

JOINT SOP

Title	Tree hazard - bushfire response
Purpose	To mitigate the risk to emergency service personnel of injury or death from falling trees and branches during bushfire response.
Scope	<p>This Joint SOP applies to all emergency services personnel (including emergency service agencies and contractors) involved with bushfire response operations. Specifically in relation to the identification of tree hazard in the forested/treed environment and mitigating the risk of consequent injury, or damage to equipment while accessing or being on the fire ground.</p> <p>This Joint SOP does not apply to planned burning or operations arising from flood, storms or other events.</p>
Applicable Agencies	<p>This procedure applies to the following agency personnel;</p> <ul style="list-style-type: none"> • CFA • DELWP • MFB • VICSES
Content	<p>The procedural contents of this SOP are:</p> <ul style="list-style-type: none"> • Step 1: Identify the potential existence of tree hazard during bushfire response. • Step 2: Mitigate the risk arising from tree hazard during access to bushfire incidents • Step 3: Mitigate the risk arising from tree hazard on the fire ground. • Step 4: Mitigate the risk of unidentified hazard trees on the fire ground. • Step 5: Complete operations. • Schedule 1: Qualifications and Experience for Hazard Tree Assessment • Schedule 2: Hazard Tree Marking System • Schedule 3: Hazard Tree Treatment • Schedule 4: Tree Hazard Mitigation Matrix: Identification, Assessment, Marking and Treatment
Responsibilities	All emergency service personnel involved in bushfire response, including Incident Controllers, Operations Officers, Sector Commanders, Crew Leaders, crew members, and all others entering a fire ground are responsible for following this procedure.

	<p>Specifically:</p> <ol style="list-style-type: none">1. Incident Controllers are to ensure tree hazard is considered along the route(s) used to enter/leave the fire ground.2. Incident Controllers are to ensure that known areas of high tree hazard are identified during the development of the Incident Action Plan, particularly in relation to deployment orders and safety messaging.3. Incident Controllers are to ensure that crews are briefed at shift commencement on known areas of high tree hazard.4. Incident Controllers are to ensure that mop-up/blacking out or patrol does not commence until a hazard tree assessment has been completed for that portion of the fire control line or mitigation controls are in place.5. Incident Controllers are to ensure Clear and Present Danger trees that remain standing on the fire ground after the passage of the fire are treated.
Definitions	<p>The following definitions apply to this procedure:</p> <p>Advanced or Intermediate Faller A tree faller meeting the requirements of the relevant Public Safety Training Package Unit of Competency <i>Fall trees manually (advanced)</i> or <i>Fall trees manually (intermediate)</i> or successor(s).</p> <p>Assess (tree hazard) To locate and evaluate the extent of tree hazard by appropriately <u>qualified</u> and/or <u>experienced</u> personnel.</p> <p>Bushfire Unplanned vegetation fire. A generic term which includes grass fires, forest fires and scrub fires both with and without a suppression objective.</p> <p>Clear and Present Danger tree (CPD) A tree or branch that is likely to fall within the expected timeframe of the current operation and impact personnel in its potential impact zone.</p> <p>Dispatching Officer The agency or other authorised person initiating the act of ordering attack crews and/or support units to respond to a fire, or from one place to another.</p> <p>Going Fire Any bushfire which is expanding and suppression actions have not yet contained the fire.</p> <p>Hazard Tree The collective term for Hazardous trees and Clear and Present Danger trees.</p>

Hazardous Tree

A tree or branch which in its current state may in its current state may in part or wholly fall and impact personnel in its potential impact zone (but not considered likely to do so during the expected timeframe of the current operation).

Identify (tree hazard)

The ability to recognise stands of, or individual trees that present an increased risk to personnel safety (as included in basic bushfire hazard recognition training).

Initial Attack

The first suppression work on a fire.

Mop up/Blacking Out

The process of extinguishing or removing burning material along or near the fire control line, felling stags, trenching logs to prevent rolling and the like, in order to make the fire safe.

Potential Clear and Present Danger tree

A tree which in its current state does not appear hazardous, but may become a Clear and Present Danger tree if it catches alight or is impacted by wind or other disturbance.

Tree Hazard

The overall combined safety risk to personnel from hazard trees within an area. *For example, an area of fire killed trees.* Refer to Schedule 4 for supporting detail.

