The Use of PCLs, PODs, and Risk Assessment in Strategic Wildand Fire Management Planning

Initially, focus on the federal units that have a history of large fires and the landscape, fuels, terrain, resource capacity, planning expertise, leadership, interest, and L/RMP direction to support strategic wildfire planning. Engage adjoining state and local partners in the development and use of this process.

Local expertise identifies potential control lines (**PCLs**) based on ridgetops, lakes, rivers, fuels, roads, nonburnable areas, past and existing containment lines, and previous large fires and behavior (in this case with a red highlighter on a paper map).
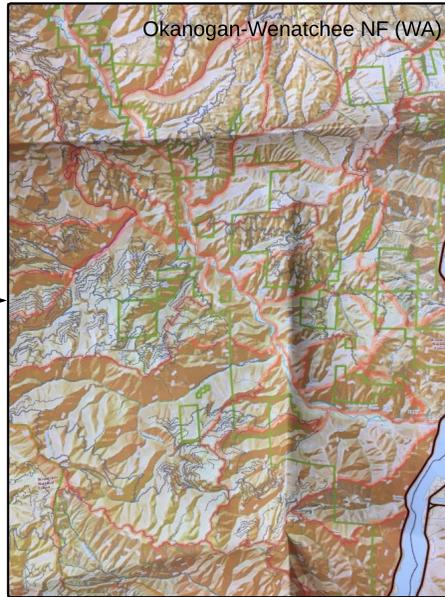
Using a machine-learning model, RMRS Missoula develops a PCL map for each Forest--the output is used to further refine or help develop the expertise-informed PCLs. To the right, areas in blue indicate the highest containment probability.
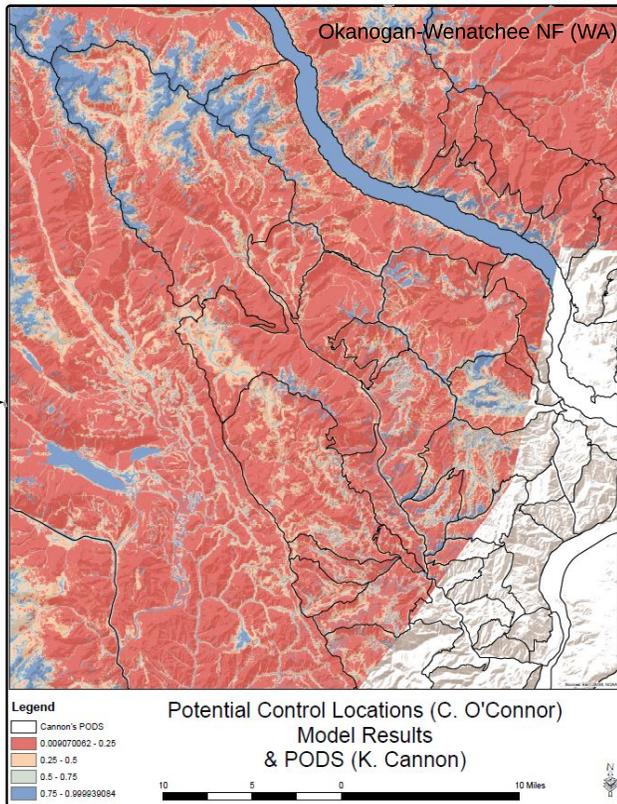
A PCL GIS layer is created and aggregated into potential wildfire operational delineations (**PODs**)--a polygon constructed from linking together PCLs (black lines).

Using data from a forest, regional, or national **quantitative wildfire risk assessment**, each POD receives a value based on the net loss or benefit to the assets and resources in the POD (expressed as conditional net value change [cNVC]). This net value can be grouped into categories, such as low or moderate benefit, and low, moderate, or high loss.
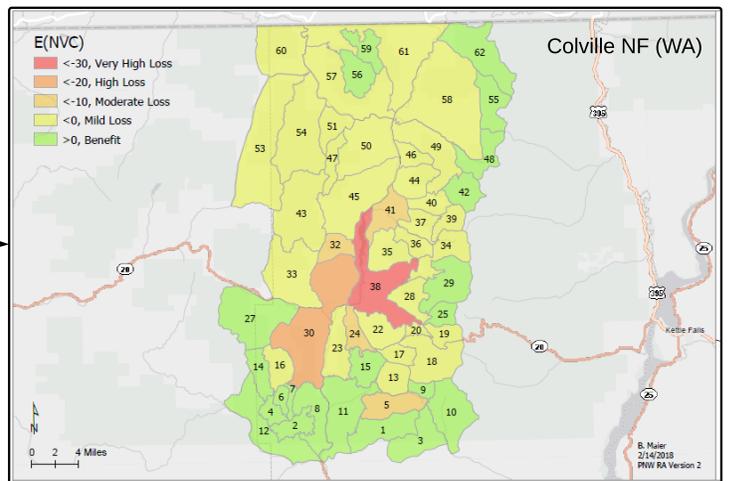
PODs can be combined to create **strategic wildfire response zones** (aka fire management zones) based on similar net loss or benefit.

Along with **fuel treatments** in the WUI and hardening assets, fuels planning in the off-season can focus on areas of high net loss and response zones and/or POD boundaries to increase the probability of success on future wildfires and allow for safer firefighter engagement.

Dispatch zone boundaries can mirror response zones or be refined based on ownership and imported into WildCAD.

Preplanned responses and **run-cards** can be developed for each dispatch zone based on expected net value change and probability of containment due to POD and fuels preparation.

WFDSS **strategic objective shapes** can mirror the response zones IF L/RMP fire management guidance is in alignment with the unit's strategic fire response (i.e., monitor, confine, point or zone protection, full suppression).

Preseason fire engagements with partners and cooperators can simulate an ignition in a response zone and the use of PCLs, PODS, resources, and the fire response can be demonstrated.

Okanogan-Wenatchee NF (WA)

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Legend
Cannon's PODS
0.009070062 - 0.25
0.25 - 0.5
0.5 - 0.75
0.75 - 0.999939084

Potential Control Locations (C. O'Connor)
Model Results
& PODS (K. Cannon)
10   5   0   10 Miles

E(NVC)
<-30, Very High Loss
<-20, High Loss
<-10, Moderate Loss
<0, Mild Loss
>0, Benefit

Colville NF (WA)

0   2   4 Miles

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