firesticks

TARRIWA KURRUKUN

Indigenous Protected Area (IPA)
Fire Management Plan

TARRIWA KURRUKUN FIRE MANAGEMENT GUIDELINES

These priority actions were developed by the Banbai rangers with strategic advice provided from the Firesticks Team.
These activities focus on culturally integrated fire and invasive species management within Land Management Areas (LMA)
to reduce bush fire risk and to retain or improve habitat condition and maintain ecological and cultural values.

A summary of key considerations for implementation of priority actions are as follows.

ASSESSMENT AND PLANNING

Maintain an adaptive management approach in the protection and enhancement of cultural and ecological assets. Identify, map and record key values and threats to determine and prioritise associated fire management actions with particular reference to: life and property; risk management; cultural lore, heritage, practice and responsibility; threatened species; and endangered ecological communities. Apply observational and Indigenous knowledge recording methods to determine impacts of fire on ecological and cultural values.

ACCESS AND FIRE MITIGATION (MAINTAIN ROADS, TRAILS AND CONTROL LINES)

Asset Protection Zone (APZ) – maintain low fuel loads around built assets - Regularly slash/clear in particular before and during the Bush Fire Danger Period.

As required monitor and maintain roads, trails, gates, fencing and control lines for key assets (cultural, ecological and infrastructure) to manage access, reduce risk, prevent illegal dumping of rubbish and avoid dispersal of invasive species.

COMMUNITY ENGAGEMENT, EDUCATION, TRAINING AND MENTORING

Undertake regular ecological and cultural monitoring programs. Engage schools, community groups and elders in ecological and cultural activities. Undertake relevant training with support from external stakeholders.

UNDERTAKE BURNING AND PRE/POST FIRE RESTORATION ACTIVITIES

Implement culturally integrated fire and invasive species management actions across the Banbai Lands, including site preparation, burning, restoration, monitoring and evaluation to protect and enhance cultural and ecological assets, while reducing risk to life and property.

RESOURCE	OPERATIONAL GUIDELINES
Aboriginal Cultural Heritage Site Management	Ensure close liaison with the Banbai Corporation.
	All personnel involved in fire fighting operations are to be briefed on site locations and the required management strategies.
Historic Heritage Management	There are no known European historic sites on this property.
Threatened Fauna Management	Avoid impact on key habitat areas such as casuarina forest.
	Avoid impact on streams.
	Protect large and hollow-bearing trees.
Threatened Flora Management	Avoid impact on black grevillea species.
Threatened Property	The more you prepare your home, the more likely it will survive a bush fire or ember attack. A well prepared home can also be easier for you or firefighters to defend. A well prepared home will also give you more protection if a fire threatens suddenly and you cannot leave.
	Keep informed on days of increased fire danger. Pay attention to your local radio and TV stations and monitor our website and social media pages on hot, dry, windy days. This will help you plan your day and make sure you avoid areas where there is an increased risk of a bush fire.
RESOURCE	GUIDELINES
Aerial Water Bombing	Foam should be used to increase the effectiveness of water bombing.
	No foam to be used on the creek and other water sources.
	Avoid escarpment and rocky areas due to potential impacts on cultural heritage values.
Aerial Ignition	Aerial ignition may be used during back-burning or fuel reduction operations.
	Unlise incendiaries to rapidly progress back burns down slope where required.
Backburning	Ensure close liaison with the Banbai Corporation and brief all personnel on the planned location.
	Where practicable backburning should be implemented when the humidity begins to rise in the late afternoon or early evening. Clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees as part of the backburn ignition.
	Avoid ignition of backburns at the bottom of slopes where a long and intense up slope burn is likely.
Command and Control	The first combatant agency on site may assume control of the fire, but then must ensure the Banbai Corporation is notified (see contacts list).
	On the arrival of other combatant agencies the initial incident controller will consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations
Containment Lines	Ensure consent and close liaison with the Banbai Corporation for briefing on cultural and natural heritage locations to be avoided. All personnel involved with construction will require briefing on the planned location.
Earthmoving Equipment	Earthmoving equipment may only be used with the prior consent of Banbai Corporation supervised by an experienced site officer.
	Earthmoving equipment must be always guided and supervised by an experienced officer and accompanied by a support vehicle. When engaged in direct or parallel attack this vehicle must be a firefighting vehicle.
Fire Suppression Chemicals	The use of fire retardant is only permitted with the prior consent of Banbai Corporation and should be avoided where reasonable alternatives are available.
	Exclude the use of surfactants and retardants within 50m of watercourses, dams and swamps.
Rehabilitation	Containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation
	All re opened and new containment lines not required for other purposes should be closed at the cessation of the incident.
Smoke Management	If smoke becomes a hazard on local roads or highways , the police and relevant media must be notified.
	Smoke management must be in accordance with relevant RMA traffic management guidelines.

