NSW GOVERNMENT
Environment, Climate Change & Water
National Parks & Wildlife Service

Oak Creek Nature Reserve

Plan of Management

OAK CREEK NATURE RESERVE

PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

Part of the Department of Environment, Climate Change and Water

September 2010

This plan of management was adopted by the Minister for Climate Change and the Environment on 15th September 2010.

Acknowledgments

The NPWS acknowledges that this nature reserve is within Tumut Brungle Aboriginal Land Council area and is on the border of Wiradjuri and Ngunnawal Country.

This plan of management is based on a draft plan prepared by staff of the South West Slopes Region of NPWS (now part of the Department of Environment, Climate Change and Water).

Cover photograph by Scott Seymour, NPWS.

Inquiries about this draft plan of management should be directed to the NPWS Queanbeyan Area Office, 11 Farrer Place, Queanbeyan, NSW 2620 or by telephone on 6229 7000.

ISBN: 978 1 74232 959 8

DECCW: 2010/834

FOREWORD

Oak Creek Nature Reserve comprises 404 hectares and is located south west of Yass on the southern tablelands of NSW.

The reserve conserves five distinct forest ecosystems ranging from a very small reservation of river she-oak forest along Oak Creek, through to mixed box forests along the ridge. The reserve is important due to its high diversity of native vegetation and low infestations of exotic species. It provides potential habitat for the squirrel glider, brush-tailed phascogale and nectivorous bird species associated with box communities.

The New South Wales *National Parks and Wildlife Act 1974* requires that a plan of management be prepared for each nature reserve. A plan of management is a legal document that outlines how an area will be managed in the years ahead.

A draft plan of management for Oak Creek Nature Reserve was placed on public exhibition from 11 January until 25 April 2008. The submissions received were carefully considered before adopting this plan.

The plan contains a number of actions to achieve the State Plan priority to "Protect native vegetation, biodiversity, land, rivers and coastal waterways" including working with neighbours to encourage conservation of remnant native vegetation in the vicinity of the reserve and the control of introduced plant and animal species which are impacting upon habitat values.

This plan of management establishes the scheme of operations for Oak Creek Nature Reserve. In accordance with Section 73B of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.

Frank Sartor MP
Minister for Climate Change and the Environment

TABLE OF CONTENTS

1. OAK CREEK NATURE RESERVE

1.1 Location, Gazettal and Regional Setting

Oak Creek Nature Reserve (referred to as "the reserve" in this plan) is located in the Parishes of East Goodradigbee and Narrangullen, in the County of Cowley, on the southern tablelands of NSW. The reserve is approximately 25 kilometres south west of Yass and 3 kilometres north east of Wee Jasper. Located on the eastern side of the Wee Jasper Valley, the reserve is situated just above the confluence with the Murrumbidgee and Goodradigbee Rivers. The Goodradigbee River flows through the Wee Jasper Valley.

The section of the Goodradigbee River adjacent to the reserve forms part of the upper reaches of Burrinjuck Dam. The nearby Burrinjuck, Wee Jasper and Black Andrew Nature Reserves are also located in the catchment of Burrinjuck Dam. The Goodradigbee River rises out of Kosciusko and Brindabella National Parks up to 40 kilometres south of the reserve.

The reserve is divided into two sections, physically separated by Sugarloaf Creek. The creek is the boundary between the two parishes, with East Goodrabigbee to the south and Narrangullen in the north. The creek was also the dividing line between the 'Couradigby Run' and 'Cavan Run' before the establishment of parishes under the *Crown Lands Act, 1884*. More recently, the reserve is in an area known locally as "The Parlours". The Parlours Trig is located 3 kilometres to the north of the reserve.

Oak Creek Nature Reserve, comprising 404 hectares, was gazetted as part of the Southern Regional Forest Agreement in early 2001. Prior to the establishment of the reserve the area was crown land that, in the past, had been subject to various lease agreements. In 1904, the northern portion of the reserve was declared a Water Reserve, No. WR 37118, and by 1923 the whole of southern portion had also been declared as a water reserve (WR 37119, WR 56636 and WR 37120). Despite being declared water reserves, these areas were subject to leases for grazing of sheep and cattle. There has also been some timber gathering in the reserve associated with local fencing needs and fire wood collection.

The fenced boundary of the reserve reflects the previous land use and follows a practical alignment rather than the cadastral boundary. As a result some 150 hectares of adjoining land is fenced into the reserve and approximately 40 hectares is fenced out.

