



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Bend Field Office
63095 Deschutes Market Road
Bend, Oregon 97701

In Reply Refer To: #24-231

Deschutes County Solid Waste
Solid Waste Advisory Committee
61050 SE 27th Street
Bend, Oregon 97702

Subject: Landfill Siting Comment for Deschutes County Solid Waste Advisory Committee

Dear Committee Members:

Thank you for providing U.S. Fish and Wildlife Service (Service) an opportunity to comment on the Deschutes County Solid Waste Advisory Committee's (SWAC) landfill siting process. The Service has concerns about both sites selected for final consideration, Moon Pit and Roth East. While each site comes with a suite of impacts to wildlife and their habitats, the scope and scale of these impacts may be less acute at the proposed Moon Pit location. The Service understands the complexities involved with siting a new landfill, and we hope the following information will help inform the committee in their deliberative process prior to making a final recommendation to the Deschutes Board of County Commissioners.

Habitat

Habitat loss is a significant threat to biodiversity and has resounding negative impacts on wildlife populations and ecosystem function. The loss of habitat and/or species contributes to ecosystem collapse and subsequent collapse of ecosystem services whereas diverse and stable ecosystems are more resilient against catastrophes and other extrinsic pressures. Habitat loss is the primary threat to most species, including those listed as threatened or endangered under the Endangered Species Act (ESA). Habitat loss is also a primary factor inhibiting species recovery, thus, promoting species persistence and recovery are often expressed in terms of habitat conservation and restoration. As increased development fragments or bisects habitat, wildlife loses the ability to move, migrate, and disperse across landscapes. Climate change is expected to compound effects of habitat loss. Consequently, wildlife's best chance of adaptation in the face of climate change are robust populations and space (i.e., ample high-quality habitat).

Both sites are within an extensive network of Priority Wildlife Connectivity Areas (PWCAs)¹. The PWCAs represent multiple species and include areas of good quality habitat in relatively undisturbed parts of the landscape as well as the best remaining marginal habitat that helps wildlife navigate through degraded areas. The intent of the PWCAs is to help inform planning processes to protect, restore, mitigate for transportation issues, and enhance/maintain wildlife

¹ <https://www.oregonconservationstrategy.org/success-story/priority-wildlife-connectivity-areas-pwcas/>

INTERIOR REGION 9
COLUMBIA-PACIFIC NORTHWEST

IDAHO, MONTANA*, OREGON*, WASHINGTON

*PARTIAL

habitat. Although the proposed sites are small footprints relative to the scale of wildlife habitat in Central Oregon, across North America, and globally, each subsequent development that removes habitat contributes to cumulative habitat loss and exerts additional pressure on wildlife. The proposed landfill sites, specifically Roth East, will reduce the amount of available habitat, break up patch size of intact habitat, and decrease the average size of existing patches of habitat.

Wildlife

Beyond habitat loss, landfills can produce paradoxical effects on individuals and populations using them. In some cases, landfills provide abundant and permanent food resources. These resources can benefit select species of native wildlife but also provide resources for invasives species and subsequently favor the invasion process, influence wildlife movement, and increase the risk of plastic/foreign body ingestion. Food subsidies for wildlife aggregate different species when they would typically not interact, increasing the risk of pathogen and toxicant exposure. Indirectly, landfills can produce negative impacts on species that do not take advantage of these sites by providing a subsidy for predators and potentially increasing their distribution and abundance. The following discussion represents a few select species in and around the proposed landfill locations. It is not an exhaustive list exhaustive, nor does it indicate a lack of concern for those species not mentioned.

Greater Sage-Grouse

Greater sage-grouse (*Centrocercus urophasianus*, hereinafter, sage-grouse) declines have been documented since regular monitoring of the species began in the 1950s. Primary causes of habitat loss and fragmentation include the altered wildfire cycle due to the establishment non-native invasive plants; human activities, like energy development, transmission lines, and exurban development. Noise, and human presence associated with human activities within sagebrush, is also thought to result in indirect, but negative impacts to greater sage-grouse, including limiting habitat use, lek attendance and reducing species productivity in affected areas.

From 1999 to 2005, the Service received 8 petitions to list the sage-grouse throughout its range or within specific populations. Although sage-grouse remained widely distributed across the landscape, in 2010 the Service found the bird was warranted but precluded for listing under the ESA due to continued loss and fragmentation of habitat that was exacerbated by a lack of adequate regulatory mechanisms to address these losses. However, after a series of unprecedented collaboration and conservation efforts to address threats to sage-grouse across 11 western states, the Service determined in 2015 that sage-grouse were not warranted for listing under the ESA.