PROCEDURE

1. Step 1: Identify the potential existence of tree hazard during fire response.
 - 1.1 Local Mutual Aid Plans (LMAPS) are to contain, where relevant, map(s) indicating geographic areas with known and/or predicted high concentrations of tree hazard (eg. tree species, fire history including fire intensity overlays, stand history and health including disease, wind/snow damage and/or silvicultural treatments) overlaid with the fire access roads and tracks.
 - 1.2 LMAPS are also to contain details and/or maps of those fire access routes on which tree hazard has been assessed and treated.
2. Step 2: Mitigate the risk arising from tree hazard during access to bushfire incidents.
 - 2.1 Where the preferred access route to a fire ground is through known and/or predicted areas of high tree hazard which have not had tree hazard assessment and treatment, resources may only be deployed via this route if the risk factors are considered acceptable under the current conditions; e.g. relevant weather factors such as wind speed (refer Schedule 3).
 - 2.2 Once deployed, personnel need to maintain awareness of hazard trees while commuting through or working in these areas and any identified unacceptable risks mitigated.

2.3 Where personnel consider the risk of injury from tree hazard significant, the Incident Controller needs to be advised and acceptable lower risk alternative implemented.

2.4 LMAPS are to include arrangements for the accessing the appropriately resources for the assessment and treatment of hazard trees (including appropriately equipped chainsaw and plant operators).

2.5 Incident Action Plans are to clearly identify areas where access is restricted in response to the risk arising from tree hazard

3. Step 3: Mitigate the risk arising from tree hazard on the fire ground.

3.1 General Principles:

3.1.1 Awareness and identification of trees which present a hazard must form part of the ongoing dynamic risk assessment performed by all personnel on the fire ground at all times.

Refer to the Hazardous Tree Management Pictorial Guide, DEPI 2013 for more information on tree hazard identification.

3.1.2 Safety from hazard trees during fire emergencies will take priority over other considerations (such as the conservation of biological values) consistent with the State Strategic Control Priorities. When in doubt or dispute over either the risk associated with a tree or its values, the decision will favour safety.

3.1.3 Where alternative effective fire control options are available, relocate control lines and temporary access roads and tracks away from known tree hazard areas and/or establish exclusion zones.

3.1.4 Where a fire has impacted or otherwise damaged trees, access/control lines and other work areas in or near the impacted area, hazard trees will be assessed, marked and treated. Refer to Schedule 3 for details on the assessment area.

3.1.5 Crew Leaders/Sector/Division Commanders are to ensure appropriately qualified or experienced personnel assess, mark and treat hazard trees on the fire ground (including staging/briefing/assembly points), where practicable. Refer to Schedule 1 for a description of qualified and experienced personnel

3.2 Pre-fire

3.2.1 Any planned retention of CPD, Hazardous, or Potential CPD trees where protection is not reliably assured, should be avoided where possible.

3.3 Initial attack/going fire

3.3.1 Awareness and identification of trees which present a hazard must form part of the ongoing dynamic risk assessment performed by all personnel on the fire ground at all times.

3.3.2 During attack on a going fire (ie. prior to mop-up/blacking out), personnel need to be particularly vigilant regarding identification of hazard trees and treat any identified unacceptable risks.

3.3.3 Any hazardous or potential CPD trees assessed are to be marked and CPD trees isolated in accordance with this procedure.

3.3.4 Where personnel consider the risk of injury from tree hazard significant, the Incident Controller needs to be advised and alternative lower risk alternatives considered. This consideration will balance the priorities placed on responder safety and any community members known to require assistance.

3.4 Following the passage of fire

3.4.1 As soon as practicable after the passage of fire, hazard trees within striking distance of access/control lines will be assessed, marked and treated (including possible isolation). Refer to Schedule 3 for details on the assessment area. In exceptional circumstances where this requirement is impracticable, the Incident Controller must approve and record alternative actions.

3.4.2 Before the commencement of any mop-up/blacking out/patrol of areas where fire has affected trees, hazard trees within striking distance of access/control lines will be assessed, marked and treated (including possible isolation). Refer to Schedule 3 for details on the assessment area. In exceptional circumstances where this requirement is impracticable, the Incident Controller must approve and record alternative actions.

3.5 Mark hazard trees on incident ground.

3.5.1 The agreed marking system for hazard trees will be used at all times, to ensure consistency and protect responder safety. Refer to Schedule 2 for details of the hazard tree marking system.

