From:	Paul Krupin
To:	EFSEC (EFSEC); EFSEC mi Comments
Subject:	Comment on Recent Fires and the Adequacy of Firefighting Aircraft Standoff Barriers for the HHH Wind Project
Date:	Tuesday, August 4, 2026 7:49:13 AM
Attachments:	August 4 Final Comment on Firefighting Aircraft Standoff Barriers and Recent Fires Near the HHH Wind Project.pdf

External Email

There have been a number of recent range fires in the Horse Heaven Hills on and near the Horse Heaven Hills Wind Project. A range fire in mountainous terrain in North Spokane burned over 640 structures August 3. The occurrence of these fires raises the need for immediate heightened scrutiny of the proposed 671-foot turbines and turbine location and layout approval processes.

I am submitting the following information and recommendation to you regarding the review and approval of the proposed 671-foot-high turbines location and layout.

The proposed locations for 671-foot-high turbines are in or near the documented ***Firefighting Aircraft Standoff Buffers*** and will need to be either removed from further consideration or relocated to locations outside the required safety buffers.

Comment letter and supporting documentation are attached. A link is also provided.

August 4 Final Comment on Firefighting Aircraft Standoff Barriers and Recent Fires Near the HHH Wind Project.pdf

Appreciatively,

Paul J. Krupin, BA, MS, JD
Board Member on behalf of TRI-CITIES C.A.R.E.S
Visit: http://www.TriCitiesCARES.org
509-531-8390 cell 509-582-5174 landline Paul@Presari.com

August 4, 2026

Paul Krupin

Kennewick WA 99337

Chair Beckett, Executive Director Low, EFSEC Staff and Members of the Council:

Comment on Recent Fires and the Adequacy of Firefighting Aircraft Standoff Barriers for the HHH Wind Project

There have been a number of recent range fires in the Horse Heaven Hills on and near the Horse Heaven Hills Wind Project. A range fire in terrain in North Spokane burned over 640 structures yesterday. The occurrence of these fires raises the need for immediate heightened scrutiny of the proposed 671 foot turbines and turbine location and layout approval processes.

Issue: The proposed locations for 671 foot high turbines are in or near the documented *Firefighting Aircraft Standoff Buffers* and will need to be either removed from further consideration or relocated to locations outside the required safety buffers.

The approved ***Horse Heaven Hills Final SCA Appendix 2. Mitigation Measures 12. Public Health and Safety (PHS) Mitigation*** (pages 23-24 of 27) states the following

> ***"PHS-2 Firefighting Aircraft Standoff Buffers: No wind turbines shall be sited within 0.25 miles of the maximum perimeter of one or more historic wildfires that have been recorded between January 1, 2000 and the start of construction.***

Rationale: The Washington Department of Natural Resources (DNR) has stated that any firefighting aircraft in service with their agency would observe a minimum of a 0.25-mile standoff buffer from wind turbines during aircraft operation. This mitigation measure ensures that DNR firefighting aircraft can safely and effectively be deployed to areas of higher wildfire likelihood within and adjacent to the Project Lease Boundary to assist in firefighting when needed."

Location1: Nine Canyon in between Nine Mile and Finley Roads

The Nine-Mile fire occurred on July 9 and 10th, 2026. Incident report attached. The report states the cause of the fire is fireworks.

The graphic on the left shows the locations of the proposed 671-foot-high turbines based (turquoise blue) on the map coordinated for the locations provided by Scout Clean Energy to the Federal Aviation Administration (FAA) in their Jan 2026 applications.

The graphic on the right is the Sentinel Imagery from July 19, 2026, with less than 1 percent cloud cover. The fire perimeter is colored black in this infrared imagery.

The map graphic indicates there three possibly four proposed 671 ft high turbine locations (colored in turquoise blue) within the fire perimeter or within ¼ mile of the fire perimeter.

