

BUSH FIRE ENVIRONMENTAL ASSESSMENT CODE

for

**Asset Protection
and
Strategic Fire Advantage Zones**

July 2003

NSW RURAL FIRE SERVICE

...for our community



Contents

PART 1 PRELIMINARY	1
1.1 Title	1
1.2 Commencement	1
1.3 Dictionary and definitions.....	1
1.4 Purpose.....	1
1.5 Authority	1
1.6 Issuing of Certificate by issuing authorities.	1
1.7 Bush fire hazard reduction certificates by certifying authorities.....	2
1.8 Application for a bush fire hazard reduction certificate.....	2
1.9 Charges.....	3
1.10 Duration of a certificate	3
1.11 Right of appeal.....	3
1.12 Reporting.....	3
1.13 Enforcement.....	3
1.14 Review.....	3
PART 2 DETERMINATION OF A BUSH FIRE HAZARD REDUCTION APPLICATION	4
2.1 Process of determination.....	4
2.2 Time to determine an application.	5
2.3 Land excluded from the Code.	5
2.4 Land to which the Code does not apply.....	5
2.5 Activities to which the Code does not apply.....	5
2.6 Existing land management agreements	6
2.7 Previous development consents and approvals	6
2.8 Owners consent to undertake bush fire hazard reduction works.....	6
PART 3 TYPE OF HAZARD REDUCTION.....	7
3.1 Asset Protection Zones (APZ).....	7
3.1.1 Size of works permitted within an APZ.....	7
3.1.2 Type of works permitted within an APZ	7
3.2 Strategic Fire Advantage Zones (SFAZ)	8
3.2.1 Type of works permitted within an SFAZ	8
PART 4 MECHANICAL HAZARD REDUCTION.....	9
4.1 Standards for the protection of soil and water.....	9
4.2 Standards for the protection of riparian buffers	9
4.3 Standards for the protection of native vegetation.....	9
4.4 Standards for the protection of biodiversity	10
4.5 Standards for the protection of Aboriginal heritage	10
4.6 Standards for the protection of European cultural heritage sites	11
4.7 Standards for the protection of significant environmental protection areas.....	11
4.8 Standards relating to weeds.....	11
PART 5 HAZARD REDUCTION USING PRESCRIBED BURNING	12
5.1 Intensity.....	12
5.2 Standards for the protection of biodiversity	12
5.2.1 Threatened Species Hazard Reduction List	12
5.2.2 Fire regimes and fire frequency thresholds for strategic fire advantage zones	12
5.3 Notification of fire fighting authorities	13
5.4 No Burn days.....	13
5.5 Standards relating to the effects of smoke.....	13
5.6 Standards for the protection of soil and water.....	14
5.7 Standards for the protection of riparian buffers	15
5.8 Standards for the protection of Aboriginal heritage	15
5.9 Standards for the protection of European cultural heritage sites	15
5.10 Standards for the protection of significant environmental protection areas.....	16
5.11 Standards relating to weeds.....	16
APPENDIX A - MINIMUM FIRE FREQUENCY TABLE FOR SFAZS*	18

Bush Fire Environmental Assessment Code for Asset Protection and Strategic Fire Advantage Zones

Part 1 Preliminary

1.1 Title

This is the *Bush Fire Environmental Assessment Code for Asset Protection and Strategic Fire Advantage Zones (the "Code")*.

1.2 Commencement

This Code is to commence on the 1st day of July 2003.

1.3 Dictionary and definitions

Definitions that are defined in the Dictionary at the end of this Code have the meanings given to them by the Dictionary.

Expressions defined in section 100B of the *Rural Fires Act 1997* also have the meaning so defined.

A definition within the Dictionary of the *Rural Fires Act 1997* applies to this Code.

1.4 Purpose

The purpose of this Code is to provide a streamlined environmental assessment process for use by issuing authorities and certifying authorities in determining applications for a bush fire hazard reduction certificate. The Code applies to asset protection zones and strategic fire advantage zones for residential buildings and other significant buildings identified in the local bush fire risk management plan.

It is a requirement of section 100J of the *Rural Fires Act 1997* that the Commissioner, in preparing this Code, has regard to:

- (a) the principles of ecological sustainable development, and
- (b) considerations under s111 of the *Environmental Planning & Assessment Act 1979*.

1.5 Authority

This Code has been prepared pursuant to sections 100J to 100N of the *Rural Fires Act 1997*.

1.6 Issuing of Certificate by issuing authorities.

Local authorities are issuing authorities for bush fire hazard reduction certificates. In most cases, local authorities have conferred the function to issue certificates on the Commissioner of the NSW Rural Fire Service under section 12A of the *Rural Fires Act 1997*. An issuing

authority may issue a bush fire hazard reduction certificate for bush fire hazard reduction work on private land or any other land not covered by a certifying authority by a person other than the Commissioner or local authority.

