

Seminole County Fire Department

Safety Bulletin #24-003



To: All Personnel

From: Operations/Wildland 1

Date: May 31, 2024

Title: Wildland Firefighting Safety
(LCES, Watch Out, Ten Fire Orders and PPE)

Recently we have experienced an increase in Wildland fire activity. Until we reach the normal summer rain pattern, we may continue to see this increased activity. When responding to these types of alarms, it is important that we operate in a safe manner just as we would during a structure fire. The following is information from the Seminole County & Cities Incident Management System 3.20 (Brush/Wildland Fire Emergencies) as well as nationally recognized safety rules that should always be followed during a wildland event.

Initial Response:

Size-up – Prior to dispatch, while en route, and throughout the incident, the following factors should be considered:

1. Current and predicted weather
2. Access issues
3. Values at risk: life, structures, timber, etc.
4. Available resources
 - Consider air assets early.
 - Additional resources needed to properly manage the incident should be determined early.
 - Divisions and Groups shall be established for proper span of control and effective management of the incident.
 - Divisions will be assigned geographically (North, South, East, and West).
 - An incident Safety Officer shall be established.
5. Size of fire
6. Rate of spread
7. Fire behavior
8. Escape routes and safe zones
9. Water supply
10. Fuel Types
 - **Light Fuel** – grass, needle cast, patchy shrub (palmetto, gall berry, oak shrub) fuels less than 12 inches in height with minimal over story (Canopy).

Title: Wildland Firefighting Safety

- **Moderate Fuels** – grass, uniform shrub (palmetto, gall berry, oak shrub) fuels 1' to 3' in height with moderate over story.
- **Heavy Fuels** – grass, shrub (palmetto, gall berry, oak shrub), fuels 4' and greater in height with any over story.

Action Plan - The initial Command should develop an Incident Action Plan. The action plan should establish the role of all personnel at the incident.

Florida Forest Service Notification – FFS should be notified of all wildland fires for initial attack. If immediate containment is achieved by Fire/EMS units, FFS dispatch should be notified. FFS may cancel a tractor-plow unit and send only a supervisor, divert units to higher priority fires, or determine no further action is needed.

1. If the fire cannot be mopped up or if future control issues are a concern, FFS should respond for control line construction.
2. FFS has the primary responsibility for wildland suppression and members of the Seminole County First Response System will operate in a Unified Command system with FFS. The FFS supervisor should have the lead role in development of strategic and tactical goals.

Wildland/Urban Interface:

The primary role for Fire Department units during a wildland/urban interface event will be structural protection.

1. Hose lines for structural protection should be a minimum of 1 ½" to provide adequate fire flows, while retaining mobility.
2. Water conservation is critical. Use water wisely and do not exhaust entire booster tank in case it is required for personnel/apparatus protection.
3. Apparatus should be positioned for quick exit and avoid damage from flame impingement.
4. Consider structural preparations such as debris removal, closing windows, etc.

Structural Triage should be performed during urban/interface situations when multiple structures are threatened. The process shall be divided into three categories based on timing of the fire front and the amount of work required to lessen the threat to the structure.

1. Not threatened (**Green**): 50' of greater separation from fuel to structure, easy turn around for engine, non-combustible roof tile, metal, asphalt.
2. Threatened (**Yellow**): 15' – 50' separation from fuel to structure, minimal turn around for engine, multiple items near structure (lawn chairs, wood piles, fences, debris on roof, etc.)
3. Unlikely to save (**Red**): less than 15' separation from fuel to structure, no turn around or easy ingress/egress, excessive debris needed for removal, wood shake roof.

Title: Wildland Firefighting Safety**Non-interface Wildland Fires:****Attack mode** (Offensive vs. Defensive):

1. When fires are completely accessible from roadways and reached with a pre-connected hose line, an offensive attack may be conducted by engines.
2. Woods Trucks may conduct an offensive attack with adequate access from fields or two trails.
3. For remote or large fires, a defensive mode should be assumed. Barriers such as roadways should be utilized for apparatus placement and fire containment.

