Intermountain Forest Association

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IFA Comments RE Federal Register Vol. 88, No. 243 88042 – 88048

Director, Ecosystem
Management Coordination, 201 14th Street SW, Mailstop 1108, Washington, DC 20250–1124.

Dear Sir or Madame:

The Intermountain Forest Association (IFA) and our members thank you for the opportunity to comment on the Notice of Intent to Prepare an Environmental Impact Statement (Rule), Forest Service Land Management Plan Direction for Old-Growth Forest Conditions across the National Forest System.

IFA is a trade organization which advocates for active forest management as a sustainable pathway to reduce forest losses incurred by insects/disease and high severity wildfires. Our members are critical to realizing the goals of the wildfire crisis strategy and the broader charge of caring for forests on public, state, and private lands.

Summary

Overall, IFA firmly believes the proposed rule:

- Should not include direction on "mature" forests and believes the correct course is to omit that classification which lacks any significant body of scientific literature that would lead to consistent and supportable definitions.
- Would limit forest management practices and harm ecosystems – as exhibited in the threats analysis that wildfire and insects are driving nearly all the losses of

old growth forest. There is a library of research how forest management can limit mortality from both these disturbances.
- Would exacerbate the status many western national forests carry as "net carbon emitters".
- Would violate NEPA and the 2012 planning rule.

Areas of Management

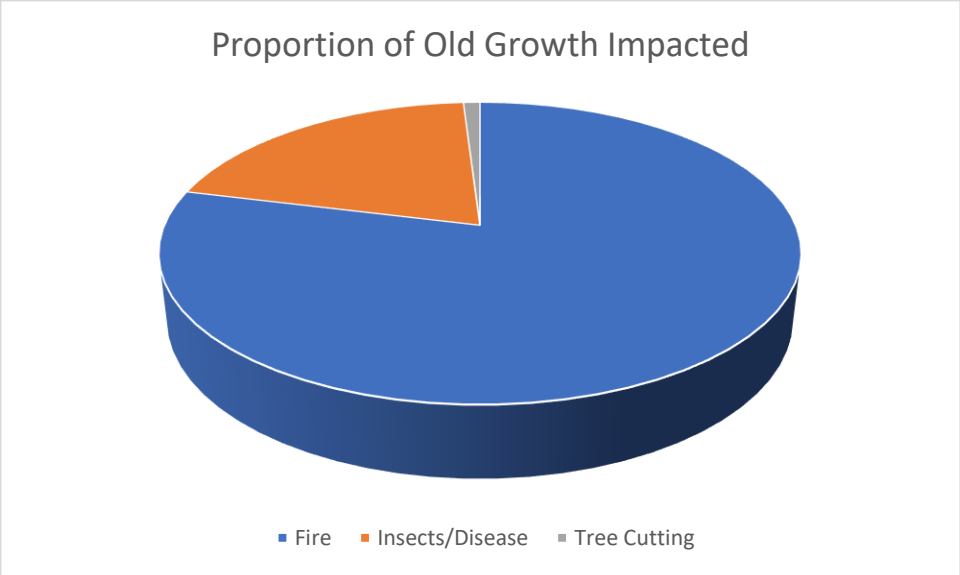
Active management on National Forest System lands, that are not otherwise prohibited from timber harvest, is vital to the health of our forests and watersheds, to the protection of our communities that adjoin the National Forests, and in meeting societal needs for forest products. It is important to keep in mind that 98 million acres of the National Forests – more than half the total acreage – is in restrictive land use designations including Wilderness or Roadless areas. By law, no timber harvest takes place on Wilderness Areas, and there are extremely limited and rarely used exceptions allowing some hazardous fuels reduction work in Roadless areas.

In the process of completing a forest plan, acres are identified and prioritized for forest management activities. Those acres are designated as "suited and available", and begin with the areas where harvest isn't prohibited and then narrows it further by looking at which areas make economic sense, have lower slopes, or other ideal traits. About 44 million acres, or about 23 percent, of the National Forest System is designated in current Forest Plans as suited for timber production. Insect infestations, wildfires, hurricanes, and other disturbances don't recognize boundaries in Forest Plans. It is critical to not further limit the ability to reduce catastrophic disturbances and tree mortality on the limited acres remaining available for management actions.

