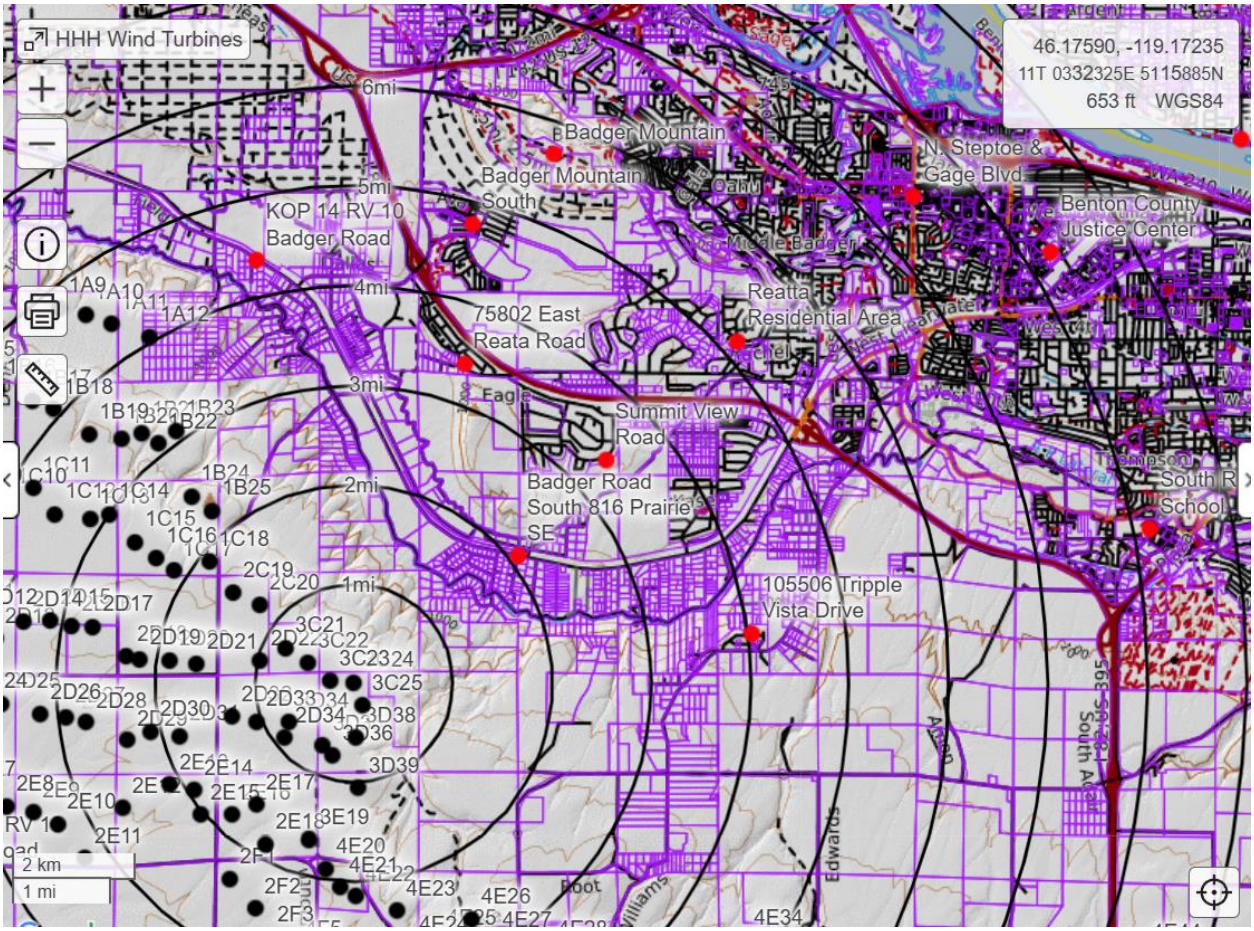
The following graphic repeats these two digital GIS data overlay selections to again illustrate the type of analysis that was not provided in the ASC or the DEIS for a Turbine we numbered 3C24 in close proximity to numerous residential areas in south Kennewick.

Here is the Viewshed from Turbine 3C24.



The viewshed map helps understand the answer to the question, “who can see this turbine? On this viewshed map, if a person is in a zone that colored purple, then they will be able to feasibly see the hub of the turning turbine. In particular look at the location of housing developments that are within 2 miles, 3 miles, 4 miles, 5 miles, and 6 miles of turbine numbered 3C24. These distances correspond to areas that are deemed to be of high sensitivity in CESA 2011.

Here is the corresponding ownership parcel data map.



Of particular importance are the locations where a high density of pink ownership lines can be seen. The areas containing high density of pink grids correspond to locations where residential community developments are already constructed or have probably been planned and approved by city and county for future expansion. Note the location of the KOP 14 RV 10 and the comments on the improper selection of location as a Representative Viewpoint. Observe that there is not a single other KOP located in this graphic.

We can readily demonstrate the with additional sample location from across the rest of the Project. However, these comments are presented here for just these two turbines to demonstrate the failure of the ASC and the DEIS to properly identify and even minimally describe the impacts of the project on people who live in near proximity of the Project.

Recommended Action: The ASC and the DEIS need to be revised and re-issued to provide what is required under the WAC.

The ASC and the DEIS fails to identify and evaluate the Impact of the Project and Feasible Alternatives Using a Suitable Analysis of Population Within the Affected Environment.

The DEIS fails to describe and define which turbines are too close to people and will be deemed unacceptable

In order to ascertain the deficiency in the analysis provided in the DEIS, the reviewers received voluntary support of a big data analyst who create a power data tool that can be used to provide detailed

population data analysis of the areas of Benton County affected by the project. The power data analysis tool utilizes two primary data sources:

1. The Socioeconomic Data and Applications Center (SEDAC), is one of the Distributed Active Archive Centers (DAACs) in the Earth Observing System Data and Information System (EOSDIS) of the U.S. National Aeronautics and Space Administration. Focusing on human interactions in the environment, SEDAC has as its mission to develop and operate applications that support the integration of socioeconomic and earth science data and to serve as an "Information Gateway" between earth sciences and social sciences. https://sedac.ciesin.columbia.edu/
2. The United States Wind Turbine Database (USWTDB) provides the locations of land-based and offshore wind turbines in the United States, corresponding wind project information, and turbine technical specifications. The creation of this database was jointly funded by the U.S. Department of Energy (DOE) Wind Energy Technologies Office (WETO) via the Lawrence Berkeley National Laboratory (LBNL) Electricity Markets and Policy Group, the U.S. Geological Survey (USGS) Energy Resources Program, and the American Clean Power Association (ACP). The database is being continuously updated through collaboration among LBNL, USGS, and ACP. Wind turbine records are collected and compiled from various public and private sources, digitized or position-verified from aerial imagery, and quality checked. Technical specifications for turbines are obtained directly from project developers and turbine manufacturers, or they are based on data obtained from public sources. https://eerscmap.usgs.gov/uswtdb/

SEDAC was used to provide population estimates for each block in the database. Blocks are organized by country, state, county, tract, block group, and blocks. In some highly populated areas, blocks can be divided into sub-blocks. Each block has a centroid latitude and longitude coordinate. These centroids are depicted in red on the interactive map in the power tool. In most cases, projects contain multiple turbines and various turbines can affect the same block of population, or multiple projects in a county can affect the same block. Therefore, when evaluating the population at the project level, no two population blocks were counted twice. This methodology also holds when assessing at the county and the state levels.

The power tool lets users analyze and compare all the Wind Turbine Projects in Washington, Oregon and Montana. Users can then select and analyze and compare projects and their characteristics by county.

On Page 1 the Power Data Tool measures include:

- the number of projects and their projected output in MW.
- Number, height, and hub height of turbines in projects and the location of the projects selected on map.

On Page 2 the Power Data Tool measures include:

- The state(s) or counties selected for analysis
- Distance from the project – 2,3,4,5 or 6 miles can be selected.
- The height and number of turbines selected for analysis
- A data table of the Population within the selected distance from the project(s) selected by year using census data from 2000, 2005, 20210, 2015 and 2020
- A graphic of the Population withing the selected distance by project
- A graphic of the Population within the selected distance by County
- A map showing the color graded Population Within the Counties within a radius based on the distance selected.

On Page 3 the Power data Tool measures include:

- The state(s) or counties selected for analysis
- Distance from the project – 2,3,4,5 or 6 miles can be selected.
- The height and number of turbines selected for analysis
- A circle graphic comparing the 2020 Population Within the selected radius in the 10 Counties compared to Benton County
- A graphic Comparing the Benton County Wind Projects 2020 Population from 2 to 6 miles compared to the nine other Counties in Washington
- A block graphic of the 2020 Population by County at the selected radius distance
- A table of the wind projects in Benton County and the wind projects other 9 counties showing a comparison of the populations with 2,3,4,5, and 6 miles of the projects.

On page 4, the Power data tool measures include:

- The state(s), counties and projects selected for analysis
- Distance from the project – 2,3,4,5 or 6 miles can be selected.
- A table showing the Township and Range location and the US Census Data plots and the population of the people for the distance selected for analysis
- A map identifying the location of the wind turbines in the project that are used to calculate the populations within the selected radius distance
- A graphic layer on an aerial photo showing the US Census blocks with the 2020 Population at the selected distance for analysis.

The following pages present the results of the Power Tool Data outputs for the Project as compares to all the other wind turbine projects in the State of Washington.

The results of the Power data Tool Analysis are graphical and in color.

The following interpretations can be made from the analysis:

- There are 2067 turbines in 33 projects in ther state of Washington.
- The Horse Heaven Hills Project will have the tallest turbines compared to all the other projects in the state.
- The Horse Heaven Hills projected output wil be the largest of any of the wind projects in the state (650 MW).
- The Stateline wind project has the highest number of turbines (270) compared to the Horse Heaven Hills, but they are 241 feet high compared to 499 feet high.

Benton County will have the highest population within six miles of any project in the state. Over 100,000 people live within 6 miles of the project.

Benton County will disproportionately impacted by the Horse Heaven Hills Project compared to all the other projects in the state combined within six miles of each project.

Over 100K population in Benton County compared to 19.5K for all the other counties and projects combined. In Washington state, the average project population within six miles is 2,178 people within six miles.

The power data tool can be used here (link to the live power data tool website).

The power data tool screenshots of the analysis of the Horse Heaven Hills project are provided below.

Recommended Action: The ASC and the DEIS needs to adequately identify and evaluate the Impact of the Project and feasible alternatives using a suitable method to analysis the affected populations within the affected environment. The DEIS needs to include the utilization and application of the power data

tools and digital GIS mapping tools to accurately identify, describe and evaluate the impacts of the project and any feasible alternatives have on people.

Recommended Action: EFSEC needs to develop and transparently propose and defend a rational sound basis for determining whether turbine location distances can be deemed acceptable or unacceptable. The basis for this regulatory framework must identify the distance between people and wind turbines based on a multitude of factors.

Recommended Action: Turbines and other project components, which are deemed through evaluation to be within the unacceptable distance (e.g., six miles) to residential communities, existing and planned, must be eliminated from the project. These turbines need to be identified, evaluate and reviewed, and finalized before the final permit stipulations are issued and the Project is approved by the Governor.

State, County

- MT
- OR
- WA
  - Adams County
  - Benton County
  - Columbia County
  - Garfield County
  - Grays Harbor Cou...
  - Kittitas County
  - Klickitat County

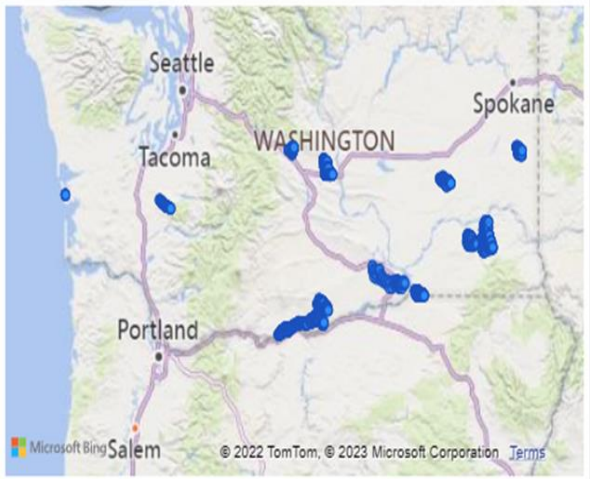
Total Height (ft)

102 591

Number of WMs

1 270

State	Projects	WMs	Height	Installed
WA	**33**	**2067**	**499**	**2001**
Horse Heaven Hills	1	244	499	2023
Rattlesnake Flat	1	57	497	2020
Skookumchuck	1	38	492	2020
Goodnoe Hills	1	47	459	2008
Tucannon River	1	116	440	2014
Lower Snake River Phase I	1	149	428	2011
Palouse	1	58	427	2012
Juniper Canyon	1	64	418	2011
Harvest Wind Farm	1	45	415	2009
Nine Canyon III	1	14	415	2008
White Creek	1	87	415	2007
Windy Point I (Tuolomne Wind Project)	1	62	415	2009
Windy Point II	1	86	415	2009
Windy Point II (Windy Flats)	1	3	415	2009
Total	**33**	**2067**	**499**	**2001**

