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Comments: Comments on the Proposed USFS Bear Palmer Forest Health Project

WATER QUALITY

I question the Forest Service's conclusion that the Bear Palmer Forest Health Project will result in long-term improvements to water quality and aquatic habitat. While the Preliminary Effects Analysis acknowledges that timber harvest, prescribed burning, vegetation removal, and nearly 17 miles of temporary roads will increase sediment delivery to streams and may temporarily degrade aquatic habitat, the analysis appears to rely heavily on assumptions regarding the effectiveness of mitigation measures and future restoration activities.

The project area contains steep terrain and numerous tributaries that ultimately drain toward the Yellowstone River, including Bear Creek, Eagle Creek, Palmer Creek, and Crevice Creek. Road construction and timber harvest activities in these watersheds create a foreseeable risk of increased erosion, sediment transport, and runoff. Yet the project documents do not clearly explain how stormwater from newly constructed or temporary roads will be managed, whether roadside ditches or other drainage features will be installed, or how these features will perform during high-intensity rainfall events and spring runoff conditions.

The analysis also appears to lack sufficient information regarding existing watershed conditions. Have baseline measurements been collected for sediment levels, turbidity, streambed composition, channel morphology, and aquatic habitat conditions in affected streams? If not, it is unclear how the Forest Service will determine whether project implementation has degraded water quality or whether predicted benefits have actually occurred. Without robust pre-project monitoring data, post-project evaluations may lack a meaningful benchmark against which to measure change.

The Forest Service's conclusion that long-term water quality will improve is largely based on projected benefits from riparian restoration, reduced conifer encroachment, and a reduced risk of high-severity wildfire. While these objectives may be reasonable, they remain predictive and uncertain. By contrast, the short-term impacts associated with road construction, ground disturbance, and vegetation removal are immediate and more certain. The analysis should more clearly explain why the anticipated long-term benefits outweigh the known short-term risks, particularly in watersheds that support fisheries and contribute to the Yellowstone River system. In addition, because a primary justification for the project is wildfire risk reduction, the Forest Service should provide a more detailed explanation of how the proposed treatment units are expected to reduce the likelihood of post-fire erosion and sediment delivery at the watershed scale. Without a clear quantitative analysis, it is difficult for the public to evaluate whether the projected water-quality benefits are substantial enough to offset the risks associated with project implementation.

Before making a final decision, the Forest Service should disclose whether baseline aquatic monitoring has been completed, provide detailed road drainage and stormwater management plans, identify measurable water-quality performance standards, and explain how compliance and effectiveness monitoring will be conducted throughout the life of the project. Absent this information, the conclusion that the project will protect or improve water quality appears insufficiently supported by the available analysis.

VISIBILITY

I am concerned that the visual impacts of the Bear Palmer Forest Health Project have not been adequately analyzed or disclosed, particularly given the project's location immediately adjacent to Yellowstone National Park

and within one of the most iconic gateway landscapes in the Greater Yellowstone Ecosystem.

The project proposes approximately 824 acres of clearcutting, 802 acres of commercial thinning, 500 acres of group-selection harvest, more than 2,100 acres of commercial timber treatments, and associated temporary road construction. While the Preliminary Effects Analysis focuses primarily on forest health and wildfire risk reduction, it does not appear to provide a detailed viewshed analysis demonstrating where these treatments will be visible, how visually prominent they will be, how long visual impacts will persist, or how scenic values will be affected both inside and outside Yellowstone National Park.

The project area occupies highly visible mountainsides north of Yellowstone's North Entrance and near the communities of Gardiner and Jardine. Depending on the final location and design of treatment units, clearcuts, commercial harvest areas, and temporary roads could create visible openings, linear disturbances, and altered forest patterns on slopes that are currently perceived as largely continuous and undeveloped. Freshly harvested areas are often most noticeable during the years immediately following treatment, when contrasts in color, texture, and vegetation structure are greatest.

Of particular concern is the potential effect on views from within Yellowstone National Park. The project documents do not appear to identify which treatment units are visible from park viewpoints, what percentage of treated acreage will be seen from within the park, or the degree of visual contrast that visitors may experience. This information is essential for evaluating impacts to one of the nation's premier scenic landscapes.

Based on terrain and viewing geometry, several Yellowstone viewpoints appear likely to have direct or partial views into the project area, including:

- *Bunsen Peak and the Bunsen Peak Trail;
- *Mammoth Hot Springs Upper Terraces and associated overlooks;
- *The Mammoth-to-Gardiner North Entrance Road corridor;
- *Yellowstone River Picnic Area overlooks;
- *Sepulcher Mountain Trail;
- *Mount Everts Trail; and
- *Other elevated viewpoints in the Mammoth area.

Among these, Bunsen Peak may be particularly sensitive because it offers expansive views across the Gardiner Basin toward the mountains surrounding Jardine. Likewise, visitors on the Mammoth terraces and along the North Entrance Road may have direct views toward treated slopes in the Bear Creek, Palmer Creek, and Eagle Creek drainages. If large harvest units occur on visually exposed slopes, they may be readily apparent from these locations.

I am equally concerned about impacts to visual resources outside Yellowstone National Park. The Gardiner Basin and Yellowstone's North Entrance serve as the primary gateway experience for millions of visitors entering the park. The scenic character of this landscape contributes significantly to the area's recreation economy and sense of place. Visitors approaching Yellowstone through Gardiner currently experience a largely uninterrupted backdrop of forested mountains surrounding the northern entrance. Commercial timber harvest, clearcuts, road construction, log landings, slash piles, and prescribed burn effects could alter that experience for many years. The Roosevelt Arch corridor, the North Entrance Road, the Gardiner area, and surrounding public lands are among the most visible and heavily visited landscapes in the region. Visual changes in these areas should receive a level of analysis commensurate with their importance.

The Forest Service suggests that short-term visual impacts may be justified by long-term forest health objectives and reduced wildfire risk. However, this conclusion cannot be meaningfully evaluated without a comprehensive visual resource assessment. The public should be provided with information identifying:

- *Which treatment units are visible from Yellowstone National Park and surrounding communities;
- *The number of acres visible from key viewpoints;
- *Visual contrast ratings for each treatment area;
- *Photo simulations depicting post-treatment conditions from representative viewpoints;
- *The expected duration of visual impacts; and
- *The effectiveness of any proposed visual mitigation measures.

