



National
Operational
Guidance

Training specification

Wildfires



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"> • The LACES safety protocol in detail and why it must be adopted at all wildfire incidents • The responsibilities of the different roles within the LACES safety protocol. • How to implement the LACES safety protocol at all wildfire incidents • How to monitor the effectiveness of the LACES safety protocol
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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"> • Ensure that all personnel are fully briefed on the situation, their task and the implementation of the LACES safety protocol • Ensure all team members operate within the LACES safety protocol at all times • Monitor personnel and ensure safe working distances are maintained between personnel using hand tools and equipment, and between personnel and vehicles • Establish and maintain communications with tactical lookouts and other personnel as appropriate • Communicate relevant information to the team, other teams and with other personnel within the command structure • Plan, evaluate and monitor escape routes and safety zones and communicate any changes to the team and other members of the incident command structure • Monitor and communicate any observed or predicted changes in wildfire behaviour and firespread to the team, the incident commander and other personnel as appropriate • Monitor and report any observed or predicted extreme wildfire behaviour to the team, incident commander, tactical lookouts and other personnel as appropriate • 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 • Initiate and monitor the withdrawal of personnel from areas that become too hazardous
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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"> • Deploy and maintain a vantage point with direct sight of assigned area of responsibility • Establish and maintain good communications with team lookouts, other tactical lookouts and other relevant personnel within the incident command system • Plan, evaluate and monitor the effectiveness of the escape route • Plan, evaluate and monitor safety zones • Monitor all teams and personnel within their area of responsibility and ensure they operate within the LACES safety protocol at all times • Gather and review information on: <ul style="list-style-type: none"> - Fuel type, condition and arrangement - Topography • Monitor current weather conditions and obtain accurate weather information • Use a wildfire prediction system to: <ul style="list-style-type: none"> - Predict future wildfire behaviour and fire spread - Identify windows of opportunity, trigger points and critical points - Inform the implementation of the LACES safety protocol • Inform the Incident Commander and other personnel, as appropriate, on predicted wildfire behaviour, firespread and potential windows of opportunity, critical points and trigger points • Monitor and communicate any observed or predicted changes in wildfire behaviour, firespread and / or weather conditions to the incident commander and other relevant personnel • Monitor and report any observed or predicted extreme wildfire behaviour to the incident commander, team lookouts, other tactical lookouts and other personnel as appropriate • 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 • Exchange information with relevant personnel and other agencies • Initiate and monitor the withdrawal of personnel from areas that become too hazardous
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Awareness

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

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

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

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

Knowledge and understanding

Hazard	Learning outcome
Inaccurate situational awareness: Wildfires	Understand all associated hazard knowledge



Control measure - Commence information gathering

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Understand:

- How to access and gather information from a number of sources, including:
 - Maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - Site specific risk information
 - Partners and key stakeholders
- How to access and gather information on the topography, fuels and weather which will influence wildfire behaviour
- The importance of exchanging information as part of detailed briefings relevant to wildfire incidents
- How topographical maps can be used as a planning and safety tool at wildfire incidents
- The methods which can be used to clearly communicate wildfire information with others
- How to use contour information to identify the position of different features found on the landscape
- The relevant information provided in a map legend
- How a topographical map can be used to provide information relating to the scene of operations
- How a topographical map can be used as a tool for navigation
- How to use a map and compass to safely navigate across a wildfire landscape

Practical application



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Demonstrate the ability to:

- Map read and use topographical knowledge relating to wildfire incidents
- Request a weather report from the fire control room
- Establish the precise location of the wildfire
- Establish the direction and rate of firespread - refer to the hazard of 'Fire behaviour'
- Identify suitable rendezvous points (RVPs) and/or holding areas for wildfire incidents
- Determine suitable access routes for vehicles - refer to the hazard for 'Moving, using and entrapment of vehicles'
- Communicate information to the fire control room, arriving resources and any other responding agencies or services, including information such as:
 - Easily identifiable fixed reference points on the landscape (i.e. natural or manmade features such as hills, streams, roads or buildings)
 - Map references in an appropriate format - refer to [Map reading knowledge sheets](#)
- Carry out a 360 degree survey - refer to the control measure [scene survey](#)' in National Operational Guidance: [Fires and firefighting](#)
- Consider using local knowledge, wildfire fire plans and/or Site-Specific Risk Information(SSRI)
- Implement the LACES safety protocol and deploy team and tactical lookouts at the earliest opportunity
- Consider using aerial observation to gain situational awareness
- Clearly communicate wildfire information with others



Control measure - Emergency response plans: Wildfires



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Emergency response plans: Wildfires

Understand:

- The information which may be available on wildfire emergency response plans
- How wildfire emergency response plans can be used to improve safety and effectiveness

Practical application

There is no Practical application



Control measure - Site-Specific Risk Information (SSRI)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Site-Specific Risk Information (SSRI)

Understand :

- How SSRI can assist in the development of an operational plan for wildfires and how it can be used to improve safety and effectiveness
- Refer to Site-Specific Risk Information – Operations training specification

Practical application

There is no Practical application



Control measure - Establish and maintain situational awareness: Wildfires

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Understand:

- The methodology to be used to establish and maintain the situational awareness at wildfire incidents
- The following sources of information which can be used to establish and maintain situational awareness:
 - Suitable maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - SSRI information
 - Partners and key stakeholders
 - Weather forecasting / reports
 - On site weather readings
- How to observe the wildfire scene of operations
- The influence of weather, topography and fuel in the wildfire environment.
- How to monitor wildfire behaviour
- The methods used to establish and maintain situational awareness at wildfire incidents, using the LACES safety protocol
- How WPS can be used to identify potential wildfire behaviour
- How to disseminate and communicate relevant information to others at wildfire incidents
- The methods of collating and recording wildfire incident data
- Refer to Situational awareness – Incident command training specification

Practical application



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Demonstrate the ability to:

- Gather wildfire information from a number of sources to confirm understanding
- Clearly communicate wildfire information with others



Control measure - Consider appropriate wildfire suppression tactics and develop and implement a tactical plan

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Develop and implement a tactical plan

Understand:

