November 26, 2018

Kathleen Atkinson
Regional Forester and Reviewing Officer
Attn: PAL-LSC Objections
Suite 700
USDA Forest Service, Eastern Region
626 E. Wisconsin Ave.
Milwaukee, WI 53202

Sent Via Email: objections-eastern-region@fs.fed.us

Attn: Objection Reviewing Officer:

RE: OBJECTION to the Draft Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) for the Hi Lo Project.

Pursuant to 36 CFR Part 218, Wilderness Watch objects to the Draft Record of Decision (DROD) for the Hi Lo Project Final Environmental Impact Statement (FEIS) on the Kawishiwi Ranger District of the Superior National Forest. Please note this specific objection is focused on the Boundary Waters Canoe Area Wilderness.

Pursuant to Part 218, Wilderness Watch is the objector. Contact Person: Kevin Proescholdt, phone 612-201-9266. The full objection and attachments are included. The citations are included as well.

Wilderness Watch filed comments on this project as documented in the FEIS, page 179. If your schedule permits, we would like to discuss the issues raised in our objection with you.

Sincerely,

Kevin Proescholdt

Kevin Proescholdt
Conservation Director
Wilderness Watch
PO Box 9175
Missoula, MT 59807
www.wildernesswatch.org
612-201-9266

Project summary:

Alternative 2 proposes prescribed fire on up to 1,314 acres of land inside the Boundary Waters Canoe Area Wilderness (BWCAW).[1] This alternative also proposes additional measures taken outside of the Wilderness.

I- Manager-Ignited Fires Are Inconsistent with the Wilderness Act

Wilderness Watch's comments noted:

> **1. The Wilderness Act requires that Wildernesses are to be untrammeled and unmanipulated.** The overriding purpose of the Wilderness Act is the preservation of wilderness character. Section 2(c) of the Wilderness Act defines "Wilderness" as:
>
> > A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.
>
> Congress was clear through the Section 2(a) "Statement of Policy" that Wilderness areas "shall be administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character…" Pursuant to Section 4(b), "each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such areas for such other purposes for which it may have been established as also to preserve its wilderness character."

The Wilderness Act in section 4(d)(1) uses "control" rather than "prevention" or "pre-suppression" of fire. Pre-suppression manipulation is inconsistent with the Act. One can't control something that doesn't (yet) exist. The control of fire was narrowly written to apply to fire suppression and detection. The Forest Service Manual recognizes there is no broad discretion to light fires in Wilderness. In fact, this project will require an amendment to the Superior National

[1] The project would also affect about 4,123 acres of in five roadless areas along the periphery of the BWCAW, as well as other Superior National Forest lands.

Forest Land and Resource Management Plan.

Indeed, when Congress felt pre-suppression actions were warranted; it approved those activities in specific legislation. One example is legislation establishing some of the additions to the Ventana Wilderness on the Los Padres National Forest in California where undefined but "acceptable" "pre-suppression" activities in Wilderness were allowed. The Wilderness Act and the 1978 Boundary Waters Canoe Area Wilderness Act, however, contain no such provisions.

While the status quo may trammel Wilderness via firefighting, Section 4(d)(1) of the Wilderness Act was written, for better or worse, to address this issue of fire suppression.

Howard Zahniser, the author of the Wilderness Act, stated that "[a] wilderness is an area where the earth and its community of life are untrammeled by man. (Untrammeled – not untrampled – untrammeled, meaning free, unbound, unhampered, unchecked, having the freedom of the wilderness.)." While the Forest Service is rationalizing ecological intervention based on poor past management practices and on other human-induced changes, "[t]hese threats do not justify further interventions into the natural processes within wilderness areas. These projects, whose purposes are to restore (or redirect) natural processes through the exercise of human agency, are precisely the intrusions of human culture that the Wilderness Act meant to exclude from these special places." Attachment 1, Sean Kammer, *Coming to Terms with Wilderness: The Wilderness Act and the Problem of Wildlife Restoration*, 43 Environmental Law 83, 86 (2013).

