

Data Submitted (UTC 11): 8/6/2026 6:22:13 PM

First name: Gwendolyn

Last name: McManus

Organization: Center For Biological Diversity

Title: Staff Scientist

Comments: Thursday, 6 August 2026

Todd Pederson

c/o Wallowa Valley Ranger District

201 East Second Street

P.O. Box 905

Joseph, Oregon 97846

(541) 426-5514

todd.pederson@usda.gov

Dear Mr. Pederson,

The Center for Biological Diversity submits this letter to the Wallowa-Whitman National Forest to express concern about the draft Action Plan (AP) and draft Project Design Criteria (PDC) for the Upper Wallowa Valley and Huckleberry to Minam Fuel Break Projects, specifically their impact on the imperiled Greenman's biscuitroot (*Lomatium greenmanii*). As many as 20-30% of the world's macroscopic species, including millions of plants, are at risk of extinction in the next ~50 years due to anthropogenic climate change (Wiens and Zelinka 2024). With the northwestern US predicted to become a plant extinction hotspot by the end of the century (Wang et al. 2026, p. 650), we implore the US Forest Service to ensure it is adequately preserving and stewarding the endemic biodiversity under its jurisdiction.

Though presently considered a *lomatum*, Greenman's biscuitroot is expected to be reclassified as a member of a novel, monophyletic genus most closely related to several East Coast genera located thousands of miles away (M. Darrach, pers comm 26 March 2026). This tiny plant has most likely existed as its own species for six to eight million years (Id.), making it an ancient and distinct lineage and a valuable piece of evolutionary history (Forest et al. 2026, p. 655). Because the species presently has a very small footprint on the landscape, conserving all populations is essential to its long-term survival.

Mount Howard is a population stronghold for Greenman's biscuitroot, with the summit and the neighboring saddle toward East Peak estimated to contain upwards of 90% of the global population (ORBIC 2026). The species is found across the summit of Mount Howard, including close to the site of the proposed fuel break (G. McManus, pers obs 20 June 2026). Individual plants and even entire populations can be incredibly difficult to spot, particularly out of flowering, as the plants are often only a few centimeters tall and may grow amid bunchgrasses or other ground-dwelling plants of greater height. Despite their diminutive size, herbaria collections indicate that these perennial plants are very long-lived, potentially surviving as long as a century or more (M. Darrach, pers comm 26 March 2026). Unfortunately, recent surveys by M. Darrach indicate that reproduction and seedling recruitment in many areas of Mount Howard are currently low to nonexistent (pers comm 2 July 2026), which means that preserving existing plants at this population is of critical importance to maintain genetic diversity and ensure resilience in the face of growing climatic threats.

We are concerned that the AP and PDC are not sufficiently attentive to the presence of Greenman's biscuitroot at the site of the proposed fuel break. The species is listed as threatened under the Oregon Endangered Species Act and is considered a Region 6 USFS sensitive species, which should designate any area where it is found as a Special Interest Botanical Area (SIBA) per the draft Project Design Criteria (see p. 1 of PDC). The draft PDC states that SIBAs "will be protected from ground-disturbing activities. Examples of ground disturbing activities are

commercial thinning, vehicle and equipment parking, log decking, yarding, slash piling and burning, road construction, and prescribed fire (including construction of fire lines)" (see p. 1 of PDC). However, the only mention of Greenman's biscuitroot in either the PDC or the draft Proposed Action is the following statement: "Slash created on the top of Mt. Howard will not be piled in existing open meadow like areas to minimize impacts to Green [sic] Lomatium. Piles can be made in areas where the ground is covered in pine needles or lopped and left if there is no place to pile" (see p. 13 of PDC and p. 5 of AP).

Although this species is indeed most commonly found in open meadows, it may also be found growing under trees, where it is even more difficult to spot (ODA 2026, p. 2; G. McManus, pers obs 20 June 2026) and will be directly susceptible to damage in the construction of the proposed fuel break. Many patches of Greenman's biscuitroot on Mount Howard are also growing at the edge of conifer islands (Id.), where logging equipment or foot traffic may be unavoidable in fuel break construction. Because of this, there is almost no chance that thinning activities will completely avoid any impact on Greenman's biscuitroot.