- Why the tactical plan should be based on the expected/potential wildfire behaviour
- How tactical priorities should be based on identifying locations and times, where the wildfire behaviour is within the threshold of control of available resources



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Understand:

- The considerations when selecting fire suppression tactics which are appropriate to the expected wildfire behaviour
- How flame length should be used to indicate appropriate fire suppression tactics.
- The risks associated with working close to the wildfire edge
- The different wildfire direct attack techniques and their limitations
- The different wildfire indirect attack techniques and their limitations
- How to organise and form effective wildfire teams
- The different tactics that can be applied by aerial assets at wildfire incidents
- Why it is important that ground teams provide support to aerial operations at wildfire incidents
- How to safely manage the use of tactical fire operations as a suppression method at wildfire incidents
- The roles and responsibilities of a burn team including:
 - Burn Supervisor
 - Burn Operative
 - Members of the holding team
- How to apply an offensive burn at a wildfire incident
- How to apply a defensive burn at a wildfire incident

Understanding the wildfire environment

Understand how wildfires are classified



Control measure element

Learning outcome

Understanding the influences of fuel on wildfire behaviour

Understand:

- The different fuel types within the wildfire environment
- The influence of fuel size on wildfire behaviour
- The influence of fine wildfire fuels within the combustion process
- The influence of fuel arrangement within the wildfire environment
- What is meant by the term `relative humidity` and its effect on the combustibility of different wildfire fuels

Understanding the influence of weather on wildfire behaviour

Understand:

- The effects of solar radiation on wildfire behaviour
- How the strength and direction of wind can affect wildfire spread and intensity
- The different effects of a stable or unstable atmosphere on wildfire behaviour
- How changes to weather conditions during an incident can alter wildfire behaviour
- The effects of the daily weather cycle within the wildfire environment
- The effects of a prolonged drying environment on wildfire behaviour
- How micro climates have an impact and effect on the behaviour of wildfires



Control measure element

Learning outcome

Understand the effects of topography on wildfire behaviour

Understand:

- How different topographical features can influence wildfire behaviour
- Why wildfire behaviour differs when burning up or down slope
- How the shape of topography may alter wind direction at wildfire incidents
- How the orientation of a slope in relation to the position of the sun will effect wildfire behaviour
- How certain features of terrain may act as barriers to the spread of wildfire

Understand how fuel, weather and topography interact within the wildfire environment

Understand:

- The combustion process within the wildfire environment
- The factors which may cause rapid changes to wildfire behaviour
- The situations where extreme wildfire behaviour may occur
- The indicators of extreme wildfire behaviour

Understand the correct wildfire terminology

- The different wildfire terms relating to wildfire behaviour

Practical application

Control measure element

Learning outcome

Develop and implement a tactical plan

Demonstrate the ability to:

- Use available information to develop and implement a safe and effective wildfire tactical plan
- Use topographical mapping to establish an understanding of the landscape for wildfire incidents



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Demonstrate the ability to:

- Apply wildfire behaviour information and decide which fire suppression tactics are appropriate
- Use specialist wildfire tools and equipment
- Plan and complete a safe and effective tactical burn



Hazard - Fire behaviour

Knowledge and understanding

Hazard

Learning outcome

Fire behaviour

Understand all associated hazard knowledge



Control measure - Commence information gathering

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Understand:

- How to access and gather information from a number of sources, including:
 - Maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - Site specific risk information
 - Partners and key stakeholders
- How to access and gather information on the topography, fuels and weather which will influence wildfire behaviour
- The importance of exchanging information as part of detailed briefings relevant to wildfire incidents
- How topographical maps can be used as a planning and safety tool at wildfire incidents
- The methods which can be used to clearly communicate wildfire information with others
- How to use contour information to identify the position of different features found on the landscape
- The relevant information provided in a map legend
- How a topographical map can be used to provide information relating to the scene of operations
- How a topographical map can be used as a tool for navigation
- How to use a map and compass to safely navigate across a wildfire landscape

Practical application



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Demonstrate the ability to:

- Map read and use topographical knowledge relating to wildfire incidents
- Request a weather report from the fire control room
- Establish the precise location of the wildfire
- Establish the direction and rate of firespread - refer to the hazard of 'Fire behaviour'
- Identify suitable rendezvous points (RVPs) and/or holding areas for wildfire incidents
- Determine suitable access routes for vehicles - refer to the hazard for 'Moving, using and entrapment of vehicles'
- Communicate information to the fire control room, arriving resources and any other responding agencies or services, including information such as:
 - Easily identifiable fixed reference points on the landscape (i.e. natural or manmade features such as hills, streams, roads or buildings)
 - Map references in an appropriate format - refer to [Map reading knowledge sheets](#)
- Carry out a 360 degree survey - refer to the control measure [scene survey](#)' in National Operational Guidance: [Fires and firefighting](#)
- Consider using local knowledge, wildfire fire plans and/or Site-Specific Risk Information(SSRI)
- Implement the LACES safety protocol and deploy team and tactical lookouts at the earliest opportunity
- Consider using aerial observation to gain situational awareness
- Clearly communicate wildfire information with others



Control measure - Emergency response plans: Wildfires



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Emergency response plans: Wildfires

Understand:

- The information which may be available on wildfire emergency response plans
- How wildfire emergency response plans can be used to improve safety and effectiveness

Practical application

There is no Practical application



Control measure - Site-Specific Risk Information (SSRI)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Site-Specific Risk Information (SSRI)

Understand :

- How SSRI can assist in the development of an operational plan for wildfires and how it can be used to improve safety and effectiveness
- Refer to Site-Specific Risk Information – Operations training specification

Practical application

There is no Practical application



Control measure - Establish and maintain situational awareness: Wildfires

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Understand:

- The methodology to be used to establish and maintain the situational awareness at wildfire incidents
- The following sources of information which can be used to establish and maintain situational awareness:
 - Suitable maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - SSRI information
 - Partners and key stakeholders
 - Weather forecasting / reports
 - On site weather readings
- How to observe the wildfire scene of operations
- The influence of weather, topography and fuel in the wildfire environment.
- How to monitor wildfire behaviour
- The methods used to establish and maintain situational awareness at wildfire incidents, using the LACES safety protocol
- How WPS can be used to identify potential wildfire behaviour
- How to disseminate and communicate relevant information to others at wildfire incidents
- The methods of collating and recording wildfire incident data
- Refer to Situational awareness – Incident command training specification

