

Control Lines

Control Lines

- Natural or constructed barriers to fire spread
- AKA firebreaks, firelines



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Pre-existing: Natural

- Water
- Bare mineral or rock
- Green meadow or riparian area
- Animal trail



Cattle and game trail

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Pre-existing: Manmade

- Roads
- Skid trails
- Previously installed firelines or firebreaks
- Cultivated fields
- Recently burned units (black)



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Constructed

- Handline
- Machine line
- Mowed line
- Blackline
- Wetline



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Handline

- Bare mineral soil
- Width depends on fuel type, height, weather, firing plan
- Typical width = 1.5 times height of adjacent fuel (in unit)
- Can be "cupped" to catch rolling debris on slopes



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Machine line

- Dozer, tractor plow, tractor disk, excavator
- Bare mineral soil
- Width depends on height of adjacent fuel
- Minimum width depends on equipment



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Control Lines

Mowed line

- Reduced fuel height
- Often used with other line types
- Allows narrower bare mineral line
- In light fuels may avoid bare mineral line

Mowed line with narrow handline, plumbed for mop-up

Burn unit

Mowed line to be used with blackline and water

Burn unit

Photos: John Punches

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Blackline

- Use of fire to remove fuel
- Often used in conjunction with other line types
- Requires firing and holding resources
- Can be done day of burn, or in advance

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Wetline

- Water sprayed to reduce fuel's flammability
- Used in conjunction with other line types
- Requires water resources
- Most effective when water is crushed into fuels
- Requires follow-up – may dry and allow fire spread

Water being sprayed in front of track and then crushed into mowed grass.

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Control line location

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Use natural or existing control features where possible

- Rocky spurs
- Water features
- Roads
- Skid trails
- Plowed or irrigated fields
- Trails
- Previous burn units

Skid Trail

Burned last fall

Burn unit

Mainline Road

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Consider topography

- Use spur ridges
- Avoid valleys

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Control Lines



Avoid mid-slope control lines

- Over-slung fuels will heat and dry
- If necessary, burn upslope units first
- Keep lines relatively straight

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Consider anticipated/planned wind direction

- Prevailing wind
- Diurnal wind

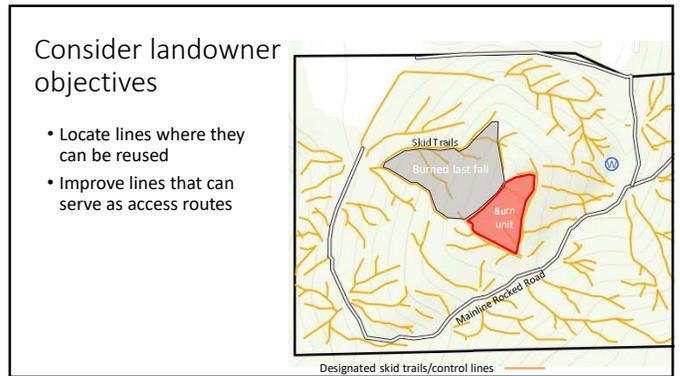
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Consider soils and erosion potential

- Don't make lines wider than needed
- Don't expose soil unless necessary

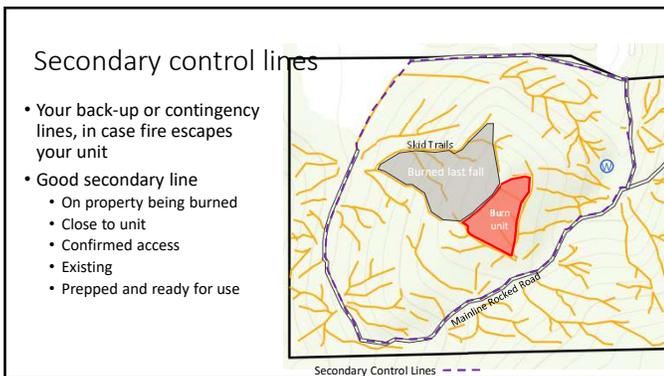
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Consider landowner objectives

- Locate lines where they can be reused
- Improve lines that can serve as access routes

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Secondary control lines

- Your back-up or contingency lines, in case fire escapes your unit
- Good secondary line
 - On property being burned
 - Close to unit
 - Confirmed access
 - Existing
 - Prepped and ready for use

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Rehabilitation (line repair)

- Plan for line repair – but be strategic
- Leave lines in place if they serve future purpose
- Manage erosion, unintended use, hazard, aesthetics
- Mitigate with water bars, clean straw, natural vegetation from site, native plant seeding
- Block access to control lines that might become unwanted trails

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