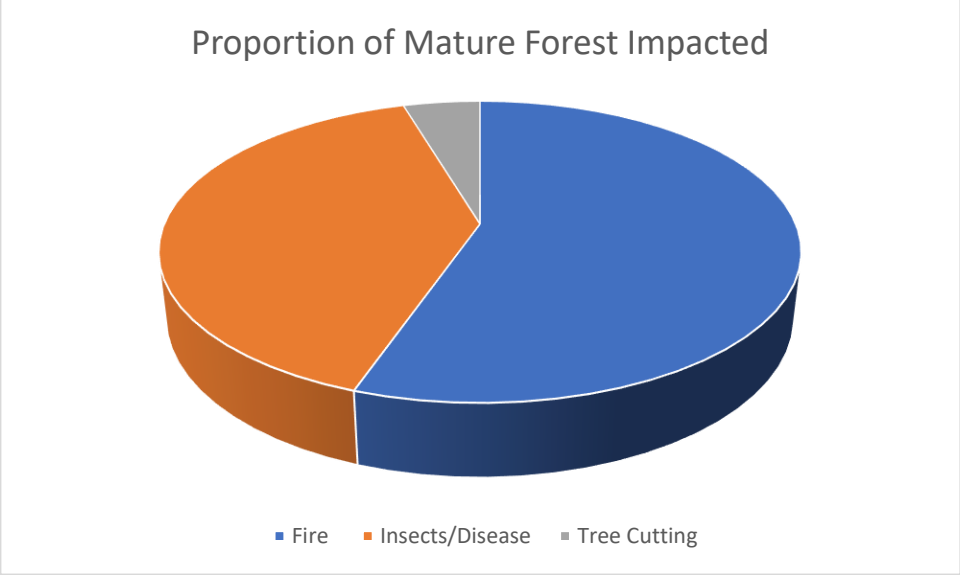
Threats

Findings in the final threats analysis are clear that forest management has not been a driver of impacts to areas of old growth forests. Within the "key findings" section of the threat analysis, the FS states, "The initial threat analysis found that mature and old growth forests have high exposure to a variety of threats and climate and disturbance projections show this exposure will likely increase. Currently, wildfire, exacerbated by climate change and fire exclusion, is the leading threat to mature and old-growth forests, followed by insects and disease. Tree cutting (any removal of trees) is currently a relatively minor threat…" Moreover, very little old growth harvest of any kind is contemplated in current Forest Plans.

The report goes on to say, “The analysis also found that two thirds of mature forests and just over half of old-growth forests are vulnerable to these threats.”
Moreover, the report found that, “Since 2000, wildfires resulted in a decrease of an estimated 2.57 million acres of mature and 712,000 acres of old-growth forests on National Forest System (NFS) and BLM lands. Insects and disease caused a decrease of 1.86 million acres of mature and 182,000 acres of old growth. Tree cutting by the BLM and Forest Service resulted in a decrease of 214,000 acres of mature forests and 9,000 acres of old growth.”



Acres of old growth forest impacted by disturbance type. Generated from Analysis of Threats to Mature and Old-Growth Forests on Lands Managed by the Forest Service and Bureau of Land Management



Acres of old mature forest impacted by disturbance type. Generated from Analysis of Threats to Mature and Old-Growth Forests on Lands Managed by the Forest Service and Bureau of Land Management

When the entirety of the report is considered, IFA does not believe the findings support any need to implement additional guidance on old growth management. To the extent the FS is concerned about losses from wildfires and insects/disease, implementing proactive forest management actions that have been shown to reduce forest susceptibility to insects/disease and wildfire hazards would move towards mitigating threats to these forest types.

The Inventory and Threat Assessment also demonstrated that older forests are not a rare successional stage across the forested landscape of the United States.

Wildfire

Our members predominantly work within Region 2 of the Forest Service and we have seen numerous success stories as the result of active forest management in the face of wildfire disasters. Just a few examples are attached to the end of these comments. One of those examples credits a fuel break with protecting $1 billion of homes in Colorado. In another, on-the-ground firefighters describe how they witnessed and felt the intensity and direction of a massive fire change when the fire burned into a fuel break near a community. Once again, that fuel break was credited with saving the community.