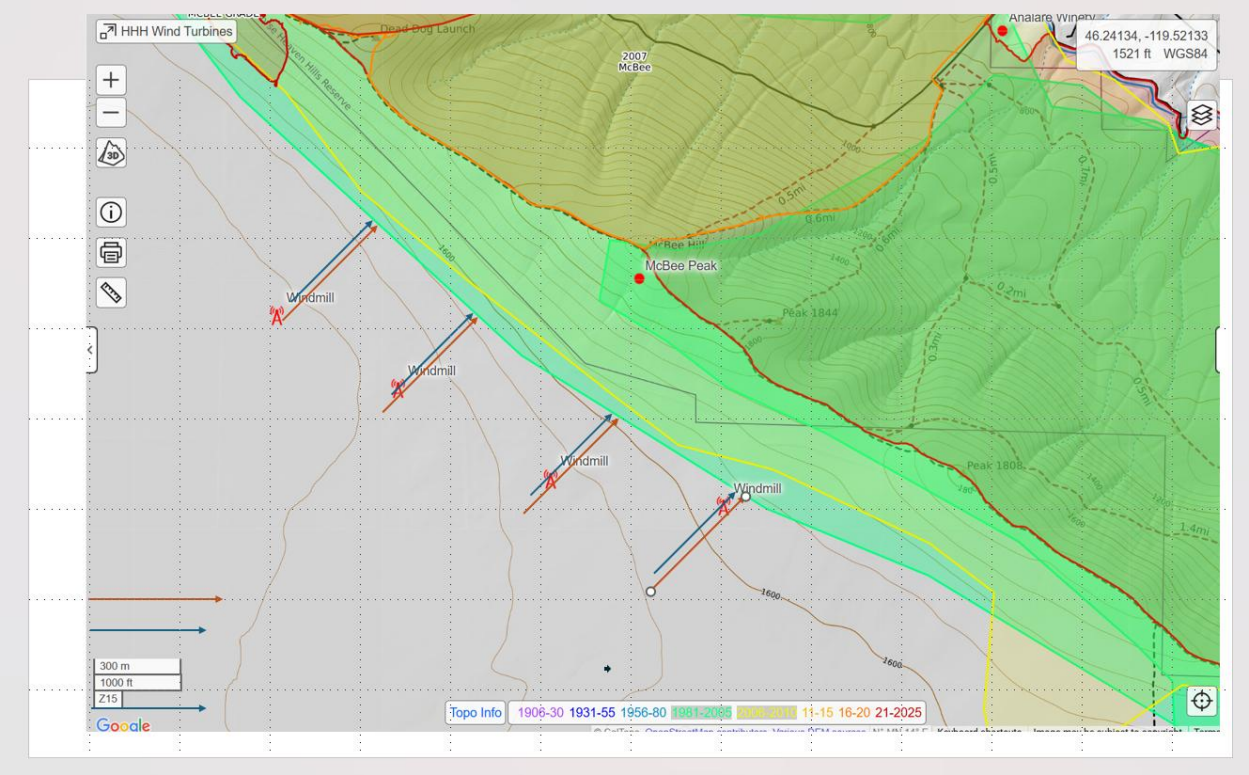
The Google map legend for this location shows the distance for 2,000 feet.

0.25 miles is 1,320 feet to the tip of the turbine. The width of a turbine blade on a 671 foot turbine is approximately 259 feet. This places center of the turbine tower at 1,579 feet from a fire perimeter boundary.

Sentinel Imagery

[Esri | Sentinel-2 Explorer]

Location 2: Four Turbines along McBee Ridge near Benton City



There are at least three proposed 671 ft turbines near McBee Peak that are within this 1320/1579 ft. distance.

This is the Cal Topo Fire History Map. I added in the distances to the tower and the blade tip.