*In the absence of life safety considerations and exposures, consideration should be given to allow the fire to consume fuels up to a definitive, safe, and defensible space.

Mop Up:

Standards and Objectives

1. When possible, all fires should be completely extinguished.
2. Larger fires with little access should be completely overhauled fifteen feet within lines, flaming within 100' of the line.
3. Consider risk vs. benefit when conducting mop up operations.
4. Safety hazards such as snags should be mitigated by trained personnel.

Safety:

1. Firefighters should not be permitted to enter wooded or heavy brush area without a specific assignment and in most instances should be restricted to areas within two hundred feet of the roadway or assigned apparatus.
2. All personnel should recognize that a roadway or other open area might not be a safe place in extreme fire conditions.
3. Apparatus should be protected by covering hose beds, closing compartments, and rolling windows up.
4. Apparatus should be parked in a safe area with the front facing escape route. Apparatus should be backed into driveways and narrow roads.
5. Headlights and emergency lights should be on during smoky conditions.
6. The last 100 gallons of water in booster tanks should be saved for apparatus and crew protection. Never pass up a water source when the tank is less than full.
7. Firefighters should be aware of the following common denominators of fire behavior on tragedy fires. Most injuries or deaths to firefighters occur on smaller fires or isolated portions of larger fires. Most fires are innocent in appearance before unexpected shifts in wind direction and/or speed results in "flare ups" or "extreme fire behavior". Flare ups generally occur in deceptively light fuels such as grass and light brush.
8. Crews should be rotated to rehab areas based on workload, heat stress, and other factors. Additional resources should be in place to maintain acceptable levels of safety.

Title: Wildland Firefighting Safety

9. Electrical lines pose a shock hazard during smoke conditions. Do not utilize power lines right of ways as a safe zone.
10. Fire personnel will not ride on the exterior of apparatus unless the apparatus is designed for such purposes.
11. The minimum approved PPE for wildland fires shall include a wildland jumpsuit or wildland jacket and pants, hardhat with neck shroud, leather gloves and boots, portable radio, and a fire shelter. If wildland PPE is not provided, then full structure gear should be worn.
12. Fire department personnel and equipment will not work within 100' of FFS tractor/ plow units while they are plowing or blading lines.

LCES

Lookouts Communications Escape Routes Safety Zones

Watch Out Situations

1. Fire not scouted and sized up.
2. In country not seen in daylight.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behavior.
5. Uninformed on strategy, tactics, and hazards.
6. Instructions and assignments not clear.
7. No communication link with crew members or supervisor.
8. Constructing line without safe anchor point.
9. Building fire line downhill with fire below.
10. Attempting frontal assault on fire.
11. Unburned fuel between you and fire.
12. Cannot see main fire; not in contact with someone who can.
13. On a hillside where rolling material can ignite fuel below.
14. Weather becoming hotter and drier.
15. Wind increases and/or changes direction.
16. Getting frequent spot fires across line.
17. Terrain and fuels make escape to safety zones difficult.
18. Taking a nap near fire line.

Ten Standard Fire OrdersFire Behavior

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.

Title: Wildland Firefighting Safety

Fireline Safety

4. Identify escape routes and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.

Organizational Control

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.

If 1-9 are considered, then...

10. Fight fire aggressively, having provided for safety first.

Personal Protective Equipment (PPE)

Proper PPE shall be worn during all phases of Operations. Supervisors are responsible for ensuring personnel are wearing proper PPE at all times.

Initial Attack

1. *All personnel engaged in initial attack will wear full protective equipment* consisting of a minimum of brush jacket and pants, helmet, gloves, eye protection, hood, portable radio, and web belt containing their hot shield and an emergency shelter.
2. In the event that a large wall of fire is approaching a defensible structure, then full bunker gear with SCBA shall be worn when a direct attack is made on the structure fire (interior/exterior).

Mop-up

The acceptable personal protection for mop-up should include gloves, helmet, eye protection with brush jacket and pants.