

# Management of the Boze and Rainbow Creek Fires

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## Approach:

During the Boze and Rainbow Creek fires on the Umpqua National Forest, managers emphasized reducing risk of firefighter exposure and containing costs to taxpayers. Our strategy included tactics based on criteria specific to the fires with high probability of effectiveness and success in response to fire conditions. This approach departed from a perimeter-containment strategy typically used in southwest Oregon.

## Background:

Lightning struck the Umpqua National Forest and southern Cascade Range on the evening of September 12th, continuing through the 13<sup>th</sup>. We detected 50 ignitions. Within several days we successfully contained all but the Boze Fire.

When complexity of the Boze Fire increased beyond local capability, the Umpqua National Forest assigned fire management to the Pacific National Incident Management Organization (NIMO) team already in place working on a long-term implementation plan for the fire.

The Boze Fire burned in inaccessible, steep and dangerous terrain prohibiting safe, direct firefighter access. Our initial fire response included an indirect approach using roads and trails as fire-containment lines. Firefighters armored lines by clearing and burning out vegetation next to roads. This tactic was nearly completed when a volatile combination of high temperatures and low humidity fueled fire growth, causing spotting which firefighters were unable to contain. On the same day, Rainbow Creek (lightning) Fire ignited, quickly burning hundreds of acres two miles east of the Boze Fire. Both fires doubled in size in only a few hours. On the day of the fires' maximum single-day growth, all crews were pulled off the line for safety.

The NIMO team and Umpqua National Forest staff used the long-term implementation plan and a risk-assessment model, called "Prospect", considering previously identified risks, values and resources at risk, remoteness of the fire, and likelihood of onset for cooler, wetter fall weather. Managers employed a point-protection strategy, checking the fire's spread to protect values at risk until the cooler, wet weather moderated fire behavior.

## Key Points:

- The Forest Service evaluated "values at risk", and suppression activities were tiered to protection priorities.
- Values at risk included heritage sites, hydro-electric facilities, matrix (timber) forest lands, late successional, riparian reserve and wilderness allocations, communications equipment, critical spotted owl habitat, recreation improvements, and watersheds.
- Values at risk were protected using the minimum resources necessary and providing protection only as the fire approached pre-determined trigger points.
- We based our approach on exposure to firefighters, probability of success, current and predicted weather conditions, and the high cost of going indirect with burning out.
- Our approach reduced overall costs by reducing the numbers of suppression personnel and minimizing use of aerial resources.
- The strategy was developed collaboratively between the NIMO team and the Forest Service with participation from Douglas Forest Protective Association.

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# Boze & Rainbow Fires – Talking Points

## SAFETY IS NUMBER ONE

On the Boze and Rainbow Fires, NIMO (National Incident Management Operations) and the Umpqua National Forest focused on **firefighter and public safety as a primary objective**, choosing to engage only in safe actions likely to be effective and successful.

- Large, complex fires - called mega-fires - are increasing and becoming more dangerous for firefighters. The Umpqua National Forest has potential to experience large fires. While the Boze Fire was not a mega-fire, it had the potential.
- Over the past 10 years, an average of 21 firefighters die fighting wildfires and there are 7 aviation accidents each year. The Forest Service alone spends \$1.2 billion to suppress about 10,000 fires each year. It's important to use an improved approach to prevent such losses.

## FIRE SHOULD BE EXPECTED HERE

Fire is an essential part of the Umpqua National Forest and is as natural as rain, snow and sunshine. It should be expected to occur in areas like this with fire-prone vegetation. Excluding it could result in more intense fires.

- We've seen dramatic changes in wildland-urban interface, wood and weather. Decades of excluding fire from forests, growing fuel loads, and increasing push of homes into wooded areas as well as reduced harvesting levels with more thinning, extended droughts, and changed climate have affected the dynamics of the fire environment and created new challenges..
- At the peak of the Boze Fire, Sept 22<sup>nd</sup> - 24<sup>th</sup>, many of these elements made direct suppression ineffective and increasingly risky to firefighters. More forest lands burned during these days of extreme fire behavior than all other days.

## THE STRATEGY WAS COLLABORATIVE

The Tiller Ranger District and the Umpqua National Forest recognized the value of the land in and around the fire area: critical spotted owl habitat, watersheds and riparian areas, heritage sites and recreation.

- The cost of protecting these values from fire were considered along with potential risk to firefighters and the likelihood of being successful with the chosen suppression tactics.
- The strategy was developed collaboratively with the Forest Service and the NIMO team with participation from Douglas Forest Protective Association.
- The Forest recognized and supported the management team's belief of little likelihood that full suppression would be successful because of hot dry weather and steep terrain which, together, carry unacceptable risk for firefighters, compared with the values at risk.
- The Forest and the Team developed a plan to engage in protection of specific sites and values, as they become threatened, and not attempt to put firefighters or aircraft at unnecessary risk, or unwisely spend public funds when those actions are unlikely to be successful.
- The Forest supported the team's predictions for cooler temperatures, higher humidity, and a likely season-ending event by October 15, and agreed with a point-protection strategy instead of direct attack.

## THE CHOSEN STRATEGY

The point-protection strategy used on the Boze and Rainbow fires was appropriate for the fire, forest and time of year.

- Communities may see fire managers use different management actions, resulting in safer actions and more effective outcomes. The point-protection strategy used on the Boze and Rainbow fires was a safe, cost effective, and efficient use of resources.
- This was not a "let burn" strategy. Fire manager have many tools available to deal with fires, and point protection is a cost effective and low risk way of engaging the fire while protecting threatened values.
- There were no communities at immediate risk from the Boze and Rainbow fires; the values at risk identified were easily protected as the fire advanced and used minimal resources.
- Cost efficiency was a beneficial outcome of fighting the fires using the strategy. Cost did not drive the tactics, but the efficiency and effectiveness of the strategy resulted in cost savings.
- This strategy resulted in better outcomes on the land - less resource damage from suppression activities.