Zahniser's most pointed essay against the kind of manipulation and trammeling proposed by the Hi Lo Project came in 1963, the year before Congress passed his Wilderness Act, in an essay titled "Guardians Not Gardeners." "Within the extensive stretches of back country that are valued as wilderness, however, the objective should be, as far as possible, to provide the protection needed to allow natural forces to operate with 'the freedom of the wilderness.' Such tracts should be managed so as to be left unmanaged," he wrote. "Those who have advocated the preservation of wilderness by protecting at the boundaries the areas within which the natural community would be untrammelled by man have often been confronted with practical difficulties – the smallness of even the most extensive areas, for example," he continued. "Wilderness preservation is, indeed itself a fancy, a human concept, but its inspiration is to use 'skill, judgment, and ecological sensitivity' for the protection of some areas within which natural forces may operate without man's management and manipulation," Zahniser continued. "With regard to areas of wilderness," Zahniser concluded, "we should be guardians not gardeners." Attachment 2, Howard Zahniser, "Guardians Not Gardeners," *The Living Wilderness* 83 (1963).

The Forest Service's ongoing attempts to resist natural processes and change through active manipulation of the wilderness are at odds with the Wilderness Act and the Forest Service's own management guidance. Vegetation changes, fire interval and intensity, and wildlife dispersal attributable to a changing climate cannot logically represent degradation of wilderness character. *See* 36 C.F.R. § 293.2(a) (dictating that, in wilderness, "[n]atural ecological succession will be allowed to operate freely to the extent feasible"). The Forest Service Manual directs the Forest Service to "[m]aintain wilderness in such a manner that ecosystems are unaffected by human manipulation and influences so that plants and animals develop and respond to natural forces." FSM 2320.2.

Both the FEIS and DROD use the flawed wilderness character monitoring framework, the "Keeping It Wild 2" framework. In general, Wilderness Watch opposes the use of the four or five qualities of wilderness character monitoring, the "Keeping It Wild 2" framework. (See, for example, FEIS, p. 88.) Our concerns are articulated in Attachment 3, a paper written by a group of wilderness professionals.

The terms "natural" and "untrammeled" are complimentary (and not to be conflated), and thus the Wilderness Act isn't internally inconsistent. The canons of statutory construction dictate that natural conditions be in harmony with wildness (untrammeled). *United States v. Powell*, 6 F.3d 611, 614 (9th Cir. 1993) ("It is a basic rule of statutory construction that one provision should not be interpreted in a way which is internally contradictory or that renders other provisions of the same statute inconsistent or meaningless"); *see also Wilderness Society*, 353 F.3d at 60 ("a fundamental canon that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme"); *Kmart Corp. v. Cartier, Inc*., 486 U.S. 281, 291 (1988) ("In ascertaining the plain meaning of [a] statute, the court must look to the particular statutory language at issue, as well as the language and design of the statute as a whole."); *United States v. Lewis*, 67 F.3d 225, 228-29 (9th Cir. 1995) ("Particular phrases must be construed in light of the overall purpose and structure of the whole statutory scheme."). Thus, what is natural for the area necessarily flows from what is untrammeled. Otherwise, the default position will always be to trammel Wilderness to comport with a land manager's notion of what is natural, even though various complicated factors—many of which we do not fully understand and cannot control—are always necessarily at play in shifting natural conditions. Wilderness is "in contrast" to areas where our actions and decisions dominate the landscape. Nature should roll the dice in Wilderness, not managers.

Resolution/Remedy:

* Allow natural fire to play its role in the Boundary Waters Canoe Area Wilderness and exclude the manager-ignited prescribed fire and associated activities inside the BWCAW.

