Friends of the Clearwater
Keeping Idaho's Clearwater Basin Wild
P.O. Box 9241 Moscow, ID 83843 | (208) 882-9755 | friendsoftheclearwater.org

THE CLEARCUT KINGS:
The US Forest Service Northern Region and its obsession with supersized clearcuts

by Katie Bilodeau and Jeff Juel
Friends of the Clearwater

Friends of the Clearwater (FOC) is a 501(c)(3) nonprofit dedicated to protecting and advocating for the wildlife and wildlands of the Clearwater Basin of North Central Idaho. These wildlands include federal public lands bordered on the north and south by the St. Joe and Salmon rivers, and bordered on the east and west by Montana and Oregon. These wildlands comprise the Wild Clearwater Country. Part of FOC's mission is to educate the public on the land and the issues, to monitor Forest Service management activities, and to hold agencies accountable when their actions violate environmental laws or otherwise threaten ecological integrity or species.

This report was funded by FOC's general and membership donations. Thank you.

Friends of the Clearwater
Keeping Idaho's Clearwater Basin Wild

THE CLEARCUT KINGS:
The US Forest Service Northern Region and its obsession with supersized clearcuts

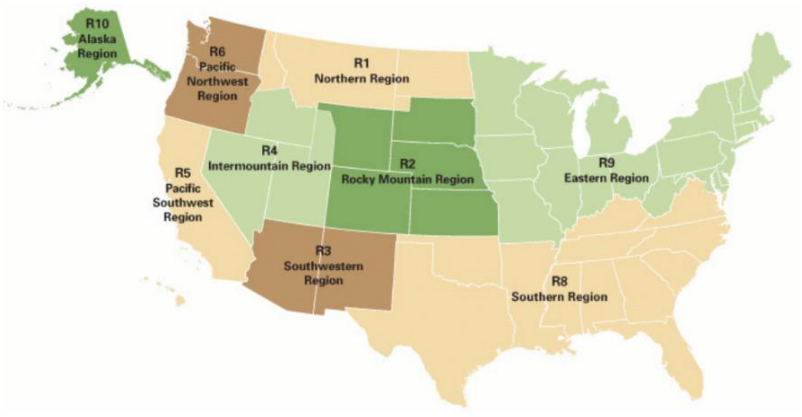
Katie Bilodeau and Jeff Juel, August 2021

Executive Summary

Clearcutting is an environmentally destructive but economically profitable way to log forests. Clearcutting and its related types of logging—i.e., seed tree and shelterwood cuts—remove most of the trees in an area and create what the Forest Service calls "openings." This type of intensive logging emits carbon, eliminates carbon storage and carbon sequestration, and heats up our future. Clearcutting also fragments and impairs habitat for many wildlife, including sensitive species like fisher and wolverine, and threatened species like lynx. In sum, clearcutting primarily benefits the logging industry. While the science on clearcutting has evolved over the past four decades, the Forest Service's culture for clearcutting and the policy intending to limit it has not.

Congress, through the National Forest Management Act of 1976 (NFMA), directed the US Forest Service to limit the acres opened from such intensive logging. The Forest Service set regulatory acreage limits depending upon region and tree species. For many places, including the Northern Region and national forests of Montana and northern Idaho, clearcut and related logging is limited to 40 acres per logging unit. NFMA allows exceptions to exceed this opening size, however. For example, a national forest manager may request that the regional office review and authorize logging-unit openings that will exceed NFMA's limit. For ease of reference, this report calls these larger openings "supersized clearcuts."

Friends of the Clearwater (FOC) investigated how often the Forest Service invoked this particular exception. Through a Freedom of Information Act request, FOC asked four regional offices (Regions 1, 3, 4, and 6) for requests received from 2013 until March of 2021 (the date of our FOIA request) where national forest managers requested that the regional office grant exceptions for supersized clearcuts. FOC also asked for the regional office's response. Regions 3, 4, and 6 disclosed that they could not find supersized clearcut requests from national forests within their jurisdiction during this time period and thus did not authorize exceptions. Region 1, the Northern Region, stood out remarkably.

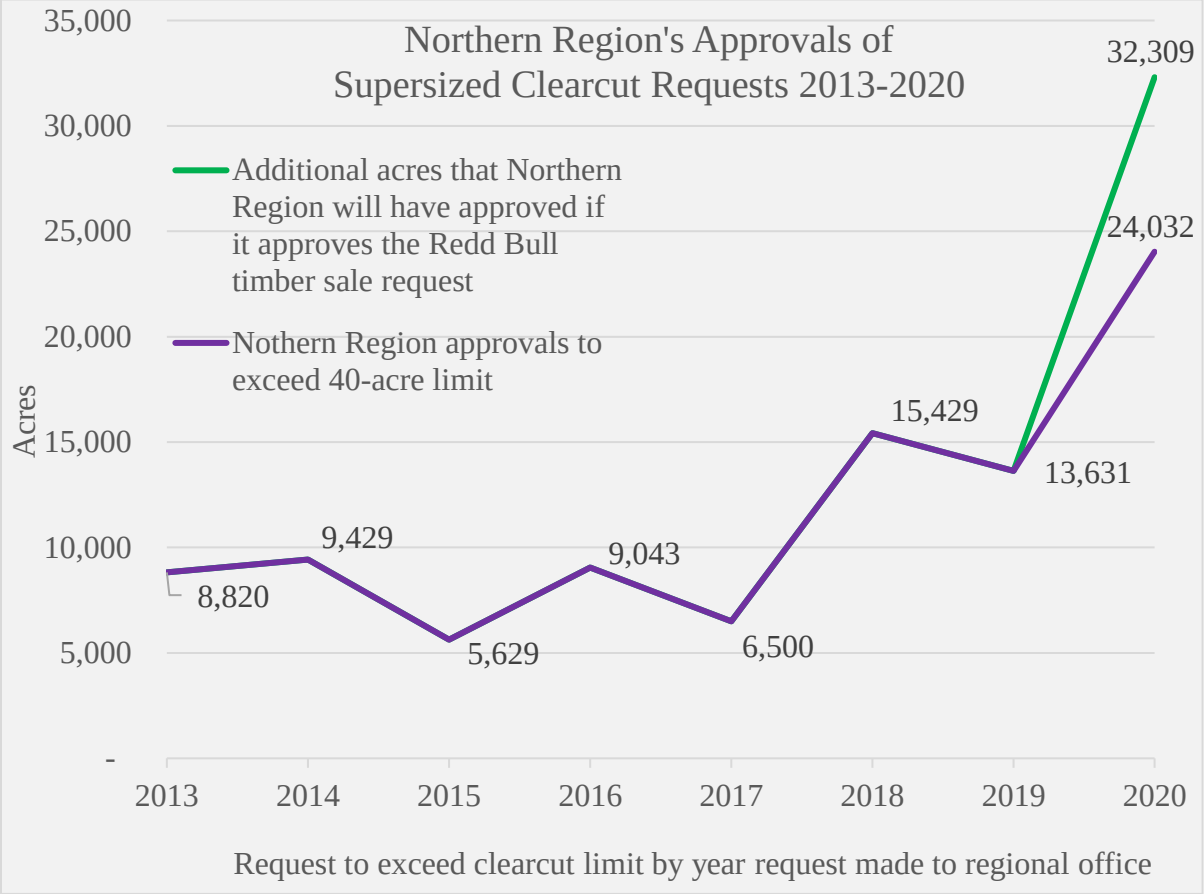


Above graphic: US Forest Service: https://www.fs.fed.us/objections/index.php

Between January of 2013 and March of 2021, the Northern Region disclosed that it received 87 requests from managers of national forests in its jurisdiction for permission to authorize supersized clearcuts. Out of the 87 requests, the Northern Region approved 79. The other eight requests were pending at the regional office at the time of the FOIA request. Notably, the Northern Region **did not deny one single request** for any supersized clearcut during that time period. Supersized clearcuts were sometimes approved for inventoried roadless areas and old growth, and projects approved with minimal environmental analyses.

This ceremonial, pro forma request-and-approve routine has impacted national forests of the Northern Region on a large scale. From 2013 until March of 2021, the Northern Region has approved 93,056 acres of supersized clearcuts, about twice the size of the District of Columbia. If the acres were arranged contiguously in a square, a person with an average walking speed of three miles per hour would have to walk two full eight-hour days just to traverse its perimeter.

This acreage only represents supersized clearcuts; because many of the same projects planned openings under 40 acres, the landscape impacts from clearcutting and related logging is greater than the acreage presented here. Managers of the Idaho Panhandle National Forests and the Nez Perce-Clearwater National Forests in Idaho requested over half of this acreage, at 33,625 and 23,095 aggregate acres. The Kootenai, the Lolo, and the Flathead national forests followed, in that order, for supersized clearcuts requested, which the Northern Region subsequently approved.



Alarmingly, the national forests managers' requests for supersized clearcuts and the Northern Region's rubber-stamp approvals have increased in recent years. From 2013 until 2017, the Northern Region granted requests that totaled between 5,500 and 9,430 acres. From 2018 through 2020, however, supersized requests and approvals in the Northern Region jumped to a new range, between 13,631 and 24,032 acres per year. More timber projects with supersized clearcuts and more supersized clearcuts per project likely accounted for the overall increase.

While the Forest Service has touted that its review process for supersized clearcuts involves the public, public engagement is neither logistically straightforward nor meaningful. Public notice—required for requesting a supersized clearcut—is broken up amongst several public comment periods, the later periods commonly restricting those who may participate and what they may say. Even if a comment is successfully made, it is received by the national forest managers who made the request, not to the higher-level officials reviewing it. This amounts to a "comments welcome" box for public involvement that is effectively a trash bin. Instead, the public's only recourse to try limiting excessive, supersized clearcuts is with lawsuits brought under environmental laws that might offer a check on such intensive and large-scale logging.