Practical application



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Demonstrate the ability to:

- Gather wildfire information from a number of sources to confirm understanding
- Clearly communicate wildfire information with others



Control measure - Consider appropriate wildfire suppression tactics and develop and implement a tactical plan

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Develop and implement a tactical plan

Understand:

- Why the tactical plan should be based on the expected/potential wildfire behaviour
- How tactical priorities should be based on identifying locations and times, where the wildfire behaviour is within the threshold of control of available resources



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Understand:

- The considerations when selecting fire suppression tactics which are appropriate to the expected wildfire behaviour
- How flame length should be used to indicate appropriate fire suppression tactics.
- The risks associated with working close to the wildfire edge
- The different wildfire direct attack techniques and their limitations
- The different wildfire indirect attack techniques and their limitations
- How to organise and form effective wildfire teams
- The different tactics that can be applied by aerial assets at wildfire incidents
- Why it is important that ground teams provide support to aerial operations at wildfire incidents
- How to safely manage the use of tactical fire operations as a suppression method at wildfire incidents
- The roles and responsibilities of a burn team including:
 - Burn Supervisor
 - Burn Operative
 - Members of the holding team
- How to apply an offensive burn at a wildfire incident
- How to apply a defensive burn at a wildfire incident

Understanding the wildfire environment

Understand how wildfires are classified



Control measure element

Learning outcome

Understanding the influences of fuel on wildfire behaviour

Understand:

- The different fuel types within the wildfire environment
- The influence of fuel size on wildfire behaviour
- The influence of fine wildfire fuels within the combustion process
- The influence of fuel arrangement within the wildfire environment
- What is meant by the term `relative humidity` and its effect on the combustibility of different wildfire fuels

Understanding the influence of weather on wildfire behaviour

Understand:

- The effects of solar radiation on wildfire behaviour
- How the strength and direction of wind can affect wildfire spread and intensity
- The different effects of a stable or unstable atmosphere on wildfire behaviour
- How changes to weather conditions during an incident can alter wildfire behaviour
- The effects of the daily weather cycle within the wildfire environment
- The effects of a prolonged drying environment on wildfire behaviour
- How micro climates have an impact and effect on the behaviour of wildfires



Control measure element

Learning outcome

Understand the effects of topography on wildfire behaviour

- Understand:
- How different topographical features can influence wildfire behaviour
 - Why wildfire behaviour differs when burning up or down slope
 - How the shape of topography may alter wind direction at wildfire incidents
 - How the orientation of a slope in relation to the position of the sun will effect wildfire behaviour
 - How certain features of terrain may act as barriers to the spread of wildfire

Understand how fuel, weather and topography interact within the wildfire environment

- Understand:
- The combustion process within the wildfire environment
 - The factors which may cause rapid changes to wildfire behaviour
 - The situations where extreme wildfire behaviour may occur
 - The indicators of extreme wildfire behaviour

Understand the correct wildfire terminology

- The different wildfire terms relating to wildfire behaviour

Practical application

Control measure element

Learning outcome

Develop and implement a tactical plan

- Demonstrate the ability to:
- Use available information to develop and implement a safe and effective wildfire tactical plan
 - Use topographical mapping to establish an understanding of the landscape for wildfire incidents



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Demonstrate the ability to:

- Apply wildfire behaviour information and decide which fire suppression tactics are appropriate
- Use specialist wildfire tools and equipment
- Plan and complete a safe and effective tactical burn



Control measure - The Wildfire Prediction System (WPS)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

The Wildfire Prediction System (WPS)

Understand:

- The WPS in detail and how it can be applied at all wildfire incidents
- How to implement the WPS

How WPS can be applied to identify past, present and future wildfire behaviour

Practical application

Control measure element

Learning outcome

Use a Wildfire Prediction System (WPS)

Demonstrate the ability to:

- Gather information on wind, slope and aspect and apply the Wildfire Prediction System



Hazard - Undetected firespread



Knowledge and understanding

Hazard

Learning outcome

Undetected firespread

Understand all associated hazard knowledge



Control measure - Commence information gathering

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Understand:

- How to access and gather information from a number of sources, including:
 - Maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - Site specific risk information
 - Partners and key stakeholders
- How to access and gather information on the topography, fuels and weather which will influence wildfire behaviour
- The importance of exchanging information as part of detailed briefings relevant to wildfire incidents
- How topographical maps can be used as a planning and safety tool at wildfire incidents
- The methods which can be used to clearly communicate wildfire information with others
- How to use contour information to identify the position of different features found on the landscape
- The relevant information provided in a map legend
- How a topographical map can be used to provide information relating to the scene of operations
- How a topographical map can be used as a tool for navigation
- How to use a map and compass to safely navigate across a wildfire landscape

Practical application



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Demonstrate the ability to:

- Map read and use topographical knowledge relating to wildfire incidents
- Request a weather report from the fire control room
- Establish the precise location of the wildfire
- Establish the direction and rate of firespread - refer to the hazard of 'Fire behaviour'
- Identify suitable rendezvous points (RVPs) and/or holding areas for wildfire incidents
- Determine suitable access routes for vehicles - refer to the hazard for 'Moving, using and entrapment of vehicles'
- Communicate information to the fire control room, arriving resources and any other responding agencies or services, including information such as:
 - Easily identifiable fixed reference points on the landscape (i.e. natural or manmade features such as hills, streams, roads or buildings)
 - Map references in an appropriate format - refer to [Map reading knowledge sheets](#)
- Carry out a 360 degree survey - refer to the control measure [scene survey](#)' in National Operational Guidance: [Fires and firefighting](#)
- Consider using local knowledge, wildfire fire plans and/or Site-Specific Risk Information(SSRI)
- Implement the LACES safety protocol and deploy team and tactical lookouts at the earliest opportunity
- Consider using aerial observation to gain situational awareness
- Clearly communicate wildfire information with others



Control measure - Emergency response plans: Wildfires



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Emergency response plans: Wildfires

Understand:

- The information which may be available on wildfire emergency response plans
- How wildfire emergency response plans can be used to improve safety and effectiveness