II- Trammeling Wilderness is not Consistent with the Best Available Science

Wilderness Watch comments noted:

> The purpose and need statement of the project is not focused on wilderness administration, and indeed, the DEIS does not adequately analyze impacts to wilderness character or compliance with the Wilderness Act at all.
>
> The FS provides no explanation for why this active manipulation is necessary to administer the wilderness pursuant to the Wilderness Act within the DEIS. In the DEIS, the FS states that "Primary project objectives related to fire, fire risk, and hazardous fuel are: 1) treat the boundaries of the Boundary Waters Canoe Area Wilderness to reduce fire intensity and rate of spread, increasing opportunities allowing fires to play their nature role in Wilderness, 2) treat hazardous fuels around WUI areas and natural and cultural resources at risk of high severity fire, 3) increase vegetation complexity across the landscape, so

subsequent fires burn with high complexity, and 4) increase the amount of forest restored in a healthy condition to reduce the severity and magnitude of fires, insects, and disease (O-ID-1, FP p. 2-19)." DEIS at 5. This rationale for the action likewise does not serve a wilderness purpose; rather, it is focused on a broader goal of fire management and habitat manipulation, primarily outside of the BWCAW.

The Forest Service has not demonstrated that ecosystem modification or modification of natural processes is "[t]he minimum requirement for administering the area as wilderness" or that the authorized action would restore biological integrity, diversity, or environmental health of the wilderness area. The only attempt at a wilderness-based justification for the otherwise prohibited activities within wilderness is the FS's unsupported statement that these actions will serve to "treat the boundaries of the Boundary Waters Canoe Area Wilderness to reduce fire intensity and rate of spread, increasing opportunities allowing fires to play their nature role in Wilderness." DEIS at 5.

This rationale represents a serious departure from the foundational principles embodied within the Wilderness Act. One cannot reverse trammeling through more trammeling. Howard Zahniser, drafter of the Wilderness Act, stated that "[a] wilderness is an area where the earth and its community of life are untrammeled by man. (Untrammeled – not untrampled – untrammeled, meaning free, unbound, unhampered, unchecked, having the freedom of the wilderness.)." Likewise, the FS's wilderness management direction in the Forest Service Manual (FSM) describes "untrammeled" as: "an untrammeled area is where human influence does not impede the free play of natural forces or interfere with natural processes in the ecosystem." FSM 2320.5 (2).

Additionally, the notion that "natural" conditions that have long been absent within a particular area due to fire suppression and past logging practices can somehow be reconstructed within that area with prescribed fire (to protect property outside the Wilderness) is suspect. Add to that the rapidly changing nature of our forests from climate change, and it becomes nearly impossible to discern a historical "natural" baseline point from which we should gauge "naturalness." This is why Howard Zahniser's foresight is so important. He focused, primarily, on the "untrammeled" character of wilderness in the Wilderness Act knowing that what is "natural" for that area will necessarily flow from what is "untrammeled." (Senate Comm. on Interior and Insular Affairs, *Hearings before the Committee on S. 1176*, 85th Congress, 1st sess., June 19-20, 1957, pp. 212-13.) The uncontrolled, unmanipulated processes in wilderness create the state of naturalness for that area. This is important because this provides us with a baseline from which to measure our management actions outside of wilderness. If we start managing wilderness the same way we manage lands outside of wilderness, through active manipulation, we lose the untrammeled baseline and we thus lose what is "natural" for that area at that point in time.

As noted earlier, we are concerned that this project will degrade the untrammeled and natural character of the Wilderness. Manager-ignited prescribed fire in the Wilderness may also have unintended negative consequences on the ecology, wildlife, historic fire regime, and natural ecological processes. Justifications for this project are based on faulty and scientifically

controversial theories regarding: historic fire regime and stand densities, the effectiveness of fuels reduction to lessen future fire severity, threats to Wilderness values due to high-severity fires, threats to firefighter safety and resources outside of the wilderness. Possible negative impacts to wildlife and habitats due to prescribed fire have not been adequately analyzed in the FEIS. Wildernesses are not appropriate places for a manipulative management experiment. The experimental extensive human intervention and interference with natural processes in Wilderness areas as proposed in this project are suffused with faulty rationales, scientific controversy, and uncertainty, and are not science based. In consideration of these problems, this project does not comply with the Wilderness Act.