Another threat to Greenman's biscuitroot from the construction of this fuel break is the potential for multiple introductions of invasive ox-eye daisy (*Leucanthemum vulgare*). Ox-eye daisy, a globally significant noxious weed, is capable of forming aggressive near-monocultural stands once established (Khuroo et al. 2010, p. 600), has allelopathic compounds with herbicidal effects on other species (Magharri et al. 2015, p. 541), and may require an intensive, multi-pronged management approach with unavoidable off-target impacts on native species (McConnachie et al. 2015, p. 107). It is found along the first 1.3 km of the USFS road on the eastern side of Mount Howard, as well as in the parking lots for the tourist tram on the western side (G. McManus, pers obs 20 June 2026). The AP and PDC make little reference to this threat and, in doing so, fail to acknowledge its severity. The fuel break project will create a large area of freshly-disturbed soil where ox-eye daisy could become established. The PDC states simply that ox-eye daisy will be prioritized for herbicide treatment (PDC p. 2). McDougall et al. (2025) experimentally removed ox-eye daisy from invaded plots with use of the herbicide Grazon Extra, which targets dicotyledonous species (p. 4). Such an herbicide would be unsuitable because of non-target impacts to Greenman's biscuitroot. It is not stated in the fuel break documents what herbicide would be used, nor is it stated that Greenman's biscuitroot will be avoided while applying the herbicide.

While the Center volunteers these concerns and reiterates those in its letter dated May 22, 2026, the Forest Service has not provided enough information for the Center to assess many additional aspects of the fuel break project. The Forest Service has also not indicated the nature of this feedback opportunity. Should the Forest Service proceed with this project, the Center reminds the Forest Service of its duty to meet statutory requirements and regulatory requirements of proposed categorical exclusion, the National Environmental Policy Act, the Endangered Species Act, as well as other applicable laws.

Given the sensitivity of Greenman's biscuitroot to the proposed project activities, we strongly urge the Forest Service to reconsider its plans, particularly the construction of a fuel break through the summit of Mount Howard.

Sincerely,

Gwendolyn McManus
Staff Scientist
Center for Biological Diversity

References Cited

Forest, F., Brown, R., Buerki, S., Colville, J. F., Moat, J., Lughadha, E. N., Owen, N. R., Raimondo, D. C., Rivers, M., Rosindell, J., Walker, B. E., Bachman, S. P., Pipins, S., Gumbs, R., & Brown, M. J. M. (2026). High risk of extinction across the flowering plant tree of life. *Science*, 392(6798), 655-659.

<https://doi.org/10.1126/science.adz0773>

Khuroo, A. A., Malik, A. H., Reshi, Z. A., & Dar, G. H. (2010). From ornamental to detrimental: plant invasion of *Leucanthemum vulgare* Lam. (ox-eye daisy) in Kashmir Valley, India. *Current Science*, 98(5), 600-602.
<https://www.jstor.org/stable/24111805>

Magharri, E., Razavi, S. M., Ghorbani, E., Nahar, L., & Sarker, S. D. (2015). Chemical composition, some allelopathic aspects, free-radical-scavenging property and antifungal activity of the volatile oil of the flowering tops of *Leucanthemum vulgare* Lam. *Rec. Nat. Prod.*, 9(4): 538-545.
<https://researchonline.ljmu.ac.uk/id/eprint/2793/>

McConnachie, A. J., Peach, E., Turner, P. J., Stutz, S., Schaffner, U., & Simmons, A. (2015). The invasive weed ox-eye daisy, *Leucanthemum vulgare* Lam. (Asteraceae): Prospects for its management in New South Wales. *Plant Protection Quarterly*, 30(3): 103-109.
<https://search.informit.org/doi/abs/10.3316/informit.789110462734840>

McDougall, K. L., Miles, J., & Wright, G. T. (2025). Ox-eye daisy (*Leucanthemum vulgare* Lam.) invasion has only a small effect on the diversity of a subalpine grassland. *Australian Journal of Botany*, 73(3), BT24059.
<https://doi.org/10.1071/BT24059>

Oregon Biodiversity Information Center (ORBIC). (2026). Biotics Rare Species Database. Institute for Natural Resources - Portland. Portland State University, Portland, OR. Reach out to ORBIC for access to data cited here.

Oregon Department of Agriculture (ODA). (2026). Greenman's desert parsley *Lomatium greenmanii*. 3pp.
<https://www.oregon.gov/oda/Documents/Publications/PlantConservation/LomatiumGreenmaniiProfile.pdf>

Wang, J., Oliveira, B. F., Moore, F. C., Kozar, D. J., Fu, Y., & Dong, X. (2026). Climate-induced range shifts support local plant diversity but don't reduce extinction risk. *Science*, 392(6798), 648-654.
<https://doi.org/10.1126/science.aea1676>

Wiens, J. J., & Zelinka, J. (2024). How many species will Earth lose to climate change? *Global Change Biology*, 30(1), e17125. <https://doi.org/10.1111/gcb.17125>