National forest managers' requests to exceed NFMA limits contained little meaningful justification as to why supersized clearcuts were necessary. We sampled justifications supporting supersized-clearcut requests during this period, justifications were indistinguishable from the general rationale underlying those timber projects. Requests from different projects across various forests often shared the same rationale. The common agency position was that natural disturbances are quite large, so clearcut disturbances should be as well. While convenient for large-scale logging, this is unsound logic.

No natural ecological disturbance exists in the Northern Region where dead trees *disappear* from the forest. Science demonstrates that biodiversity depends upon standing "snag forests" of dead trees as well as fallen dead trees. These trees provide structural habitat for wildlife—dens and nests—and dead trees are consumed by organisms that become food sources for other organisms. Clearcut trees hauled away, on the other hand, provide none of these ecological services. Also, the location or the genetics of a tree can contribute to survival during a large-scale ecological disturbance and a better, more heterogenous regeneration after a disturbance. While natural ecological disturbances can selectively remove vulnerable trees, clearcuts remove all trees, including those that might have otherwise survived. So, natural ecological disturbances renew forests better than the Forest Service's clearcut disturbances do.

Despite common belief, there is no effective regulatory limit for clearcuts on the national forests in the US Forest Service's Northern Region. Our investigation revealed a Forest Service region where especially large clearcuts are no longer the exception—they are the rule. The NFMA limit on supersized clearcuts, once meant to safeguard against on-the-ground misjudgments or excesses of zeal, is so routinely circumvented in the Northern Region that it no longer appears to accomplish either function. We anticipate that this overzealous and now routine circumvention will continue in the Northern Region, and supersized clearcuts will likely continue expanding in the national forests there until the national Forest Service leadership, the Biden Administration, or Congress intervenes.

TABLE OF CONTENTS

I. INTRODUCTION

Friends of the Clearwater (FOC) investigated Forest Service clearcutting practices from 2013-2021. Our purpose here was to understand whether, when, and why the Forest Service authorizes the largest clearcuts on the public's land. The National Forest Management Act (NFMA) generally limits the size of openings created from clearcuts and related logging practices. When managers of a national forest want a logging unit to exceed this NFMA limit, they may seek special permission from the regional Forest Service office to do so. We undertook this investigation because we anecdotally noticed that, within FOC's geographic mission area, the Forest Service regularly invokes this exception to authorize especially large clearcuts for timber sales on national forests. In this report, we expose the reasons why the National Forest Management Act (NFMA)—enacted in part to prevent such clearcutting abuses—is not serving that purpose.

Clearcutting and its related styles of logging—seed tree cutting and shelterwood cutting—are controversial forest management practices for obvious reasons: they destroy wildlife habitat, damage soil, disrupt watershed hydrology, and threaten aquatic life.

We begin this report with a brief overview of some ecological impacts of clearcutting along with a brief history of U.S. Forest Service clearcutting policies and related regulations. We then describe the information we asked for from the Forest Service through several Freedom of Information Act requests and the responses to those requests, from which we based our results and discussion sections.

II. WHAT YOU NEED TO KNOW ABOUT CLEARCUTTING

II.A. What is clearcutting?

When we use the term "clearcutting" in this report, we refer to openings created under the National Forest Management Act discussed below,[1] and "clearcutting" represents a shorthand for all regeneration logging, or regeneration "treatment." Regeneration cuts, which the Forest Service defines as the "renewal of a tree crop,"[2] is a type of logging that eliminates the majority to all of the trees in an area.[3] The intent is to replace the openings with seedlings to begin (or "regenerate") a new, even-aged stand of trees. The trees that grow back do resemble a crop because as they start from seedlings at the same time and generally grow at similar rates. Logging methods that create stands where most trees are the same age is a management style known as "even-aged management."[4]

Modern regeneration logging occasionally retains some trees in an opening and is described by various technical terms, like "clearcut with reserves," "seed tree cut," or "shelterwood cut." All of these practices generate large-scale openings because they remove most of the trees in the area logged. For simplicity's sake, and because FOC's extensive field

[1] *See* 16 USC 1604(g)(3)(F)(iv) and Section II.C of this report.
[2] *See, e.g.*, USDA, Forest Service 1987, Nez Perce National Forest Plan. Chapter VII, pp. 18.
[3] *See, e.g., id.* at Chapter VII, pp. 3, 21, 22.
[4] *Id.* Chapter VII, p. 7.

monitoring reveals similar outcomes of these practices on landscapes, all regeneration logging methods are called "clearcuts" in this report.

Above: **Seed-tree cut with reserves** (100 acres)[5]
Below: **Irregular shelterwood cut** (~200 acres)[7]

Above: **Clearcut with reserves** (87 acres)[6]
Below: **Irregular shelterwood cut** (same)[8]

When trees grow together, they can ultimately be logged together, too. It is economically efficient, *i.e.*, cheaper, to log an entire area of trees the same age at once.[9] Because clearcutting maximizes profits for the timber industry, these companies benefit the most from clearcutting

[5] 2018 FOC monitoring photo of logging unit 140 of the Little Slate Project: seed-tree cut with reserves (100 acres); *compare* USDA Forest Service Little Slate Project (2012) Final Environmental Impact Statement Appendix A at p. A-2, and Appendix B at p. 227, available at https://www.fs.usda.gov/project/?project=16899 (last visited Aug. 11, 2021).
[6] 2018 FOC monitoring photo of logging unit 141 of the Little Slate Project: clearcut with reserves (87 acres), same Little Slate Project.
[7] 2018 FOC monitoring photo of approximately 200-acre "irregular shelterwood" cut in the West Fork Crooked River Inventoried Roadless Area, Orogrande Project; *compare* Orogrande Decision Notice and Finding of No Significant Impact 2016, available at https://www.fs.usda.gov/project/?project=28021 (last visited Aug. 11, 2021).
[8] 2019 FOC monitoring photo of portion of area in footnote 7, after intentional burning by Forest Service.
[9] *See* Smith, A. 1979. *The Forest Service, NEPA, and Clear Cutting*. Natural Resources. J., 19(2): 424, 425.

and even-aged management.[10] Beyond private timber profits, there are many downsides to clearcutting, for the vegetation, for forest-dwelling inhabitants, and even for humans. Such intensive logging contributes to global warming, eliminates and fragments habitat, and can contribute to high-severity fire.

II.B. Clearcutting contributes to global warming, fragments wildlife habitat, and can contribute to high-intensity fire

Clearcutting, like all logging, contributes to global warming because it reduces carbon that a forest would have otherwise sequestered (i.e., taken out the atmosphere) and stored. Clearcutting also introduces activities that actively emit carbon. Clearcutting disturbs soil, releasing the carbon stored there[11] because to log, permanent or temporary roads must be built and trees dragged along the ground on skid trails where they can be loaded. Machinery loads trees onto trucks, ripping up the forest floor with significant weight behind tires.

Clearcutting, shelterwood cutting, and seed tree cutting reduce more carbon storage and sequestration than other types of logging because these logging styles remove the mature trees. Mature trees store the larger amounts of carbon and remove more carbon from the atmosphere than small trees do.[12] Because carbon storage is lost at various stages between the first cut and the final milled product, clearcutting reduces the amount of carbon any tree would have otherwise stored had it remained in the forest. This includes carbon stored by living trees as well as standing dead ones—snags—or trees that have fallen to the forest floor.[13] In addition to ripping up and compacting soil, the machinery used to accomplish clearcutting—like bulldozers to plow roads; feller-bunchers to cut trees; swing machines to load logs onto trucks; and trucks to haul logs miles out of the woods—all burn fossil fuels. In addition to heating up our future, clearcutting immediately impacts wildlife.

Clearcutting fragments and impairs habitat for many wildlife species. Even Forest Service biologists recognize that clearcuts generate forest patterns that differ from natural conditions, reducing wildlife cover and movement corridors. Clearcuts eliminate old-growth habitat[14] and reduce the effectiveness of undisturbed, neighboring old-growth.[15] Sensitive

---

[10] *See also* National Forest Management Act Regulations 44 Fed. Reg. 53928, 53953 (Sept. 17, 1979): "Opening size affects the cost of harvesting timber because marginal timber from smaller areas may be excluded from harvesting. Thus, the supply could be reduced, incurring higher prices."

[11] *See* Achat et al. 2015. *Forest Soil Carbon is Threatened by Intensive Biomass Harvesting.* Scientific Reports 5:15991 | DOI: 10.1038/srep15991 pp. 1-10; Pan et al. 2011. *A Large and Persistent Carbon Sink in the World's Forests*. Science Vol. 333: 988-993.

[12] *See* Mildrexler et al. 2020. *Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest.* Frontiers in Forests and Global Change Vol. 3, Article 594274, pp. 1-15.

[13] *See* Lutz, J.A. et al. 2018. *Global Importance of Large-Diameter Trees.* Global Ecology and Biogeography 2018;27:849–864.; McKinley et al. 2011. *A Synthesis of Current Knowledge on Forests and Carbon Storage in the United States.* Ecological Applications 21(6): 1902-1924; Moomaw, B. and Smith, D. 2017. *The Great American Stand: US Forests and the Climate Emergency*, pp. 1-48; Harris et al. 2016. *Attribution of Net Carbon Change by Disturbance Type Across Forest Lands of the Conterminous United States*. Carbon Balance Management 11: 24, DOI 10.1186/s13021-016-0066-5.