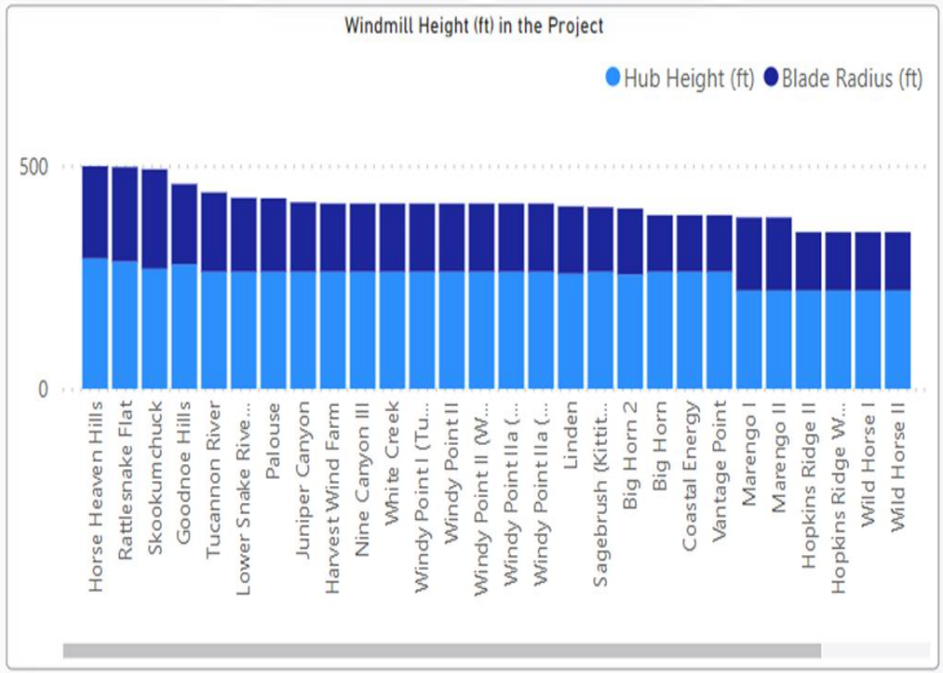


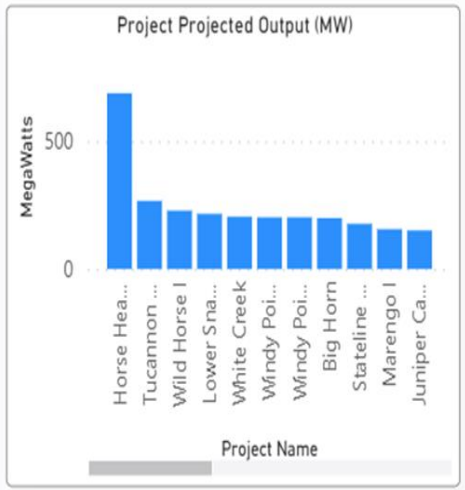
Number Of Windmills
2067

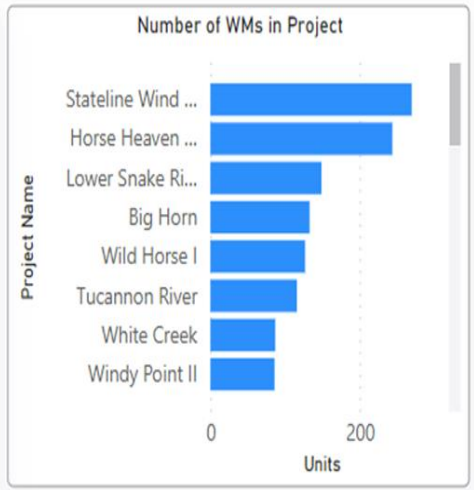
Most Recent Project
2023

Number Of Projects
33

Avg WMs Per Project
63







State, County

- MT
- OR
- WA
  - Adams County
  - Benton County
  - Columbia County
  - Garfield County
  - Grays Harbor Cou...
  - Kittitas County
  - Klickitat County

Total Height (ft)

102 591

Number of WMs

1 270

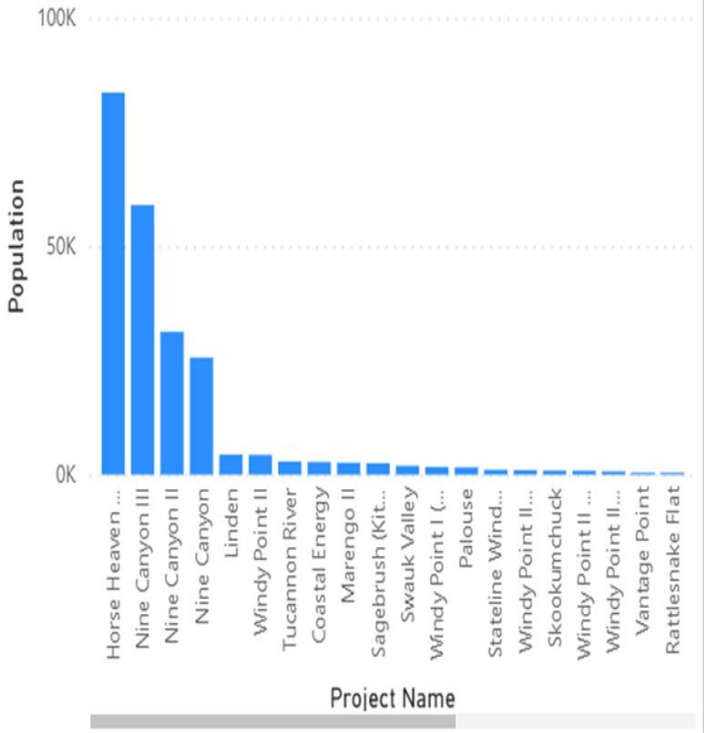
Distance from Project

- 2 Miles
- 3 Miles
- 4 Miles
- 5 Miles
- 6 Miles

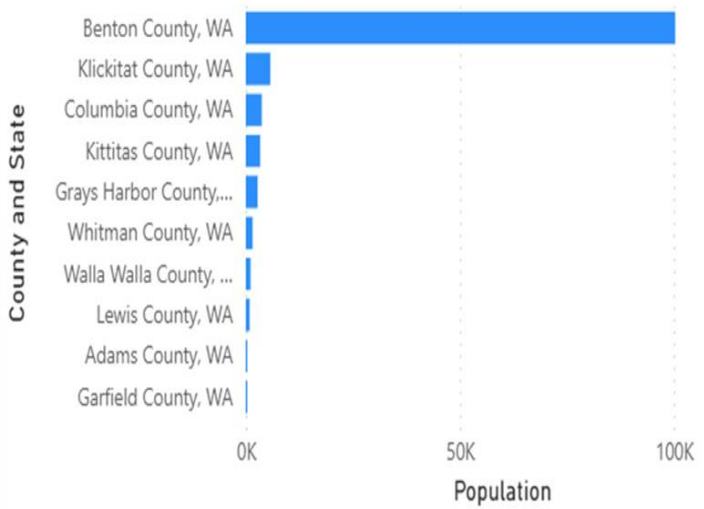
Population Affected by Year

State, County, Project	Total WMs	2000	2005	2010	2015	2020
WA	**2067**	**86,560**	**94,710**	**102,996**	**111,371**	**119,755**
Benton County	**307**	**69,255**	**76,728**	**84,496**	**92,410**	**100,346**
Horse Heaven Hills	244	57,824	64,037	70,482	77,060	83,657
Nine Canyon III	14	40,429	44,900	49,546	54,270	59,031
Nine Canyon II	12	21,426	23,777	26,242	28,747	31,270
Nine Canyon	37	17,564	19,499	21,517	23,558	25,641
Klickitat County	**601**	**5,325**	**5,486**	**5,596**	**5,671**	**5,739**
Columbia County	**320**	**3,790**	**3,786**	**3,784**	**3,777**	**3,716**
Grays Harbor County	**4**	**2,540**	**2,616**	**2,682**	**2,735**	**2,766**
Kittitas County	**262**	**2,314**	**2,573**	**2,811**	**3,056**	**3,340**
Whitman	**58**	**1,392**	**1,471**	**1,505**	**1,535**	**1,588**
Walla Walla County	**270**	**1,007**	**1,043**	**1,062**	**1,074**	**1,093**
Total	**2067**	**86,560**	**94,710**	**102,996**	**111,371**	**119,755**

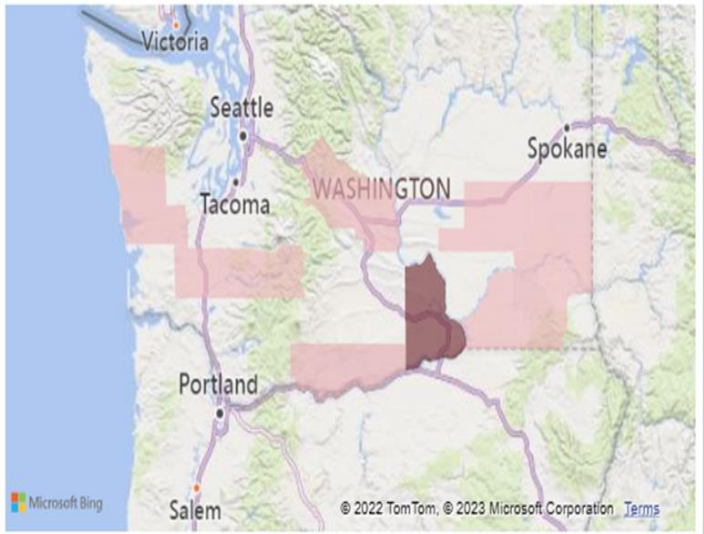
People Affected in 2020 by Selected Projects within a 6 Mile Radius



People Affected in 2020 per County within a 6 Mile Radius



Population Affected from 10 Counties within a 6 Mile Radius



State, County

- MT
- OR
- WA
  - Adams County
  - Benton County
  - Columbia County
  - Garfield County
  - Grays Harbor Cou...
  - Kittitas County
  - Klickitat County
  - Lewis County

Total Height (ft)

102 591

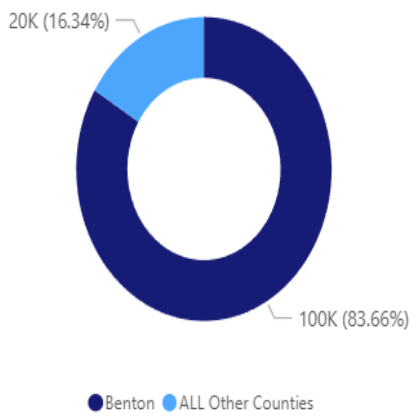
Number of WMs

1 270

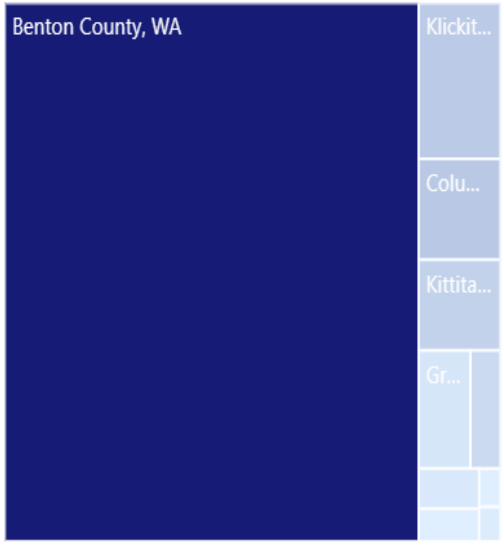
Distance from Project

- 2 Miles
- 3 Miles
- 4 Miles
- 5 Miles
- 6 Miles

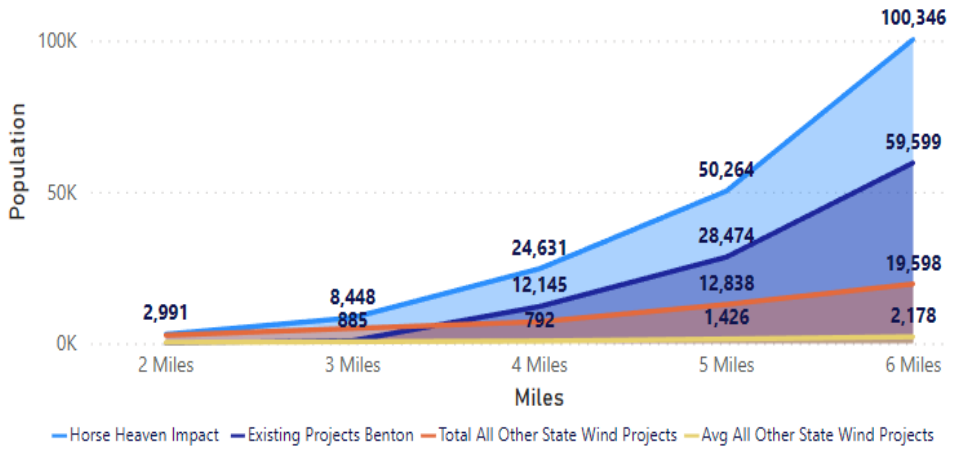
Affected 2020 Population from 10 Counties in Comparison to Benton County in a 6 Mile Radius



Impacted 2020 Population By County in 10 Selected Counties at a 6 Mile Radius



Benton Wind Projects Impacts - 2020 Population 2 to 6 Miles. Compared to 9 Other Counties in (WA



Benton County	2 Miles	3 Miles	4 Miles	5 Miles	6 Miles
Benton County	**2,991**	**8,448**	**24,631**	**50,264**	**100,346**
Horse Heaven Hills (WA)	2,987	8,191	17,293	42,148	83,657
Nine Canyon (WA)	22	663	3,059	11,027	25,641
Nine Canyon II (WA)	2	21	638	13,064	31,270
Nine Canyon III (WA)	16	324	10,357	27,100	59,031
Total Affected Population	**2,991**	**8,448**	**24,631**	**50,264**	**100,346**

Other Counties	2 Miles	3 Miles	4 Miles	5 Miles	6 Miles
Adams County	**63**	**74**	**113**	**197**	**369**
Columbia County	**236**	**387**	**543**	**1,231**	**3,716**
Garfield County	**66**	**120**	**175**	**205**	**328**
Grays Harbor County	**420**	**1,131**	**1,467**	**1,698**	**2,766**
Kittitas County	**797**	**1,258**	**1,878**	**2,497**	**3,340**
Klickitat County	**445**	**906**	**1,460**	**4,290**	**5,739**
Total Affected Population	**2,657**	**4,928**	**7,127**	**12,838**	**19,598**

Other Counties	2 Miles	3 Miles	4 Miles	5 Miles	6 Miles
Average Affected Population	**295**	**548**	**792**	**1,426**	**2,178**

State, County

- (Blank)
- MT
- OR
- WA
  - Adams County
  - Benton County
  - Columbia County
  - Garfield County
  - Grays Harbor Cou...
  - Kittitas County

Project Name ID

- Horse Heaven Hills (WA)
- Nine Canyon (WA)
- Nine Canyon II (WA)
- Nine Canyon III (WA)