In the case of multiple land tenures for one hazard reduction activity, one bush fire hazard reduction certificate can be issued to cover that activity provided the activity has the written agreement of all affected land owners or occupiers.

Local authorities and where the local authorities have conferred to the NSW Rural Fire Service shall also issue bush fire hazard reduction certificates prior to issuing notices under Section 66 of the *Rural Fires Act 1997*.

1.7 Bush fire hazard reduction certificates by certifying authorities

The following are certifying authorities and may certify bush fire hazard reduction works consistent with this Code as described in the table below:

Land	Certifying Authority
Any land where the works are directed by the Commissioner of the NSW Rural Fire Service	Commissioner of the NSW Rural Fire Service
Any land that is vested in or under the control of a local authority	The local authority for the area in which the land is situated
Unoccupied Crown land	Department of Lands
Land that is dedicated or reserved, or acquired for the purpose of dedication or reservation under the <i>Forestry Act 1916</i>	State Forests of NSW
Land that is dedicated or reserved, or acquired for the purpose of dedication or reservation under the <i>National Parks and Wildlife Act 1974</i>	NSW National Parks and Wildlife Service
Land that is vested in or under the control of the State Rail Authority	State Rail Authority
Land that is vested in or under the control of the Rail Infrastructure Corporation	Rail Infrastructure Corporation
Land that is vested in or under the control of the Roads and Traffic Authority	Roads and Traffic Authority
Land that is within the catchment area of a water authority	The water catchment authority of that land

1.8 Application for a bush fire hazard reduction certificate

An application for a bush fire hazard reduction certificate in respect of work to be carried out on private land is to be made to the issuing authority in writing and should be on an application form supplied by the issuing authority prepared in accordance with clause 47 of the *Rural Fires Regulation, 2002*.

1.9 Charges

A certificate is to be issued free of charge by an issuing authority.

1.10 Duration of a certificate

A bush fire hazard reduction certificate becomes effective and operates for a period of twelve (12) months commencing on the date endorsed on the certificate.

1.11 Right of appeal

There is no right of appeal against a determination of, or a failure or refusal to determine an application for a bush fire hazard reduction certificate. Where a bush fire hazard reduction certificate has failed or refused to be issued, the applicant may make an application for the proposed works under existing environmental legislation.

1.12 Reporting

At the completion of the bush fire hazard reduction works, the holder of a bush fire hazard reduction certificate shall advise the issuing authority within seven days of completing the works.

1.13 Enforcement.

A failure to comply with a condition or requirement of a bush fire hazard reduction certificate shall be subject to the provisions of the relevant environmental legislation displaced by the certificate and may be subject to enforcement by the environmental regulatory agency as if a bush fire hazard reduction certificate was not issued.

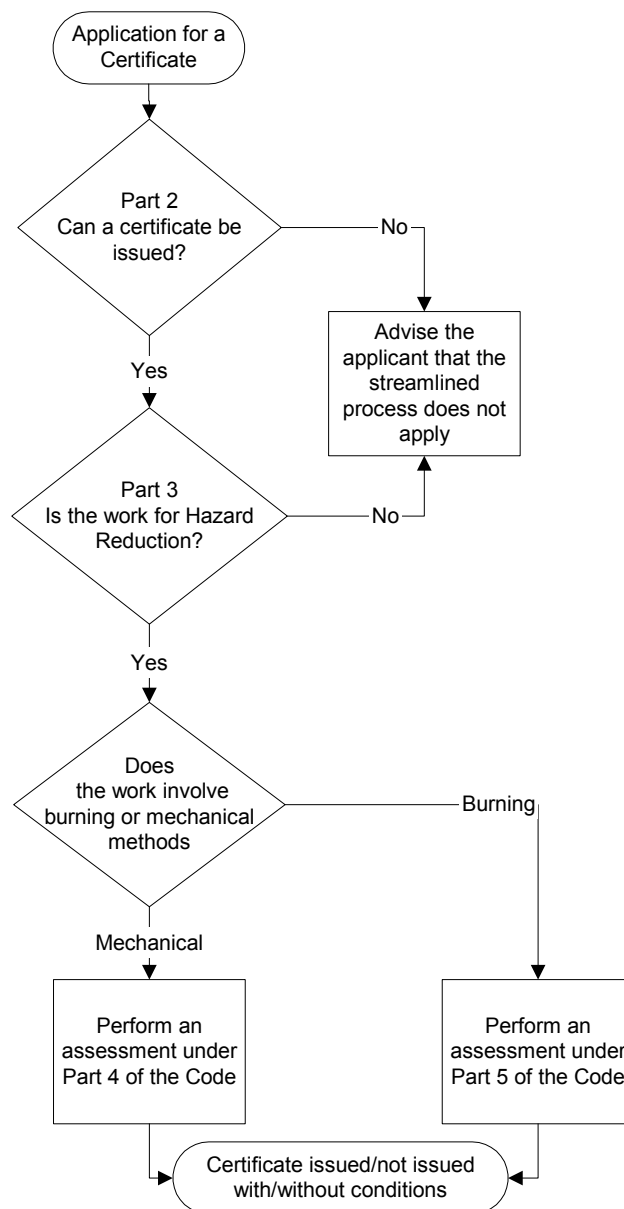
1.14 Review

This Code will be reviewed by the Commissioner of the NSW Rural Fire Service at the end of twelve (12) months of operation and amended if required.