[14] USDA Forest Service 2018. Wildlife Report for End of the World logging project, p. 145, *on file with authors.*

species, such as fisher and wolverine, avoid clearcuts.[16] The lynx, listed as threatened under the Endangered Species Act, will cross openings with an average width of 383 feet, but not more than 1240 feet,[17] so lynx will avoid even traveling through clearcuts.[18] Clearcuts can create large increases in water peak flows that can bring more sediment into small streams, impacting fish.[19] Indirectly, clearcuts often lead to the construction of new roads or reconstruction of existing roads, which also persistently fragments wildlife and sends sediment to streams.[20]

Clearcuts can increase the risk that an area experiences a high-severity fire. In the West, climate and weather—not fuels—primarily drive fire severity.[21] Because regeneration logging contributes to global warming, logging directly feeds the primary cause of increasingly severe fires. But, regeneration logging additionally indirectly impacts fire severity. These intensive cuts create openings and eliminate overstory canopy, which allow sunlight to reach and dry out the forest floor and understory vegetation.[22] Also, the plantation-style forestry of even-aged management creates a dense and homogenous next generation of fuels more likely to burn with higher severity.[23]

While the science on clearcutting has evolved over the past four decades, the Forest Service's culture for clearcutting and the policy intending to limit it have not.

---

[15] Harris, L.D. 1984. The Fragmented Forest: Island Biogeography Theory and the Preservation of Biotic Diversity, pp. 109-135.

[16] *See, e.g.*, Hayes and Lewis 2006. *State of Washington Fisher Recovery Plan*, available at https://wdfw.wa.gov/publications/00228; Hornocker, M. G., and H. S. Hash. 1981. *Ecology of the wolverine in northwestern Montana*. Can. J. Zool. 59: 1286-1301.

[17] One acre is the size of a football field. A 383 by 383-foot dimension of land would be approximately 3.36 acres. One acre is the size of a football field. A 1,240-foot-by-1,240-foot area is approximately 36 acres.

[18] Squires et al. 2010. *Seasonal Resource Selection of Canada Lynx in Managed Forests of the Northern Rocky Mountains*. Journal of Wildlife Management 74(8):1648-1660. DOI: 10.2193/2009-184; Squires et al. 2006. *Lynx Ecology in the Intermountain West: Research Program Summary*. USDA, Forest Service, Rocky Mountain Research Station; Kosterman, M.K. 2014. *Correlates of Canada Lynx Reproductive Success in Northwestern Montana*. Thesis, University of Montana.

[19] King, John G., 1994. "Streamflow and sediment yield responses to forest practices in north Idaho." Proceedings from symposium: *Interior Cedar-Hemlock-White Pine Forests: Ecology and Management, Spokane WA, March 2-4, 1993*. Department of Natural Resource Sciences, Washington State University.

[20] *See, e.g.*, Waters, T.F. 1995. Sediment in Streams: Sources, Biological Effects and Control. pp. 26-36.

[21] *See, e.g.*, Pechony and Shindell 2010. *Driving forces of global wildfires over the past millennium and the forthcoming century*. Proceedings in the National Academy of the Sciences Vol 107(45): 19167-19170; Pierre-Louis and Popovich 2018. "Climate change is fueling wildfires nationwide, new report warns." New York Times (Nov. 27, 2018); Lesmeister, D.B. et al. 2019. *Mixed-severity wildfire and habitat of an old-forest obligate*. Ecosphere 10(4) Article e02696: pp. 22.

[22] *See* Bradley, C. M., C. T. Hanson, and D. A. DellaSala. 2016. *Does increased forest protection correspond to higher fire severity in frequent-fire forests of the western United States?* Ecosphere 7*(*10*): e01492.* 10.1002/ecs2.1492.

[23] Zald, Harold S. J. and Christopher J. Dunn, 2018. *Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape*. Ecological Applications, 2018; DOI: 10.1002/eap.1710Zald & Dunn 2018.

II.C. The Forest Service began clearcutting after World War II, and the 1976 National Forest Management Act (NFMA) meant to limit clearcut size inflicted on national forests

The early Forest Service did not clearcut the public's national forests. Gifford Pinchot, the Forest Service's first chief, adhered to a theory of conservation aligned with the Progressive movement. Pinchot was by no means a man opposed to logging. Both he and the man who appointed him, President Theodore Roosevelt, saw forests with the potential to provide raw materials for building.[24] But, both also valued forests for their wild plants and animals, opposing tree-cutting that degraded natural features such as watersheds.[25] Progressive conservation called for the rational use of resources. But, Pinchot and Roosevelt were unafraid to oppose the exploiters of the public's resources.[26] The Forest Service's early policy reflected this conservationism in selective logging, *i.e.*, taking mature trees of specific species.[27] The 1897 Organic Act reinforced this policy because it limited selling the public's trees to "dead, matured, or of large growth" and required marking the individual trees to be sold and cut.[28] The US Forest Service did not approve swaths of trees in an area to be eliminated.

Clearcutting in national forests became a common logging practice after World War II. The post-war housing boom and the U.S. transition to a "paperwork society" increased the demand for wood products. Commercial logging companies, after overcutting and exhausting the forests on their private lands, turned to the public's national forests.[29] The Forest Service took advantage of increased timber demand, and acquired more money from Congress to grow its agency with staff, resources, and timber goals.[30] The selective cutting where individual trees were marked, which had been doctrine, would limit the agency's increased production.[31] To meet the new goals, the economic strategy of taking all the trees from an area—clearcutting—was born and took hold of the Forest Service and our national forests. A symbiotic relationship between industrial logging and the Forest Service was born.

Concerned citizens temporarily checked the Forest Service's clearcutting practices in the 1970s. Sportsman and conservationists, concerned about clearcutting in West Virginia's Monongahela National Forest, sued the agency.[32] The Forest Service had authorized 1,077 acres of logging; 649 of those acres were to be individually marked and selectively cut while the agency approved clearcutting—removing all the trees—on 428 acres of logging units, ranging

[24] Swanson, F.H. 2011. The Bitterroot & Mr. Brandborg: Clearcutting and the Struggle for Sustainable Forestry in the Northern Rockies (University of Utah Press), pp. 10-11.
[25] *Id.* pp. 10-11, 28.
[26] *Id.* p. 5
[27] *Id.* pp. 28, 58, 76-77, 128. 7
[28] *West Virginia Division of the Izaak Walton League of America, Inc. v. Butz*, 522 F.2d 945, 947-48 (4th Cir. 1975); Smith, A. 1979. *The Forest Service, NEPA, and Clear Cutting*. Natural Resources. J., 19(2) at 424.
[29] Smith, A. 1979. *The Forest Service, NEPA, and Clear Cutting*. Natural Resources. J., 19(2): 423-432; *see also* Swanson, F.H. 2011. The Bitterroot & Mr. Brandborg: Clearcutting and the Struggle for Sustainable Forestry in the Northern Rockies (University of Utah Press) p. 262.
[30] Swanson, F.H. 2011, p. 82.
[31] *See id.* pp. 86, 260.
[32] *Id.* p. 260.

from 5-25 acres in size. The Forest Service argued that the Multiple-Use Sustained-Yield Act[33] of 1960 repealed the Organic Act of 1897. The federal district disagreed, however, holding that both laws applied and that the Organic Act prohibited clearcutting the public's forests.[34] When the Fourth Circuit later upheld this prohibition, leaders in both the timber industry and the Forest Service jumped into action so a prohibition on clearcutting wouldn't expand westward.[35] Jumping into action meant involving Congress.

Congress eliminated the Organic Act's clearcutting prohibition with the National Forest Management Act of 1976. After the court loss and freeze on clearcutting, the Chief of the Forest Service and his staff proposed language to Congress to legalize such openings. Parts of this proposal found its way into a bill introduced into Congress in 1976. Under this bill, the Forest Service could designate blocks of trees to be clearcut instead of individually marked as had been required by the Organic Act. A competing bill introduced sought to limit clearcutting by size, by space, and with growing rotations of 200-300 years. While many in Congress favored the Forest Service's proposal, one Montana senator, Lee Metcalf, realized the potential unsustainability, and proposed amendments inspired from the latter bill.[36] The hybrid that Congress ultimately passed was the National Forest Management Act of 1976 (NFMA), a statute to guide how the Forest Service managed national forests. It limited clearcut logging.[37]

NFMA allowed clearcuts with limits, but allowed exceptions for the largest and most damaging clearcuts. NFMA did not limit growing rotations of 200-300 years on clearcuts, but did limit their size. NFMA's express language limits clearcuts, "maximum size limits for areas to be cut in one harvest operation," *i.e.*, a single logging unit. However, the statute granted the Forest Service the flexibility to choose those limits.[38] And it also allowed the Forest Service discretion to exceed those limits with "appropriate public notice and review by the responsible Forest Service officer..."[39] Another exception where the limit would not apply was "to size of areas harvested as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm" so long as such cutting could be done while still protecting various resources, like soil, watersheds, or wildlife.[40]

---

[33] The act established the policy of developing renewable surface resources for both multiple uses, such as for wildlife and fish, outdoor recreation, range, and timber, in addition to ensuring a sustained yield from those products and services.

[34] *West Virginia Division of the Izaak Walton League of America, Inc. v. Butz*, 522 F.2d 945 (4th Cir. 1975).

[35] Swanson, F.H. 2011. The Bitterroot & Mr. Brandborg: Clearcutting and the Struggle for Sustainable Forestry in the Northern Rockies (University of Utah Press), pp. 260-261.

