



Comments on the USDA, USFS Special Areas; Roadless Conservation Proposed Rule

[Docket No. FS-2025-0001]

6 October, 2026

The Wildlife Society (TWS) thanks the USDA for the opportunity to provide comments on its Roadless Conservation Proposed Rule. As an organization of over 10,000 wildlife professionals, we recognize the complexity of managing Inventoried Roadless Areas (IRAs). However, the current proposal has the potential to significantly—and negatively—impact wildlife conservation, ecosystem health and human communities across the NFS and beyond.

As a result, TWS opposes the proposed rescission of the 2001 Roadless Areas Conservation Rule (hereafter Roadless Rule). We find that the current proposal:

- Fails to demonstrate that rescission is necessary to achieve stated management objectives;
- Creates significant implementation concerns for an already resource-constrained agency; and,
- Could lead to irreversible impacts on wildlife populations and their habitats.

The Wildlife Society recommends that the USDA continue with implementation of the Roadless Rule, as outlined in the “No Action” alternative of the draft Environmental Impact Statement (DEIS).

The Roadless Rule is the primary driver behind the science-based identification and maintenance of undeveloped lands across the National Forest System (NFS). IRAs provide key habitat for sensitive species of wildlife, fish, and plants; serve as important migration corridors that connect wildlife populations; and ensure clean air, water, and soil. We support the continued implementation of the Roadless Rule to the benefit of all Americans and public trust resources across the nation.

Unsupported Justification for Rescission

TWS is an enduring advocate for the highest standards in the use of science in setting wildlife policies and decisions.¹ The proposed rulemaking puts forward that the Roadless Rule, “limited the Forest Service’s ability to conduct vegetation management within

¹ See, [TWS Position Statement: The Use of Science in Policy and Management Decisions](#)



inventoried roadless areas and has contributed to the lack of active management of the national forests, which in turn has contributed to challenges in addressing forest health concerns.” The proposed rulemaking further describes three main concerns it aims to address: wildfire risk, the spread of insect and disease infestations and protections for communities in the wildland–urban interface.

We acknowledge that these concerns have grown and evolved since the Roadless Rule was finalized in 2001 and value their consideration in the proposed rule. During the scoping period for this rulemaking, we also recognized the cases in which road development to access IRAs would be appropriate and acceptable under the current Roadless Rule framework.² However, the best available science does not support the assertion that restrictions placed by the Roadless Rule have prevented these concerns from being properly addressed within IRAs. Rather, scientific research suggests that the construction of new roads in these areas would likely exacerbate the concerns targeted in this proposal, which we discuss further below.

Fire and fuel reduction

The DEIS acknowledges that “agency management records show that a lack of roads has not prevented fire prevention or protection measures, especially wildland fire use and prescribed fire” within IRAs (DEIS, p. 105). This is supported by twenty years of forest health monitoring data analyzed by the USFS.³ In fact, fuel management activities were found to be higher in roadless areas on a per-square kilometer basis than other areas in the National Forest System.³ The Roadless Rule already explicitly permits fire suppression actions, including fuel treatments and road construction to address imminent threats—thus undermining the assertion that management activities cannot occur within IRAs under the current framework.

Rather, scientific research suggests that the risk of wildfire will increase with the building of roads in IRAs. A research study based on data spanning from 1992 to 2024 found that the highest wildfire–ignition densities occurred in National Forest lands that were closest to roads, and that those densities decreased away from roads.⁴ The greater occurrence of wildfires started near roads is unsurprising, given that nearly 85 percent of wildfires in the U.S. are human-caused, a statistic based in part on USFS research data.⁵ The DEIS also acknowledges that the frequency of wildfires in IRAs is significantly lower compared to

² See, [TWS Comments on the USDA, USFS Notice of Intent to Prepare an Environmental Impact Statement](#)

³ See, Healey (2020). [Long-term forest health implications of roadlessness](#)

⁴ See, Aplet et al. (2026). [Three-decade record of contiguous-U.S. national forest wildfires indicates increased density of ignitions near roads](#)

⁵ See, National Park Service, [Wildfire Causes and Evaluations](#)



non-IRA lands in the NFS. By allowing for more roads to be built in roadless areas, the proposed rescission is likely to result in more wildfires—the opposite effect of its stated intent.

