

# FIRE SUPPRESSION TACTICS

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Lions River Fire Protection Association  
By Landowners – For Landowners

## Fire Intensity

Fire intensity is a function of the amount of fuel burnt, the energy value of the fuel and the rate of spread of the fire. In general terms the indicators of intensity may be flame length depending on how far they are leaning over and flame height. It is useful to know the indicators of intensity as the intensity of the fire may dictate the method of attack used.

### Methods of attacking a fire

The landowner / fire manager must ensure that a risk assessment is conducted in order to determine and approve an appropriate firefighting strategy and method of attack. The strategy must take into account the safety of fire fighters as a first priority.

#### Direct attack (low intensity fires):

A direct attack is used mainly on low intensity fires that can be easily and safely reached by fire fighters. Fire fighters work from an anchor point directly on the edge of the fire and this edge then becomes the established control line. In grass fire situations, water is commonly used to extinguish the burning edge of the fire in which case a mineral earth control line may not be required. Fire fighters may also use foam and fire retardants to extinguish the fire.

The terms *head attack* (involves directly knocking down the head of the fire and then working towards the point of origin), and *flank attack* (involves approaching the fire on the flanks and working directly on them) are used in fire suppression to describe two variations of direct attack techniques for suppressing a fire.

#### Parallel attack (low and moderate intensity fires):

The parallel method of attack commonly involves the construction of a control line parallel to the fire, or just a short distance away from the fire's edge. You should be able to see the fire edge to observe changes in fire behaviour.

*Note: when using this technique, you must always remember that the fire is constantly changing due to factors such as fuel and topography. The distance that you can work from the fire edge is dependent on fire intensity – the further away you work from the fire edge, the greater the personal risk if the fire changes direction or intensity increases.*

#### Indirect attack (high/very high intensity and inaccessible fires):

The indirect method requires the use of either a natural fire barrier, or the construction of a control line some distance from the fire's existing perimeter, or a combination of both. The fuel between the control line and the main fire is back burned when conditions are safe to do so.

#### Importance of Fire breaks:

The use of fire breaks is an important part of fire management. There are different types of fire breaks. The effectiveness of fire breaks depends on the weather conditions, the width of the break and whether embers are being produced.

#### Bare earth fire line:

A fire line is an important part of fire suppression activities. The bare earth should be exposed for the length and width of the fire line. The fire line may vary in width and length, depending on the incident.

#### Mopping Up (extremely important):

Mopping up operations involve making sure that a contained fire does not reignite or spread. Poor blacking out may also increase the risk to your crew or other crews working round you if the fire rekindles. The importance of thorough blacking out cannot be over emphasised. Many fires considered contained have rekindled or started fresh outbreaks due to poor or insufficient blacking out being undertaken.

Remember the simple acronym LACES – this will help ensure effective management during fire suppression activities and ensure the outcomes of observations are always well communicated:

## LACES

### L = Lookout

The Lookout is the eyes of the firefighter, Lookouts should be in a position from where they can see the fire line, the fire staff and the crews working the fire. The lookout should be able to recognise and anticipate situations and must report changes immediately.

### A = Awareness

All firefighters, including the lookouts, should be aware of the action plan. Everyone involved should also be aware of the fire weather, fire behaviour, the activities around them, the terrain, etc.

### C = Communications

The firefighters, landowners, managers and lookouts should at all times be able to communicate - direct radio contact, or through a lookout or other relay point. Ensure good communications at all times.

### E = Escape Routes

Have at least two planned routes of escape. If your primary route is cut off, know what you are going to do. Every person on the fire line must know the plan.

### S = Safety Zones

Safety zones are places (known to every person on the fire line) places you can be assured of your safety. Their size is dictated by the fuel, terrain, weather conditions and worst-case fire behaviour.