NSW NATIONAL PARKS & WILDLIFE SERVICE

Kemps Creek Nature Reserve

Plan of Management

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Cover photo: Alluvial Woodland, Kemps Creek Nature Reserve. Darren Roberts

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How to use this plan

This plan of management directs the management of Kemps Creek Nature Reserve. This plan includes a scheme of operations consistent with section 72AA of the *National Parks and Wildlife Act 1974*. Once the plan is adopted, no management operations can be undertaken that are not consistent with the plan and its scheme of operations. This plan will also apply to any future additions to Kemps Creek Nature Reserve.

Sections 1 to 6 of the plan summarise the park's key values, management principles and management considerations. These matters are outlined thoroughly in the Kemps Creek Nature Reserve Planning Considerations report.

It is recommended that readers of the plan refer to the planning considerations report for detailed explanations of the park's values and management considerations.

The scheme of operations (Section 6) is the core part of this plan. It describes the desired outcomes for the park's values and actions that National Parks and Wildlife Service (NPWS) proposes to undertake to achieve these outcomes.

The park use regulations tables (Section 7) set out the recreational and commercial activities that are permitted in the park and any requirements to undertake these activities, including whether consent must be sought from the NPWS to undertake them.

Acknowledgments

Kemps Creek Nature Reserve is within the land of the Cabrogal People of the Darug Nation.

This plan of management was prepared by staff of NPWS.

Contact us

For more information about this plan of management or Kemps Creek Nature Reserve, contact the NPWS Cumberland Area at npws.cumberland@environment.nsw.gov.au; Scheyville Road, Scheyville NSW 2756; or by telephone on 02 4580 2750.

Acknowledgment of Country

The park covered in this plan is part of an ancient landscape which includes the Aboriginal people. The area now known as Kemps Creek Nature Reserve, and the surrounding lands and watercourses, have traditionally been under the care of the Cabrogal People of the Darug Nation. Aboriginal people have a deep spiritual and cultural connection to this Country. Their ancestors have lived here for thousands of years and, in doing so, form part of this living landscape.

Connections to Country and the significance of this park to Aboriginal peoples — past, present and future — are acknowledged and respected in this plan. The role of Aboriginal people in identifying traditional connections and custodians for this place is acknowledged and supported.