TWS supports active forest management where supported by science, including hazardous fuels reduction, prescribed fire, invasive species control, and management actions necessary to protect communities and wildlife resources. Prior to eliminating nationwide protections that could alter fire frequency across nearly 58 million acres, USDA should explain why targeted use of existing authorities is insufficient.

Invasive species and forest health concerns

Shortly after the Roadless Rule was finalized, the Chief of the U.S. Forest Service identified invasive species as one of the four most critical threats to the National Forest System.⁶ Some estimates have found that invasive species have cost North America over \$26 billion annually since 2010.⁷ As the DEIS states on p. 108, the “No Action” alternative would result in no direct increase in existing and new invasive plant species in the affected area because no project actions would occur, while alternatives 2 and 3 would allow for activities that could increase the extent or the number of invasive plant species in the affected area through soil disturbance. TWS agrees with this assessment.

While the proposed rescission cites the need to manage insect and disease infestations as reason to lift road prohibitions, there is scientific evidence suggesting that the creation of more roads in IRAs will lead to greater spread of invasive animals, pathogens, and plants in National Forests. In their current form, IRAs “provide a bulwark against the spread of nonnative invasive plant species.”⁸ Roads promote the spread of non-native species by modifying habitat, stressing native species, and providing movement corridors.⁹ A previously mentioned long-term study by the USFS found that non-native plant species were twice as common within 500 feet of roads as farther away in National Forests.¹⁰ The elimination of the Roadless Rule would therefore most likely increase the risk of non-native species being spread, counter to the goals of the proposed rulemaking.

We must also note that the DEIS fails to acknowledge the risks of, and impacts resulting from, invasive species other than plants. Non-native organisms, including terrestrial and

⁶ See, U.S. Department of Agriculture, Forest Service (2004). USDA Forest Service strategic plan for fiscal years 2004-08. FS-810, Washington, D.C.

⁷ See, Crystal-Ornela et al. (2021). [Economic costs of biological invasions within North America](#)

⁸ See, USDA Forest Service (2000). [Forest Service Roadless Area Conservation, Final Environmental Impact Statement Summary](#)

⁹ See, Trombulak and Frissell (2000). [Review of ecological effects of roads on terrestrial and aquatic communities](#)

¹⁰ See, Healey (2020). [Long-term forest health implications of roadlessness](#)



aquatic species of wildlife and invertebrates, as well as pathogens, are already causing considerable damage to forested areas across the country. Information on the spread and impacts of invasive plants, animals, and pathogens is readily available in peer-reviewed literature, and must be accounted for when considering the blanket rescission of the Roadless Rule.^{11,12} We provide additional information on this concern and relevant peer-reviewed literature in the “Supplemental Information” section at the conclusion of this document.

Community protection in the wildland-urban interface

As stated in the 2000 EIS (pg. 23), fuel management work across the NFS is prioritized in areas where potential threats to human communities are the highest, such as the wildland-urban interface.¹³ These areas tend to fall outside of inventoried roadless areas.¹³ Given that fuel management work is highly constrained by funding and staff capacity, and priority treatment areas primarily occur outside of inventoried roadless areas, it is unlikely that fuel reduction efforts will focus on inventoried roadless areas in the future. In cases where inventoried roadless areas intersect with the wildland-urban interface, the Roadless Rule already allows for actions to manage fuels and protect communities.¹³

For greater fuel reductions work in inventoried roadless areas to be feasible, additional funding and personnel are needed. Yet, USFS capacity has been severely reduced in the last two years.¹⁴ The ability to conduct important fuel management work in inventoried roadless areas, including the wildland-urban interface, is unhindered by the Roadless Rule. Meanwhile, the proposed rescission fails to address the real risk to human communities, which lies in the lack of capacity to carry out this work.

USFS Workforce Authorities and Capacity

TWS supports the expertise of the dedicated civil servants who make up the USFS. We agree with the USDA’s sentiment expressed in the proposed rule, which states that local Forest Service officials “understand the unique ecological, economic, and social needs of their communities,” and require “the flexibility to address conservation and resource issues informed by input from stakeholders, communities, and state, local, and tribal governments.” In 2000, when the Roadless Rule was first proposed, TWS advocated for a regulatory framework that allowed flexibility in the management of local and regional forests to benefit forest health and wildlife populations.¹⁵

¹¹ See, Haider et al. (2026). [Roads as Drivers of Biological Invasions](#)

¹² See, Lockwood et al. (2013). [Invasion Ecology](#)

