

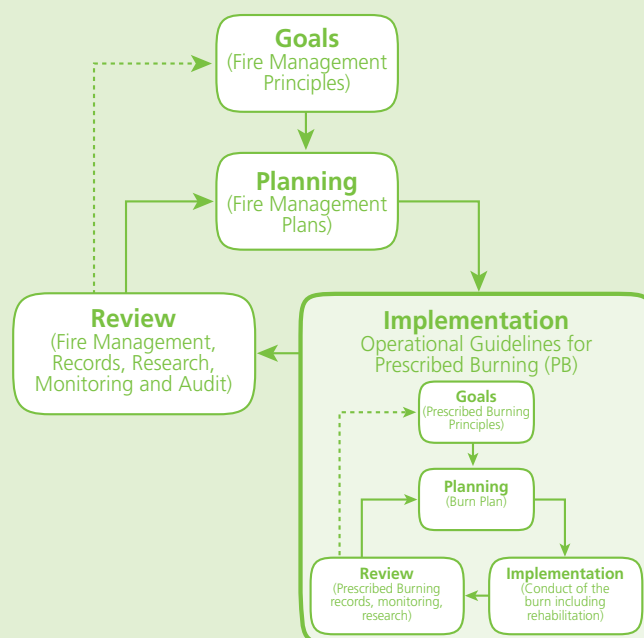
# 3 Land Management Burning

## Overview

183 Part 3 of this Code of Practice outlines the Department's requirements relating to prescribed burning for all land management purposes on public land. Prescribed burning is used in Victoria for three main objectives: to reduce fuel levels for fire protection, to stimulate regeneration of tree species following timber harvesting and to maintain and enhance Indigenous ecosystems. Regeneration burning after timber harvesting provides for the dual purpose of stimulating regeneration as well as reducing the post-harvest fuel hazard.

This in turn provides protection for newly established forest and allows for the safe conduct of future prescribed burns in the vicinity. Prescribed burning carries with it an inherent risk of escape and some hazards to firefighters. These risks are mitigated by appropriate planning and operational procedures.

Fire does not recognise land tenure for the management of land. Where possible, prescribed burning on public land will be undertaken in conjunction with partner agencies such as the Country Fire Authority. Prescribed burning could enhance cooperative arrangements with owners, occupiers, or managers of the adjacent land, or with appropriate community groups, to integrate fuel and ecological management activities on both sides of the public land boundary.



## 3.1 General Principles for Land Management Burning

184 Prescribed burning to achieve stated land management objectives will be thoroughly planned, follow safe working practices, be controlled, and the outcomes will be monitored and recorded.

185 The Department will work with communities to facilitate understanding of the role of fire as a management tool in the Victorian environment.

186 Prescribed burning activities and processes are to be planned in partnership with communities.

## 3.2 Planning for Burning Operations

- 187 Each prescribed burn must be the subject of an approved Burn Plan, prepared in accordance with Appendix B of this Code of Practice. ♦
- 188 Planning for prescribed burning operations must provide for their safe conduct, be based on clearly stated objectives, incorporate the principles of environmental management and minimise the risk of fire escape.
- 189 The Department will issue additional or updated directions, standards, prescriptions or guidelines for the planning and execution of prescribed burning operations. ♦
- 190 All prescribed burning must be planned to minimise risk of escape, ensuring that a fire will be, as far as possible, contained within pre-defined control lines\*.
- 191 Where the Department has determined that on-going monitoring of the outcomes of a particular burn will be undertaken (section 3.6), an appropriate pre- and post-burn survey and survey-completion date must be specified in the Burn Plan\*. ♦

### Education

- 192 The Department's prescribed burning program must be planned to include an education component which aims to increase public awareness of:
- 193 • the different purposes of prescribed burning and the conditions under which they should be conducted;
- 194 • the role of fire in maintaining Indigenous ecosystems and the risk posed by inappropriate fire regimes\* to Victoria's flora, fauna and ecological communities; and
- 195 • the effects of using prescribed fire relative to the potential impacts of wildfire.

## 3.3 Operational Standards and Guidelines

### 3.3.1 Prescribed Burn Organisation

- 196 The control structure and corresponding build up of resources for prescribed burning must follow the Australasian Inter-service Incident Management System (or its future equivalent).

### 3.3.2 Approved Burn Plan

- 197 Prescribed burning may be conducted only in accordance with an approved Burn Plan\* (see section 3.2).

### 3.3.3 Seasonal Limitations

- 198 Departmental instructions, prescriptions and guidelines which address the conduct of prescribed burning must accommodate seasonal variations (e.g. spring, late summer) which affect the conduct of prescribed burning.

### 3.3.4 Weather and Fuel Conditions

- 199 Prior to the commencement of prescribed burning, seasonal weather and fuel conditions must be monitored to identify when suitable burning conditions are imminent.

### 3.3.5 Smoke Management

- 200 The Department must determine, and periodically review, guidelines covering smoke management issues associated with the Department's prescribed burning program, in consultation with the Environment Protection Authority, particularly in gazetted airsheds\*.
- 201 The guidelines must take account of the current knowledge of air movements and smoke dispersal and consider the strategic importance of both the burning program\* and its potential impact on air quality.

### 3.3.6 Public Safety

- 202 Notice of the intention to conduct a prescribed burn (or indication of a possible site for a burn) must be placed on all major roads and tracks providing access to the proposed area at least one week prior to a planned burn date. Notification should also be given to immediate neighbours, fire management partners\*, local councils, police, and the Country Fire Authority. Notification should be given according to the communication strategy for the burning program and those specifically relating to the approved Burn Plan\*.
- 203 Prior to commencement of a burn, the officer in charge must complete checks to ensure that the burning unit is clear of people and any possible temporary campsites or personal equipment.

### 3.3.7 Private Property in the Burn Area

- 204 Prior to the commencement of a prescribed burn the Incident Controller\* must ensure that all private property/assets such as machinery, beehives, stock, or harvested forest produce or cultural values, contained within the burning unit\* have been removed or are not endangered.
- 205 The Department may enter into agreements with property owners to include private property in the burn area where safety and fire management objectives may be improved. This must be done in accordance with the Country Fire Authority and Municipal Fire Prevention Plan (or its future equivalent).