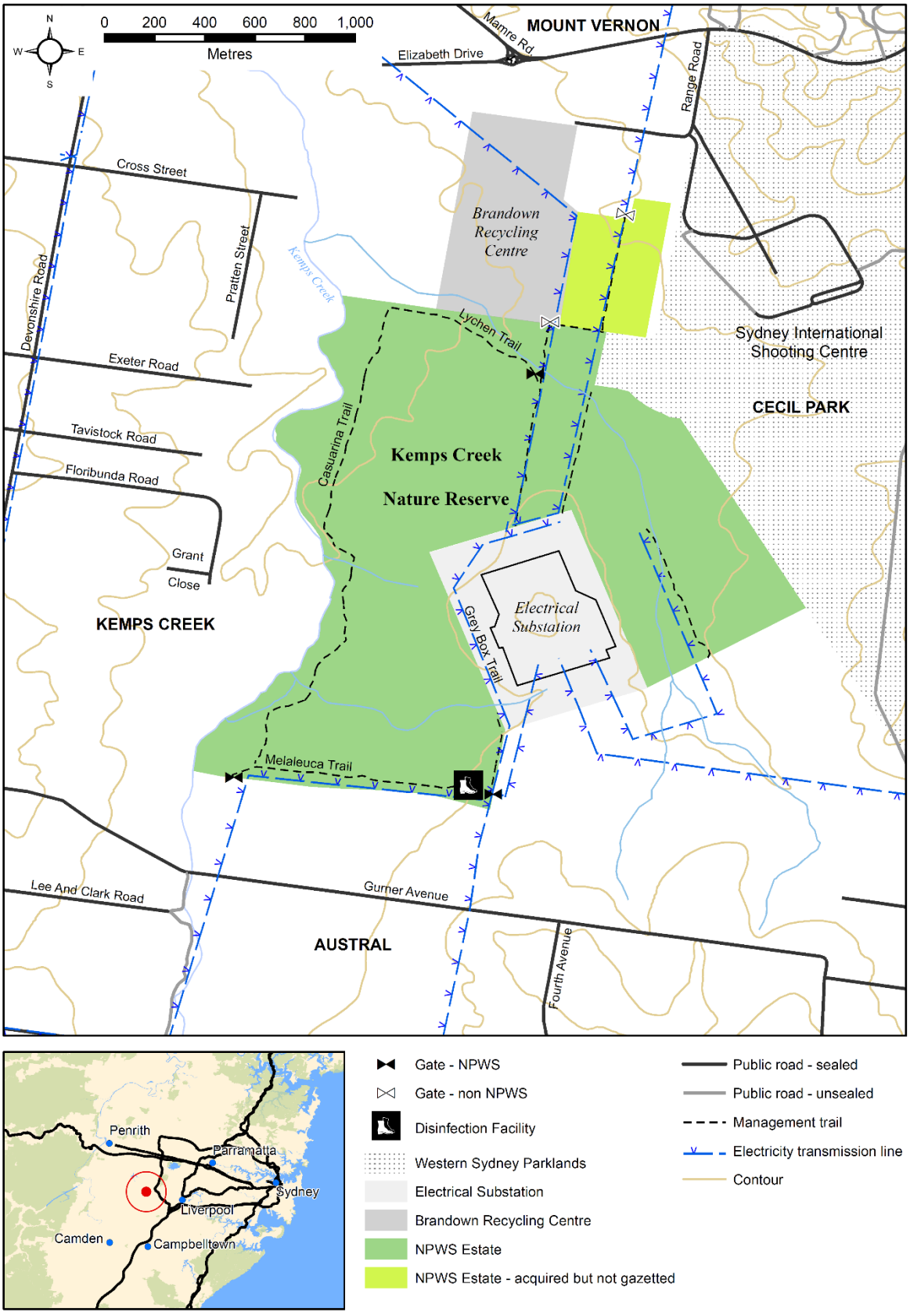

Figure 1 Map of Kemps Creek Nature Reserve

Kemps Creek Nature Reserve

Kemps Creek Nature Reserve is located in south-west Sydney in the suburb of Cecil Park, approximately 12 kilometres west of Liverpool. See Figure 1. The park covers 197 hectares. The lands to the south of the park are used for mixed purposes, including market gardening and horticultural enterprises, and are being progressively developed for low-density residential housing. The urbanisation of these surrounding lands poses a significant and ongoing challenge to the conservation of the natural values of the park.

Why this park is important

Kemps Creek Nature Reserve is part of the Western Sydney Parklands, an open space corridor of over 5000 hectares stretching from Quakers Hill in the north to Leppington in the south.

The park contains vegetation communities, ecosystems and habitats once widespread within Western Sydney and is a good example of the southern Wianamatta Shale vegetation communities, particularly those associated with low-lying creek habitats. It includes areas of Cumberland Plain Woodland critically endangered ecological community, and three endangered ecological communities: Shale Gravel Transition Forest, River-flat Eucalypt Forest on Coastal Floodplains and Castlereagh Swamp Woodland.

The park supports a range of native animals and provides one of the best remaining examples of woodland bird communities in Western Sydney. Eight threatened animal species and one threatened plant species have been recorded in the park.

Table 1 The park and its regional setting

Features	Description
Area	197 hectares
Reservation date	7 March 2003
Previous tenure	Private property purchased by the Department of Planning
Biogeographic region	The park lies on the Cumberland Plain within the Sydney Basin Bioregion

Management principles

Development of the objectives, actions and regulations in this plan has been directed by the management principles outlined in the *National Parks and Wildlife Act 1974*.

The National Parks and Wildlife Act requires that a nature reserve be managed to:

- conserve biodiversity, maintain ecosystem function, 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 nature reserve's natural and cultural values
- provide for appropriate research and monitoring.