I have personally witnessed wildfires in the Black Hills. One such fire, the Wabash Springs Fire, ignited just outside Custer, SD on a warm spring day (before green-up), during moderate drought conditions, and 60+ mph winds. These are the types of fires that make the news after destroying communities and devastating natural resources. Indeed, during the Wabash Springs Fire, evacuations and highway closures immediately went into effect. However, in this case, the fire ignited on the edge of an area that had been commercially harvested to prevent mountain pine beetle mortality and then followed up with non-commercial treatments. Forest Service staff said a major aid in suppressing the fire and making sure no homes or other structures were destroyed was work done in recent years by both the forest service and private landowners in the area. Noting that no structures or even large trees were burned, the FS staff person said "The fuels treatment and the thinning that's been done in and around that area for the last 8-10 years certainly made a difference."

Emergency managers carried the same sentiments with, "thinning and fuel suppression work done by the forest service in the area north of the fire scene was a big help as well, noting that if the fire had occurred five years ago the outcome may have been different. He said as it was, the trees were not close enough together to

carry a crown fire which may have not been able to be stopped by the highway." (A copy of this reporting is attached at the end of these comments)
Any rule that disrupts the critical commercial harvest and other forest management actions that create the resistance to and resilience from wildfires would be counterproductive to accomplishing the goals of the proposed rule.

Insects/Disease

In addition to losses from wildfire, the threat analysis identified losses from insects/disease as the other primary contributor to losses of mature and old growth forest. Here, the science is clear that losses from insect infestation can be largely avoided through forest management actions that alter forest stand structure and composition. As an example (among a broader library of similar findings), Negron, et al (2017)[1] found a significant reduction in MPB mortality in stands that had been commercially thinned during the MPB epidemic. Negron concluded that in the Black Hills, "Percent ponderosa pine basal area and tree density killed by MPB in unthinned stands were 38.2 and 34.4 % compared with 3.9 and 3.6 % in thinned stands, respectively. All stands were thinned within 2 years of exposure to MPB, suggesting a rapid effect from thinning treatments in mitigating tree mortality attributed to MPB. Stand density reductions through silviculture across a large geographical area can abate MPB-caused tree mortality." Negron notes that sampling was done in stands that "that had been commercially thinned…" Negron goes on to state "Thinned stands had larger QMD (Mean Diameter) for all species and for ponderosa pine." And that "Ponderosa pine mortality levels were higher in the unthinned stands as indicated by higher ponderosa pine basal area killed, ponderosa pine tree density killed, percentage of ponderosa pine basal area killed, and percentage of ponderosa pine tree density killed."
Negron also concluded that "The thinning treatments examined in this study were implemented amid an extensive MPB epidemic and therefore were implemented under a worst-case scenario. Because bark beetles exhibit periodic eruptive outbreaks, the current thinking is that silvicultural management should be conducted between outbreaks when populations are at low levels and not implemented when insect populations are active.
In ponderosa pine forests, the reduction of insect caused mortality following timber harvest activities has been visually clear.

[1] Negron, Jose F.; Allen, Kurt K.; Ambourn, Angie; Cook, Blaine; Marchand, Kenneth. 2017. Large-scale thinning, ponderosa pine, and mountain pine beetle in the Black Hills, USA. Forest Science.

Photo taken over the Black Hills National Forest in 2013, during the previous mountain pine beetle epidemic.