The remoteness of the area, lack of human habitation, and beneficial effects of allowing wildfire to occur make the project area an ideal location for allowing lighting strikes and wildfires to burn without intervention, and in their current state, as directed by the USFS's mandate.

The Wilderness Act gives direction to emphasize and allow natural processes. Allowing high intensity wildfires in the wilderness is necessary for proper ecological functions in these forests. Wildfire should be allowed to burn in the Wilderness. Prescribed fire is a human management tool that attempts to mimic natural processes, but is not a natural process and is subject to flawed assumptions and applications. Typically, for example, prescribed fires are not lit during drought periods of high fire danger when large fires historically burned in the BWCAW, and the ecological effects are different. Flawed assumptions in this FEIS are used to justify this proposal to artificially manipulate and alter the natural Wilderness environment, including:

- Studies repeatedly show that fuels treatments do not affect the size or intensity of wildfire. Rather, climate and weather conditions are the primary drivers of fire behavior.
- This proposed human intervention in the Wilderness using prescribed fire management is based on faulty and incomplete assumptions, and may create unintended negative effects. For example, it may produce larger percentages of unburned or low or moderate intensity or severity burns compared to compared to historic norms. Effects of artificially managing the Wilderness using prescribed fire may potentially cause forests to be outside of actual historic range of variability. Scientific studies showing controversy about historic forest density and fire regimes were either not disclosed or adequately analyzed.
- Current policies of fire-fighting policies are putting firefighters at risk (DROD, p. 2). The actions in this proposal are not needed to change current policies. Indeed, rationales and justifications used to argue that this project is necessary were flawed (discussion is above, throughout these comments).
- Based on scientific realities regarding fire regimes and behavior, fire risk, and forest density, the justifications for this management proposal in the Wilderness are invalid and do not meet the criteria for human intervention described in the Wilderness Act or in associated regulations.

Forest Service policy under the Wilderness Act directs that lightning-caused fires should be permitted to play, as nearly as possible, their natural ecological role within wilderness. None of the alternatives proposed in this project follow these directives. Failure to follow these directives is not based in scientific fact or rationales, as demonstrated throughout these comments. The minimum criteria for justification to manage Wilderness areas with prescribed fire have not been

met by this project. Additionally, the consequences of high intensity fires within the wilderness are ecologically beneficial, risks are not increasing relative to historic norms, and chances of wildfire escaping the wilderness cannot be effectively influenced by fuels reduction projects. Fuels reduction efforts, including prescribed fire, run counter to Wilderness Act directives.

The DROD (pg. 14) states:

> The untrammeled quality is adversely impacted by intentional manipulation of an ecological disturbance (wildfire). Trammeling impacts to Wilderness in my draft decision would be limited in extent (1,314 acres) and duration….

The FEIS (p. x) states:

> Alternative 2 would have adverse impact to three wilderness qualities from proposed management actions. The untrammeled quality would be adversely affected by intentional manipulation of ecological disturbance. The undeveloped quality would be adversely impacted by temporary installations, motorized tools, and mechanized transportation for prescribed fire operations. The solitude or primitive and unconfined quality would be adversely affected by management presence in the Wilderness and potential closures during firing operations. It would also be impacted by noise from prescribed fire operations and other vegetation treatments along the boundary of the Wilderness.

The USFS acknowledges that the project will negatively affect the untrammeled component of wilderness character, as well as the undeveloped and solitude components. This is a certainty if the project moves forward. However, the possible long-term negative impacts of the project (degradation of scenic values and recreation, decreases in snags and dead wood and other wildlife habitats (Pilliod et al. 2006), artificially manipulated forest stands that may develop outside of normal and historic trajectories, etc.) is not adequately disclosed or considered. The USFS offers no convincing rationale to suggest that the project will not cause long-term impacts. Also, it is highly unlikely that this project will lessen the perceived need for repeated, future trammeling actions through fire suppression, or that the project will return the Wilderness to a more natural balance. Please see our discussion and citations on the USFS's faulty underlying rationales and assumptions regarding the project in other portions of this document.