Please note

Hazard reduction through the removal of native species vegetation either by fire or mechanical methods requires an environmental assessment through the issue of a Hazard Reduction Certificate from the Rural Fire Service (RFS).

For some of the proposed burns on the IPAs the issue of a Hazard Reduction Certificate (HRC) by the Rural Fire Service has not been possible. For these burns the use of a Routine Agricultural Management Activity (RAMA) under the Native Vegetation Act 2003 has been identified by the Firesticks Project as an appropriate process under which the burns can be implemented. Clearing of native vegetation for the purposes of the "Traditional Aboriginal cultural activities (except commercial activities)" RAMA permits clearing, including burning of native vegetation without approval under the Act.

When utilising this RAMA the IPA managers must self-assess where it can be applied and it must be used to the minimum extent necessary.

BUSHFIRE DANGER PERIOD

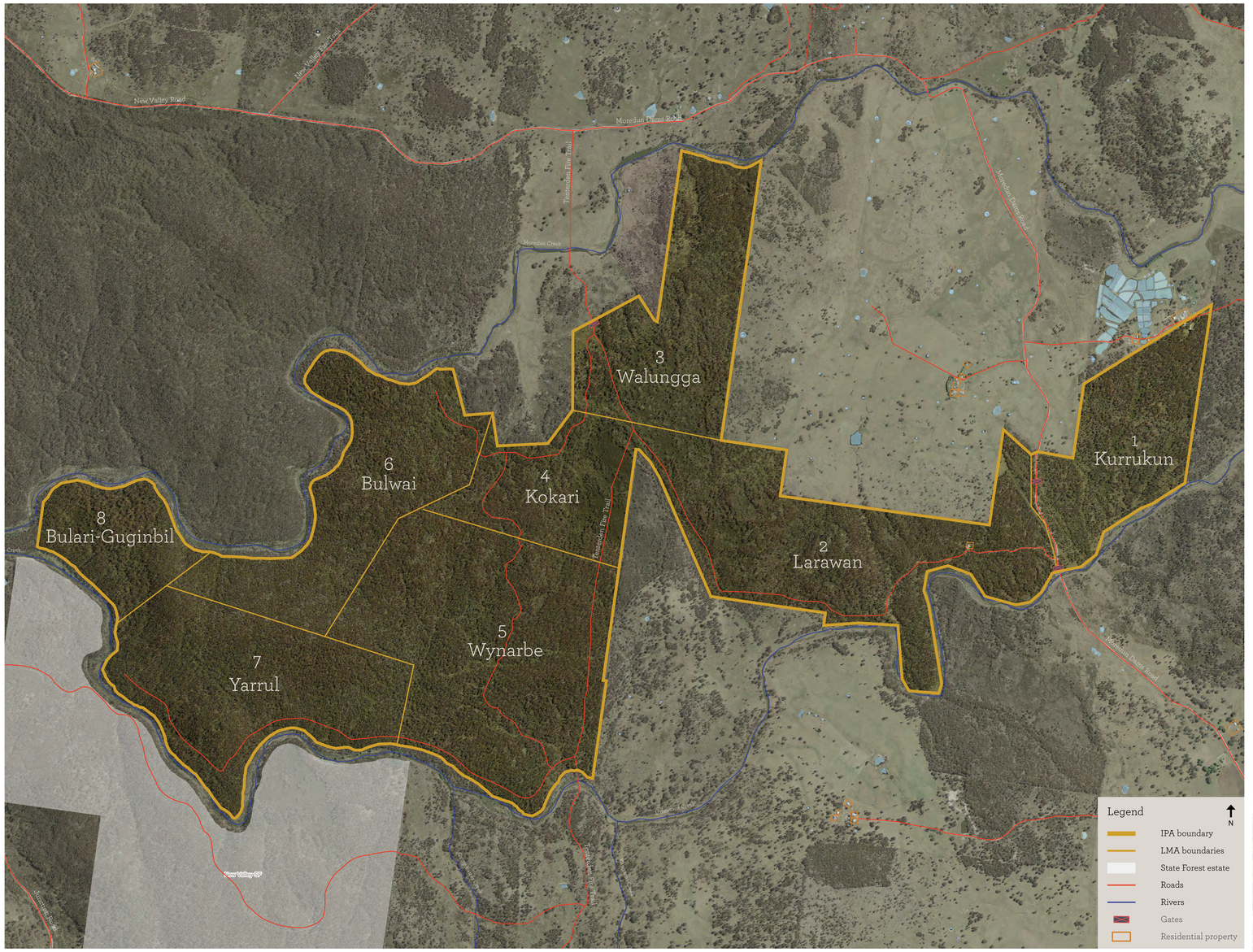
1st August to 31st March, unless the bushfire danger period is brought forward or extended due to regional weather conditions (hot, dry and/or windy). A Fire Permit is required if planning a burn during the bushfire danger period, and you must comply with conditions. Give at least 24hrs notice to all neighbours and RFS.