### 3.3.8 Road Traffic

- 206 Following appropriate consultation with the road management authority, the officer in charge of a prescribed burn must ensure public safety adjacent to roads, in accordance with Appendix C of this Code of Practice.

### 3.3.9 Resourcing

- 207 When undertaking burning programs\* the Department must ensure that there is an appropriately competent firefighting reserve available commensurate with the fire load\*.

### 3.3.10 Competence and Training

- 208 All personnel involved in prescribed burning must be competent in the roles and tasks which are assigned to them and where a system of endorsement exists, be appropriately endorsed by the Department, or be receiving supervised on-the-job training to achieve this.

### 3.3.11 Personnel Safety

- 209 The officer in charge of a prescribed burn must ensure that its operation complies with relevant occupational health and safety standards.

### 3.3.12 Authority to Use Fire

- 210 The officer in charge of a prescribed burn must be in possession of an approved Burn Plan\* and meet all conditions specified therein during the conduct of the operation.
- 211 Only persons duly authorised or instructed by the Department to do so may ignite a prescribed burn.
- 212 The regional manager\* for fire must inform designated Departmental managers of the intention to burn, when ignition has occurred, and provide them with progress reports as prescribed until the burn is declared secure\*.

### 3.3.13 Briefing

- 213 Prior to ignition of a prescribed burn, the officer in charge of the burn must brief all personnel working at the burning unit\* on the Burn Plan\*, their tasks, and safety precautions, in accordance with Appendix D of this Code of Practice.

### 3.3.14 Lighting the Burn

- 214 The officer in charge of a prescribed burn must:
- 215 • be in direct or indirect contact with all personnel involved in igniting the burn at all times during lighting up;
  - 216 • make frequent checks, to verify the safety of all persons directly engaged in lighting up the prescribed burn;
  - 217 • where personnel safety is not verified, give priority to locating and, if necessary, attending to persons who may be injured or at risk of injury;
  - 218 • ensure that all aerial ignition operations are conducted in accordance with Departmental instructions; and
  - 219 • for personnel and public safety, ensure that ignition results in a prescribed burn extending to safe control lines\*.

### 3.3.15 Perimeter Control

- 220 The officer in charge of a prescribed burn must adopt measures to ensure that the final area of the fire is, as far as practicable, within the boundaries defined during planning.
- 221 The location and nature of the perimeter control lines\* must satisfy fire control\* and prescribed burning requirements and be chosen following consideration of the principles of environmental management and land management objectives both within and adjacent to the area to be burned. Existing roads, tracks, fuelbreaks\* and natural breaks should be used as far as practicable to minimise disturbance of soil and vegetation.
- 222 The officer in charge of a prescribed burn must ensure that adequate perimeter control lines\* exist or are constructed prior to ignition. The entire control line\* must be mineral earth\* unless there are sound reasons why this is not necessary to ensure control of the prescribed burn. Where the type of prescribed burn, time of year and existing conditions suggest that mineral earth\* breaks are not essential, the use of natural (eg. rock, fuel moisture differential\*) or constructed (eg. slashed, foam or retardant\* application) control lines\* may be effective alternatives.
- 223 To the extent practicable, a mineral earth\* break should provide access for fire control\* vehicles, in accordance with environmental management principles.

### 3.3.16 Escapes

- 224 The Department must:
- 225 • take safe and prompt action to suppress fire which escapes beyond the planned control lines\* and keep the situation under review until the escape is declared safe\*;
  - 226 • promptly investigate all Departmental prescribed burning which escapes, or appears to have escaped, beyond the planned control lines\*, causes significant damage to private property, or other significant problems, to determine the cause of the apparent escape, damage or other problem and prepare a formal report for the purpose of improving the conduct of prescribed burning.

### 3.3.17 Burn Completion

- 227 Adequate patrols must be carried out until a prescribed burn is completed and declared secure\*.

### 3.4 Rehabilitation

- 228 Temporary access tracks and constructed control lines\* must be drained and rehabilitated in accordance with prescriptions for the rehabilitation of temporary roads and snig tracks consistent with the *Code of Forest Practices for Timber Production*, and other rehabilitation guidelines, unless otherwise authorised by the delegated officer because rehabilitation is impracticable, or the track is required for other purposes, or it would be environmentally damaging to do so.
- 229 Rehabilitation works should address the processes to begin re-establishment of pre-burn Indigenous conditions.
- 230 Where deemed necessary, further rehabilitation works should be undertaken in accordance with section 4.4 of this Code of Practice.

### 3.5 Records

- 231 The Department will ensure that adequate records of prescribed burning are kept in accordance with Appendix E of this Code of Practice. ♦

### 3.6 Monitoring

- 232 The Department must arrange or carry out ongoing monitoring of the outcomes of particular burns when the Department has determined, on the advice of its specialist officers, that a need exists: ♦
- 233 • to establish whether fire management\* objectives have been achieved, or
- 234 • in relation to the principles of environmental management contained in Section 1.10.5 of this Code of Practice.
- 235 Monitoring of prescribed burns should be undertaken in accordance with relevant Departmental procedures and guidelines, where available.
- 236 The Department must ensure that information recorded is used to inform future fire operations.

