

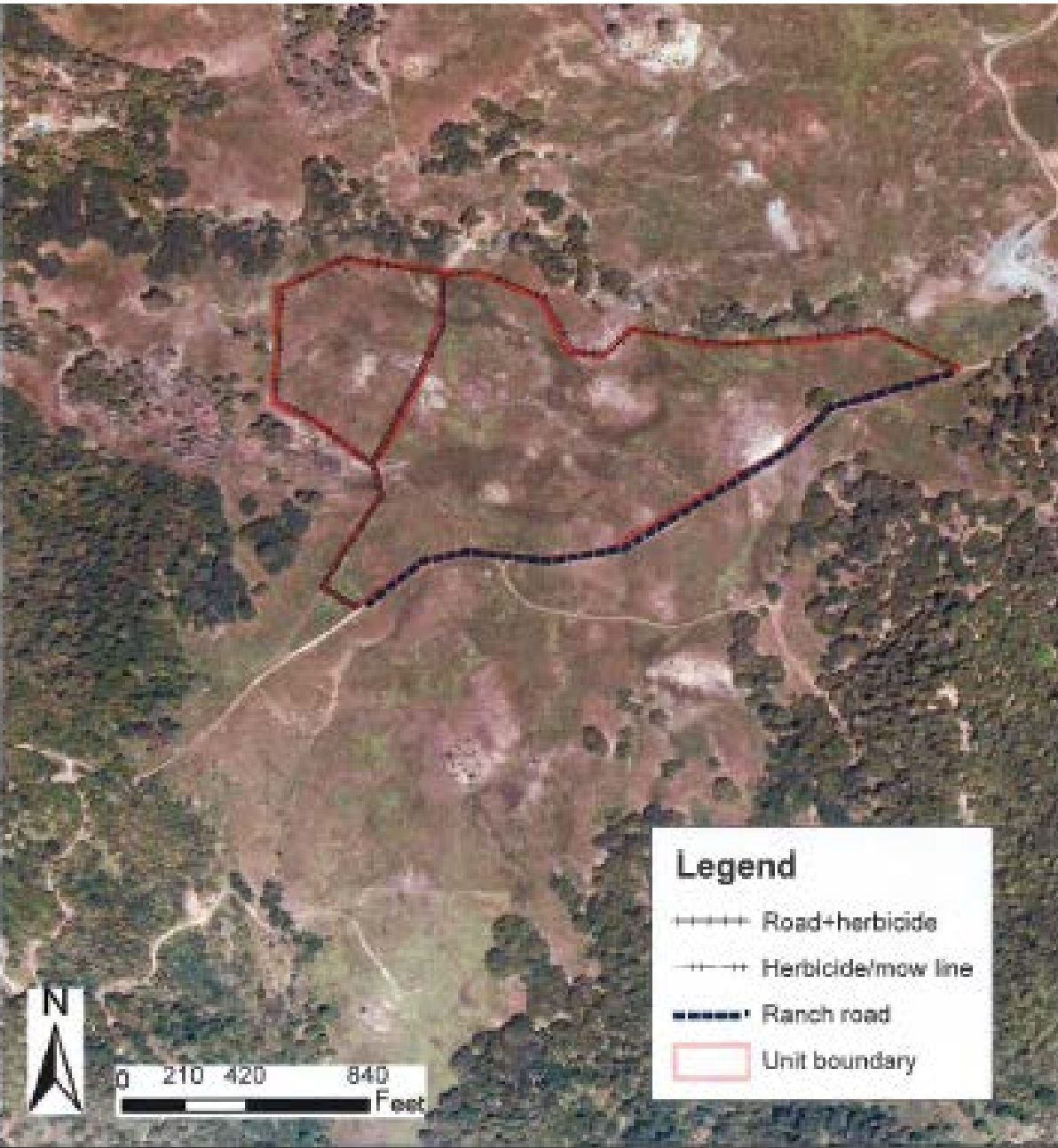
A Brief Intro to Prescribed Burn Unit Prep, Firing Operations, and Mop-up



Photo Credit: Lenya Quinn-Davidson

Ryan Tompkins
UC Cooperative Extension
Forestry & Natural Resources Advisor

Considerations that go into Burn Unit Prep



Field Assessment of Conditions:

Unit Recon and Design

- Topography
- Fuels
- Weather

Unit Features

- Access
- Staging Areas
- Water Sources
- Containment Lines

Compliance

- Burn Plan
- Permits in Place
- Signage
- Notifications
- Resources in place
- IAP: Incident Action Plan
- Safety