Until this information is disclosed, it is difficult for the public to fully evaluate the project's effects on scenic resources. Given the proximity of the project to Yellowstone National Park and the importance of the Gardiner gateway landscape, the Forest Service should conduct a more rigorous viewshed and visual resource analysis before reaching a final decision.

WHITEBARK PINE

Whitebark pine is a federally listed Threatened species and a recognized keystone species in Greater Yellowstone ecosystems. The project documents identify whitebark pine restoration and enhancement as one of the project's objectives. However, the information currently available does not demonstrate that the proposed treatments will effectively improve whitebark pine conditions or avoid adverse impacts to existing whitebark pine populations.

My primary concern is that the project materials appear to assume that mechanical treatments, canopy opening, thinning, group-selection harvests, prescribed fire, and associated road construction will benefit whitebark pine without providing sufficient site-specific evidence that these actions will produce the intended results under current climatic conditions. Whitebark pine decline is driven by multiple interacting stressors, including white pine blister rust, mountain pine beetle outbreaks, altered fire regimes, and climate change. The project should clearly explain how proposed treatments address these stressors and provide evidence that anticipated benefits outweigh the risks of disturbance. Whitebark pine restoration throughout the Rocky Mountains has increasingly emphasized careful site selection, protection of rust-resistant genotypes, and long-term monitoring because restoration outcomes remain uncertain and highly dependent on local conditions. The current record does not appear to provide this level of analysis.

The Forest Service should disclose the specific scientific basis for any proposed "release" or "daylighting" treatments affecting whitebark pine. In particular, the agency should identify studies demonstrating that removing competing vegetation or opening forest canopies in the project area's ecological setting will improve long-term whitebark pine recruitment, survival, and resilience. If the agency is relying on research from different elevations, climatic conditions, or forest types, it should explain why those findings are transferable to the Bear Palmer landscape. Long-term Forest Service research indicates that outcomes of whitebark pine restoration treatments vary considerably and require careful evaluation of mortality, fuel conditions, vegetation response, and treatment effects over time.

The project also lacks sufficient information regarding baseline conditions. The record should identify:

- * The location, acreage, and condition class of all whitebark pine stands within treatment units.
- * Current levels of blister rust infection.
- * Evidence of mountain pine beetle activity.
- * Age-class distribution and regeneration status.
- * Presence of cone-producing mature trees.
- * Identification of any trees known or suspected to possess blister-rust resistance.

Without these baseline data, it is difficult to determine whether treatments will improve or degrade existing

whitebark pine habitat.

The agency should also analyze whether commercial harvest activities, temporary road construction, prescribed burning, and increased human disturbance could negatively affect whitebark pine populations. While the project describes whitebark pine enhancement as a benefit, disturbance associated with logging operations may create unintended impacts, including soil compaction, altered hydrology, spread of invasive species, damage to seedlings and saplings, changes in snow retention, and increased stress on already vulnerable trees. The project documents should quantify these risks rather than simply assume net benefits.

Additionally, the project should disclose whether any treatment units overlap occupied whitebark pine habitat and whether mechanical operations could directly remove, damage, or increase mortality of individual whitebark pine trees. If such risks exist, the Forest Service should identify enforceable mitigation measures, not merely general design criteria.

The current materials also do not clearly explain how project success will be measured. Because whitebark pine restoration is inherently long-term, the agency should establish measurable performance standards, including:

- * Seedling survival rates.
- * Regeneration density targets.
- * Monitoring of blister rust infection.
- * Monitoring of beetle-caused mortality.
- * Evaluation of treatment effectiveness at 5-, 10-, and 20-year intervals.
- * Adaptive management triggers if restoration objectives are not being achieved.

Without measurable performance criteria and monitoring commitments, there is no way to determine whether whitebark pine enhancement objectives are being met.

Finally, because whitebark pine is listed as Threatened under the Endangered Species Act, the agency should provide a detailed explanation of how it concluded that proposed treatments will not adversely affect the species or adversely modify habitat. The record should fully evaluate the possibility that treatments intended to benefit whitebark pine could instead increase mortality, reduce recruitment, or diminish habitat suitability under future climate scenarios. The analysis should rely on site-specific evidence rather than generalized assumptions regarding the benefits of thinning, prescribed fire, or canopy opening. Whitebark pine conservation programs increasingly recognize that restoration success depends not only on reducing competition but also on identifying climate-resilient sites and protecting genetically resistant trees.

For these reasons, I request that the Forest Service supplement the environmental analysis with additional information regarding whitebark pine occurrence, condition, treatment effectiveness, monitoring requirements, and ESA compliance before proceeding with project approval.

CULTURAL RESOURCES

I am concerned that the Forest Service's analysis of cultural and historic resources for the Bear Palmer Forest Health Project may not adequately evaluate potential indirect effects on nationally significant historic properties within Yellowstone National Park, particularly the North Entrance Road Historic District and the Grand Loop Road Historic District.

Although the project is located outside the boundaries of Yellowstone National Park and does not directly affect the historic roads themselves, the National Historic Preservation Act requires federal agencies to consider not only direct impacts but also indirect effects on the characteristics that qualify historic properties for inclusion in the National Register of Historic Places. For historic road districts, those characteristics often include setting, feeling, association, scenic context, and visitor experience, not merely the physical roadway.

The North Entrance Road Historic District is nationally significant because of its role as Yellowstone's historic gateway, its association with the Roosevelt Arch, and the carefully designed visitor experience of traveling from Gardiner into Yellowstone National Park. The surrounding landscape is an integral component of that historic experience. If commercial timber harvest, clearcuts, temporary roads, slash piles, logging operations, or prescribed burning become visible from portions of the entrance corridor or from viewpoints associated with the Roosevelt Arch and Mammoth area, those activities could alter the historic setting and visual character that contribute to the district's significance.

Similarly, the Grand Loop Road Historic District derives much of its significance from the experience of traveling through a largely natural and undeveloped landscape. While the project may not directly affect the road itself, visible harvest units, altered forest patterns, temporary smoke, logging activity, or evidence of intensive land management on slopes adjacent to Yellowstone's northern boundary could affect the setting, feeling, and scenic qualities associated with the historic district.