Part 2 Determination of a Bush Fire Hazard Reduction Application

2.1 Process of determination.

A bush fire hazard reduction certificate must not be issued unless a bush fire risk management plan applies to the land and consideration has been given to the provisions in this Code using the process in the flow chart below. This Code applies to Asset Protection Zones and Strategic Fire Advantage Zones as defined in the local bush fire risk management plan.



2.2 Time to determine an application.

Determination of an application must be completed in seven (7) days, or a longer period if agreed to by the applicant, after lodgement of the application.

2.3 Land excluded from the Code.

For the purposes of section 100A of the *Rural Fires Act 1997*, the following lands are “excluded lands” and do not require approval under this Code:

- (a) land to which *State Environmental Planning Policy No 14—Coastal Wetlands* applies;
- (b) land to which *State Environmental Planning Policy No 26—Littoral Rainforests* applies;
- (c) land declared by the Minister for the Environment under section 47 of the *Threatened Species Conservation Act 1995* to be the critical habitat of an endangered species, population or ecological community; and
- (d) land within Lord Howe Island.

2.4 Land to which the Code does not apply.

The following categories of land do not require approval under this Code:

- (a) land where a development consent already applies for the provision and maintenance of an asset protection zone and the work is in accordance with the consent;
- (b) land supporting isolated areas of vegetation including:
 - vegetation not mapped on a local authority’s bush fire prone land map; or
 - strips of vegetation less than 20m wide associated with a road, rail, river and stream corridors;
- (c) land supporting environmentally significant vegetation including:
 - rainforests;
 - mangroves;
 - alpine complexes;
 - salt marshes; and
 - wetlands of international significance under the RAMSAR Convention;
- (d) any wilderness area within the meaning of the *Wilderness Act, 1987*;
- (e) land to which an integrated forestry operations approval within the meaning of the *Forestry and National Park Estate Act 1998* applies (see section 100C(5)); or

2.5 Activities to which the Code does not apply.

The following activities do not require approval under this Code:

- (a) the construction and maintenance of a track, trail or road;
- (b) agricultural activities that do not have an existing requirement for environmental assessment, such as stubble burning, burning of sugar cane and diseased crops.
- (c) vegetation clearance other than for bush fire hazard reduction work;
- (d) burning of:
 - green garden waste,
 - construction and industrial waste,
 - other rubbish, or
 - windrows.
- (e) bush regeneration burns including pile burns of weed species for ecological purposes.

2.6 Existing land management agreements

If any of the following land management agreements have been entered into, the conditions on the bush fire hazard reduction certificate must be consistent with that agreement:

- (i) any conservation agreement entered into under Division 7 of Part 4 of the *National Parks and Wildlife Act 1974*;
- (ii) any property agreement entered into under Part 5 of the *Native Vegetation Conservation Act 1997*;
- (iii) any Trust Agreement entered into under Part 3 of the *Nature Conservation Trust Act 2001*; or
- (iv) any property management plan approved by the Director-General of National Parks and Wildlife under section 91 of the *Threatened Species Conservation Act 1995*.

2.7 Previous development consents and approvals

If a pre-existing development consent exists for the land on which the work is proposed and the development consent allows for the provision of an asset protection zone and the work is in accordance with the consent, a bush fire hazard reduction certificate is not required.

If a development consent does not have provisions for asset protection zones or other protection measures from bushfires but contains restrictions on vegetation clearance the conditions on the bush fire hazard reduction certificate must be consistent with these requirements.

A bush fire hazard reduction certificate shall not require the clearance of a riparian area subject to a permit under Part 3A of the *Rivers and Foreshores Improvement Act, 1948*.

2.8 Owners consent to undertake bush fire hazard reduction works

In accordance with section 100F of the *Rural Fires Act 1997*, any application to an issuing authority for bush fire hazard reduction works, must include a signed consent from all land owners and/or occupiers for the land upon which the proposed bush fire hazard reduction work is to be undertaken.

Part 3 Type of Hazard Reduction

The work must be for the purpose of bush fire hazard reduction work.

This Code only covers works on land as defined in section 3.1 and 3.2 below.