Practical application

There is no Practical application



Control measure - Site-Specific Risk Information (SSRI)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Site-Specific Risk Information (SSRI)

Understand :

- How SSRI can assist in the development of an operational plan for wildfires and how it can be used to improve safety and effectiveness
- Refer to Site-Specific Risk Information – Operations training specification

Practical application

There is no Practical application



Control measure - Establish and maintain situational awareness: Wildfires

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Understand:

- The methodology to be used to establish and maintain the situational awareness at wildfire incidents
- The following sources of information which can be used to establish and maintain situational awareness:
 - Suitable maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - SSRI information
 - Partners and key stakeholders
 - Weather forecasting / reports
 - On site weather readings
- How to observe the wildfire scene of operations
- The influence of weather, topography and fuel in the wildfire environment.
- How to monitor wildfire behaviour
- The methods used to establish and maintain situational awareness at wildfire incidents, using the LACES safety protocol
- How WPS can be used to identify potential wildfire behaviour
- How to disseminate and communicate relevant information to others at wildfire incidents
- The methods of collating and recording wildfire incident data
- Refer to Situational awareness – Incident command training specification

Practical application



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Demonstrate the ability to:

- Gather wildfire information from a number of sources to confirm understanding
- Clearly communicate wildfire information with others



Control measure - Consider appropriate wildfire suppression tactics and develop and implement a tactical plan

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Develop and implement a tactical plan

Understand:

- Why the tactical plan should be based on the expected/potential wildfire behaviour
- How tactical priorities should be based on identifying locations and times, where the wildfire behaviour is within the threshold of control of available resources



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Understand:

- The considerations when selecting fire suppression tactics which are appropriate to the expected wildfire behaviour
- How flame length should be used to indicate appropriate fire suppression tactics.
- The risks associated with working close to the wildfire edge
- The different wildfire direct attack techniques and their limitations
- The different wildfire indirect attack techniques and their limitations
- How to organise and form effective wildfire teams
- The different tactics that can be applied by aerial assets at wildfire incidents
- Why it is important that ground teams provide support to aerial operations at wildfire incidents
- How to safely manage the use of tactical fire operations as a suppression method at wildfire incidents
- The roles and responsibilities of a burn team including:
 - Burn Supervisor
 - Burn Operative
 - Members of the holding team
- How to apply an offensive burn at a wildfire incident
- How to apply a defensive burn at a wildfire incident

Understanding the wildfire environment

Understand how wildfires are classified



Control measure element

Learning outcome

Understanding the influences of fuel on wildfire behaviour

Understand:

- The different fuel types within the wildfire environment
- The influence of fuel size on wildfire behaviour
- The influence of fine wildfire fuels within the combustion process
- The influence of fuel arrangement within the wildfire environment
- What is meant by the term `relative humidity` and its effect on the combustibility of different wildfire fuels

Understanding the influence of weather on wildfire behaviour

Understand:

- The effects of solar radiation on wildfire behaviour
- How the strength and direction of wind can affect wildfire spread and intensity
- The different effects of a stable or unstable atmosphere on wildfire behaviour
- How changes to weather conditions during an incident can alter wildfire behaviour
- The effects of the daily weather cycle within the wildfire environment
- The effects of a prolonged drying environment on wildfire behaviour
- How micro climates have an impact and effect on the behaviour of wildfires



Control measure element

Learning outcome

Understand the effects of topography on wildfire behaviour

Understand:

- How different topographical features can influence wildfire behaviour
- Why wildfire behaviour differs when burning up or down slope
- How the shape of topography may alter wind direction at wildfire incidents
- How the orientation of a slope in relation to the position of the sun will effect wildfire behaviour
- How certain features of terrain may act as barriers to the spread of wildfire

Understand how fuel, weather and topography interact within the wildfire environment

Understand:

- The combustion process within the wildfire environment
- The factors which may cause rapid changes to wildfire behaviour
- The situations where extreme wildfire behaviour may occur
- The indicators of extreme wildfire behaviour

Understand the correct wildfire terminology

- The different wildfire terms relating to wildfire behaviour

Practical application

Control measure element

Learning outcome

Develop and implement a tactical plan

Demonstrate the ability to:

- Use available information to develop and implement a safe and effective wildfire tactical plan
- Use topographical mapping to establish an understanding of the landscape for wildfire incidents



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Demonstrate the ability to:

- Apply wildfire behaviour information and decide which fire suppression tactics are appropriate
- Use specialist wildfire tools and equipment
- Plan and complete a safe and effective tactical burn



Control measure - Carry out direct observation

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Consider the importance of direct observation

Understand:

- The benefits of carrying out a visual reconnaissance of the operational environment and how this will assist in detecting fire spread at wildfire incidents
- How to use direct observation to monitor and confirm expected wildfire behaviour
- The benefits of using aerial assets as a visual reconnaissance method for direct observation at wildfires

Practical application

There is no Practical application



Control measure - Consider using thermal image cameras

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Consider using thermal image cameras

Learning outcome

Understand:

- How thermal image cameras can be deployed to identify undetected firespread and scan area at wildfire incidents

Practical application

There is no Practical application



Control measure - Consider using aerial observation

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Consider the benefits of using aerial observation

Learning outcome

Understand:

- How aerial assets can be deployed to identify undetected fire spread at wildfire incidents

Practical application

There is no Practical application



Control measure - Carry out damping down and turning over: Wildfires

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Carry out damping down and turning over

Learning outcome

Understand:

- The different methods which can be used to ensure the wildfire is appropriately extinguished
- How to monitor the incident ground and patrol the wildfire perimeter

Practical application

There is no Practical application



Hazard - Insufficient resources: Wildfire

Knowledge and understanding

Hazard

Insufficient resources: Wildfire

Learning outcome

Understand all associated hazard knowledge



Control measure - Commence information gathering

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Understand:

- How to access and gather information from a number of sources, including:
 - Maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - Site specific risk information
 - Partners and key stakeholders
- How to access and gather information on the topography, fuels and weather which will influence wildfire behaviour
- The importance of exchanging information as part of detailed briefings relevant to wildfire incidents
- How topographical maps can be used as a planning and safety tool at wildfire incidents
- The methods which can be used to clearly communicate wildfire information with others
- How to use contour information to identify the position of different features found on the landscape
- The relevant information provided in a map legend
- How a topographical map can be used to provide information relating to the scene of operations
- How a topographical map can be used as a tool for navigation
- How to use a map and compass to safely navigate across a wildfire landscape

