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PODs for non-incident management – San Isabel National Forest

Fuels treatments along POD boundaries can enable landscape-scale outcomes

The San Carlos Ranger District on the San Isabel National Forest in Colorado developed a proposed action for National Environmental Policy Act (NEPA) review. The goal of the project is to reduce fuels adjacent to Potential Operational Delineations (PODs) boundaries, referred to as Potential Control Lines (PCLs). In-depth interviews with NEPA Interdisciplinary Team (IDT) members illustrated how PODs were developed and leveraged for planning, as well as their recommendations for integrating PODs in NEPA.

Case Study 3/3

What are PODS?

The Potential Operational Delineations (PODs) spatial fire planning framework brings together firefighters' local knowledge and advanced fire modeling products to inform fire response and empower pre-planning. Before smoke is in the air, agency partners and cooperators collaboratively identify and document the most effective potential control lines (PCLs) on the landscape where there is a high likelihood of containing wildfires (e.g., roads, streams, ridges, etc.). While PODs can inform incident response, the framework can also support pre-fire wildfire mitigation and other cross-boundary planning efforts. This series explores innovations from the field and shares how land managers across the West are using and adopting the PODs framework to meet local needs.

Developing PODs and a shared understanding for treatment

The San Carlos Ranger District developed PODs for their district and adjacent jurisdictions in 2019 through a collaborative cross-boundary planning process. Two factors in particular helped signal the need for pre-fire mitigation. First, participants acknowledged that many of the PCLs in the Wet Mountains needed additional fuels work to increase their likelihood of being effective control features during a wildfire. The Wet Mountains area has high fuel loadings, high insect and disease mortality, and limited access. It is also interspersed with highly valued resources and assets, including recreation and rural ranching communities. Second, staff who were also on Incident Management Teams (IMTs) recognized the need to improve lines ahead of time to save precious resources typically used to construct line during an incident.

Integrating PODs into environmental analysis and decision-making

With these two factors in mind, staff initiated the Wet Mountains Wildfire Potential Control Locations NEPA project to reduce potential fire behavior and provide safe and effective response (Figure 1). Treatment needs were identified by overlaying PODs with past treatments and existing and proposed NEPA projects. PCLs were then prioritized based on its potential for egress, condition of the PCL, and adjacent values of concern. Priority treatments primarily fell along existing road networks, totaled less than 3,000 acres, and met requirements for authorized fuel reduction projects sufficient to be categorically excluded from full NEPA review under the Healthy Forest Restoration Act Wildfire Resilience Projects.[1] The Bipartisan Infrastructure Law (BIL) established a new Categorical Exclusion (CE) that extends authorities for fuelbreaks along PCLs (Box 1).

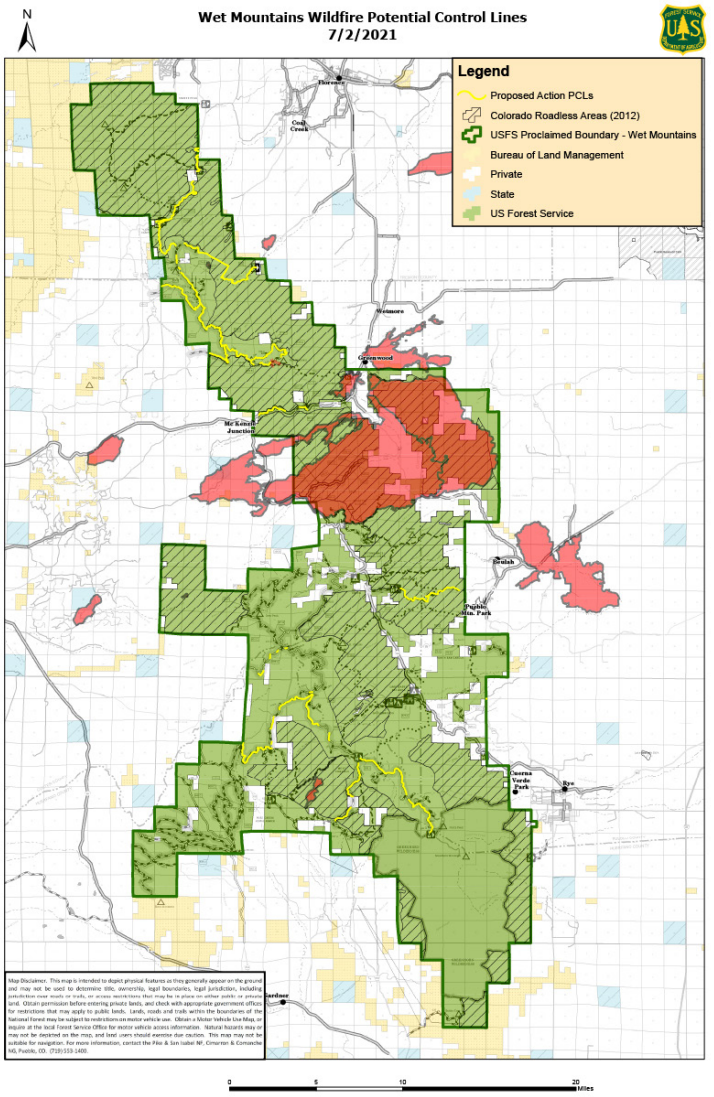

Figure 1. Wet Mountains of the San Carlos Ranger District. Proposed PCLs for treatment are highlighted in yellow. Historical fires are in red.