1. Protecting the natural environment

Kemps Creek Nature Reserve provides an extremely important habitat corridor in Western Sydney. The park is recognised in the *Western Sydney Parklands Plan of Management 2030* as a conservation and ecological resource for the parklands and the broader Western Sydney community, and as a vital link in conserving and maintaining the parklands' ecological corridor. Given the park's regional context, it is important that National Parks and Wildlife Service (NPWS) continues to work collaboratively with other land managers on initiatives that will benefit park values and improve park connectivity.

The park contains significant biodiversity values. The mapped vegetation types that occur in the park are all components of threatened communities listed under both state and Commonwealth legislation, including the critically endangered Cumberland Plain Woodland. This threatened community has a recovery plan to help ensure the long-term survival and protection of the threatened biodiversity that are found only on the Cumberland Plain.

The park contains 103 native plant and 105 native animal species, including one threatened plant species, *Dillwynia tenuifolia*, which is listed as vulnerable under the *Biodiversity Conservation Act 2016.* Eight threatened animal species have been recorded in the park, including the endangered Cumberland Plain land snail. The park also contains one of the best remaining examples of woodland bird communities within Western Sydney. The park provides valuable habitat for native animals in a landscape where suitable habitat is limited and fragmented.

Photo 1 Flame robin (male), a threated bird recorded in the park. Lachlan Copeland/DPE

Kemps Creek forms the western boundary of Kemps Creek Nature Reserve and the park occupies part of the floodplain of Kemps Creek. Other drainage lines also run through the park and, after heavy rain, the soils can remain waterlogged for extended periods. The soils are highly erodible, and stream bank erosion is common in these areas. In addition, the moist soil conditions and warm temperatures aid the growth and reproduction of the soil-borne pathogen, phytophthora. Phytophthora infects many plant species and may contribute to plant death where other stresses are present, such as waterlogging, drought or wildfire. It is readily dispersed in flowing water and by vehicles, animals and walkers.

The water quality of Kemps Creek is poor due to stormwater runoff, which can contain weeds, pathogens, phosphates and other nutrients, as well as litter and industrial waste. Pollution of Kemps Creek and the riparian corridor caused by illegal dumping of rubbish, building materials and chemicals also occurs. Future urban development adjacent to the park is likely to change the creek's hydrology and will potentially impact the frequency and duration of inundation events as well as water quality. The vegetation in the park requires regular inundation events because it supports microflora of mosses, lichens and fungi. Collaboration with neighbours and other agencies responsible for catchment management is essential to maintain catchment conditions and the water quality of Kemps Creek.

Photo 2 Kemps Creek, Kemps Creek Nature Reserve. Darren Roberts

The natural values of the park are threatened by feral predators and pest animals and degradation or loss of habitat caused by weeds. Other threats include fragmentation by existing infrastructure and illegal access.

Over the longer term, the biodiversity values of the park are at risk of geographic and biological isolation through loss of habitat connectivity with surrounding natural vegetation and other protected landscapes. Development of the areas immediately surrounding the park will increase this risk. Reserving or managing adjacent natural areas to improve habitat connectivity and capture poorly reserved threatened ecosystems and species is a priority for the park. Monitoring of the condition of vegetation communities and native animal habitats needs to be undertaken to improve our understanding of the impact of emerging threats to

the natural values of the park. Native plant and animal species surveys will improve our knowledge of species diversity and abundance.

Climate change presents a risk to the biodiversity values of the park through increased flooding, wildfires and vulnerability to the impacts of weeds. Landscape-scale actions are the most effective way to reduce the impacts of climate change. Park-based weed, fire and pest management activities can contribute to these landscape-scale actions by protecting the park's important plant communities and animal species.

2. Looking after our culture and heritage

The park is within the land of the Cabrogal People of the Darug Nation, whose cultural boundaries are defined by landscape features and patterns of traditional use on Country.

The reliable water supply and frequent flooding of the park suggest that Aboriginal people would have visited this area to hunt and gather, and they also are likely to have lived in and around the area. A small number of Aboriginal sites have been recorded within the park and a much larger number recorded nearby.

The cultural heritage values of the park are not well documented and it is likely that the integrity of sites may have been impacted by past land uses. Aboriginal sites can be quite inconspicuous in the landscape and can easily be damaged or destroyed by activities such as illegal four-wheel drive (4WD) vehicles and motorbike access, and arson.