3.1 Asset Protection Zones (APZ)

This code covers asset protection zones for existing habitable buildings as defined in *Planning for Bushfire Protection 2001* and existing major buildings (including farm sheds, hay sheds, industrial and business structures) adjacent to a bushfire hazard.

3.1.1 Size of works permitted within an APZ

The maximum width of the proposed works must be within the distances described in Table 1 below for habitable buildings and 10 metres for all other buildings.

Table 1 Maximum Asset Protection Zone widths for residential dwellings.

Slope	Distance
Hazard upslope (<18°)	20 metres
Hazard downslope 0°-5°	25 metres
Hazard downslope 5°-10°	30 metres
Hazard downslope 10°-15°	40 metres
Hazard downslope 15°-18°	50 metres

All distances are measured along the contour of the land from the edge of the building.

The area and distance to which the asset protection zone works applies is to be either mapped or described as a condition within the bush fire hazard reduction certificate.

3.1.2 Type of works permitted within an APZ

This Code is limited to:

(a) Mechanical hazard reduction that includes the maintenance or establishment of asset protection zones using slashing, trittering and tree removal as well as the use of graders, dozers and ploughs in accordance with an assessment under Part 4 of this Code.

(b) Prescribed Burning in accordance with an assessment under Part 5 of this Code.

(c) Pile Burning which is only permitted in circumstances where the material in the pile cannot be disposed of by the normal garbage collection or be composted on site. The areas listed under Schedule 1, Parts 1 and 2 of the *Protection of the Environment Operations (Control of Burning) Regulation 2000*, require an assessment under 5.5 of this Code.

3.2 Strategic Fire Advantage Zones (SFAZ)

Strategic fire advantage zones include land that is mapped or described as a strategic fire advantage zone in the local bush fire risk management plan or if the work is within 500 metres of an asset protection zones as defined in 3.1.

Strategic fire advantage zone include work:

- to provide fuel reduced areas which enable the protection of assets by firefighters when asset protection zones are not in place;
- to complement asset protection zones where these do not provide adequate protection; and
- to provide strategically located fuel reduced areas to reduce the vulnerability of assets which are susceptible to fire.

A map must be attached to the bush fire hazard reduction certificate defining the boundaries of the proposed works.

3.2.1 Type of works permitted within an SFAZ

(a) Mechanical work for the maintenance of existing fire breaks. It does not cover the removal of native vegetation (including regrowth vegetation older than 10 years). Works must be no wider than six metres along either side of fences.

An assessment for mechanical works in a strategic fire advantage zone is described in Part 4.

(b) Prescribed Burning in accordance with an assessment under Part 5 of this Code.

Part 4 Mechanical Hazard Reduction

The Code does not restrict mechanical bush fire hazard reduction works on non-native grasslands.

4.1 Standards for the protection of soil and water

4.1.1 Removal by hand and mowing

- Permissible on all slopes.

Note: mowing on slopes greater than 15° may be unsafe

4.1.2 Slashing or trittering

- Not permitted on slopes of greater than 18°.

4.1.3 Ploughing or grading along fences

- No more than 6m width from a fence is to be cleared using grading or ploughing and clearing must not involve the removal of native vegetation (other than regrowth of less than 10 years).
- Ploughing or grading is not permitted on slopes greater than 10°.
- Must not reshape the soil surface or result in re-direction of surface water runoff.
- All topsoil must remain on the soil surface.

4.2 Standards for the protection of riparian buffers

Any stream, river, wetland or lake marked on a topographic map and within the proposed treatment area must have a riparian buffer zone. Bush fire hazard reduction work is therefore to be excluded from all vegetation adjacent to a water body (ie the riparian buffer zone) in the following manner. The minimum width for exclusion zones of hazard reduction works are:

- 10 metres from the highest bank or shore (or mean high water for tidal waters) on either side for asset protection zones; or
- 20 metres from the highest bank or shore (or mean high water for tidal waters) on either side for strategic fire advantage zones.

This must be applied to the watercourses and water bodies shown on 1:25 000 scale topographic maps, or if not published, the most detailed maps in the area that are published from the Land Information Centre.

4.3 Standards for the protection of native vegetation

If the activity involves removal of native vegetation in an asset protection zone the following conditions apply:

- The distance of any part of a tree from any building is to be no greater than 5 metres;
- The canopy should be discontinuous such that tree crowns are separated by a maximum of 5 metres;
- Smooth barked species and large trees with hollows should be retained in preference to rough barked species;
- Trees on slopes greater than 18° must be retained;
- Removal of trees determined as dangerous by the local authority is permitted; and
- Removal of trees and shrubs less than three metres in height is permitted.

4.4 Standards for the protection of biodiversity

a) For Issuing Authorities.

