



Rogers Fire Department Standard Operating Procedures

Policy Title:	Wildland Urban Interface Firefighting		
Policy Number:	516	Volume:	Tactics
Approved By:	Tom Jenkins	Last Updated:	March 2019
CFAI Reference:	5K.1, 5K.3	CAAS Reference:	N/A
Revision Summary:	Created – March 2019		

PURPOSE

The purpose of this policy is to establish a standardized response and deployment strategy for wildland fires. Adherence to this policy will provide members with a safer and effective framework for fire suppression and coordination.

POLICY

Fires that occur outside of structures involving vegetation pose significant risk to the city and surrounding areas. These fires, referred to as “wildland fires”, burn across jurisdictional boundaries and can involve federal, state and local jurisdiction. Incident commanders should be quick to order additional resources and recognize that these fires, especially when impacted by wind and dry conditions, can grow in complexity and resources needs rapidly. Normal firefighting strategies may have to be suspended to contain and then extinguish these types of fires. Incident commanders should resist the temptation to focus on extinguishment and instead place a high priority on reconnaissance and containment of these fires.

Definitions:

Air Attack – The deployment of fixed-wing or rotary aircraft on a wildland fire, to drop retardant or extinguishing agents, shuttle and deploy crews and supplies, or perform aerial reconnaissance of the overall fire situation.

Backfire - A fire set along the inner edge of a fireline to consume the fuel in the path of a wildfire or change the direction of force of the fire's convection column.

Backing fire – Fire, or flank of a fire, moving against the wind

Creeping fire – Fire burning with a low flame and spreading slowly.

Head fire – A fire spreading with the wind, also the most rapidly spreading portion of a fire's perimeter (usually up slope or leeward).

Flanks of a fire – The parts of a fire's perimeter that are roughly parallel to the main direction of spread.

Wildland Fire – An uncontained and hostile fire threatening structures (or likely to threaten structures) measuring several acres in size.

Initial Assignment:

Most wildland fires will initially be dispatched as grass fires, summoning either two fire companies or two fire companies and a brush pumper if the call is within proximity of a fire company with a brush pumper. Regardless of initial assignment, the greater alarm for the call types of Grass Fire, Investigate Fire Outside, and Investigate Smoke Outside is:

- two additional fire companies with brush pumpers
- Rescue 2
- one paramedic ambulance
- Battalion Chief.

Additional fire companies and brush pumpers may also be special called if needed. . If these companies are not available, than the next closest fire company will fill in their place.

Because of the unique nature of wildland incidents, it is important that all brush pumpers be immediately sent on the 2nd or upgraded alarm. This may require companies to first respond to quarters to pick up a brush pumper, prior to responding to the scene.

Scene Responsibilities:

Although ultimate responsibility for on scene tactical assignments rests with the incident commander, the institution of standard orders for wildland fires will assist with equipment and task responsibilities. Company officers and Incident Commanders may deviate from these standing orders upon direct order or when circumstances dictate alternative actions. Firefighters should understand that it is impossible for these standing fire ground orders to address all the needs and required actions on the incident scene. Rather, this serves as a blueprint for anticipated and standard actions that regularly have to be addressed at these types of incidents.

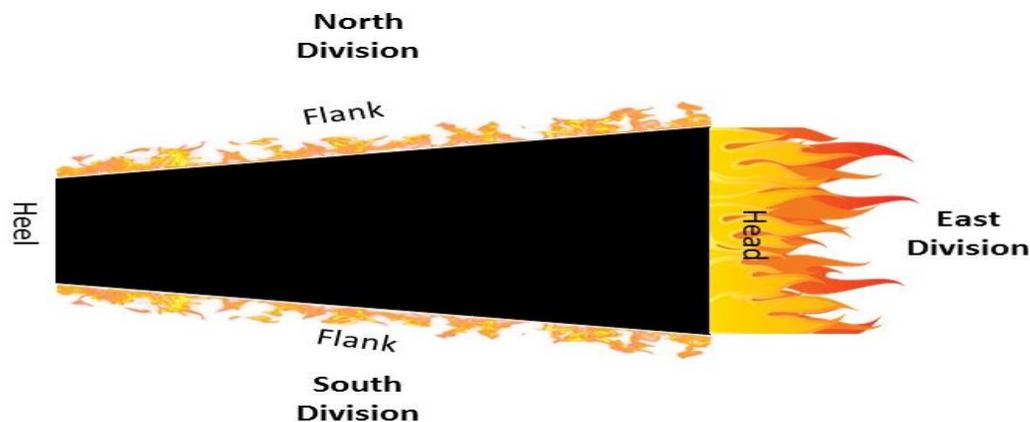
The first alarm assignment for a wildland incident is two fire companies. For smaller incidents, it is expected that these two fire companies handle the normal responsibilities of an incident of that scale. The scenes responsibilities listed

below assume that an initial assignment plus a greater alarm have been requested.