The reserve was named after Oak Creek, one of the tributaries to the Goodradigbee River that passes through the reserve.

The reserve is located in a largely rural area, administered by Yass Valley City Council. The reserve also lies within the area of the Murrumbidgee Catchment Management Authority and Yass Rural Lands Protection Board.

1.2 Landscape

Natural and cultural heritage and on-going use are strongly inter-related and together form the landscape of an area. Much of the Australian environment has been influenced by past Aboriginal and non-Aboriginal land use practices, and the activities

of modern day Australians continue to influence bushland through recreational use, cultural practices, the presence of introduced plants and animals and in some cases air and water pollution.

Oak Creek Nature Reserve protects areas of remnant native open forest in a highly disturbed and fragmented landscape. A number of significant flora and fauna species are known to exist within and around the reserve. Of particular interest for conservation is the grassy white box woodlands within and adjoining the reserve.

The geology, landform, climate and plant and animal communities of the area, plus its location, have determined how it has been used by humans. The broader landscape was used by Aboriginal people for its food resources such as possums and kangaroos, as well as the fishing and river resources of the adjacent Goodradigbee River.

The reserve is in close proximity to a number of natural landscape features, such as the junction of the Murrumbidgee and Goodradigbee Rivers, the limestone outcropping known as Cathedral Rock, and caves associated with the limestone in the area, which are of significance to the local Aboriginal community. The Wee Jasper Valley has significant social values associated with its location between the Aboriginal Station at Brungle and the Aboriginal Reserves at Yass, and the access afforded along the valley into the high country of the Brindabella and Snowy Mountains.

Both Aboriginal and non-Aboriginal people place cultural values on natural areas, including aesthetic, social, spiritual, recreational and other values. Cultural values may be attached to the landscape as a whole or to individual components, for example to plant and animal species used by Aboriginal people. This plan of management aims to conserve both natural and cultural values. For reasons of clarity and to document usefulness natural and cultural heritage, non-human threats and on-going use are dealt with individually, but their inter-relationships are recognised.

2. MANAGEMENT CONTEXT

2.1 Legislative and Policy Context

The management of nature reserves in NSW is in the context of a legislative and policy framework, primarily the *National Parks and Wildlife Act 1974* (NPW Act), the NPW Regulation, the *Threatened Species Conservation Act 1995* (TSC Act) and the policies of the National Parks and Wildlife Service (NPWS). Section 72AA of the NPW Act lists the matters to be considered in the preparation of a plan of management. The policies arise from the legislative background and internationally accepted principles of park management. They relate to nature conservation, Aboriginal and historic heritage conservation, recreation, commercial use, research and communication.

Other legislation, international agreements and charters may also apply to management of the area. In particular, the *Environmental Planning and Assessment Act 1979* (EPA Act) requires the assessment and mitigation of the environmental impacts of any works proposed in this plan.

A plan of management is a statutory document under the NPW Act. Once the Minister has adopted a plan, no operations may be undertaken within Oak Creek Nature Reserve except in accordance with the plan. The plan will also apply to any future additions to the nature reserve. Where management strategies or works are proposed for Oak Creek Nature Reserve or any additions that are not consistent with the plan, an amendment to the plan will be required.

2.2 Management Purposes and Principles

Nature reserves are reserved under the NPW Act to protect and conserve areas containing outstanding, unique or representative ecosystems, species, communities or natural phenomena.

Under the Act, nature reserves are managed to:

- conserve biodiversity, maintain ecosystem functions, and protect geological and geomorphological features and natural phenomena;
- conserve places, objects, features and landscapes of cultural value;
- promote public appreciation, enjoyment and understanding of the reserve's natural and cultural values; and
- provide for appropriate research and monitoring.

Nature reserves differ from national parks in that they do not have as a management principle to provide for visitor use.

2.3 Regional Forest Agreements

Regional Forest Agreements (RFAs) are one of the principle means of implementing the National Forest Policy Statement of 1992. Under this Statement Commonwealth, State and Territory governments agree to work towards a shared vision for Australia's forests. This aims to maintain native forest estate, manage it in an ecologically sustainable manner and develop sustainable forest-based industries. The Statement provided for joint comprehensive assessments of the natural, cultural, economic and social values of forests. These assessments formed the basis for negotiation of

Regional Forest Agreements that provide, amongst other things, for Ecologically Sustainable Forest Management.