Preparation

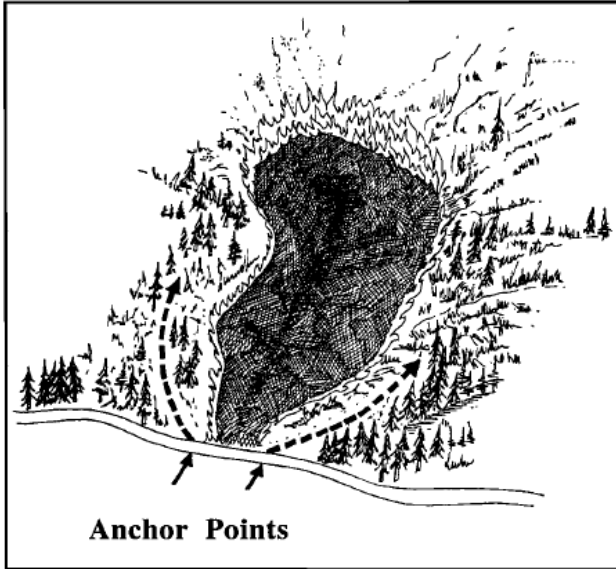
- Containment Lines
- Equipment vs. Handline
- Hoselay- Plumbing

Mop-up, Patrol, and De-Mob

- Available Resources
- Timing

Burn Unit Layout and Prep

Figure 8—Begin Fireline At Anchor Point



From: NWCG Wildland Fire Suppression Tactics Guide 1996

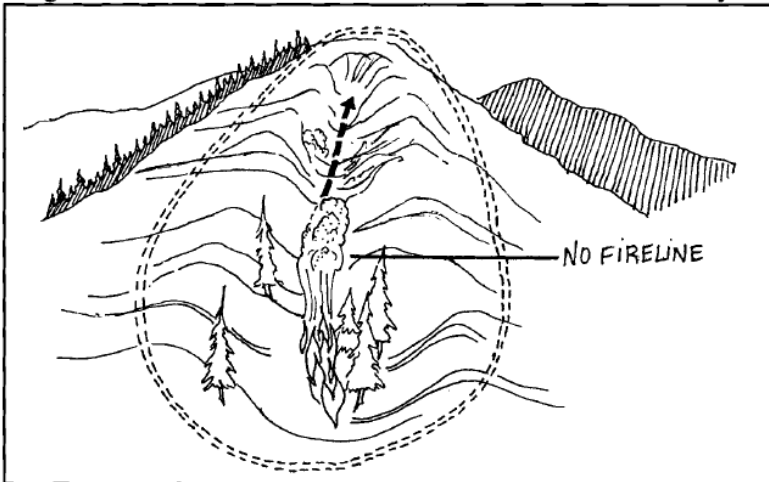
Remember its guided by the Rx Burn OBJECTIVES!!!

1. Analyze topography
2. Observe Weather Trends
3. Anticipate Fire Behavior

CONSIDER:

- Use natural or pre-existing anchor points
- Strategic placement of containment line and resources relative to topography
- Need for strategic pre-treatment of fuels near resource values (Legacy trees, structure, etc.) or strategic containment line
- All phases: Ignition, Holding, Mop-up
- Smoke dispersion

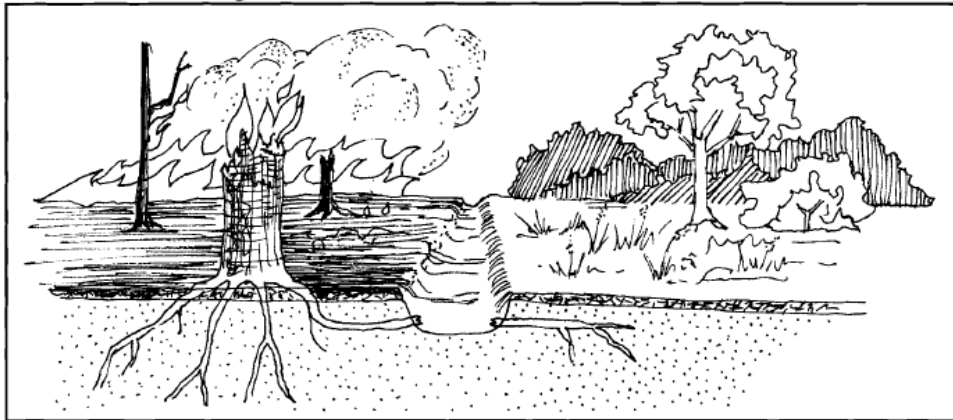
Figure 10—Fireline Constructed Near Chute or Box Canyon