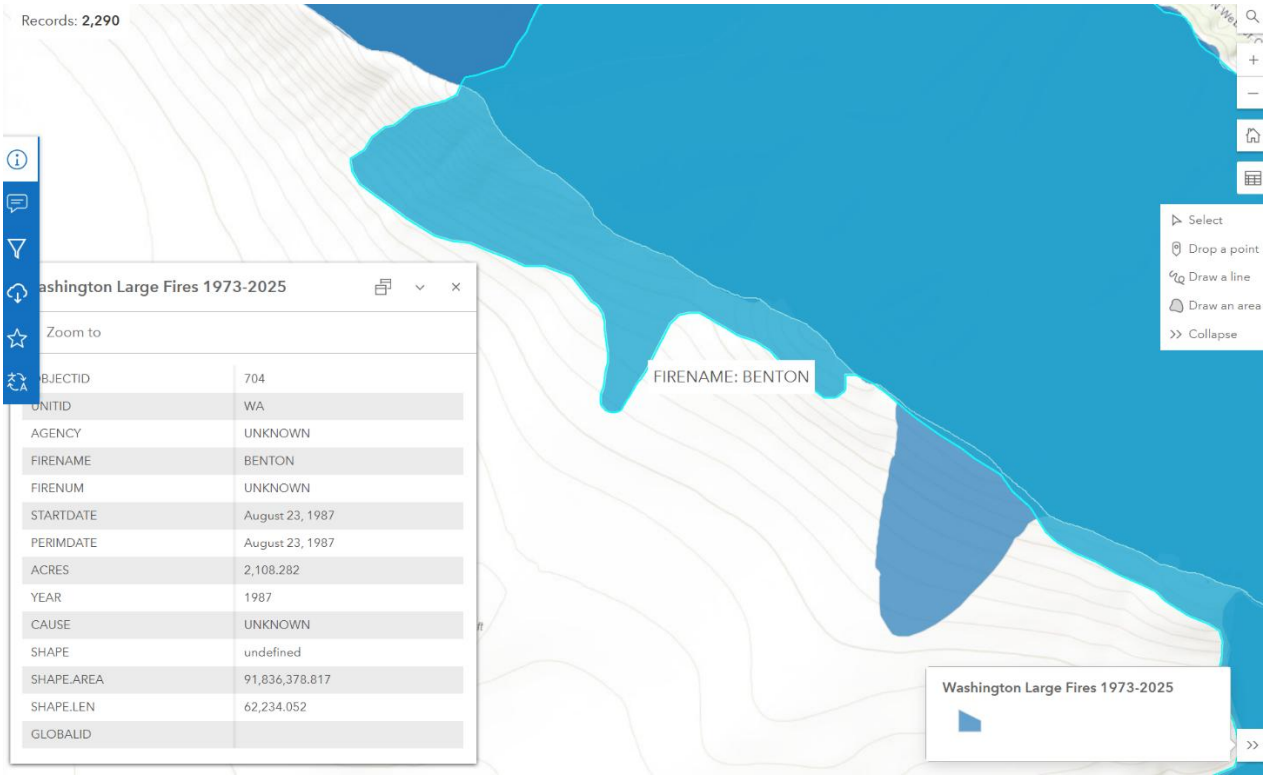
The following graphic is a screenshot of the same area using the Washington DNR Large Fire database data set and map 1973 to 2025.

There is a 1987 fire perimeter called “Benton” that gets much closer to these turbines that the CalTopo Map. There are also several other historic fires in this area. This area is known for repeat fire occurrences on a six to eight year interval.

If these fire perimeters are to be used, these turbines will need to be moved further away than they are identified in the FAA applications. They are too close to the ¼ mile standoff buffer.

There are no current large-scale maps of the proposed project infrastructure that have been made available that depict the proposed locations of the 671-foot high turbines.

The maps that are available are not as good as what would be needed and appropriate for operational level planning purposes. Better maps showing the proposed facility infrastructure and the nearby fire perimeters will be needed to make engineering decisions with better confidence and certainty.



However, the adequacy of the ¼ mile aerial firefighting standoff buffer contained in ***Horse Heaven Hills Final SCA Appendix 2. Mitigation Measures 12. Public Health and Safety (PHS) Mitigation*** must be questioned in its' entirety.

Issue: The Existing ¼ mile Aerial Firefighting Buffer is Inadequate to Protect the Public and the Historic and Continued Use of Very Large Air Tankers (VLAT's) along the Northern Boundary of the Project.

The HAB-6 Addendum does not demonstrate that aerial firefighting safety buffers have been increased or that the revised 671-foot turbine layout has been evaluated for safe operations by Very Large Air Tankers (VLATs) or rotary-wing aircraft.