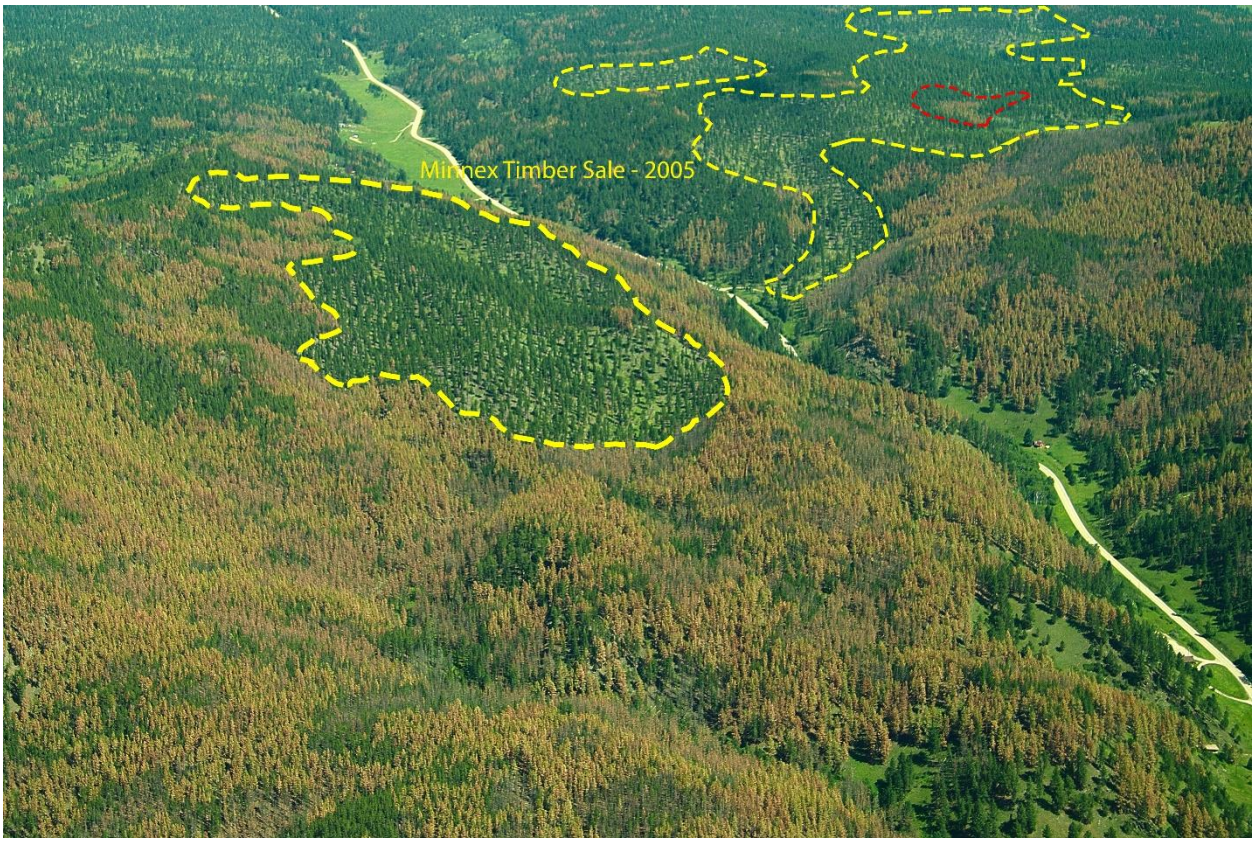


Photo taken over the Black Hills National Forest in 2013, during the previous mountain pine beetle epidemic.

In the above examples, a portion of the mature/commercial sized trees were harvested to prevent more damaging mortality from mountain pine beetles.

In other forest types, such as lodgepole pine, changes in forest successional stages results in retaining green forests on the landscape; reducing hazardous fuels accumulations that could impact broader areas:

Photo taken over the Snowy Range, during the previous mountain pine beetle epidemic.

Carbon

As the agency knows, trees are natural carbon sinks. National forests should be expected to be net carbon sinks. However, numerous western national forests have turned to net carbon emitters as a result of significant losses driven by wildfires and insects/disease. For some states, in entirety, forests have turned to net emitters. Trees remove C02 from the atmosphere and store it in wood fiber and roots. Young trees remove more carbon more quickly than older trees, and large trees can store a considerable amount of carbon. Unfortunately, as the 2020 fire season illustrated again, forests do not store carbon indefinitely. Looking only at California, the

wildfires in 2020 released an estimate 110 million metric tons of Carbon into the atmosphere[2].

Wood products store carbon that has been removed from the atmosphere[3], and they can do so for long periods of time[4]. By putting wood products into service, the carbon is effectively locked up for the duration that product is in service. Often, wood products are put into service by building homes and similar long-lived structures. Wood products also avoid further carbon emissions from substitute products made from non-renewable materials that are more carbon-intensive[5]. A general rule of thumb is that using a ton of wood in construction removes an additional 2.1 tons of carbon via substitution effects[6]. Although older forests passively store more carbon, younger forests growing after reforestation sequester carbon at a higher rate[7]. Advanced wood products such as CLT and glulam have a solid carbon return on investment because they substitute for high-carbon intensity materials.