If threatened species, populations, or endangered ecological communities are identified by the Threatened Species Hazard Reduction List as present at the site, then the management actions identified within the schedule of that List must be incorporated as a condition of the bush fire hazard reduction certificate.

b) For Certifying Authorities.

A certifying authority shall take all reasonable steps to determine the likely presence or otherwise of any threatened species, populations or endangered ecological communities from such data, reports or papers available to the certifying authority for their managed land.

Where threatened species, populations, or endangered ecological communities are identified by the certifying authority to occur at the site of any proposed works under this code, then the management actions identified within the Threatened Species Hazard Reduction List schedule must be incorporated as a condition of the bush fire hazard reduction certificate.

4.5 Standards for the protection of Aboriginal heritage

The issuing authority/certifying authority must refer the application to the NPWS in the following circumstances:

- *slashing* areas not previously subject to slashing, trittering, removal of many trees, or earthworks;
- *trittering* areas previously subject to slashing, or areas not previously subject to trittering, significant tree removal, or earthworks;
- *removal of trees* (greater than 100 cm diameter at breast height).

The issuing authority must provide the NPWS (Cultural Heritage Division) with a full copy of the applicant's application for a certificate, and any other relevant information held by the issuing authority necessary to ascertain the location of the proposed hazard reduction works (e.g. maps).

The NPWS will provide information to the issuing authority within 3 working days, detailing any Aboriginal sites of concern and the management actions that are to be undertaken, and incorporated as a condition of certification. The 3 working day turn around does not commence until receipt of the documents (as specified above) by the NPWS (Cultural Heritage Division).

If the NPWS does not meet the 3 working day turn around then the issuing authority may proceed to process the application.

Certifying authorities that do not have a data licence agreement must provide the NPWS (Cultural Heritage Division) with a full copy of the proposal for a certificate, and any other relevant information held by the issuing authority necessary to ascertain the location of the proposed hazard reduction works (e.g. maps). The NPWS will provide information to the issuing authority, detailing any Aboriginal sites of concern and the management actions that are to be undertaken, and incorporated as a condition of certification.

Certifying authorities that have a data licence agreement in place with the NPWS are not required to refer to the NPWS (for the areas subject to the licence agreement) unless records indicate that Aboriginal sites are in the area to be subjected to the hazard reduction works. In these circumstances, the certifying authority is required to submit details of the proposed activity to the NPWS to determine the matter.

4.6 Standards for the protection of European cultural heritage sites

If there are sites from the national, state or local heritage registers the certifying authority/issuing authority is to impose conditions to protect the site.

4.7 Standards for the protection of significant environmental protection areas

If there are any environmental protection areas zoned within the local environmental plan (LEP) or plan of management relevant to the area proposed for bush fire hazard reduction works, the certifying authority/issuing authority is to impose conditions consistent with the objectives of the zone/plan to protect the environmental values of the area.

4.8 Standards relating to weeds

If there are noxious or environmental weeds within Appendix A of the NSW Rural Fire Service *Guidelines for Asset Protection Zones*, the area where work is to be undertaken, the certifying authority/issuing authority is to impose conditions regarding follow up treatment and machinery hygiene and to protect water quality and biodiversity.

Herbicides can only be used within this Code for removing weeds.

All users are required to:

- use only herbicides registered by the National Registration Authority (NRA) that are approved for the intended situation of use,
- strictly adhere to any directions on the label,
- not risk injury to persons, property and non-target plants and animals through the use of a herbicide,
- use in accordance with the requirements of the *Pesticides Act 1999*, and the *Protection of Environment Operations Act, 1997*, and
- operate in accordance with the *Noxious Weeds Act, 1993*.

Herbicides cannot be used within 10 metres of any riparian area that contains amphibian species listed in the Threatened Species Hazard Reduction List, unless the List states otherwise.

Part 5 Hazard Reduction using Prescribed Burning

5.1 Intensity

For a person obtaining a bush fire hazard reduction certificate under section 100F of the *Rural Fires Act 1997*, the issuing authority shall, as appropriate to the burning activity, impose a condition such that:

- Pile burning shall be conducted in accordance with the NSW Rural Fire Service document “Guidelines for Pile Burning” (dated June 2003).
- Low intensity prescribed burning shall be conducted in accordance with the NSW Rural Fire Service document “Guidelines for Low Intensity Hazard Reduction Burning ”(dated June 2003).
- Moderate intensity prescribed burning can only be used where a fire fighting agency is in attendance and conducting the burn in accordance with an agency approved burn plan.
- High intensity prescribed burning is not permitted.

5.2 Standards for the protection of biodiversity

5.2.1 Threatened Species Hazard Reduction List

a) For Issuing Authorities.

If threatened species, populations, or endangered ecological communities are identified by the Threatened Species Hazard Reduction List to occur at the site, then the management actions identified within the schedule of that List must be incorporated as a condition of the bush fire hazard reduction certificate.

b) For Certifying Authorities.