3.6 Treat hazard trees on the fire ground.

3.6.1 Treat hazard trees before and after the passage of fire on access routes, assembly areas, and control lines in accordance with the hierarchy of risk controls. Refer to Schedule 3 for details of hazard tree treatment.

3.6.2 Consider evacuation of treed areas when conditions such as wind speed, tree-fall, or other factors become unfavourable.

Refer to Schedule 4 for an overview of hazard tree identification, assessment, marking and treatment.

4. Step 4: Mitigate the risk of unidentified hazard trees on the fire ground.

4.1 Where Crew Leaders/Sector/Division Commanders believe that the residual risk from unmarked hazard trees on the fire ground requires vigilance, awareness is to be maintained by reference in fire ground briefings and close supervision.

5. Step 5: Complete operations.

5.1 Incident Controllers are to ensure removal of all marked CPD trees prior to transition to recovery, so far as is reasonably practicable.

5.2 Where marked CPD trees remain at the conclusion of the response phase, the Incident Controller will ensure the location of these trees forms part of the handover to recovery agencies and/or land manager.

SAFETY

Emergency Personnel need to ensure that the protection and preservation of life is maintained at all times.

In the application of this JSOP there the following safety considerations apply:

- CFA Safety Alert No 31 *Hazardous Trees* (8 January 2014)
- DSE Safety Alert Number 08/11 *Use of Plant and Equipment in the vicinity of Hazardous Trees* (13 December 2011)
- MFB Advisory Notice 7/2012 *Hazardous Tree Identification*.

REFERENCE

Related Documents	<p>Booklet: Guideline for fire control lines and management of hazardous trees (DSE/CFA 2011)</p> <p>Booklet: Hazardous Tree Management – Pictorial Guide (DEPI 2013)</p> <p>SOPJ 8.02: Dynamic Risk Assessment</p> <p>VICSES SOP019 Operations Involving Trees (SES 2015)</p> <p>Training manual: Bushfire Firefighter Reference Manual (CFA/DSE 2011)</p> <p>EMV Safety Fact Sheet</p> <p>SOP J 02.01 – Local Mutual Aid Plans</p>
Environment	Nil

REVIEW

Date Issue	5 June 2017
Date Effective	1 August 2017
Date to be Reviewed	August 2020
Date to Cease	

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J8.03

AUTHORITY

The Emergency Management Commissioner has issued this SOP under section 50 of the Emergency Management Act 2013.

Approved	Signature	Date
Craig Lapsley Emergency Management Commissioner		
Endorsed	Signature	Date
Steve Warrington Chief Officer, CFA		
Stephanie Rotarangi Chief Fire Officer, FFM Vic - DELWP		
Paul Stacchino Acting Chief Officer, MFB		
Trevor White Chief Officer, VICSES		

Schedule 1

Qualifications and Experience for Hazard Tree Assessment

1. Only appropriately, qualified or experienced personnel can carry out a hazard tree assessment. This does not preclude any other personnel from identifying a hazard tree and treating it appropriately (e.g. exclusion).
2. Appropriate qualification to carry out hazard tree assessment is:
 - 2.1 Formal timber industry endorsement as a tree faller in native forest with (or accompanied by a person with) (22023VIC) *Basic Wildfire Awareness* training OR (PUAOHS002B) *Maintain Safety at an Incident Scene* Unit of Competency; or
 - 2.2 Arborist with (or accompanied by a person with) (22023VIC) *Basic Wildfire Awareness* training OR (PUAOHS002B) *Maintain Safety at an Incident Scene* Unit of Competency.
3. Appropriate experience to carry out hazard tree assessment is:
 - 3.1 Operations Officer or Crew Leader with extensive experience in forest firefighting and/or forest harvesting; or
 - 3.2 Responder with extensive experience in suppression/ forest firefighting activities involving similar assessment of tree soundness.

Schedule 2

Hazard Tree Marking System

The system for marking hazard trees is described below and must be read in conjunction with SOP J8.03 Tree hazard - bushfire response.

1. Pre-fire and Pre-ignition for Backburning and Burning Out

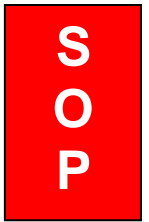
- 1.1 **Yellow cross “X”** on hazardous trees (not yet CPD), or potential CPD trees which cannot be reliably protected, are accordingly marked for removal. These will normally be pushed over or felled as part of access/line construction.
- 1.2 **Yellow dot “●”** on (as yet) non-hazard trees to be protected (ie hand raked or machine cleared around and/or fire suppressant applied) prior to the fire.
- 1.3 Although uncommon pre-fire or pre-ignition, **Yellow “K”** trees (see below) if identified, should be managed as outlined below.