[36] *Id.* pp. 62-65.

[37] *Id.* pp. 264-65.

[38] 16 USC 1604(g)(3)(F)(iv); *see also* Swanson, F.H. 2011. The Bitterroot & Mr. Brandborg: Clearcutting and the Struggle for Sustainable Forestry in the Northern Rockies (University of Utah Press), pp. 264-65.

[39] 16 USC 1604(g)(3)(F)(iv).

[40] 16 USC 1604(g)(3)(F)(iv), (v). Science on these "catastrophic" conditions, as 1976 politicians termed them, has evolved considerably. For example, high-severity fires are biodiversity hotspots, and the general scientific consensus is that post-fire logging is ecologically harmful. *See* Kulakowski, D. and Veblen T.T. 2015. "Chapter 6: Bark Beetles and High-Severity Fires in the Rocky Mountain Subalpine Forests," and DellaSala et al., "Chapter 11: In the Aftermath of Fire: Logging and Related Actions Degrade Mixed- and High-Severity Burn Areas," both in The Ecological Importance of Mixed-Severity Fires: Nature's Phoenix (Eds D.A. DellaSala and C.T. Hanson, Elsevier Press 2015). Scientifically speaking, one cannot protect soil, watersheds,

The Forest Service set these size limits in 1979 regulations, and they have not changed. Some logging units depended upon region and forest types: 60 acres for Douglas-fir forests of California, Oregon, and Washington; 80 acres for the yellow pine forests of the South and Southeast; and 100 acres for Alaska's hemlock-Sitka spruce forest types.[41] Everywhere else, the Forest Service imposed a 40-acre limit for clearcut logging units.[42] The 1979 scientific advisory committee noted no scientific justification for these limits: "In our view, the sole technical purpose of maximum size limits is as an outside safeguard against the unpredictability of natural events and on-the-ground misjudgments or excesses of zeal."[43] The limits were retained each time the Forest Service amended its NFMA regulations. Even though today's scientific consensus recognizes that adverse impacts outweigh any negligible benefits of large clearcuts,[44] the Forest Service found clearcut logging limits useful to readopt in 2012. The agency touted, "The procedure for varying these limits is an established process that has worked effectively, *providing a limit on opening size and public involvement with higher level approval for exceeding the limits.*"[45] FOC wanted to learn more about how often Forest Service managers use this statutory discretion to exceed the limits the Forest Service has imposed on itself.

III. WHAT FRIENDS OF THE CLEARWATER REQUESTED FROM THE FOREST SERVICE

FOC wanted to learn how often national forests used the NFMA exception whereby forest managers could request regional permission to authorize oversized clearcuts in logging project. We also wanted to learn how often the Forest Service regional office granted that permission. In this report, we call those openings that exceed NFMA's regional size limit **supersized clearcuts**.[46] We did not consider instances when "catastrophic" events precipitated proposed supersized clearcuts because NFMA requires no special permission in those instances.[47]

To obtain this information, FOC submitted a Freedom of Information Act (FOIA)[48] request to Forest Service regional offices, asking for 1) requests by national-forest-level officials

---

or wildlife and also log after a severe fire—taking the timber and protecting the resources are mutually exclusive choices.

[41] 44 Fed. Reg. 53928, 53990-91 (Sept. 17, 1979) (1979 NFMA Regulations at section 219.13(d)(2)).

[42] *Id.* Note that all of the Northern Region's national forests in Montana and Idaho fall into this 40-acre-limit category.

[43] 44 Fed. Reg. 53928, 53974 (Sept. 17, 1979).

[44] Unless the science is economics and the benefits considered for private timber companies.

[45] 77 Fed. Reg. 21162, 21228 (Apr. 9, 2012), https://www.federalregister.gov/d/2012-7502/p-881 (emphasis added).

[46] "Supersized clearcuts" originated from Bryan Hurlbutt at Advocates for the West in reviewing the Hungry Ridge and End of the World timber sales, where the Forest Service authorized multiple over-40-acre openings. Advocates for the West is currently representing Friends of the Clearwater in court for violations of environmental laws on these timber sales.

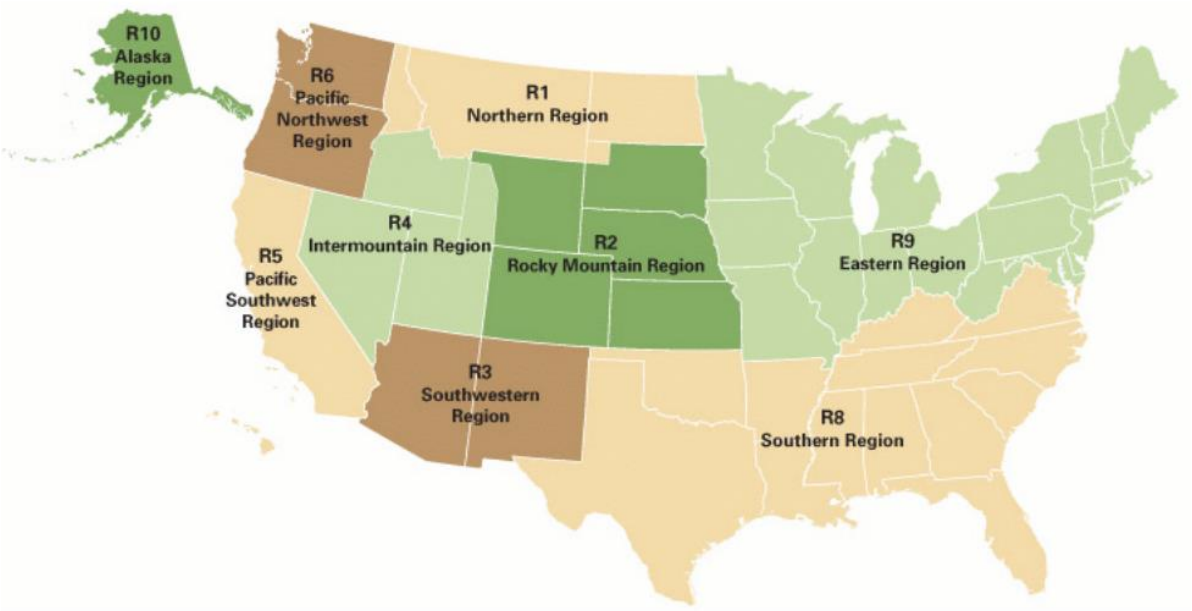
[47] Categorizing an event as "catastrophic" is controversial and does not always reflect the best science. *See footnote 40.*

[48] The Freedom of Information Act is a law designed to empower the public in its government oversight responsibilities. The law entitles the public to information created by the government, and enables informed participants in a democratic society.

to exceed NFMA's clearcut limit for logging projects; and 2) the regional office's response to that request.[49]

The national forest system is geographically divided into nine regions (Figure 1), each one encompassing several individual national forests within their respective authorities.

Figure 1. *Graphic courtesy of the US Forest Service, https://www.fs.fed.us/objections/index.php.*



We submitted FOIA requests with the language in footnote 49 to the Northern Region (Region 1), Intermountain Region (Region 4), and Pacific Northwest Region (Region 6) because national forests in those regions encompass or are adjacent to the Wild Clearwater Country, and share similar ecological conditions. For a slightly wider western comparison, FOC made the same request to the Pacific Southwest Region (Region 3). FOC requested data from January of 2013 through late March of 2021.

Our request does not capture all of the clearcutting that the Forest Service implements on the public's forests. For example, if the Forest Service authorized clearcutting units in acres less

[49] FOC worded its request as follows:
The National Forest Management Act establishes "maximum size limits for areas to be cut in one harvest operation, including provision to exceed the established limits after appropriate public notice and review by the responsible Forest Service officer one level above the Forest Service officer who normally would approve harvest proposal...." 16 USC 1604(g)(3)(F); see also 36 CFR §219.11(d)(4). Exceptions sought to exceed this limit require review by the regional forester. See, e.g., Forest Service Handbook 1909.12, Chapter 60, §64.21b.

We request, from 2013 until when the Forest Service begins to search for responsive records, the following:

* All requests that this region has received from forests under its jurisdiction to exceed the opening size limits while implementing timber harvests, vegetation management projects, or other projects that involve cutting down trees

* This region's response to those requests

than NFMA's regional limits (i.e. less than 60-acre logging units for the Douglas-fir forests of California, Oregon, and Washington, and 40-acre logging units the other regions in our request), the FOIA request would not have captured that information. Nor did the FOIA request capture information about supersized clearcuts for purportedly "catastrophic" conditions, because national forest managers would not have had to seek regional approval for those supersized clearcuts.[50] Attempting to calculate the acreage for all clearcuts would have entailed gathering and analyzing statistics for clearcuts of all sizes—large and small. Clearcutting on national forests is lamentably all too common, but we do not scrutinize it here other than to say the total acreage clearcut from these same regions is likely far greater than the numbers presented below. Our results only speak to how many supersized clearcuts the regional office specially authorized on national forests.