Efforts to improve carbon sequestration and storage on National Forests should focus on sequestering more carbon through active management, and storing carbon in wood products. Increased risk of additional atmospheric carbon inputs from forest mortality caused by insects and fires should be assessed before considering

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[2] California's 2020 Wildfire Emissions Akin to 24 Million Cars, Bloomberg Law, January 5, 2021 Accessed May 14, 2021 https://news.bloomberglaw.com/environment-and-energy/californias-2020-wildfire-emissions-akin-to-24-million-cars

[3] Carbon Sequestration Due to Commercial Forestry: An Equilibrium Analysis (2020); Churkina et al. (2020), "Buildings as a global carbon sink," Nat Sustain 3, 269–276 (2020), available at https://www.nature.com/articles/s41893-019-0462-4.

[4] Life cycle impacts of forest management and wood utilization on carbon mitigation: knowns and unknowns," Lippke et al., (2011) Carbon Management, 2:3, 303-333, DOI: 10.4155/cmt.11.24.

[5] The economic and emissions benefits of engineered wood products in a low-carbon future," Niven Winchester & John M. Reilly, Energy Economics 85 (2020) 104596; https://doi.org/10.1016/j.eneco.2019.104596

[6] Meta-analysis of greenhouse gas displacement factors of wood product substitution." Sathre, R., and O'Connor, J. 2010. Environmental Science and Policy 13:104-114. https://doi.org/10.1016/j.envsci.2009.12.005

[7] Gray, A.N., Whittier, T.R., and Harmon, M.E. 2016. "Carbon stocks and accumulation rates in Pacific Northwest forests: role of stand age, plant community, and productivity." Ecosphere 7:e01224. https://doi.org/10.1002/ecs2.1224; Thomas A. M. Pugh et al., "Role of forest regrowth in global carbon sink dynamics," Proceedings of the National Academy of Sciences, Mar 2019, 116 (10) 4382-4387, https://www.pnas.org/content/116/10/4382; Kai Zhu et al., "Forest age improves understanding of the global carbon sink," Proceedings of the National Academy of Sciences, Mar 2019, 116 (10) 3962-3964; DOI: 10.1073/pnas.1900797116.

policies that rely on establishing additional regulation that certainly does not "protect" these forests.

NEPA

Importantly, it is an impossibility for the proposed rule process to include any analysis or disclosure of the actual effects of the proposed changes. The NOI proposes to initiate an environmental impact statement to evaluate the effects of amending all 128 national forest land management plans to provide consistent direction for management of old-growth forest conditions. Although the process is to prepare an EIS on the proposed amendment, the Secretary will be unable to evaluate or disclose the full effects because the actual amendment will not contain the substantive details of the entire proposed process. The details on the full effects of the proposed process on individual forest plans won't be known until completion of the required Adaptive Strategy for Old-Growth Forest Conservation, which the Secretary proposes to add as an appendix to the broader scale monitoring strategy or the biennial monitoring report through a Management Approach without any NEPA analysis or disclosure of effects.

Further, section 219.13 of the 2012 planning rule is clear that, "a plan amendment is required to add, modify, or remove one or more plan components, or to change how or where one or more plan components apply to all or part of the plan area." The proposed rule process proposes to obfuscate this requirement by stating that "this proposal is not intended to replace existing direction in plans, but rather to add language that provides consistency across all plans" and that the Adaptive Strategy for Old-Growth Forest Conservation will be added as a Management Approach to the monitoring strategy or biennial monitoring report. This creates two issues: 1) It will result in overlapping and/or conflicting plan components that will lead to broad confusion in project analysis and implementation and 2) It will add plan components that will inevitably change how or where one or more of the existing plan components will apply to all or parts of the plan area, but without a plan amendment as required by 219.13 of the 2012 Rule.

The 2012 planning rule is heavy on public engagement, predominantly at the local level, and the proposed rule process flies in the face of the Forest Service's commitment to the public participation requirements and expectations of the 2012 Planning Rule. The Preamble to the 2012 Rule is clear in its' discussion of the Department and the Forest Service's finding that a planning rule must address eight purposes and needs, including purpose 5: "Provide for a transparent, collaborative process that allows effective public participation." The preamble later explains

“Engaging the public early and throughout the process is expected to lead to better decision making and plans that have broader support and relevance.” Additionally, part 219.4 of the 2012 planning rule contains multiple requirements for public participation in the assessment and plan development processes, including “The responsible official should be proactive … to engage the public, and should share information in an open way with interested parties.” The proposed rule and amendment process does not conform to the core intentions of the agencies own 2012 planning rule.