OUT OF BUSHFIRE DANGER PERIOD

No Fire Permit required when the Bushfire period is not in effect. Must give at least 24hrs notice to RFS and neighbours prior to lighting. If the proposed burn is to achieve bush fire hazard reduction a Hazard Reduction Certificate is required from the RFS. This will outline important considerations to protect life and property as well as cultural and ecological values on the property.

Through attending the Bush Fire Management Committee (BFMC) meetings members can provide a more comprehensive understanding of the cultural, ecological and community assets on their property. High value assets can be listed under the Bush Fire Risk Management Plan.

LAND MANAGEMENT AREAS (LMA)	SUMMARY OF PRIORITY ACTIONS	COMMENTS
All LMA	Assessment and planning: review Fire Plan annually and update priority actions in view of seasonal variations and ongoing support and assistance from neighbours	
	Access and fire mitigation: survey condition of existing fire trails on the property including preparation of a map and further works identified– identify trails as either Dormant, Important or Essential to provide clear reference for NSW Rural Fire Service (RFS) for Wildfire Response. Clear fencelines up to 6 metres in length to provide buffer zone around property boundary.	
	Protect fire-sensitive attributes and cultural values, including scar trees, rock art sites habitat trees and biodiversity hotspots through cultural burning and mitigation activities	
	Community engagement, education and mentoring: provide a cultural learning space for community and schools to further opportunities for cultural knowledge exchange	
LMA 1 **Kurrukun**	Had wildfire in 2009-10 so no burning recommended– review any post-fire colonisation from invasive weeds and implement management if required	
LMA 2 **Larrawan**	Hazard reduction burn around compound	Scheduled for Autumn/ Winter 2015. Apply for HRC
	Undertake broader ecological burn around the area designated for memorial garden to regenerate native species.	
	Further investigation of the area adjacent to Limestone creek will be useful to increase the interpretation of this area	
LMA 3 **Walungga**	Upgrade of fire trail, continuation of land status and subsequent erection of boundary fence.	
LMA 4 **Kokari**	Primary management issues relate to fencing and fire trail maintenance. Due to the fragile environment the existing fire trail should be maintained.	
LMA 5 **Wynarbe**	Fire trail maintenance is likely to impact on the site and also reveal additional artifacts. Upgrade of Fire trail should be kept to a minimum in this area. It is recommended that the existing track through this zone be maintained.	
LMA 6 **Bulwai**	Establish buffer zones around the scarred tree through manual clearing	
	This environment is fragile with new tracks causing immediate impact on the environment. No new tracks should be established without an assessment of their impact.	
	Fence line will need to be upgraded in consultation with neighbouring property holders.	
LMA 7 **Yarrul**	Review access and environmental impacts of establishing additional fire-trails in this area.	
LMA 8 **Bulari-Guginbil**	This area is fragile with new tracks causing immediate impact on the environment. This zone is also likely to be impacted by recreational use including camping and fishing. This will need to be monitored to assess the impact and may require an upgrade of the boundary fence.	