Although the sage-grouse is not listed, ongoing habitat loss is still a significant concern for the Service. Sage-grouse in Central Oregon exist at the westernmost periphery of their range. Siting a landfill at either proposed location will negatively impact sage-grouse with the Roth East site having a disproportionately larger impact on those populations east of Bend. Impacts related specifically to the Roth East site include permanent habitat loss, a significant increase in baseline disturbance (e.g., noise, visual, presence), reduction in habitat connectivity between leks, potentially impeding movement between leks, and an increased baseline of predator presence (e.g., corvids, eagles, other raptors). These impacts are not limited to the footprint of the landfill

and will likely have wide-ranging effects. While neither location will preclude predators from potentially establishing in areas where they might have previously not, the existing disturbance at the Moon Pit location offers advantages and is not as proximate to sage-grouse populations.

Pygmy Rabbit

The Service received a petition² to list the pygmy rabbit (*Brachylagus idahoensis*) in early 2023. On January 25, 2024, we published a 90-day finding stating the petition presented substantial scientific or commercial information indicating that the petitioned actions may be warranted. We are currently conducting a species status review of the pygmy rabbit and will issue a 12-month petition finding, which addresses whether the petitioned actions are warranted in accordance with the ESA.

One of the largest concerns for pygmy rabbits is loss of habitat and subsequent habitat fragmentation. Development can dramatically reduce structural connectivity of habitat at various scales and can impede dispersal and survival, and consequences of siting a landfill in or near pygmy rabbit habitat includes increased predator presence (e.g., coyotes, ravens, raptors/eagles). Of the two potential sites, both are within year-round pygmy rabbit habitat, but the Moon Pit location already has an established baseline of disturbance and is further from known pygmy rabbit burrow locations. Moreover, soils with high amounts of gravel are not conducive to pygmy rabbit habitat. The Moon Pit is an old gravel quarry and, when compared to Roth East soils that have deeper soils and less gravel substrate, a more fitting choice that may lessen impact to pygmy rabbits and their habitat. Considering the timeline for siting and establishing landfill infrastructure, the Service believes the SWAC should consider this information in its decision-making process.

Bald and Golden Eagles

Central Oregon is important habitat for bald and golden eagles (*Haliaeetus leucocephalus* and *Aquila chrysaetos*, respectively). There are approximately 116 bald eagle and 108 golden eagle nest locations in Deschutes County. Although this value doesn't represent the number of bald and golden eagles in the County³ and is only the number of known nests, it indicates that Central Oregon provides important habitat for these birds. Golden eagles, in general, are declining throughout their range and the Service is increasingly concerned that habitat alteration, land-use changes, increases in baseline human presence, and nest disturbance are exacerbating those declines. While bald and golden eagles are not currently listed as threatened or endangered under the ESA, they are sensitive species protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d).

Almost all threats to golden eagles are attributable, directly or indirectly, to human activities. Human-related threats include habitat modification, recreation, persecution (e.g., shooting), lead poisoning, rodenticide poisoning, and collisions with man-made objects such as vehicles, wind turbines, and utility poles. However, the most widespread and unintentional threat to golden

² <https://westernwatersheds.org/wp-content/uploads/2023/03/FINAL-030623-Pygmy-Rabbit-ESA-listing-petition-WWP-v2.pdf>

³ Eagles often have more than one nest associated with their territory.

eagles by humans is land use change that results in habitat modification or fragmentation. Encroaching development has made areas historically used by eagles unsuitable both in terms of habitat and prey availability and increase baseline levels of disturbance. In addition to habitat conversion, high levels of nesting failures have been attributed directly to disturbance such as increased tourism/recreation, surface mining, wind and solar development, and human intrusion into a nesting area. When disturbed by humans at the nest, adult golden eagles will leave their nest for extended periods of time. The adult's absence from the nest can expose eggs or young to predation and the elements, and increase times between feedings, which puts young at a disadvantage. These additive stressors increase the probability that young golden eagles do not survive to reproduce. The Moon Pit site is within 2 miles of the Dry River Canyon golden eagle territory, and the Roth site is within 2 miles of the Pine Glider and Pine Mountain Towers golden eagle territories. The Service recommends, irrespective of final site selection, to coordinate on potential impacts to golden eagles.

