



National  
Operational  
Guidance

# Hazard

## The LACES safety protocol



**NFCC**  
National Fire  
Chiefs Council

Developed and maintained by the NFCC

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## The LACES safety protocol

<p>The LACES safety protocol</p>	<p>Understand:</p> <ul style="list-style-type: none"> <li>• The LACES safety protocol in detail and why it must be adopted at all wildfire incidents</li> <li>• The responsibilities of the different roles within the LACES safety protocol.</li> <li>• How to implement the LACES safety protocol at all wildfire incidents</li> <li>• How to monitor the effectiveness of the LACES safety protocol</li> </ul>
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## Team lookouts (safety officers)

<p>Responsibilities of a team lookout</p>	<p>Understand how to:</p> <ul style="list-style-type: none"> <li>• Ensure that all personnel are fully briefed on the situation, their task and the implementation of the LACES safety protocol</li> <li>• Ensure all team members operate within the LACES safety protocol at all times</li> <li>• Monitor personnel and ensure safe working distances are maintained between personnel using hand tools and equipment, and between personnel and vehicles</li> <li>• Establish and maintain communications with tactical lookouts and other personnel as appropriate</li> <li>• Communicate relevant information to the team, other teams and with other personnel within the command structure</li> <li>• Plan, evaluate and monitor escape routes and safety zones and communicate any changes to the team and other members of the incident command structure</li> <li>• Monitor and communicate any observed or predicted changes in wildfire behaviour and firespread to the team, the incident commander and other personnel as appropriate</li> <li>• Monitor and report any observed or predicted extreme wildfire behaviour to the team, incident commander, tactical lookouts and other personnel as appropriate</li> <li>• Monitor and report the location of members of the public, vehicles and aircraft not involved in firefighting operations to the incident commander and other personnel as appropriate</li> <li>• Initiate and monitor the withdrawal of personnel from areas that become too hazardous</li> </ul>
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## Tactical lookouts (sector safety officers)

<p>Responsibilities of a tactical lookout</p>	<p>Understand how to:</p> <ul style="list-style-type: none"> <li>• Deploy and maintain a vantage point with direct sight of assigned area of responsibility</li> <li>• Establish and maintain good communications with team lookouts, other tactical lookouts and other relevant personnel within the incident command system</li> <li>• Plan, evaluate and monitor the effectiveness of the escape route</li> <li>• Plan, evaluate and monitor safety zones</li> <li>• Monitor all teams and personnel within their area of responsibility and ensure they operate within the LACES safety protocol at all times</li> <li>• Gather and review information on: <ul style="list-style-type: none"> <li>- Fuel type, condition and arrangement</li> <li>- Topography</li> </ul> </li> <li>• Monitor current weather conditions and obtain accurate weather information</li> <li>• Use a wildfire prediction system to: <ul style="list-style-type: none"> <li>- Predict future wildfire behaviour and fire spread</li> <li>- Identify windows of opportunity, trigger points and critical points</li> <li>- Inform the implementation of the LACES safety protocol</li> </ul> </li> <li>• Inform the Incident Commander and other personnel, as appropriate, on predicted wildfire behaviour, firespread and potential windows of opportunity, critical points and trigger points</li> <li>• Monitor and communicate any observed or predicted changes in wildfire behaviour, firespread and / or weather conditions to the incident commander and other relevant personnel</li> <li>• Monitor and report any observed or predicted extreme wildfire behaviour to the incident commander, team lookouts, other tactical lookouts and other personnel as appropriate</li> <li>• Monitor and report the location of members of the public, vehicles and aircraft not involved in firefighting operations to the incident commander and other personnel as appropriate</li> <li>• Exchange information with relevant personnel and other agencies</li> <li>• Initiate and monitor the withdrawal of personnel from areas that become too hazardous</li> </ul>
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## Awareness

Awareness	<p>Understand:</p> <ul style="list-style-type: none"> <li>• The requirements of personnel to ensure that they remain aware of their surroundings at wildfire incidents</li> <li>• Refer to Establish and maintain situational awareness</li> </ul>
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## Communications

Importance of communications	<p>Understand:</p> <ul style="list-style-type: none"> <li>• The actions to be carried out when briefing personnel at wildfires</li> <li>• How the LACES safety protocol will be implemented and managed throughout the incident</li> <li>• The emergency evacuation procedure and evacuation signal</li> <li>• The situation, including information on: <ul style="list-style-type: none"> <li>- Location and size of incident</li> <li>- Observed and predicted direction of firespread</li> <li>- The topography over which the fire is burning and any effects it may have on the fire</li> <li>- Fuel type, condition, arrangement and any changes</li> <li>- Weather forecast (short, medium term, if available)</li> <li>- Observed and predicted wildfire behaviour</li> </ul> </li> <li>• The scene of operations and identify potential hazards and control measures to personnel</li> <li>• The tactical plan</li> <li>• Outline: <ul style="list-style-type: none"> <li>- The role and task of team</li> <li>- The role and tasks of other teams</li> <li>- The location and tasking of crews or teams already deployed</li> </ul> </li> <li>• How the team will operate and complete the task</li> <li>• Contingency plans</li> <li>• Information on logistical issues</li> <li>• Information on the command structure and communications</li> </ul>
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## Escape routes

Escape routes	<p>Understand:</p> <ul style="list-style-type: none"> <li>• The importance of identifying, monitoring and maintaining escape routes for people and resources</li> <li>• The importance within the LACES safety protocol for establishing and monitoring appropriate escape routes that lead to a suitable safety zone</li> <li>• Why a tactical or team lookout should be deployed to monitor escape routes</li> </ul> <p>Understand the requirements of escape routes to be:</p> <ul style="list-style-type: none"> <li>• Pre-planned, to avoid confusion and panic</li> <li>• Communicated to all personnel during initial briefings and through further communication throughout the incident</li> <li>• Monitored throughout the incident and changed as required, with all personnel being informed of any changes as soon as possible</li> <li>• Established at the earliest opportunity</li> <li>• Kept simple – where possible using the quickest and shortest route upwind of the fire</li> <li>• Downslope of the fire</li> <li>• Other areas on the landscape that could result in dangerous fire behaviour</li> </ul>
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## Safety zones

Safety zones	<p>Understand the requirements of safety zones to be:</p> <ul style="list-style-type: none"> <li>• Pre-planned, to avoid confusion and panic</li> <li>• Of sufficient size</li> <li>• Connected by appropriate escape routes, to enable access to personnel</li> <li>• Continually monitored throughout the incident and changed as required</li> <li>• Communicated to all personnel during initial briefings and through further communication throughout the incident. Close enough to be effectively used</li> <li>• Devoid of fuel (or contain the minimum of fuel)</li> <li>• Downslope of the fire</li> </ul> <p>Understand why safety zones should not be located:</p> <ul style="list-style-type: none"> <li>• Beneath aerial fuels</li> <li>• Beneath or near overhead powerlines, gas pipelines, oil pipelines or wind turbines</li> <li>• Other areas on the landscape that could result in dangerous fire behaviour</li> <li>• Where access is via steep uphill escape routes</li> </ul>
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