WYOMING CHAPTER – THE WILDLIFE SOCIETY

Leaders in Wildlife Science, Management and Conservation

12 March 2020

Crystal Hoyt
Project Manager
Bureau of Land Management
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Submitted via Bureau of Land Management's E-Planning website for the project and via email

RE: Comments on Proposed Raven Solar Energy Project

Dear Ms. Hoyt:

On behalf of the Science Committee of the Wyoming Chapter of The Wildlife Society (WYTWS), please accept the following comments in regards to the proposed Raven Solar Energy Project (Raven Solar). We appreciate the opportunity to lend our scientific expertise as part of the public comment period for this proposed solar farm in southwestern Wyoming, slated to occur on public lands. Our focus is on the potential impacts to wildlife and wildlife habitats based on the proposed action(s)

About WYTWS and the Science Committee

The Wildlife Society is an international organization of wildlife professionals and students committed to addressing issues that affect the current and future status of wildlife in North America and the world through science-based decision making. WYTW) is comprised of over 200 wildlife professionals in Wyoming who collectively promote awareness of and continued improvement in science-based wildlife management in Wyoming. The Science Committee is made of professionals within WYTWS who represent a diversity of backgrounds, experience, and expertise, all with a solid vision of maintaining the merits of science and the scientific method as it pertains to Wyoming's wildlife and wildlife habitats.

We support responsible renewable energy development as a strategy to addressing growing energy demands, however we believe it should be done in a manner that avoids and minimizes impacts as much as possible, and offsets unavoidable impacts through scientifically-defensible compensatory off-site mitigation. As renewable energy generation interests increase in Wyoming due to the high potential, we respectfully ask that the BLM proactively pursue landscape-scale planning for utility-scale renewable energy development rather that address projects on a case-by-case basis. Our state's public lands, and the wildlife resources and communities that depend on healthy landscapes, will benefit from proactive planning that identifies areas of least impact.

In our review of the EA we have noted several issues and/or impacts that proposed development could impose on wildlife and wildlife habitats in the proposed action area:

Impacts to sagebrush and sagebrush habitat:

Healthy and productive habitat is at the root of sustaining wildlife populations, including ungulates, birds, and small mammals. We recognize that the demand for increased energy development is increasing and caution that suitable habitat at the landscape level is essential for sustaining healthy wildlife populations. Sagebrush habitat has been identified as crucial to myriad wildlife species; fragmentation and reduction of these large tracts of habitat will have negative impacts on the hundreds of species that inhabit them, some of which we already know through peer-reviewed science are not doing well. If this project is approved, to maintain functional high-quality habitat, we recommend implementation of actions to prevent invasive species establishment and sustain reclamation of native vegetation species.

Impacts to ungulates and migration:

Several of our expert reviewers commented on the proposed site location and potential impacts to ungulate migrations, especially that of pronghorn (*Antilocapra americana*). When looking at the proposed project area it was noted that maintaining access to this rare swathe of (relatively) undisturbed sagebrush, especially in harsh winters, movement and foraging is critical to pronghorn. The area is a key resource for animals moving through the narrow band between the Green River and the Hamm's Fork River. Pronghorn have traditionally migrated through the area because it is a spot where snow blows away from a nearby right-of-way, creating an easy passage for wildlife – especially for pronghorn, which are not physically able to withstand deep snow conditions. This concern becomes even more serious given the high level of development already in this region, most notably with the existing Sweetwater Solar facility located adjacent to the proposed Raven Solar project area. Wyoming Game and Fish Department crucial winter range maps and other information identify this area as a "pinch point" for pronghorn. Consensus from reviewers outlined potential negative impacts to wildlife due to impermeable fences, increased road activity, and loss of high-quality sagebrush resources.

The standard fencing (to meet federal safety requirements) for these developments is 6' chain link with three-strands of barbed wire on top, so there will be no permeability for big game. The area is crucial winter range for pronghorn and a bottleneck for pronghorn migration in harsh winter conditions. A migration attempted by pronghorn in November 2019, where 1,000 antelope were bottlenecked near the Sweetwater Solar facility and forced onto Highway 372, reflect the importance of this area and the known challenges. The proposed new facility and development on both sides of Highway 372 will likely further exacerbate displacement of pronghorn. In essence it would become a hazard for pronghorn and the public. If the proposed actions were approved it will be crucial to consider and if possible implement appropriate mitigation action such as wildlife friendly fencing and stipulations which require reduced winter activity during development and maintenance.

Impacts to avian species and bats:

The location of the proposed solar energy project near the Green River establishes a situation where the facility may present a hazard to migrating waterfowl and shorebirds. Relatively high numbers of waterbird carcasses at photovoltaic (PV) cell facilities suggest that these guilds may be particularly at risk where PV panels reflect polarized light giving the impression of water along migratory routes. This phenomenon has been termed the "lake effect" whereby migrating birds perceive the reflective surfaces of PV panels as bodies of water and collide with the structures as they attempt to land on or actively drink from the panels in flight. Although data are limited, there appears to be a positive correlation between the size of PV panel arrays and risk, suggesting the potential for increased risk of mortality from multiple PV facilities situated near each other. Given the close proximity to Seedskadee National Wildlife Refuge and Green River, which serve as a critical stopover and nesting habitat for a wide range of shorebirds and waterfowl, the risk to birds is considerable. Good faith efforts should be made to work closely with Wyoming Game and Fish Department and local U.S. Fish and Wildlife Service staff to avoid or minimize impacts

As noted earlier, solar installations can also become traps for birds and bats due to the highly concentrated, high-temperature solar beams present at solar facilities, which can result in substantial "steamer" mortality. Lighting at night can also lead to concentrations of insects and their predators potentially exacerbating bat mortality. Further unintended consequences for birds and bats are still relatively unknown as researchers work to understand the interactions between large-scale solar projects and flying wildlife (birds and mammals).

In closing, we support this project if appropriate actions are implemented to mitigate any identified hazards to wildlife habitat and populations in this unique ecosystem. The Wyoming Chapter of The Wildlife Society looks forward to maintaining an open dialogue in issues regarding development and wildlife/wildlife habitats in Wyoming. Thank you for the opportunity to comment.

Sincerely,

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