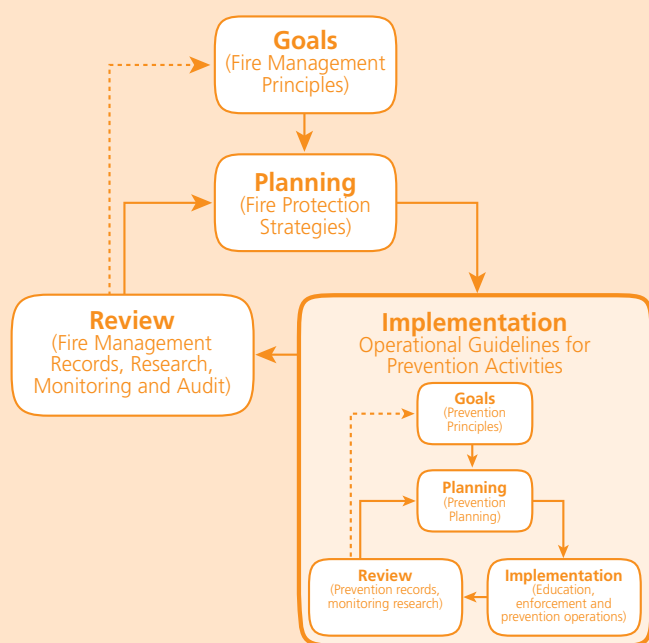
#### Monitoring of areas burnt by prescribed burning

- 237 The Department must conduct or arrange soundly based sampling on an ongoing basis to monitor the effects of burning on fuel levels, flora, fauna, and other values as appropriate. Wherever possible, this should include an assessment of pre and post-burn conditions.
- 238 Areas chosen for monitoring flora and fauna must target and adequately address the range of:
- 239 • species and/or vegetation types which have ecological characteristics that are likely to be particularly sensitive to prescribed burning regimes;
- 240 • species and/or vegetation types for which burning for fuel and other management purposes are planned over most of their distribution.
- 241 Monitoring must be coordinated at a State level to ensure efficiency and adequacy.

### 3.7 Research

- 242 The Department must engage in coordinated research into the effects and effectiveness of prescribed burning in a range of environments and to continuously improve operational methods to better meet fire management\* objectives.
- 243 The Department must ensure that recent advances in the knowledge related to the effects and effectiveness of prescribed burning are used to inform future prescribed burning operations.

# 4 Wildfire



## Overview:

244 Part 4 of this Code of Practice sets the minimum standards and guidelines for addressing the threat of wildfire on public land in Victoria. The emergency management framework of prevention, preparedness, response (suppression) and recovery is applied. These four elements of emergency management are each components of the broader fire protection strategy\* for public land.

## 4.1 Fire Prevention

### Overview

245 This section outlines the Department's requirements relating to the minimisation of preventable wildfires, specifically education (both school and wider community), enforcement of legislation and risk management. Education activities should support established programs in local communities through agencies such as the Country Fire Authority.

### 4.1.1 General Principles for Fire Prevention

- 246 The incidence of preventable wildfires (ie. unplanned fires of human origin) will be minimised.
- 247 The Department will work with communities and partner agencies to assess and reduce risks, promote wildfire awareness and enforce legislation.



### 4.1.2 Planning

248 The Department must plan and conduct wildfire prevention activities in accordance with the relevant fire protection strategy\*.

### 4.1.3 Education

249 The Department must conduct and participate in programs which:

- 250 • maintain public awareness of the wildfire threat, promote the importance of self-protection, and encourage the responsible use of fire by the community;
- 251 • are aimed at changing the behaviour of people known to cause wildfire or who are suspected of causing wildfire; and
- 252 • support similar programs led by other fire agencies.

### 4.1.4 Enforcement

253 The Department must use its statutory powers to control the use of fire and activities known to cause wildfires. Specifically it must:

- 254 • regulate the use of fire by the introduction of seasonal restrictions (i.e. the prohibited period\*) for its use (other than its legal use for cooking or warmth), in the fire protected area\*, not being public land, during times when the danger of fire spreading exists;
  - 255 • in conjunction with the Municipal Fire Prevention Officer\*, where appropriate and in accordance with legal requirements, direct the owner/occupier of land within that part of the fire protected area\* which is not public land, to remove or modify fuels for fire prevention\* purposes, and monitor compliance with such directions; and ♦
  - 256 • regulate the use of machinery on public land during the prohibited period\*.
- 257 During the prohibited period\* the use of fire by members of the public (other than its legal use for cooking or warmth) in the fire protected area\*, not being public land, must be in accordance with a written permit issued by the Department stipulating (among other things) acceptable weather conditions, control measures to be observed, and the resources to be provided to minimise the likelihood of fire escaping.
- 258 The Department must attempt to establish promptly the place of origin and cause of all wildfires on public land.
- 259 Where sufficient evidence suggests that a person (or persons) was responsible for deliberately lighting or negligently causing such a fire, action may be taken in accordance with Departmental guidelines to recover the costs of suppression and/or damage caused by the fire and prosecution will be considered.
- 260 The Department will ensure patrols are undertaken by Authorised Officers\* in areas where barbecues and campfires are commonly used, to ensure compliance with fire legislation and to provide advice and assistance regarding the wise and proper use of fire.
- 261 Where deliberate lighting of a wildfire is suspected to have occurred on public land the Department must take appropriate action to identify and, as appropriate, prosecute the offenders.

### 4.1.5 Prevention Operations

262 The Department must:

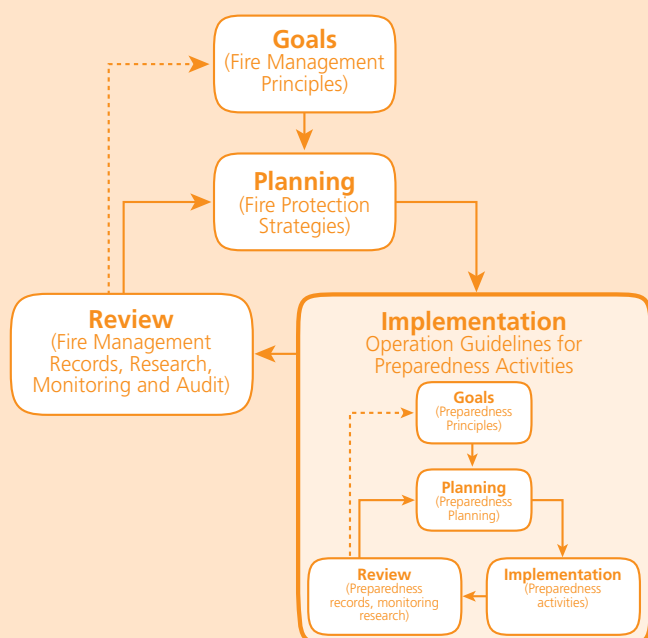
- 263 • consider fuel management on and around sites of known high hazard\* and/or risk\* to human life and property on public land (e.g. rubbish tips, recreational areas, sawmills on or adjacent to public land) and where appropriate implement measures to reduce the possibility of wildfire ignitions; and
- 264 • plan and conduct prescribed burning on public land in accordance with statutory requirements, this Code of Practice, Departmental instructions, prescriptions and guidelines to maximise safety, minimise the likelihood of fire escape, and achieve burn objectives.