Missing elements include:

- quantified aerial-firefighting safety buffers,
- mapped retardant-drop or helicopter corridors,
- agency-validated aviation safety analysis,
- evaluation of turbulence zones, smoke-column interactions, and obstacle hazards.

The addendum relies on outdated FEIS discussions and does not address historic VLAT use on BLM lands where repeat fires occur regularly.

A review of the history of the ¼ mile standoff buffer indicates that the focus was on the 499-foot-high turbines and that DNR expert input and testimony that the 671 foot high turbines would create a significant no-fly zone over the entire project area was largely ignored by EFSEC.

These omissions are inconsistent with SEPA's requirement for full disclosure of probable significant adverse impacts.

During the course of the Horse Heaven Hills adjudication, the Presiding ALJ erred in striking testimony from two extremely qualified experts in wildland firefighting using Very Large Air Tankers (VLATs) that identified need for substantially larger buffers between wind turbines and aerial firefighting aircraft in the EFSEC Recommendations and the Governor's Remand and Decision. The PALJ's faulty reasoning was revealed in his Order when he stated:

The PLJ Order from September 13, 2023 states:

> ***"They offered experiences from California wildfires that occurred in forested terrain, not dryland wheat fields."***

The use of this scientifically incorrect reasoning as a justification for the exclusion of this critical and relevant testimony resulted in the evidence being excluded for consideration at every follow on EFSEC meeting the topic was actively discussed.

As a consequence, the approved EFSEC Recommendation and the Governor's Remand and Decision, and the Site Certification Agreement all fail to include a safety buffer that is sufficient to meet the needs aircraft maneuvering requirements of the Very Large Air Tankers used to fight range fires along the northern boundary of the project.

The effect of these errors results in the creation of a no-fly zone that will reduce aerial fire protection capabilities in the communities adjacent to the project.

The EFSEC mitigation incorporated into the Final SCA addresses only the fleet capabilities of the Washington DNR and its response to fire on DNR land.

The Washington State DNR government witness (Russ Lane) testimony during the public meeting on the original EFSEC Recommendation did not raise or address VLAT operational conditions and requirements. His testimony explicitly states that he was not asked to comment on the use of the VLAT's and had he been asked, he would have deferred to the experts on those aircraft.

Mr. Lane stated

"I would like to clarify the interpretation of my previous responses. I was not specifically asked to address the use of very large, airliner-type jet aircraft. I will

happily defer to expertise on the maneuvering characteristics of large transport aircraft."

The December 2023 to January 26, 2024 emails from between EFSEC and DNR Russ Lane, (DNR) and James Woodward relied upon by EFSEC in the development of the mitigation clarifies that the 0.25 mile distance refers only to the use of State owned aerial firefighting aircraft and does not recognize or take the federal fleet aircraft into account. The federal fleet has made use of LAT and VLAT size aircraft in the historic fires in the Horse Heaven Hills on record.

The December 7, 2023 email from Amy Moon to James Woodward (provided in the attachment) contains the following Q & A responses, (green highlight is in the original email)states:

1. ***Does DNR have any project specific concerns regarding fire suppression? For example, access to the site or access to fire suppression materials?***

DNR does not have direct fire protection responsibility for the lands noted below.

2. **Would DNR be one of the potential responders to a range fire in the Horse Heaven Hills, specifically within the proposed Project location?**

DNR could be a potential responder through agreements with fire districts and/or State Mobilization. DNR is the primary responder for wildfire aviation on non-federal land, statewide.

3. **Would the proposed turbine heights up to 657 feet maximum total height (ground to blade tip) affect fire suppression methodology?**

Turbines up to 657 would severely restrict, or prohibit the use of tactical aircraft and UAS (drones) for tactical fire suppression.

4. **What is the typical height planes and helicopters fly when responding to a range fire for suppression?**

Nearly all tactical wildland missions are conducted below 500' AGL.

5. **Are there any other aerial criteria or accommodations for planes or helicopters that we DNR fire response require? Related to access to water and/or fire retardants? Any specific turn around criteria for the aircraft?**

Nothing specific. The density and spacing of the towers would essentially create a no-fly zone over the entire project area. We would apply an additional "safety buffer" of 1-2 tower-heights around the project to ensure safe separation for aircraft operations.