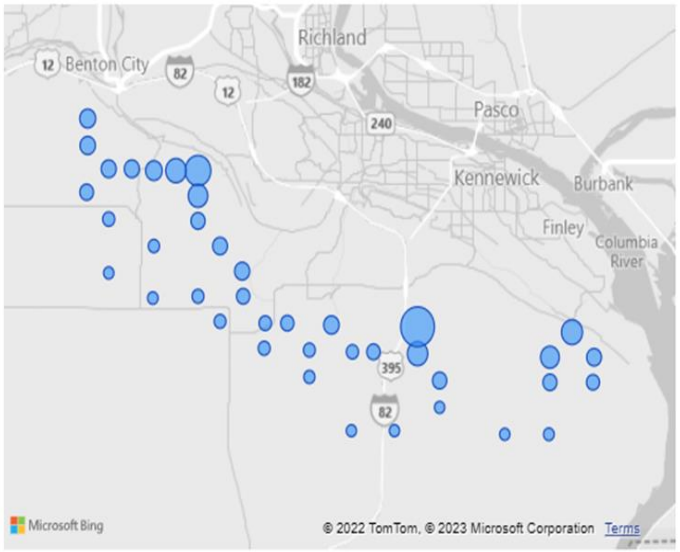
Distance from Project

- 2 Miles
- 3 Miles
- 4 Miles
- 5 Miles
- 6 Miles

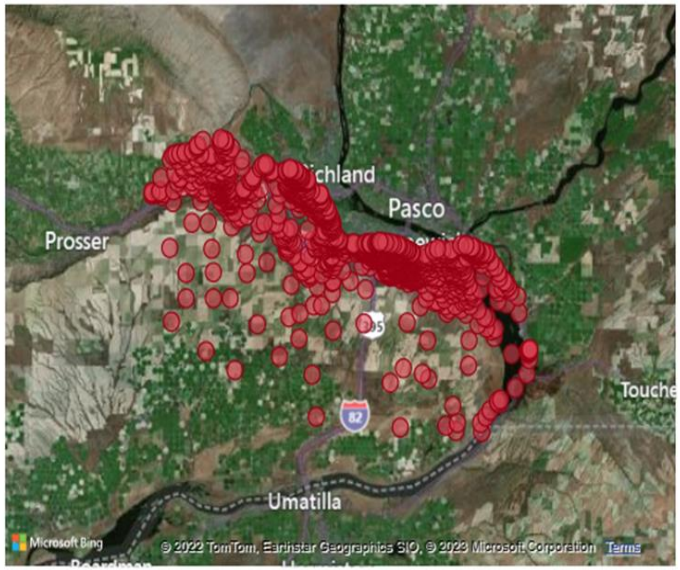
Project, Windmill ID	2020 Population
Horse Heaven Hills (WA)	**83,657**
T7N R29E Sect: 4 (3C23: 3C24: 3C25: 4D36: 4D38)	39,116
T8N R27E Sect: 2 (5D41)	25,783
T7N R30E Sect: 3 (2F2: 2F3)	18,030
T8N R27E Sect: 3 (5D39: 5D40:)	17,168
T7N R29E Sect: 9 (2D10: 2D11: 2D12: 2D13)	16,987
T8N R27E Sect: 11 (5F47: 5F50)	15,475
T7N R30E Sect: 9 (1C6)	14,176
T8N R27E Sect: 4 (5D46: 5D47: 5D48)	10,746
T9N R26E Sect: 25 (5G14:5G15:5G16: 5G17: 5G18)	9,601
T7N R28E Sect: 2 (3D39)	8,838
T9N R26E Sect: 36 (5G22: 5G23: 5G24: 5G25: 5G26)	8,632
T8N R28E Sect: 30 (4G2: 4G3:4G4)	8,200
T9N R27E Sect: 31 (5E50: 5E51: 5E52)	8,099
T9N R27E Sect: 32 (5E44: 4E45)	8,066
T8N R27E Sect: 24 (4E40: 4E41:4F31:)	7,710
T7N R30E Sect: 11 (1B24: 1B25: 1C17: 1C18)	7,671
T7N R29E Sect: 15 (B14: B15)	6,795
T8N R27E Sect: 14 (4E43: 5F44)	6,595
T7N R30E Sect: 16 (1A12)	6,352
T7N R30E Sect: 20 (1A9: 1A10: 1A11)	6,352
T8N R26E Sect: 12 (5G17: 5G17: 5G19)	5,864
T7N R29E Sect: 7 (2C19: 2C20: 2C213D34: 3D35)	5,404
T8N R28E Sect: 31 (4E37: 4E38: 4E39)	5,146
T7N R28E Sect: 4 (4E34:)	5,045
T7N R30E Sect: 14 (1A7: 1A8)	4,816
T7N R28E Sect: 5 (4E28:)	3,832
Total	**83,657**

2020 Population	Number Of Windmills	Number of Blocks
84K	244	1392

Windmills

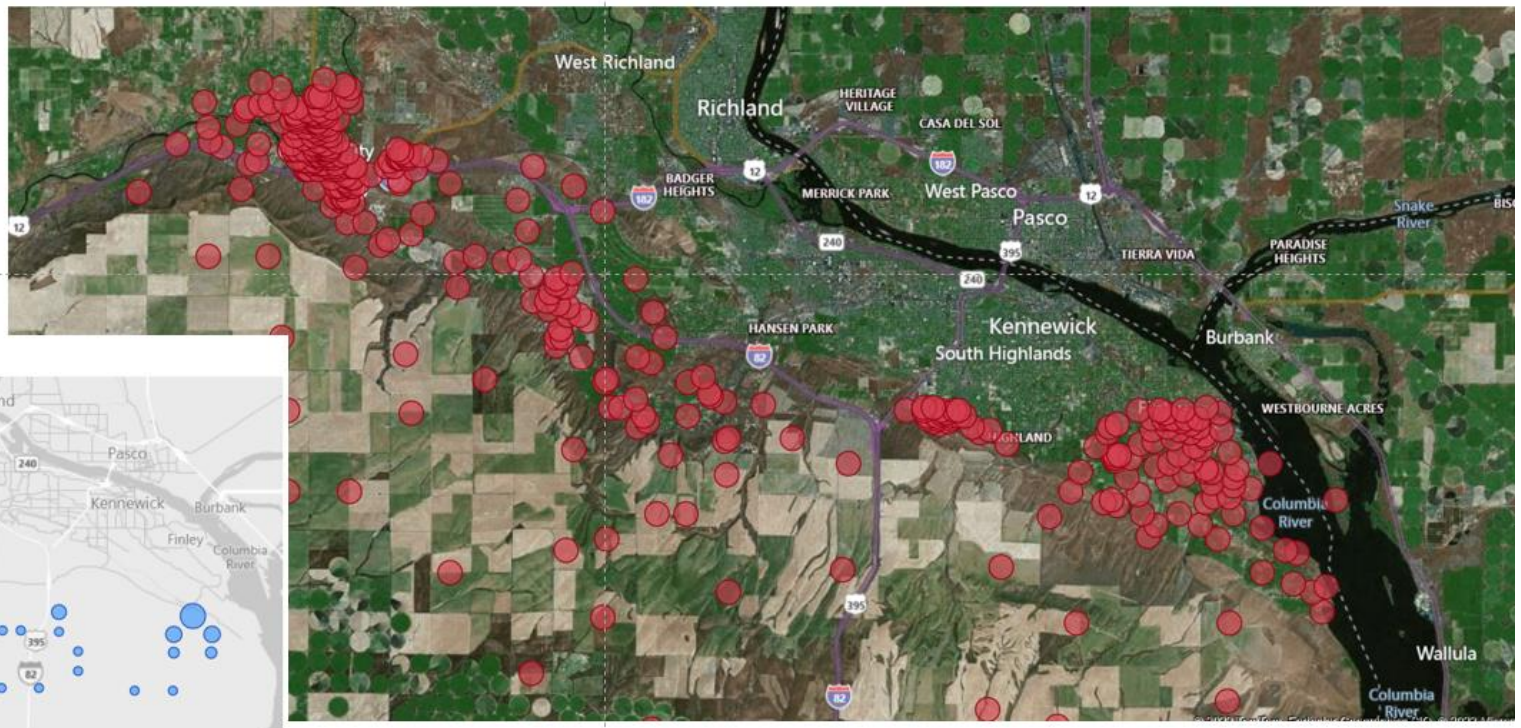


2020 Population at 6 Miles

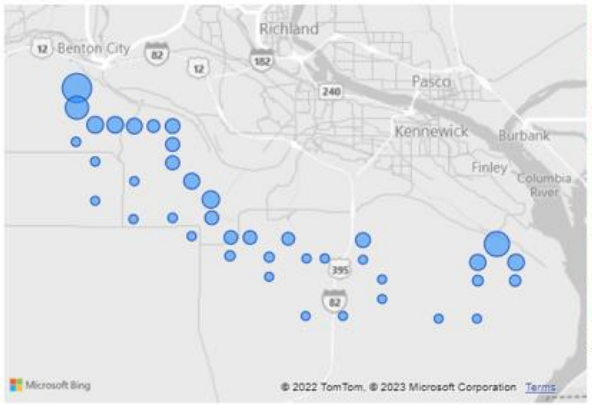


4 miles – 17,293
Benton City 1,141
East Badger Road 2,680
North Dallas Road 2,252
South Finley 5,140

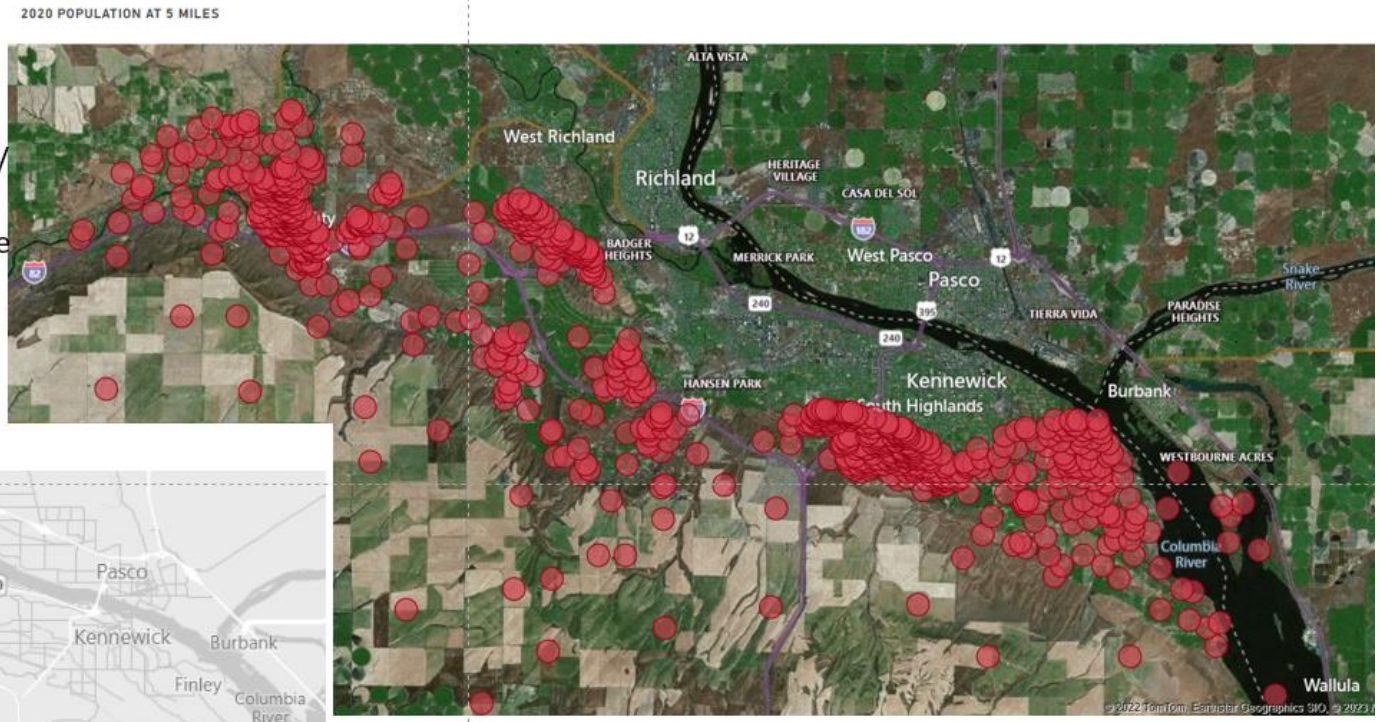
2020 POPULATION AT 4 MILES



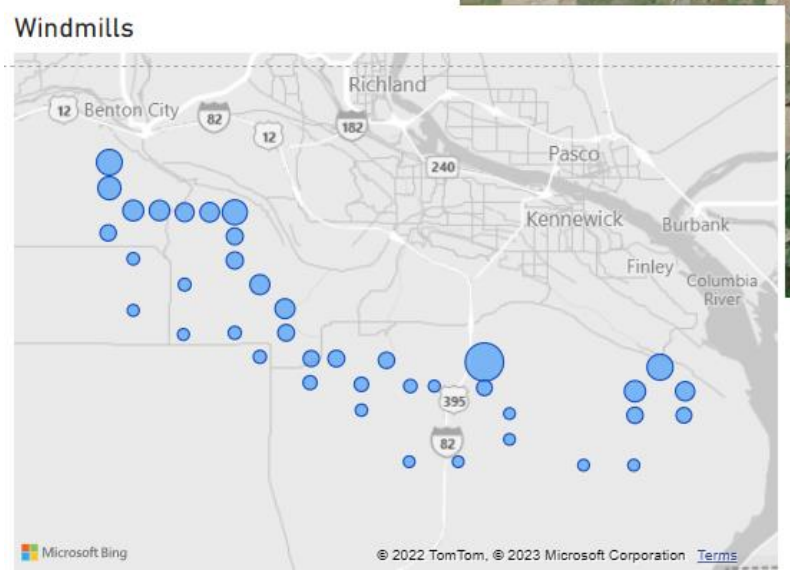
Windmills



5 miles 42,143
Benton City 15,966
East Badger Road / North Dallas Road / Badger Heights / Reatta 17,168
South Kennewick / Creekstone / Canyon Lakes/ South Highlands 15,966
Finley 8651