Practical application



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Demonstrate the ability to:

- Map read and use topographical knowledge relating to wildfire incidents
- Request a weather report from the fire control room
- Establish the precise location of the wildfire
- Establish the direction and rate of firespread - refer to the hazard of 'Fire behaviour'
- Identify suitable rendezvous points (RVPs) and/or holding areas for wildfire incidents
- Determine suitable access routes for vehicles - refer to the hazard for 'Moving, using and entrapment of vehicles'
- Communicate information to the fire control room, arriving resources and any other responding agencies or services, including information such as:
 - Easily identifiable fixed reference points on the landscape (i.e. natural or manmade features such as hills, streams, roads or buildings)
 - Map references in an appropriate format - refer to [Map reading knowledge sheets](#)
- Carry out a 360 degree survey - refer to the control measure [scene survey](#)' in National Operational Guidance: [Fires and firefighting](#)
- Consider using local knowledge, wildfire fire plans and/or Site-Specific Risk Information(SSRI)
- Implement the LACES safety protocol and deploy team and tactical lookouts at the earliest opportunity
- Consider using aerial observation to gain situational awareness
- Clearly communicate wildfire information with others



Control measure - Emergency response plans: Wildfires



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Emergency response plans: Wildfires

Understand:

- The information which may be available on wildfire emergency response plans
- How wildfire emergency response plans can be used to improve safety and effectiveness

Practical application

There is no Practical application



Control measure - Site-Specific Risk Information (SSRI)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Site-Specific Risk Information (SSRI)

Understand :

- How SSRI can assist in the development of an operational plan for wildfires and how it can be used to improve safety and effectiveness
- Refer to Site-Specific Risk Information – Operations training specification

Practical application

There is no Practical application



Control measure - Establish and maintain situational awareness: Wildfires

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Understand:

- The methodology to be used to establish and maintain the situational awareness at wildfire incidents
- The following sources of information which can be used to establish and maintain situational awareness:
 - Suitable maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - SSRI information
 - Partners and key stakeholders
 - Weather forecasting / reports
 - On site weather readings
- How to observe the wildfire scene of operations
- The influence of weather, topography and fuel in the wildfire environment.
- How to monitor wildfire behaviour
- The methods used to establish and maintain situational awareness at wildfire incidents, using the LACES safety protocol
- How WPS can be used to identify potential wildfire behaviour
- How to disseminate and communicate relevant information to others at wildfire incidents
- The methods of collating and recording wildfire incident data
- Refer to Situational awareness – Incident command training specification

Practical application



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Demonstrate the ability to:

- Gather wildfire information from a number of sources to confirm understanding
- Clearly communicate wildfire information with others



Control measure - Consider appropriate wildfire suppression tactics and develop and implement a tactical plan

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Develop and implement a tactical plan

Understand:

- Why the tactical plan should be based on the expected/potential wildfire behaviour
- How tactical priorities should be based on identifying locations and times, where the wildfire behaviour is within the threshold of control of available resources



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Understand:

- The considerations when selecting fire suppression tactics which are appropriate to the expected wildfire behaviour
- How flame length should be used to indicate appropriate fire suppression tactics.
- The risks associated with working close to the wildfire edge
- The different wildfire direct attack techniques and their limitations
- The different wildfire indirect attack techniques and their limitations
- How to organise and form effective wildfire teams
- The different tactics that can be applied by aerial assets at wildfire incidents
- Why it is important that ground teams provide support to aerial operations at wildfire incidents
- How to safely manage the use of tactical fire operations as a suppression method at wildfire incidents
- The roles and responsibilities of a burn team including:
 - Burn Supervisor
 - Burn Operative
 - Members of the holding team
- How to apply an offensive burn at a wildfire incident
- How to apply a defensive burn at a wildfire incident

Understanding the wildfire environment

Understand how wildfires are classified



Control measure element

Learning outcome

Understanding the influences of fuel on wildfire behaviour

Understand:

- The different fuel types within the wildfire environment
- The influence of fuel size on wildfire behaviour
- The influence of fine wildfire fuels within the combustion process
- The influence of fuel arrangement within the wildfire environment
- What is meant by the term `relative humidity` and its effect on the combustibility of different wildfire fuels

Understanding the influence of weather on wildfire behaviour

Understand:

- The effects of solar radiation on wildfire behaviour
- How the strength and direction of wind can affect wildfire spread and intensity
- The different effects of a stable or unstable atmosphere on wildfire behaviour
- How changes to weather conditions during an incident can alter wildfire behaviour
- The effects of the daily weather cycle within the wildfire environment
- The effects of a prolonged drying environment on wildfire behaviour
- How micro climates have an impact and effect on the behaviour of wildfires



Control measure element

Learning outcome

Understand the effects of topography on wildfire behaviour

Understand:

- How different topographical features can influence wildfire behaviour
- Why wildfire behaviour differs when burning up or down slope
- How the shape of topography may alter wind direction at wildfire incidents
- How the orientation of a slope in relation to the position of the sun will effect wildfire behaviour
- How certain features of terrain may act as barriers to the spread of wildfire

Understand how fuel, weather and topography interact within the wildfire environment

Understand:

- The combustion process within the wildfire environment
- The factors which may cause rapid changes to wildfire behaviour
- The situations where extreme wildfire behaviour may occur
- The indicators of extreme wildfire behaviour

Understand the correct wildfire terminology

- The different wildfire terms relating to wildfire behaviour

Practical application

Control measure element

Learning outcome

Develop and implement a tactical plan

Demonstrate the ability to:

- Use available information to develop and implement a safe and effective wildfire tactical plan
- Use topographical mapping to establish an understanding of the landscape for wildfire incidents



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Demonstrate the ability to:

- Apply wildfire behaviour information and decide which fire suppression tactics are appropriate
- Use specialist wildfire tools and equipment
- Plan and complete a safe and effective tactical burn