DNR this does not address the VLATs at all and they also did not address the issues associated with the 671 foot high turbines.

Testimony provided by TCC aerial firefighting expert witnesses with significant experience flying VLATs and LATs responding to fires on nation-wide states that **two miles perpendicular and four miles along the flight path is needed** to safely avoid turbine obstructions.

The bottom line is that the proposed quarter mile fire buffer distance is inadequate and the 671 foot turbines result in the creation of a large no-fly zone on the whole project area and immediately adjacent to the project and areas where significant numbers of people and their homes are located.

There is no evidence in the EFSEC records that the federal government was properly consulted regarding the Very Large Air tankers (VLAT's) that have been utilized to fight large range fires on the BLM lands and property adjacent to the HHH Wind farm along the northern border of the project.

Recommendation:

- Revisit, review, and revise the aerial firefighting standoff buffer requirement to address the maneuvering needs of the Very Large Air Tankers (VLATs) historically used to protect the public along the northern project area boundary.

- Revise and reissue the Final Site Certification Agreement to address the revised aerial firefighting safety buffer requirements.
- Remove proposed turbines inside fire perimeter locations
- Relocate turbines too close to aerial firefighting standoff buffers
- Publish large-scale maps to adequately depict proposed turbine locations, associated facility infrastructure, and aerial firefighting standoff buffers.

EFSEC must require the contractor to create large scale maps showing the proposed facility infrastructure with the locations of the proposed 671-foot turbines and the topography along with the most current large fire database information and fire perimeters so that turbine locations may be adequately and appropriately defined for review and approval prior to the beginning of construction. These maps should be made available to the public for review and comment as soon as possible.

EFSEC should release these maps to the public to document and assure that the public safety is assured.

EFSEC must revise the Final SCA and demonstrate compliance with the revised PHS-2 Firefighting Aircraft Standoff Buffers requirements before approving the proposed project layout and design.

From: Woodward, James (DNR)
To: Moon, Amy (EFSEC)
Subject: RE: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - DNR responses
Date: Wednesday, January 3, 2024 3:26:30 PM
Attachments: image001.png
image002.png

Afternoon Amy,

Thanks for reaching out. Hope you enjoyed a nice holiday season as well.

Yes, I reached out to my DNR wildfire colleagues (POC: Russ Lane) re: this matter this morning. FYI – I sent an email follow up asking for Russ's team to provide me answers by this coming **Fri, 1/5/24**. I'll let you know as soon as I hear back from Russ.

Regards,

Jim

From: Moon, Amy (EFSEC) <amy.moon@efsec.wa.gov>
Sent: Wednesday, January 3, 2024 2:03 PM
To: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Subject: RE: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - DNR responses

Jim-

Now that the holiday season is behind us, I'm following up on open items regarding the proposed Horse Heaven project.

At the December 20, 2023 EFSEC Council Meeting, the Council asked for clarification on DNR's response to the question #5 listed below. Please clarify "safety buffer". Is this a vertical distance above the maximum tip height? A lateral distance from the Project boundaries? Or both?

5. Are there any other aerial criteria or accommodations for planes or helicopters that we DNR fire response require? Related to access to water and/or fire retardants? Any specific turn around criteria for the aircraft?
   Nothing specific. The density and spacing of the towers would essentially create a no-fly zone over the entire project area. We would apply an additional "safety buffer" of 1-2 tower-heights around the project to ensure safe separation for aircraft operations.

The EFSEC Council also is seeking any DNR suggested mitigation measures that could address or help to address the air space above the turbines which appears to be essentially a No Fly Zone.

- Due to turbine heights (up to 657 feet) and proposed turbine spacing, are there any DNR recommended mitigation measures that may address the impact on aerial firefighting activities?

Thank you for coordinating this dialogue.

-Amy

From: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Sent: Thursday, December 21, 2023 12:34 PM
To: Moon, Amy (EFSEC) <amy.moon@efsec.wa.gov>
Subject: RE: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - DNR responses

My pleasure Amy.

Thanks again for your understanding / flexibility in terms of the timeline for receiving the requested, additional information from my peer DNR team, given the holiday season.