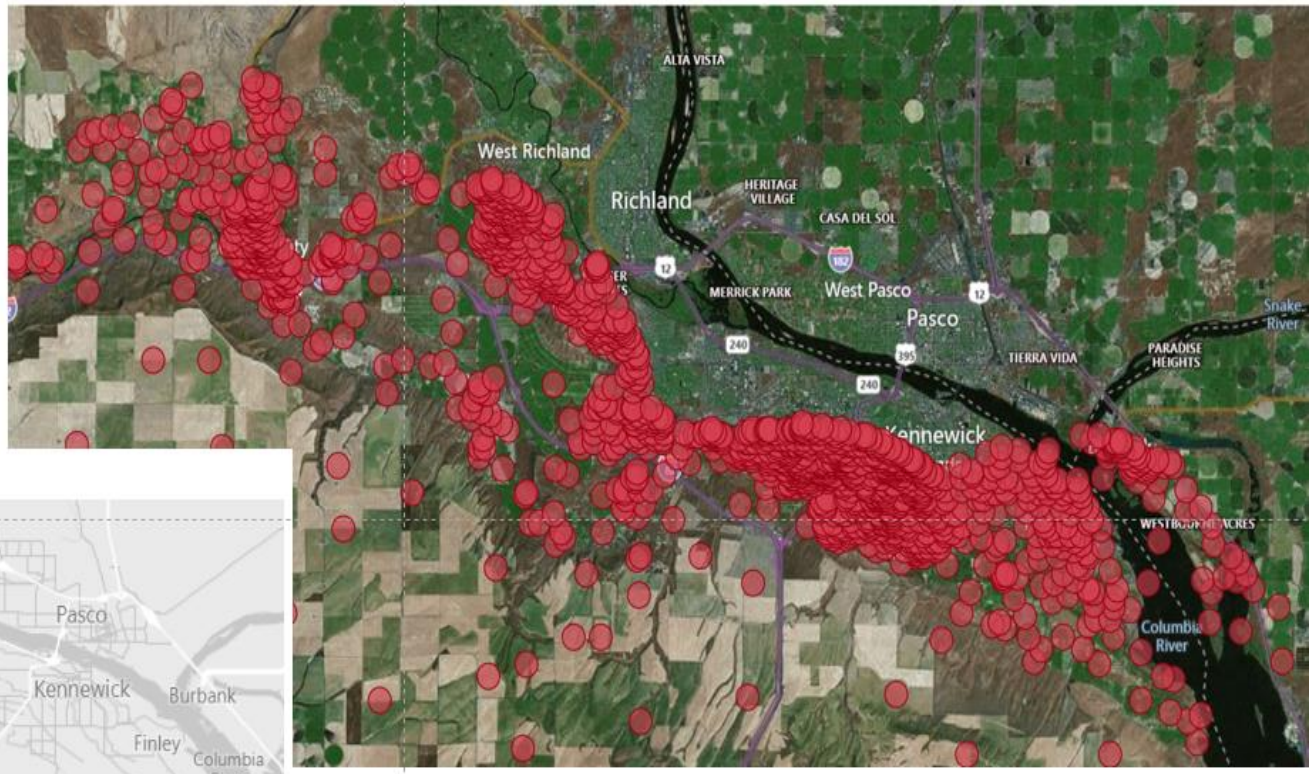


Windmills

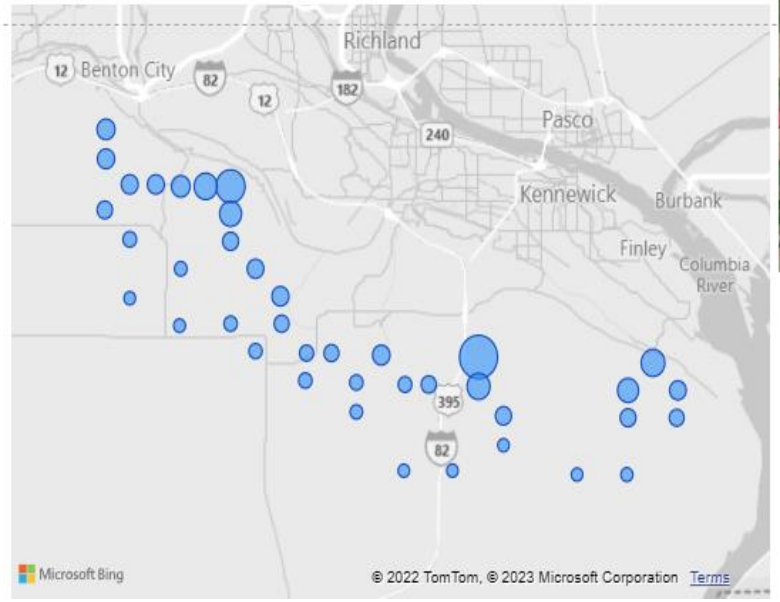


6 miles 83,657
Benton City 25,783
East Badger Road / North Dallas Road / Badger Heights / Reatta 25,783
Creekstone / Canyon Lakes 39,116
Finley 14,176

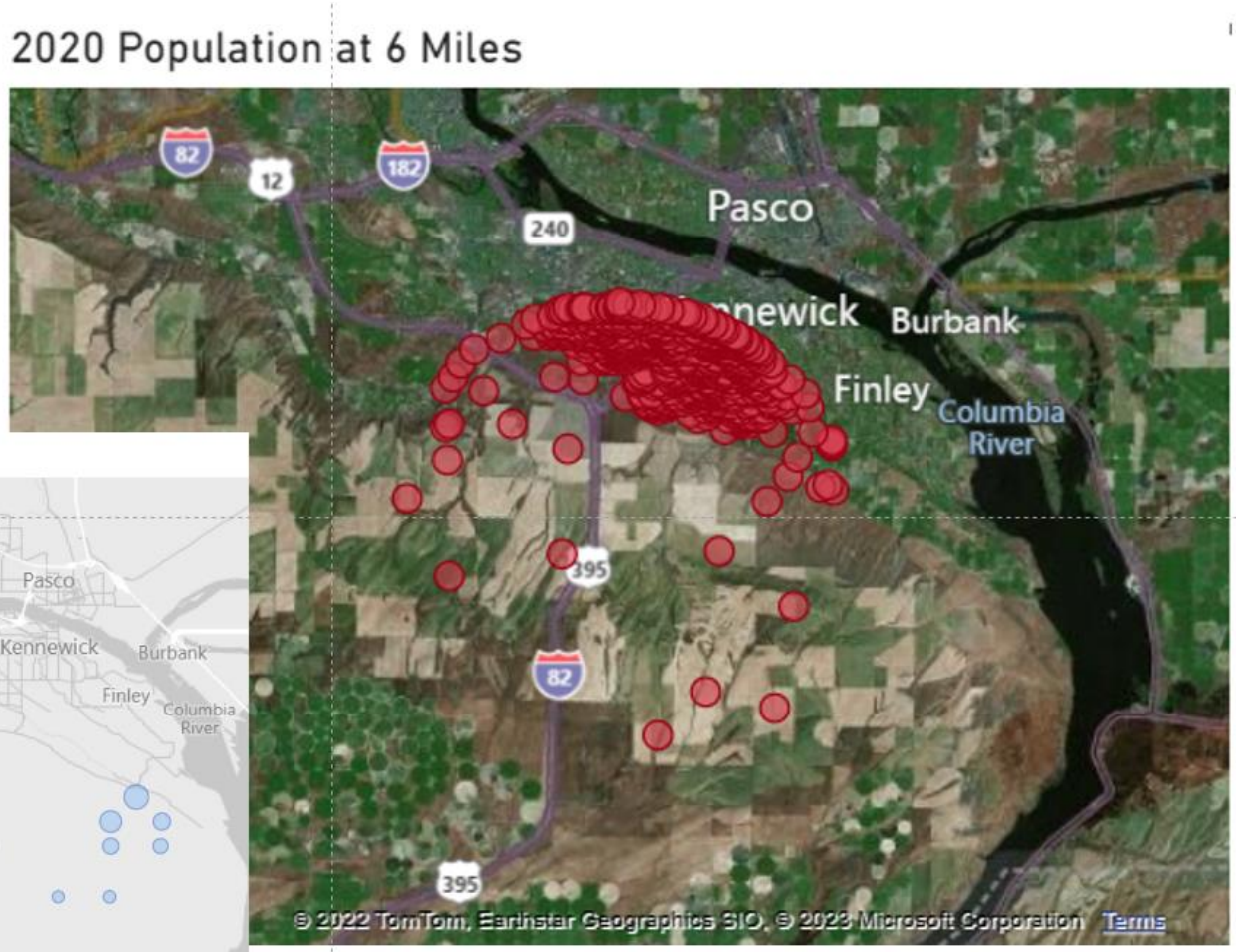
2020 POPULATION AT 6 MILES

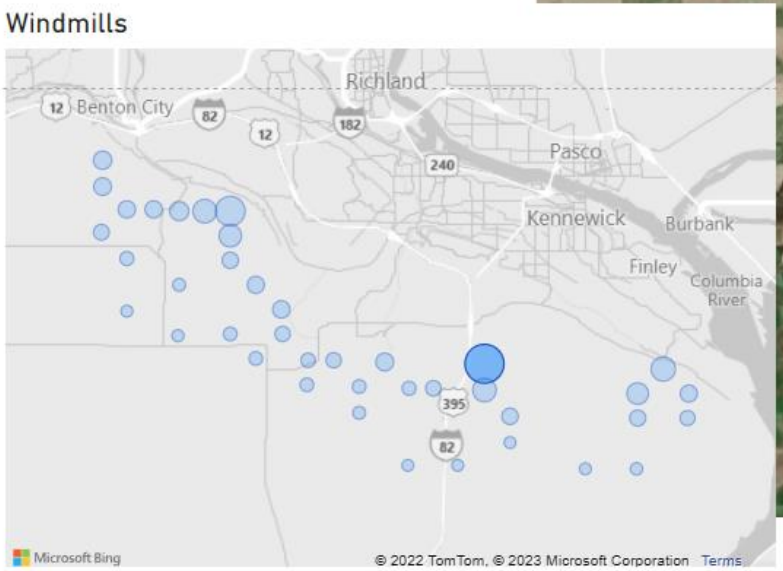


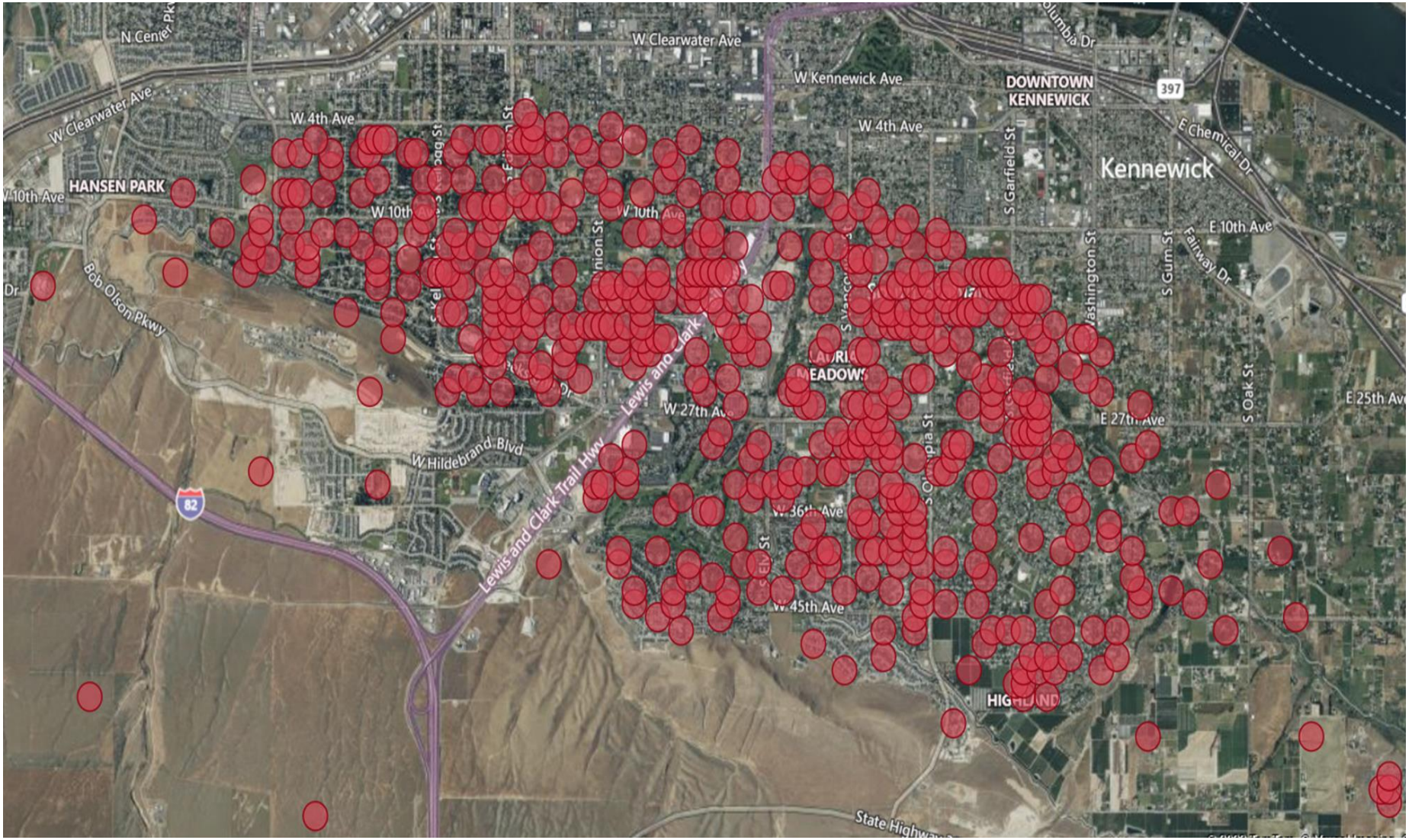
Windmills



Johnson Butte
Turbine Cluster






W Clearwater Ave
W Kennewick Ave
DOWNTOWN KENNEWICK
Kennewick
W 4th Ave
HANSEN PARK
W 10th Ave
E 10th Ave
Bob Olson Pkwy
Lewis and Clark Trail Hwy
W Hildebrand Blvd
E 27th Ave
E 25th Ave
S Oak St
S Gum St
Fairway Dr
E Chemical Dr
S Garfield St
Columbia Dr
397
82
W 45th Ave
State Highway

Fugitive Dust Emissions

The DEIS Fails Adequately Identify, Describe and Evaluate the Significant and Unhealthy Adverse Impacts Fugitive Dust Emissions That will be caused by the Project.