The project documents currently available do not appear to provide sufficient information regarding these potential indirect effects. In particular, I have not seen documentation showing:

- *Whether the North Entrance Road Historic District and Grand Loop Road Historic District were identified as historic properties potentially subject to indirect effects;
- *Whether Yellowstone National Park cultural resource specialists were consulted regarding potential impacts to these districts;
- *Whether a formal viewshed analysis was conducted from key locations within either historic district;
- *Whether visual simulations were prepared to evaluate the visibility of treatment units, temporary roads, landings, prescribed burns, or other project features;
- *Whether the Forest Service evaluated impacts to the setting, feeling, and association of these historic properties, as required under the National Historic Preservation Act;
- *Whether the agency has completed a formal finding of effect and, if so, the basis for that determination.

The absence of direct physical impacts to a historic property does not necessarily mean that there is no adverse effect under Section 106. Changes to the surrounding landscape, particularly within highly visible gateway areas, can diminish characteristics that contribute to a property's historic significance. This concern is especially relevant for the North Entrance Road Historic District, where the scenic relationship between the road, the Roosevelt Arch, and the surrounding mountains forms a fundamental part of the historic visitor experience.

The project area occupies prominent slopes north of Yellowstone that may be visible from the North Entrance Road corridor, Mammoth Hot Springs, Bunsen Peak, Sepulcher Mountain, and other locations associated with the historic road system. If harvest units remain visible for many years, the resulting changes to landscape character could affect the integrity of setting and feeling for these nationally significant historic properties.

For these reasons, I request that the Forest Service provide additional information regarding its National Historic Preservation Act compliance and historic-property analysis. Specifically, the agency should disclose the Area of Potential Effects for indirect visual impacts, identify all historic properties considered in the analysis, provide any viewshed or visual resource studies prepared for Section 106 review, and explain how potential effects on the North Entrance Road Historic District and Grand Loop Road Historic District were evaluated.

Until this information is made available, it is difficult for the public to determine whether the Forest Service has adequately assessed the project's potential impacts on nationally significant historic resources and whether a finding of "no adverse effect" would be supported by the available evidence.

REMOVAL OF TREES WITHIN RIPARIAN ZONES

I am concerned that the Bear Palmer Forest Health Project may underestimate the potential adverse effects of vegetation removal within riparian areas and streamside management zones. While the project identifies riparian restoration and wildfire risk reduction as objectives, the available analysis does not clearly demonstrate how important stream functions will be maintained if trees are removed adjacent to streams and wetlands.

Riparian forests perform critical ecological functions that directly influence water quality, aquatic habitat, stream stability, and biodiversity. Trees growing along streams provide shade that moderates water temperatures, stabilize streambanks through extensive root systems, contribute large woody material that creates complex aquatic habitat, and supply organic matter and terrestrial insects that support aquatic food webs. These functions are particularly important in cold-water stream systems that support trout and other sensitive aquatic species.

One of my primary concerns is the potential loss of stream shading. Removal of riparian trees can increase solar exposure and elevate stream temperatures, especially in smaller headwater streams where canopy cover strongly influences thermal conditions. Even modest increases in water temperature can reduce dissolved oxygen levels and negatively affect cold-water fisheries, aquatic insects, and overall stream health. The project documents should clearly identify where riparian vegetation treatments are proposed and evaluate whether sufficient canopy cover will remain to maintain existing stream temperature conditions.

I am also concerned about the potential effects on streambank stability. Tree roots play a significant role in reinforcing streambanks and reducing erosion during runoff events. Removal of riparian trees may increase the likelihood of bank instability, channel widening, and sediment delivery to streams. These concerns are particularly relevant given the steep terrain found throughout portions of the Bear Creek, Eagle Creek, Palmer Creek, and Crevice Creek watersheds. Increased sedimentation can degrade spawning habitat, fill interstitial spaces in stream gravels, reduce aquatic insect habitat, and impair overall water quality.

The project should also evaluate the long-term consequences of reducing future recruitment of large woody debris. Large wood is a fundamental component of healthy stream ecosystems, creating pools, cover, channel complexity, and habitat diversity. While the effects of reduced wood recruitment may not be immediately apparent, they can influence stream habitat conditions for decades. The analysis should explain how proposed riparian treatments will affect future large-wood recruitment and whether sufficient mature trees will remain to sustain these ecological functions.

In addition, riparian areas provide some of the most important wildlife habitat in the landscape. Birds, amphibians, mammals, pollinators, and other species often depend on streamside forests for nesting, foraging, shelter, and movement corridors. The project should more thoroughly evaluate whether vegetation removal within riparian zones could reduce habitat quality for these species, particularly where riparian forests are relatively limited or fragmented.

The Forest Service argues that carefully designed treatments may reduce the risk of severe wildfire, which can also damage riparian ecosystems and degrade water quality. While this may be a legitimate management objective, the analysis should clearly demonstrate that the proposed treatments are narrowly tailored to achieve that purpose while retaining the ecological functions that riparian forests currently provide. Simply asserting that long-term wildfire risk reduction outweighs short-term impacts is not sufficient without supporting data demonstrating how much canopy cover, root structure, bank stability, and habitat function will remain after treatment.

I therefore request that the Forest Service provide additional information regarding proposed riparian treatments, including:

- *The location and extent of all treatments within riparian management areas;
- *Existing and post-treatment canopy cover estimates;
- *Stream temperature analyses where shade reductions may occur;

- *Assessments of potential effects on bank stability and sediment delivery;
- *Evaluation of impacts to future large woody debris recruitment;
- *Monitoring plans designed to measure post-treatment changes in stream conditions; and
- *The scientific basis for concluding that riparian ecosystem functions will be maintained or improved following treatment.

Without this information, it is difficult to determine whether the project's predicted long-term benefits outweigh the potential risks to stream health, aquatic habitat, and riparian ecosystem integrity.

WATER QUALITY AND RIPARIAN RESOURCE CONCERNS

I am concerned that the Forest Service has not adequately demonstrated that the Bear Palmer Forest Health Project will protect water quality and aquatic resources, particularly given the scale of proposed vegetation treatments, road construction, and ground-disturbing activities within watersheds that ultimately contribute to the Yellowstone River system.

The Preliminary Effects Document acknowledges that commercial timber harvest, prescribed burning, vegetation removal, skid trails, and nearly 17 miles of temporary roads will increase the risk of sediment delivery to streams and may temporarily degrade aquatic habitat. The agency concludes that these impacts will be localized and short-term and that long-term benefits will occur through riparian restoration, reduced conifer encroachment, improved channel stability, and a reduced risk of severe wildfire. However, these conclusions appear to rely heavily on assumptions regarding the effectiveness of mitigation measures and future restoration outcomes rather than on demonstrated site-specific analysis.