Hope you enjoy a nice break !

Jim

From: Moon, Amy (EFSEC) <amy.moon@efsec.wa.gov>
Sent: Thursday, December 21, 2023 12:28 PM
To: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Subject: RE: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - DNR responses

Thank you!

From: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Sent: Thursday, December 21, 2023 11:53 AM
To: Moon, Amy (EFSEC) <amy.moon@efsec.wa.gov>
Subject: RE: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - DNR responses

Good morning Amy,

Thanks for your latest Horse Heaven message. I have passed along your additional question to the DNR Wildfire team (POC: Russ Lane).

At this point, I doubt we will hear further on this matter before the holidays. I have put a reminder on my calendar to follow up with Russ re: providing you answers to your additional questions the 1st week of January .

Happy holidays,

Jim

From: Moon, Amy (EFSEC) <amy.moon@efsec.wa.gov>
Sent: Thursday, December 21, 2023 7:41 AM
To: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Subject: RE: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - DNR responses

Jim-

At yesterday's EFSEC Council, the Council asked for clarification on DNR's response to Question 5. Please clarify "safety buffer". Is this a vertical distance above the maximum tip height? A lateral distance from the Project boundaries? Or both?

5. Are there any other aerial criteria or accommodations for planes or helicopters that we DNR fire response require? Related to access to water and/or fire retardants? Any specific turn around criteria for the aircraft?
   Nothing specific. The density and spacing of the towers would essentially create a no-fly zone over the entire project area. We would apply an additional "safety buffer" of 1-2 tower-heights around the project to ensure safe separation for aircraft operations.

The EFSEC Council also requested at the 12/20/23 Council Meeting if DNR has any suggested mitigation measures? Which is similar to the follow up question I sent earlier this week:

1. Due to turbine heights (up to 657 feet) and proposed turbine spacing, are there any DNR recommended mitigation measures that may address the impact on aerial firefighting activities?

Your expertise and assistance are greatly appreciated.

Thank you,

Amy

From: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Sent: Thursday, December 14, 2023 3:00 PM
To: Moon, Amy (EFSEC) <amy.moon@efsec.wa.gov>
Subject: FW: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - DNR responses

Afternoon Amy,

Per your Horse Heaven request, please see DNR responses below that have been inserted directly beneath each of your 5 questions. Other than my GREEN highlighting to call out DNR's feedback more clearly for EFSEC's awareness, the responses are directly from DNR's Wildland Fire Management Division (POC: Russ Lane).

Regards,

Jim

From: Lane, Russ (DNR) <Russ.Lane@dnr.wa.gov>
Sent: Thursday, December 14, 2023 2:39 PM
To: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Cc: Geissler, George (DNR) <George.Geissler@dnr.wa.gov>; Ritchie, Dave (DNR) <Dave.Ritchie@dnr.wa.gov>; LARSON, BRYAN (DNR) <BRYAN.LARSON@dnr.wa.gov>
Subject: RE: Horse Heaven wind & solar project - EFSEC Council Questions re: Fire Suppression - Able to provide answers by Fri PM, 12/15 ?

James,

See my answers below:

Russ Lane
Division Manager
Wildland Fire Management Division
Washington Department of Natural Resources
Office: (360) 902-1308
Cell: (360) 480-9657
Russ.Lane@dnr.wa.gov

From: Moon, Amy (EFSEC) <amy.moon@efsec.wa.gov>
Sent: Thursday, December 7, 2023 9:43 AM
To: Woodward, James (DNR) <James.Woodward@dnr.wa.gov>
Subject: Horse Heaven - EFSEC Council Question on Fire Suppression

James-

I am sending this email to you regarding the Horse Heaven Wind Project. I originally sent the email to Chad Unland, but understand that you have taken on the clean energy duties for DNR.
Here's a link to the Horse Heaven EIS: https://www.efsec.wa.gov/sites/default/files/210011/feis/FINAL%20EIS_Horse%20Heaven%20Wind%20Farm_October%202023.pdf

EFSEC published the Final Environmental Impact Statement (EIS) for the proposed Horse Heaven Wind Project. The EFSEC Council has some questions about DNR fire response/potential fire response to the Horse Heaven Hills. Do you have a contact that could help with this, or can you forward the following questions? The project boundaries and location are shown on the figure below.