Wattleridge Land Management Areas

Cultural Burning

Description and Location of Property

Tarriwa Kurrukun (strong one) is located approximately 40km from Guyra and access to the eastern end is via Moredun Ponds Road. This road divides the eastern end of the property into two zones - Larawan and Kurrukun.
The western section of the property is accessed from the Guyra Tingha Road at the junction of Moredun and Limestone Creeks. This junction is approximately 45km from Guyra. The property is approximately seven kilometres long (east to west) and approximately five kilometres wide (north to south) and is in the vicinity of 930 hectares. The Tenterden Fire trail runs through the centre of the property and is access from the Guyra-Tingha Road approximately 9km south of the Creek Junction. The Fire trail crosses through a number of private properties and enters Tarriwa Kurrukun where it crosses Limestone Creek. Prior to Banbai gaining the management of Tarriwa Kurrukun the property was used by unknown persons for wood cutting, pig hunting, 4 wheel driving and for stock grazing. This use was informal without permission from Guyra LALC and the full impact of the use was unknown.

Cultural Significance

Tarriwa Kurrukun lies on the western boundary of the Banbai Aboriginal Nation where it borders the neighbouring Kamilaroi Nation. Banbai's membership includes people formally inducted into the Banbai nation membership, who also have close affiliations with the Kamilaroi Nation. The IPA plays a significant role through enabling the local community to access and connect with their country and reinstate their cultural responsibilities to manage the land. The Firesticks project is building capacity by providing land managers with opportunities to gain further confidence and understanding of using fire in the landscape. This connection to the land through fire is of vital importance for the ongoing protection of cultural and ecological values.

The central ridgelines that form the majority of the property contain a number of scarred trees and isolated artifacts. This evidence suggests that the use of the area was primarily for resource exploitation. It is likely that other scarred trees would have been destroyed by natural processes of fire, death and decay as well as being impacted by the high winds that characterise this area. It is also probable that isolated stone artifacts will be found throughout the area as a consequence of the pattern of use. Local knowledge provides an indication that other sites may be located within the IPA. These include marker trees– trees which contain markers indicating restricted areas or boundaries as well as education areas. It is important to note the existence of upland wetlands that occur in the central part of the property. These wetland areas are likely to contain a number of bush food and medicine plants as well as being a habitat for birds, reptiles and animals. These are functional sites providing evidence of the removal of bark for containers, shields and canoes. Bark may also be used for shelter and in burial ceremonies. Sites comprising scattered artifacts, implements and charcoal indicate more than one-off use. Readily available resources of stone and food in the local area provide a stable resource to support small groups of people over extended periods of time. These sites are expected to be located on the open terraces above Limestone and Moredun Creeks.

Ongoing management of Tarriwa Kurrukun IPA reflects the continuing importance of this area to the traditional owners. It is expected that Traditional Ecological Knowledge will form the basis for the interpretation and management of the environmental and cultural values of the property. It is also vital that there be opportunities for transferring this knowledge to future generations.

It is recommended that there be a continual process of investigation into the cultural values of the property. Given the nature of the environment it is likely that additional cultural material will be found during the implementation of this management plan.

