



FLIRTATION HILL MASTER PLAN

FLIRTATION HILL, MUDGEE

NSW 2850

11 MARCH 2021

MID-WESTERN REGIONAL COUNCIL
OPEN SPACES

 TOWARDS 2030



THIS DOCUMENT HAS BEEN PREPARED BY THE FLIRTAION HILL WORKING GROUP , FOR MID-WESTERN REGIONAL COUNCIL.

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1. Introduction

1.1 Purpose of a masterplan

The purpose of this master plan is to provide a dynamic long term planning document and conceptual layout to guide future growth and developments at the Flirtation Hill Mudgee reserve. This includes what the reserve should look like and how it should function into the future.

The masterplan is to consider the following:

- Analysing the current character and functionality of the reserve
- Identifying any emerging issues, public expectations and desires for the reserve
- Develop a phasing and implementation schedule and identify priority actions

The potential development and improvement of Flirtation Hill ('The Pines') offers the Mudgee community the opportunity to enhance the recreational value of the green zone however also a very valuable chance to boost the ecological assets.

1.2 Methodology

A highly consultative methodology has been applied in the preparation of this document.

In December 2020, Mid- Western Regional Council commenced work on preparing a draft Master Plan for Flirtation Hill, a Council managed reserve located on south-west of the Mudgee CBD. As part of the preparation of this plan, Council established a working party that included interested Councillors and community members. Community members were invited to register their interest through an expression of interest process managed by Councils Community directorate.

Council is intending to conduct further community and stakeholder engagement activities. This includes the draft plan being placed on public exhibition, engaging the local Aboriginal Land Council and other interested authorities.

The flirtation Hill Mudgee masterplan project comprised of three stages being:

- Stage one- Research and Working Group engagement
- Stage two- Mid-Western community engagement
- Stage three- Final report

1.3 Recommendations

The planning process has identified the following actions as key to progressing the development of the Flirtation Hill Mudgee reserve. There is no priority set out in the list below:

- The establishment of planned precincts to provide for non-conflicting recreational precinct within the reserve
- Installation of a viewing platform
- Parking infrastructure and traffic management
- Develop resources to support for, but not limited to the following activities
 - recreational walking
 - children's bush setting natural adventure playground
 - active recreational and boot camp style exercise
 - recreation and respite opportunities and activities for those with dementia and disabilities
- Establish and commence an exotic weed removal program
- Install a raw and potable water supply system to support the maintenance and installation process
- Establish a planned native plant resource that will support biodiversity and become an acknowledged local and tourism asset
- Plan and commence the replacement of the dominant pine species with endemic and other native species
- Install refuse bins that exclude access by birds and other scavenging animals
- Amenities facilities
- Picnic and BBQ facilities
- Sensory garden tracks, infrastructure and facilities to support caring for those with dementia and disabilities and their careers
- Create interpretation resources and other signage that supports and informs the reserve users
- Install access management infrastructure to prevent unauthorized vehicle entry
- Continue to engage the community in the planning and progress of the project
- Install street and access lighting to assist in the security and overall safety of the reserve
- Creation of stepped and staged mini wetlands to clean and stabilize water run off and enhance biodiversity
- Ensure that all works, and activities directly benefit community use, enhance the tourism value and provide positive biodiversity outcomes
- Assess and establish the most appropriate location for the existing War Memorial within the planned site developments
- Consult and include local Indigenous members (where possible)

2. