

Fire Safety

Prescribed Fire in Wisconsin



Photo Credit: Zach Pacana





Objectives

- Fighting Fire
- LCES
- Standard Firefighting Orders
- Watch Out Situations





Fighting Fire Terms

- Spot Fire
 - Fire ignited outside of the main unit through sparks, embers, or rolling material
- Slop-overs
 - Fire escaping a unit through a break
- Escape
 - Accidental fire of substantial size outside of the unit



Photo Credit: Olivia Horton-Pacana



Fighting Fire

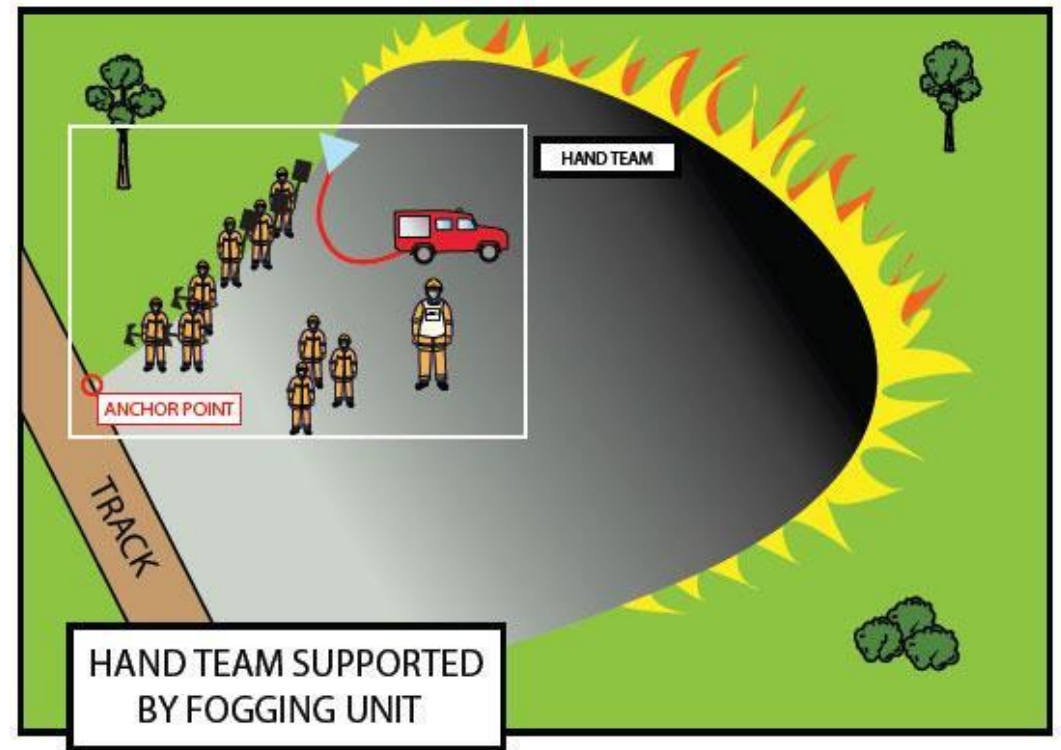
- Escapes happen, decide how to manage them based on:
 - Size of area affected
 - Flame length
 - Rate of spread
 - Personnel and equipment available