Ungulates

Though elk, mule deer, and pronghorn are State-managed species, the Service funds and supports habitat conservation related to these species. Secretarial Order 3362⁴, *Improving Habitat Quality in Western Big-Game Winter Range and Migration Corridors*, focuses on conserving, enhancing, restoring, and improving the condition of priority big game winter range and migration corridor habitat. Both proposed sites are within winter range for both elk and mule deer, essential pronghorn habitat, and near mule deer migratory corridors (Crescent herd range and Ochoco-Maury-North Harney herd range). Like golden eagles, mule deer are in decline throughout their range. Causes of mule deer declines are a complex interaction of many factors, but development (rural, exurban, and urban) that continues to accelerate habitat loss plays a disproportionate role. Important foraging areas and migratory corridors are shrinking across elk, mule deer, and pronghorn range as sprawl on the fringes of cities, particularly in rural areas, continues to further fragment their habitat.

Additionally, a substantial portion of the areas surrounding the two proposed locations include lands managed by the Bureau of Land Management (BLM). Where possible, the BLM endeavors to improve the quality and quantity of summer, winter, and migratory corridor habitats. However, habitat improvements and connectivity don't end at the public-private land interface and have limited effectiveness in the absence of land-use planning and conservation strategies across both public and private land.

Conclusion

The Service's primary concerns related to the proposed locations, more specifically the Roth East location, include habitat loss and increased fragmentation and disturbance, increased noise and visual impacts, and creating an anthropogenic subsidy in an area where none currently exist. These impacts will have cascading effects for other species across the landscape in Central Oregon. The SWAC's presentation on February 20, 2024, noted that "No ESA listed species are likely to occur on Roth East or Moon Pit sites." We do not disagree with this statement but encourage the committee to consider the importance of species not currently listed under the

⁴ https://www.doi.gov/sites/doi.gov/files/uploads/so_3362_migration.pdf

ESA. The Oregon Conservation Strategy identifies numerous species that are of “greatest conservation need.” The State of Oregon defines these species as having small or declining populations, are at-risk, and/or are of management concern (Table 1). Typically, species are evaluated for protection under the ESA when their numbers decline and/or their habitats are impacted to such an extent that they cannot feed, breed, and/or provide shelter. As noted above, habitat loss is the primary threat to, and cause of species declines globally. When a species is listed, there are far more requirements for species and habitat protections than when they are not listed. We urge the SWAC to carefully consider each site and their respective near- and long-term impacts to wildlife and their habitats.

Thank you again for providing the Service an opportunity to comment on this process and for your continued support in the conservation of wildlife in Central Oregon. If you have any questions regarding this comment, please contact me or my staff, Emily Weidner at emily_weidner@fws.gov.

Sincerely,

Bridget Moran
Field Supervisor, Bend Field Office

cc:

Brian Wilk, U.S. Fish and Wildlife Service
Andrew Walch, Oregon Department of Fish and Wildlife
Kalysta Adkins, Oregon Department of Fish and Wildlife
Jamie Bowles, Oregon Department of Fish and Wildlife
Jessica Clark, Oregon Department of Fish and Wildlife

Table 1. List of select species under review, candidate, or listed under the Endangered Species Act and/or are Oregon Conservation Strategy Species. See ODFW’s [Methods for Determining Strategy Species](#)⁵ for an overview of criteria used to determine the species of greatest conservation need in Oregon.

Species	Federal Status	Oregon Conservation Strategy Species?
Birds		
Brewer's Sparrow		Yes
Ferruginous Hawk		Yes
Greater Sage-Grouse		Yes
Loggerhead Shrike		Yes
Oregon Vesper Sparrow		Yes
Peregrine Falcon		Yes
Pinyon Jay	Under Review	No
Sagebrush Sparrow		Yes
Western Bluebird		Yes
Western Meadowlark		Yes
Insects		
Monarch Butterfly	Candidate	Yes
Western Bumble Bee	Under Review	Yes
Mammals		
Gray Wolf	Endangered	Yes
Little Brown Bat	Under Review	No
Pallid Bat		Yes
Pygmy Rabbit	Under Review	Yes
Spotted Bat		Yes
Townsend’s Big-Eared Bat		Yes
White-Tailed Jackrabbit		Yes
Reptiles		
Northern Sagebrush Lizard		Yes
Western Rattlesnake		Yes

⁵ <https://www.oregonconservationstrategy.org/ocs-strategy-species/methods/>