

[Property Title]   
Fire Management Plan 2017

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| Place photograph or artwork here. |
| Insert relevant caption here. Knucklebone rock formation is one of the many important cultural sites on the Wattleridge IPA |

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| [Insert caption or quote here over several  lines if necessary Lorem ipsum dolor sit  amet, consectetuer adipiscing elit. Maecenas  porttitor congue massa. Fusce posuere, magna  sed pulvinar ultricies, purus lectus malesuada  libero, sit amet commodo magna eros quis urna.] |
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Firesticks

Firesticks is an Indigenous led network and aims to re-invigorate the use of cultural burning by facilitating cultural learning pathways to fire and land management. It is an Indigenous initiative to support people to look after country, share their experiences and collectively explore ways to achieve their goals.

Firesticks is an opportunity for people to build on the knowledge they already have on country and look for ways to make use of new technologies and understandings as a way to support cultural identity and practice. Firesticks is building a community of practice, sharing fire stories and communicating positively about the work that is undertaken and its value to people and place. Mentoring and networking through Firesticks strengthens community and country. Implementing fire to enhance ecosystem health within culturally connected landscapes improves habitat condition and connectivity. Firesticks ultimately strives to empower communities to work together towards healthy, functional and resilient landscapes.

Cultural Fire

Fire is known by many terms and in many languages. Cultural fire describes practices used by Aboriginal people to enhance the health of land and its people. Cultural fire means different things to different people. It is ceremony to welcome people to country or is as simple as a campfire around which people gather to share, learn, and celebrate. It can include burning (or preventing burning) for the health of particular cultural values, people, plants, animals and places.

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| RESPONSIBILITY   * Ensure the right people are involved in planning and implementing fire based on their cultural connections to the land. * Teaching young people and passing down knowledge. | RESPECT   * Being on country, learning by observation and sharing. | RECOGNITION   * Embedding cultural connection within contemporary natural resource management practices. * Implementing good training, strong partnerships, on ground practices and appropriate techniques. |

Location Map

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| Insert your property location map here |

Property Information

DESCRIPTION AND LOCATION OF PROPERTY

Please insert relevant text. This is an example from Wattleridge. The land now known as Wattleridge is part of the northern section of the Banbai Aboriginal Nation. Wattleridge comprises 648 hectares (1600 acres) of granite country near the top of the New England Tablelands in Northern NSW. Wattleridge is located about 40 km north east of Guyra and is part of the Traditional lands of the Banbai nation. Wattleridge was the first IPA to be declared in NSW in 2001 and henceforth has had the longest history of protection and management. To the north/north east the Sara River and crown land bound it. To the west and south it is bounded by private land holders where land has been cleared for cattle and sheep farming. Wattleridge has been completely fenced off with one access road entering from the south which is blocked by a locked gate. Wattleridge is primarily a bush land property that contains significant natural and cultural characteristics. These include significant remnant vegetation associated with granite outcrops in the New England region, and containing a unique and diverse range of flora.

CULTURAL SIGNIFICANCE

Please insert relevant text.

Culturally the property lies within the traditional lands of the Banbai people and contains the only recorded axe grinding groove sites and fully recorded art site in the local area.

Please insert relevant text. This is an example from Wattleridge. Culturally the property lies within the traditional lands of the Banbai people and contains the only recorded axe grinding groove sites and fully recorded art site in the local area. The property also falls within the Clarence River Catchment and is strategically placed to assist in the protection of the biodiversity of the catchment. 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.

Photograph caption goes here. Suggested information – who is in the photo, where is it taken, what is it a photo of, who took the photo.

For example: Lesley Patterson

in repose after a cultural burn

at the rock art site

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| Option to place a photograph here |

Property Information

FIRE MANAGEMENT

Please insert relevant text and references to the Fire History Map. This is an example from Wattleridge. A large percentage of the eastern area of the IPA area was burnt in a wildfire in 1974; this area had a dense litter layer, a dense shrub layer and high volumes of fallen timber. On one hand, this creates a higher risk of a severe fire, but on the other it is the reason there are high densities of black sheoak (Allocasuarina littoralis), which are habitat and important food sources for the glossy black-cockatoo. The Banbai Rangers conducted a controlled burn with the assistance of the Rural Fire Service (RFS) in the Buffer management zone (mostly woodland) in 2009. This burn was contained and after significant spraying of blackberry, which took over following the burn, the area has started to regenerate successfully. The nature of the terrain, with many rocky areas inaccessible by vehicle, makes it difficult to manage a wildfire and implement controlled burns safely. The creation of a fire plan from a safety and infrastructure protection perspective obviously requires the expertise of the RFS and local knowledge (most of the Banbai staff are qualified fire fighters), but from a fauna management perspective, prescribed burns could be conducted in the open forests but should be fairly small and followed up by an investigation of she-oak regeneration. Black she-oak has been found to respond differently depending on fire intensity (better seedling response to high intensity) and season (better response in autumn). Burns should be accurately mapped on the ground, and fire intervals of >15 years maintained in glossy black-cockatoo habitats. The minimum fire interval is likely to be lower in the woodland areas in the west, but this requires further study.