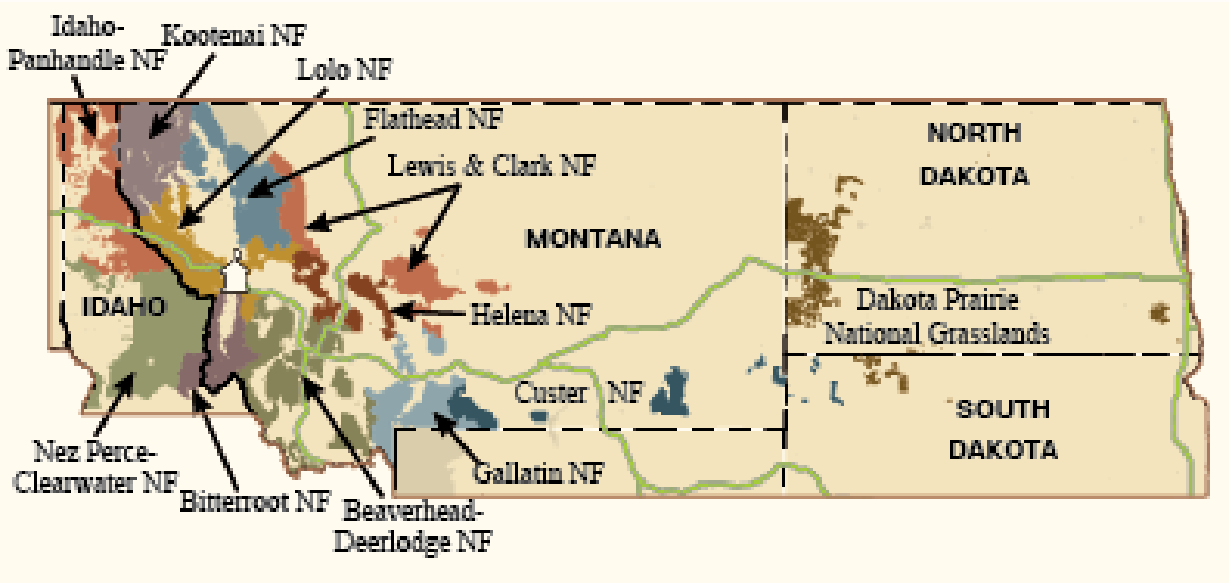
IV. RESULTS AND DISCUSSION

The Northern Region stood alone in requests of supersized clearcuts and the rate at which they were granted. **The Intermountain, Pacific Northwest, and Pacific Southwest Regions all declared that no national forests in their jurisdiction requested special permission to exceed NFMA's clearcut limits from January 2013 – March 2021, and thus those regions granted no exceptions for supersized clearcuts.[51]** Managers of national forests in the Northern Region were the only ones making such requests in the four regions we considered.

[50] We do generally disagree with the notion that large, severe fires, periodic outbreaks of insect infestations, and other maladies that kill many mature and old trees are a "catastrophe" in ecological terms, since the ecosystems have evolved with then down through millennia. For what the science says about this, *see, e.g., footnote 40* and Hutto, R.L. 2008. *The Ecological Importance of Severe Wildfires: Some Like it Hot.* Ecological Applications 18(8): 1827-1834.

[51] Colleagues alerted us to the South George logging project on the Umatilla National Forest in Oregon, which appears to authorize at least one supersized clearcut (South George Final Environmental Impact Statement Appendix B, p. 2). The environmental impact statement appears to fail to recognize that the logging unit was a supersized clearcut, nor could we find where the analysis applied any exception or disclose regional permission for this logging unit. There is a possibility that national forest managers are exceeding the limits without seeking regional permission. As a result, the regional Forest Service's FOIA responses do not guarantee that supersized clearcuts are not happening elsewhere. As a result, our report should be considered to only reflect the minimum amounts of supersized clearcuts.

Figure 2. *Graphic courtesy of US Forest Service Northern Region (Region 1).*[52] *The little building icon is the Northern Region Headquarters, in Missoula, Montana.*



In Appendix A, we summarized data on supersized clearcuts the Northern Region approved. In Appendix B, we summarized supersized-clearcut requests where the Northern Region has yet to issue permission. Appendices A and B provide details on the number of supersized clearcuts, the size of each individual supersized clearcut, and the total acreage of supersized clearcuts for each logging project from January 2013 through March of 2021. Below we discuss what we have learned from the Northern Region's response.

IV.A. The Northern Region is exceptional in receiving requests from national forest managers to exceed NFMA's supersized-clearcut limits and exceptional in consistently granting them

Managers of national forests in the Northern Region commonly request permission for supersized clearcuts, and the Northern Region commonly grants those requests. In the Northern Region, the NFMA limit on clearcuts without special permission is 40 acres, so these requests and acreage reflect logging units and aggregate totals of clearcuts 41 acres and more in size. The Northern Region disclosed 87 requests between January 2013 and March of 2021, 79 of which the Northern Region had granted and 8 (one from 2020 and seven from 2021) where decisions were still pending in March of 2021. *See* Table 1. These data clearly show that requests for supersized clearcuts are common. The Northern Region provided no evidence that it has ever denied any of these requests.

[52] USDA Forest Service Northern Region (Region 1), https://www.fs.usda.gov/detailfull/r1/about-region/%3Fcid%3Dstelprdb5110505%26width%3Dfull (last visited Jul. 12, 2021).

Table 1. Acres of supersized clearcuts approved annually by the Northern Region

Year requested	Acreage of supersized-clearcut requests that the Northern Region has authorized	Number of national forest requests for supersized clearcuts that the Northern Region has granted	Number of requests for supersized clearcuts that are currently pending before Northern Region as of March 2021	Acreage of pending requests as of March 2021
2013	8,820	7	—	—
2014	9,429	11	—	—
2015	5,629	8	—	—
2016	9,043	9	—	—
2017	6,500	9	—	—
2018	15,429	10	—	—
2019	13,631	15	—	—
2020	24,032	9	1	8,277
2021* through March only	543	1	7	10,373
Total	**93,056**	**79**	**8**	**18,650**

The Northern Region has consistently granted 100 percent of national forests supervisors' requests to supersize-clearcut public forests. The eight requests where there is no approval are those where a response is still pending. On a finer scale, most of these approvals equal or exceed the acreage of each request. There was only one instance where the Northern Region granted less acreage than requested; if the forest supervisor even noted the discrepancy in the regional office's response, which we cannot discern from the records disclosed, she treated it like the typo it probably was. That lone deviation was the Windy Shingle Project, a timber sale on the Nez Perce-Clearwater National Forests (Idaho) with over 1,000 acres of supersized clearcuts. The forest supervisor had requested authorization for eight supersized clearcuts. One of those eight openings were comprised of two adjacent logging units: 8F at 153.3 acres in size and 9, at 88.6 acres in size.[53] Those adjacent supersized clearcuts were requested together, as "Opening F," at a total of 241.9 acres. The Northern Region appears to have read the line for Opening 9 only,

[53] Windy Shingle logging project request, "WS_over 40_request_Table_Map.pdf" pp. 2-3 (folder CY 2020, subfolder NPCLWR_Windy Shingle Project), *on file with authors from FOIA response.*

approving "Opening F, Unit 8F, 9" for 88.6 acres instead of the 241.9 acres actually requested.[54] Even without regional permission, the Nez Perce-Clearwater National Forests Forest Supervisor issued a decision on the logging project for the larger 241.9 clearcut anyway.[55] Exceeding NFMA's 40-acre limit in the Northern Rockies is merely a pro forma routine.

This largely ceremonial request-and-approval approach has accumulated. Since January 2013 through March 2021, the aggregate supersized clearcuts that the Northern Region has approved gives pause. In that roughly seven-year time frame, the Northern Region has approved 93,056 acres of supersized clearcuts.[56] That is about 145 square miles, which is more than twice the size of the District of Columbia. If those acreages were contiguous and formed a square, it would take a person with an average walking speed of three miles per hour two full days (eight hours of walking) just to travel the perimeter of this supersized acreage. Areas subject to these supersized clearcuts include inventoried roadless areas[57] and old growth.[58] Some supersized clearcuts were even approved under categorical exclusions, which excused environmental analyses normally conducted under the National Environmental Policy Act, and which managed to largely avoid general public involvement.[59]

IV.B. Supersized clearcuts have increased in the Northern Region in recent years

Not only does the Northern Region rubber-stamp approvals for supersized clearcuts, but that acreage has increased in recent years. From 2013 until 2017, the Northern Region granted

---

[54] *See* Windy Shingle logging project request, "WS_over 40_request_Table_Map.pdf" pp. 2-3; *compare* Northern Region authorization, "2470_FY17AuthtoExceed_WindyShingle_Signed Letter.pdf" (June 29, 2017) p. 1 (folder CY 2017, subfolder NPCLWR_Windy Shingle Project) *on file with authors*.

[55] USDA Forest Service Windy Shingle Decision Memo 2017, p. 32 (Appx B), available online at https://www.fs.usda.gov/project/?project=50250.

[56] Again, this amount excludes all other acreage where clearcuts were under 40 acres because regional permission would not have been necessary.