Based on our review of current science, the FEIS fails to meet the criteria for minimum requirements. The USFS's current policy of fire suppression in Wilderness also fails to meet these criteria; this project does not have any adequate mechanisms by which to shift this flawed USFS policy into the future. There is little to no evidence that USFS policy would change due to the implementation of this project.

Noss et al. (2006) notes, "Above all, a guiding principle of forest management should be a precautionary approach that avoids ecological harm." Wilderness is not the place for experimental large-scale manipulative management based on uncertain and/or flawed assumptions. Experimental large-scale manipulative management is not in line with the spirit or directives of the Wilderness Act.

We are extremely concerned that the use of prescribed fire in the Wilderness will open the door

to increased manipulation in this and other Wildernesses. We are very concerned that active management in Wilderness will become more common, widespread, and invasive due to the precedent this project will set if it is implemented. We are very concerned about increased human intervention in Wildernesses, which seems to be proposed despite a veritable mountain of scientific evidence showing that Wildernesses are, due to their least-managed conditions, providing the most high-quality and important core habitats and connectivity for wildlife across the landscape. Also despite evidence that these areas have not departed from HRV for vegetation or fire regime parameters, and that fuels reduction efforts are unlikely to be effective or make economic sense, and in the face of increased pressure from climate change, among other issues. Active management in the Wilderness sets a bad precedent that risks increased artificial manipulation in the last remaining areas that have been comparatively free of human intervention and management, and which as a direct result of their relatively unmanaged state are providing absolutely crucial habitat and disproportionately supporting the viability of many sensitive and at-risk species.

The DROD (p. 10) quotes from Dr. Miron L. "Bud" Heinselman's 1996 book, *The Boundary Waters Wilderness Ecosystem*, to support the active manipulation of the BWCAW via manager-ignited fires. As a long-time friend and student of Bud, I am very familiar with this work (which I helped edit for the University of Minnesota Press) as well as the complete body of Bud's work. Among other things, I organized and curated Bud's papers for the Minnesota Historical Society archives.

As the DROD states, Bud's concerns with the cited passage are largely ecological, not wilderness policy. Bud spent much of his research career in the 1950s, 1960s, and early 1970s understanding the ecological role of fire, and advocated for allowing fire to play its natural role in the ecosystem of the BWCAW. At that time, he worked hard to try to get the U.S. Forest Service, in its "Smokey Bear" mentality of the times, to realize that not every fire should be suppressed and that fire played an important ecological and evolutionary role in the BWCAW ecosystem.

But Bud also had concerns with the overt manipulation of the BWCAW as proposed by actions included in Alternative 2 for the Hi Lo Project. In his same 1996 book, prior to the sentences cited in the DROD, Bud wrote:

> "Note that the objective is not to produce a particular set or mosaic of plant communities or to create specific kinds of wildlife habitat. Rather it is to let nature take its course, consistent with safety constraints. The Wilderness Act clearly states that a wilderness is to be an area where 'the earth and its community of life are untrammeled by man…an area of undeveloped Federal land retaining its primeval character and influence…which is protected and managed so as to preserve its natural conditions…' (U.S. Public Law 88-577). In the words of Howard Zahniser, one of the principal framers of the 1964 Wilderness Act, we are to be 'guardians, not gardeners.' "
>
> *The Boundary Waters Wilderness Ecosystem*, p. 147.

Resolution/Remedy:

* Allow natural fire to play its role in the Boundary Waters Canoe Area Wilderness and exclude the manager-ignited prescribed fire and associated activities inside the BWCAW.