Fire Extinguishment

Fire suppression is accomplished by assigning fire companies and brush pumpers to divisions to create a perimeter around the fire. Most wildland fires evolve in a four-sided fashion with two slow-moving flanks and a fast-moving head (as show in the figure below). Companies assigned to fire suppression tasks should be careful to prioritize mobility and quick containment. Under most circumstances it is appropriate to let structures already involved in fire burn rather than engage in typical structural fire protection activities that might cause additional fire spread. Smaller fires may be extinguished simply by assigning divisions to the two primary flanks of the incident (e.g. North Division and South Division in the figure below). Larger fires might necessitate more divisions to accomplish containment.

A fire line may be attacked from either the unburned (referred to as the “green”) or the burned (referred to as the “black”) side of vegetation. In short grass (less than 1-foot in vegetative height), the risk is limited and the method of suppressing the fire should be made based on effectiveness. In taller fuels, members should suppress the fire from the black, limiting their exposure to wind and hazards. Members are encouraged to use booster lines for fire suppression to aid in maneuverability and retain preconnected hoselines 1.5-inches or larger for structural suppression, should the need occur. Fire companies that are assigned to fire suppression activities in hydranted areas should also consider utilizing their master streams to rain down on unburned vegetation ahead of a fire line.



Water Supply

The function of water supply is much more involved at a wildland incident, due to the likelihood of cyclical refilling of brush fire units and the geographic size of the incident. This function is typically filled by a Fire Equipment Operator from one of

the fire companies. This function could require additional personnel, depending on the complexity of the incident. It should be prioritized that a water supply refill location be communicated and clearly marked for both brush pumpers and other fire suppression apparatus. It is also acceptable for multiple hydrants to be prepared for utilization over a large geographic area. If a hydrant is intended to be used for an unstaffed refill location, the Water Supply Group should leave a gate valve, fill hose and hydrant wrench being left at the selected hydrant and broadcast its location over the radio. Tenders from area mutual aid departments should also be considered to supplement hydrant water supply operations.

Structural Protection

The primary threat of wildland incidents is the fire's interaction with buildings. Crews assigned to a division should understand that structural protection is a primary objective. The most effective way to perform structural protection is the quick and thorough extinguishment of the fire itself. However, when circumstances require specific actions to protect structures ahead of a fire, crews should prioritize habitable structures and those that have defensible space for protection. Fire behavior, location of the structure from available water supply, construction, evacuation status, adjacent fuels and proximity to fuels are all factors to be considered when triaging the protection of structures. The formal function of structural protection may be assigned to a specific group and would be staffed by a suppression apparatus (structural engine or brush pumper). Wetting down vegetation ahead of a fire is typically a waste for the purposes of structural protection. Using foam on the vulnerable combustible surfaces of threatened structures can be successful to prevent them from igniting.

Reconnaissance

A thorough size-up of a wildland fire can be difficult to obtain due to the geography of the incident or smoke conditions. Companies assigned to this task should be non-suppression (e.g. Rescue 2, Medic Unit) and should attempt to rapidly size-up the size and complexity of the incident. Additional resources that could be considered for this function include air ambulances (MedFlight, Mercy, etc) in the area and the police department's drone.

Command

The incident commander at a wildland incident, with few exceptions, should organize the incident using Divisions based on cardinal directions. Each Division is responsible for completing all of the fire ground tasks within their assigned area and it is the Division Supervisor's responsibility to ensure that all tasks are addressed in accordance with standard priority. The function of staging should be considered early on if the incident is anticipated to be of long duration or increase significantly in size. The Staging Area Manager should be assigned to

a staff or chief officer, if available, or a non-suppression unit assigned to the incident.

Additional Alarms

If a confirmed working wildland fire occurs in an area that threatens structures or is difficult to size-up, the Incident Commander will immediately call for a second or greater alarm. These additional alarm units will be deployed as determined by the Incident Commander with a high priority placed on containing the fire and establishing a defensible perimeter.

Chief and staff officers of all divisions are authorized to respond to these incidents at the second alarm level. This use of chief level officers in these critical positions will further solidify the command and control function at these high-risk incidents.

Mutual aid resources from neighboring fire departments and the Arkansas Department of Forestry, should be considered early. Many of these departments have extensive resources that are appropriate for these types of fires.

Incident Command Concepts:

Special Considerations in Wildland-Urban Interface

1. Command Post Location

The Incident Command System dictates that the first or second arriving company officer should establish Command. The initial incident commander should be quick to consider a greater alarm and mutual aid. Priority must be placed on quick size-up and extinguishment of the heading fire. Once the Citywide Tour Commander is dispatched, they'll most likely be responsible for formal incident command.

Once the Battalion Chief arrives on scene and assumes command, they must determine the best location to establish the Command Post. A Command Post should be considered in a conspicuous location that affords the IC the ability to see as much of the incident as possible. The location of the Command Post is left at the discretion of the Incident Commander based on the circumstances present. As the incident expands, it will become critical to utilize command vests to indicate the location of the Incident Commander. Regardless of which location is chosen, the emphasis must be on establishing a strong comprehensive command presence.

2. Personal Protective Equipment

Crews assigned to wildland incidents should understand that the long-term utilization of structural PPE at these incidents is impractical. Other lightweight fire resistive PPE should be used, when available. For crews that lack other PPE alternatives, Nomex station pants and structural coat are acceptable. Helmets and primary eye protection should be utilized at all times.