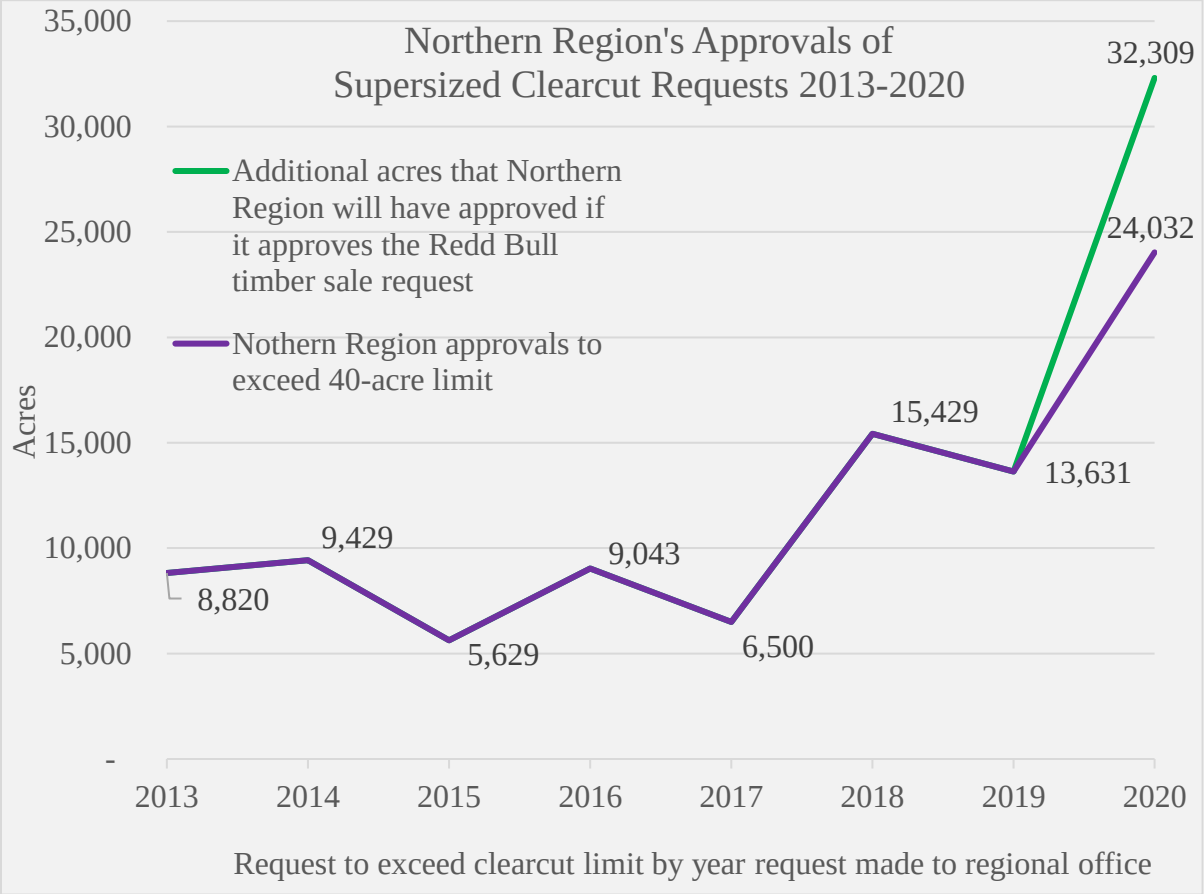
[57] *See, e.g.*, Cedar Thom logging project on the Lolo National Forest: "Selected Action Map" (February 25, 2015) at https://www.fs.usda.gov/project/?project=29614 (last visited Aug.10, 2021); *compare* Cedar Thom logging project request "CedarThomOpeningsOver40_ForSupRequestToRF.pdf" (folder CY 2014, subfolder Lolo_Cedar Thom), *on file with authors from FOIA response*; *see also, e.g.*, Orogrande logging project on the Nez Perce-Clearwater National Forest: Orogrande Decision Notice and Finding of No Significant Impact 2016, p. 31 at https://www.fs.usda.gov/project/?project=28021 (last visited Aug. 10, 2021); *compare with* "OrograndeCommunityPP_attachments" (folder Supplemental Response, subfolder Supplemental Record, subfolder 2015-Orogrande Forest Request), *on file with authors from FOIA response*.

[58] *See, e.g.*, Boulder Creek logging project on the Idaho Panhandle National Forests (Opening "M"): "Map 6 OG and WBP" at https://www.fs.usda.gov/project/?project=44066 (last visited Aug. 10, 2021); *compare with* "Map 2-Boulder_Alt2_OverFortymap_060817" (folder CY 2018, subfolder IPNF_Boulder Creek Restoration Project), *on file with authors from FOIA response*; Hungry Ridge logging project on the Nez Perce-Clearwater National Forests: "10ja-0026_2019FEIS_OG_Alt2_Treatment" at https://www.fs.usda.gov/project/?project=43661; *compare* Hungry Ridge logging project request "HungryRidge_40AcreOpenings_Final Map_2019-12-05.pdf" (folder CY 2020, subfolder NPCLWR_Hungry Ridge Project), *on file with authors from FOIA response*.

[59] *See, e.g.*, Windy Shingle logging project on the Nez Perce-Clearwater National Forests, decision memo at https://www.fs.usda.gov/project/?project=50250 (last visited Aug. 10, 2021); Moose Creek logging project on the Helena-Lewis Clark National Forests, decision memo at https://www.fs.usda.gov/project/?project=48912 (last visited Aug. 10, 2021); Crane Point logging project on the Nez Perce-Clearwater national Forests, decision memo at https://www.fs.usda.gov/project/?project=54489 (last visited Aug. 10, 2021).

supersized-clearcut requests ranging from 5,500 to 9,430 acres per year. From 2018 through 2020, however, the requests and subsequent permissions increased to between 13,631 and 24,032 acres per year across the Northern Region. Figure 3 below graphically depicts much of the same information shown in Table 1 above. The orange line depicts an alternate data point for 2020 should the Northern Region grant the sole pending supersized-clearcut request from that year. Given what we have seen over the previous seven years, such approval is likely.

Figure 3. *Chart of the supersized clearcuts approved by Northern Region, by year requested. This acreage includes inventoried roadless areas and old growth.*

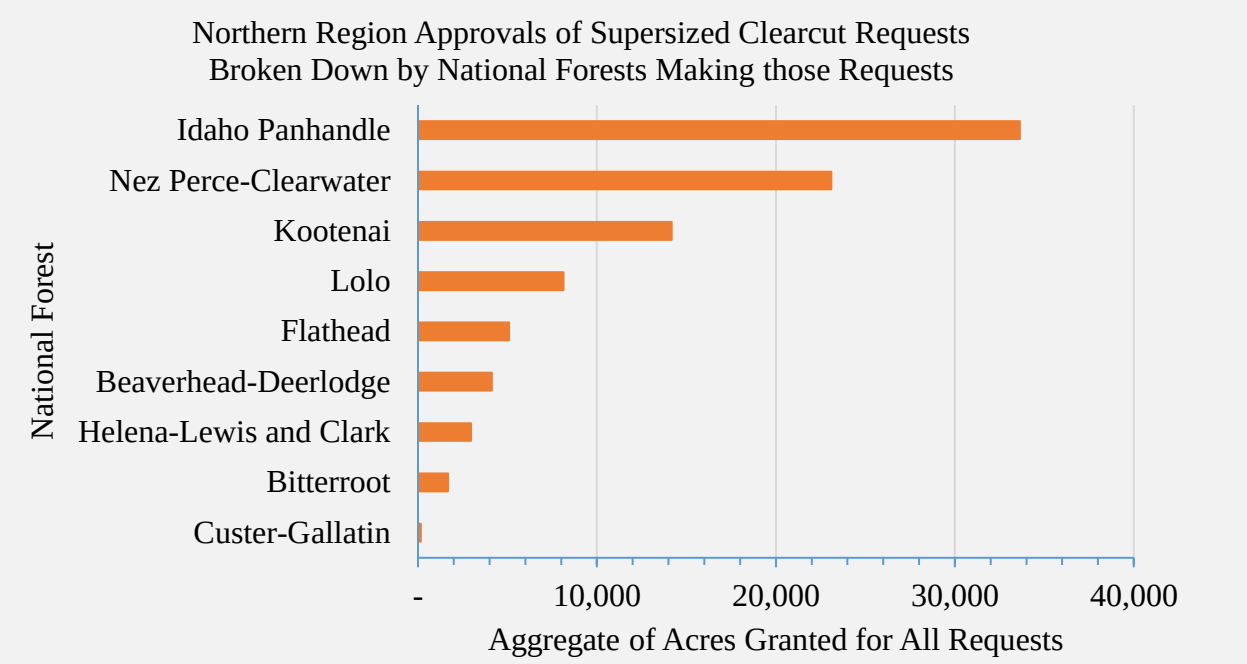


The increase in supersized clearcuts is probably an outgrowth from national forest managers requesting more projects with supersized clearcuts, requesting more supersized clearcuts per project, or a combination of the two. Sometimes more requests explain this increased acreage. In 2019, for example, the Northern Region received requests to approve supersized clearcuts in 15 projects, more than any other year of the period we reviewed. The Nez Perce-Clearwater National Forests submitted 7 of those 15 requests, more than any other national forest's total annual requests from 2013-2021. Increased acreage can also explain this overall increase. In 2020, for example, the Northern Region approved 24,032 acres of supersized clearcuts. In that year, the Idaho Panhandle National Forests requested supersized clearcuts in the Buckskin Saddle timber sale that amounted to 11,864 acres, including one logging unit over 2,250 acres in size (over 3.5 square miles). The NFMA limit on supersized clearcuts, once meant

to safeguard against "on-the-ground misjudgments or excesses of zeal"[60] is so routinely circumvented that it no longer appears to accomplish either in the Northern Rockies.

A handful of national forests emerged as leaders in maximizing supersized clearcuts. The Idaho Panhandle National Forests and the Nez Perce-Clearwater National Forests stand out among the rest for sheer acreage of supersized clearcuts they request for logging projects. The Idaho Panhandle National Forests alone sought and gained approval for over 38% of the Northern Region total. The Nez Perce-Clearwater was second, with almost 24%. Those two national forests account for well over half the supersized clearcut acreage. But, the Flathead, Lolo, and Kootenai National Forests also have double-digit requests for supersized clearcuts in their projects from 2013-2020. (*See* Table 2). The top five national forests requesting supersized clearcuts are west of the Continental Divide in the Northern Region.