III- The DROD and FEIS Fail to Show that the Project is the Minimum Necessary in Wilderness

The Forest Service has not demonstrated that ecosystem modification or modification of natural processes is "the minimum requirement for administering the area as wilderness" as the Wilderness Act requires. The only attempt at a wilderness-based justification for the otherwise prohibited activities within the Wilderness is the agency's allegation that these actions will somehow prevent a large wildfire (they won't and large wildfires are part of this landscape), reduce the intensity of fire suppression in the future, or possibly allow some natural fires to play their role.

The Wilderness Act contains a narrow exception to allow otherwise-prohibited activities only where such activities are necessary to meet the *minimum requirements* for administration of an area *for the purpose of the Wilderness Act.* 16 U.S.C. § 1133(c). In other words, the exception applies only where the otherwise-prohibited activity will affirmatively advance the "'preservation and protection' of wilderness lands … in their natural, untrammeled state." *Wilderness Soc'y v. U.S. Fish & Wildlife Serv.*, 353 F.3d 1051, 1061 (9th Cir. 2003) (en banc) (quoting 16 U.S.C. § 1131(a)). The Wilderness Act charges "each agency administering any area designated as wilderness [with the responsibility of] preserving the wilderness character of the area." 16 U.S.C. § 1133(b). As the Ninth Circuit stated in *High Sierra v. Blackwell*:

> The Wilderness Act twice states its overarching purpose. In Section 1131(a) the Act states, 'and [wilderness areas] shall be administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired for the future use and enjoyment as wilderness, and so as to provide for the protection of those areas, the preservation of their wilderness character,' 16 U.S.C. § 1131(a). Although the Act stresses the importance of the wilderness areas as places for the public to enjoy, it simultaneously restricts their use in any way that would impair their future as wilderness. This responsibility is reiterated in Section 1133(b), in which the administering agency is charged with preserving the wilderness character of the area.

High Sierra Hikers Ass'n v. Blackwell, 390 F.3d 630, 648 (9th Cir. 2004); *see also Id*. at 645 (citing 16 U.S.C. 1133(b)). The goal to "return fire" is not necessarily coextensive with the statutory mandate to preserve wilderness lands in their untrammeled state and thus it is questionable to use it to invoke the exception to the Act's prohibitions. *See* 16 U.S.C. § 1133(c).

There is no guarantee that the Forest Service will either engage in less destructive fire suppression in the future or allow future natural fires to play its role in the Wilderness after this manipulation. Indeed, these decisions are based upon the conditions at the time a fire is detected. Any suggestion that this might happen in the future is very speculative at best, given the

agency's increasing emphasis on fire control and the budget dedicated to fire.

The FEIS does not suggest the probability that a fire would occur in this area. In fact, The FEIS notes these kinds of fires are "unpredictable." (FEIS, p. x.)

Rather than prevent future trammeling, it is more likely that the agency would engage in further trammeling in the future because vegetation grows and the conclusion again would be it must be periodically treated in in the Wilderness. As such, the FEIS is seriously flawed. Specifically, it does not include future trammeling needed to maintain the treated fuels as a consequence of a course of action, leading the reviewer to conclude that such an action is not a foreseeable future action. Yet, it does claim in numerous instances--and incorporates into the analysis of the various alternatives—the highly speculative proposition that *if* a future lightning strike were to occur in the Wilderness, then the action alternatives *could* reduce the agency's firefighting impact on the Wilderness at that future time.

In other words, the agency is saying that an unforeseen event of a lightning strike is not only a foreseeable future action, in terms of NEPA analysis, but is the main justification for this project. On the other hand, actions to "treat fuels" are not deemed foreseeable, even though they would be needed under the assumptions in the FEIS. This inconsistency seriously biases the FEIS.