From: NWCG Wildland Fire Suppression Tactics Guide 1996

Containment Line Considerations

Figure 16—Fireline Cleaned To Mineral Soil



From: NWCG Wildland Fire Suppression Tactics Guide 1996

Locations consider:

- Fuels: type and arrangement
- Topography: Ridges, Drainages
- Fire behavior & weather: Heat
- Infrastructure: Roads, Resources
- Should be “anchored” & Complete!

Containment lines can be:

- Roads, skid trails,
- Handline
- Dozer line
- Wet line
- Mow line
- Herbicide line
- Natural Features (Creek)

Typical Construction:

- Bare mineral soil
- Only as wide as necessary - Width based on fuel type, load, and arrangement
- Should not be available to burn



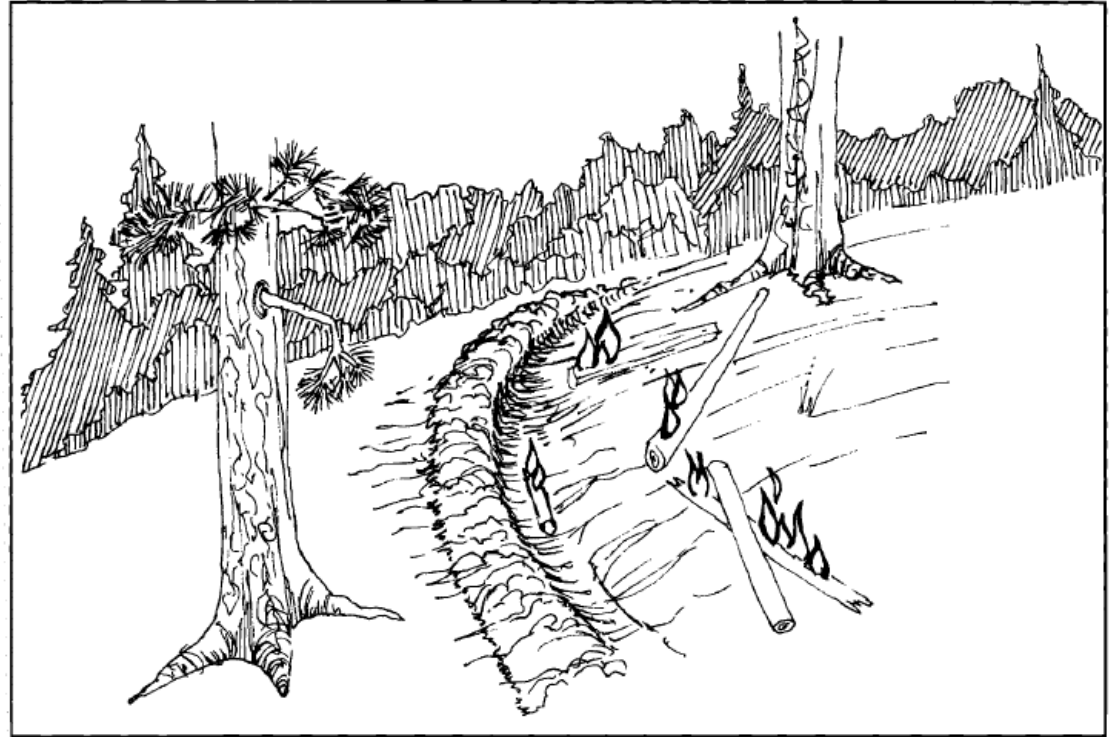
Photo Credit: Ames Gilbert

Containment Line Considerations, continued



Photo Credit: NWCG

Figure 17—Cup Trench Below A Fire On A Slope



From: NWCG Wildland Fire Suppression Tactics Guide 1996

Other Special Considerations:

- Snags, rolling materials & safety hazards
- Amount of heat for holding
- Resources needs (hose lays?)
- Mop-up & Patrol
- Maintenance
- Erosion control & post-fire rehab

Firing & Holding Operations



Plan

- Burn Plan (with OBJECTIVES!!!)
- Weather and Fuel Monitoring
- Go – No Go Checklist