NB: Potential CPD trees marked for retention (and thus protection from fire), must have a high probability of surviving the fire intact based on the proposed protection measures and likely response resources available. If this is not reasonably assured, these trees are otherwise likely to become CPD trees post-fire and add unnecessary complexity to the fire response and should be pre-emptively removed.

2. Initial Attack/ First Response and Post-fire

- 2.1 **Yellow “K”**: Where it is considered by those qualified or experienced (SOP J8.03 Schedule 1) that in the circumstances it is safe to mark the tree, a yellow “K” identifies a tree which presents a “Clear and Present Danger”. This is painted on two sides with non-flammable spray yellow paint in >30cm capital, and an exclusion zone is established (SOP J8.03 Schedule 3).
- 2.2 Where it is not safe to approach a CPD tree, it is left unmarked and an exclusion zone is established (SOP J8.03 Schedule 3).
- 2.3 If at all practicable, the mapped location of “K” (i.e CPD) trees is to be made available to fire ground personnel as soon as possible after marking.
- 2.4 Although **Yellow “X”** trees are primarily identified and removed pre-fire it is not uncommon for new ones to be identified during and post fire. These should be removed as soon as practical after marking.
- 2.5 **Yellow dot “●”** trees should be adequately resourced and patrolled to ensure they do not catch alight.
- 2.6 If protection of a **Yellow dot “●”** tree has failed and the tree catches alight, extinguishment should be attempted as soon as possible provided it is safe to do so. If the tree cannot be reliably and effectively extinguished and threatens the work space/control line, it then becomes a CPD (“K”) tree and treated as per paras 2.1 and 2.2 above.

Refer to the Hazardous Tree Management Pictorial Guide, DEPI 2013 for more information on the Identification and Marking System.



Schedule 3

Hazard Tree Treatment

ASSESSMENT AREA

The work area

Hazard trees or branches situated inside or immediately adjacent to the area where ground crew may be working. This area could be the road itself if no mop up/blacking out is planned, or may include the blacking out depth where planned.

Outside the work area

The area beyond the work area where Clear and Present Danger trees present a risk by falling into or sliding downhill into the work area.

TREATMENT OPTIONS

1. ELIMINATE

1.1 **Removal** of the hazard by downing trees is the preferred method of treating the hazard. Hazard trees should be machine felled where ever possible. Hand falling of hazard trees should be avoided unless it is both essential and safe and in accordance with dynamic risk assessment. Both intermediate and advanced fallers may hand fall hazard trees within the range limits of their competency..

1.2 **Extinguishment** in-situ by water, fire suppressant and/or retardant, if safe to do so. If a tree is assessed to be a hazard tree it should be removed after extinguishment.

2. SUBSTITUTE

2.1 **Move** or **abandon** the control line if CPD trees cannot be eliminated. Construct or select an alternative location for a control line.

3. ISOLATE

3.1 **Isolate** CPD trees by locally re-aligning the control line (to provide at least a 2 tree length separation) or by establishing an exclusion zone.

3.2 Generally, an **exclusion zone** shall be a distance of at least 2 tree lengths around a tree hazard. The actual distance in each instance is determined by site factors such as slope and may be larger (or in some rare instances smaller) than 2 tree lengths.

3.3 The perimeter of an exclusion zone is marked using yellow and black hazard tape on sufficient individual trees to indicate its extent.

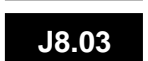
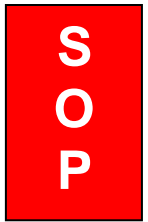
3.4 Exclusion zones should only be entered by plant or vehicles with falling object protection canopies or appropriately skilled crew tasked to remove the CPD tree.

3.5 When an exclusion zone is established over a control line relevant incident personnel should be advised of its location.

3.6 Where an exclusion zone extends across a track that exclusion needs to be effective and actively managed to ensure crew do not drive through the zone.