The preceding paragraphs show how the Forest Service reduces the Wilderness Act to a procedural statute—something akin to NEPA. But the Wilderness Act is a substantive statute with a substantive purpose, 16 U.S.C. 1131(a), and substantive prohibitions, 16 U.S.C. 1133(c). The Courts are very clear that the Wilderness Act is not a procedural statute. "The Wilderness Act 'emphasizes outcome (wilderness preservation) over procedure' and has been described to be 'as close to an outcome-oriented piece of environmental legislation as exists."' *Wilderness Watch v. Iwamoto*, 853 F.Supp.2d 1063, 1071 (W.D. Wash. 2012) (quoting *High Sierra Hikers Ass'n v. U.S. Forest Serv*., 436 F.Supp.2d 1117, 1138 (E.D. Cal. 2006)). "[T]he Wilderness Act is a specific, protective statute militating against [various forms of] intrusions." *Olympic Park Associates*, No. C04-5732FDB, 2005 WL 1871114, at *7 (W.D. Wash. Aug 1, 2005). Accordingly, the Forest Service must ensure that any management action it is taking is substantively compatible with the Wilderness Act, including authorizing generally prohibited activities only to the extent necessary. This duty cannot be abdicated by other management objectives and goals. "The limitation on the Forest Service's discretion to authorize prohibited activities only to the extent necessary flows directly out of the agency's obligation under the Wilderness Act to protect and preserve wilderness areas." *High Sierra Hikers Ass'n*, *v. Blackwell*, 390 F.3d 630, 647 (9th Cir. 2004). Congress made preservation of wilderness values "the primary duty of the Forest Service, and it must guide all decisions as the first and foremost standard of review for any proposed action." *Greater Yellowstone Coalition v. Timchak*, 2006 WL 3386731 at *6 (D. Idaho Nov. 21, 2006).

Questions such as the following need to be asked:

• Cannot treatments outside of the BWCAW boundaries provide at least some of the benefits of the Hi Lo Project without trammeling the BWCAW?

• Would not such treatments outside of the BWCAW boundaries provide an option that would be the "minimum necessary" as required by the Wilderness Act?

• Even with the prescribed burning proposed in the Hi Lo Project, can the Forest Service guarantee that future lightning-caused fires inside the BWCAW will be allowed to burn?

• Under the preferred alternative, how often will the prescribed burning inside the BWCAW have to be repeated in the future?

Resolution/Remedies:

*Allow natural fire to play its role in the Boundary Waters Canoe Area Wilderness and exclude the manager-ignited prescribed fire and associated activities inside the BWCAW.

ATTACHMENTS:

Attachment 1: Sean Kammer, *Coming to Terms with Wilderness: The Wilderness Act and the Problem of Wildlife Restoration*, 43 Environmental Law 83, 86 (2013).

Attachment 2: Howard Zahniser, "Guardians Not Gardeners," *The Living Wilderness* 83 (1963).

Attachment 3: David Cole et al., "The Definition of Wilderness Character in 'Keeping It Wild' Jeopardizes the Wildness of Wilderness."

CITATIONS:

Baker, W.L., 2012. Implications of spatially extensive historical data from surveys for restoring dry forests of Oregon's eastern Cascades. Ecosphere 3(3):23. http://dx.doi.org/10.1890/ES11-00320.1

Baker W.L., 2015. Are High-Severity Fires Burning at Much Higher Rates Recently than Historically in Dry-Forest Landscapes of the Western USA? PLoS ONE 10(9): e0136147.

Bradley, C.; Hanson, C.; DellaSala, D. 2016. Does increased forest protection correspond to higher fire severity in frequent-fire forests of the western United States? Ecosphere volume 7(10).

Cohen, J.D. 2000. Preventing disaster: home ignitability in the Wildland-Urban Interface. Journal of Forestry 98: 15-21.

DellaSala, D.; Karr, J.; Olson, D.; 2011. Roadless areas and clean water. Journal of Soil and

Water Conservation, 66(3): 78A-84A. Accessed at: http://www.jswconline.org/content/66/3/78A.full.pdf.

Dillon, G.K., et al. 2011. Both topography and climate affected forest and woodland burn severity in two regions of the western US, 1984 to 2006. Ecosphere 2 (12): 130.