Control measure - Request and mobilise internal and external resources

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Consider the range of potential resources available to deal with wildfire incidents

Understand:

- The people, equipment, vehicles and specialist skills that may be mobilised to wildfire incidents
- The wildfire resources that are available from partner agencies and other stakeholders
- The appropriate mobilisation procedures to wildfire incidents

Practical application

Control measure element

Learning outcome

Request and mobilise internal and external resources

Demonstrate the ability to:

- Identify potential internal and external resources required to deal with a wildfire incident





Control measure - Have mutual aid or memoranda of understanding arrangements in place

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Consider the use of mutual aid during wildfire incidents

Learning outcome

Understand:

- The pre-arrangements that are in place to provide support at wildfire incidents from other fire and rescue services and stakeholders
- The resources that can be obtained using the pre-arranged agreements for use at wildfire incidents
- The methods to be used to use the mutual aid arrangements during wildfire incidents

Practical application

There is no Practical application



Control measure - Consider requesting and mobilising National Resilience assets

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Consider requesting and mobilising National Resilience assets

Understand:

- The differing National Resilience assets that are available to be deployed to wildfire incidents
- The methods to be used to enable the deployment of National Resilience assets
- What National Resilience assets are appropriate for use during wildfire incidents
- The importance of considering the early deployment of National Resilience assets during wildfire incidents

Practical application

There is no Practical application



Control measure - Consider requesting military aid

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Consider the use of military aid

Understand:

- What support can be provided by military resources during wildfire incidents
- The procedure to be used when requesting military aid during wildfire incidents
- The limitations of military equipment and personnel during wildfire incidents



Practical application

There is no Practical application



Hazard - Failure to work safely and effectively with others and their vehicles or equipment

Knowledge and understanding

Hazard

Learning outcome

Failure to work safely and effectively with others and their vehicles or equipment

Understand all associated hazard knowledge



Control measure - Commence information gathering

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Understand:

- How to access and gather information from a number of sources, including:
 - Maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - Site specific risk information
 - Partners and key stakeholders
- How to access and gather information on the topography, fuels and weather which will influence wildfire behaviour
- The importance of exchanging information as part of detailed briefings relevant to wildfire incidents
- How topographical maps can be used as a planning and safety tool at wildfire incidents
- The methods which can be used to clearly communicate wildfire information with others
- How to use contour information to identify the position of different features found on the landscape
- The relevant information provided in a map legend
- How a topographical map can be used to provide information relating to the scene of operations
- How a topographical map can be used as a tool for navigation
- How to use a map and compass to safely navigate across a wildfire landscape

Practical application



Control measure element

Learning outcome

Gather information from a number of relevant sources which is useful to inform others

Demonstrate the ability to:

- Map read and use topographical knowledge relating to wildfire incidents
- Request a weather report from the fire control room
- Establish the precise location of the wildfire
- Establish the direction and rate of firespread - refer to the hazard of 'Fire behaviour'
- Identify suitable rendezvous points (RVPs) and/or holding areas for wildfire incidents
- Determine suitable access routes for vehicles - refer to the hazard for 'Moving, using and entrapment of vehicles'
- Communicate information to the fire control room, arriving resources and any other responding agencies or services, including information such as:
 - Easily identifiable fixed reference points on the landscape (i.e. natural or manmade features such as hills, streams, roads or buildings)
 - Map references in an appropriate format - refer to [Map reading knowledge sheets](#)
- Carry out a 360 degree survey - refer to the control measure [scene survey](#)' in National Operational Guidance: [Fires and firefighting](#)
- Consider using local knowledge, wildfire fire plans and/or Site-Specific Risk Information(SSRI)
- Implement the LACES safety protocol and deploy team and tactical lookouts at the earliest opportunity
- Consider using aerial observation to gain situational awareness
- Clearly communicate wildfire information with others



Control measure - Emergency response plans: Wildfires



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Emergency response plans: Wildfires

Understand:

- The information which may be available on wildfire emergency response plans
- How wildfire emergency response plans can be used to improve safety and effectiveness

Practical application

There is no Practical application



Control measure - Site-Specific Risk Information (SSRI)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Site-Specific Risk Information (SSRI)

Understand :

- How SSRI can assist in the development of an operational plan for wildfires and how it can be used to improve safety and effectiveness
- Refer to Site-Specific Risk Information – Operations training specification

Practical application

There is no Practical application



Control measure - Establish and maintain situational awareness: Wildfires

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Understand:

- The methodology to be used to establish and maintain the situational awareness at wildfire incidents
- The following sources of information which can be used to establish and maintain situational awareness:
 - Suitable maps and/or mapping systems
 - Direct and/or indirect observation
 - Local fire groups
 - SSRI information
 - Partners and key stakeholders
 - Weather forecasting / reports
 - On site weather readings
- How to observe the wildfire scene of operations
- The influence of weather, topography and fuel in the wildfire environment.
- How to monitor wildfire behaviour
- The methods used to establish and maintain situational awareness at wildfire incidents, using the LACES safety protocol
- How WPS can be used to identify potential wildfire behaviour
- How to disseminate and communicate relevant information to others at wildfire incidents
- The methods of collating and recording wildfire incident data
- Refer to Situational awareness – Incident command training specification

Practical application



Control measure element

Learning outcome

Establish and maintain situational awareness: Wildfires

Demonstrate the ability to:

- Gather wildfire information from a number of sources to confirm understanding
- Clearly communicate wildfire information with others



Control measure - Consider appropriate wildfire suppression tactics and develop and implement a tactical plan

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Develop and implement a tactical plan

Understand:

- Why the tactical plan should be based on the expected/potential wildfire behaviour
- How tactical priorities should be based on identifying locations and times, where the wildfire behaviour is within the threshold of control of available resources



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Understand:

- The considerations when selecting fire suppression tactics which are appropriate to the expected wildfire behaviour
- How flame length should be used to indicate appropriate fire suppression tactics.
- The risks associated with working close to the wildfire edge
- The different wildfire direct attack techniques and their limitations
- The different wildfire indirect attack techniques and their limitations
- How to organise and form effective wildfire teams
- The different tactics that can be applied by aerial assets at wildfire incidents
- Why it is important that ground teams provide support to aerial operations at wildfire incidents
- How to safely manage the use of tactical fire operations as a suppression method at wildfire incidents
- The roles and responsibilities of a burn team including:
 - Burn Supervisor
 - Burn Operative
 - Members of the holding team
- How to apply an offensive burn at a wildfire incident
- How to apply a defensive burn at a wildfire incident