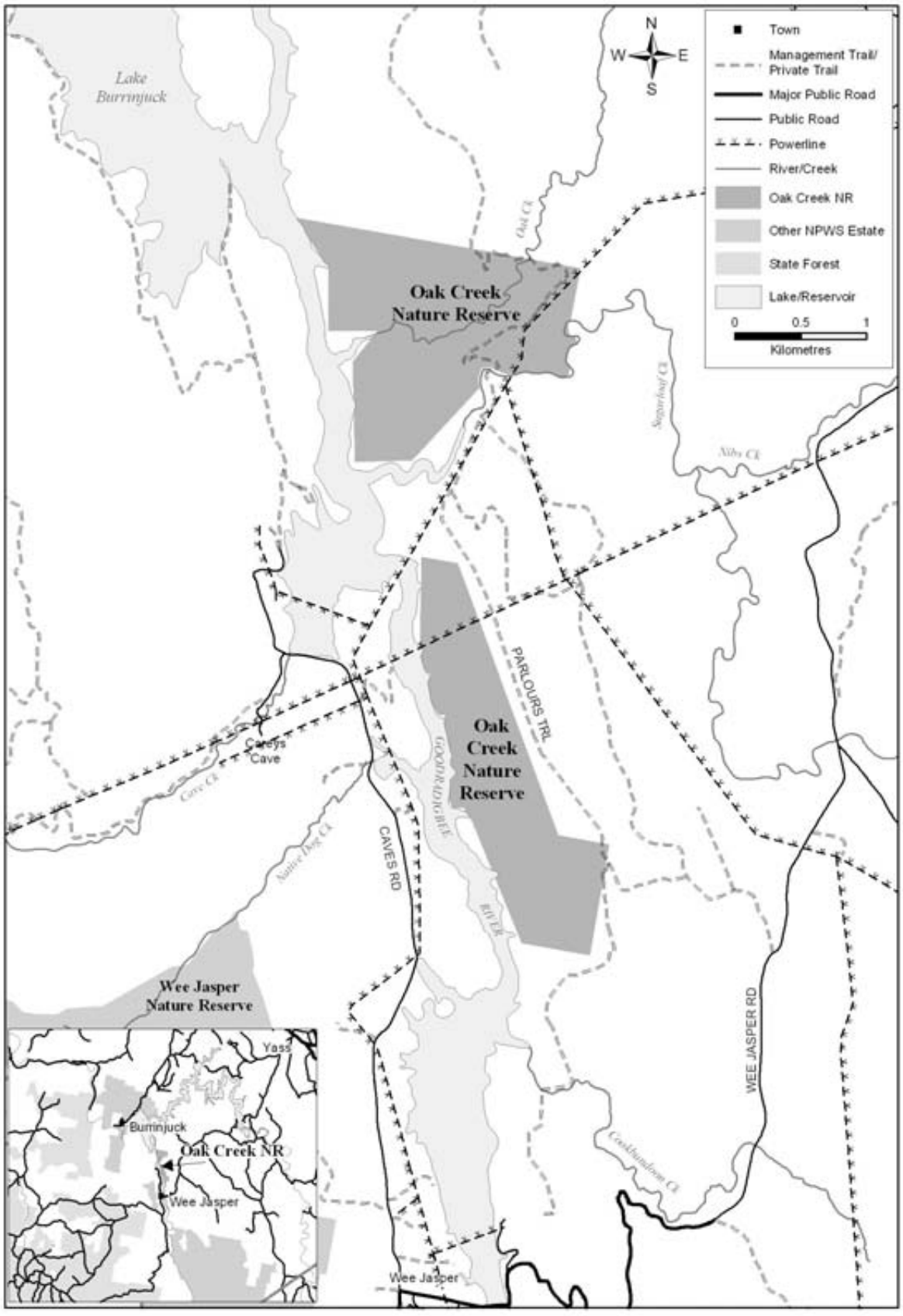
The Southern Region Regional Forest Agreement of 2000 covers the planning area. The process leading up to the RFA provided for major additions to the reserve system, including the establishment of Oak Creek Nature Reserve.

2.4 Management Directions

Management of Oak Creek Nature Reserve will focus on maintaining and enhancing the diversity of the dry sclerophyll forest communities that occur on the South West Slopes and are conserved in the reserve. Within Oak Creek Nature Reserve these are:

- Apple and Norton's box moist grass forest;
- Brittle gum and broad-leaved peppermint forest with a poa grass understorey;
- Norton's box forest with a poa grass understorey;
- River oak forest; and
- Grassy white box woodland.