The proposed plan components do not meet the requirements under FSH 1909.12, 22.1: “Objectives, desired conditions, standards, and guidelines must be written clearly and concisely in a way that allows for monitoring to test their effectiveness and verify assumptions on which they are based” and Plan Components are “written clearly and with clarity of purpose and without ambiguity so that a project's consistency with applicable plan components can be easily determined”.

Some components of the proposed rule, such as the Statement of Distinctive Roles and Contributions, are generic statements that seem to have no real purpose. Others, like the Management Approach, Standards, and Guideline are ambiguous and complex, and will be very difficult to interpret during project analysis and implementation.

The Desired Conditions do not meet the 2012 Rule’s definition of “Desired Conditions”; specifically, they are not “described in terms that are specific enough to allow progress toward their achievement to be determined”.

Because of the ambiguity in the process, standard 1 appears constructed more like a Goal rather than a Standard and is not clear nor “without ambiguity”. The standard could easily be interpreted to prohibit any forest management activities in the entire plan area. Additionally, standard 2 is also written more like a Goal than a Desired Condition.

Guideline 1would apply to portions of national forests identified in the Adaptive Strategy as priority areas for future old-growth conditions, and it appears that Guideline 1 would apply to those priority areas in their entirety, without any differentiation or application of other, preexisting standards or guidelines in current forest plans.

Overall, it is unclear if individual national forests will be left to pick up the pieces; determining where conflicts exist with the proposed amendment and current plan direction and what, if anything, to do about it.

We strongly recommend local meetings, based on a public engagement plan, for each national forest to solicit feedback for the proposed rule/amendment as a means towards compliance with the 2012 planning rule.

IFA urges scrapping the proposed rule and process, and developing a clearly defined strategy for proper public engagement as mandated by the 2012 planning rule, accounting for benefits to carbon storage and sequestration through active forest management in mature and old growth forest types, and not adopting any additional regulations that would otherwise restrict the ability to implement commercial and non-commercial forest management actions that serve to protect these forests I the long-term.

Thank you,

Ben Wudtke
Executive Director

Custer County Chronicle
https://www.custercountychronicle.com/content/wabash-springs-fire-threatened-homes
By: Ron Burtz

With dry conditions and high and gusty northwest winds, last week's Wabash Springs wildfire west of Custer was dangerous, but it could have been a whole lot worse according to local officials.

The fire in grass and timber in the Fjerdingren Place/Pinto Lane/Palamino Road area was ***reported at shortly after 7 o'clock Thursday morning and, whipped up by 40 mph winds, quickly grew to between 50 and 100 acres in size***. Almost as quickly, firefighters, engines and dozers were at the scene working to stop forward progress of the blaze. Because of heavy smoke being blown across Hwy. 16, the road was closed from the west side of Custer to Pleasant Valley Road for several hours and ***pre-evacuation notices were sent out to residents in the area. Not long after that, evacuations were carried out on residents directly in the path of the flames. Custer County Emergency Management set up an evacuation center in the gym of the Custer Armory.***

Firefighters and resources began pouring in from a wide area and a staging area was set up in the parking lot of the former woodcarving museum. The fire suppression effort was managed by a unified command between South Dakota Wildland Fire and the Black Hills National Forest and by early afternoon was reported to be approximately 30 percent contained. The Custer County Sheriff's Office was also able to reopen the road at that time but only local traffic was advised for the safety of firefighters and the public.

Evacuations were also lifted for residents along Fjerdingren Place and Big Pine Road, east of the fire perimeter.

By late afternoon firefighters were reported to have made great progress on battling the fire, by then estimated to be about 111 acres in size. At that time it was said to be about 50 percent contained. For residents along Hwy. 16, Palomino Place and Pinto Lane, evacuations were lifted at 6 p.m.

Incident Commander Trainee John Haskivitz said, "Forward

progress has been stopped and I expect to see more progress throughout tonight. Full containment is not expected until sometime tomorrow."

Even as winds diminished overnight, crews remained on scene to mop up and secure the fire perimeter. By 10 a.m. Friday a combination of hand line, dozer line and hose completely surrounded the fire and it was declared 100 percent contained. Crews continued mop-up operations and monitoring throughout the weekend.