Understanding the wildfire environment

Understand how wildfires are classified



Control measure element

Learning outcome

Understanding the influences of fuel on wildfire behaviour

Understand:

- The different fuel types within the wildfire environment
- The influence of fuel size on wildfire behaviour
- The influence of fine wildfire fuels within the combustion process
- The influence of fuel arrangement within the wildfire environment
- What is meant by the term `relative humidity` and its effect on the combustibility of different wildfire fuels

Understanding the influence of weather on wildfire behaviour

Understand:

- The effects of solar radiation on wildfire behaviour
- How the strength and direction of wind can affect wildfire spread and intensity
- The different effects of a stable or unstable atmosphere on wildfire behaviour
- How changes to weather conditions during an incident can alter wildfire behaviour
- The effects of the daily weather cycle within the wildfire environment
- The effects of a prolonged drying environment on wildfire behaviour
- How micro climates have an impact and effect on the behaviour of wildfires



Control measure element

Learning outcome

Understand the effects of topography on wildfire behaviour

Understand:

- How different topographical features can influence wildfire behaviour
- Why wildfire behaviour differs when burning up or down slope
- How the shape of topography may alter wind direction at wildfire incidents
- How the orientation of a slope in relation to the position of the sun will effect wildfire behaviour
- How certain features of terrain may act as barriers to the spread of wildfire

Understand how fuel, weather and topography interact within the wildfire environment

Understand:

- The combustion process within the wildfire environment
- The factors which may cause rapid changes to wildfire behaviour
- The situations where extreme wildfire behaviour may occur
- The indicators of extreme wildfire behaviour

Understand the correct wildfire terminology

- The different wildfire terms relating to wildfire behaviour

Practical application

Control measure element

Learning outcome

Develop and implement a tactical plan

Demonstrate the ability to:

- Use available information to develop and implement a safe and effective wildfire tactical plan
- Use topographical mapping to establish an understanding of the landscape for wildfire incidents



Control measure element

Learning outcome

Consider appropriate wildfire suppression tactics

Demonstrate the ability to:

- Apply wildfire behaviour information and decide which fire suppression tactics are appropriate
- Use specialist wildfire tools and equipment
- Plan and complete a safe and effective tactical burn



Control measure - Identify appropriate organisations that could provide assistance and develop an effective multi-agency response

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Identify appropriate organisations that could provide assistance and develop an effective multi-agency response

Understand:

- The role of partners and identify key stakeholders; including statutory agencies at wildfire incidents
- The purpose and benefits of establishing local wildfire groups and other wildfire partnership arrangements
- What additional resources/knowledge and assistance can be provided by establishing a multi-agency response at wildfires
- The level of support and limitations that can be provided by other organisations at wildfires
- How other organisations can help to preplan for wildfires
- How other organisations can assist at wildfires
- How to work in collaboration with other organisations at wildfires



Practical application

Control measure element

Identify appropriate organisations that could provide assistance and develop an effective multi-agency response

Learning outcome

- Demonstrate the ability to:
- Preplan for wildfires with other organisations
 - Work collaboratively with other organisations at wildfires



Control measure - Provide supervision: Wildfires

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Consider how to provide appropriate supervision

Learning outcome

- Understand:
- The safe systems of work to be used when working with others at wildfire incidents
 - How the LACES Safety protocol can be used to apply appropriate team supervision
 - The benefits of establishing effective supervisory arrangements with other partners and/or stakeholders at wildfire incidents

Practical application

Control measure element

Ensure all personnel are closely supervised when operating in the inner cordon

Learning outcome

- Demonstrate the ability to:
- Select the appropriate safe systems of work and supervise safety and effectiveness



Control measure - Consider using specialist vehicles or equipment: Wildfire

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Consider using specialist vehicles or equipment available from other organisations

Learning outcome

Understand:

- What specialist vehicles or equipment are available which may be used at wildfires
- The use and limitations of specialist vehicles and equipment that can be provided by other organisations
- What arrangements / procedures are in-place to enable the use of specialist vehicles or equipment at wildfire incidents

Practical application

Control measure element

Consider using specialist vehicles or equipment available from other organisations

Learning outcome

Demonstrate the ability to:

- Work with other organisations and their specialist vehicles and /or equipment



Hazard - ARCHIVED - Working environment: Terrain

Knowledge and understanding



Hazard

Learning outcome

ARCHIVED - Working environment: Terrain

Understand all associated hazard knowledge



Hazard - Physiological stress

Knowledge and understanding

Hazard

Learning outcome

Physiological stress

Understand all associated hazard knowledge



Control measure - Reduce exposure to hazards

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Reduce exposure to hazards

Understand:

- Reduction of exposure to hazards
- Methods to reduce exposure to hazards

Practical application



Control measure element

Learning outcome

Consider implementing control measures that reduce the exposure of responders to a hazard

Demonstrate the ability to:

- Implement appropriate control measures to:
 - Reduce the amount of time spent in the hazard area
 - Avoid repeated exposure to the hazard



Control measure - Task rotation

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Task rotation

Understand:

- Methods of deploying personnel as teams
- How to use task rotation to minimise the exposure of personnel to the hazards present

Practical application



Control measure element

Learning outcome

Keep the number of people exposed to the hazard at a minimum and reduce time of exposure through task rotation

- Demonstrate the ability to:
- Deploy personnel in teams if required
 - Ensure teams are of an appropriate size to carry out the task
 - Have sufficient teams to allow task rotation to take place
 - Consider allowing personnel to share tasks, roles and functions
 - Manage team and task rotation if appropriate



Hazard - People

Knowledge and understanding

Hazard

Learning outcome

People

Understand all associated hazard knowledge



Control measure - Seek assistance for dealing with people

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Seek assistance for dealing with people

Understand:

- The assistance that may be required for:
 - Providing welfare or shelter
 - Controlling members of the public, including crowds
 - Dealing with unpredictable, aggressive, violent or illegal behaviour
 - Safeguarding of children and vulnerable adults