RESERVE MAP


N
W
E
S
Town
Management Trail/ Private Trail
Major Public Road
Public Road
Powerline
River/Creek
Oak Creek NR
Other NPWS Estate
State Forest
Lake/Reservoir
0
0.5
1
Kilometres
Lake Burrinjuck
Oak Creek Nature Reserve
Oak Creek Nature Reserve
Wee Jasper Nature Reserve
PARLOURS TRL
CAVES RD
WEE JASPER RD
Caveys Cave
Wee Jasper
Yass
Burrinjuck
Oak Creek NR
Wee Jasper

3. NATURAL HERITAGE

3.1 Landform, Geology and Soils

The reserve is located on the eastern side of the Wee Jasper Valley. The valley is relatively broadly incised, with the valley wall rising steeply from the valley floor. Most of the reserve is on the relatively steep fall to the river from the eastern tablelands. From the eastern escarpment and a maximum elevation of 580 meters, there is a drop of nearly 200 meters on a slope averaging 30 degrees to the valley floor.

Sugarloaf Creek separates the two portions of the reserve.

The reserve has predominantly skeletal soils on Devonian lithic sandstones. Within the reserve the soils only attain a moderate depth on the alluvial flats along drainage lines. Soils are highly erodible due to the steep topography and sparse nature of vegetation cover in the area.

3.2 Native Plants

The South West Slopes bio-region of New South Wales is one of the most highly disturbed and altered landscapes in NSW (Gibbons & Boak, 2002). Given the history of clearing, burning, cropping and grazing in the region, all remaining areas of intact remnant native vegetation are now considered significant when compared to pre-1750 vegetative coverage.

Oak Creek Nature Reserve conserves 5 distinct forest ecosystems (See Table 1). These range from a very small reservation of river she-oak *(Casuarina cunninghamiana)* forest along Oak Creek, through to mixed box forests along the ridge. These box forests include white box grassy woodland containing white box (*Eucalyptus albens*), yellow box (*E. melliodora*); apple box-Norton's box moist forest with Norton's box (*E. nortonii*) and red box (*E. polyanthemos*). On the western slopes there is Wee Jasper Norton's box poa grass forest that includes long-leaved box (*E. goniocalyx*), white gum (*E. rossii)* and red stringybark (*E. macrorhyncha)*.

Soil quality and landform determine the distribution of these communities across the reserve. For example, the more fertile alluvial soils along the creek lines support stands of river she-oak, while the Norton's box is found on the poorer skeletal soils of the western slopes. The northern portion of the reserve has a more complex landform with variation in aspect and slope and supports all 5 communities. The southern portion is wholly on a westerly aspect and supports only the Wee Jasper Norton's box forest type. The lands surrounding the reserve have been extensively cleared for agriculture, although areas of reasonably intact remnant native vegetation persist on private properties adjoining the reserve. Of particular note are the grassy white box woodlands that extend from the reserve into private property to the north of the reserve, and are found in small, high quality remnants on the grazing lands east of the reserve.

The reserve is important due to its high diversity of native vegetation and low infestations of exotic species.

Table 1 shows the major vegetation types and their environmental niches within the reserve.

Description	Lithology and Soils	Environmental Niches
Apple box-Norton's box moist grass forest	Moderate loams derived from granite	On eastern facing slopes in the northern portion of the reserve
White box grassy woodland	Moderate clay loams on Devonian metasediments	Moderately steep slopes on less eroded ridges
Brittle gum-broad-leaved peppermint poa grass forest	Shallow soils on Devonian metasediments	Moderately exposed slopes
Wee Jasper Norton's box poa grass forest	Shallow soils on Devonian metasediments	Western slopes, predominantly the southern portion of the reserve.
River she-oak forest	Alluvium in third order streams	Lower parts of Oak Creek and Sugarloaf Creek

Source: EcoGIS 2004

Table 1: Forest Ecosystems found in Oak Creek Nature reserve

The grassy white box woodlands are regarded as a component of the White Box-Yellow Box-Blakely's Red Gum Woodland that is listed as an *Endangered Ecological Community* under the TSC Act. Less than 4% of box-gum woodlands remain on the South West Slopes of NSW when compared to pre-European settlement coverage (NPWS, 2003). Box-gum woodlands are very important for providing habitat for a variety of native fauna, particularly threatened, rare or declining woodland species such as gliders, parrots, owls and bats. The combination of grazing, fire and other land uses has reduced the grassy ground cover component of this community in the area.