People

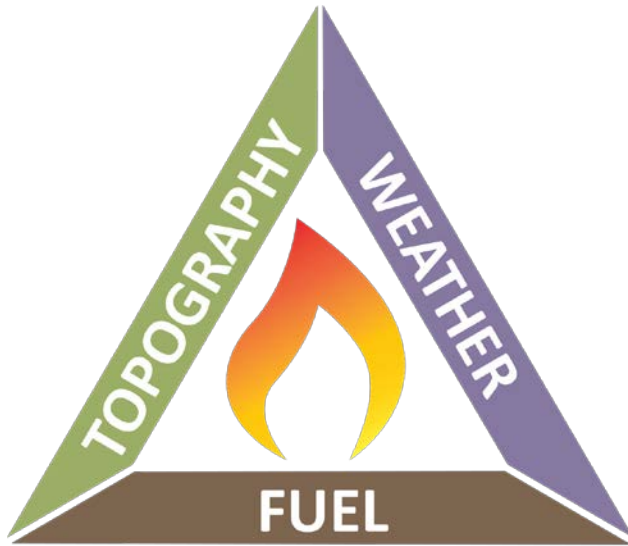
- Burn Boss
- Firing and Holding Resources

Process

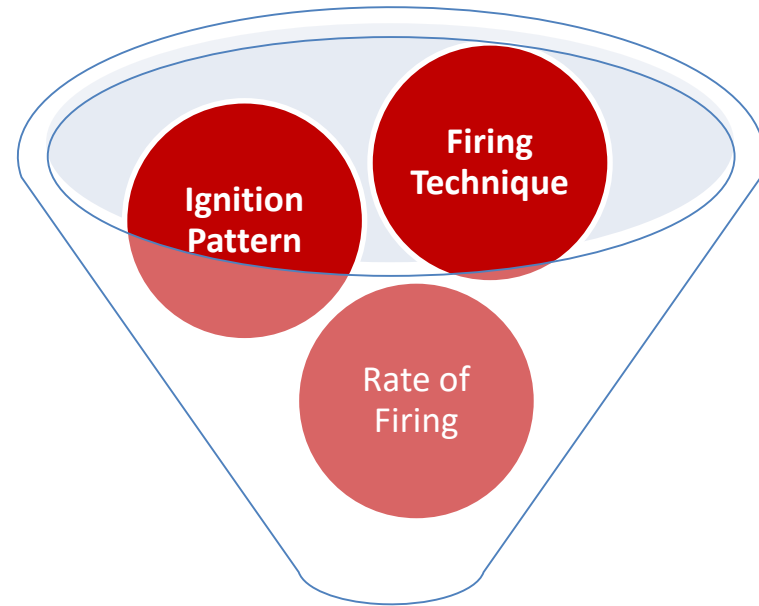
- Notifications
- Test fire
- Ignition & Holding (choreographed together)
- Mop-up & Patrol