The project area contains steep terrain and numerous stream systems, including Bear Creek, Palmer Creek, Eagle Creek, and Crevice Creek. Road construction and timber harvest activities in these watersheds create a foreseeable risk of increased erosion, runoff, and sediment transport. Fine sediment can fill spawning gravels, reduce water clarity, impair aquatic insect habitat, and degrade stream conditions for trout and other aquatic species. The project documents acknowledge these risks but do not provide sufficient information demonstrating that the proposed mitigation measures will fully prevent adverse effects.

Particularly concerning is the apparent lack of baseline watershed information. The project documents do not clearly indicate whether pre-project measurements have been collected for sediment levels, turbidity, streambed composition, channel morphology, stream temperatures, bank stability, or other indicators of aquatic ecosystem health. Without robust baseline data, it will be difficult to determine whether project implementation has degraded water quality or whether the predicted long-term benefits actually occur. Monitoring can only be meaningful if there is an established benchmark against which future conditions can be compared.

I am also concerned about the project's potential impacts to riparian areas. Riparian vegetation provides critical ecological functions that directly influence stream health. Trees and shrubs stabilize streambanks, provide shade that maintains cool water temperatures, contribute large woody material that creates fish habitat, and support aquatic food webs through the input of leaves, insects, and organic matter. Removal of vegetation within riparian corridors may reduce stream shading, increase water temperatures, weaken bank stability, and reduce future recruitment of large woody debris. These impacts may be especially significant in smaller headwater streams where riparian canopy cover strongly influences stream conditions.

The Forest Service acknowledges that project activities could alter riparian vegetation, increase bank erosion, reduce thermal shading, and increase sediment delivery to streams. The agency also recognizes the potential for accidental contamination from fuel, oil, or other hazardous materials during project operations. Despite these acknowledged risks, the analysis concludes that long-term conditions will improve. The basis for this conclusion is not fully explained, particularly where treatments involve vegetation removal in areas that currently provide important streamside functions.

The project's justification also relies heavily on reducing the risk of future high-severity wildfire. While severe wildfire can certainly degrade water quality through erosion, flooding, sedimentation, and changes in stream chemistry, the potential future benefits of avoided wildfire should not obscure the more immediate and predictable impacts associated with road construction, logging, soil disturbance, and riparian vegetation removal. The Forest Service should provide a quantitative analysis demonstrating how the proposed treatments are expected to reduce watershed-scale wildfire impacts and explain why those projected benefits outweigh the near-term risks to aquatic resources.

In addition, several procedural and analytical questions remain unanswered:

*Why is the project being advanced under an emergency Environmental Assessment process when the Preliminary Effects Document does not clearly explain why the standard NEPA review process would be insufficient?

*Will specialist reports prepared by hydrologists, fisheries biologists, aquatic ecologists, and other resource professionals be made available for public review before a decision is issued? If not, why not?

*Have baseline measurements of sediment, turbidity, stream temperatures, channel morphology, and aquatic habitat conditions been completed in Bear Creek, Palmer Creek, Eagle Creek, and Crevice Creek?

*What stormwater management features are proposed for new and temporary roads, and will detailed road designs be available for public review prior to a project decision?

*What measurable performance standards will be used to determine whether water-quality protection measures are successful?

The Forest Service has stated that one purpose of the project is to protect homes, life, property, and critical infrastructure. The Preliminary Effects Document should clearly identify the specific critical infrastructure that is allegedly at risk and explain how the proposed treatments will protect those resources. Likewise, the document states that degraded habitat types will be restored and landscape diversity will be increased, yet it does not clearly explain how those outcomes will be achieved or how they will be measured.

Finally, the Need for Action section emphasizes forest health, wildfire resilience, and habitat restoration but provides little discussion of the substantial commercial timber harvest component of the project. Given the extent of proposed commercial logging, the public should be provided with information regarding the economic feasibility of the project, including whether an assessment has been conducted to determine the volume of marketable timber available and the extent to which commercial harvest objectives influence project design.

Until these questions are answered and supporting technical analyses are made available for public review, I do not believe the Forest Service has provided sufficient evidence to support its conclusion that the Bear Palmer Forest Health Project will protect or improve water quality. The potential impacts to streams, riparian ecosystems, fisheries, and downstream waters appear more uncertain than the Preliminary Effects Document suggests, and additional analysis is warranted before a final decision is made.

VISIBILITY

I am submitting this comment in opposition to the proposed Bear Palmer Forest Health Project because of its significant adverse effects on the scenic character of the northern Yellowstone gateway, the visual integrity of nationally significant park viewsheds, and the historic setting of the North Entrance Road and Grand Loop Road Historic Districts.

The project proposes approximately 824 acres of regeneration harvest (clear-cutting), 500 acres of group-selection harvest, and the construction of 16.9 miles of temporary logging roads, including approximately 7.7 miles of new road construction. While the Forest Service has assigned a "low to moderate" scenic integrity

objective to the project area, this designation does not diminish the project's highly visible location immediately adjacent to Yellowstone National Park and within views experienced by millions of park visitors.

The most concerning visual impact is the proposed 824 acres of clear-cutting. These harvest units will remove the continuous forest canopy currently visible from Yellowstone's northern entrance area and replace it with extensive openings containing only a handful of residual trees per acre. Visitors standing at the Roosevelt Arch, traveling the North Entrance Road, or viewing the surrounding mountains from Mammoth Hot Springs will no longer see an unbroken forested landscape. Instead, they will see conspicuous harvest scars that contrast sharply with the natural character of the Greater Yellowstone Ecosystem.

The project also includes 500 acres of group-selection harvests that will introduce additional canopy openings across the landscape. Although commercial thinning treatments generally maintain a forested appearance, the cumulative effect of clear-cuts, group-selection openings, logging roads, and associated infrastructure will substantially degrade the visual quality of the northern gateway to Yellowstone.

The proposed temporary road network presents another significant concern. The creation of nearly 17 miles of logging roads, including new corridors cut into hillsides, will introduce visible geometric disturbances that are inconsistent with the natural landforms surrounding Yellowstone National Park. These roads, together with logging equipment, landings, and truck traffic, will create an industrialized appearance on slopes that currently form part of the park's scenic backdrop.