Under TSC Act, recovery plans may be prepared for threatened species and communities. These will be used to guide management of threatened species or communities in the area. In addition, adjoining landholders will be supported in any application to place a voluntary conservation order over any lands supporting grassy white box woodlands.

3.3 Native Animals

A detailed fauna survey of the reserve has not yet been undertaken. Observations in the reserve and surveys of nearby reserves have recorded over 50 species of birds, including 4 species of raptors, 18 native mammal species and 4 reptile species.

Threatened fauna that have been identified within 10 kilometres of the reserve include the brown tree creeper *Climacteris picumnus*, diamond firetail *Stagonopleura guttata*, hooded robin *Melanodryas cucullata*, regent honey eater *Xanthomyza phrygia,* powerful owl *Ninox strenua* and the eastern bent-wing bat, *Miniopterus schreibersii oceanensis.*

The reserve provides potential habitat for the squirrel glider *Petaurus norfolcensis*, brush-tailed phascogale *Phascogale tapoatafa* and nectivorous bird species associated with box communities such as the painted honeyeater *Grantiella picta* and swift parrot *Lathamus discolor*.

Oak Creek and Sugarloaf Creek are water courses that, except during periods of extreme drought, hold water. These creeks may provide habitat for the threatened booroolong frog, *Litoria booroolongensis.*

4. CULTURAL HERITAGE

4.1 Aboriginal Heritage

Aboriginal communities have an association and connection to the land. Biodiversity values within a landscape are central to Aboriginal spirituality and contribute to Aboriginal identity. Aboriginal communities associate natural resources with the use and enjoyment of foods and medicines, caring for the land, passing on cultural knowledge and strengthening of social bonds. Aboriginal heritage and nature are inseparable from each other and need to be managed in an integrated manner across the landscape.

The reserve is within the area of the Tumut-Brungle Local Aboriginal Land Council and is on the border of Wiradjuri and Ngunnawal Country.

NPWS carried out limited survey for Aboriginal sites along the roads in the reserve during 2002. This survey did not reveal any artefacts or sites. Advice from the community has indicated that further survey work along the creek lines, crossings and riverbanks are likely to prove more fruitful.

Consultation with local Aboriginal communities has identified strong links with the Wee Jasper valley. Since European settlement these are associated with families having worked in the valley as Aboriginal trackers, boundary riders, station hands, and to undertake land clearing for property owners in keeping with the policies of that time. The Wee Jasper valley is also located on the route between Brungle and the Yass Mission. There was a regular movement of people between the two locations. The displacement of the Aboriginal peoples and the culture of assimilation has led to the loss of much knowledge about specific sites and their significance.

Further research is required to identify the key cultural values in the reserve and its place in the landscape

4.2 Non-Aboriginal Heritage

A desktop survey for European cultural heritage by Dearling in 2003, did not identify any non-Aboriginal heritage items or features in the reserve and none have been found by staff to date. Past European land uses of this area were for grazing, timber gathering and as water reserves.

5. THREATS TO RESERVE VALUES

5.1 Introduced Plants

An introduced plant species is defined in this plan as any plant species not endemic to the reserve. Introduced species within the reserve and on adjoining land are of concern because they have the potential to have detrimental effects on ecological values and can spread to and from neighbouring land. The *Noxious Weeds Act 1993* places an obligation upon public authorities to control noxious weeds on land that they occupy to the extent necessary to prevent such weeds spreading to adjoining lands. The NPWS also has a priority to control environmental weeds (not necessarily declared noxious) which threaten natural habitats.

The NPWS South West Slopes Region Pest Management Strategy (2004) identifies priority pest species and programs for action. Control programs have been commenced in the reserve since gazettal to control Paterson's curse *Echium plantagineum*, St. John's wort *Hypericum perforatum,* sweet briar *Rosa rubiginosa,* blackberry *Rubus fruticosus*, and serrated tussock *Nassella trichotoma.*

5.2 Introduced Animals

An introduced animal species is defined in this plan as any animal species not native to the reserve. Introduced animals may impact upon native fauna populations through predation or competition for food or shelter. Pest animals in and around the reserve include goats, rabbits, cats, wild dogs and pigs. In addition, sheep from neighbouring properties continue to enter and graze the reserve. Grazing of sheep leads to a marked decrease in biomass, a decrease in diversity of plant species and nutrification of soils where they camp overnight. All introduced species are managed in accordance with the actions listed in the Regional Pest Management Strategy.