¹³ See, [USDA Forest Service Roadless Areas - Archive](#)

¹⁴ See, [USDA lost 24,000 workers under Trump, hurting critical resources for farmers](#)

¹⁵ See, [TWS Comments on Proposed Roadless Areas Conservation Rule \(2000\)](#)



Today, conservation professionals in the USFS do have the ability to seek exceptions to Roadless Rule prohibitions where there is a demonstrated, credible need. This is recognized in the DEIS, which states: “Since 2018, agency records show regional foresters reviewed and approved 20 exceptions under the 2001 Roadless Rule for proposed roads related activity. The excepted road activities in these records included road construction for resource protection, road realignment, road safety, road construction pursuant to reserved or outstanding rights, and one exception for road construction in connection with a Secretary of Agriculture determination related to a Federal Highway re-route” (DEIS, p. 47). To suggest that local and regional foresters have been completely excluded from the management of the NFS discredits the work of these professionals and misrepresents the involvement of local and regional USFS staff in managing IRAs.

The loss of USFS workforce capacity, on the other hand, is highly concerning for the management of IRAs. The 2025 deferred resignation program cost the USFS approximately 5,860 employees.¹⁶ Twenty-five percent of those staff held certifications for firefighting duties and could be deployed to address wildfires.¹⁷ Coupled with the USDA’s ongoing reorganization and closure of local and regional USFS facilities, we have concerns about the USFS’ capacity to implement additional activities like land management plan revisions and amendments in compliance with the National Forest Management Act, resource surveys, hazardous fuel and invasive species treatments, and road construction and maintenance that could result from the rescission of the Roadless Rule. The Forest Service’s deferred maintenance backlog is a recognized challenge throughout the DEIS. We suggest that ongoing cuts to USFS funding and loss of institutional knowledge via staff departures and vacancies are a far more significant threat to the National Forest System than a perceived lack of management flexibility in IRAs. USDA should evaluate whether the agency possesses sufficient capacity to implement these actions and maintain resulting infrastructure.

Impacts on Wildlife and Wildlife Habitat

The proposed rescission of the Roadless Rule could lead to irreparable damage to some of the most wild, undeveloped areas both across the nation and within their respective states.¹⁸ Roadless areas provide highly valuable, undisturbed habitat for fish and wildlife in an increasingly developed and fragmented landscape. Roadless areas also offer key ecosystem services that benefit the American public, such as by protecting watersheds that provide drinking water to communities and sequestering carbon from the atmosphere.¹⁸ While we support the USFS’ adherence to the Multiple Use Sustained Yield

¹⁶ See, [USDA lost over 20,000 workers in the first half of 2025](#)

¹⁷ See, [The Forest Service claims it's fully staffed for a worsening fire season. Data shows thousands of unfilled jobs](#)

¹⁸ See, Talty et al. (2020). [Conservation value of national forest roadless areas](#)



Act of 1960 in managing the NFS, we must also urge the conservation of these rare and unique environments.¹⁹

This includes assessing the overall impact of cumulative expansion of road networks across formerly roadless landscapes. Even where individual road projects may appear to have limited localized effects, the cumulative expansion of road networks can fragment habitat, reduce landscape connectivity, facilitate invasive species spread, increase human disturbance, and diminish the ecological integrity of large undeveloped landscapes.

Negative impacts of roads on wildlife

Roads negatively impact wildlife through habitat loss and fragmentation, deadly collisions with vehicles, changes in animal behavior, the spread of exotic species, and increased human activity.⁹ Noise pollution and traffic associated with roads can prevent wildlife from moving freely across the landscape, limiting their access to important resources and isolating populations from one another. Furthermore, roads often degrade ecosystem health by introducing heavy metals and salts into the environment, changing patterns of runoff, and causing sedimentation in bodies of water.⁹ By allowing for fewer restrictions on the construction of roads in IRAs, the proposed rescission of the Roadless Rule would expose more wildlife to this suite of threats.

Value of roadless areas for species conservation

IRAs make an outsized contribution to habitat for species of conservation concern, compared to other national forest lands and lands in the contiguous U.S. (CONUS). A quantitative analysis found that 308 (57%) of 537 wildlife species of conservation concern in the CONUS have some suitable habitat that falls within IRAs.²⁰ Moreover, each individual IRA contains habitat for at least two wildlife species of conservation concern, and the median IRA contains habitat for 10 wildlife species of conservation concern.²⁰ Species of conservation concern include federally endangered or threatened species. Rescission of the Roadless Rule could thus jeopardize recovery efforts for these species, negating delisting efforts and requiring more costly interventions to prevent extinctions. For example, IRAs currently provide essential habitat for the federally threatened grizzly bear (*Ursus arctos horribilis*) and wolverine (*Gulo gulo*), two carnivore species that avoid roads and require large tracts of mostly intact forest to survive.