1. Does DNR have any project specific concerns regarding fire suppression? For example, access to the site or access to fire suppression materials?
   DNR does not have direct fire protection responsibility for the lands noted below.

2. Would DNR be one of the potential responders to a range fire in the Horse Heaven Hills, specifically within the proposed Project location?
   DNR could be a potential responder through agreements with fire districts and/or State Mobilization. DNR is the primary responder for wildfire aviation on non-federal land, statewide.
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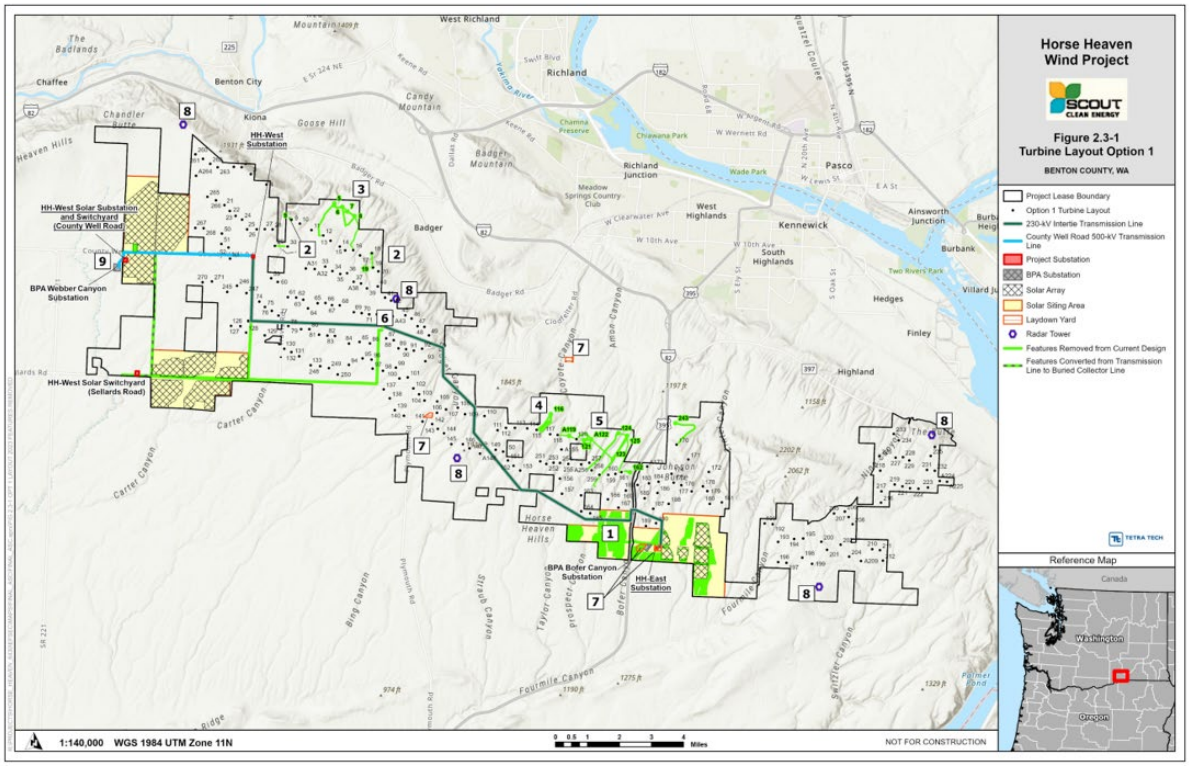

Source: Horse Heaven Wind Farm, LLC 2023
Figure 2-3: Turbine Layout - Option 1

Thank you for your assistance.

Amy I. Moon, MS
Gender Pronouns: she/her
Energy Facility Site Certified/Compliance Lead |Energy Facility Site Evaluation Council | **360-664-1362** | amy.moon@efsec.wa.gov
NOTE: EFSEC email addresses have changed to @efsec.wa.gov! Please update your EFSEC contacts.