- 3.6.1 Traffic control needs to be established to warn others and prevent personnel entering the area while the hazard remains until it is removed or burns down.
- 3.6.2 If for some exceptional reason traffic control is not implementable, the existence of the exclusion zone must be marked with hazard tape on a piece of wood (or similar) across the middle of the track/control line.
- 3.7 Consider **evacuation** of treed areas on the fire ground when tree-top wind-speed triggers are exceeded. This will vary depending on circumstances but will generally be triggered by an observation or forecast of Gale force winds/wind gusts (ie Beaufort Wind Scale = 8, 63-75km/hr), or greater.
- 3.7.1 The Incident Controller will determine the level and type of response based on the risk and operational environment. In general, deployment of personnel into areas where the level of tree hazard is unacceptably high, will only be considered if there is an imminent threat to life.
- 3.7.2 Operations staff need to be prepared for rapid crew withdrawal if trees are falling, forecast become unfavourable, or weather actually deteriorates.
- 3.7.3 Where an area is dominated by hazard trees and the opportunity for safe work is severely restricted, crew levels should be reduced to essential tasks only and where possible only purpose-built (for falling object protection) vehicles should be used.

Note: To maintain its effectiveness as an alert, yellow and black hazard tape is only to be used to mark the location/exclusion zone of CPD trees.



Schedule 4

Tree Hazard Mitigation Matrix: Identification, Assessment, Marking and Treatment

Assessment status	Not Assessed In Fire Affected Area (pre, during or post fire)	Assessed And Deemed To Be Sound (pre, during or post fire)	Assessed (pre fire)	Assessed (mostly pre-, occasionally during or post- fire)	Assessed (during or post fire)
Tree Type	Not assessed	Appears sound	Potential Clear and Present danger (CPD): protection reliably assured.	HAZARD TREE	Clear & Present Danger (CPD)
Potential Clear and Present Danger (CPD): protection NOT reliably assured. OR Hazardous Tree					
Hazard Status	Unknown	Low	Currently low but vulnerable to rapid increase if affected by the fire or associated operations	Deemed to have, or presents evidence of increased hazard	Extreme
Marking Symbol	No mark	Sound, no mark	Yellow Dot (•)	Yellow Cross (X)	Yellow “K” and/or hazard tape exclusion area.

Assessment status	Not Assessed In Fire Affected Area (pre, during or post fire)	Assessed And Deemed To Be Sound (pre, during or post fire)	Assessed (pre fire)	Assessed (mostly pre-, occasionally during or post- fire)	Assessed (during or post fire)
Definition	Tree yet to be assessed	An assessed sound tree that is not currently hazardous and is not likely to become a CPD tree when exposed to fire or other disturbance associated with the incident (eg. wind gusts, machine damage).	A tree which in its current state does not appear hazardous, but may become a CPD tree if it catches alight or is impacted by wind or other fire-related disturbance. It has a high probability of surviving the fire intact based on the proposed protection measures and likely response resources available.	<p>A tree which in its current state does not appear hazardous, but may become a CPD tree if it catches alight or is impacted by wind or other operational disturbance. It does NOT have a high probability of surviving the fire intact based on the proposed protection measures and likely response resources available.</p> <p>OR</p> <p>A tree which in its current state may in part or wholly fall and impact personnel in its potential impact zone (but is not considered likely to do so during the expected time frame of the current operation).</p>	A tree or branch that is likely to fall within the expected timeframe of the current operation and impact personnel in its potential impact zone.

Assessment status	Not Assessed In Fire Affected Area (pre, during or post fire)	Assessed And Deemed To Be Sound (pre, during or post fire)	Assessed (pre fire)	Assessed (mostly pre-, occasionally during or post- fire)	Assessed (during or post fire)
Description		<p>Tree appears 'sound', ie - no obvious defects which would significantly weaken the trunk or allow the entry of fire.</p> <p>No large dead branches or widow makers present.</p>	<p>Tree has:</p> <p>Exposed butt scars,</p> <p>OR</p> <p>Hard to reach elevated hollows,</p> <p>OR</p> <p>Small diameter and surrounded by accumulated heavy fuel.</p>	<p>Trees with a stem or branch diameter greater than 10cm above shoulder height and are assessed to be at increased risk of total or partial collapse based on (but not limited to) one or more of the following indicators:</p> <ul style="list-style-type: none"> • Dead and/or decaying; • Suspended loose or broken branches; • Significant lean with a recent cause or indicators of failure; • >50% decrease in sound and solid cross section at any point in bole or major branch; • Evidence of longitudinal cracking, or a weak fork; • Evidence of its roots lifting, or an under cut or disturbed root system; • Tree cannot be effectively protected from catching alight and becoming subsequently weakened; • Other indicators of serious weakness based on local knowledge and conditions. 	<p>Tree is on fire, not able to be safely and reliably extinguished and will be weakened to failure point by fire,</p> <p>OR</p> <p>Tree has incurred severe structural damage from recently extinguished fire and appears very unstable,</p> <p>OR</p> <p>Tree has been impacted on by some other factor and appears likely to fail within the timeframe of the current operation (eg. backed into by bulldozer, damaged by nearby tree fall).</p>