The project will also negatively affect the historic setting of the North Entrance Road Historic District and the Grand Loop Road Historic District. Although the project does not physically alter these historic roads, it will degrade the visual environment that contributes to their historic significance. The National Register recognizes setting, feeling, and association as important aspects of historic integrity. The introduction of extensive clear-cuts, visible road corridors, logging activity, noise, and industrial traffic immediately outside the park boundary threatens these characteristics.

Visitors entering Yellowstone through Gardiner have historically experienced a transition from developed communities into a largely natural and undeveloped landscape. The proposed harvest units and associated infrastructure would compromise this gateway experience by replacing natural forested views with visible evidence of intensive commercial timber extraction. Such changes are inconsistent with the preservation of the historic character and scenic values associated with Yellowstone's original entrance corridor.

Prescribed burning and fuel treatments across more than 1,200 acres raise additional concerns. Smoke generated by these activities may periodically obscure views from the North Entrance Road, Mammoth Hot Springs, and portions of the Grand Loop Road. Reduced visibility and degraded air quality would further diminish visitor experience and the scenic qualities these historic transportation corridors were designed to showcase.

The visual impacts of this project will not be temporary. Forest regeneration in the Greater Yellowstone Ecosystem occurs slowly, particularly at higher elevations. The resulting harvest openings, road corridors, and altered skyline patterns are likely to remain visible for decades. This long-term degradation of Yellowstone's northern viewshed should be given far greater weight in the environmental analysis.

For these reasons, I urge the Forest Service to reconsider the scale and location of the proposed commercial harvest units, fully evaluate impacts to Yellowstone National Park's gateway viewsheds and historic districts, and develop alternatives that avoid clear-cutting and other highly visible treatments adjacent to one of America's most iconic national parks.

ARSENIC CONTAMINATED SOILS

I am submitting this comment to express concern that the environmental analysis for the Bear Palmer Forest Health Project appears to inadequately address the potential presence and disturbance of arsenic-contaminated soils, mine waste, and tailings associated with the historic Jardine-Crevise mining district. Because the project proposes extensive ground-disturbing activities in an area with a documented history of arsenic production, the Forest Service should conduct additional investigation before approving logging, road construction, or prescribed burning activities.

The Bear Palmer project area encompasses portions of the historic Jardine-Crevise mining district, including drainages associated with Bear Creek, Palmer Creek, Eagle Creek, and Crevise Creek. This district was not merely a historic gold-producing region; it was one of Montana's most significant arsenic-producing districts. Historical records indicate that more than 12.6 million pounds of arsenic trioxide were produced from the district, and many ore bodies were associated with arsenopyrite, an arsenic-bearing sulfide mineral. Numerous mines, adits, exploration workings, waste-rock piles, and mineralized zones were developed throughout the landscape now proposed for treatment.

Several known arsenic-related mining locations occur within or immediately adjacent to the project area, including the Mineral Hill (Jardine) Mine, arsenic-bearing deposits on Crevise Mountain, and historic prospects on Palmer Mountain. In addition, EPA records identify a site known as the Jardine Arsenic Tailings area near Gardiner and Jardine, demonstrating that arsenic-bearing mining waste in the district has been significant enough to warrant federal environmental attention.

Given this history, the relevant question is not whether arsenic contamination exists within the broader project landscape. Rather, the critical unanswered question is whether proposed harvest units, temporary roads, skid trails, log landings, prescribed burn units, and mechanical treatment areas overlap arsenic-bearing soils, tailings deposits, waste-rock piles, or other contaminated mining features.

The proposed project includes numerous activities that could mobilize contaminants if such materials are present. Construction of temporary roads and skid trails can excavate contaminated soils and expose previously stable materials. Heavy logging equipment can compact soils, increase runoff, and accelerate erosion. Clearcutting removes vegetation that stabilizes slopes and reduces sediment transport. Prescribed burning can consume protective ground cover and increase susceptibility to erosion following precipitation events. Collectively, these activities can create pathways for arsenic-bearing sediments to move downslope into streams, wetlands, and groundwater systems.

Dust generation is another significant concern. Road construction, log hauling, mechanical treatments, and heavy equipment traffic can create airborne dust from disturbed soils. If contaminated soils or tailings are encountered, arsenic-bearing particulates could be transported beyond treatment areas and deposited onto surrounding vegetation, waterways, and wildlife habitat. The environmental review should specifically analyze this potential exposure pathway.

The risk of contaminant mobilization is especially important because the project occurs within headwater drainages that ultimately contribute to the Greater Yellowstone Ecosystem. Disturbance of arsenic-bearing materials could have consequences extending beyond individual harvest units, affecting water quality, aquatic resources, wildlife habitat, and downstream ecosystems. Yet the publicly available project documents do not appear to disclose whether the Forest Service has conducted site-specific investigations sufficient to determine where contaminated materials may occur.

Of particular concern is the apparent absence of publicly available information showing:

- * A contaminated-sites inventory for the project area;
- * GIS mapping of known mines, tailings deposits, waste-rock piles, and mineralized zones relative to treatment units;

- * Soil sampling data evaluating arsenic concentrations within proposed harvest areas;
- * A CERCLA, Brownfields, or equivalent contamination assessment for project activities;
- * Analysis of contaminant mobilization through erosion, sediment transport, runoff, dust generation, or prescribed fire.

Without this information, the Forest Service lacks sufficient evidence to conclude that project activities will not disturb contaminated soils or mobilize arsenic into surrounding environments. NEPA requires agencies to take a hard look at reasonably foreseeable environmental impacts. Given the well-documented history of arsenic production in the Jardine-Crevise district, the possibility that project activities could encounter and redistribute contaminated materials is neither speculative nor remote. It is a foreseeable issue requiring thorough investigation.

I therefore request that the Forest Service complete a comprehensive inventory of historic mining features within all treatment areas; conduct soil testing in areas with known or suspected mining disturbance; map contamination risks relative to proposed roads, harvest units, and burn areas; and prepare a detailed analysis of potential contaminant mobilization before authorizing implementation of the project.