Due to the small size and fragmented nature of the reserve, the control of pest animals is best achieved through cooperative programs with neighbours and Rural Lands Protection Boards. NPWS involvement in these programs will be given a priority as any cooperative programs in this area will complement the existing cooperative wild dog and fox control programs in the Brindabella and Wee Jasper valleys and in the nearby Burrinjuck Nature Reserve.

5.3 Fire

Fire is a natural feature of many environments and is essential to the survival of some plant communities. Inappropriate fire regimes, however, can lead to loss of particular plant and animal species and communities. Fire can also damage cultural heritage, recreation and management facilities and can threaten visitors and neighbouring land.

There is only one recorded wildfire within the reserve. This occurred in 2003 and burnt through most of the northern section. Both sections of the reserve have had limited hazard reduction burns carried out since 1982. Modelling of the fire thresholds for the white box grassy woodland indicates that another fire before 2013 is likely to lead to a loss of diversity within this area.

The southern section is reported to have been burnt in hazard reduction burns 4 times since 1982. This section of the reserve is forested by a Norton's Box community which has an optimal threshold for fire frequency of between 15 and 60 years. The last fire in this section was in 1994 and therefore the exclusion of fire from this community will be a priority until at least 2010. There is no ecological requirement for the introduction of fire into the reserve until 2050.

There are no high value assets, such as residences or sheds, adjacent to the reserve that would be immediately at threat from fire leaving the reserve. Assets that are at risk include private agricultural grazing land and associated facilities such as fences. The boundary trail that runs along the eastern edge of both portions of the reserve, and passes through private property as well as the reserve, is the strategic advantage protecting these assets. NPWS will maintain this trail in cooperation with the neighbouring landholders.

The NPWS uses a zoning system for bushfire management in NPWS reserves. NPWS zones are compatible with the system adopted by the Bushfire Coordinating Committee for use in District Bushfire Management Committee (DBFMC) Bushfire Risk Management Plans.

NPWS maintains cooperative arrangements with surrounding landowners and Rural Fire Service (RFS) brigades and is actively involved in the Southern Tablelands Zone Bush Fire Management Committee. Cooperative arrangements include approaches to fuel management, support for neighbours fire management efforts and information sharing.

A separate map-based Fire Management Strategy will be developed for the reserve by the end of 2006 in accordance with the NPWS Fire Management Strategy (NPWS, 2003). It will include an operations map.

5.4 Climate Change

Climate change has been listed as a key threatening process under the *Threatened Species Conservation Act 1995*. Projections of future changes in climate for NSW include higher temperatures, elevated CO_2, more intense but possibly reduced annual average rainfall, increased temperature extremes and higher evaporation. These changes are likely to lead to greater intensity, duration and frequency of fires, more severe droughts and increased regional flooding.

Climate change may significantly affect biodiversity by changing population size and distribution of species, modifying species composition, and altering the geographical extent of habitats and ecosystems. Species most at risk are those unable to migrate or adapt, particularly those with small population sizes or with slow growth rates. The potential impact of climate change is difficult to assess since it depends on the compounding effects of other pressures, particularly barriers to migration and pressure from weeds and feral animals. Programs to reduce pressures arising from such threats will help reduce the severity of the effects of climate change

6. PUBLIC USE

There are no visitor facilities in the reserve and there are no trails that provide public access to the reserve boundary. There is 'The Parlours' trail on the eastern side of the reserve that has been upgraded for management operations.

Use of the reserve for recreation has been limited to unofficial camping along the foreshores by users of the Burrinjuck Dam, however recent low water levels have discouraged this use. Limited sheep grazing occurred in the reserve prior to gazettal, and sheep still enter the reserve due to a lack of adequate boundary fencing in the northern portion of the reserve. These fences were damaged in the 2003 fires and, where practical, have been replaced. Where the fence has not been replaced it is generally in a poor state of repair. Negotiations with landholders are continuing and options for controlling movement of stock are being investigated.

7. MANAGEMENT OPERATIONS

Boundary fences are not all constructed on the reserve boundary. An area of between 150 and 200 hectares of private land from three adjoining properties is currently fenced into the reserve. An area of nature reserve (40 hectares) is also fenced into private property.

8. REFERENCES

Brooker and Kleinig, (1990). *Field guide to Eucalypts Volume 1.* Inkata Press, Melbourne Australia.

Dearling C. (2003) *Preliminary European Cultural Heritage (Desktop) Study of selected reserves in South West Slopes Region.* Unpublished report to the NPWS.