BIODIVERSITY SIGNIFICANCE

Please insert relevant text and reference maps. This is an example from Wattleridge. Wattleridge is part of a larger remnant of forest and woodland with a diversity of managers and management objectives. Co-operative management will assist in ensuring that populations of species such as powerful owl and glossy black-cockatoo persist in the area, as individuals of these species are likely to range widely both within and beyond Wattleridge’s boundaries. The IPA is in the New England Tablelands bioregion, which extends along the top of the Great Dividing Range across the upper river catchments from northern New South Wales just into southern Queensland. This high-altitude bioregion is dominated by dry open eucalypt forests and woodlands, with a diverse flora and many endemic plants and several endemic reptiles. The fauna is a mix of cool and warm temperate and sub-tropical species, reflecting the location of New England Tablelands bioregion as a high elevation temperate area bound by the sub-tropical Brig low Belt to the north, the drier country of the inland slopes and Murray-Darling Basin to the west and mountain forests of the NSW North Coast bioregion to the east. Previous fauna surveys on the IPA have recorded 116 native species, including79 species of birds, 15 species of reptiles, 11 species of amphibians and 11 species of mammals. Eight of these species are listed as threatened at a state level, two nationally and one globally. Four introduced species (three mammals and a bird species) were also found.

Property Information

CULTURAL AND ECOLOGICAL MONITORING

Please insert relevant text. In addition to ecological and cultural monitoring and assessment activities undertaken throughout the IPA the Firesticks project have established a series of long term monitoring plots within the IPA and three other partnering IPAs. These systematic surveys target fire responsive fauna groups and their habitats, including ground and low foraging birds, large owls and arboreal marsupials, small terrestrial mammals, low foraging micro-bats and introduced pest species. These fauna groups, or biodiversity indicators, have been selected as the most suitable for monitoring to assess short to medium term responses to the application of Aboriginal burning practices in the IPAs. This is because species within these groups are dependent on habitat attributes such as the litter layer, logs and ground cover and low understorey vegetation that are the most heavily impacted by fire, particularly in relation to the increased frequency and intensity of wildfires.

Selection of the 2ha plots within the IPAs provide a representative sample of the most extensive and characteristic vegetation communities and also those areas most likely to have had a history of Indigenous fire management. Plots are being surveyed by systematic methods twice a year, in spring-summer and autumn-winter to provide a measure of seasonal variation in activity across the different fauna groups, which include species of nomadic and migratory birds that are absent in some seasons and species of micro-bats that become inactive in colder periods. Relevant habitat attributes within each plot are being assessed by a standard methodology including an overall vegetation description and photo-points plus a detailed vegetation assessment within two 20mx20m quadrats. Other habitat attributes also being assessed in the plot include measurements of the 10 largest trees, canopy vegetation and litter cover, numbers of stags, logs and tree hollows and other attributes such as epiphyte density.

Please insert relevant text. Previous fauna surveys on the IPA have recorded 116native species, including79 species of birds, 15 species of reptiles, 11species of amphibians and11 species of mammals.

*Photograph caption goes here. Suggested information – who is in the photo, where is it taken, what is it a photo of, who took the photo. For example: Wattleridge IPA ranger with RFS and Firesticks ecologist undertaking assessment for burning long term research plot*

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| Option to place a photograph here |

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

Please insert relevant text. This is an example from Wattleridge. 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)

Please insert relevant text. This is an example from Wattleridge. 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 (THE IPA AS A KNOWLEDGE CENTRE)

Please insert relevant text. This is an example from Wattleridge. Firesticks training and mentoring series; ongoing ecological-cultural monitoring within Firesticks research plots; accredited training; cross-cultural training; developing culturally appropriate plans of management; ecological-cultural assessments; school and community programs; research programs and workshops.