#### 4.1.6 Records

- 265 The Department must maintain records to assist fire prevention, planning and assessment of the effectiveness of prevention activities in accordance with Appendix F of this Code of Practice. ♦
- 266 Records should be analysed to establish any trends in the occurrence of preventable wildfires. Future fire prevention operations should incorporate this information.
- 267 The records must be kept in a format that is, as far as practicable, consistent with an Australian standard endorsed by the Department. ♦

#### 4.1.7 Research

- 268 The Department must undertake, participate in, or support research programs aimed at improving the effectiveness of fire prevention activities.



## 4.2 Fire Preparedness

### Overview

- 269 This section outlines the Department's approach to preparation for wildfires such as fuel management (including application of Fire Management Zones\*), readiness, roads and tracks, personnel and equipment standards, and detection of wildfire.

#### 4.2.1 General Principles for Fire Preparedness

- 270 A level of preparedness for fire suppression\* will be provided which is appropriate to the existing and forecast fire danger\*, recognises the possibility of extreme fire conditions and aims to minimise wildfire losses of human life and damage to public land assets and values\*.
- 271 The approach to preparedness must be strategic and include:
- 272 • the analysis of fire risk\* including input from local and broader communities' about their expectations and values at risk from damage by wildfire;
- 273 • the identification and appropriate reduction of hazards\* by the Department and local community;
- 274 • works which provide the infrastructure necessary for fire suppression\*;
- 275 • the provision of a strategically located firefighting force with appropriate training, equipment and readiness;
- 276 • the provision of a wildfire detection system which is responsive to changes in fire danger\*;
- 277 • the collection of data to assist in preparedness planning;
- 278 • input from local and broader communities' about their expectations and values at risk from damage by wildfire; and
- 279 • processes that promote opportunities for local knowledge to assist with preparedness activities.



### 4.2.2 Planning

- 280 The Department must undertake preparedness activities in accordance with the fire protection strategy\*. These must include an appropriate level of works which provide the infrastructure for fire suppression\*, the strategic reduction of hazard\* and the provision of adequate resources for wildfire detection and fire suppression\*.
- 281 The Department must plan fuel management and works which provide the infrastructure for fire suppression\* in accordance with the principles of environmental management. ♦
- 282 To ensure that adequate resources are available for firefighting, the Department must prepare and maintain a Model of Fire Cover\* statement for all public land which outlines the levels and location of resources required to meet specified performance objectives for fire readiness and response. ♦
- 283 The Department must prepare regional Readiness and Response Plans\* annually for all public land consistent with relevant fire protection strategies\*, this Code of Practice and any other relevant Departmental policies, standards and guidelines.
- 284 Each Readiness and Response Plan\* must aim to meet performance objectives for preparedness\* and fire suppression\* (as defined by the Department) and provide for a measured response in accordance with the level of fire danger\*, fire risk\*, and existing resource commitments.

### 4.2.3 Fuel Management: Burning

- 285 To assist fire suppression\* the Department must:
- 286 • consider, and where appropriate perform fuel reduction burning\* on strategic areas and reduce hazards\* resulting from timber harvesting, road construction or other operations to reduce the potential spread and intensity of any wildfire in or burning into these areas. This burning must be conducted in accordance with Fire Management Plans\*; and
  - 287 • ensure arrangements are in place with any agency undertaking works or forestry operations on public land to remove or reduce any residual fuel hazard, to the satisfaction of the Department.

### 4.2.4 Fuel Management: Other Than By Burning

- 288 Fuel management by means other than burning to assist the suppression of wildfires must be conducted in accordance with the fire protection strategy\*.

### Grazing

- 289 The Department may authorise grazing regimes by farm animals for fuel management but only where it is the most appropriate means of fuel management consistent with other land management objectives.
- 290 Grazing is generally appropriate only for significantly modified habitats.
- 291 All grazing for fuel management must occur within the context of a Fire Management Plan\* and the areas where it is appropriate will generally be specified in that plan. ♦
- 292 Any authority issued by the Department to graze for fuel management purposes must specify the type of livestock, intensity, and period of grazing as determined by the fire specialist\* after consultation with the flora/ fauna, any other relevant specialists and the authorised grazier. ♦
- 293 The Department must monitor the progress of grazing and suspend it when fuel management objectives have been achieved. ♦

### Slashing

- 294 Planning of slashing operations must consider impacts on the environment, particularly soil, water, flora, and habitat for fauna.
- 295 The Department must ensure that slashed areas are maintained in a condition which satisfies fire suppression\* objectives and firefighter\* safety considerations.
- 296 The Department must consider varying the timing of slashing to accommodate the known requirements of flora or fauna on slashed areas provided fire protection\* objectives are still satisfied.

### Other

- 297 When planning other operations (such as ploughing, mulching, herbicide application, chaining, rolling) to reduce the flammability\* of fuels, the Department must consider the impacts on the environment, particularly soil, water, weed spread, flora, and habitat for fauna as well as impact on historic and Indigenous cultural values.