Until these issues are adequately investigated and disclosed, the environmental effects of the Bear Palmer Forest Health Project remain uncertain, and approval of ground-disturbing activities would be premature

WILDLIFE IMPACTS

I am concerned that the Bear Palmer Forest Health Project would cause significant adverse impacts to wildlife habitat and ecological connectivity within one of the most important landscape linkages in the Greater Yellowstone Ecosystem. While the project is presented as a forest health and fuels reduction effort, the scale of proposed treatments—including approximately 4,401 acres of vegetation management, 2,126 acres of commercial timber harvest, and nearly 17 miles of temporary road construction—raises substantial concerns regarding impacts to sensitive wildlife species and the long-term integrity of forest ecosystems.

One of the most significant concerns is the proposed removal of insect- and disease-affected forest stands that currently provide important habitat for snag-dependent wildlife. Standing dead and dying trees are critical nesting, roosting, and foraging resources for numerous species, including Boreal Owls, Great Gray Owls, Northern Pygmy Owls, Northern Saw-whet Owls, woodpeckers, and other cavity-nesting birds. Beetle-affected forests support abundant insect populations that serve as food sources for woodpeckers, which in turn create nesting cavities used by many other wildlife species. Removal of these trees could substantially reduce habitat quality for species that depend on late-successional and post-disturbance forest conditions.

The project also has the potential to negatively affect Canada lynx habitat. Lynx depend on dense conifer cover for security, movement, and hunting. Commercial logging activities, canopy reduction, and road construction may reduce habitat effectiveness, fragment travel corridors, and increase human disturbance in areas used by this federally protected species. Because the project area lies near the Yellowstone-Absaroka ecosystem boundary, any reduction in habitat quality could have consequences that extend beyond the immediate treatment units.

Similarly, grizzly bears may experience adverse impacts from increased road density, timber operations, and human activity associated with project implementation. Numerous studies have demonstrated that roads are among the most important factors affecting grizzly bear habitat security. The proposed temporary road network could increase disturbance, displace bears from feeding and travel areas, and elevate the risk of human-bear conflicts. Although roads may eventually be closed or reclaimed, the short-term impacts during implementation could be significant in a landscape that serves as occupied grizzly bear habitat.

The project area also provides habitat and movement opportunities for wolverines and American martens, species that generally depend on relatively undisturbed, high-elevation forest environments. Logging activities,

road construction, and increased human presence may fragment otherwise intact habitat and reduce the remote conditions these species require. Such impacts are particularly concerning because the project is located within a broader regional movement corridor connecting Yellowstone National Park, the North Absaroka Roadless Area, the Absaroka-Beartooth Wilderness, and surrounding National Forest lands.

Habitat connectivity deserves special consideration. The Bear Palmer project is situated within a landscape that facilitates movement by grizzly bears, wolves, elk, lynx, and wolverines. Although the project may not completely block wildlife movement, the cumulative effects of commercial harvest units, road construction, and prolonged logging activity could reduce habitat quality and increase resistance to movement through portions of this corridor. Maintaining intact connectivity is increasingly important as wildlife populations respond to climate change, human development, and other landscape-level pressures.

Aquatic wildlife may also be adversely affected. The project includes new road construction and extensive use of temporary roads in steep terrain near Bear Creek, Palmer Creek, Eagle Creek, and Crevice Creek. Ground disturbance associated with road building and timber harvest can increase sediment delivery to streams, degrade aquatic habitat, and impair water quality. Increased sedimentation may negatively affect native trout populations, aquatic insects, and stream ecosystem function. These concerns are heightened by reports that baseline sediment and turbidity conditions have not yet been fully documented, making it difficult for the public to evaluate the true magnitude of potential impacts.

While the project may create some short-term benefits for elk, deer, and certain early-successional species through increased forage production, these potential benefits do not outweigh concerns regarding the loss of mature forest habitat, degradation of snag-dependent ecosystems, increased road impacts, and reduced habitat security for sensitive wildlife species. Furthermore, benefits associated with aspen restoration and whitebark pine recovery are speculative and may take decades to materialize, whereas habitat losses and disturbance effects would occur immediately upon project implementation.

Finally, there remains considerable uncertainty regarding the extent to which treatment units overlap with important habitat for grizzly bears, Canada lynx, wolverines, owls, and aquatic species. Given that wildlife datasets and supporting information were reportedly released late in the review process, the public has not had a meaningful opportunity to independently evaluate these impacts. Before moving forward, the Forest Service should provide a more comprehensive analysis of wildlife habitat impacts, habitat connectivity effects, road-related disturbance, and cumulative impacts to sensitive species throughout the project area.

YELLOWSTONE GATEWAY PROTECTION ACT

When Interior Secretary Ryan Zinke signed the mineral withdrawal that ultimately became the Yellowstone Gateway Protection Act, he recognized that the lands surrounding Crevice Mountain, Paradise Valley, and Yellowstone's northern gateway possess values that outweigh their potential for industrial development. As Zinke stated, "There are places to mine and places not to mine."

Congress subsequently made those protections permanent through the Yellowstone Gateway Protection Act, reflecting a bipartisan determination that this landscape's wildlife habitat, scenic character, recreational opportunities, and relationship to Yellowstone National Park warranted special protection.

Given those findings, the Forest Service should explain how the Bear Palmer Forest Health Project is consistent with the conservation values that motivated the Yellowstone Gateway Protection Act. While the Act prohibits mining rather than forest management, the public deserves to understand whether extensive commercial logging, clearcutting, road construction, and associated impacts within the same landscape are compatible with Congress's intent to protect Yellowstone's northern gateway from industrial-scale development.

WILDFIRE EFFECTIVENESS CONCERNS

I appreciate the Forest Service's efforts to address wildfire risk in and around the Jardine community. Protecting residents, infrastructure, evacuation routes, and firefighter safety are important objectives. However, I remain concerned that the public record does not provide sufficient evidence to demonstrate that the scale and intensity of the proposed Bear Palmer Forest Health Project are justified by the wildfire-protection benefits that are expected to result.

The Forest Service states that the project will reduce crown-fire potential, lower fire intensity, improve firefighter access and suppression opportunities, and increase resilience to future wildfire and insect outbreaks. These are reasonable goals, and landscape-scale fuel treatments can play an important role in wildfire management. Nevertheless, the key question is not whether fuel treatments can be beneficial in general, but whether the specific treatments proposed under Bear Palmer will meaningfully reduce the risk of structure loss in Jardine to an extent that justifies the project's ecological, scenic, recreational, wildlife, and road-construction impacts.