¹⁹ See, TWS [Position Statement on Incorporating Wildlife Needs in Land Management Plans](#), which states “Given that society needs natural resources and will continue to use resources from public and private lands, this use should be conducted with the intent of minimizing negative effects on wildlife.”

²⁰ See, Dietz et al. (2021). [The importance of U.S. national forest roadless areas for vulnerable wildlife species](#)



IRAs also play a significant role in maintaining migration corridors for big game and ungulate species like elk (*Cervus canadensis*) and mule deer (*Odocoileus hemionus*). They provide connectivity between summer and winter ranges that allow these species to move freely. These same species experience negative impacts from roads at both the population and individual level. The relationship between roads and elk, for example, has been extensively documented in peer-reviewed literature. Roads influence distribution of elk across the landscape, driving both direct and indirect effects on elk populations.²¹ We provide additional information on this specific concern, as well as concerns for federally-threatened carnivores, in the “Supplemental Information” section of this document.

National Forest Lands in Alaska

We reaffirm our previous opposition to the exemption of Alaska’s National Forests, including the Tongass and Chugach, from Roadless Rule protections. Tongass NF holds over 5 million acres of productive old growth, and has a suitable timber base of 477,895 acres including virtually all of the remaining commercially valuable high volume and large-tree old growth.²² Logging and associated roadbuilding in connection with rescinding of the Rule will occur mostly, if not entirely, in the Tongass. The Tongass remains the most expansive intact large-tree, old-growth temperate rainforest on Earth. The consensus of the scientific community—and statements by former U.S. Forest Service Chiefs—underscore the urgent need to protect remaining old-growth forests. A failure to maintain the integrity of this globally-significant ecosystem is a failure to carry out the public trust responsibilities of the U.S. government. We emphasize that rare forest types must be preserved, especially those that are most vulnerable such as highly-productive old-growth stands at low elevations.²³ TWS wishes to highlight the expertise of our Alaska Chapter in regards to the management needs of Alaska’s National Forests, and supports the comments submitted by the Chapter in response to this proposed rulemaking.²⁴

Conclusion

USDA has not demonstrated that rescission of the Roadless Rule will further its management objectives across the NFS, and the accompanying DEIS analysis frequently contradicts the rationale offered for rescission. The record instead indicates that many of the management activities cited as justification for rescission can already occur under existing Roadless Rule authorities and exceptions. As a result, TWS urges USDA to maintain

²¹ See, Rowland et al. (2004). [Effects of Roads on Elk: Implications for Management in Forested Ecosystems](#)

²² See, Riddle (2021). [The Alaska Roadless Rule: Eliminating Inventoried Roadless Areas \(IRAs\) in the Tongass National Forest](#)

²³ See, [TWS Issue Statement: Management of Old-growth Forest on the Pacific Coast of North America](#)

²⁴ See, [Alaska Chapter Comments on Proposed Rescission of the USFS Roadless Areas Conservation Rule](#) (also submitted via regulations.gov)



the current provisions of the Roadless Rule in the interest of the NFS, our nation and America's public trust resources. The proposed rule lacks grounding in best-available science on forest and rangeland management, creates considerable concerns around the implementation capacity of the USFS and has the potential to drive irreversible negative impacts to wildlife populations and their habitats. We thank the USDA for the opportunity to share the expertise of our members in support of science-based resource management and look forward to working with you to support science-based active management of NFS for the benefit of local communities and our shared wildlife resources.



SUPPLEMENTAL INFORMATION

Impacts to Migratory Ungulates

Of all species of wildlife for which road impacts have been documented in scientific literature, elk have been an especially high priority for both wildlife professionals and the sporting community for decades. Rowland et al. (2004) identify three broad impacts of roads on elk below:

- Elk avoid areas near open roads;
- Elk vulnerability to mortality from hunter harvest, both legal and illegal, increases as open road density increases, and;
- In areas of higher road density, elk exhibit higher levels of stress and increased movement rates.