Firing Operations: Applied Fire Behavior

Additional Factors Affecting Rx Fire Behavior



Fire Behavior Triangle



Fire intensity



Control Issues and
Resource Needs

Common Firing Techniques & Ignition Patterns

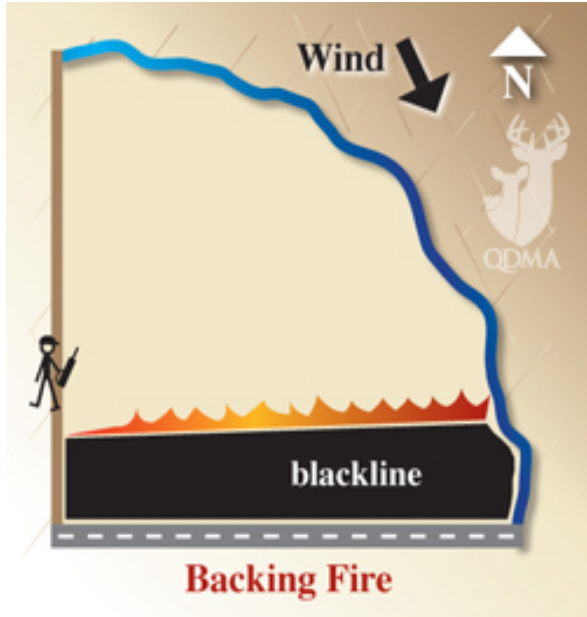
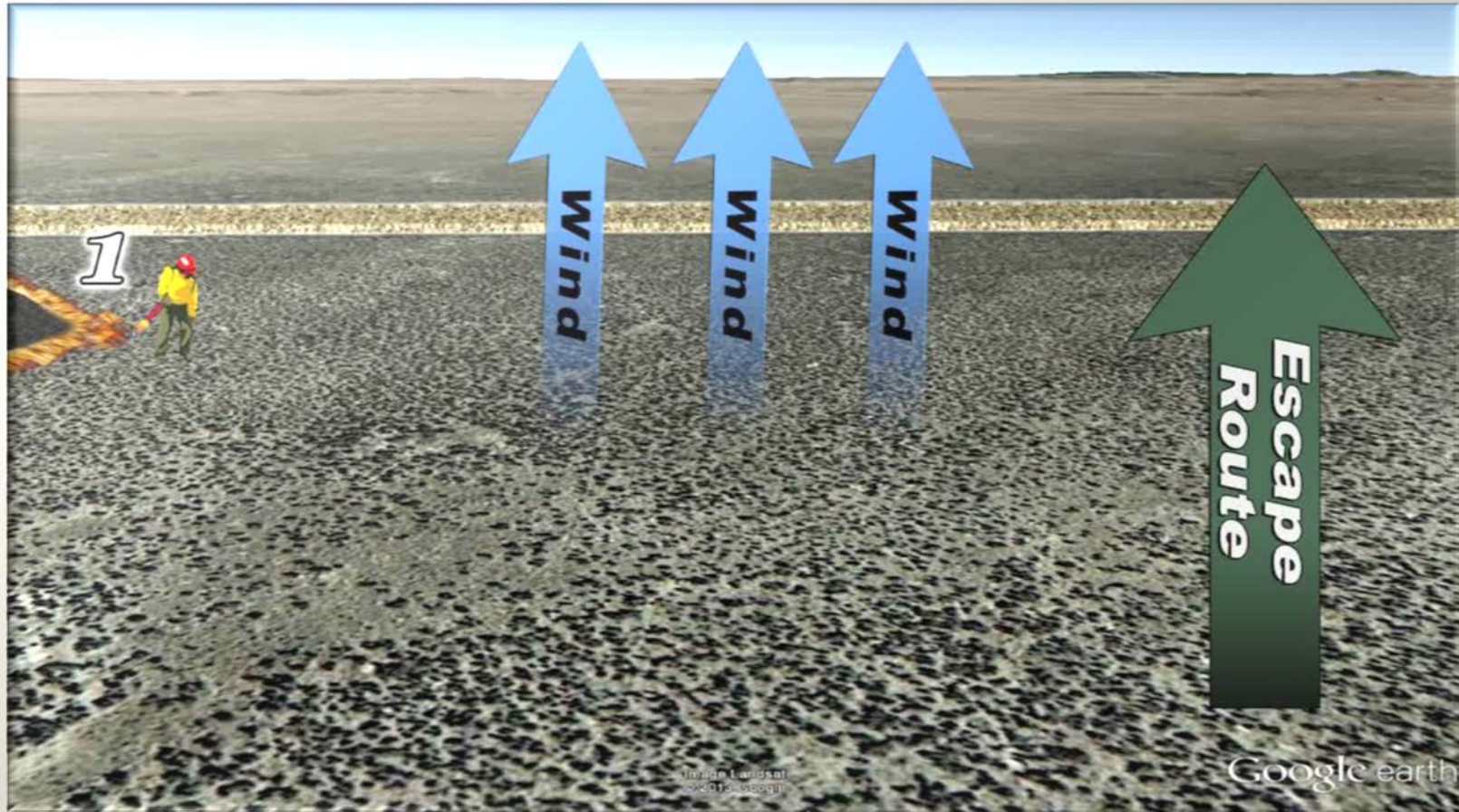


Photo Credit: Lenya Quinn-Davidson



1

Wind

Wind

Wind

Escape
Route

Google earth

Firing Techniques & Ignition Patterns



Holding Operations



Choreographed
with Firing

Heat/Smoke on
the line

Eyes on the
“Green” looking
for spot fires

Patrolling for
slop-overs

Monitoring
Weather & Fire
Activity

Communicating
with Firing



3 7:15PM

Mop-up & Patrol



Photo Credit: Inciweb

#1 Let consumption happen if congruent with objectives

#2 Safety: Mitigate Hazards

#3 Prioritize the perimeter

#4 Judicious use of tools and water

#5 Key in on Features:

- Stumps

- Logs

- Snags

- Cat-faces

- Smoke/Steam

#5 Patrol, Patrol, Patrol

Questions?