Figure 4. *National forest managers requesting supersized-clearcut acreage*



[60] 44 Federal Register 53928, 53974 (Sept. 17, 1979).

Table 2. the data are broken down for each national forest.

National Forest (Northern Region)	Supersized clearcut requests that region has granted since 2013	Acreage by national forest where Northern Region has approved supersized-clearcut requests since 2013
Custer-Gallatin	1	165
Bitterroot	3	1,683
Helena-Lewis and Clark	3	2,960
Beaverhead-Deerlodge	3	4,135
Flathead	10	5,085
Lolo	9	8,134
Kootenai	13	14,174
Nez Perce-Clearwater	21	23,095
Idaho Panhandle	16	33,625
Totals	**79**	**93,056**

IV.C. There is no public engagement with the regional office reviewing the supersized-clearcut request, and "notice" with which the public may engage amounts to fragmented comment periods, making "public involvement" as pro forma as the request itself

While the Forest Service has touted that its review process for supersized clearcuts involves the public, public engagement is neither logistically straightforward nor meaningful. About a decade ago, the Forest Service chose to retain the NFMA limits and procedure (a 60-day public notice and review by higher-level official) citing it "as established process that has worked effectively," providing both "a limit on opening size and public involvement with higher level approval for exceeding the limit."[61] It is difficult to understand how continually increasing acreage of supersized clearcuts reflects a rigorous review process with input from taxpaying citizens. "Public involvement" for exceeding supersized clearcuts usually involves a one-way notice from the Forest Service, inviting "involvement" broken up over several time periods not readily transparent to the average person.

Public engagement is not sought by regional Forest Service officials when they consider a national-forest manager's request for a supersized clearcut. Only the national forest making the request will take public feedback, and generally only within the official public-comment periods guaranteed by the National Environmental Policy Act. These public comment periods, where the agency accepts comments on a project, are generally shorter than NFMA's 60-day notification.

[61] 77 Fed. Reg. 21162, 21228 (Apr. 9, 2012), https://www.federalregister.gov/d/2012-7502/p-881 (emphasis added).

To make the 60-day notification overlap with when the Forest Service accepts public comments, the agency piecemeals how it counts those 60 days amongst multiple, distinct comment periods. These comment periods, however, are often months apart. For example, in the Stray Creek Project on the Nez Perce-Clearwater National Forests, the district ranger reported that the 60-day notice where the public could respond to the supersized-clearcut request was accomplished by a 30-day public comment period for scoping in 2019, and a 45-day objection period that ran three months later in 2020. These two periods were the only times the public could comment on the supersized clearcuts—and only to the managers making the request, not directly to the Northern Region reviewing it.[62]

What many in the public might not understand, however, is that objection periods are limited to those parties who submitted earlier comments, and only on issues specifically raised then.[63] So, in practice, for example, if commenters failed to comment on the supersize-clearcut request within an initial 30-day comment period, Forest Service regulations could prohibit later comments. In forest managers' requests for supersized clearcuts, piecemealing the 60-day notice period among several public-comment periods—including later ones that restricted who could participate—was routine.[64] One national forest manager even counted a 45-day public-comment period as satisfactory to meet the 60-day notice requirement.[65] Even if a member of the public can successfully comment, he or she comments to the Forest Service managers who made the request, not to the higher-level officials reviewing it. The Forest Service is not required to respond to these comments. This amounts to a "comments welcome" box for public involvement that is effectively a trash bin.

Attempts to limit supersized clearcuts do not come from Forest Service leadership. Forest Service officers at national forests decide the logging project, however, the Northern Region commonly reviews the public objections to those projects. Not only does the Northern Region review the supersized request, but, in a distinctly separate objection process, receives arguments about impacts to wildlife, soil, fish, roadless areas, etc. Many of these impacts are related to clearcuts and supersized clearcuts.[66] These regional reviews should prevent illegal logging, yet they do not.

---

[62] Stray Creek logging project on Nez Perce-Clearwater National Forest, "Knapton to Probert 40Ac Request Signed.pdf" (folder CY 2020, subfolder NPCLWR_Stray Creek Project), *FOIA response on file with authors.*
[63] *See* 36 C.F.R. § 215.13.
[64] *See, e.g.*, Gold Hill logging project on the Nez Perce-Clearwater National Forest, "Gold Hill over 40 ac request.pdf," p. 2 (folder CY 2020, subfolder NPCLR_Gold Hill); Salish Good logging project on the Flathead National Forest, "Attachment_1_Request.pdf" pp. 3-4 (folder CY 2020, subfolder Flathead_Salish Good Project); Brebner Flat logging project on the Idaho Panhandle National Forest, "2019_1021_Requestexceed40AcOpening_Brebner Flat Project" p. 3 (folder CY 2019, subfolder IPNF_Brebner Flat Project); Black Ram Project on the Kootenai National Forest, "Over40Attachment3_071819.pdf" p. 2 (folder CY 2019, subfolder Kootenai_Black Ram Project); Swamp Eddy timber project on the Lolo National Forest, "Final-DistrictRequestToForSupToExceed40AcreOpeningsSwampEddy.pdf" p. 4 (folder CY 2019, subfolder Lolo_Swamp Eddy Project), *FOIA response on file with authors.*
[65] *See* Gold Butterfly on the Bitterroot National Forest, "Gold Butterfly Request to exceed 40 acre harvest_Highfill.pdf" pp. 1-2 (folder CY 2019, subfolder BTRT_Gold Butterfly Project), *FOIA response on file with authors.*
[66] *See infra* Section II.B.

Instead, external attempts to limit excessive, supersized clearcuts originate from environmental lawsuits when such an avenue is available. For example, the Northern Region approved 3,789 acres of supersized clearcuts in the Clear Creek timber project on the Nez Perce National Forest and handled the objection on that project. The agency's objection response rejected the Nez Perce Tribe's concerns about the analyses for sediment impacts to fish and habitat loss to elk. The Nez Perce Tribe sued the agency on the basis of those concerns. Instead of defending the project, the Forest Service withdrew its decision to reanalyze it. Similarly, the Northern Region approved over 1,508 acres of supersized clearcuts in the Gold Butterfly timber project on the Bitterroot National Forest. When environmental groups sued based on impacts to elk and old-growth, the Forest Service again withdrew its decision instead of defending it. Currently, the Forest Service is in court on at least five more of these timber projects because of impacts to steelhead, grizzly bear, elk, soil, and old-growth, among other issues.[67]

IV.D. The Forest Service provides little meaningful justification for supersized clearcuts, which do not mimic landscape-level disturbances

We sought to understand justification for supersized-clearcut requests in Northern Region national forests. We sampled some of the agency's environmental analyses for any notable differences between rationale justifying the entire project and rationale justifying supersized clearcuts. Few differences are apparent.

Approaches to rationalize supersized clearcuts differed minimally, even for entirely different projects. For the Jam Cracker timber sale on the Lolo National Forest, there was nothing in forest managers' request[68] that specifically justified supersized clearcuts. In the Redd Bull timber sale[69] on the same forest, the request essentially restated the purposes of the whole project, with one additional sentence pointing out, "Hessburg et al (2000) among others points out that 20th century management including limiting creation of openings over 40 acres did not account for landscape-scale patterns that 'enable forest ecosystems to maintain their structure and organization through time.'"[70]

Other Forest Service managers have indicated that their forest management plan includes a long-term directive for supersize clearcuts. The managers on the Idaho Panhandle National Forests said the following about its forest plan in the Halfway Malin timber sale: "Forest Plan direction aims to increase the average patch size across the Forest, specifically in the

[67] *See* complaints in following logging projects: Lolo Insects and Disease, Federal District of Idaho Case No. 3:20-cv-00322-BLW; Hanna Flats, Federal District of Idaho 2:21-CV-00244-BLW; Brebner Flat, Federal District of Idaho Case No. 2:20-cv-243-BLW; End of the World, and Hungry Ridge timber projects, Federal District of Idaho Case No. 3:21-cv-189-CWD; Soldier Butler, Federal District of Montana Case No. 9:20-cv-00156-DLC-KLD and Case No. 9:20-cv-000157-DLC.

[68] Jam Cracker logging project, "JamCrackerOpeningsOver40RequestToForestSup_amendment_20170629.pdf" (folder CY 2017, subfolder Lolo_Jam Cracker Project_Amended), *on file with authors from FOIA response.*

[69] Approval still pending as of our last confirmation on July 15, 2021. J. Juel personal communication with Pat Partyka, Project Leader.

[70] Redd Bull logging project, "DistrictRequestToForSupToExceed40AcreOpenings-ReddBull_10292020.pdf" (folder CY 2020, subfolder Lolo_Redd Bull Project), *on file with authors from FOIA response.*

seedling/sapling size class…"[71] The only way to increase seedling patch sizes is to create increased openings for them to grow. Supersized clearcuts are a simply way to create bigger openings in the forest. The rationale for Halfway Malin aligns closely to Redd Bull (above), referring to natural landscape disturbances which extend well over 40 acres: "This larger patch size for the early successional stage represents a move toward the desired conditions in the project area and towards the historic range of structural distribution at the landscape scale."[72] The Forest Service's interpretation of the Idaho Panhandle Forest Plan is perhaps why the managers of that national forest are leaders in supersized clearcuts.