Single Flank-Anchor Attack

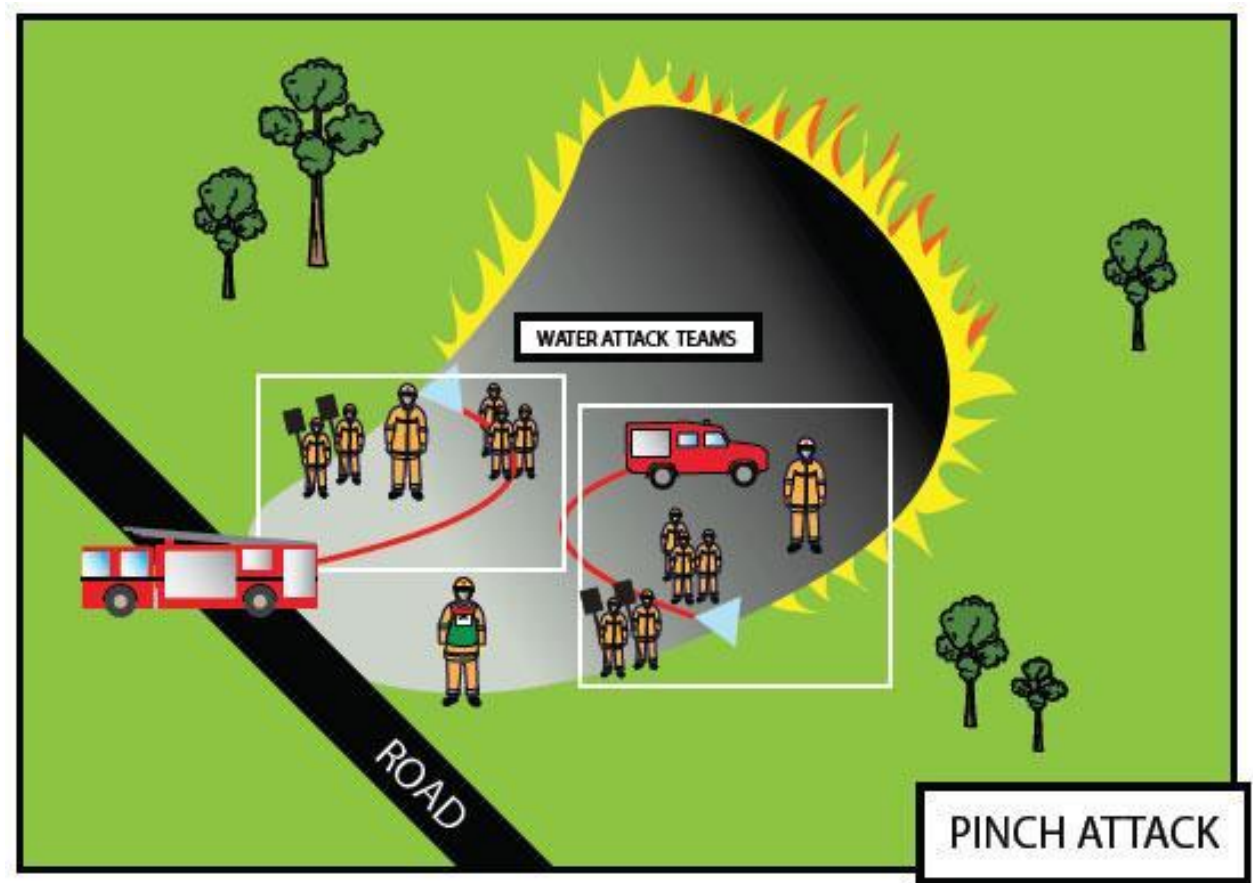
- Use when:
 - You are limited on personnel and equipment
 - Fire is spreading quickly
 - Flame lengths are long
- Strategy:
 - Pick the longest flank, flank that might turn into head fire, or the flank that is on the side with most resources to protect
 - Start at rear of fire
 - Fight from the black





Flank-Pinch-Anchor Attack

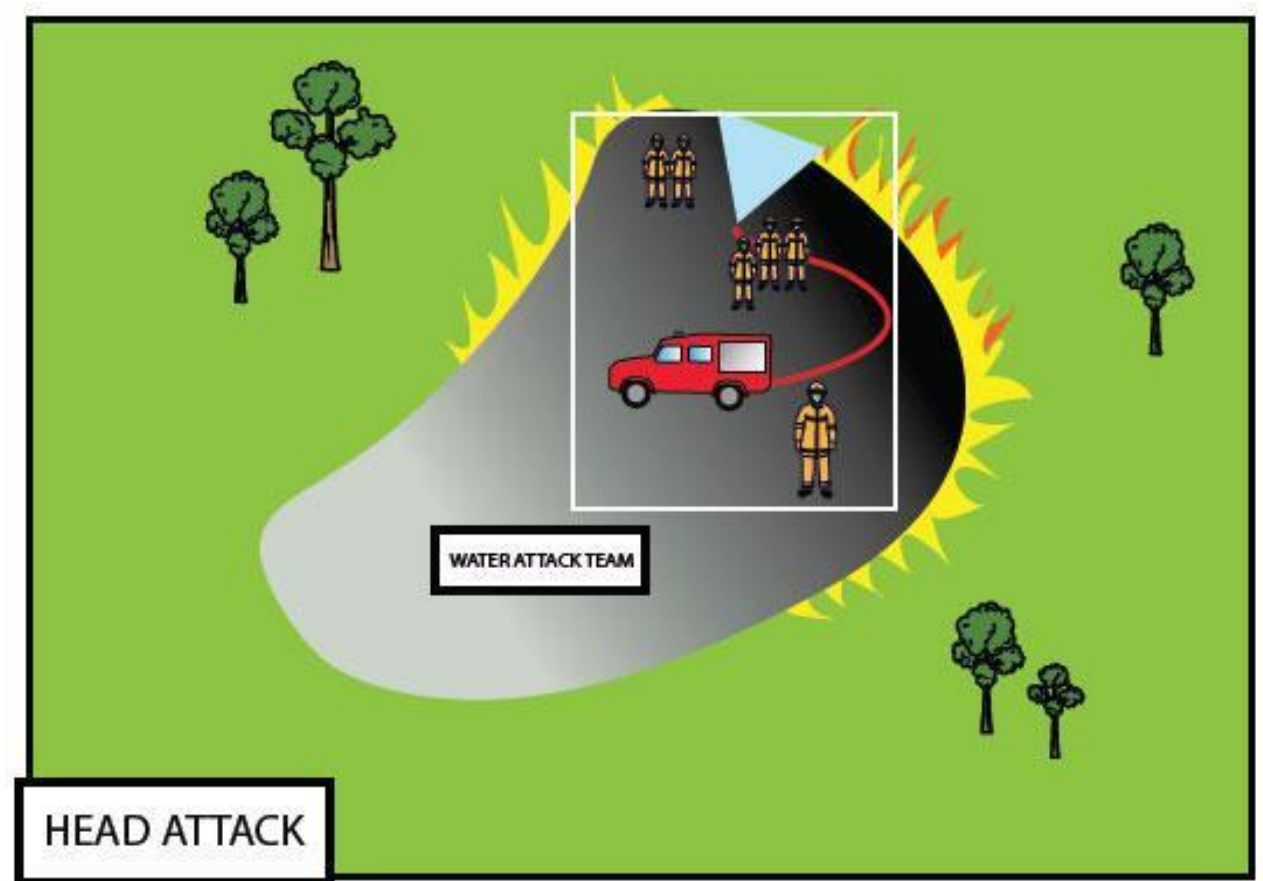
- Use when:
 - You have enough personnel and equipment
 - fire is spreading quickly
 - flame lengths are tall
- Strategy:
 - Fight from the black
 - Each team starts at rear of fire and fights flanks until reaching the head of fire