#### 4.2.5 Fuelbreaks

- 298 The Department may designate strategic areas to be formed and maintained permanently as fuelbreaks\*.
- 299 Fire protection strategies\* must indicate the approach and standards that are used within the planning area\* to determine fuelbreak\* placement, width and condition in order for them to provide significant fire protection benefits. The principles followed should take account of research and knowledge on fuelbreak\* effectiveness and address the impact of fuelbreaks on suppression effectiveness and loss potential for likely wildfire scenarios, or on the control of prescribed burns. ♦
- 300 All fuelbreaks\* must provide appropriate vehicle access for firefighters\*.
- 301 Where fire protection\* objectives can be achieved, fuelbreaks\* must, where practicable, be located in areas of inherently lower fuel hazard to reduce maintenance costs, improve personnel safety, and enhance the likelihood of successful fire suppression\*.
- 302 Fuelbreak\* placement on public land should enhance or align with fuelbreak placement on private land wherever possible.
- 303 Where a fuelbreak\* on public land adjoins other land, the Department must seek the cooperation of the owner, occupier or manager of that land to establish how the risk of fire spreading from one area to the other is to be managed. The parties must consider the assets on each area and the fire risk\* in coming to agreement on the relative contribution of each owner, occupier or manager to managing this risk.
- 304 Location of fuelbreaks\* should, as far as possible, avoid known sites of rare and threatened species and communities and cultural values, except where fuelbreak\* maintenance standards are consistent with the management of these species or communities.

#### 4.2.6 Levels of Resources

- 305 The Department must determine the resources required for fire suppression\* at a State level according to the Model of Fire Cover\*. The Department will annually review the resources available and compare these to the Model of Fire Cover\*. Where deficiencies exist, the Department must outline a strategy for addressing that deficiency.
- 306 Departmental despatch centres must maintain a minimum level of resources specified by the Model of Fire Cover\*. ♦
- 307 The Department must set levels and availability of resources throughout the year in accordance with variations in the existing and predicted seasonal trends in weather and fuel characteristics on public land.
- 308 The Department must document the location, availability and contact arrangements for firefighting resources and make copies available to relevant staff.

#### 4.2.7 Readiness of Resources

- 309 The Department must base its day-to-day readiness for fire suppression\* on the fire load\* and existing resource commitments.
- 310 The Department must place non-Departmental personnel, equipment and other resources on standby as required by the Readiness and Response Plan\*.

#### 4.2.8 Resources: Personnel

- 311 The Department must set the number and location of its personnel with appropriate work skills according to the designated performance criteria and the associated specified minimum level of resources.

#### Competence and training

- 312 The Department must:
- 313 • where appropriate, comply with national training and qualification standards when delivering nationally recognised training and Departmental systems of endorsement;
  - 314 • ensure all its firefighters\* are competent\* to perform assigned roles and have their competence recognised prior to their involvement in firefighting operations\*;
  - 315 • as far as is practicable, give firefighters\* practical and operational experience appropriate to the level of training being undertaken; and
  - 316 • undertake competency based training and assessment in accordance with Appendix G of this Code of Practice.

#### 4.2.9 Resources: Equipment

- 317 The Department must have ready access to a level of equipment that will enable it to respond adequately in the event of critical incidents\* occurring in each planning area\*.
- 318 The Department will arrange for major support equipment to be available and strategically located, and ensure that backup stores and services are available when required.
- 319 The Department must ensure that equipment is inspected regularly, maintained in a serviceable and safe condition, upgraded where practicable and replaced when obsolete or repair is not possible or appropriate, and maintain records of this.

#### 4.2.10 Interagency Coordination

- 320 The Department must participate in interagency coordination in accordance with relevant legislation and arrangements put in place under the State Emergency Response Plan\*, and interagency agreements. ♦
- 321 The Department must meet with other Victorian fire protection agencies, those of other Australian States and Territories and other countries as appropriate, to discuss shared fire protection concerns, including reciprocal arrangements for fire detection, suppression and research activities. ♦
- 322 The Department must document the outcomes of such meetings and enter into formal agreements with agencies as appropriate.

#### 4.2.11 Roads and Tracks

- 323 The Department must maintain a strategic road and track network for fire protection\* purposes.
- 324 Roads and tracks forming part of the permanent road network must be maintained to the standard nominated by the Departmental Road Register.
- 325 Fire protection strategies\* will indicate the approach and standards used to determine the location and nature of the road and track network within a planning area\* to provide access to wildfires by ground forces. These should address travel times within a planning area\* and standards of construction and maintenance.
- 326 Fire access roads\* and tracks\* must be classified according to their standard and strategic maintenance must be scheduled and recorded. ♦
- 327 Provision must, where practicable, be made on fire access roads\* and tracks\* to enable vehicles to pass or turn around.
- 328 Construction of fire access roads\* and tracks\* with dead-ends should be avoided. Where this is not practicable, places for firefighting vehicles to turn around must be provided, preferably in areas of lower fuels, by constructing a turning circle, 'T' or 'Y' shaped turning bays.
- 329 Fire access roads\* and tracks\* should be signposted to indicate the following:
- 330 • road or track identification;
- 331 • dead-end roads and tracks with passing bays; and
- 332 • dead-end roads and tracks without passing bays.

#### Fire access tracks

- 333 Fire access tracks\* must, as far as practicable and without compromising their primary purpose or firefighter safety, be located, constructed and maintained with due regard to landscape, flora, fauna and other values, and be sufficiently clear of vegetation and of suitable surface condition to allow ready and safe access for fire operations vehicles during first attack (including fire tanker access where appropriate and gradients allow).
- 334 Fire access tracks\* must, where practicable and without compromising their primary purpose, be constructed and maintained to minimise soil disturbance and erosion. These tracks will normally provide a mineral earth\* break, but in limited situations a minimum amount of vegetation may be retained to provide vehicular traction or soil stability.
- 335 Fire access tracks\* must be constructed and maintained in accordance with the *Code of Forest Practices for Timber Production* 1995 and other relevant standards and guidelines.

#### 4.2.12 Water Points

- 336 Fire protection strategies\* must indicate the approach and standards used to determine the location and type of water points\* within the planning area\* to supply water for ground and/or aerial firefighting. ♦
- 337 The Department must construct and maintain strategically located water points\* on public land and provide signposted access of a standard which enable the quick and safe operation of firefighting vehicles and pumps. ♦
- 338 Where a dead-end track provides the access to a water point\*, the signs and turning bay requirements for fire access tracks\* must be followed.
- 339 Departmental planning for the location of new water points\* must include specific consideration of the impact on wetland, riparian and aquatic communities.
- 340 Where the Department constructs new dams for firebombing, they must be constructed to comply with the helidam specifications contained in operational manuals applicable to the Department.