Opportunities exist to develop a stronger relationship with Aboriginal groups that have connections to the park. These opportunities could be realised by supporting Aboriginal people to exercise traditional responsibilities to care for Country and pass on cultural traditions and kinship to maintain their connection to the park. Recording and managing sites in cooperation with the Aboriginal community is an important management priority.

Kemps Creek and other watercourses in the area attracted European immigrants, and the first land grants were made in 1805. The area around Kemps Creek was used for farming and timber-getting by immigrants and remained sparsely populated throughout the 19th century. The area was later cleared for agricultural pursuits, including market gardening. There are no known historic heritage features within the park. Historic heritage features identified in the future will be recorded and managed consistent with their significance.

3. Providing for visitor use and enjoyment

The primary purpose of nature reserves is to conserve ecosystems, species, communities or natural phenomena. Research, educational use, nature study and enjoyment are appropriate uses where they do not conflict with conservation. Due to its strong focus on conservation values, there are no visitor facilities provided in Kemps Creek Nature Reserve.

The park provides unique opportunities for research that could contribute to improved management of remnant vegetation communities and greater understanding of the impacts and control of phytophthora in the park. NPWS will continue to encourage environmental research in the park to improve our understanding of the park's values and park management outcomes.

Photo 3 Australian Botanic Garden Mount Annan staff on a site inspection at Kemps Creek Nature Reserve. Lyndal Kaye/DPE

As the surrounding land is developed, there will be increasing pressure on green space in the area. The significant natural values of the park are promoted as part of the broader *Western Sydney Parklands Plan of Management 2030*. NPWS will look for opportunities for park neighbours and the local community to learn about and gain a greater awareness of the park's role in protecting threatened ecological communities and as valuable habitat for fauna species.

The park is currently closed to public access due to the significant risk of phytophthora spreading further within the park or beyond the park. In the immediate future, public access will continue to be restricted with research and educational opportunities supported under defined phytophthora protocols. In the medium to long-term NPWS will investigate opportunities for controlled public access to the park in ways that mitigate the spread of phytophthora, including options for providing appropriate infrastructure that link the bushland corridor in the Western Sydney Parklands. The installation of information, raised viewing platforms, trails and/or board walks would allow visitors to experience and appreciate park values whilst promoting appropriate behaviours. These actions, together with compliance activities will manage the risk of spreading phytophthora and minimise illegal activities, such as motor bike riding. Any infrastructure would need to be appropriate to the setting and designed for low impact use and subject to further planning and environmental impact assessment processes.

There currently is no public road access into the park. NPWS will seek to secure legal and practical access to the park to provide for management and public access needs, including undertaking discussions with neighbouring landholders to resolve access issues. If the park is opened to the public, the existing management trails (see Figure 1) would provide potential opportunities for bushwalking. The management trails may require upgrading to limit environmental impacts, and appropriate signage will be required to notify the public about the risks of spreading phytophthora in the park.

The park use regulations tables in Section 7 set out the recreational and other activities that are permitted in the park and any requirements to undertake these activities.

4. Park infrastructure and services

All management trails in the park are used for authorised purposes such as control of introduced species, fire management, research and managing non-NPWS assets. The management trails are in good condition, but regular maintenance is required as the trails are prone to erosion with deep holes and ruts appearing after flooding events.

Photo 4 Management trail, Kemps Creek Nature Reserve. Darren Roberts

The park is fenced around the boundary and boundary gates are installed in a number of locations to assist with managing access to the park and to minimise rubbish dumping. Unauthorised access to the park and damage to fences and gates are ongoing challenges.

5. Non-park infrastructure and services

The park contains infrastructure and other assets owned and operated by other organisations, including electricity transmission lines (see Figure 1).

Agreements, easements, leases and licences ensure that the operation and maintenance of non-NPWS infrastructure and use of the park by third parties minimises impacts on the environment and on NPWS operations.

6. Scheme of operations

The scheme of operations in Table 2 is consistent with section 72AA of the National Parks and Wildlife Act. It details the desired outcomes for the park's values, and the actions that NPWS proposes to undertake to achieve these outcomes. Actions in the scheme of operations may contribute to more than one desired outcome (such as threat mitigation), but to avoid repetition actions are only listed once against the most significant outcome.