Head Attack

- Use when:
 - Spots are small
 - Flame lengths short
 - Fire is spreading slowly
- Strategy:
 - Attack at head and work back down flanks
 - Fight from black





Spot Fire Tips

- Have dedicated spotters /equipment from the start
- Get it while it is small
- Cease ignitions if safe to do so
- Attack aggressively but stay safe
- Reposition water resources
- **Call 911 if you think containment is not likely**





LCES

- Lookouts
- Communications
- Escape Routes
- Safety Zones



Photo Credit: Anne Connor



LCES-Lookout

Lookout crewmembers have the sole responsibility of watching:

- Spotting or escape fires
- Hazards to crew safety

Positioned where escapes are most likely to occur





LCES - Communication

Communication is a vital safety element for everyone involved in a prescribed fire

- Everyone should have access to a fully charged radio
- An in-depth briefing should be given before ignition that includes:
 - Safety Hazards
 - Who problems should be reported to
 - Ignition strategies





LCES - Escape Routes

Escape Routes are secure routes of travel that crew members may take to get to safety in an emergency.

- Have escape routes been designated?
- Are escape routes secure?
- Are all crew members aware of escape route locations?





LCES - Safety Zones

Safety Zones are used as a secure last resort area for crew members to retreat from hazardous conditions, they include:

- Roadways
- Wide firebreaks
- Black areas





Standard Firefighting Orders

- Organized in a deliberate and sequential way to systematically apply to all fire situations
- Based on USDA-Forest Service task force review of 16 tragedy fires

STANDARD FIREFIGHTING ORDERS

1. Keep informed on fire weather conditions and forecasts.
2. Know what your fire is doing at all times.
3. Base all actions on current and expected behavior of the fire.
4. Identify escape routes and safety zones, and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.
7. Maintain prompt communications with your forces, your supervisor and adjoining forces.
8. Give clear instructions and insure they are understood.
9. Maintain control of your forces at all times.
10. Fight fire aggressively, having provided for safety first.



Standard Firefighting Orders

1. Keep informed on fire weather conditions and forecasts
2. Know what your fire is doing **at all times**
3. Base all actions on current and expected fire behavior
4. Identify escape routes and safety zones, and make them known





Standard Firefighting Orders

- 5. Post lookouts when there is possible danger
- 6. Be Alert, Keep Calm, Think Clearly, Act Decisively
- 7. Maintain prompt communications with your crew and supervisors.





Standard Firefighting Orders

- 8. Give clear instructions and be sure they are understood
- 9. Maintain control of your forces at all times
- 10. Fight fire aggressively having provided for safety first





Watch Out Situations

- More specific and cautionary than the standard firefighting orders
- When these are encountered on a burn, the situation must be watched or changed to prevent injuries or escape



Photo Credit: Mayme Keagy



Watch Out Situations

- Safety zones and escape routes not identified
- Crew is uninformed on strategy, tactics, and hazards
- Instructions and assignments are not clear
- No communication link with crewmembers or supervisors



Photo Credit: Anne Connor



Watch Out Situations

- Unburned fuel between you and the fire
- Weather becoming hotter and drier
- Wind increases and/or changes direction
- Getting frequent spot fires across the line





Fire Safety Summary

- Safety is the first concern in any prescribed fire scenario
- Safety plays a role in all stages of prescribed fire: design, preparation, execution, mop-up, and evaluation
- Perpetual awareness and effective communication are key in maintaining safe prescribed fire operations



Questions?