Practical application

Control measure element

Learning outcome

Consider the welfare or shelter arrangements for people directly or indirectly affected by the incident

Demonstrate the ability to:

- Estimate the welfare or shelter arrangements required
- Contact the appropriate organisations to request provision of welfare or shelter arrangements



Control measure - Evacuation and shelter

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Evacuation of people

Understand:

- The definition of evacuation
- Why the evacuation or shelter of people may be required
- The planning that is required for evacuation or shelter of people, and who is responsible for this
- The need to develop a joint understanding of risk for operational and fire control personnel for evacuation, shelter or 'stay put'
- The roles and responsibilities of the:
 - Police
 - Local authority
 - Strategic Co-ordinating Group (SCG)
- The hazards and risks associated with emergency evacuation
- The behaviour of people in emergency situations
- The factors that influence evacuation plans
- The considerations for incorporating evacuation procedures into incident plans
- The wider impact of dealing with significant numbers of evacuated people
- How to access information on evacuation plans

Practical application

Control measure element

Learning outcome

Determine whether people should be advised to evacuate, shelter in place or 'stay put'

Demonstrate the ability to:

- Determine whether evacuation, shelter in place or 'stay put' is appropriate:
 - Record rationale for decision
 - Ensure the fire control room understands the decision
 - Inform the people affected



Control measure - Warn, inform and advise people



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Warning, informing and
advising people

Learning outcome

Understand:

- The legislation regarding the requirement for responders to:
- Make information available to the public about civil protection matters
- Maintain arrangements to warn, inform and advise the public in the event of an emergency
- Why information to the public may have to be restricted
- How information communicated to, or withheld from people can influence their behaviour
- The characteristics of appropriate warnings, information and advice
- Methods for providing warnings, information, and advice

Practical application

Control measure element

Use the most effective methods for communicating with people who are either directly or indirectly involved in the incident

Learning outcome

Demonstrate the ability to:

- Use effective methods to warn, inform and advise people
- Provide information that is:
 - Specific and clear
 - Timely and accurate
 - Credible and verifiable
 - Appropriate to the nature and extent of the danger





Hazard - Inappropriate or uncontrolled use of
aircraft

Knowledge and understanding

Hazard

Learning outcome

Inappropriate or uncontrolled use of aircraft

Understand all associated hazard knowledge



Control measure - Notify the appropriate authorities about potential hazards to aircraft

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Notify the appropriate authorities about potential hazards to aircraft

Understand:

- Which authorities require to be notified of potential hazards to aircraft from a wildfire incident.
- How to notify the appropriate authorities about potential hazards to aircraft from a wildfire incident.

Practical application

There is no Practical application



Control measure - Consider deployment of fixed-wing aircraft or helicopters

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Consider deployment of fixed-wing aircraft or helicopters

Learning outcome

Understand:

- The different types and the limitations of fixed-wing aircraft and helicopters which can be deployed to wildfire incidents.
- Which type of fixed-wing aircraft or helicopter is suitable for deployment at the wildfire.
- The procedure for requesting the deployment of fixed-wing aircraft or helicopters at wildfire incidents.

Practical application

Control measure element

Consider deployment of fixed-wing aircraft or helicopters

Learning outcome

Demonstrate the ability to:

- Assess the suitability of available aircraft and select the correct aerial support for wildfire incidents



Control measure - Consider deploying unmanned aircraft

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Consider deploying unmanned aircraft

Understand:

- The different types and the limitations of unmanned aircraft which can be deployed to wildfire incidents.
- The appropriate type of unmanned aircraft which is suitable for deployment to wildfire incidents.
- The procedure for requesting the deployment of unmanned aircraft to wildfire incidents.

Practical application

There is no Practical application



Control measure - Establish communications with aircraft

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Establish communications with aircraft

Understand:

- The benefits and limitations of communications with aircraft
- The procedures to be used to establish and maintain effective communication with aircraft
- The benefits of establishing an aerial sector to manage the communications with aerial resources

Practical application

There is no Practical application



Control measure - Manage the safety and security of take-off and landing areas for aircraft

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Establish the safety and security of take-off and landing areas for aircraft	Understand: <ul style="list-style-type: none">The benefits of establishing an aerial sector to manage the activities and safety of aerial resources at wildfire incidents.
Practical application	
There is no Practical application	



Hazard - Environmental impact of wildfires

Knowledge and understanding

Hazard	Learning outcome
Environmental impact of wildfires	Understand all associated hazard knowledge



Control measure - Consider the protection of ecological and heritage assets



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Consider the protection of ecological and heritage assets

Understand:

- The importance of pre-planning with responsible people and multi-agencies for ecological and heritage sites
- The appropriate actions to take if damage is caused during firefighting activities
- The agencies that should be notified if damage has been, or will be caused during firefighting

Practical application

Control measure element

Learning outcome

Consider the environmental impact of firefighting

Demonstrate the ability to :

- Notify the appropriate agencies if damage has been, or will be, caused to ecological and heritage assets during firefighting at wildfire incidents
- Communicate the risks to the environment to personnel and other responders
- Use appropriate environmental protection measures at wildfires



Control measure - Consider the environmental impact of firefighting

TRAINING SPECIFICATION



Knowledge and understanding

Control measure element

Consider the environmental impact of firefighting

Learning outcome

Understand:

- That indirect impacts on the environment of firefighting activities at wildfire incidents
- How pre-planning can be used to reduce the environmental impacts of firefighting at wildfires
- How plant and animal pests or diseases can be transmitted
- How to identify sensitive sites

Practical application

Control measure element

Consider the environmental impact of firefighting

Learning outcome

Demonstrate the ability to:

- Notify the appropriate agencies if damage has been, or will be, caused to the environment during firefighting activities at wildfire incidents
- Use appropriate equipment and processes at wildfire incidents to minimise the environmental impacts of firefighting activities
- Implement appropriate environmental protection measures at wildfire incidents
- Use hand tools (fire-beaters) and high pressure fogs to suppress wildfire at sensitive sites
- Put in place appropriate measures to prevent the spread of plant or animal pests and diseases at wildfire incidents