Dennis Kuhnel, District Ranger
Canyon Lakes Ranger District
2150 Centre Avenue, Building E
Fort Collins, CO 80526

Via web comment form: https://cara.fs2c.usda.gov/Public//CommentInput?Project=62591

Comments on Black Diamond Landscape Resiliency and Risk Reduction Project #62591

September 20, 2022

Dear Ranger Kuhnel and staff:

I support and sign on to the comments to be submitted by Rocky Smith et. al. on the proposed Black Diamond Landscape Resiliency and Risk Reduction Project (Rocky Smith et. al. comments are dated September 20, 2022).

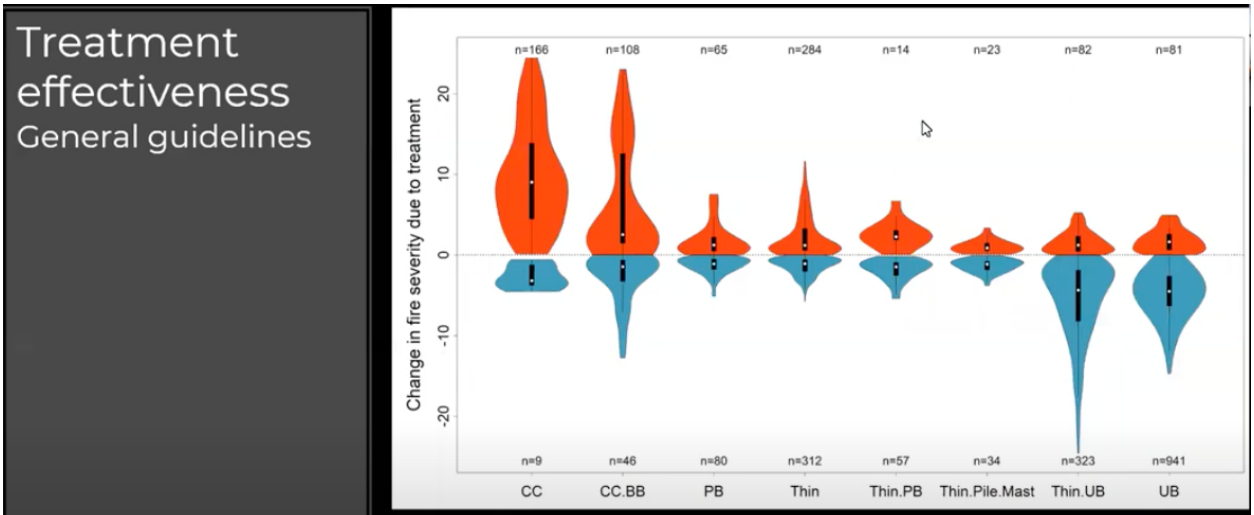
Rocky Smith's detail analysis and resulting conclusion that "any treatment in the Black Diamond area should emphasize the following: a) treating in the home ignition zone to reduce fire susceptibility; b) restoring natural stand composition and structure in some areas dominated or formerly dominated by ponderosa pine below about 7200 feet in elevation; and c) restoring fire on the landscape where is can be done safely" is supported by a growing body of published literature, data, and observations. While the Black Diamond Landscape Resiliency and Risk Reduction Project Preliminary Purpose and Need and Proposed Action document makes seemingly plausible arguments for the fire mitigation benefits of treatments proposed for areas other than lower-elevation (lower montane) ponderosa pine dominated landscapes, the observed reality is that forest treatments such as the ones proposed for the Black Diamond Project for elevation above lower montane are ineffective or even counter-productive with regarding to reduction of fire severity.

Evidence at Multiple Scales

On the broad scale of the western United States, Curtis M Bradley et. al. (Does increased forest protection correspond to higher fire severity in frequent-fire forests of the western United States? Ecosphere, Volume 7(10), October 2016), using over three decades of fire severity data from relatively frequent-fire pine and mixed-conifer forests throughout the western United States, found that burn severity tended to be higher in areas with lower levels of protection status and therefore subject to more intense forest management practices, after accounting for topo-graphic and climatic conditions. This directly contradicts the widely held assumption among federal land management agencies and others that a lack of active forest management of some federal forestlands - especially within relatively frequent-fire forest types such as ponderosa pine (*Pinus*

ponderosa) and mixed conifers - is associated with higher levels of fire severity when wildland fires occur.

Nicholas Povak, a Research Ecologist at the US Forest Service Pacific Southwest Research Station, in a November 18, 2021, webinar reported the results of a recently completed study of landscape fuel treatment effectiveness within recent large wildfire events in north-central Washington State. Key results from the study show that clearcutting actually led to higher fire severity, while only thinning with under-burning and under-burning without thinning led to reduction of fire severity. Thinning alone, thinning in combination with pile burning, and thinning with piling and mastication all had negligible impact on fire severity. See key data reproduced below.



Treatment	CC	CC_BB	PB	Thin	Thin_PB	Thin_Pile_Mast	Thin_UB	UB
Hectares	1,247	1,138	1,120	4,381	500	400	2,823	7,816

Camille Stevens-Rumann of Colorado State University reported similar findings at a December 14, 2021, webinar for the Front Range Roundtable, concluding that for 2020 Colorado fires the most effective treatments were generally thin and burn, larger prescribed fires, and previous wildfires.

Monte Williams, Forest Supervisor for the Arapaho and Roosevelt National Forests and Pawnee National Grasslands, on multiple public webinars following the 2020 fires, touted the effectiveness of large lower montane treatments and previously burned areas in containing the spread of the Cameron Peak fire. However, he also admitted that treatments in higher elevations (higher than lower montane) where not effective in slowing or containing the fire. Recent private communications with Tony Cheng, Director of the Colorado Forest Restoration Institute

at Colorado State University, confirm that preliminary data analysis of the Cameron Peak fire corroborate this admission by Monte Williams.

On a smaller scale, the picture below shows the impact of the 2016 Cold Springs Fire near Nederland, Colorado on an untreated private mining claim (on the right) adjacent to previously treated USFS land (on the left). The line of green trees visible in this photo marks the exact line of the border between the USFS land and the mining claim. The untread mining claim did not burn. The treated USFS land burned completely. And private interviews with firefighters and firefighter commanders who worked the Cold Springs Fire confirmed that no specific firefighting interventions occurred along this line.

Conclusion

Outside of prescriptions for lower montane ponderosa pine ecosystems, the Black Diamond Project Purpose and Needs document proposes conventional forest treatment approaches that are badly disconnected from actual observed reality in the field. Given the many significant detrimental impacts to ecosystem and forest health associated with such treatments, as spelled

out in detail in Rocky Smith's comments, these treatments will negatively impact forest health without providing meaningful protection against wildfires and will not reduce wildfire severity.

To make the Black Diamond Project a project that actually improves forest health instead of degrading forest health, follow the recommendations in Rocky Smith's comments and restrict treatments to lower-elevation (lower montane) ponderosa pine, where site-specific analysis shows that stands have significantly departed from historical conditions. In addition, focus attention to the proven benefits of concentration on home ignition zones.

Sincerely,

Alex Markevich, Ph.D.
5570 Magnolia Drive
Nederland, CO 80466
(303) 442-4475
ajmarkevich@gmail.com

Christel Markevich
5570 Magnolia Drive
Nederland, CO 80466
(303) 442-4475
christelmarkevich@gmail.com

Anyll Markevich
5570 Magnolia Drive
Nederland, CO 80466
(303) 442-4475
anyllmarkevich@gmail.com