"It was a phenomenal response by the local fire departments, the state and federal firefighters all around," said U.S. Forest Service public affairs officer Scott Jacobson. "We certainly couldn't have gotten on the fire and got around it as quick as we did without the support from everybody."

Jacobson said his hat was off to everyone who participated in battling the fire and noted it was one of the first unified command fires that has occurred in "quite some time where it was managed by both state and federal" agencies.

"Everybody just came together almost like it was clock work," said Jacobson.

Jacobson said a major aid in suppressing the fire and making sure no homes or other structures were destroyed was work done in recent years by both the forest service and private landowners in the area.

Noting that no structures or even large trees were burned, Jacobson said "The fuels treatment and the thinning that's been done in and around that area for the last 8-10 years certainly made a difference."

Custer County Emergency Management Director Steve Esser echoed that sentiment.

While complimenting the quick and overwhelming response from agencies and fire departments around the area, Esser said "the people that lived in that neighborhood did a spectacular job too. The care that they took around their houses was a huge reason why we didn't have any more impact and why we didn't lose any houses. The people had the trees around their houses taken care of and the lawns were mowed down short."

Esser said thinning and fuel suppression work done by the forest service in the area north of the fire scene was a big help as well, noting that if the fire had occurred five years ago the outcome may have been different. He said as it was, the trees were not close enough together to carry a crown fire which may have not been

able to be stopped by the highway.

Esser said the high winds were a significant factor in fighting the fire, noting that firefighters were unable to use helicopters to drop water on the blaze as has been done with other recent fires. He said it would have been dangerous for the aircraft and the winds would have blown away the water anyway. He also said if the wind had shifted to the west blowing the flames toward Custer it would have been a completely different story.

Esser applauded the massive response from not only county, state and federal agencies but from fire departments in an area stretching from Edgemont to Fairburn and Black Hawk.

The cause of the fire is officially stated to be under investigation at this time but given the high winds and the fact that power outages over a wide area west of Custer coincided with the blaze, some have speculated it was caused by a downed power line.

Photo taken immediately after Wabash Springs Fire.

Photo taken two months after Wabash Springs Fire.

Badger Creek Fire – June 18, 2018

Hazardous Fuels Projects Change the Course

The fast-moving Badger Creek Fire moves toward an area where a hazardous fuels reduction project was done.

When rain began falling on the Badger Creek Fire on June 16, it was the first break in weather firefighters had seen since the incident began six days before. But it was a different kind of break – a fuel break – that ultimately helped with fire behavior early on in the incident.

The fire began just two miles northwest of Mountain Home, WY, where stands of trees devoid of needles are commonplace on the landscape. The beetle-killed evergreens pose a threat to nearby communities such as the one where the fire started. However, a hazardous fuel reduction project near Mountain Home initiated by the U.S. Forest Service, along with fuels reduction work done by several adjacent private landowners, had concentrated on the removal or thinning of dead trees in the area. These wildfire mitigation projects created what firefighters refer to as "defensible space." Simply put, defensible space is an area around a building where vegetation, debris, and other combustible materials have been cleared or reduced to slow the spread of an approaching fire.

Because of the reduction in dry, thick vegetation near the homes, firefighters from Albany County Fire Department, the U.S. Forest
Service, and Wyoming State Forestry Division were able to safely approach the buildings and strategically place resources near the majority of the structures the day the fire began. The Incident Commander noted that, because of the mitigation work, the situation "felt safe and defendable."

As the fire moved away from Mountain Home, it began gaining in intensity, fed by high winds and hot, dry weather. The fire quickly grew, charging ahead with 200-foot flame lengths that threw hot embers ahead of the fire. Emergency responders were able to address the spotting, but the massive flames prevented them from directly suppressing the main fire. Even with multiple fire retardant drops by a DC-10 air tanker, Laramie District Ranger Frank Romero recounted, "We braced ourselves for the worse."

But then incident personnel saw a significant change. The fire reached the next fuels treatment area near the community of Wold Tract, and combined with effects of the retardant that had been applied, fire behavior quickly moderated. “You could see it; you could even feel it,” the Incident Commander described. The fire, “still hungry” for something to burn, changed its course, leaving the area where private landowners and the U.S. Forest Service had completed the wildfire mitigation. The fire turned, crossed Wyoming Highway 230, and moved away from the developed area. “It would not have had the same ending had the hazardous fuels projects not been done,” Romero added. The day before the fire began, Wyoming State Forestry Division’s Travis Pardue had led a mitigation tour for landowners from the southern Snowy Range area, with Mountain Home and Wold Tract as location stops. The tour focused on defensible space, showcasing effective practices and offering suggestions for additional work which would aid suppression efforts if a fire were to move into the area. Little did Pardue know the work he had highlighted on the tour would be tested the very next day.