A management priority has been assigned to each action to guide the allocation of resources.

- Very high – Loss or significant decline in the condition of the park value is likely if action is not taken or significant improvement in the condition of the value is likely if action is taken
- High – Decline in the condition of the park value is likely if action is not taken or improvement in the condition of the value is likely if action is taken
- Medium – Some decline in the condition of the park value is possible if action is not taken or some improvement in the condition of the value is possible if action is taken
- Low – While decline in the condition of the park value is not likely in the short term, the action would help build the long-term resilience of the park value.

NPWS's performance in meeting the park **outcomes** in the scheme of operations will be measured through periodic assessments. Performance in delivering the **actions** in the scheme of operations will be measured through regular audits of plans of management.

The scheme of operations sets strategic goals that may include the development and delivery of subsidiary plans. Subsidiary plans enable adaptive responses to new information or changed circumstances, such as for pests, weeds, fire and recreational activities, as required by NPWS policy. Assessments of performance and reviews will be used to inform adaptive management in these subsidiary plans as well as any required adjustments and improvements to future plans of management for the park.

Conservation action plans will be prepared and implemented to manage and monitor assets of intergenerational significance declared under the National Parks and Wildlife Act.

The implementation of actions set out below may be subject to statutory responsibilities under the National Parks and Wildlife Act and other relevant state and Commonwealth legislation, including environmental impact assessments and approvals. Further community consultation on the proposed actions may be undertaken as part of these processes.

Information on recreational or other activities that are permitted in the park is provided in the park use regulations tables in Section 7. More detailed information on other activities is available on the NPWS website.

Table 2 Scheme of operations

Park outcomes	Management actions	Priority
Protecting the natural environment		
1. Connectivity of the park to regional open spaces and reserves is maintained	a. Work collaboratively with state and local government land managers to improve park connectivity.	Medium
2. The condition of Kemps Creek and the riparian corridor is maintained	a. Control aquatic weeds that negatively impact water quality in Kemps Creek.	High
	b. Work with neighbours and relevant government agencies to manage threats to Kemps Creek and the riparian corridor.	Medium
	c. Prevent further soil disturbance and erosion by maintaining management trails.	High
3. Biodiversity values are maintained or improved	a. Control weeds that negatively impact the biodiversity values of the park.	Very high
	b. Minimise the spread of phytophthora within and outside the park.	Medium
	c. Manage feral predators and pest species in accordance with relevant pest management strategies.	Medium
	d. Continue working with Western Sydney Parklands Trust to improve biodiversity quality and links to the Western Sydney Parklands.	High
	e. Implement relevant actions in the *Biodiversity Conservation Program* and any conservation action plans, including actions at key management sites and recovery plans for nationally listed threatened species.	High
	f. Improve resilience to climate change impacts by managing and restoring threatened ecological communities.	Medium
	g. Manage existing and emerging threats to the vegetation communities and native animal species' habitats, including urban interface encroachment, pest animals, weeds and illegal activities.	High
Looking after our culture and heritage		
4. Aboriginal cultural values are protected and conserved in the park	a. Work with local Aboriginal groups to identify and address knowledge gaps.	Medium
	b. Protect known Aboriginal sites from damage caused by unauthorised vehicle access.	High
	c. Continue consultation with local Aboriginal groups in the assessment and management of the park's	High