EcoGIS. 2004. *Mapping of Vegetation Ecosystems in New and Existing Conservation Reserves, NPWS, SWS Region*. Unpublished report to NPWS.

Gibbons, P. & Boak, M. 2002. *The value of paddock trees for regional conservation in an agricultural landscape*. Ecological Management and Restoration *in press*.

Grabham, C. 2003. *Systematic and targeted fauna surveys of NSW NPWS nature reserves within the south-west slopes of NSW.* Unpublished report to NPWS

NSW NPWS, 2002. *White Box-Yellow Box-Blakely's Red Gum (Box-Gum) Woodland: Fact Sheet for NSW*

NSW NPWS. 2003. *NPWS Fire Management Strategy*. Hurstville

NSW NPWS. 2004. *South West Slopes Regional Pest Management Strategy*. Unpublished report for NPWS South West Slopes Region.

Oak Creek Nature Reserve Catchment Management Authority map number: 8627 4 N

9. MANAGEMENT ISSUES AND STRATEGIES

Current Situation	Desired Outcomes	Strategies	Priority
Soil and water conservation			
Soils in the reserve are skeletal, and prone to erosion when ground cover is disturbed.	Soil erosion is minimised.	Undertake all road works in a manner that minimises erosion and water pollution.	High
All the drainage lines, including Oak Creek and Sugarloaf Creek, flow into the Goodradigbee River and the upper reaches of Burrinjuck Dam.	Water quality is maintained.	Monitor any erosion resulting from the 2003 fires. Take remedial action if necessary.	Low

Current Situation	Desired Outcomes	Strategies	Priority
Native plant and animal conservation			
The reserve contains grassy white box woodland remnants, which are listed as an endangered ecological community under the TSC Act.	All native plant and animal species and communities are conserved.	Monitor vegetation recovery following 2003 fires and commence photo-point monitoring at 2 yearly intervals using established survey sites.	High
The reserve was used for grazing of sheep prior to gazettal in 2001. Poor fences in the northern section have not excluded stock and grazing by sheep is still having an impact.	Structural diversity and habitat values are restored in areas subject to past disturbance.	Work with neighbours to erect, repair and, if necessary, replace boundary fences to exclude domestic stock from the reserve.	High
No fauna survey has been undertaken in this reserve, however 6 species which are listed as vulnerable under the TSC Act have been identified within 10 kilometres of the reserve. The reserve contains potential habitat for other threatened species.	The reserve is kept free of domestic stock.	Encourage further survey work for threatened plant and animal species.	High
		Implement measures included in recovery plans for threatened species when prepared.	High
Surrounding lands provide similar habitat for a number of native species. Protection of habitat values of this land is important in conserving species.		Work with neighbours and catchment management authorities to encourage conservation of remnant native vegetation in the vicinity of the reserve, particularly the conservation of the grassy white box woodland remnants.	Medium

Current Situation	Desired Outcomes	Strategies	Priority
Introduced species Weeds present in the reserve include Paterson's curse, St. John's wort, serrated tussock, blackberry and sweet briar. Other weeds of concern include exotic grasses such as Chilean needle grass, African love grass, phalaris and cocksfoot. While these plants are not regarded as noxious weeds, they have a high potential to invade grassy ecosystems and reduce abundance of native grass and herb species. Weed control programmes have been implemented since the reserve was gazetted in 2001. Pest animals include goats, rabbits, cats, foxes, wild dogs and pigs.	The impact of introduced species on native species and neighbouring lands is minimised.	Continue to control introduced plant and animal species. Priority will be given to the control of St John's wort, serrated tussock and Paterson's curse. Monitor noxious and significant environmental weeds such as Chilean needle grass and African love grass. Treat any outbreaks. Seek the cooperation of other authorities and neighbours in implementing weed and pest animal control programs. Participate in cooperative wild dog and fox control programs outside the reserve where these meet the objectives of the broader community and are demonstrated to have low impacts on native fauna.	Medium High High High