Fire Management

Tarriwa Kurrukun is subject to lightening strike which can create bushfires that not only impact on the property but also on neighbouring land holdings. To the immediate south lies private property as well as an area under permissive occupancy. To the north and west there is a range of land use including uncleared land, grazing and fish farming. It is recommended that a fire management strategy be implemented for Tarriwa Kurrukun to preserve the important environmental and cultural resources and values. It is further recommended that a program of controlled burns be undertaken to monitor the impact of fire on specific plants. This controlled burning would also aim to protect the infrastructural assets (fences etc).

Good fire management will be critically important for the future of several threatened species in Tarriwa Kurrukun. The reserve is fairly small, bushland has been lost from much of the surrounding landscape, and so a single fire burning most or all of the reserve should be avoided through careful planning. Fire may be used for various land management purposes including:

– use of fire for germination,
– lowering the risk of intensive fires through cultural burning,
– removing leaf litter from the base of scarred trees
– protect assets such as fence lines
– need for appropriate fire fighting equipment
– building relationships with Tenterden Fire Brigade
– coordinate burn off activities with surrounding properties

Biodiversity Significance

The New England Tableland Bioregion lies between the North Coast and Nandewar bioregions in northeast NSW, extending north just into Queensland. In NSW it extends from beyond Tenterfield in the north to south of Walcha, east to Guyra and west almost to Inverell.

The Tarriwa-Kurrukun IPA contains a remarkably high diversity of Eucalypts, with at least thirteen species identified, as well as several apparent hybrids. Open stringybark-peppermint forest covers much of the IPA. This forest is dominated by Youman's (Eucalyptus youmanii), Diehard (E. cameronii), Broad-leaved (E.caliginosa) and McKie's Stringybarks (E. mckieana), and Gum-topped (E. andrewsii) and Narrow-leaved Black Peppermints (E. nicholii), with a diverse understorey of shrubs such as Prickly Broom-Heath (Monotoca scoparia), Red-stemmed Wattle (Acacia rubida), and Smalleaved Beard-Heath (Leucopogon microphyllus), herbs such as Raspworts (Gonocarpus spp.) and orchids. Some areas have few shrubs and the understorey is dominated by Fringed Cord-rushes (Baloskion fimbriatum).

During previous fauna survey work on the IPA 92 native species were recorded, including 68 species of birds, seven species of mammals, five species of amphibians and 12 species of reptiles. Seven of these species are listed as threatened at a state level, two nationally and one globally. The IPA is relatively weed free, which is a sign of healthy habitat. The more invasive weeds were found in only isolated pockets of the reserve, and would be able to be controlled fairly easily.

Ranger Simon Kennedy identifies a skink found during the fauna survey

The bells turtle is globally vulnerable and was observed in Moredun Creek. Photo Simon Kennedy

Riparian zone dominated by shrubs and sedges. Photo Simon Kennedy

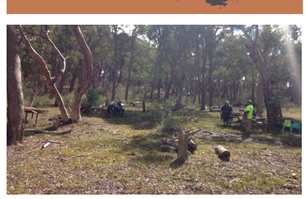
Granite thick-tailed gecko Photo Daniel Cuthore

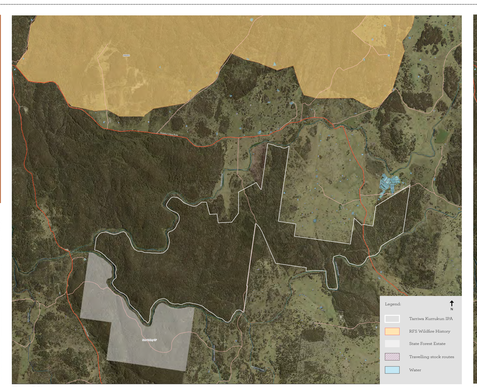
Ranger Simon Kennedy receives a Community Fire Unit from the Rural Fire Service on behalf of the Banbai Corporation

"My grandchildren have not known now what it's like
to grow up without land – I didn't grow up owning land,
nor my Mum. It changes how we think, how we do things.
We've got land.
Now we have to reacquaint ourselves
with our custodial role of land management."