Assessment status	Not Assessed In Fire Affected Area (pre, during or post fire)	Assessed And Deemed To Be Sound (pre, during or post fire)	Assessed (pre fire)	Assessed (mostly pre-, occasionally during or post- fire)	Assessed (during or post fire)
Instruction to HT assessment crew	Tree has not been assessed and its condition is unknown. For avoidance of doubt, during or post fire all trees in this category should be considered potential CPD ("K") trees.	Carefully check trees from both sides against criteria for hazardous and CPD trees. If in doubt regarding its soundness or ability to survive the fire, err on the side of fire fighter safety.	Mark with a Yellow Dot (•) provided the tree can reliably be protected from fire by measures and resources available (otherwise tree is to be considered as a potential CPD tree and marked accordingly). Tree may be worked under.	Mark with a yellow "X" for removal. If there is doubt regarding a tree being hazardous, err on the side of safety and mark for removal. Note: Small trees may burn out quickly. Trees may occasionally fall uphill particularly under the influence of strong winds.	Only mark if the tree is safe to approach, always establish an exclusion zone or reroute the control line.

Assessment status	Not Assessed In Fire Affected Area (pre, during or post fire)	Assessed And Deemed To Be Sound (pre, during or post fire)	Assessed (pre fire)	Assessed (mostly pre-, occasionally during or post- fire)	Assessed (during or post fire)
Instruction to fire crew	Approach trees with caution. If approaching tree to assess presents hazard to personnel, use the tape mark off system to identify as a CPD tree (ie "K" tree) and isolate as per DEPI pictorial guide. Assessments must be conducted on foot, not 'drive by'.	Normal precautions, tree may be worked under.	<p>Pre-fire: Clear around and protect from fire, normal precautions, ensure tree does not catch fire, tree may be worked under. Additional actions such as ground applied retardant or wetting down, pre-fire candling under controlled conditions, and intensive patrol may be requested.</p> <p>Post-fire: If protection fails and the tree catches alight, it should be fully extinguished as soon as possible, if safe to do so. If the tree cannot be reliably and effectively extinguished, and it threatens the work space/control line, it becomes a CPD tree and is treated accordingly.</p>	<p>Ensure tree removal as soon as practicable.</p> <p>Tree presents significant additional risks but is currently assessed as unlikely to fall during the current operation; may be worked under with caution following dynamic risk assessment during fire emergencies if necessary.</p> <p>Monitor condition to ensure tree has not caught alight or deteriorated to CPD.</p> <p>If tree has deteriorated reclassify to CPD and create exclusion.</p>	Already too dangerous to work under, ensure taped-off exclusion zone for personnel and vehicles (unless specifically approved for this task) is established and maintained until tree falls or is removed.

Assessment status	Not Assessed In Fire Affected Area (pre, during or post fire)	Assessed And Deemed To Be Sound (pre, during or post fire)	Assessed (pre fire)	Assessed (mostly pre-, occasionally during or post- fire)	Assessed (during or post fire)
Instruction to plant operator or faller	Prohibit personnel entry into 'not assessed' areas for mop up/black out/patrol until hazard tree assessment and treatments have been implemented.	None (although tree removal may be required for other control line construction purposes).	Provide adequate width of mineral earth break around it to protect it from anticipated fire conditions. This must be achieved without damage to the tree (including its roots).	Remove provided the operator or faller deems it safe to do so.	Remove with extreme caution only when safety can be reliably assured. Wherever possible removal by machinery is preferred to hand falling.
General tree hazards	All trees present some degree of hazard, particular defects may be hard to see or identify so a degree of caution is always needed. Variable conditions such as increasing or gusty winds will change the overall level of risk and which trees are most dangerous.				