3. Communications

Due to the potential geographic size of wildland incidents, fire department members may find themselves operating over a widespread area. In order to ensure incident control and accountability, it is essential that all fire companies maintain crew integrity and communications with their immediate supervisor.

Each company officer is responsible for keeping the Incident Commander informed of his company's location and reporting their arrival at their assigned operational areas.

*Examples: "Ladder 5 to Command, Ladder 5 has established North Division."
"Engine 2 to Command, Engine 2 has arrived at North Division."
"Engine 4 Operator to Command, Engine 4 Operator has established Water Supply at 4th and Forest Drive."
"Engine 3 to Command, Engine 3 has arrived at Staging."*

As soon as practical after establishing a Division, the Division Supervisor should give an initial report to the Incident Commander and should then give periodic situation reports throughout the duration of the incident. These reports should follow the CAN Method: Conditions, Actions, Needs.

Examples: "East Division to Command, we have a slow moving fire line in thick brush approximately thirty yards from a neighborhood. We are beginning extinguishment from the head of the fire and request an additional company to assist with containment."

"East Division to Command, we have a knockdown on the fire and are mopping up."

Each company arriving at a Division should notify the Division Supervisor of their arrival. This notification SHOULD take place face-to-face, however the radio may be used alternatively. When communicating within a Division, the Division Supervisor will have the radio designation of that Division while other companies operating on that Division will use their company designation.

Example: "Engine 2 to North Division, we have arrived on this flank of the fire and are standing by near the gate from the road."

4. Evacuation

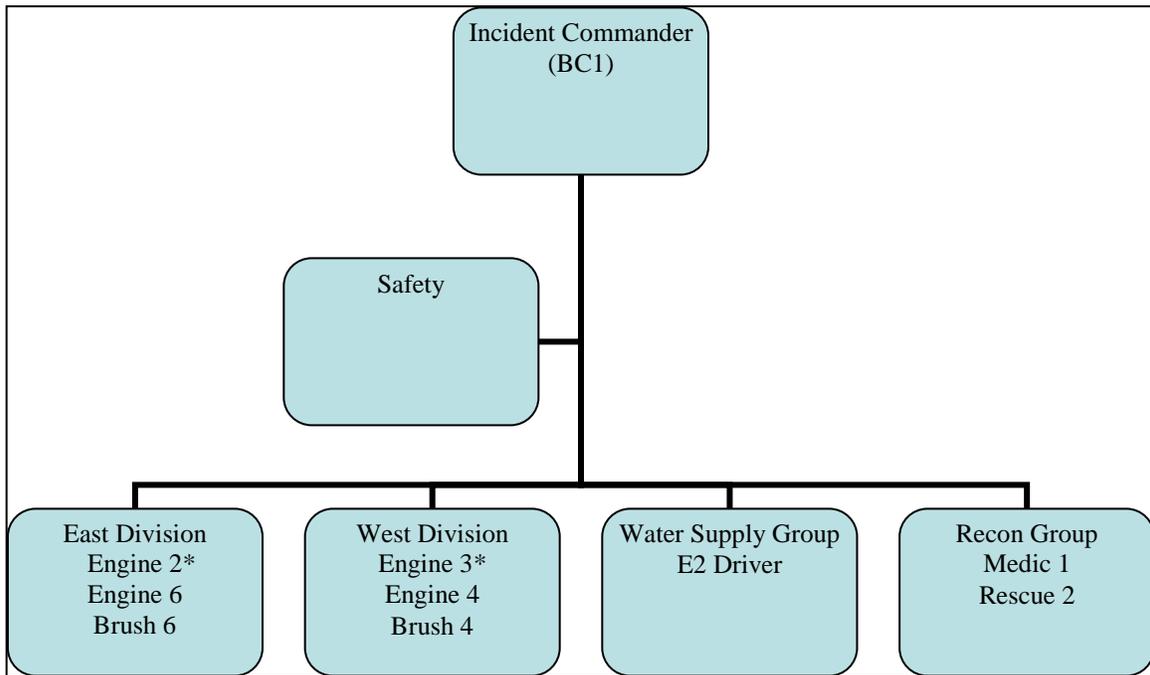
Evacuation should be used whenever fire threatens dwellings and the ability to defend the area is compromised. Evacuation, if possible, should be handled by law enforcement or non-suppression resources. Assigning suppression companies to conduct evacuation is a waste of ability in most circumstances.

Hypothetical ICS Chart for a wildland incident

Basic ICS Organization, 2nd Alarm Level

(Engine 2, Engine 3, Engine 4, Brush 4, Engine 6, Brush 6, Rescue 2, Medic 1, BC1)

10+ Acres on fire, two primary flanks of fire



Hypothetical ICS Chart for a wildland incident
 Basic ICS Organization, 2nd Alarm Level or Greater
 (Engine 2, Engine 3, Engine 4, Brush 4, Engine 6, Brush 6, Ladder 1, Engine 7,
 Rescue 2, Medic 1, BC1, Mutual Aid, Forestry)
 30+ Acres on fire, two primary flanks of fire, structures immediately threatened