WAC 173-400-040(3) Fallout. Prohibits emission of particulate matter from any source to be deposited beyond the property line in quantities that would interfere with the use and enjoyment of the impacted property.

WAC 173-400-040(4–4a) Fugitive emissions. Requires reasonable precautions to prevent the release of air contaminants from materials handling, construction, demolition, or other fugitive emissions sources.

WAC 173-400-040(9)(a) requires owners and operators of fugitive dust sources to take reasonable measures to prevent dust from becoming airborne and minimize emissions.

The DEIS fails to identify, describe and evaluate feasible alternatives that can reasonably control and mitigate the health hazards from the fugitive dust emissions caused by the project.

The DEIS identifies that there will be a dramatic increase the amount of fugitive dust created during construction of the HH wind farm project. This is a significant impact to the environment that also threatens human health.

The DEIS does not identify, describe and evaluate fugitive dust created after construction during the anticipated 35-year operation of the wind farm.

The DEIS on page 3-29 contains a wind rose for the Richland Airport for the Annual Year 2020. The text in DEIS Chapter 3 – Affected Environment states with emphasis added:

> "Atmospheric stability, which refers to a lack of vertical air movement, plays an important role in air quality because air contaminants are not dispersed as quickly or widely when the atmosphere is stable (Hanna et al. 1982). Atmospheric stability is generally characterized according to the Pasquill-Gifford scheme, which ranges from Class A (most unstable) to Class G (most stable). Figure 3.3-2 shows the average atmospheric stability in Richland 2020. Similar to the wind rose in Figure 3.3-1, in this "stability rose," the spokes in the figure depict wind direction, but here the colors represent the atmospheric stability associated with each wind direction. ***The figure shows that unstable to neutral (Class A–D) atmospheric conditions, which promote acceptable pollutant dispersion, predominate in all compass directions in the Richland area and that highly stable conditions (Class F and G) with reduced atmospheric mixing are less frequent."***

DEIS Chapter 4 Analysis of Potential Impacts and Mitigation Section 4.3.2.1 Impacts During Construction on page 4-36 states:

> "During construction, Project impacts would result from use of fuel-burning equipment to support construction, as well as fugitive dust associated with exposed surface windblown dust, access road traffic, bulldozing, and grading activities. For each phase of the Project, these emissions are compared with the countywide emissions, as shown in Table 4.3-3. These

emission estimates incorporate Applicant-proposed emission control measures presented in the ASC (Horse Heaven Wind Farm, LLC 2021a)."

The DEIS states without any explanation or quantification "Emissions during Project construction are expected to comply with all applicable air quality rules, regulations, and plans.

DEIS Table 4.3-4: contains a Comparison of Project Construction Emissions to Countywide Emissions.

The DEIS fails to adequately identify, describe and evaluate that unacceptable conditions will occur from the road construction disturbance and cause significant environmental impacts that will impacts over 100,000 people in the Tri-Cities.

The micrositing corridors arrays of giant turbines stacked six rows deep have the potential to create their own turbulence and promote fine dust traveling into residential neighborhoods below the HH plateau.

Project monitoring of PM2.5 and PM 10 is inadequate.

The DEIS on page 4-38 contains footnotes 13 that states:
13 Benton County PM10 and PM2.5 ambient air quality is considered "in attainment" because the majority of ambient air quality data from the nearest air quality monitors (excepting poor air quality events associated with extreme wildfires events that have been excluded by EPA) are better than the applicable NAAQS. The area has been formally designated "attainment/unclassifiable" meaning it is considered in attainment with the NAAQS but is "unclassifiable" because there are insufficient monitoring data to support a formal "attainment" designation.

The DEIS does not provide for adequate Project Air monitoring and mitigation plans do not identify and commit to any increased monitoring of PM 10 and PM 2.5.

There is no existing baseline on the smallest and most dangerous dust particles (PM2.5) in our area with the closest monitoring station in Toppenish. The HH wind farm project cannot be permitted before a good baseline of PM 2.5 in our area has been established and reviewed by health experts.

The Tri-City area is a dusty place - the local baseball team is called the Dust Devils. Frequent storms from the west blow across the plateau of the Horse Heaven Hills and large clouds of dust travel into the lower areas of the Columbia and Yakima River Valleys. Residential areas like Badger Canyon, West Kennewick, South Richland, and Canyon Lakes are then enveloped in a grey-brown cloud, a phenomenon with a special name here in Eastern Washington: it is called a "haboob".

Dust is harmful to human health, especially small particles of less than 2.5 um called PM 2.5 have shown to be very harmful as they travel deep into the lungs. Silica particles of that size cause inflammation and scarring of the lung tissue; serious complications called fibrosis are known to cause lung infection, high blood pressure and heart failure.

The soil of the Horse Heaven Hills is high in silica due to the low level of organic content and its silty-sandy nature. When the soil is dry (most of the year in Eastern Washington), the fine soil particles are easily moved by wind, vehicle traffic, or any air currents moving across the plateau, and are blown into

the lower-lying areas of the Tri-Cities, some 1600 feet below the plateau. There many new communities are exposed to the hazards of fine dust blowing into their homes.

The Washington Department of Ecology is responsible for air quality in our state. It has a monitoring station in Kennewick at Metaline Avenue but it only monitors the larger 10 um particles (PM 10). This location is behind Thompson Hill to the west and therefore a poor site for monitoring dust coming from the Horse Heaven Hills. The more dangerous PM 2.5 particles are not monitored at all in our area with the closest station in Toppenish, some 50 miles away and not representative of the Tri-Cities.

The Horse Heaven Hill wind farm will only increase the dangerous dust clouds in our area. During construction and with a lot of oversight, the 36 ft wide roads necessary for the giant cranes will be sprayed with water to keep the dust down and vehicular traffic will be kept to less than 25 miles/hour as required by the permit (15 mi/h per DEIS suggestion). Even with these controls and assuming that 75 % of the dust can be controlled, there will be 3080 tons of PM10 and 337 tons of PM2.5 from construction drifting into our valleys below (ref.: HH Fugitive Dust Emissions Summary).

During and all through the 35 years of operation and with little oversight, a fleet of maintenance and supply trucks will buzz around the HHH on a large network of dirt roads, most likely not following a 15 mi/h speed limit. Unlike agriculture which is highly seasonal, this traffic will be year-round. In addition, the giant turbines clustered into large groups with 6 rows deep will create their own turbulence and only increase the dust problem. No doubt there will be lawsuits claiming negative health effects.

The giant industrial wind farm operation located on the ridges above the cities of Kennewick and Richland is poorly sited and will cause excessive dust in the Tri-Cities.

Recommended Action: The DEIS needs to be revised and reissued to identify, describe and evaluate the impacts of the Project construction and operation. Alternatives need to be identified and evaluated to reduce the significant impacts of the dust. Fewer turbines close to the urban residential area boundaries need to be considered. Relocation of the project away from Tri-Cities should also be considered.

The dust blowing into the Tri-Cities and the effects of PM10 and PM2.5 particles on our communities need to be studied and understood before such a large industrial project on our hills can proceed.

A Haboob in Eastern Washington

Dust from the HHH plateau blowing into Badger Canyon, as seen from e Badger Valley during a dust storm from the Summit View area in south Kennewick.

Wildlife

The DEIS Fails to Describe and Evaluate Special Status Wildlife and Their Habitats

The DEIS contains numerous errors omissions and misrepresentations regarding the Project wildlife resources and the impacts on wildlife and their habitats.

The DEIS fails to accurately weigh the impacts of the Project on all special status species and their prey and habitats.

The DEIS assessment of wildlife is shallow and fails to adequately describe and evaluate the significant near-term and cumulative impacts the Project will have on 20 special status wildlife species (two are endangered) and on their habitat and prey.

SEPA WAC 197-11-030 (2)(c) requires the DEIS to "Prepare environmental documents that are concise, clear, and to the point, and are supported by evidence that the necessary environmental analyses have been made".

The flaws in the DEIS include numerous places where there is missing evidence and a lack of substantive facts and information:

- The specific location and configuration of the turbines, solar arrays and infrastructure must be identified before the impact on habitat, nesting, foraging and range of wildlife and habitat can be described and evaluated.

- Page 3-98 states "WDFW data may not include private property".

- On DEIS Chapter 4, 3.1.1.3, page 4, only 8 of the 14 special status avian species was included in the avian use survey (AUS) conducted by the Applicant to measure potential for collision risk. The DEIS does not describe or evaluate all 14 special species.

- Acoustic Bat surveys were also done by the Applicant but at only four sites. With the lease boundary encompassing over 100 square miles, surveys at more survey sites and additional assessment is needed, especially when "collisions with turbines is considered one of the greatest threats to bats in North America". (DEIS Chapter 4 ES 3.2.2)

- The DEIS does not adequately identify, describe or assess burrowing owl. No species-specific surveys have been conducted for the Burrowing Owl even though the lease boundary area of the Project is classified as core habitat for this declining species. (DEIS Page 3-105) This declining species is also valuable prey for the state endangered Ferruginous Hawk.

- The DEIS does not adequately identify, describe or assess Townshend Ground Squirrel. Species-specific surveys have not yet been conducted for the Townsend Ground Squirrel even though the DEIS (p 4-185) states "The Project would also impact one of the two Townsend's ground squirrel colonies in the Lease Boundary, which is located within the temporary disturbance footprint. This would result in a loss of denning habitat for the species." The Project would also cause "the loss of approximately 1,554 acres of suitable Townsend's ground squirrel habitat."

- Table 3.6-3 (DEIS pages 3-99 to 102) states that 17 of the 20 special status _species listed will experience loss, degradation or fragmentation of their **habitats** (includes loss of habitat used for breeding and roasting). This includes l**oss of habitat for the two state endangered species**, the Ferruginous Hawk and the Sandhill Crane.

The January 9, 2023 Report prepared for Scout Clean Energy titled Cumulative Effects to Birds, Bats, and Land Cover from Renewable Energy Development in the Columbia Plateau Ecoregion of Eastern Oregon and Washington identifies and estimates increases in bird and bat kills from current and future wind development projects. The reports states:

> "Because of the geographic scale of development, concerns of population-level effects have been raised and actions are necessary to prioritize conservation efforts and management action."
>
> …[]…
>
> "Rigorous studies on impacts to bird and bats from USSE in the CPE are lacking, the projected level of development and increasing scale of land use intensity over the next decade warrants the inclusion of this development type in this assessment."
>
> …[]…
>
> "This assessment does not model species-specific demographic parameters that estimate the effect of renewable energy impacts on population trends or viability over time. …[]… ***This assessment is not meant to inform project specific impacts, and while it may be useful in evaluating cumulative impacts of future renewable energy scenarios, environmental assessments of individual renewable energy projects should continue to follow applicable federal, state, and county guidelines/protocols.***"

The January 9, 2023 report quantifies the fatalities to birds and bats from wind energy fatalities.

However, the report does not adequately identify, describe and evaluate the bird and bat mitigation that is needed to protect ferruginous hawks and other species of concern on the Horse Heaven Hills Project. The report clearly points out and supports the need for more animal studies and research.

The December 1 Updated Redlines ASC contains numerous substantial changes to the sections on wildlife studies on pages 3-115-116, 3-120, 3-127, 3-134, 3-136, 3-139-143, 3-169-175, 3-177-179, 3-185, 3-187, 3-191, 3-197-199, 3-203, and 3-205. Some of these pages have a lot of red-line strikeouts and additional new information. These changes were published with no notice and without the opportunity for public review and comment.

Reference:

January 9, 2023 Report prepared by Eric W. Jensen, Western Ecosystems Technology, for Scout Clean Energy titled Cumulative Effects to Birds, Bats, and Land Cover from Renewable Energy Development in the Columbia Plateau Ecoregion of Eastern Oregon and Washington

Inadequate Mitigation

The DEIS fails to adequately identify and describe effective mitigations for wildlife habitat and special species.

The ideas and recommended measures offered by the Applicant throughout the DEIS are vague, noncommittal, ineffective and unenforceable.

Table ES-6: *Recommended Mitigations for Special Status Species*, mitigations consistently include phrases such as "**where possible**", **reduces** potential disturbance/mortality", **"would"** rather than shall or will, "**avoided where feasible". While mitigating a 2-mile buffer from Ferruginous Hawk nests,** they go on to add "in the event that a Project component **is sited** within the 2-mile buffer…". This is concrete evidence of lack of intent to respect the 2-mile buffer. (ES-30) M**itigations offered in the DEIS lack serious intent of compliance by the Applicant.**

The DEIS makes no mention of penalties and remedies for Applicant non-compliance of mitigations established to protect wildlife and their habitat.

The DEIS makes no mention of the elimination or relocation of turbines located in essential wildlife corridors that preserve connectivity of wildlife habitat and foraging areas.

Page 4-188 in DEIS Chapter 4 – Analysis of Potential Impacts and Mitigation states:

- To minimize impacts on wildlife, baseline studies were conducted at the Project consistent with the WDFW Wind Power Guidelines (WDFW 2009), the U.S. Fish and Wildlife Service's (USFWS) 2012 Final Land-Based Wind Energy Guidelines (USFWS 2012), the 2013 USFWS Eagle Conservation Plan Guidance Module 1 – Land Based Wind Energy (USFWS 2013), and the USFWS 2016 Eagle Rule Revision (USFWS 2016). To mitigate and avoid wildlife resources, the Applicant used the results of these baseline studies to inform the Project's layout design.
- Project facilities would be sited on previously disturbed areas (e.g., cultivated cropland) to the extent feasible to avoid impacts on native habitats and associated wildlife species.
- The Project would use industry standard best management practices to minimize impacts on vegetation, water, and wildlife.