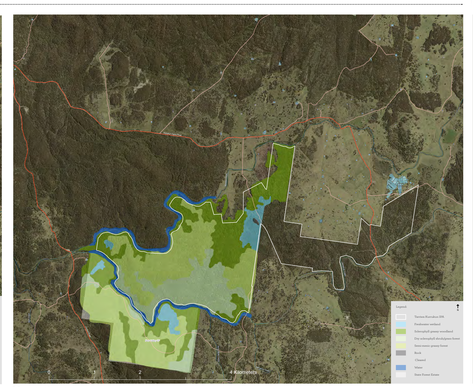
LEE PATTERSON, TRADITIONAL OWNER

The rangers with Auntie Toni, at Tarriwa Kurrukun


The site on Tarriwa Kurrukun being prepared for memorial garden and cultural burn



Fire History



Vegetation types

SIGNIFICANT SPECIES

The Tarriwa Kurrukun IPA is a part of the Australia's national reserve system and is managed by the Banbai people. The eucalypt open forests are in good ecological condition with a large numbers of old trees creating a complex and diverse understorey with high densities of ground orchids and high volumes of fallen timber. The forests provide habitat for several threatened species. The riparian habitats are used by a number of specialist species, including one of Australia's rarest freshwater turtles, the Bell Turtle. The diversity of vegetation on the IPA supports a range of land and aquatic animals. The threatened species found on the IPA include the globally endangered and range restricted Bells turtle found in Moredun Creek. The vulnerable Granite thick-tailed gecko was found in the stringybark forest in the west side of the IPA. There were two vulnerable owl species identified: the powerful owl and the barking owl. Also three species of vulnerable woodland birds were observed which include the speckled warbler, scarlet robin, and the varied sittella.

Indigenous food sources available throughout the Northern Tablelands include kangaroo, wallaby, echidna, birds, aquatic food sources include eels and catfish. Murnum, Gee-bung and Sarsaparilla are also plant species found in the area. It is expected that these areas will be found associated with water sources. The IPA contains a number of high land heath areas that are considered as highly significant resource zones. Vegetation restoration of areas between the IPA and other bushland remnants in the district may ensure populations of species that are currently unable to cross farmland areas can survive in the long-term. Ongoing monitoring of the Bells Turtle, Granite thick-tailed Gecko, the small woodland birds and the large owls has been discussed and implemented by the IPA rangers.

Significant species, clockwise from top left- Granite thick tailed gecko- Underwoodisaurus sphyrurus,Bells turtle- Elseya bells, varied sittella- Daphoenositta chrysoptera, scarlet robin- Petroica boodang, powerful owl- Ninox strenua, swamp wallaby- Wallabia bicolor

Significant species

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Nature Conservation Council

This Fire Management Plan compiled in 2015 is a summary of content and recommended actions prepared by the Firesticks project through ongoing consultation, on-ground action planning with Tarriwa Kurrukun IPA and the review of existing plans and documents including: Tarriwa Kurrukun Plan of Management 2009-2013 by Banbai Business Enterprises Incorporated; An inventory survey of the Fauna of the Tarriwa Kurrukun Indigenous Protected Area 2010 by Banbai Business Enterprises Incorporated
This document has been produced to reflect in greater detail the importance of cultural burning, working collaboratively and two way learning. It serves merely as an aid to planning, and in no way provides a guarantee of fire safety. The information provided herein reflects our understanding at the time of planning. We are learning more about fire and the environment everyday and anticipate that some recommendations may change as new information comes to hand.
Thus whilst every effort has been made to ensure the information presented herein is as accurate and well informed as possible, those involved in compiling the plan take no responsibility for any outcomes actions or losses resulting directly or indirectly from the interpretation, misinterpretation or implementation. This plan is intended to be used in conjunction with the help of experts and good neighbour relations.
For further information regarding the Firesticks program please call the Nature Conservation Council of NSW on (02) 9516 1488