Defensible space around a home reduced the fire’s intensity as it neared the property.

No fire mitigation tool alone guarantees success. In the case of the Badger Creek Fire, the fire retardant dropped on the homes may not have been

enough. But combined with the hazardous fuel work done in the area, the communities of Mountain Home and Wold Tract were spared from widespread loss.

Despite this week's rain, the Badger Creek Fire isn't over; nor is this year's fire season. But with resources such as the Wyoming State Forestry Division's Hazardous Fuels Mitigation Program, families and communities can make fire preparedness an ongoing effort and see to it that success stories like this one become more commonplace.

For more information on fuels mitigation, visit http://wsfd.wyo. gov/fire-management/fire-grantsassistance/fuels-mitigation.

Proactive Fuel Breaks Protect Nearly $1 Billion in Homes, Infrastructure During Colorado Wildfire

Posted by Holly Krake, Rocky Mountain Region, USDA Forest Service in Forestry
Aug 02, 2021

Fuel breaks on the White River National Forest in Colorado directly protect nearby homes during the Bu Fire in the community of Silverthorne, Colo. on June 12, 2018. (Photo credit: USDA)

When the Buffalo Fire sparked on the White River National Forest on June 12, the flames stopped short of nearly 1,400 residences near Silverthorne, Colorado. But, it wasn't just the air support from firefighting helicopters and tankers and the more than 150 firefighters on scene that helped prevent a

catastrophe in two small mountain subdivisions. Part of the success can also be attributed to proactive work over the last decade to build fuel breaks and reduce hazardous fuels where homes meet wild lands or what is called the Wildland Urban Interface (WUI).

“The fuel breaks reduced the number of trees available to burn next to homes; gave firefighters safe spots to aggressively fight the fire; and provided for effective fire-retardant drop zones,” said Bill Jackson, district ranger, White River National Forest, USDA Forest Service. “Without the proactive forest treatments, we likely would have lost homes.”

Tanker pilots were able to e ectively drop fire retardant (pink foreground) as ground crews simultaneou used the fuel breaks as a safer place to engage the Bu alo Fire near Silverthorne, Colo. On June 13, 2018. (Photo credit: USDA)

These fuel breaks are 300- to 500-foot wide open spaces developed between the forest and subdivisions where lodgepole pine trees that had been killed by the mountain pine beetle once stood ripe for ignition. The fuel breaks were

built as part of larger proactive forest management programs in Summit County and throughout the watershed around the Dillon Reservoir.

“Wildfires don’t know boundaries, so when it comes to forest management in Denver Water’s priority watersheds, we take an all hands, all lands approach,” said Christina Burri, watershed scientist at Denver Water. “By partnering with all the land owners, from federal, state, local and private, we’re able to better protect all of our interests from catastrophic wildfires and extend our investment and reach throughout the entire area.”

One such partnership is the From Forests to Faucets program, which is a forest management partnership between Denver Water and the Rocky Mountain Region of the Forest Service. Since 2010, Denver Water and the USDA Forest Service have invested approximately $33 million for treatments across 70,000 acres.

“From Forests to Faucets helps us identify areas where we have common interests in limiting high intensity wildfires and improving forest and watershed health,” Jackson said. “The partnership helped us stretch our funds to treat more acres in Summit County.”

In this case, the Forest Service was able to invest in 900 acres of hazardous fuels reduction projects next to the Wildernest and Mesa Cortina neighborhoods above Silverthorne- projects that saved an estimated $913 million worth of homes and infrastructure from the Buffalo Fire.

The Colorado State Forest Service and the Natural Resources Conservation Service joined From Forests to Faucets in 2017 to allow forest managers to take even more of an “all hands, all lands” approach as funds will go to forest treatments on non-federal and private lands as well as national forests.

A helicopter drops water to cool hot spots at the edge of a hazardous fuels treatment as the Buffalo Fire erupts on June 12, 2018. (Photo credit: USDA)