A certifying authority shall take all reasonable steps to determine the likely presence or otherwise of any threatened species, populations or endangered ecological communities from such data, reports or papers available to the certifying authority for their managed land.

Where threatened species, populations, or endangered ecological communities are identified by the certifying authority to occur at the site of any proposed works under this code, then the management actions identified within the Threatened Species Hazard Reduction List schedule must be incorporated as a condition of the bush fire hazard reduction certificate.

5.2.2 Fire regimes and fire frequency thresholds for strategic fire advantage zones

This section only applies for strategic fire advantage zones.

A bush fire hazard reduction certificate may be issued if the fire frequency interval is longer than, or equal to, the minimum fire frequency interval in the bush fire risk management plan.

If the fire frequency interval is not defined or adequately mapped, the fire frequency intervals from the minimum fire frequency table in Appendix A are to be used.

In situations relating to minimum fire frequency intervals, the issuing authority/certifying authority must determine the primary vegetation formation proposed to be burned within the gross area proposed for hazard reduction burning, and apply the appropriate minimum fire frequency interval. Although the focus is on the primary vegetation formation, in situations where other vegetation formations occur as a significant proportion within the primary vegetation, then the appropriate fire frequency interval must be addressed for these vegetation formations as well. The issuing authority/certifying authority must also incorporate as a condition, consideration of sensitive vegetation types (e.g. rainforest gullies) such that the potential for burning these areas is minimised through appropriate implementation of the burn.

Where the burning activity for which a certificate has been issued does not result in achieving the objectives of the burn, a further burn may proceed within the terms of the certificate for any area that was identified within the certificate.

5.3 Notification of fire fighting authorities

Bush fire hazard reduction certificate holders must give at least 24 hours notice prior to lighting a fire for bush fire hazard reduction work as follows:

- in a Rural Fire District, to the fire control officer;
- in a NSW Fire Brigade District, to the officer in charge of the fire station nearest the land on which the hazard reduction work is to be performed.

5.4 No Burn days

On making notification in 5.3 above, the certificate holder must ascertain from the local fire control officer or officer in charge of the nearest NSW Fire Brigades station whether:

- a No Burn Notice has been or is likely to be issued by the Environment Protection Authority, and
- if the proposed activity qualifies for an exemption from the No Burn Notice.

5.5 Standards relating to the effects of smoke

For the purpose of identification under this Code, the size of fires shall be defined as follows:

- small fires are less than one hectare (including pile burns), and
- large fires are greater than one hectare.

5.5.1 Neighbouring residences

If any residential dwelling is within 50m of a small fire or 200m of a large fire, the certifying authority/issuing authority shall require as a condition on the certificate, that at least 24 hours notification of the intended date of the burn must be given to neighbours within the distance specified above.

Note: Section 86 of the *Rural Fires Act 1997* requires a person who lights a fire for the purpose of land clearance or for burning a fire break (including bush fire hazard reduction works) to notify any neighbours on all land contiguous to the land on which the fire is to be lit.

5.5.2 Sensitive locations

Sensitive locations include schools, hospitals, residential aged care facilities, ventilation intakes (eg. mine shafts), and airports.

If any of these locations are within 100m for small fires or 1000m for large fires, the certifying authority/issuing authority shall require as a condition on the certificate, the following:

- the owner/manager must be given at least seven (7) days notification of the intended date of the burn;
- burning is to be carried out only when the facility is closed, or the weather patterns indicate that the wind will be blowing away from it; or
- in sensitive cases burning should be restricted to daylight hours.

In certain cases where, for example, local topography channels smoke, larger distances may be required in the conditions when smoke is the likely impact.

5.5.3 Traffic

For large fires near major roads, the holder of a bush fire hazard reduction certificate shall at least two weeks prior to the burning activity, liaise with Police and/or the relevant traffic authorities in order to plan when the traffic conditions are likely to be suitable and to implement any actions including any requirement for traffic management including signage.

5.5.4 Tourism

If tourism is significant in the area and identified in the bush fire risk management plan, conditions may be applied to the bush fire hazard reduction certificate so that burning takes into account visitation during peak holiday periods or during major sporting or community events.

5.5.5 Power Lines

If high voltage powerlines are within the boundaries of a large smoke fire activity the certifying authority/issuing authority shall require as a condition on the certificate, that the applicant must inform and consult with the electricity provider at least seven days before conducting the activity to determine if any action is needed.

5.5.6 Significant bat colonies.

If significant bat colonies identified by the NPWS are within 100m of small fires or 1000m of a large fire, then the burning is to be carried out only when the weather patterns indicates that the wind will be blowing away from that area or it is known that the colony is not present.

