Comment #0021 Badger Mountain Project Docket #210747

> From:
> Mark Kacmarcik
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> To:
> EFSEC (UTC)
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>
> Subject:
> Public Comment on Badger Mountain Solar Energy Project
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>
> Date:
> Wednesday, November 17, 2021 11:11:36 AM
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>
> Attachments:
> image.png image.png image.png image.png Neighbors say slumping hill is Chelan County"s responsibility

> > External Email

Hello:

I would like to provide the following comment on the Badger Mountain Solar Energy Project:

Sage Grouse Habitat:

Although I generally support solar energy development, i am concerned about the location proposed for this facility. This area provides critical habitat for the Greater Sage Grouse, including close proximity (likely less than 1 mile) to the Badger Mountain Lek, which is one of the most well-attended lek's in the State. As you may be aware, the sage grouse have seen drastic reductions in suitable habitat, particularly following the Pearl Hill fire in Sept 2020 which devastated a significant stronghold in Douglas County. Installation of the proposed facility will significant reduce the opportunity for recovery of sage grouse in North Central Washington, and result in further decline in the health of this species.

Geotechnical/Landslide Hazard:

Additionally, i noted that the transmission easement for this project crosses significant landslide terrain with scant mention or significant evaluation in the submitted Terracon Geotechnical Report (Appendix H). The Terracon report notes this is a potential fatal flaw, with detailed evaluation of the hazarx outside the scope of their work. As a licensed geotechnical engineer myself, i'm concerned with the hazard posed by routing of the eastment down the very steep landslide scarp at the canyon rim, and siting of facilities on hummocky mass wasting deposits along badger mountain road. A few screen captures of geologic mapping included below.

Projects sited in similar terrain have been problematic, such as the condemned housing, road closures, lawsuits, and other problems associated with the Whispering RIdge landslide in Squickchuck canyon nearby. The Whispering Ridge landslide is an example which would not be beneficial to the proposed project. A recent article is attached (PDF), many other articles on this, and other, landslides by searching the Wenatchee World archives.

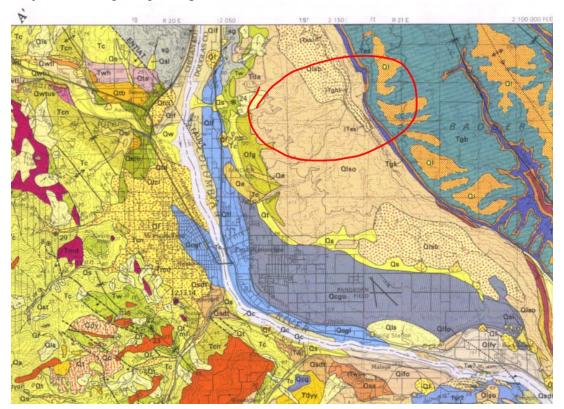
Please reject this proposal and seek suitable locations elsewhere which are not impactful to the sage grouse or other threatened or endangered species; and which are not situated in landslide terrain.

very respectfully,

Mark Kacmarcik

140 S. Emerson Ave Wenatchee, WA 98801

Project area on geologic map:



Descriptions of landslide deposits:

uncalichified gravel forming upper bars of Columbia River flood deposits (Qcgu) farther downvalley



YOUNGER LANDSLIDE DEPOSITS-Angular debris from Yakima Basalt Subgroup; overlies QcgI but is partly eroded by younger floods

DLDER LANDSLIDE DEPOSITS-Hummocky diamicton underlying QIfo, QIfy, Qsa, Qcgu, Qcgl and Qmc; upper surface of toe of slide along and in Columbia River near Malaga and Rock Island has high erosional relief; huge slide complexes on both sides of Columbia River valley between Wenatchee and Rock Island Dam are sparsely strewn up to altitude 325 m with very angular light-colored granodiorite boulders ice-rafted by great floods. Landslide complex northeast of East Wenatchee consists near mountain front of huge rotated, somewhat deformed blocks (QIsb) of the Grande Ronde Basalt and Ellensburg Formation; to southwest is highly fractured deformed blocks and divided debris of the Grande Ronde Basalt deposited in valleys cut into Wenatchee Formation (Tw); east of river is thickly mantled with loess and eolian sand