Frelich, L.E. 2017. Wildland Fire: understanding and maintaining an ecological baseline. Current Forestry Reports, (online), doi:10.1007/s40725-017-0062-3.

Frelich, L.E., and P.B. Reich. 2009. Wilderness conservation in an era of global warming and invasive species: a case study from Minnesota's Boundary Waters Canoe Area Wilderness. Natural Areas Journal 29:385-393.

Frissell, C. and Carnefix, G.; 2007. The Geography of Freshwater Conservation: Roadless Areas and Critical Watersheds for Native Trout. Wild Trout IX symposium. Accessed at: http://www.blm.gov/or/plans/wopr/pub_comments/paper_documents/Paper_1989-2023/WOPR_PAPER_01989.120001.pdf

Hanson 2015. John Muir Project of the Earth Island Institute. http://johnmuirproject.org/wp-content/uploads/2014/12/ForestAndFireScienceSynthesisApr2015.pdf

Heinselman, M. L., 1973. Fire in the Virgin Forests of the Boundary Waters Canoe Area, Minnesota. Quaternary Research 3:329-382.

Heinselman, Miron; 1996. The Boundary Waters Wilderness Ecosystem. Minneapolis: University of Minnesota Press, 1996.

Heyerdahl, E.; Brubaker, L.; Agee, J.; 2002. Historical re regimes in northwestern USA: annual and decadal climate forcing of historical fire regimes in the interior Pacific Northwest, USA *The Holocene* 12,5 (2002) pp. 597–604.

Hutto, R. 2008. The ecological importance of severe wildfires: some like it hot. Ecological Applications, 18(8), 2008, pp. 1827–1834.

Hutto, R., Conway, C., Saab, V., and J. Walters. 2008. What constitutes a natural fire regime? Insight from the ecology and distribution of coniferous forest birds in North America. Fire Ecology Special Issue, Vol. 4, No. 2.

Johnson, E.; Miyanishi, K.; Bridges, S; 2001. Wildfire regime in the boreal forest and the idea of suppression and fuel buildup. Conservation biology pgs 1554-1557; vol 15 number 6. 2001.

Lydersen, J., North, M., and B. Collins, 2014. Severity of an uncharacteristically large wildfire, the Rim Fire, in forests with relatively restored frequent fire regimes. Forest Ecology and Management 328 (2014) 326–334.

Noss, R., Franklin, J., Baker, W., Schoennage, T., and P. Moyle, 2006. Managing fire-prone forests in the western United States. Front. Ecol. Environ 2006; 4(9): 481–487.

Odion D.C., Hanson C.T., Arsenault A., Baker W.L., DellaSala D.A., Hutto R.L., Klenner W., Moritz M.A., Sherriff R.L., Veblen T.T., Williams M.A., 2014. Examining historical and current mixed-severity fire regimes in ponderosa pine and mixed-conifer forests of western North America. PLoS ONE 9: e87852.

Pilliod, David S.; Bull, Evelyn L.; Hayes, Jane L.; Wales, Barbara C. 2006. Wildlife and invertebrate response to fuel reduction treatments in dry coniferous forests of the Western United States: a synthesis. Gen. Tech. Rep. RMRS-GTR-173. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 34 p.

Reiman, B.; Clayton, J.; 1997. Wildfire and Native Fish: Issues of Forest Health and Conservation of Sensitive Species. Forest Service, Rocky Mountain Research Station.

Rhodes, J. J., and W. L. Baker. 2008. Fire probability, fuel treatment effectiveness and ecological tradeoffs in western U.S. public forests. Open Forest Science Journal 1:1–7.

USFS 2014 (c). Blue Mountains National Forests Proposed Revised Land Management Plan and DEIS. Accessed online at: http://www.fs.usda.gov/detail/wallowa-whitman/landmanagement/planning/?cid=stelprd3792957

Williams, M. and W. Baker, 2012. Spatially extensive reconstructions show variable-severity fire and heterogeneous structure in historical western United States dry forests. Global Ecology and Biogeography 21(10):1042-1052.