



Using Potential Operational Delineations (PODs) on Your Forest

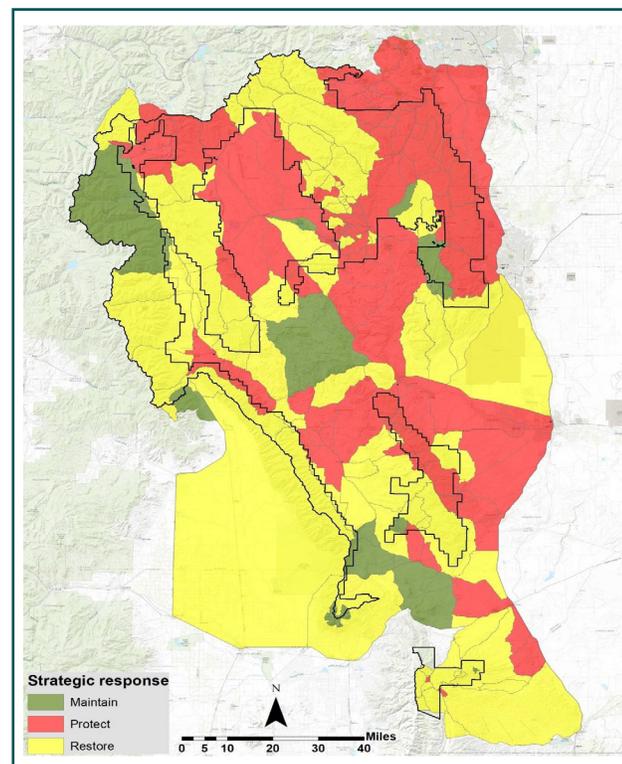
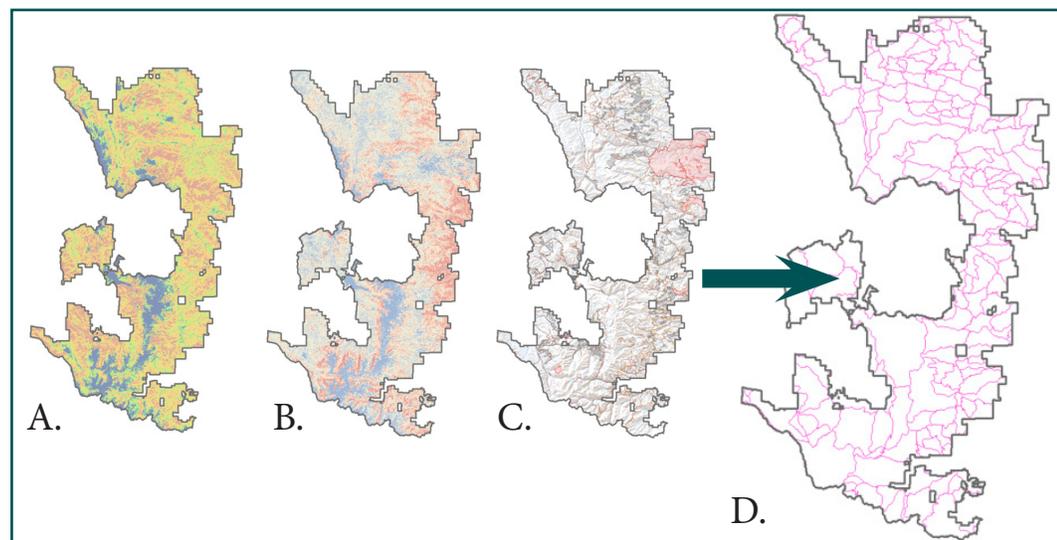
PODs is a science-based strategic planning tool already being used to make decisions around planning for and engaging with wildfires and on over 20 National Forests across the country. Using a combination of local, on-the-ground expertise and advanced spatial analysis, PODs identify the safest and most effective control lines that could be used to contain a wildfire. When combined with other risk assessment tools, PODs provides a framework that empowers science-informed decision making, improves communication and collaboration, and facilitates the integration of land and fire management objectives.

How PODs are Created and Used

POD boundaries are created during workshops by local firefighters with knowledge of a particular landscape, who work with analytical products that model fire behavior and suppression difficulty for the relevant landscape.

Workshop participants use maps with Suppression Difficulty Index (A), Potential Control Locations (B), and reference layers (C) to hand draw lines identifying effective control lines across the landscape. Hand drawn POD boundary lines are then digitized into an electronic format using Geographic Information Systems (D).