The publicly available project materials appear to emphasize landscape-scale treatments across thousands of acres surrounding Jardine. More than 99 percent of the treatment area is reportedly located within the wildland-urban interface. However, proximity to the WUI alone does not establish that all treatment units will provide comparable benefits to community protection. Some proposed treatment units appear to be located well beyond the immediate home-ignition zone where a growing body of wildfire research suggests the most effective measures for protecting structures are often found.

Over the last two decades, wildfire science has increasingly shown that home survivability is frequently determined by conditions within approximately the first 100 to 200 feet surrounding structures, together with home-hardening measures such as ignition-resistant roofing, vents, siding, decks, and defensible space. Landscape treatments may reduce fire intensity and improve firefighter operational options, but they do not necessarily translate into proportional reductions in structure loss. As a result, it is important to understand not only whether the project reduces fire behavior in treated stands, but also how much it is expected to reduce the probability of homes in Jardine being damaged or destroyed during a wildfire.

The project documents currently provide limited publicly available quantitative information that would allow independent evaluation of this question. For example, I have not found detailed modeling results showing the expected reduction in structure-loss probability, changes in ember exposure, or comparisons between the proposed landscape treatments and alternative investments focused on defensible space, home hardening, and strategically located fuel breaks nearer to homes. Without this information, it is difficult for the public to assess whether the proposed treatments will provide moderate, substantial, or only marginal improvements in community protection.

I am also concerned about the extent of commercial timber harvest and clearcutting proposed under the project. The proposal includes approximately 824 acres of clearcutting and more than 2,100 acres of commercial harvest. While commercial harvest can be compatible with fuel-reduction objectives, the Forest Service should clearly demonstrate that these treatments are driven primarily by wildfire-risk reduction rather than timber extraction objectives. The agency should also provide evidence that any resulting slash, disturbed vegetation, or altered fuel conditions will not create short- or medium-term increases in surface-fire risk.

Furthermore, the project proposes new road construction and extensive harvest activities that may create ecological and recreational impacts. Such impacts may be warranted if the wildfire-protection benefits are substantial and well-supported. However, if the actual reduction in community wildfire risk is modest, then the balance between costs and benefits becomes much less clear. The public deserves a transparent analysis of this tradeoff.

I therefore request that the Forest Service provide additional quantitative information regarding:

- 1.The expected reduction in the probability of structure loss in Jardine resulting from the proposed treatments.
- 2.Modeling that compares current conditions with post-treatment conditions under realistic wildfire scenarios.
- 3.The relative effectiveness of landscape-scale treatments compared with investments in defensible space, home hardening, and strategic fuel treatments immediately adjacent to the community.
- 4.The expected duration of wildfire-risk reduction benefits and the maintenance required to sustain them.
- 5.The extent to which proposed commercial harvest and clearcut units are necessary to achieve wildfire-protection objectives.
- 6.The short-term and long-term effects of logging slash and post-harvest fuel conditions on wildfire behavior.

Based on the information currently available, it appears reasonable to conclude that the project may reduce crown-fire potential in treated stands and improve firefighter operational options. However, it remains unclear how much additional protection individual homes in Jardine will actually receive. The project is unlikely to eliminate wildfire risk or "fireproof" the community, and the public record does not yet provide enough evidence to independently verify the magnitude of the claimed benefits.

Before moving forward with treatments of this scale, the Forest Service should provide a more rigorous and transparent demonstration that the proposed actions will produce measurable reductions in structure-loss risk that justify the project's environmental and social costs.

CANADA LYNX

I appreciate the opportunity to comment on the U.S. Forest Service's Preliminary Effects Document (PED) for the Bear Palmer Forest Health Project. I am particularly concerned by the agency's determination that the project "may affect, and is likely to adversely affect" (LAA) Canada lynx (*Lynx canadensis*) and designated Canada lynx critical habitat, thereby requiring formal consultation with the U.S. Fish and Wildlife Service (USFWS).

The Forest Service's LAA determination is significant and should not be treated as a procedural formality. Under Section 7 of the Endangered Species Act (ESA), an LAA finding reflects the agency's conclusion that adverse effects to the listed species and/or its critical habitat are reasonably expected and are neither insignificant nor discountable. Formal consultation is therefore required precisely because the available information indicates a meaningful potential for harm to lynx habitat values and conservation objectives. The Forest Service should fully disclose and analyze the specific mechanisms by which project activities are expected to adversely affect lynx habitat and critical habitat features.

The Canada lynx depends upon large, interconnected landscapes that support snowshoe hare populations, suitable denning habitat, and movement corridors. The USFWS has repeatedly identified snowshoe hare habitat as a critical component of lynx conservation, and vegetation management activities that alter stand structure can adversely affect these essential habitat characteristics. Federal consultation records and biological assessments have recognized that timber harvest, fuels reduction, thinning, and related vegetation treatments can adversely affect lynx critical habitat when they reduce or alter the physical and biological features that support foraging, denning, and connectivity.

The PED should provide a much more rigorous analysis of how the proposed treatments will affect the primary constituent elements and physical or biological features of designated lynx critical habitat. In particular, the Forest Service should clearly quantify:

- *The acreage of lynx habitat and designated critical habitat that would be directly and indirectly affected;
- *The amount of existing snowshoe hare habitat that would be modified or reduced;
- *The duration of habitat impairment following treatment;
- *The effects on habitat connectivity within and between lynx analysis units;
- *The cumulative effects of the project when considered alongside existing and foreseeable vegetation

management projects, wildfire impacts, road networks, recreation pressure, and climate-driven habitat changes.

The cumulative effects analysis is especially important. Canada lynx populations in the southern portion of the species' range face increasing pressures from climate change, altered snow conditions, habitat fragmentation, and changing disturbance regimes. Federal analyses have acknowledged that climate change and increasing disturbance can affect the habitat features essential for lynx conservation and recovery. The Forest Service should therefore evaluate whether additional habitat alteration from the Bear Palmer Project could further reduce the resiliency of already vulnerable lynx habitat.

Moreover, because the project occurs within designated critical habitat, the analysis should not focus solely on whether individual lynx may be displaced or harmed. The ESA requires consideration of whether project activities could diminish the conservation value of critical habitat by affecting the habitat features necessary for the species' recovery. The agency should explain how the proposed treatments will maintain or enhance the long-term ability of critical habitat to support snowshoe hare populations, denning opportunities, and landscape connectivity.