With an estimated 58% of IRAs overlapping with elk habitat, the rescission of the Roadless Rule has the potential to significantly impact this species across its range.²⁵ We refer USDA to the following reviews of the impacts of roads and traffic on elk populations from peer-reviewed literature to further emphasize the importance of science-based decision making on this issue as it relates to this and other species of wildlife.

Gagnon, J.W., Schweinsburg, R.E., and N.L. Dodd. 2007. Effects of roadway traffic on wild ungulates: a review of the literature and a case study of elk in Arizona. Road Ecology Center, University of California, Davis, USA. <https://escholarship.org/uc/item/9ms8f1k6>

Gaines, W.L., P.H. Singleton, and R.G. Ross. 2003. Assessing the cumulative effects of linear recreation routes on wildlife habitats on the Okanogan and Wenatchee National Forests. U.S. Forest Service General Technical Report PNW-GTR-586, Portland, Oregon, USA. <https://doi.org/10.2737/PNW-GTR-586>

McCorquodale, S.M. 2013. A brief review of the scientific literature on elk, roads, & traffic. Washington Department of Fish and Wildlife, Olympia, USA. <https://wdfw.wa.gov/publications/O1491>

Impacts to Federally-Threatened Carnivores

Grizzly bears and wolverines are two notable examples of species which are a) listed under the U.S. Endangered Species Act, b) high priority for collaborative recovery efforts between states, tribes, and the federal government, and c) dependent on large tracts of

²⁵ See, [The Roadless Rule: By the Numbers](#). Accessed October 2026.



unfragmented habitat. Female grizzly bears show greater selection for, and survival in, areas with a higher percentage of secure habitat. Wolverines occur in areas with lower road densities and at higher elevation, and their highest value modeled habitat frequently overlaps IRAs. We recommend the following citations which support the critical relationship between unfragmented habitat, IRAs, and the recovery of these species.

Gerber, B. D., J. S. Ivan, P. M. Lukacs, J. C. Lewis, N. P. Kluge, C. E. Mosby, K. I. Adkins, J. A. Gude, K. A. Hersey, R. M. Inman, et al. 2026. Monitoring wolverine (*Gulo gulo*) distribution across the western United States for regional and national assessment. *Journal of Wildlife Management* e70270. <https://doi.org/10.1002/jwmg.70270>

Gibeau, M., Herrero, S., McLellan, B., and Woods, J. 2001. Managing for grizzly bear security areas in Banff National Park and the Central Canadian Rocky Mountains. *Ursus* 12: 121–130.

Inman, R.M., Brock, B.L., Inman, K.H., Sartorius, S.S., Aber, B.C., Giddings, B., Cain, S.L., Orme, M.L., Fredrick, J.A., Oakleaf, B.J., Alt, K.L., Odell, E., and Chapron, G. 2013. Developing priorities for metapopulation conservation at the landscape scale: Wolverines in the Western United States. *Biological Conservation* 166: 276–286. <https://doi.org/10.1016/j.biocon.2013.07.010>

Mace, R.D., Waller, J.S., Manley, T.L., Lyon, L.J., and Zuuring, H. 1996. Relationships among grizzly bears, roads and habitat in the Swan Mountains, Montana. *Journal of Applied Ecology*. 33(6): 1395–1404.

Schwartz, C.C., M.A. Harloldson, and G.C. White. 2010. Hazards affecting grizzly bear survival I the Greater Yellowstone Ecosystem. *Journal of Wildlife Management*. 74: 654–667.

Invasive Species Concerns

Executive Order 13751 defines an “invasive species” as a non-native organism whose introduction causes or is likely to cause economic or environmental harm or harm to human health, animal, or plant health (p. 106, DEIS). Non-native organisms include wild and domesticated vertebrates, invertebrates, and pathogens, whether terrestrial or aquatic, many of which have caused considerable damage to forested areas. TWS offers the following considerations specific to invasive species and their impacts to the NFS as related to the proposed rule, developed in coordination with the expert members of our [Invasive Species Working Group](#).

Animals



The DEIS fails to discuss the potential impacts of nonnative zebra (*Dreissena polymorpha*) and quagga (*D. bugensis*) mussels, feral pigs (*Sus scrofa*), feral cats (*Felis catus*), and a wide variety of other animals (fishes, mammals, birds, amphibians, reptiles, and insects) which are already invasive across the United States. Many of these organisms may not be present in the remote areas now but could easily be introduced intentionally or unintentionally by allowing private vehicles and RVs, trailered boats, and logging equipment to enter on new or existing roads.