These statements contain absolutely no commitment whatsoever to site turbines at distances far enough away to avoid harm to wildlife resources. They cite the references but fail to apply the guidance contained therein.

Recommended Action: The DEIS needs to specifically state and describe mitigation measures and then evaluate the effectiveness them to adequately identify and describe effective mitigations for wildlife habitat and special species.

The March 31, 2021 letter from State of Washington Department of Fish and Wildlife to Amy Moon at EFSEC expressly states:

"Development within this ridge will result in further fragmentation and isolation of shrub-steppe and grassland habitat as well as loss of function and value to wildlife. …[]… In fact, the entire Horse Heaven Hills ridgeline is an important foraging area for avian species, including various raptors, and other wildlife. …[]…

However, The Arid Lands Initiative Core Team produced a map of shared priority areas that was developed based on two scientific analyses 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 compensatory mitigation. …[]…

However, The Arid Lands Initiative Core Team produced a map of shared priority areas that was developed based on two scientific analyses 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 compensatory mitigation.

<u>The DEIS ignores and disregards the mitigation recommendations in several WDFW letters.</u>

The April 1, 2021 letter from WDFW to Amy Moon at EFSEC offers additional guidance and recommendations. In pertinent part, it states:

"However, the immense size of the HWSB along the Horse Hills ridgeline and the subsequent landscape-scale impact to an important habitat and ecological connectivity will be difficult if not impossible to mitigate.

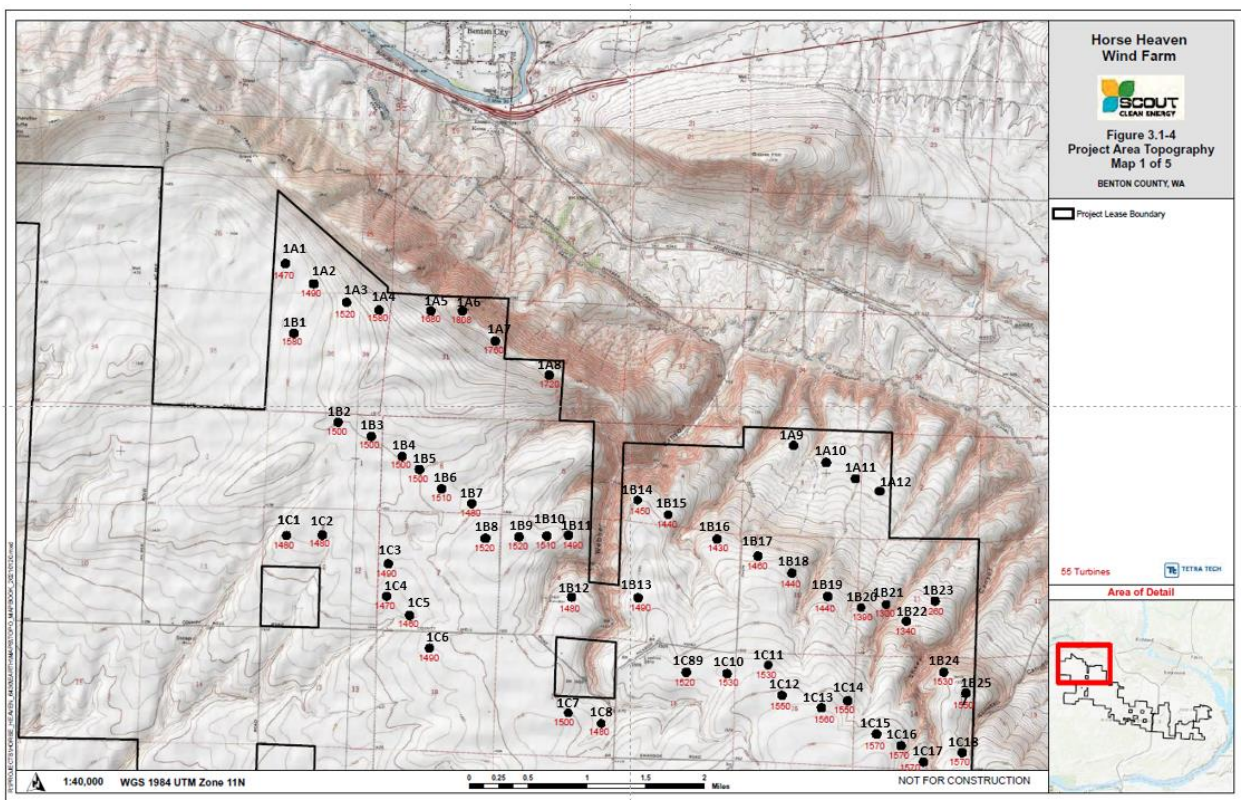
"While HWSB has sited the majority of the project over existing dryland wheat fields, the project's location in the Horse Heaven Hills puts many of the turbines, micrositing corridors, transmission lines, solar arrays, etc., in close proximity to, and crossing over, many of the draws and canyons that provide some of the only native habitats in the area. These areas, as well as the entire Horse Heaven Hills ridgeline, are used seasonally and year-round by a variety of avian species, some of which are State, Priority, Candidate, and Threatened Species. In fact, the entire Horse Heaven Hills ridgeline is an important area for avian species and other wildlife."

"Finally, the Horse Heaven Hills ridge line from the east near the Columbia River to the west and beyond Prosser provides important shrub-steppe habitats and landscape connectivity. In fact, we have worked closely with Benton County and private developers to conserve native habitats and connectivity in this area. Constructing the HWSB would result in the loss of ecological connectivity and impacts to and losses of wildlife species. To reduce the landscape-scale impact of the HWSB and reduce impacts to connectivity, we recommend that the project focus on solar development only on agricultural and grasslands in the southern edge of the HWSB 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."

The DEIS again ignores and disregards the recommendations in the April 1, 2021 WDFS letter.

It is clear from the DEIS and from the WDFW letters that the Horse Heaven Hills ridgeline needs to be protected from the impacts caused by the Project. Neither the ASC or the DEIS contain maps and information that can be utilized to adequately identify the ridgeline and evaluate the project conflicts that are presented by the proposed project layouts.

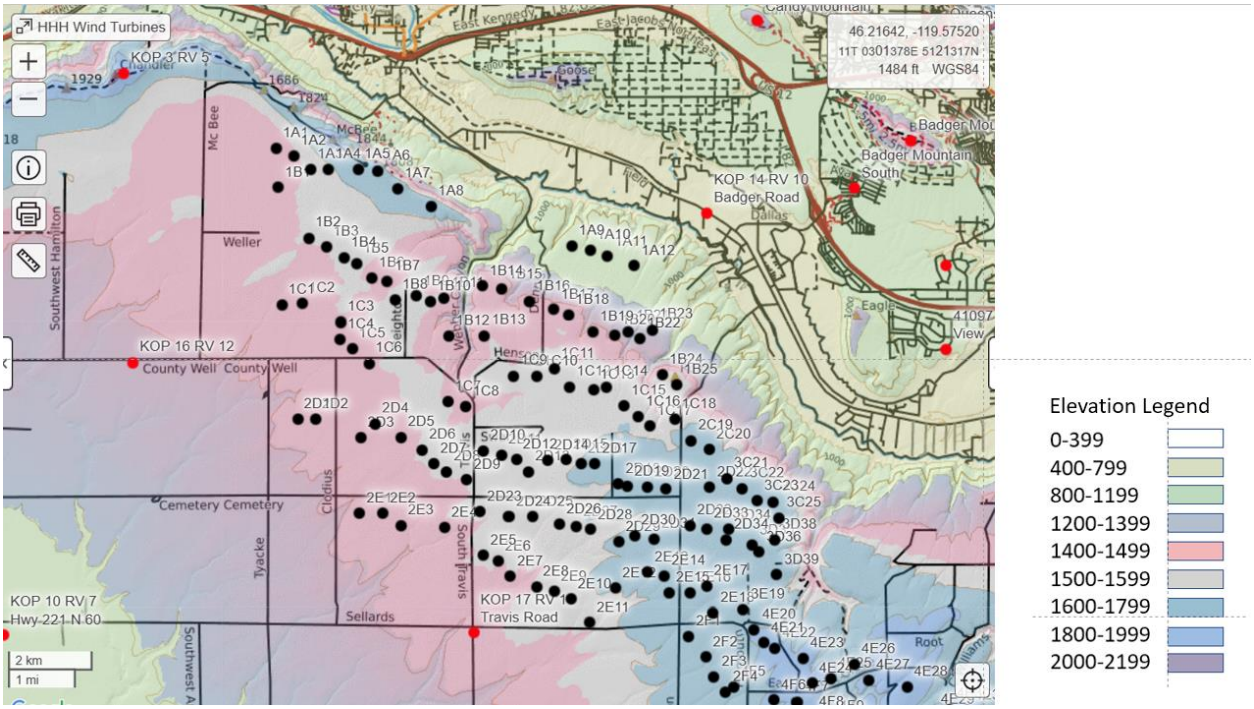
This type of analysis can be done using readily available digital interactive tools. We started first by locating turbines and numbering them on to the topographic maps provided in the DEIS Figure 3.1-4. The three-character alphanumeric designation that uses the DEIS Figure map number (1 to 5), followed by the turbine string from north to south (A to G), followed by a turbine number sequentially west to east (e.g., 1 to 68). Every turbine can then be identified for evaluation like this 1A4.

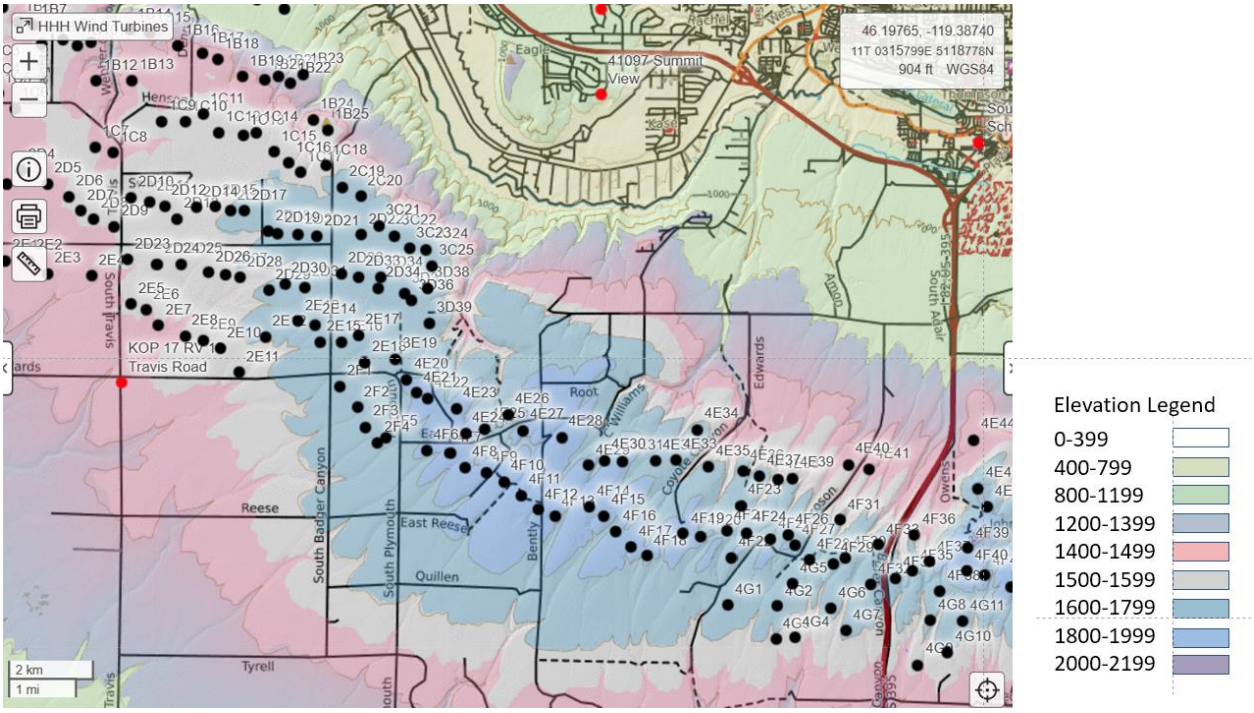


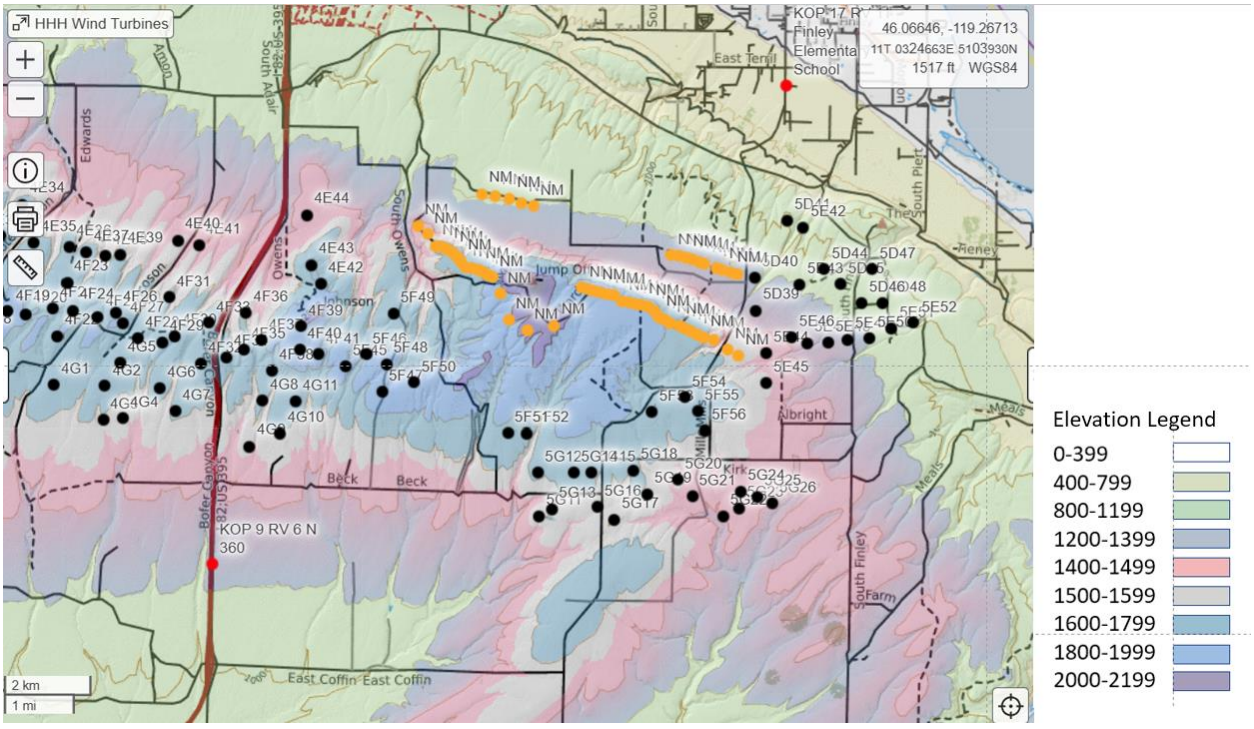
The Cal Topo digital GIS mapping program was used to create a series of maps showing the location of numbered turbines against a digital elevation map of the project. A similar map was not developed in the DEIS or in the ASC.