Landscape level logging disturbances in the Northern Region national forests reflect a region-wide management goal purportedly mimicking ecological landscape-level disturbances. In the Bitterroot National Forest's Gold Butterfly timber sale, when requesting supersized clearcuts, forest managers state, "The units in particular are designed to assist in the recovery of resilience and adaptive capacity of ecosystems by reestablishing ponderosa pine and whitebark pine composition and structural patterns consistent with the landscape. The larger unit size is necessary due to the landscape severity of insect and disease issues. Treating smaller block sizes, under 40 acres, will not meet the goal."[73] On the Nez Perce-Clearwater National Forests in the Little Boulder timber sale request for supersized clearcuts, forest managers used similar rationale as above:

> Over 40 acre openings match the scale of regeneration harvest to the scale of forest health issues in the project area, most significantly root disease...
>
> Regeneration harvest with over 40 acre openings …create a landscape pattern more consistent with primary and secondary disturbance regimes, and better achieve fuel loading objectives across the landscape…
>
> The size and distribution of proposed activities would emulate a mixed-severity wildfire pattern across the landscape, especially when combined with past management activities, in a scale closer to historic disturbances.[74]

A way to paraphrase the agency's position is—natural disturbances are quite large, so why not clearcut the same way? This simplistic view assumes that clearcut logging simulates a natural ecological disturbance. This assumption is convenient to sell timber on a large scale but is not actually true.

No natural ecological disturbance exists in the Northern Region—northern Idaho or Montana—where trees that die *disappear* from the forest. Wildlife depend on dead trees

---

[71] Halfway Malin logging project, "20170905RequestLtrHalfwayMalin40Acres2470.pdf" (folder CY 2017, subfolder IPNF_Halway Malin Project), *on file with authors from FOIA response.*
[72] Halfway Malin logging project, "20170905RequestLtrHalfwayMalin40Acres2470.pdf" (folder CY 2017, subfolder IPNF_Halway Malin Project), *on file with authors from FOIA response.*
[73] Gold Butterfly logging project, "Gold Butterfly Request to exceed 40 acre harvest_Highfill.pdf" (folder CY 2019, subfolder BTRT_Gold Butterfly Project), *on file with authors from FOIA response.*
[74] Little Boulder logging project, "LittleBoulderEIS_Over40_Palouse_Signed.pdf" (folder CY 2019, subfolder NPCLWR_Little Boulder Project), *on file with authors from FOIA response.*

remaining where they die. Even though severe wildfire may kill nearly 100 percent of trees in an area where it occurs,[75] it does not entirely consume those trees; it creates a snag-forest habitat, "one of the most ecologically important and biodiverse forest habitat types in western U.S. conifer forests."[76] Black-backed woodpeckers, for example, use dense forests after they are severely burned by wildfire; they feed on the wood-boring beetles that feast on large, fire-killed trees.[77] In the years following an ecological disturbance, individual dead trees, standing as snags or falling to the forest floor and slowly decomposing, provide dens to species like fisher and lynx, nests for pileated woodpeckers, and food sources to wildlife. [78] Unfolding over many years, the legacies from these ecological disturbances create old-growth forests.[79] While individual dead trees that stay in the forest continue to function within the ecosystem, clearcut trees are hauled away and provide no such service.

Even on a landscape level, clearcutting does not mimic natural disturbances. Fires in the national forests of the Northern Region typically burn in mixed severity.[80] Within one fire, different areas will burn at high severity, moderate severity, low severity; and some areas remain unburned.[81] These unburned areas within a fire's perimeter—fire refugia—shelter wildlife during a fire and revegetate the neighboring burned areas post fire.[82] For these reasons, mixed-severity fires create heterogeneity.[83] Supersized clearcuts, on the other hand, create homogeneous patches of forest exactly the same age.[84] Likewise, endemic insect or pathogen disturbance "blends seamlessly with other succession and stand development processes," especially in between fire events.[85]

Finally, there is evidence that natural ecological disturbances create forests more adaptable to ecological disturbances than forests with supersized clearcuts. For example,

---

[75] Odion et al. 2014. *Examining Historical and Current Mixed-Severity Fire Regimes in Ponderosa Pine and Mixed-Conifer Forests in Western North America*, PLOS ONE 9(2), e87852, pp. 1-11.
[76] Hanson, Chad 2010. The Myth of "Catastrophic" Wildfire: A New Ecological Paradigm of Forest Health. John Muir Project Technical Report 1 • Winter 2010 • www.johnmuirproject.org.
[77] Hutto, R.L. 2008. *The Ecological Importance of Severe Wildfires: Some Like it Hot.* Ecological Applications 18(8): 1827-1834.
[78] *See, e.g.* [78] Squires et al. 2010. *Seasonal Resource Selection of Canada Lynx in Managed Forests of the Northern Rocky Mountains*. Journal of Wildlife Management 74(8):1648-1660, DOI: 10.2193/2009-184; Aubry et al. 2013. *Meta-Analyses of Habitat Selection by Fishers at Resting Sites in the Pacific Coastal Region*. The Journal of Wildlife Management 77(5): 965-974, DOI: 10.1002/jwmg.563
[79] *See, e.g.*, USDA Forest Service, Pacific Northwest Research Station 2003, Issue 4. "Science Update: New Findings About Old-Growth Forests.
[80] Odion et al. 2014. *Examining Historical and Current Mixed-Severity Fire Regimes in Ponderosa Pine and Mixed-Conifer Forests in Western North America*, PLOS ONE 9(2), e87852, pp. 1-11.
[81] *Id.*
[82] Meddens et al. 2018. *Fire Refugia: What are They, and Why Do They Matter for Global Change?* BioScience 68(12): 944-954; *See also* Zimmer, Oct. 12, 2018. *"'Lifeboats' Amid the World's Wildfires,"* New York Times.
[83] Della Sala et al. 2015. Chapter 13: Flight of the Phoenix: Coexisting with Mixed-Severity Fires. in The Ecological Importance of Mixed-Severity Fires: Nature's Phoenix (Eds D.A. DellaSala and C.T. Hanson, Elsevier Press).
[84] *See infra section II.A.* Nor, in our experience with logging projects on the Nez Perce-Clearwater National Forest, do forest managers attempt to map where legacy fire refugia might exist.
[85] Hessburg et al. 2000. Recent changes (1930s-1990s) in spatial patterns of interior northwest forests, USA. Forest Ecology and Management 136: 53-83, pp. 54, 79.

scientists have recently found that high-elevation whitebark and lodgepole pines that survived a mountain pine beetle outbreak possessed distinguishable genetic variants from trees that succumbed to the beetle, suggesting natural resistance can be heritable.[86] In contrast to the rationale in Gold Butterfly (above) where managers justified supersized clearcuts to make whitebark and ponderosa pine more resilient to insect attacks, allowing natural attacks enables natural selection to pass along genetic resilience to the next generation. Nature did this job for millennia before the Forest Service got involved.

Ecological, landscape-level disturbances are far more nuanced than landscape-level clearcuts. And clearcut logging additionally has many adverse impacts to ecosystems, described in section II.B. above. Even Hessburg et al. 2000, the paper that the Forest Service cited above to justify its request for supersized clearcuts in the Redd Bull timber project, pointedly recognized the adverse ecological impact of logging:

> Indeed, the most significant fallout associated with 20th century resource management activities has been the effect of timber extraction and associated activities on native species biodiversity. Hardest hit have been late-successional and old forest communities of the Pacific and Interior Northwest. Old forest area has been seriously depleted by past harvest activity, and old forests of the future will be grown from existing conditions.[87]

The notion that Forest Service decisionmakers must substitute supersized clearcutting to mimic nature or do nature's job—and the Forest Service leadership is rubber-stamping this myth without analysis or science—indicates a larger dysfunction, entrenched within the agency culture. Intensive-management ideology and "getting out the cut" policy drove the Forest Service from the post-World War II years into the 21th Century.[88] As stated earlier in this report, clearcuts only benefit the logging industry because they are the most economically efficient way to log. Because of the adverse impact to ecosystems, this increasing trend of supersized clearcuts in the Northern Region, especially amidst global warming, should raise concern with the public, who own these national forests. The time for meaningful public review of supersized clearcuts is now.

V. CONCLUSION

The Northern Region national forests are routinely surpassing the 40-acre NFMA limits on clearcuts, and the regional office is rubber-stamping these requests. From January 2013 through March 2021, the national forest managers in this region asked for—and the Northern Region office has granted—over 93,000 acres of supersized clearcuts on the national forests of Montana and Idaho. The Northern Region has never denied a request during the time period we examined. Additionally, these requests have increased in the past three years because Forest

[86] Six et al. 2018. *Are Survivors Different? Genetic-Based Selection of Trees by Mountain Pine Beetle During a Climate Change-Driven Outbreak in a High-Elevation Pine Forest*. Frontiers in Plant Science. Vol 9, Art 993: 11pp.
[87] Hessburg et al. 2000. Recent changes (1930s-1990s) in spatial patterns of interior northwest forests, USA. Forest Ecology and Management 136: 53-83, p. 80.
[88] *See* Hirt, Paul. A Conspiracy of Optimism pp. 131, 216, 271-72 (University of Nebraska Press 1994).

Service managers have increased supersized acreage proposed per project and have proposed more logging projects that seek supersized-clearcut exceptions. The critical review of these increasing trends is only reflected by those who surmount challenges to the logging projects in court for violating environmental laws.

Despite what may be commonly believed, there is no effective regulatory limit to the size of clearcuts on national forests. We anticipate the increasing trend of supersized clearcuts in the Northern Region to continue unchecked for the 25 million acres of national forests in northern Idaho and all of Montana that are outside of designated Wildernesses. Our investigation shows that neither the National Forest Management Act nor the Forest Service's NFMA regulations can control the Forest Service Northern Region's excesses of zeal. This routine trend of authorizing supersized clearcuts will likely persist until national leaders in the Forest Service, the Biden Administration, or Congress chooses to act.