Roads function as pathways that introduce and accelerate the spread of invasive fauna into wild public lands. Wild animals tend to follow roads as easier ways to travel. For example, the spread of coyotes (native to west of the Mississippi River) into the eastern United States is attributed to the emergence of roads and bridges across rivers in the last two centuries. Additionally, many invasive amphibians and reptiles spread via hitch-hiking on vehicles (Kraus 2009); as one example, a population of an invasive lizard (Peters' Rock Agama, *Agama picticauda*) established in a remote area 37.7 miles from the entrance of Everglades National Park (Flamingo) in 2017, due to hitch-hiking on cars along a single road (Claunch 2021). Deeper access to natural areas also provides more opportunities for intentional release of unwanted pets, a common route of establishment for invasive reptiles and amphibians (Kraus 2009).

Wherever a remote road juxtaposes a body of water suitable for launching a canoe, kayak, or other boat, aquatic organisms can be introduced into the water. Assuming the water body is connected to an aquatic network, one small introduction can increase spread farther away from the road. Zebra and quagga mussels, plants like hydrilla (*Hydrilla verticillata*), and other aquatic hitchhikers could spread from launched boats. However, that risk could be reduced if there are inspection and decontamination stations as mitigation, which are not mentioned in the EIS and may not be feasible on the remote roads.

The U.S. Forest Service is a Federal member of the Aquatic Nuisance Species Task Force (ANSTF), established by Congress with the passage of the Nonindigenous Aquatic Nuisance Prevention and Control Act in 1990 and reauthorized with the passage of the National Invasive Species Act in 1996. ANSTF works to prevent, control, and eradicate such invasive aquatic animals as zebra and quagga mussels; silver, bighead, black, and grass carps (*Hypophthalmichthys molitrix*, *H. nobilis*, *Mylopharyngodon piceus*, and *Ctenopharyngodon idella*, respectively); nutria (*Myocastor coypus*); feral hogs; rusty crayfish (*Faxonius rusticus*) and others; bullfrogs (*Lithobates catesbeianus*); and numerous aquatic plants because of the harm they do to natural resources of the United States. Creating a pathway for invasive aquatic organism establishment and spread is contradictory to the USFS's responsibility to the ANSTF.



Invasive insects also find easier pathways on roads when carried on vehicles or work gear. In the East, the highly invasive spotted lanternfly (*Lycorma delicatula*) spread from Pennsylvania to 19 states in a few years, frequently by attaching to parked vehicles and on translocated vegetation, which then transport the insects long distances to infest new areas, thereby devastating fruit trees, other hardwood trees, grapevines, etc. Woolly adelgids are another example of a small tree-infesting insect that can be inadvertently moved by transporting logs and attaching to mobile equipment. Western forests have also become targets of numerous harmful insects.

Pathogens

The DEIS lacks discussion of harmful pathogens that could spread as a result of the proposed action. Instead, only the harm that disturbance causes to beneficial mycorrhizal networks is discussed (DEIS, p. 155), which is a valid point. However, so is the unintended introduction of harmful pathogens. The spread of disease-causing pathogens that can harm and even kill native organisms, including trees, is a serious problem in forests. Such pathogens include viruses, fungi, bacteria, and parasites. These organisms can become attached to vehicles and boats, logging equipment, and the clothing and gear of workers, hunters, and anglers. Pathogens are usually microscopic and thus are difficult to locate and identify. They can be carried undetected from one location to a distant one, widely spreading the invasion. Fungi, such as Dutch elm disease and chestnut blight, can be extremely deadly to plants and trees. The fatal beech leaf disease is caused by a microscopic nematode first detected in Ohio in 2012 and now covering much of the northeastern United States and eastern Canada. White pine blister rust affecting western white pines causes great losses every year.

Some fungi sicken and kill native amphibians and reptiles. The United States has the greatest diversity of salamanders in the world, but they are at great risk of mortality from the lethal fungi *Batrachochytrium dendrobatidis* and *B. salamandrivorans*. The latter is not yet known to be present in U.S. environments, largely due to the regulatory ban on importing high risk host salamander species by the U.S. Fish and Wildlife Service (USFWS 2025). If the fungi, especially the latter one, is accidentally introduced, it has the potential to cause mass mortality to newts and other salamanders across the United States, including the West. Continuing the current protections of the Roadless Rule would be the best way to prevent the spread to those remote areas.