Current Situation	Desired Outcomes	Strategies	Priority
Fire management Fire is a natural occurrence in the Australian environment. However, too frequent fire can cause the loss of particular plant and animal species and communities. The northern section of the reserve was burnt by wildfire in 2003. The southern portion was last hazard reduced in 1994. Fire trails in the reserve will be maintained to a Secondary Fire Trail standard	Life and property as well as and natural and cultural values are protected from bushfire. Fire regimes are appropriate for conservation of plant and animal communities. Cultural features are protected from damage by fire.	Continue to participate in the Southern Tablelands Zone Bush Fire Management Committee. Maintain coordination and cooperation with Rural Fire Service fire control officers, brigades and neighbours with regard to fuel management and fire suppression. Prepare a fire management strategy including a fire operations map for the reserve by the end of 2006 Fire management guidelines for maintaining biodiversity and cultural values within the reserve will include: • Contain fires to as small an area as possible, to preserve a diversity of fire age classes in the reserve • If fires cannot be contained, attempt to reduce the intensity of fires by using various techniques • Maintain as much of the reserve as possible in as old a fire age class as possible • Monitor impacts of fire regimes and modify if significant loss of understorey diversity is observed. The trail system in the reserve will be maintained to a 4WD Secondary Fire Trail standard.	High High High High

Current Situation	Desired Outcomes	Strategies	Priority
Cultural heritage A desktop survey of European cultural heritage was undertaken in early 2003. The study found no European heritage sites in the reserve. Aboriginal surveys have been limited to a preliminary survey prior to fire trail maintenance in which no sites were identified. The major threats to Aboriginal archaeological material in the reserve are: • activities that impact on trails (including maintenance, vehicle movement, trail bike and 4WD use), and • erosion (particularly at creek crossings). Consultation with the local Aboriginal community has identified a number of Aboriginal sites both on and off park in the area.	Cultural features are conserved and managed in accordance with their significance.	Precede all ground disturbance work by a check for cultural features. Any works undertaken will incorporate appropriate conservation measures to mitigate impacts on cultural heritage. Consult and involve the Tumut Brungle Local Aboriginal Land Council and other relevant Aboriginal stakeholders in all aspects of management of Aboriginal sites, places and values, including the interpretation of Aboriginal sites and values. Survey work will be undertaken to identify potential Aboriginal sites within the reserve. A cultural heritage survey of the Wee Jasper valley, including recording of oral histories will be supported.	Medium Medium Medium Medium Medium

Current Situation	Desired Outcomes	Strategies	Priority
Visitor use Previous use of the reserve has been for grazing, firewood collection and camping on the Goodradigbee River in the upper reaches of Burrinjuck Dam. Access to this reserve is either by boat or through private property. Visitor use of this reserve is minimal.	The local community is aware of the significance of the area and of management programs. Visitor use is ecologically sustainable.	Public use of the reserve will not be encouraged, and any use will be limited to day walks and educational visits. No facilities will be provided and no solid fuel (wood) fires permitted. Access into the reserve through private property will require the owners consent for each visit, which can be refused. Interpretive information on the values of the conservation reserves in Wee Jasper valley will be prepared for local distribution. Exclude vehicular access except for essential management requirements of the reserve. Prohibit camping, trail bike riding and horse riding. Monitor levels and impacts of use.	High High Low High High Medium

Current Situation	Desired Outcomes	Strategies	Priority
Research Research in the natural and cultural values of the reserve has been limited to vegetation mapping and post-fire monitoring of vegetation recovery and response. Additional research on threatened species and Aboriginal heritage will better inform management of this reserve.	Research enhances the management information base and has minimal environmental impact.	Support and encourage research into Aboriginal values of the reserve as well as more broadly in the Wee Jasper valley, including recording of oral histories. Support and encourage research into threatened species, particularly the Booroolong frog.	Medium Medium
Management operations The reserve is accessed through private property and along The Parlours trail. This access satisfies management and operational needs such as weed and feral animal control, fire suppression and access for research and survey purposes. Some boundary fencing is not situated on the nature reserve boundary. An area of between 150 and 200 hectares is fenced into the nature reserve, and 40 hectares of nature reserve is fenced out of the nature reserve.	Management facilities adequately serve management needs and have acceptable impact.	The Parlours trail along the eastern boundary, both in and adjacent to the reserve, will be maintained as a secondary fire trail. Consult with neighbours about future management of the lands fenced both in and out of the reserve. Land tenure remains as per gazettal. Relocate the boundary fence to include the area of nature reserve that is excluded. Investigate the possibility of changing the name of the nature reserve from Oak Creek to The Parlours.	High High Low High

High priority activities are those imperative to achievement of the objectives and desired outcomes. They must be undertaken in the near future to avoid significant deterioration in natural, cultural or management resources.
Medium priority activities are those that are necessary to achieve the objectives and desired outcomes but are not urgent.
Low priority activities are desirable to achieve management objectives and desired outcomes but can wait until resources become available.