Qwtl LOWER TERRACE GRAVEL OF WENATCHEE RIVER-Gravel similar to Qw but forming



LANDSLIDE OF LARGE BLOCKS—Mainly large intact blocks whose original internal stratigraphy is partly to wholly preserved (where mapped, internal stratigraphy designated in parentheses); slides occur mainly as the headward parts of large landslides derived from regional escarpment of the Yakima Basalt Subgroup; large incipient slide near Mission Peak includes nonrotated blocks, of which the largest, essentially in place, measures 2000 x 1000 x 150 m. Elsewhere blockslides are of older rock units

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MANMADE FILL AND MODIFIED LAND

direction of movement

Source:

GEOLOGIC MAP OF THE WENATCHEE 1:100,000 QUADRANGLE, CENTRAL WASHINGTON

R. W. Tabor, R. B. Waitt, Jr., V. A. Frizzell, Jr., D. A. Swanson, G. R. Byerly, and R. D. Bentley 1982 https://www.wenatcheeworld.com/news/neighbors-say-slumping-hill-is-chelan-countys-responsibility/article_94ac5f2c-fa84-11e9-925a-77f6f279941e.html

Neighbors say slumping hill is Chelan County's responsibility

By Tony Buhr World staff writer Oct 29, 2019

WENATCHEE — The Chelan County Commission listened Tuesday to the concerns of a rural neighborhood near Wenatchee Heights impacted by the slumping of a ridge.

Keith Truscott acted as the spokesperson for 12 of his Cranmer Road neighbors at a commission meeting. Truscott gave a presentation to the commissioners that he said outlined a 25-year ongoing problem. There are two areas where the ground has moved due to saturation of groundwater into the soil from a nearby spring and stormwater.

"Two people either have lost their houses or lost their driveways and had to turn them back to the bank," Truscott said. "Another person, his driveway is completely blocked by this dirt that came off the roadway. He hasn't had access to his house for two years so he had to build some temporary wooden stairs to actually get up to his home."

Parts of two-lane, paved Cranmer Road have been closed since the 1990s due to the slumping hillside. The road once connected Squilchuck and Wenatchee Heights roads but no longer does because of the shifting soil.

The issue is whether the slumping is occurring on private property or on the county road, Commissioner Bob Bugert said. The county cannot use public funds to help individual property owners.

"I think there is recognition that the water flow is part of the problem, but what is the cause of it and what can be done to rectify it is where we do not have clear data," Bugert said. Truscott acquired close to 1,000 pages of county documents involving Cranmer Road. He said that the county hired three consultants in the last 25 years and that they all identified the county road as the source of the hill slumping.

"The consultants were pretty clear in their reports that they need to design a suitable storm drain system that will capture both the spring water and stormwater runoff and pipe it off the hillside in a safe manner to the natural drainage that is to the north of us," Truscott said.

The spring water is diverted alongside Cranmer Road at the moment through a pipe that is leaking in several places, he said.

"So it is dispersing all the spring water back into the roadway the full length of Cranmer Road, creating more slumping and more of a risk for all of us," Truscott said.

The slumping of the road has impacted Truscott's property, even though it is not directly threatened by the hillside, he said. It has made it impossible for him to sell property, he said.

"I have a concrete slab, a basketball court, with no cracks in it," Truscott said. "Our house has no cracks. The doors and windows — everything works."

The county commission has asked Public Works Director Eric Pierson to look into where the water is coming from and whether the county road is involved, Bugert said.

"It would be a misuse of public funds to go in there," and work on private property, Bugert said. "Certainly we recognize the challenge that the Truscotts have there, but we are limited in what we have authority to do."

Cranmer Road is not the only property in the county that has been affected by shifting or slumping soils. In 2016, 17 homes were evacuated below Whispering Ridge, about 1.5 miles from Cranmer Road due to sudden soil movement.

The Squilchuck Creek Community Development along Boodry Street was hit by a landslide this year that made three mobile homes uninhabitable.

Tony Buhr has been a professional reporter for almost seven years. He worked for the Walla Walla Union-Bulletin as a cops and courts reporter. The Ellensburg Daily Records as a cops and courts, breaking news, agriculture and water reporter.