Park outcomes	Management actions	Priority
	Aboriginal sites, places and cultural values.	
	d. Support Aboriginal people to manage the Aboriginal cultural values of the park, facilitate caring for Country and help to strengthen connections to Country.	Medium
5. Historic heritage values are conserved	a. Any identified historic heritage features will be recorded and managed consistent with their significance.	Medium
Providing for visitor use and enjoyment		
6. Collaborative relationships with research and educational institutions are maintained	a. Develop a research program to fill knowledge gaps relating to park values, including information on species diversity and abundance.	Medium
7. Community appreciation and awareness of park values and their conservation is improved	a. Investigate opportunities for park neighbours and the local community to appreciate and gain a greater awareness of the park's values, including volunteer activities.	Medium
	b. Investigate opportunities to allow controlled public access to the park, including the provision of walking trails to link the park to the Western Sydney Parklands.	High
Park infrastructure and services		
8. Park infrastructure adequately services management and visitor needs and has minimal environmental impact	a. Install and maintain park infrastructure, including gates and fencing, as required to protect park values.	Very high
	b. Prepare and implement a reserve access strategy to secure park access for public use and management purposes.	High
	c. Identify and seek to correct boundary errors, boundary encroachments and proposed section 188C National Parks and Wildlife Act boundary adjustments.	High
9. The impact of fire on life, property and the environment, and the potential for spread of bushfires on, from or into the park are minimised	a. Implement the park fire management strategy.	Very high
	b. Maintain cooperative arrangements with neighbours, local Rural Fire Service brigades, local councils and Local Land Services in implementing management programs for the park.	High
	c. Implement an ecological burning program based on the park fire management strategy and associated NPWS policies and procedures.	Medium

Park outcomes	Management actions	Priority
Non-park infrastructure and services		
10. Non-park infrastructure and services have minimal impact on park values	a. Liaise with utility service providers in relation to easements, maintenance needs and access to ensure compliance with legislation and established agreements and policies.	High
	b. Monitor boundary fencing and negotiate and maintain cooperative fencing agreements with relevant neighbours in accordance with NPWS policy.	Medium

7. Park use regulations

7.1 Recreational activities

The park use regulations tables set out the recreational (Table 3) and other activities (Table 4) that are permitted in the park and any requirements to undertake these activities. The park is currently closed to public access; however, research and educational activities are permitted with consent. More detailed information on activities in the park and other parks in the region is available on the NPWS website.

All activities that occur in the park are subject to relevant policies and legislation. Conditions may be applied to ensure an activity is undertaken safely and to minimise environmental risks and risks to other users. Consent may be refused after consideration of the proposed activity and its likely environmental, visitor safety and park management impacts.

Activities may be subject to operating conditions or limits from time-to-time. For example, access to parts of the park may be closed during periods of bushfire risk, bad weather or maintenance or improvement works.

Activities not shown in Table 3 may also be regulated by signage within the park or by consent.

Information regarding activities that require consent and obtaining consent is available on the NSW national parks visitor website or by contacting the relevant NPWS office (contact details at the front of this plan).

Table 3 Park use regulations – Recreational activities

	Type of activity	Allowed	Note/Exceptions
	Barbecues – portable	No	Portable gas and liquid stoves are not allowed. Solid fuel fires are prohibited.
	Camping	No	Camping is prohibited due to risks to conservation values and limited facilities and access opportunities.
	Cycling	No	
	Dog walking	No	Dogs that are not assistance animals are not permitted in nature reserves in New South Wales.
	Vehicle access	No	
	Fossicking	No	Fossicking is not permitted in nature reserves or Aboriginal places in New South Wales due to potential environmental and cultural heritage impacts.

	Type of activity	Allowed	Note/Exceptions
	Group gatherings – non-commercial (e.g. school groups)	Yes	Subject to the park being open to public access and with consent.
	Horse riding	No	
	Model aeroplanes and drones	No	
	Motorcycling and trail bike riding	No	
	Walking	Yes	Subject to the park being open to public access.
	Water-based recreation (e.g. fishing, swimming, surfing, diving and snorkelling)	No	
	Wood fires	No	

7.2 Other activities requiring approval

Events and research activities are limited in the park due to the lack of visitor infrastructure and to minimise the risk of spreading phytophthora within and outside the park. Information on relevant policies, required approvals and fees is available on the NPWS special events webpage.

Table 4 Park use regulations – Events and research activities

Type of activity	Group size	Type of approval required
Non-commercial, organised group events (e.g. volunteers, clubs, student groups)	All groups irrespective of size	Consent
Research (scientific and educational, and related to conservation or park management)	All groups irrespective of size	Consent or licence

More information

- Kemps Creek Planning Considerations
- National Parks and Wildlife Service
- NPWS special events webpage
- Privacy and security