UNDERTAKE BURNING AND PRE/POSTFIRE RESTORATION ACTIVITIES

Please insert relevant text. This is an example from Wattleridge. 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.

Land Management Areas Map

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| Insert your Land Management Areas Map |

Action Table

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| **LAND MANAGEMENT AREAS (LMA)** | **SUMMARY OF PRIORITY ACTIONS** | **COMMENTS** |
| All LMA | Example text. 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; identify trails as either Dormant, Important or Essential to provide clear reference for NSW Rural Fire Service (RFS) for Wildfire Response  Protect fire-sensitive attributes and cultural values, including scar trees, rock art and habitat trees  Community engagement, education and mentoring: provide a cultural learning space for community and schools to further opportunities for cultural knowledge exchange | Example text. |
| LMA 1  **Awkendi-**  Water | Example text. Plot B– to burn this year  Connect fire trails on western side of LMA near scar tree  Manual clear and maintain cultural site- scar trees and axe grinding grooves  Survey Sara River- eastern side near axe grinding grooves  Clear fenceline along eastern side of IPA boundary (up to 6m wide) | Example text.  HRC issued scheduled  for Autumn/ Winter 2015 |
| LMA 2  **Mundyaba –**  over there | Example text. Plot A– to burn this year  Assess need to clear fenceline along side of IPA boundary with adjoining neighbour (up to 6m wide)  Manual clear and maintain cultural sites | Example text.  HRC issued scheduled  for Autumn/ Winter 2015 |
| LMA 3  **pimita –**  in between/lookout | Example text. Plot C- to burn next year (2016)  Patch burning along walking track to Knucklebone  Clear fenceline along eastern side of IPA boundary (up to 6m wide) to stop  potential wildfire from St Ives– break up section of vegetation between properties  Assess area between Bat Lane and Scrubby Creek to implement mosaic patch burns  Manual clear and maintain cultural site | Example text.  Scheduled for Autumn/ Winter 2016. Apply for HRC. |
| LMA 4  **Baliderri –** home | Example text. Asset Protection burns around infrastructure behind homestead- approx 2-3ha  Clear fenceline along western side of IPA boundary (up to 6m wide) | Example text.  Apply for HRC |
| LMA 5  **Kukra –** Echidna | Example text. Plot D– to burn next year (2016)  Review Asset Protection at Kukra Rock Art site and assess need for further burning towards entrance of walking track  Manual clear and maintain cultural sites  Clear fenceline along eastern side of IPA boundary (up to 6m wide) | Example text.  Scheduled for Autumn/ Winter 2016. Apply for  HRC |

Fire History Map

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| Insert your Fire History Map |

Vegetation Types Map

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| Insert your Vegetation Types Map |

Operational Guideline

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| **RESOURCE** | **OPERATIONAL GUIDELINES** |
| Aboriginal Cultural Heritage site Management | Example text. Ensure close liaison with the Banbai Nation. Aboriginal sites and sensitive areas are found on the map.  All personnel involved in fire fighting operations are to be briefed on site locations and the required management strategies. |
| Historic Heritage Management | Example text. There are no known European historic sites on this property. |
| Threatened Fauna Management | Example text. Avoid impact on key habitat areas such as casuarina forest.  Avoid impact on streams.; Protect large and hollow-bearing trees. |
| Threatened Flora Management | Example text. Avoid impact on black grevillea species. |
| Threatened Property | Example text. 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 | Example text. 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 | Example text. Aerial ignition may be used during back-burning or fuel reduction operations.  Example text. Utilise incendiaries to rapidly progress back burns down slope where required. |
| Backburning | Example text. Ensure close liaison with the Banbai Nation 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 | Example text. The first combatant agency on site may assume control of the fire, but then must ensure the Banbai Nation 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 | Example text. Ensure consent and close liaison with the Banbai Nation 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 | Example text. Earthmoving equipment may only be used with the prior consent of Banbai Nation 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 | Example text. The use of fire retardant is only permitted with the prior consent of Banbai Nation and should be avoided where reasonable alternatives are available. Exclude the use of surfactants and retardants within 50m of watercourses, dams and swamps. |
| Rehabilitation | Example text. 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 | Example text. 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. |

Significant Species

*Please insert relevant text.*

*Example: Significant species, clockwise from top left: koala- Phascolarctos cinereus; New England tree frog- Litoria subglandulosa; glossy black cockatoo- Calyptorhynchus lathami; powerful owl- Ninox strenua; short beaked echidna- Tachyglossus aculeatus; scarlet robin- Petroica boodang.*

Please insert relevant text. Wattleridge IPA contains a diversity of species many of which are threatened both within NSW and also listed under the Commonwealth EPBC Act. Many of these species are located at Wattleridge as the area represents one of the most intact protected ecosystems within the region fostering a variety of habitat types especially for arboreal marsupials, birds and bats.