Proposed treatments would extend up to 400 feet wide on either side of the PCL, which is significantly more treatment than what is typical during incidents and considerably increases opportunities for control under extreme fire conditions. Treating everywhere was not possible given existing funding and personnel capacity. Yet, focusing efforts along POD boundaries provided managers

BOX 1 - Bipartisan Infrastructure Law and NEPA

The BIL expanded authorities for fuel break projects to be categorically excluded from full NEPA review. Fuel breaks are strips of vegetation or other combustible material that are modified to slow or stop wildfire progress. The new CE applies to fuel breaks up to 1,000 feet wide and 3,000 acres on US Forest Service- or Bureau of Land Management-managed land. Treatments 1,000 ft wide and up to 3,000 acres could treat 50 miles of POD boundaries adjacent to communities or other high value resources and assets. Implementing mechanical and prescribed fire treatments at these strategic locations could strengthen and improve many critical POD boundaries. [2]

an opportunity to have an outsized impact relative to the total treatment area. For example, treatments up to 400 feet along 50 miles of POD boundaries would result in approximately 2,500 treatment acres, but facilitates fire management across 200,000 acres (over 300 square miles). Thus, this approach supports strategic investments along vetted PCLs, which, in turn, can modify wildfire behavior at a landscape scale.

> *Typically incident management teams will treat in the range of maybe a chain depth [66 feet] on any control line that they're trying to put in versus what we're shooting for, up to six chains of treatment, that's a total game changer. And if they [IMTs] can see those things certainly after they've been ordered and get them out there for a shadow day with the operations folks, then they'll start to understand just the value that they [treatments on PCLs] have and the option that it opens up.*

Recomendations to integrate PODs in planning

Internal and external communication and outreach: Managers recommended increased internal and external communication, outreach, and training on how to incorporate PODs into wildfire mitigation strategies. Training and outreach are important for multiple audiences including fire and fuels staff, resource specialists, leadership at the district and unit level, local stakeholders, and collaborative groups. A variety of formats were suggested, including story maps, videos, and fact sheets of how other groups used PODs for planning purposes.

Engagement early and often to socialize PODs: Managers recommended engagement with non-fire resource specialists early, often, and throughout the collaborative PODs planning process. While fire and fuels specialists typically have the local knowledge and expertise required to identify potential control opportunities, resource specialists would benefit from being involved to understand why lines are drawn where. Specialists can also identify where values and resources of concern are located within POD boundaries to inform treatment prioritization. Special attention should be made to socialize PODs – in other words, clearly illustrating what PODs are, how PODs and PCLs differ, and what is the value-add of incorporating PODs into treatment planning. Otherwise, IDT members may be hesitant to adopt it and affected stakeholders may question its relevance, credibility, and legitimacy.

> *I think it comes out to about 3,000 acres or somewhere in there, but we're going to have an impact on basically a 200,000 acre piece of land.... Because we know that we can't treat every acre and that's just impossible. So, how can we treat where things can be most effective so we can try to not have those large devastating wildfires.*

Invest in the collaborative process: The collaborative PODs planning process and workshops helped set the stage for developing shared understanding on the purpose and need for treatment. Time and resources should be dedicated to facilitate an inclusive collaborative PODs planning process that, in addition to delineating PODs and PCLs, articulates how PODs can be used in local planning efforts.

Leadership intent, direction, and alignment: Managers recommended leadership intent and alignment on the use and utility of PODs in order to ensure appropriate personnel and financial resources are allocated for PODs. More generally, managers emphasized leadership needs to consider fire a key change agent and pivot from incentivizing outputs to outcomes. This is particularly relevant to the Wet Mountains project as it intends to modify wildfire behavior at the landscape-scale (outcomes) by treating a relatively small acreage (outputs).

PODs and PCLs require monitoring and adaptive management to be successful: Not all PCLs are equally effective control opportunities, which is a function of the line type (road vs trail) and dynamic weather and fire behavior. Effectiveness also changes with time as lines are improved before or during an incident. Thus, planners should consider attributing lines accordingly and periodically updating them as conditions change.

The San Isabel National Forest completed scoping for the Wet Mountains project in late 2021, and it is currently on hold due to resource capacity constraints during the fire season. A decision memo is expected sometime in late 2022.

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For further reading see:

1. Section 605 HFRA (6591d, wildfire resilience projects): https://www.law.cornell.edu/uscode/text/16/6591d

2. IIJA/BIL statutory categorical exclusion for fuel breaks - https://www.americanbar.org/groups/environment_energy_resources/publications/fr/20211214-the-infrastructure-act-brings-new-funding/