These maps graphically identify the location of the Horse Heaven Hills ridgeline and proposed turbine locations based on the information contain in Option 1 in the DEIS.

These three maps covering the Project area from west to east, were then utilized to identify the turbines that could be potentially eliminated in order to protect the ridgeline of the Horse Heaven Hills from permanent and irretrievable damage.







Recommended Action: The DEIS needs to identify and analyze turbines that can be eliminated or relocated to protect the Hor5se Heaven Hills Ridgeline.

The DEIS and the ASC cite to research that indicates that identifies that turbines should be sited at least 0.5 miles away from areas needed by wildlife for habitat protection and to maintain ecological connectivity.

The DEIS and the ASC ignore those recommendation regarding the distances needed for those buffers and take no action to eliminate or relocate turbines away from the areas that need protection.

The DEIS and the ASC both contain a map (Figure 3.6-2) identifying wildlife movement corridors within the Project Lease Boundary. This is a poor map, with low detail and resolution and does not readily help achieve the quality of the evaluation required by the WAC to describe the elements of the environment and evaluate the project, alternatives, and mitigation needed to protect the environment.

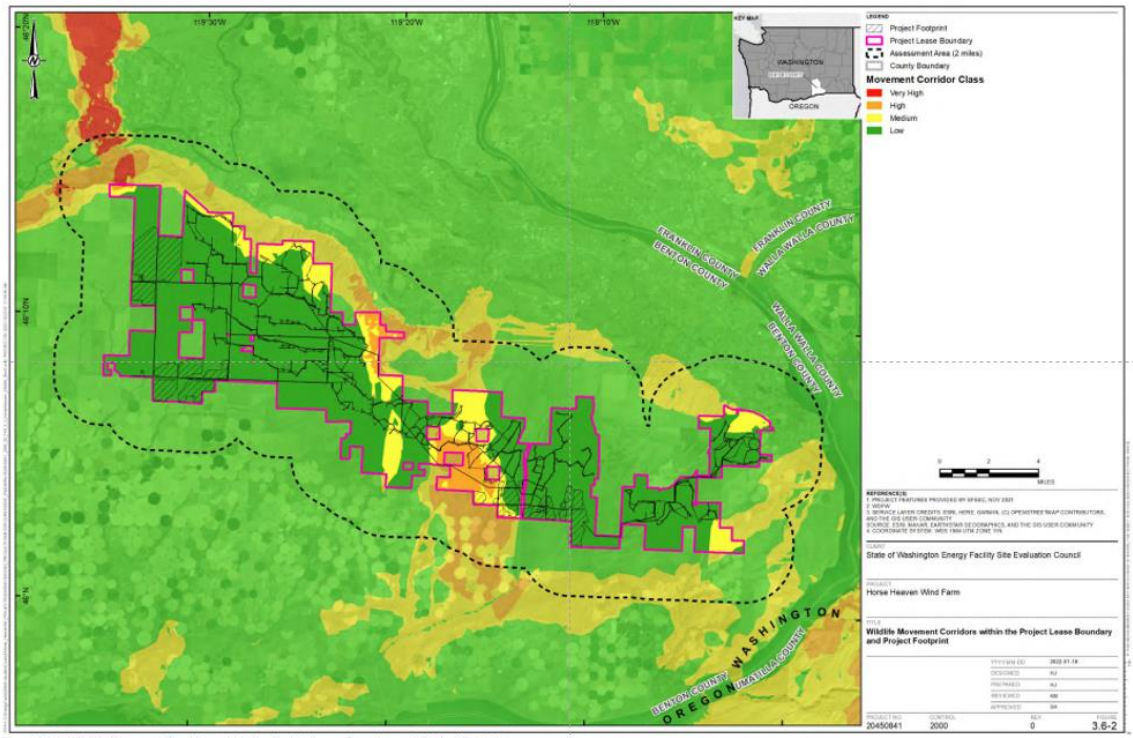
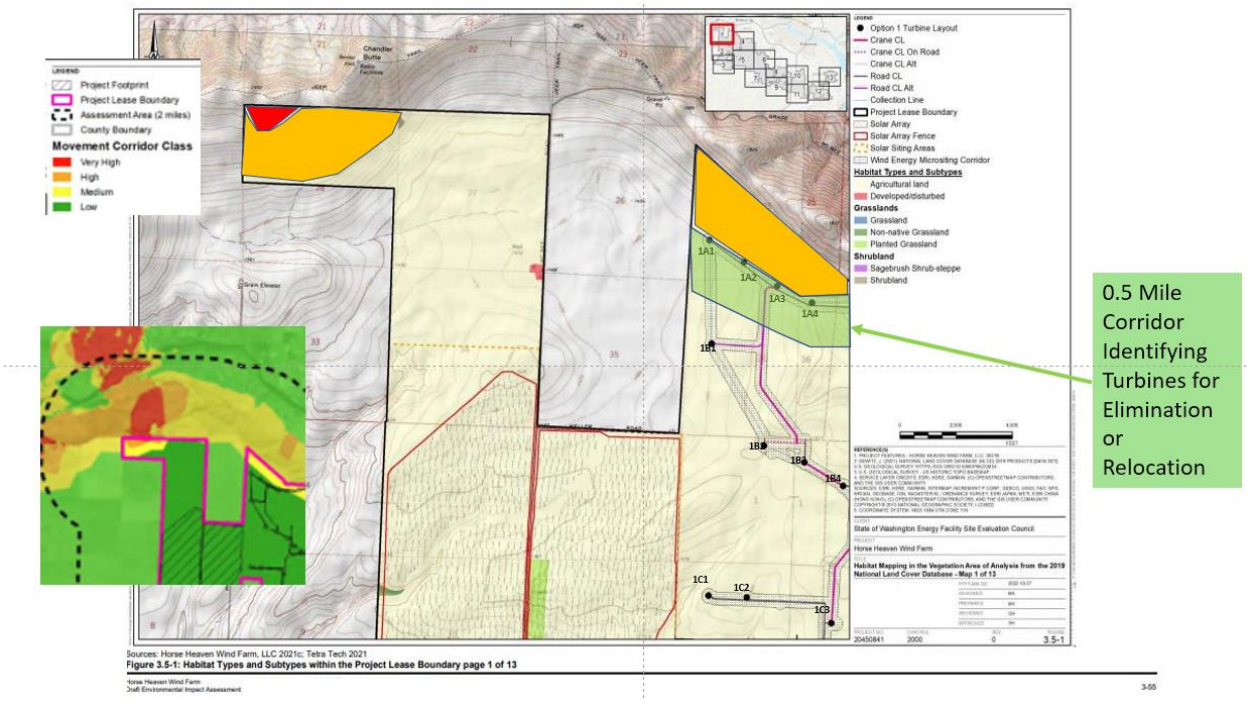


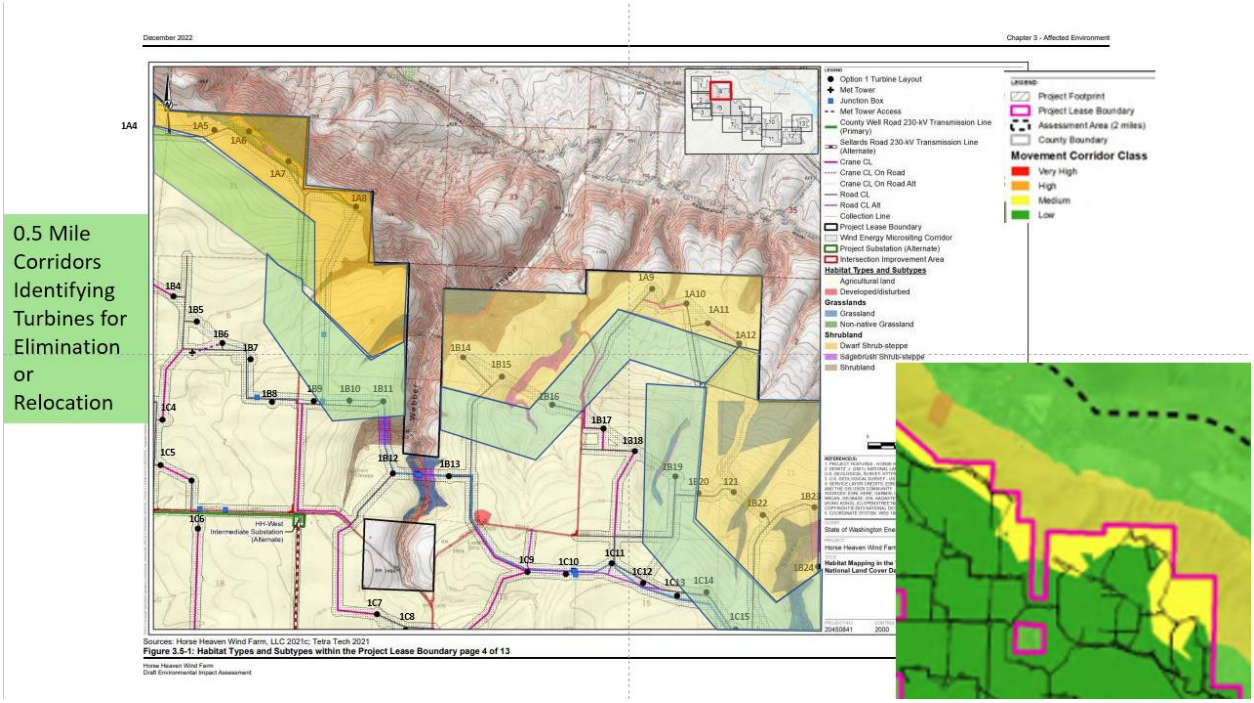
Figure 3.6-2: Wildlife Movement Corridors within the Project Lease Boundary and Project Footprint

Using Powerpoint, we enlarged portions of the map and used Powerpoint to redraw the migration movement corridors on to the Habitat Maps provided in the DEIS in Figure 3.5-1 page 1 of 13.

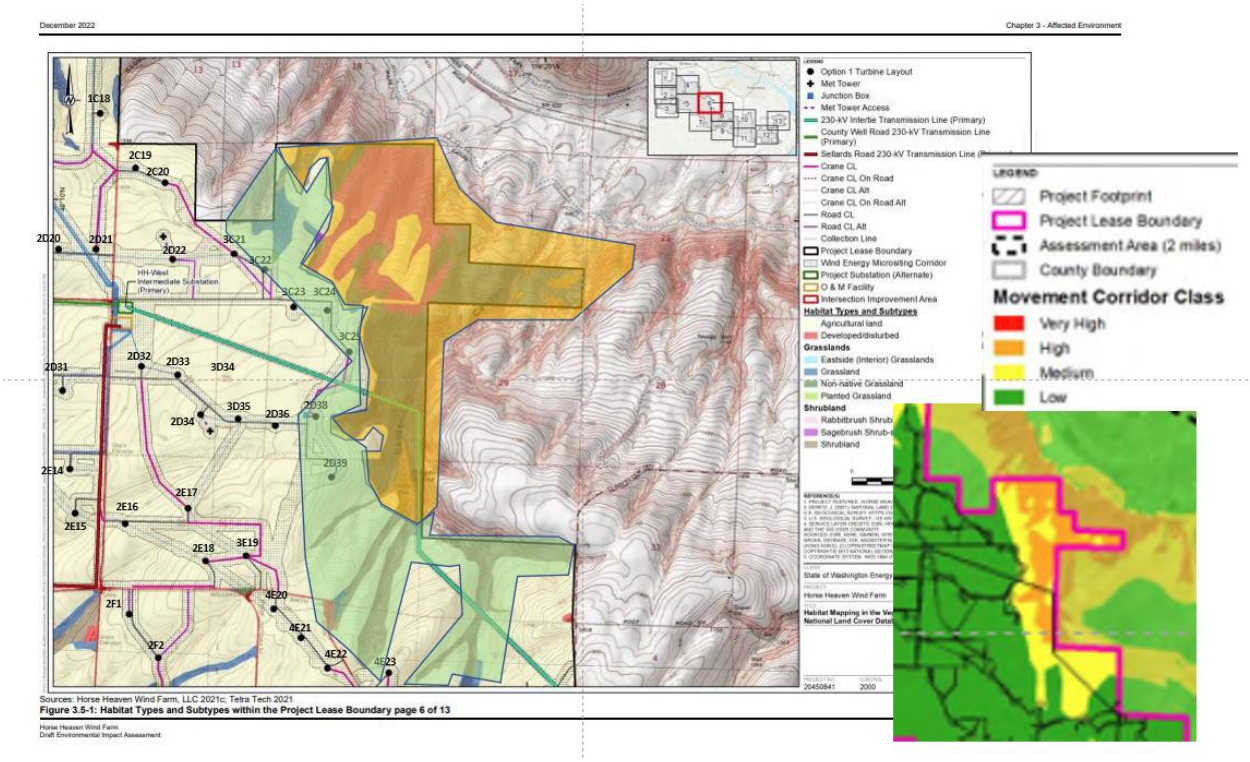
The resulting graphic below for the area south of Benton City with a 0.5-mile buffer corridor identified to help identify which turbines and other infrastructure needs to be eliminated or relocated to protect the wildlife migration corridor.