Once these boundaries have been defined, a larger group of stakeholders can then engage to identify values (e.g. homes, infrastructure, water resources, wildlife habitat) within them, and preplan potential responses to ignition within any given POD. PODs maps are useful tools for communicating land and fire management objectives with the public, within agencies, and have even been used across agencies during multiple fire incidents.



On the Pike and San Isabel National Forests, PODs are used in conjunction with the Colorado Wildfire Risk Assessment to identify strategic response zones. For example, in green/maintain zones, managers have determined that the values within the POD are at low risk from fire, and fire under the right conditions can be managed for resource benefits. In red/protect zones, fire should be suppressed and excluded where possible. In yellow/restore zones, values are at moderate risk from fire, and while fire under the right conditions could be managed for resource benefit, mechanical or prescribed fire treatments may be needed as a precursor to the reintroduction of fire.

Operationalizing PODs with the POD Atlas

The POD Atlas is a wildfire decision support tool that compliments and adds value to efforts to delineate PODs and parallel efforts related to wildfire risk assessments, mapping values at risk, and use of the Wildland Fire Decision Support System during wildfire incidents. The POD Atlas is designed to provide Forests with a standardized set of data across a region, while allowing for a degree of customization based on local needs. The POD Atlas includes information on fire ecology, fire behavior, wildland urban interface, watershed health, and control opportunities.



Colorado Forest Restoration Institute's Approach to PODs

Through continued consultation with land and fire management professionals, CFRI knows that while PODs are a helpful tool for visualizing landscapes and for strategic planning and communication, PODs and the spatial data they summarize need to be readily accessible to be effectively used on the ground. CFRI has streamlined our data analyses processes so the POD Atlas can be updated on an annual basis as conditions change, fires occur, fuel treatments are implemented, and new data becomes available.

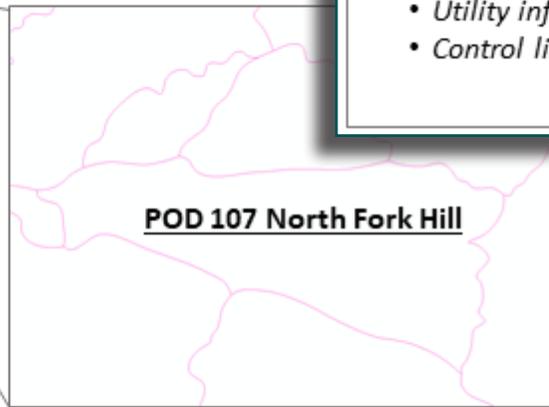
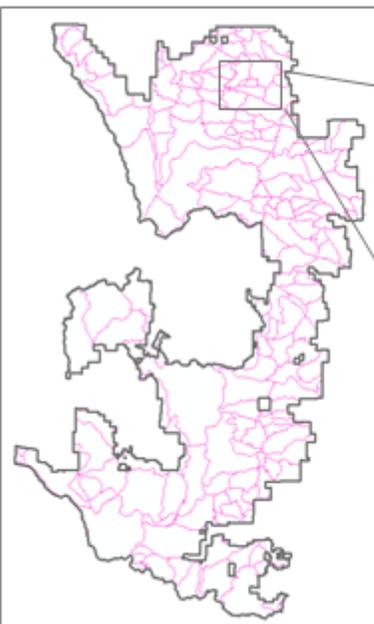
Each POD Atlas contains:

- PDF map books
- A geospatial database containing additional spatial data, POD delineations, strategic response zone delineations, standardized reference layers, and a POD network layer that summarizes population, ownership, fuels, fire behavior, recent disturbances, and values at risk
- POD locator map and georeferenced PDF maps of POD networks for use in the field
- Technical document and user guide

POD 107 North Fork Hill

POD Atlas: Attribute Summary

- Ecology
- Fire behavior
- Firefighter hazards
- WUI
- Land ownership
- Critical habitat
- Strategic response
- Utility infrastructure
- Control line characteristics