5.6 Standards for the protection of soil and water

If a moderate intensity prescribed burn is being used, the burn plan must include measures to ensure that moderate intensity fire is not used on effective slopes of greater than 18°.

5.7 Standards for the protection of riparian buffers

If a moderate intensity prescribed burn is being used, the approved burn plan must include conditions to avoid burning within 20 metres of a river, stream or lake.

No lighting of a fire (other than for pile burning) is to be permitted within a riparian buffer.

5.8 Standards for the protection of Aboriginal heritage

The issuing authority/certifying authority must refer the application to the NPWS in the following circumstances:

- *Unharvested native forest areas, and areas in asset protection zones not previously subject to burning*, where there is a likelihood that scarred and carved trees exist; and
- *Land with known rocky outcrops, rock platforms or rock shelters*, where there is a likelihood of artwork (especially painted art) existing.

The issuing authority must provide the NPWS (Cultural Heritage Division) with a full copy of the applicant's application for a certificate, and any other relevant information held by the issuing authority necessary to ascertain the location of the proposed hazard reduction works (e.g. maps).

The NPWS will provide information to the issuing authority within 3 working days, detailing any Aboriginal sites of concern and the management actions that are to be undertaken, and incorporated as a condition of certification. The 3 working day turn around does not commence until receipt of the documents (as specified above) by the NPWS (Cultural Heritage Division).

If the NPWS does not meet the 3 working day turn around then the issuing authority may proceed to process the application.

Certifying authorities that do not have a data licence agreement must provide the NPWS (Cultural Heritage Division) with a full copy of the proposal for a certificate, and any other relevant information held by the issuing authority necessary to ascertain the location of the proposed hazard reduction works (e.g. maps). The NPWS will provide information to the issuing authority, detailing any Aboriginal sites of concern and the management actions that are to be undertaken, and incorporated as a condition of certification.

Certifying authorities that have a data licence agreement in place with the NPWS are not required to refer to the NPWS (for the areas subject to the licence agreement) unless records indicate that Aboriginal sites are in the area to be subjected to the hazard reduction works. In these circumstances, the certifying authority is required to submit details of the proposed activity necessary for the NPWS to determine the matter.

5.9 Standards for the protection of European cultural heritage sites

If there are sites from the national, state or local heritage register within the area proposed for bush fire hazard reduction works, the certifying authority/issuing authority is to impose conditions, to protect the site.

5.10 Standards for the protection of significant environmental protection areas

If there are any environmental protection areas zoned within the local environmental plan or plan of management the certifying authority/issuing authority is to impose conditions, to protect the environmental values of the area.

5.11 Standards relating to weeds

Where the proposed work may lead to the spread of weeds, the certifying authority/issuing authority shall impose conditions to:

- prevent or mitigate the spread of weeds, and
- implement further follow up treatment as required .

Herbicide use must be in accordance with section 4.8 of this Code and be consistent with the label and the requirements of the Pesticides Act 1999. The use of herbicides near waters must be undertaken with care to prevent water pollution. Herbicides cannot be used within 100 metres of any species listed in the Threatened Species Hazard Reduction List, unless the List states otherwise.

Dictionary

approved burn plan means a prescribed burning plan approved by a fire fighting agency.

biodiversity means the variety of life forms—different species of plants, animals and micro-organisms, the genes they contain and the ecosystem they form.

buffer zone means a protective margin of vegetation that surrounds or is adjacent to specified drainage features or relics or items of cultural heritage and which protects them from potentially detrimental disturbances. Bushfire hazard reduction work is generally excluded from buffer areas.

diameter at breast height means the measurement of the diameter of a tree made:

- (a) at a height of 1.3 metres above the ground level (measured from the ground level of the up slope side of the tree if the tree is on a slope), and
- (b) at right angles to the axis of the tree.
If the tree is branched or deformed at 1.3 metres above the ground level, the measurement must be taken at the nearest point above or below that point, where the trunk becomes more cylindrical.

high intensity prescribed burning being the removal of a substantial portion of the shrub layer. On average flame heights will be greater than two metres and some canopy fire may occur.

low intensity prescribed burning being the removal of the leaf litter, grass and shrub layer with minimal canopy scorching. Fires will be patchy and the actual area burnt may vary between 40% and 80%. The average flame height will be less than one metre. This can be achieved by lighting under conditions where a combination of some or all of following factors influence fire behaviour - low fuel loads, moist fuels, low temperatures, high humidity, low wind speeds and fire lighting patterns.

maintenance only includes works undertaken to ensure a structure or infrastructure retain their original function, and does not include upgrading for a higher level of use, nor includes works undertaken on areas which have not been maintained for more than 10 years.

minimum fire frequency means the minimum interval between successive fires for a vegetation community upon the same area in the landscape.