#### 4.2.13 Aircraft Support Facilities

- 341 Fire protection strategies\* must indicate the strategy and standards used to determine the location and type of aircraft support facilities within a planning area\*. ♦
- 342 Aircraft support facilities (such as permanent and mobile retardant mixing bases) must be maintained and operated in accordance with the relevant operational manuals applicable to the Department which must be prepared to be consistent with this Code of Practice.
- 343 The location of helipads must reflect the strategic importance of the location, safety of firefighters, the values being protected, landscape values and land use\* in the immediate vicinity of the site.
- 344 Helipads must be located, constructed and maintained to the standards outlined in the relevant operational manuals applicable to the Department.

#### 4.2.14 Fire Refuges

- 345 The Department may establish fire refuges in areas where other options for protecting human life from wildfire are considered inadequate.
- 346 The consideration of siting and design of fire refuges must follow Departmental guidelines and procedures.

#### 4.2.15 Monitoring Fire Danger

- 347 The Department must monitor seasonal and daily fire danger\* across the State. ♦
- 348 Access to a network of weather stations must be maintained to provide data for the determination of fire danger\*, including the estimation of a drought index or other approved indicators, in partnership with the Bureau of Meteorology.
- 349 The Department must liaise with the Bureau of Meteorology and the Country Fire Authority regarding current and predicted trends in fire danger\*.

#### 4.2.16 Detection of Wildfire

- 350 Fire protection strategies\* must indicate the techniques and standards used to determine the level of detection coverage and the detection methods adopted for a planning area\*. ♦
- 351 The Department must ensure that a system of detection appropriate to the fire danger\* is operating at all times and that it is responsive to fire potential especially in relation to the time between ignition and detection of wildfires.
- 352 Where they are required, the Department must locate fire lookouts after considering their strategic importance, land use\* of a proposed site and the Department's fire protection\* priorities in the area.
- 353 The Department must determine lookout height and position on a site following consideration of the area directly visible, access, landscape, and flora and fauna values likely to be affected by the construction and subsequent use, protection and maintenance of the lookout.
- 354 The Department may enter cooperative arrangements with other agencies regarding the construction, maintenance and/or staffing of fire lookouts.

#### 4.2.17 Communications

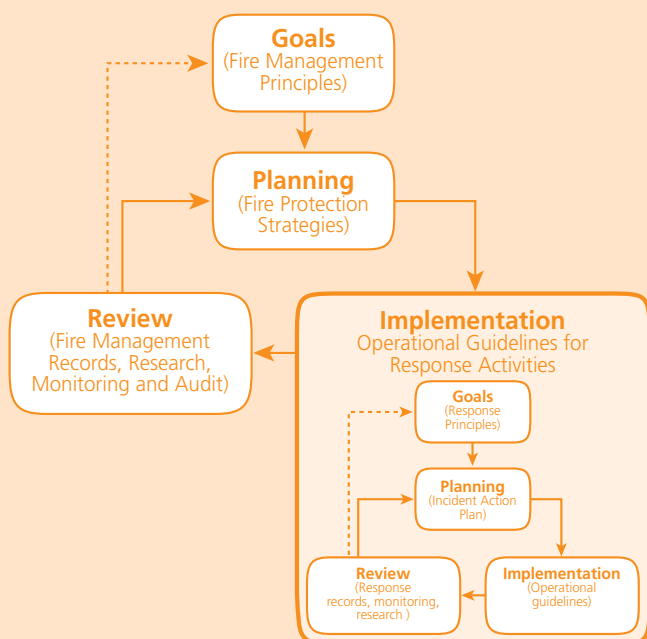
- 355 The Department must, as far as practicable, ensure the availability of an effective state-wide communication (radio) network with appropriate links with other responding agencies.

#### 4.2.18 Records

- 356 The Department must maintain records relevant to: ♦
- 357 • assessment of preparedness planning and preparedness performance, including works achieved, resourcing levels, and fire load\*; and
  - 358 • the elapsed times for defined stages in the suppression of every wildfire until it is declared safe\*.
- 359 The Department must ensure information recorded is used to inform future preparedness activities.

#### 4.2.19 Research

- 360 The Department must undertake, participate in, or support research programs aimed at improving: ♦
- 361 • firefighter\* health and safety;
  - 362 • understanding of fire behaviour;
  - 363 • knowledge and prediction of the threat of wildfire to human life, assets and natural values\*;
  - 364 • knowledge of the effects and effectiveness of preparedness actions; and
  - 365 • firefighting methods, including knowledge of their impact on environmental values.
- 366 The Department must ensure that new knowledge is used to inform future preparedness activities.



### 4.3 Fire Response

#### Overview

- 367 The Fire Response section outlines the Department's requirements relating to fire suppression planning, operational requirements, managing the potential spread of pests and disease, investigation and records.

#### 4.3.1 General Principles for Fire Response

- 368 The Department's response to all wildfires on or threatening public land must be planned and conducted according to the following principles:
- 369 • all wildfires to be brought under control;
  - 370 • control of wildfires to be given priority over all other Departmental activities;
  - 371 • upon detection of a wildfire, control action to be safe, fast, determined, and thorough with the primary objective of controlling the fire in the shortest possible time with due regard given to management objectives, environmental values and cost effectiveness;
  - 372 • fire suppression will include the provision of accurate and timely information to local communities; and
  - 373 • where appropriate, local knowledge will be actively sought to inform incident control decisions.

### 4.3.2 Health and Safety

- 374 Firefighter\* safety must be given priority over all other fire suppression\* considerations.
- 375 All firefighting operations\* must comply with relevant occupational health and safety standards (see section 1.6).

### 4.3.3 Despatch of Resources

- 376 On receiving a report that a wildfire has been detected, the Incident Controller\* must despatch resources after consideration of the fire load\*, available indications of fire behaviour, damage potential of the fire and the availability of resources.