The next graphic is the resulting map utilizing Figure 3.5-1 page 4 of 13 for the area near Webber Canyon with a 0.5-mile buffer corridor identified to help identify which turbines (using the numbered turbine maps) and other infrastructure needs to be eliminated or relocated to protect the wildlife migration corridor.



The next graphic is the resulting map utilizing Figure 3.5-1 page 6 of 13 for the area SE of Webber Canyon south of Badger Road with a 0.5-mile buffer corridor identified to help identify which turbines and other infrastructure needs to be eliminated or relocated to protect the wildlife migration corridor.



These rough drawings demonstrate that the DEIS fails to provide any graphical analysis at all that can be readily used to identify and evaluate conflicts and mitigation measures.

The DEIS fails to identify and evaluate specific turbine locations that are identified to cause significant impacts. The DEIS fails to propose or even contemplate any remedy if it entails turbine elimination or relocation.

The maps described above were utilized to develop a list of the turbines that should be eliminated from consideration in order to protect the wildlife migration corridor, ecological connectivity and habitat.

Issue: Wildlife Migration Corridors/Ecological Connectivity along the Ridgeline of the Horse Heaven Hills. Turbines with conflicts include:

- 1A4 through 1A8
- 1A9 through 1A12
- 1B8 through 1B25
- 1C18 and 1C19
- 2C19 and 2C20
- C321 through 3C25

- 2D17 through 2D21
- 2D36 and 2D39
- 2E17 and 2D18
- 3E19
- 4E20 through 4E39

Issue: Wildlife Habitat – particularly shrub-steppe habitat and quality related habitats (uses the 11 Habitat Maps in the DEIS Figure 3.5-1 page 1 to 13 for evaluation plus the turbine numbers placed on the DEIS Figure 3.1-4. Maps.

- Map 1 - 1A1 through 1A4 – within ½ mile of dwarf shrug-steppe
- Map 2 - Solar Array – adjacent to unclassified grassland
- Map 3 3 – HH-W Substation – adjacent to planted grassland
- Map 4 – 1B11 through 1B16 and 1C7 and 1C8 – too close to Webber Canyon
- Map 4 – 1A9 through 1A12 and 1B17 through 1B25 – too close to draws
- Map 5 – 1C15 through 1C17 – grassland
- Map 6 – 3C21 through 3C25, 2D35 and D38-39, 4E21 through 4E27, 4E33 through 4E35, 4F7 through 4F10, and 4F19 through 4F26 (too close to sage, grassland, and shrubland
- Map 7 – 4F19-28 – grassland, shrub-steppe, non-native grassland
- Map 10 – 4F29-44 – grassland
- Map 11 – Solar array at Bofer Canyon – too close to ferruginous hawk nest, shrub-steppe between two solar arrays
- Map 12 – 5G11 – shrub-steppe less than ½ mile
- Map 13 – 5D40 through 5D47 – shrub-steppe
- Map 13 – 5E44 through 5E48 - shrub-steppe in the draw

To simply say that any turbine elimination or reduction will prevent the project from achieving the power generation capacity needed to remain feasible or viable without proving the validity of this statement is not acceptable.

Recommended Action: The DEIS needs to be revised and reissued utilizing interactive digital GIS mapping systems and made available to the public for review so that everyone can identify, describe and evaluate wildlife and other environmental resource conflicts transparently. The DEIS needs to then identify the reasonable mitigation measures that can be used to protect the sensitive environment areas from significant impacts and damage.

The DEIS proposed use of a Technical Advisory Committee is inappropriate and unacceptable for identifying mitigation measures.

There are no State statutes that permit the Applicant to establish a TAC to identify mitigation measures regarding project layout and primary structures.

The DEIS does not identify, describe and evaluate wildlife resources, in particular special species, outside the boundary area even though they are clearly in the affected environment under the WAC. The DEIS fails to evaluate impacts the Project will have on wildlife outside the project boundary.

The DEIS also fails to identify and evaluate the disruption of ecological connectivity to their habitat and wildlife corridors necessary for them to thrive. These issues have been communicated to EFSEC several times. Impacts to wildlife do not stop at the invisible boundaries of this Project.

References:

https://www.efsec.wa.gov/sites/default/files/210011/00034/20210610_WDFW_SEPA_Cmnt.pdf

https://www.energy.gov/eere/wind/environmental-impacts-and-siting-wind-projects

Recommended Actions: The DEIS needs to be revised to describe and evaluate affected environment, specifically the 20 or more special status species and their habitat and prey. The DEIS needs to accurately consider the no action alternative. The solar only options "on agricultural and grasslands in the southern edge of the lease area and to the southwest" proposed by WDFW should be accurately described and evaluated.

Recommended Actions: The DEIS must be revised to describe and evaluate proposed actions and alternatives that incorporate the specific mitigation measures, including the locations and the elimination and removal of specific turbines, solar arrays, or other infrastructure presented by the WDFW, the Tribes, Benton County, and City officials.

Recommended Actions: The DEIS needs to describe and commit to additional wildlife surveys. Even after a proposed design has been developed, additional Avian Use Surveys, field studies and surveys, will be needed and conducted by WDFW and other State agencies. These studies must be conducted transparently and to assure and confirm the list of special status species in and near the Project boundaries is adequately assessed, and that the assessment adequately describe and evaluate the expected impacts on the breeding, prey, habitat and survival of all species in and near the lease boundary of the Project. The DEIS must include mitigation measures that will eliminate or dramatically reduce the significant impacts on wildlife and habitat.

Recommended Actions: EFSEC must give the public adequate notice, especially using social media, to engage the agencies and the public in evaluating the studies and data supplied by the Applicant in the ASC and the DEIS;

Recommended Actions: The DEIS must describe and evaluate the mitigations identified to protect wildlife and habitat on a location specific basis. These mitigations must be determined to be adequate by the appropriate State Agencies following the science gathered and comments from the public.

Recommended Actions: The DEIS must be revised and reissued to capture, describe and evaluate newly acquired data and reports and present clear, concise, science-based mitigations for all sensitive species identified in and near the lease boundary of the Project.

Recommended Actions: The DEIS must describe and evaluate commitments for on-going monitoring of compliance of approved wildlife and habitat mitigations and to state that any need for revision of mitigations in the future must be done by State agencies or by a qualified neutral third party approved jointly by State agencies. The use of a Technical Advisory Committee for these is not an acceptable way to comply with the requirements of the WAC.

The DEIS fails to identify and consider the elimination and relocation of turbines, solar arrays and other project infrastructure to reduce the significant impacts of the Project on the wildlife corridors, wildlife habitats, sensitive species, and visual impacts of the Project.

The Horse Heaven Hills Project in some respects is very similar to the Whistling Ridge Project, where the most hotly contested issue involved in the application with the greatest degree of public concern and intervenor attention is the aesthetics, in particular, the visual impacts.

In Council Order No. 868, the Whistling Ridge Final Adjudicative Order on page 23 of 52 provide the Table 1 Viewing Site Analysis identifies three options with varying numbers of turbines along with turbine number designations and the selected Option 3, which had been presented by the Council of the Environment as a means to resolving the contested issues.

We are recommending that a comparable process be utilized for the Horse heaven Hills project earlier in the SEPA process to reduce and narrow the contestable issues.

To further that objective and expedite the SEPA process we offer the following table to illustrate and indicate how the results of such a process might be presented.

This table includes turbines that should be considered for elimination and compensated for additional solar and or relocation to the south of the project for several reasons. We refer to the earlier digital elevation maps, wildlife corridor maps, and wildlife habitat maps, with the turbine numbers developed using the project topographic and Option 1 and Option 2 Layout maps.

The recommendation is offered as a guide that points to and describes the type of additional analysis needed to help EFSEC responsibly identify feasible alternatives that can achieve power generation needs and minimize the significant impacts on the environment and people in accordance with its responsibilities under the RCW 80.50 and the WAC.

Reference:

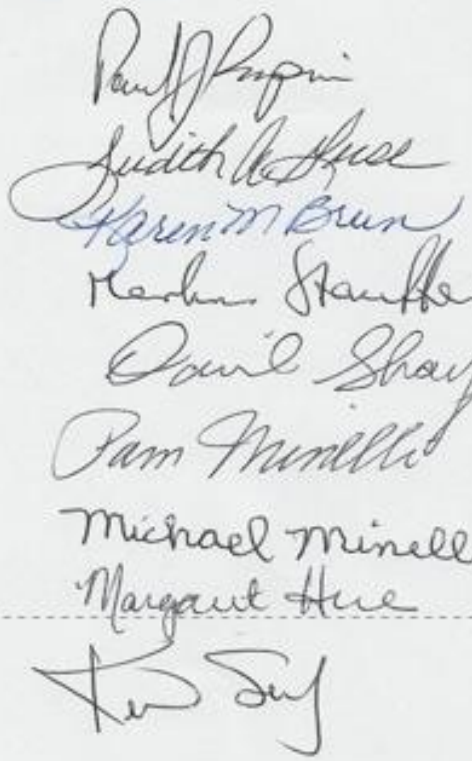
https://www.efsec.wa.gov/sites/default/files/096000/02560/20111006_868.pdf

Map	Turbines/Solar Array	Wildlife Migration Corridor	Ridgeline Protection	Shrub Steppe Buffer	Native Grassland	Ferriginous Hawk Nesting	Fire Safety
1	1A1 1A2 1A3, 1A4,1A5, 1A6, 1A7, 1A8	XXXX	XXXX	XXXX			XXXXXXXX
2	solar Array Section 15	XXXX		XXXX			
3	Solar Array Sections 2,1,36,31	XXXX		XXXX			
4	1A9, 1A10, 1A11, 1A12, 1B6, 1B7, 1B8, 1B9, 1B10, 1B 11,1B12, 1B13,1B 14, 1B15, 1B16, 1B17, 1B18, 1B19, 1B20, 1B21, 1B22, 1B23, 1B24,1B25	XXXX	XXXX	XXXX			
5	1A9, 1A10, 1A11, 1A12,1B17, 1B18, 1B19,	XXXX	XXXX	XXXX	XXXX		
	1B20, 1B21,1B22, 1B23, 1B24,1C15, 1C16, 1C17		XXXX	XXXX			
6	1C18,2C19,2C20,3C21, 3C22, 3C23, 3C24, 3C25		XXXX	XXXX	XXXX		
	2D21,2D35, 2D36, 2D37, 2D38, 2D39,2E17,2E18,3E19		XXXX	XXXX			
7	4E20,4E21,4E22,4E23, 4E24, 4E25, 4E26, 4E27		XXXX	XXXX	XXXX		
	4F7, 4F8, 4F9, 4F10, 4F11			XXXX	XXXX		
8	4E25, 4E26, 4E27,4E28,4E29,4E30,4E31,4E32		XXXX	XXXX	XXXX		
	4E33, 4E34, 4E35,4E36,4E37,4E38,4E39.4E40,4E41		XXXX	XXXX			
	4F19, 4F20, 4F21, 4F22, 4F23			XXXX			
	4F23, 4F25, 4F26			XXXX			
9	4F19, 4F20, 4F21, 4F22, 4F23,			XXXX	XXXX		
	4F24, 4F 25, 4F 26, 4F27, 4F28		XXXX	XXXX			
10	4F29, 4F30, 4F31, 4F32, 4F33	XXXX		XXXX	XXXX		
	4F34, 4F35, 4F36, 4F37, 4F38	XXXX		XXXX			
	4F39, 4F40, 4F41, 4F42, 4F33, 4F44	XXXX		XXXX			
11	4G1, 4G2, 4G3, 4G4	XXXX					
	solar array			XXXX		XXXX	
	7-28-30, 7-29 24, 25, 34, 35, 22,21			XXXX		XXXX	
12	4G5, 4G6, 4G7, 4G8, 4G9, 4G10, 4G11, 4G12,	XXXX		XXXX	XXXX		
	4G13, 4G14, 4G15, 4G16, 4G17, 4G18, 4G19, 4G20, 4G21, 4G22, 4G23, 4G24, 4G25, 4G26, 4G27, 4G28, 4G29, 4G30, 4G31, 4G32, 4G33, 4G34, 4G35, 4G36, 4G37, 4G38, 4G39, 4G40, 4G41, 5G11, 5G12, 5G13 5G14, 5G15, 5G16, 5G17, 5G18, 5G19, 5G20, 5G21, 5G22, 5G23, 5G24, 5G25, 5G26, 5G27, 5G28	XXXX					
13	5D40, 5D41, 5D42, 5D43, 5D44	XXXX		XXXX			
	5D45, 5D46, 5D47, 5D48	XXXX		XXXX			
	5E44, 5E45, 5E47, 5E48	XXXX		XXXX			

Recommended Action: The DEIS must be revised to include to identify and evaluate different wind turbine and solar hybrid alternatives, along with a precise identification of turbine locations that are recognized to be unsuitable for the project along with the reasons supporting these alternatives. The reasons for turbine elimination or relocation must include wildlife migration, wildlife habitat, sensitive species, visual impacts, proximity to people, and other elements of the environment subject to significant, even permanent and irretrievable impact from the Project.

Comments to EFSEC on the Horse Heaven Hills DEIS February 1, 2023.

Submitted By,



Paul J. Krupin

Judith A Guse

Karen M. Brun

Marcus Stauffer

David Sharp

Pam Minelli

Michael Minelli

Margaret Hue

Kevin Self

CC:

Mayor, City of Kennewick WA

Mayor, City of Benton City WA

Mayor, City of Richland WA

Mayor, City of Pasco

Mayor, City of West Richland

Port of Benton Commissioner

Port of Walla Walla Commissioner

Benton County Commissioners

Franklin County Commissioners

Walla Walla County Commissioners

Kittitas County Commissioners

Klickitat County Commissioners

Representative April Connors

Representative Mark Klicker

Representative Stephanie Barnard

Senator Matt Boehnke

Lewis & Clark Trail Foundation

Friends of Badger Mountain

Yakama Nation

Confederated Tribes of the Umatilla Indian Reservation

Columbia Basin Irrigation District

Benton County PUD

Governor Jay Inslee

Tri-City Regional Chamber

Audubon Society

Washington Native Plant Society