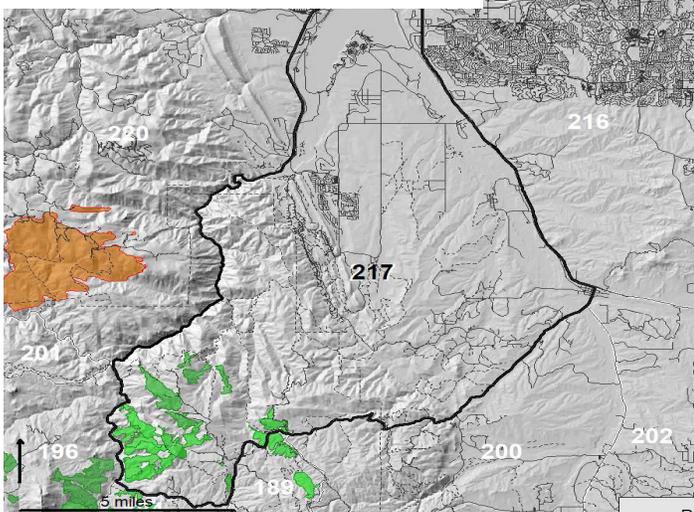
POD 107 North Fork Hill

POD Atlas PDF Map Books Summarize Values at Risk, Current and Desired Conditions, Land Management Objectives, and Fire Response Conditions in a Useable Format

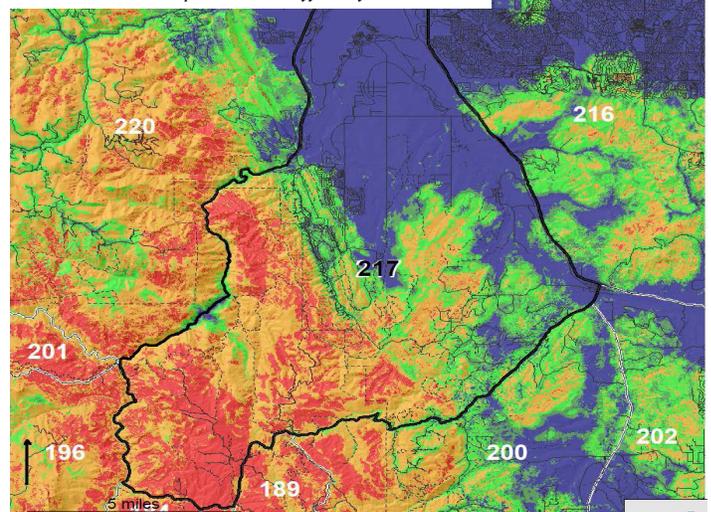
The POD Atlas provides the following information for each POD, complete with maps and imagery that summarize ecological information and fire response:

1. Base map with imagery and strategic response overview
2. Recent fires and fuel treatments
3. Vegetation type
4. Potential control locations
5. Suppression difficulty index
6. Potential flame lengths under different scenarios
7. Ownership and infrastructure
8. Heritage sites
9. Watershed and water utility infrastructure
10. Wildlife habitat
11. Expected conditional net value change for water and ecosystem function

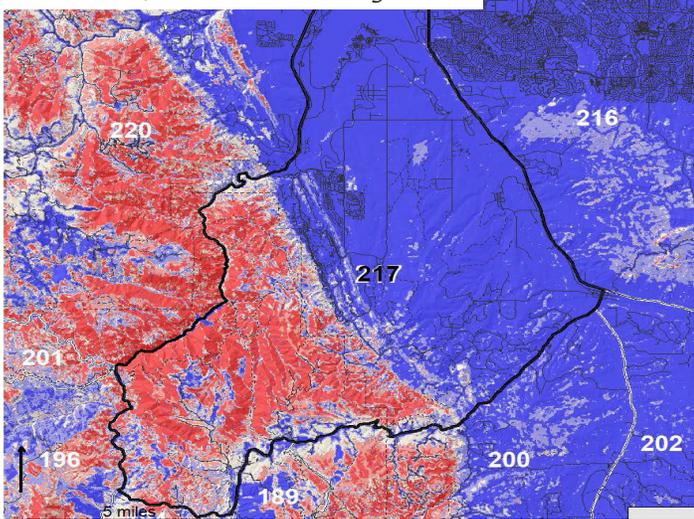
POD 217 Recent Fires and Fuel Treatments



POD 217 Suppression Difficulty Index



POD 217 Potential Flame Lengths



Further Reading and Resources:

[*Collaborative Spatial Fire Management: Getting Ahead of Fire Using Potential Operational Delineations*](#)

[*Potential Operational Delineations and Northern New Mexico's 2019 Fire Season*](#)

[*Collaboratively Engaging Stakeholders to Develop Potential Operational Delineations*](#)

[*Application of Wildfire Risk Assessment Results to Wildfire Response Planning in the Southern Sierra Nevada, California, USA*](#)

The POD Atlas is a result of a collaborative effort between Rocky Mountain Research Station, The Colorado Forest Restoration Institute and Prologix, a consulting firm specializing in wildfire modeling and risk assessments.



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