The short beaked echidna (Tachyglossus aculeatus) is a totemic species at Wattleridge IPA and is prominently featured within a significant rock art site found on the IPA. The picture now features as the logo for the IPA ranger group on the basis that the animal had significant cultural meaning to the Banbai people. The species would have had stringent laws regarding its use as a food source, people who were allowed to hunt for it and how it would be prepared. Similarly the species would have had stories and songs, which signified its cultural importance and connection to the Banbai people. Many other species would have also had cultural significance but the stories and songs of these species and their use has been lost from the landscape. A major function of the IPA is to foster opportunities for re-connecting with country and identifying responsibility for stewardship of the land and the wildlife it supports.

Wattleridge IPA, is in the granite belt of the northern tablelands is situated close to Warra National Park and supports 12 Threatened species including the Spotted-tailed Quoll and koala, both EPBC Act-listed species.

Due to its high elevation (1,300m asl), the fauna assemblage of Wattleridge is characterised by Bassian species including the Threatened Powerful Owl (Ninox strenua), Scarlet Robin (Petroica boodang) and Flame Robin (Petroica phoenicea), Eastern Pygmy-possum (Cercartetus nanus) and Eastern False Pipistrelle (Falsistrellus tasmaniensis).

The globally vulnerable New England Tree Frog (Litoria subglandulosa) has been found in small streams in the Pimita, Mundyaba and Buffer management zones. The vulnerable Glossy Black-Cockatoo (Calyptorhynchus lathami) in open forests with she-oaks in the Pimita, Balindyerri and Kukra management zones. Records of the Powerful Owl (Ninox strenua), Koala (Phascolarctos cinereus) and Brush-tailed Rock-wallaby (Petrogale penicillata) have been found in many of the management zones.

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| Insert your Significant Species Images | | |
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General Notes

Please insert relevant text. 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 (HRC) from the Rural Fire Service (RFS).

For some of the proposed burns 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 2003has 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

Please insert relevant text. 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

Please insert relevant text. 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.

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Contacts

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| **[ORGANISATION]**  **[TITLE]**  [Name]  T XXXX XXX XXX  **[ORGANISATION]**  **[TITLE]**  [Name]  T XXXX XXX XXX  **[ORGANISATION]**  **[TITLE]**  [Name]  T XXXX XXX XXX | **[LOCAL FIRE**  **CONTROL CENTRE]**  **Fire Emergency 000**  T 02 XXXX XXXX  F 02 XXXX XXXX  E XXX@XXXXXXXXXXXX  **FIRESTICKS**  Oliver Costello  T 0422 223 478  W firesticks.org.au |  |

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| Option to place photograph here  Photograph caption goes here. Suggested information – who is in the photo, where is it taken, what is it a photo of, who took the photo.  For example: Wattleridge IPA rangers inspecting a HARP trap as part of long-term monitoring program |

Disclaimer and Acknowledgements

This Fire Planning Template has been compiled by the NCC Firesticks Project funded by the Australian Government. It serves merely as a guide to fire management planning. The information contained herein reflects our understanding at the time of planning. We are learning more about fire and the environment every day 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 this plan take no responsibility for any outcomes, actions or losses resulting either directly or indirectly from the interpretation, misinterpretation or implementation. This Fire Planning Template is intended to be used in conjunction with the help of experts, local/regional authorities and good neighbour relations.

This template has been compiled by the NCC Firesticks Project, with input from and in consultation with a wide range of stakeholders. This template designed by Lyndal Harris- September Design Studio, Jacqueline Gothe and Sian Hromek with Upside- Down Productions.

The NCC Firesticks Project is delivered in partnership between the Nature Conservation Council of NSW, the Casino-Boolangle, Gugin Gudduba and Ngulingah Local Aboriginal Land Councils, the Minyumai, Ngunya Jargoon, Tarriwa-Kurrukun, Wattleridge and Willows and the Boorabee Indigenous Protected Areas, the Northern Rivers Fire and Biodiversity Consortium, the Office of Environment and Heritage, the University of Technology, Sydney (UTS) and with valued support from the NSW Rural Fire Service.

Thank you to our project partners for their technical input, photographs and continuing support to the project.