The Forest Service should also provide the public with the complete Biological Assessment and all consultation materials submitted to USFWS as soon as they become available. Transparency is especially important where the agency has already determined that adverse effects are likely. The public should have an opportunity to review the scientific basis for the LAA determination and evaluate whether the proposed mitigation measures are sufficient to avoid degradation of lynx habitat and critical habitat functions.

Finally, if the project proceeds, the Forest Service should adopt enforceable conservation measures that minimize habitat loss and fragmentation, retain high-quality snowshoe hare habitat, protect denning habitat, maintain connectivity across treated landscapes, and establish robust post-treatment monitoring. Monitoring should include habitat conditions, snowshoe hare abundance indicators, and assessment of whether treatment objectives are compatible with lynx conservation requirements.

Because the Forest Service has concluded that the Bear Palmer Forest Health Project is likely to adversely affect Canada lynx and designated critical habitat, the agency must ensure that consultation with USFWS is thorough, transparent, and grounded in the best available science. Any final decision should demonstrate that adverse effects have been minimized to the maximum extent practicable and that the project will not undermine the conservation and recovery objectives of the Endangered Species Act.

ABUSE OF NEPA BY USING AN EMERGENCY ENVIRONMENTAL ASSESSMENT FOR THIS PROJECT

The Bear Palmer Forest Health Project appears to undermine the spirit of the National Environmental Policy Act (NEPA) by relying on an emergency Environmental Assessment process for a project whose scale, complexity, and potential impacts warrant a more comprehensive review.

NEPA was enacted to ensure that federal agencies take a "hard look" at environmental consequences and provide meaningful opportunities for public participation before making decisions that affect public lands. While emergency procedures and Environmental Assessments have legitimate uses, they should not become mechanisms for accelerating controversial projects that may have significant environmental effects.

The Bear Palmer project proposes thousands of acres of vegetation treatments, including commercial logging, clearcutting, prescribed burning, and new road construction in a highly sensitive landscape immediately adjacent to Yellowstone National Park. The project area contains important wildlife habitat, scenic resources, historic mining districts, municipal watershed concerns, and recreational values. It also occupies a critical ecological transition zone connecting Yellowstone National Park to the Absaroka-Beartooth ecosystem.

Several characteristics of the project suggest that a more thorough Environmental Impact Statement (EIS) would

better fulfill NEPA's objectives. First, the project has generated substantial public controversy regarding wildlife impacts, watershed degradation, road construction, water quality, and the treatment of beetle-affected forests. NEPA recognizes controversy as a factor relevant to determining significance. The existence of widespread disagreement among scientists, conservation organizations, local residents, and agency officials suggests that the environmental consequences are not settled.

Second, the project's proximity to Yellowstone National Park elevates the importance of careful analysis. Actions occurring outside park boundaries can nevertheless affect wildlife movement, scenic values, visitor experience, and ecosystem processes within the Greater Yellowstone Ecosystem. Such cross-boundary effects deserve rigorous evaluation.

Third, the project may affect resources that are difficult or impossible to restore once altered, including mature forest structure, snag habitat, wildlife corridors, and visually prominent landscapes. These are precisely the types of resources for which NEPA's detailed disclosure requirements are most valuable.

Fourth, the use of emergency procedures raises questions about whether the claimed urgency is sufficient to justify abbreviated review. Forest health concerns, insect infestations, and wildfire risk are serious issues, but many of these conditions have developed over decades. Long-standing management challenges should not automatically be treated as emergencies that justify reduced environmental review. An agency should demonstrate not merely that a problem exists, but that immediate action is necessary and that the benefits of expedited review outweigh the loss of public scrutiny and analytical depth.

Finally, NEPA's central purpose is not simply to produce a decision quickly, but to ensure that decisions are informed, transparent, and publicly accountable. When a project of this scale proceeds through an expedited process despite substantial controversy and potentially significant environmental effects, the public may reasonably question whether the agency has fully honored the statute's intent.

For these reasons, the Bear Palmer Forest Health Project raises serious concerns that the use of an emergency Environmental Assessment is inconsistent with the spirit of NEPA, even if the agency ultimately contends that the process satisfies the minimum legal requirements.

A particularly strong version of this argument would tie it to specific facts, such as:

- *the acreage of commercial harvest and clearcuts,
- *the miles of new roads,
- *overlap with the Yellowstone Gateway Protection Act withdrawal area,
- *potential impacts to lynx, grizzly bears, wolverines, and snag-dependent owls,
- *visibility from Yellowstone National Park,
- *and any evidence that key datasets or analyses were released late in the public review process

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Those project-specific details tend to be more persuasive than broad procedural criticisms because they show why a more comprehensive review may have been warranted.

CONSULTATION WITH YELLOWSTONE NATIONAL PARK

Given the Bear Palmer Forest Health Project's immediate proximity to Yellowstone National Park and its potential effects on scenery, wildlife, recreation, watershed resources, and ecosystem connectivity, did the Forest Service formally consult with Yellowstone National Park staff or other National Park Service personnel during project development and environmental review?

If consultation occurred, please identify the Yellowstone National Park offices, divisions, or personnel that were consulted and explain how their input was incorporated into project planning, impact analysis, and decision-making.

Specifically, were National Park Service staff asked to evaluate potential impacts to:

- *Viewsheds and scenic resources visible from within Yellowstone National Park;
- *Wildlife habitat, migration routes, and movement corridors shared between the project area and Yellowstone;
- *Visitor experience, particularly in the North Entrance, Gardiner Basin, and Mammoth Hot Springs areas;
- *Water quality and aquatic resources connected to the Greater Yellowstone Ecosystem; and
- *Resources, and conservation values associated with the Yellowstone Gateway Protection Act area?

If consultation did occur, please make available any correspondence, meeting notes, technical reviews, recommendations, comments, or other documentation provided by Yellowstone National Park or the National Park Service regarding the project.

If consultation did not occur, please explain why such consultation was not undertaken given the project's location immediately adjacent to Yellowstone National Park and the potential for impacts extending beyond Forest Service lands.

Additionally, consultation with Yellowstone National Park does not appear to be prominently discussed in the Preliminary Effects Document. How can the public evaluate whether potential impacts to park resources and visitor experiences have been adequately considered if the National Park Service's analysis, comments, and recommendations have not been disclosed?

Thank you for considering these comments.

Sincerely,

Doug Madsen