### 4.3.4 Incident Action Plan

- 377 On arrival at a wildfire, firefighters\* must first appraise the situation and then take appropriate action to restrict the spread of fire and protect human life and property.
- 378 Fire suppression\* must be carried out in accordance with an Incident Action Plan\* prepared following consideration of: ♦
- 379 • firefighter\* safety;
  - 380 • current and predicted fire behaviour;
  - 381 • assets and values\* at risk from the wildfire or suppression activities;
  - 382 • management objectives for the area;
  - 383 • resources available locally and through broader emergency arrangements;
  - 384 • suppression methods most appropriate to the area;
  - 385 • known local community concerns and interests;
  - 386 • cost effectiveness; and
  - 387 • likelihood of success of alternative suppression methods.
- 388 When preparing an Incident Action Plan\*, consideration must be given to using personnel with good knowledge of the local geographical location.

### 4.3.5 Interagency Coordination

- 389 Interagency coordination must be in accordance with relevant legislation, agreements, the State Emergency Response Plan\* and agreed reciprocal arrangements.

### 4.3.6 Fire Organisation

- 390 The control structure and corresponding build up of resources for fire suppression\* must follow the Australasian Inter-service Incident Management System (or its future equivalent as adopted by the Department).



#### 4.3.7 Operational Considerations

- 391 Response to the detection of wildfire must be fast and determined and conducted in a manner which  
satisfies considerations of personnel safety, recognising that:
- 392 • the area burnt by wildfire is minimised by swift control;
  - 393 • the longer it takes to bring a wildfire under control, the more likely the cost of fire suppression will  
increase substantially;
  - 394 • wildfire goes through a development phase with increasing rates of spread and intensity, so that  
when fire conditions are severe, heavy machinery is often required at an early stage because direct  
attack using hand tools and firebombing becomes ineffective; and
  - 395 • the potential for a wildfire burning under a given set of conditions to threaten human life and/or  
deleteriously affect assets and values\* is generally proportional to its size.
- 396 Fire control\* operations usually involve the removal of vegetation, litter and duff from the surface of  
the ground and a degree of soil disturbance. This can have implications for soil, water catchments\*,  
landscape, historic, Indigenous and remoteness\* values and assets. Implications for flora and fauna  
management may include the potential for weed invasion and the disturbance of rare and threatened  
species or communities.

#### 4.3.8 Operational Guidelines

- 397 Where practicable, the location and method of construction of control lines\* should minimise  
disturbance of vegetation and soil and avoid undue side-cutting, filling and the creation of windrows  
of vegetation and soil.
- 398 When preparing an Incident Action Plan\* consideration must be given to using those methods which  
minimise short and long-term environmental impacts and in particular, those which contribute most  
to protection of the significant management values of the area, are compatible with a viable fire  
control\* strategy and are cost effective.
- 399 When preparing an Incident Action Plan, consideration should be given to allowing management of  
naturally caused wildfires to meet fire management objectives in accordance with the relevant Fire  
Management Plan\*.
- 400 The fire control methods preferred for environmental reasons are described in Appendix H of this  
Code of Practice.
- 401 Response to wildfire must include the provision of accurate and timely information to fire  
management partners\*, stakeholders and the community regarding the incident to encourage  
appropriate response and protective measures.

#### 4.3.9 Fire Investigation

- 402 The Department must attempt to establish promptly the origin and cause of all wildfires on public  
land.
- 403 Where arson or negligence with fire is suspected, firefighters\* must endeavour to protect the area of  
origin of a fire from intrusion by any person or equipment until a fire investigator\* arrives at the scene  
and has completed the site investigation.
- 404 A fire investigator\* must, wherever practicable, investigate and report on every suspected human-  
caused fire attended by the Department on public land.

#### 4.3.10 Records

405 The Department must maintain records of each wildfire attended by the Department or reported on public land, in accordance with Appendix I of this Code of Practice. ♦

#### 4.3.11 Research

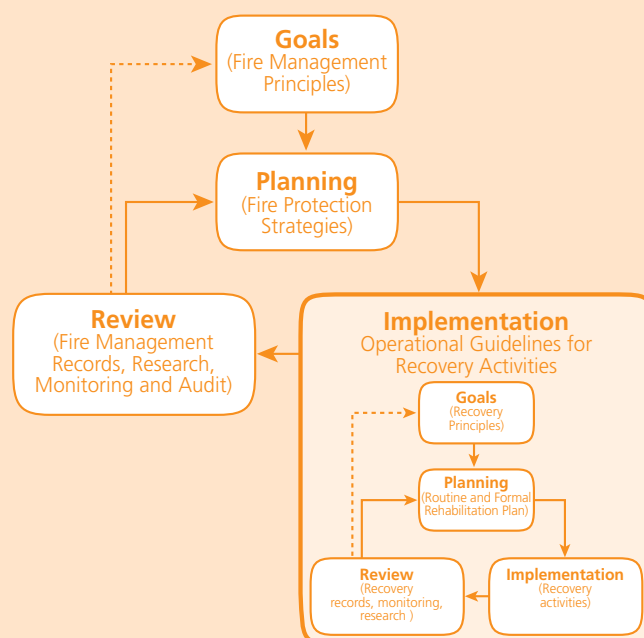
406 The Department will consider and may undertake where practicable during fire suppression\*, opportunistic research into fire behaviour, firefighting methods and firefighter\* performance. ♦

407 The Department will consider and may instigate where practicable following wildfire, opportunistic research into the effects of wildfire on natural and cultural values.

## 4.4 Fire Recovery

### Overview

408 This section outlines the Department's requirements relating to recovery\* activities following wildfire. As outlined in the *Emergency Management Manual\** (2005) or its future equivalent, the Department has responsibility for rehabilitation of fire-affected public land, but also contributes to the wider community recovery\* that will be managed according to the arrangements set out in the State Emergency Recovery arrangements. Rehabilitation of public land should be integrated with recovery\* activities on private land, acknowledging that legislation and incident-specific initiatives will influence recovery\* and rehabilitation activities.