moderate intensity prescribed burning involves the removal of a substantial portion of the shrub layer. On average flame heights will be between one and two metres and some canopy scorching may occur. These fires are often patchy and the moister creeks generally will not be burnt. This type of prescribed burning is generally used for hazard reduction to provide asset protection closer to the urban interface.

native vegetation means any indigenous vegetation.

regrowth vegetation means native vegetation that has regrown after mechanical clearing and does not include regrowth from fire.

riparian buffer zone refers to the distance from the top of the highest bank or shore, and in the case of tidal waters, the mean high water mark of streams, rivers, lakes, estuaries and wetlands.

significant bat colonies are those areas identified by the NPWS as being significant and for which current data is available.

slashing means mowing with a large bladed mower.

stream means a channel down which surface water naturally concentrates and flows and is mapped on a 1:25,000 or 1:50,000 topographic map published by the Government (whichever is the smallest scale so published).

Threatened Species Hazard Reduction List means a list of threatened species, populations and communities prepared by NPWS for this Code.

trittering means turbo mowing and mulching which involves pulverising the leaf litter so that it becomes compacted and burns more slowly.

vegetation formation means vegetation communities as defined in Appendix C of this Code

wetland generally include marshes, billabongs, swamps and sedge lands.

windrow means a row of cut vegetation pushed up for clearing (for example timber which is pushed into lines for burning during a clearing operation) and includes post logging waste material.

Appendix A - Minimum Fire Frequency Table for SFAZs*.

Formation	Minimum Fire Interval (years)	Description
A. Rainforests	No Prescribed Fire	Vegetation association displaying canopy cover generally greater than 70% with or without emergent trees, and includes species recognised as rainforest species (may include lianas and/or epiphytes) and does not exclude areas of dry rainforest.
B1. Wet sclerophyll forests	25	Tall forests dominated by straight-trunked eucalypts with dense understories of shrubs with broad soft leaves, ferns and herbs. Relatively fertile soils in high rainfall parts of coast and tablelands.
B2. Semi-mesic grassy forests	10	Tall forests dominated by straight-trunked eucalypts, with mixed grassy understories and sparse occurrences of shrubs with broad soft leaves. Coast and tablelands in high rainfall regions and along major inland watercourses on relatively fertile soils.
C. Swamp sclerophyll forests	7	Forests of hard-leaved trees (eucalypts, paperbarks, casuarinas) with scattered shrubs and continuous groundcover of water-loving sedges and herbs. Flood prone flats and plains and riparian zones principally along the coast and inland rivers.
D. Sclerophyll grassy woodlands	5	Woodlands of eucalypt trees, with dry understories of grasses, herbs and sometimes scattered shrubs. Rolling terrain with fertile soils and moderate rainfall on the coast, tablelands and western slopes.
E1. Dry sclerophyll shrub/grass forests	5	Eucalypt forests with mixed understories of hard-leaved shrubs and grasses. Moderately fertile soils in moderate rainfall areas of the coast, tablelands and western slopes.
E2. Dry sclerophyll shrub forests	7	Low forests and woodlands dominated by eucalypts, with understories of hard-leaved shrubs and sparse groundcover (few grasses or sedges). Regions receiving high to moderate rainfall on the coast, tablelands and western slopes, often in steep areas.
F. Semi-arid woodlands	10	Open woodlands dominated by eucalypts, acacias and casuarinas, with open understories of hard-leaved shrubs, grasses and forbs, including many ephemeral species. Low-moderate rainfall regions of the near western plains, including infrequently flood-prone sites.
G. Heathlands	7	Dense to open shrublands dominated by shrubs with small, hard leaves and sedges. High rainfall regions of the coast and tablelands on infertile soils, often in exposed topographic positions.
H. Alpine complex	No Prescribed Fire	Mosaics of low herbfields, grasslands and shrublands. High, snow-prone parts of the southern ranges.
I. Grasslands	2	Closed tussock grasslands with a variable complement of herbs and few, if any, woody shrubs or trees. Fertile soils of the tablelands and western floodplains.
J. Freshwater wetlands	6	Swamp forests, wet shrublands or sedgeland, usually with a dense groundcover of sedges. Throughout NSW on peaty or gleyed soils with impeded drainage.
K. Estuarine and saline wetlands	No Prescribed Fire	Low forests, shrublands and herbfields of mangroves, succulent shrubs (saltmarsh) or marine herbs (sea grasses). Coastal estuaries and saline sites of the western plains.
M. Arid and semi-arid shrublands	10	Open shrublands of hard-leaved shrubs, hummock or tussock grasses and ephemeral herbs. Low rainfall regions of the far western plains.

* This schedule has been prepared for the specific purpose of this code and cannot be used as a guide for other purposes. It can be anticipated that the use of these frequencies will result in biodiversity loss within the landscape for which it is applied.