Plants

Roads also function as pathways that introduce and accelerate the spread of invasive flora into wild public lands. Seeds are carried in tire treads, on transported chainsaws and other equipment, and when the wind carries them through the open pathway of a road within a



forest (Lonsdale and Lane 1994; Von der Lippe and Kowarik 2007). Logging roads specifically are known to spread invasive plants (Mortensen et al. 2009). Soil disturbance itself is enough to increase the extent or the number of invasive plant species in currently protected areas. Hardy invasive plants grow more easily in disturbed soil. Invasive plant species can outcompete ecologically important native plants as well as culturally significant native plants used for food, medicine, and Native American ceremonies.

TWS recognizes that wildfires are a serious concern in National Forests. While the DEIS states that “Alternative 2 and 3 would also provide opportunities to reduce fuel loads . . . reducing the potential for wildfire that could create large openings for the establishment of invasive plant species” (DEIS, p. 108), the converse is also true. Some nonnative plants are particularly good fuels (D’Antonio & Vitousek 1992; Wagner & Fraterrigo 2015), such as the highly invasive cheatgrass, which also rapidly reproduces after the burn. Such invasive trees as eucalyptus and juniper have resins or oils that make the trees particularly flammable. Thus, the argument that Alternatives 2 and 3 could reduce fuel loads fails to account for the heightened fire risk caused by highly-probably plant invasions under these scenarios.

Mitigation

Mitigation for invasive species control is always an important option for resource managers. However, no mitigation actions for invasive organisms were discussed in the DEIS. In some high-traffic recreation areas in western states, federal and state natural resource agencies with the help of non-governmental organizations have strategically placed decontamination stations along entrance roads and boat-launch areas to prevent the spread of aquatic pathogens and small aquatic plants and animals. However, it is likely that such decontamination protocols and cleaning stations will not be practical on small, remote roads, nor do these help mitigate the spread of non-aquatic invasive organisms. Without proper mitigation measures, Alternatives 2 and 3 would lead to the uncontrolled spread of high-risk invasive pathogens, as well as their plant and animal hosts.

We provide the following citations supporting concerns specific to invasive species in the proposed rulemaking:

Claunch NM. 2021. Physiological Legacies of Reptile Invasions. PhD Dissertation. University of Florida.

D’Antonio CM, and Vitousek PM. 1992. Biological invasions by exotic grasses, the grass/fire cycle, and global change. *Annual Review of Ecology and Systematics* 23, 63–87.



- Haider S, Alexander JM, Barros A, Lembrechts JJ, McDougall KL, Pauchard A, Seipel T, Rew LJ. 2026. Roads as Drivers of Biological Invasions. In: Road Ecology. D'Amico M, Barrientos R, Ascensão (eds). Springer, Cham. pp 165–174.
- Kraus F. 2009. Alien Reptiles and Amphibians, A Scientific Compendium and Analysis: Introduction Patterns. Springer Nature. pp 27–56
- Lockwood JL, Hoopes MF, Marchetti MP. 2013. Invasion Ecology: Chapter 2 Transport Vectors and Pathways. Blackwell Publishing Ltd. pp: 24–49.
- Lockwood JL, Hoopes MF, Marchetti MP. 2013. Invasion Ecology: Chapter 8 Ecological Processes and the Spread of Non-Native Species. Blackwell Publishing Ltd. pp: 24–49.
- Lonsdale WM and Lane AM. 1994. Tourist vehicles as vectors of weed seeds in Kakadu National Park, northern Australia. Biological Conservation 69, 277–283.
- Mortensen DA, Rauschert ESJ, Nord AN, and Jones BP. 2009. Forest roads facilitate spread of invasive plants. Invasive Plant Science and Management 2, 191–199.
- USFWS 2025. Injurious Wildlife Species; Listing Salamanders Due to Risk of Salamander Chytrid Fungus. U.S. Fish and Wildlife Service. 90 Federal Register 2170. January 10.
- Von der Lippe M, Kowarik I. 2007. Long-distance dispersal of plants by vehicles as a driver of plant invasions. Conservation Biology 21, 986–996.
- Wagner SA, and JM Fraterrigo. 2015. Positive feedbacks between fire and non-native grass invasion in temperate deciduous forests. Forest Ecology and Management 354, 170–176.