#### 4.4.1 General Principles for Fire Recovery

409 Measures will be taken, where practicable, to assist the recovery of firefighters\*, the community and the ecosystem from the adverse impacts of wildfire and fire suppression\*.

410 These must include measures which address:

- 411 • the re-establishment of ecosystems to pre-fire conditions;
- 412 • the routine rehabilitation of disturbance resulting from firefighting operations\*;
- 413 • the amelioration of deleterious environmental and economic impacts of the wildfire;
- 414 • the improvement of fire suppression\* performance;
- 415 • fire-related occupational health and safety issues, including management of return-to-normal-work; and
- 416 • reporting of fire recovery\* works undertaken.

417 The Department must commence fire recovery\* activities as soon as practicable after commencement of fire suppression operations.

418 Where appropriate, measures should be taken that address the Department's contribution, in partnership with other agencies and local communities, to wider community recovery\* processes.

#### 4.4.2 Routine Rehabilitation of Fire Suppression Disturbance

- 419 As soon as practicable following commencement of firefighting operations\*, the Department must, as a minimum requirement: ♦
- 420 • give particular attention as soon as practicable to soil disturbance or exposure caused by the construction of temporary fire access tracks\* and control lines\*;
  - 421 • close temporary fire access tracks\* no longer required for fire rehabilitation or other management purposes;
  - 422 • drain temporary fire access tracks\* and constructed control lines\* in accordance with prescriptions for the rehabilitation of temporary roads and snig tracks prepared for the purposes of the *Code of Forest Practices for Timber Production 1995*, or, where these do not apply and are otherwise authorised, in accordance with other relevant guidelines;
  - 423 • remove soil and vegetation deposited in streams or wetlands by firefighting operations\* on completion of the operations, provided this can be achieved without a resultant increase in environmental disturbance; and
  - 424 • give attention as soon as practicable to disturbance or exposure of historic and Indigenous cultural heritage values.

#### 4.4.3 Formal Rehabilitation Plan

- 425 In addition to the routine rehabilitation of fire suppression disturbance, the Department must, in conjunction with fire management partners: ♦
- 426 • assess the need for a formal Rehabilitation Plan\* during each wildfire;
  - 427 • take advice from the Incident Controller\*, who must alert the Department to any specific additional needs for rehabilitation noted by him/her during fire suppression\*; and
  - 428 • take advice as necessary from specialists in flora, fauna, fisheries, forestry, land protection, water management, Indigenous and historic heritage, freshwater ecology, catchment, pest plant /animal and disease management.
- 429 The Rehabilitation Plan\* must reflect that it is an integral component of an overall multi-agency recovery strategy, where appropriate.
- 430 When determining if a Rehabilitation Plan\* is required, the Department must consider the impact of the wildfire and consequent firefighting operations\* on the recognised values of the fire area.
- 431 A Rehabilitation Plan must be prepared in accordance with Appendix J of this Code of Practice.
- 432 The Rehabilitation Plan\* should contain accurate mapping of the fire area on public and private land to assist rehabilitation and recovery\*.
- 433 Where an area is artificially revegetated, the Department must ensure that species and provenances native to the area and characteristic of its vegetation type are used where available.
- 434 Where an area is revegetated using seedlings, care must be taken to prevent the introduction of disease, insect, or plant pests, in accordance with relevant Departmental guidelines and standards.
- 435 Where timber salvage is required, the Department must ensure it is conducted in accordance with a plan which meets the requirements of the *Code of Forest Practices for Timber Production 1995*.

#### Further Recovery Works

- 436 Where possible, the Rehabilitation Plan will also describe measures to address the following, appropriate to the size and impacts of the wildfire:
- 437 • economic and built environment considerations (eg. impacts on tourism or visitor services);
  - 438 • social considerations (eg. assist other Government agencies in the rehabilitation of private land and recovery of local communities); and
  - 439 • other ecological considerations, such as the implementation of species recovery and action plans, and the need for research.

#### 4.4.4 Debriefing

##### Routine Debriefing

- 440 Each fire suppression event\* undertaken by the Department must, as a minimum requirement, be the subject of a debriefing. The style of debriefing may range from an informal discussion between firefighters\* and their supervisors on completion of routine fire control\* operations on a small wildfire to a formal debriefing as indicated below.
- 441 The purpose of debriefing must be to review firefighting\* and recovery\* operations (ie. strengths and weaknesses, and if relevant, explanation of why environmentally preferred methods were not used) to identify where improvement is possible, and to reinforce a positive team-approach to fire suppression\*.

##### Formal Debriefing

- 442 The Department must conduct a formal debriefing and require a formal written report with findings where substantial resources were engaged, wildfire damage to assets or values\* was significant, safety was compromised, or recovery\* issues have been raised. The findings must be used to inform future pre-fire season briefings, fire operations and performance improvement.
- 443 Where it appears necessary, the Department will support community debriefing to assist partner agencies with wider community recovery\* activities.
- 444 The Department should make a general report available to the public at the end of each season.♦

#### 4.4.5 Health and Safety

- 445 To the extent practicable during firefighting operations\*, firefighters\* must be given sufficient time to rest to relieve fatigue and stress arising from their involvement in these operations.
- 446 When firefighting has been prolonged, or there have been associated traumatic experiences (such as 'near misses', injury or death), an opportunity for critical incident stress\* debriefing must be provided.
- 447 Health and safety issues identified at wildfire debriefings must be addressed.

#### 4.4.6 Records

- 448 The Department must record rehabilitation works including those described in section 4.4.2 of this Code of Practice.
- 449 Records of revegetation works must include details of species and, where known, provenance.
- 450 The Department will ensure that land managers maintain records of regeneration after wildfire to assist with future land management planning.
- 451 The Department must ensure that information recorded is used to improve future fire suppression and recovery\* operations.

#### 4.4.7 Research

- 452 The Department must undertake, participate in or support research programs aimed at improving the knowledge and techniques of fire recovery\* and rehabilitation, including the monitoring of affected ecological processes and fire-related threatening processes.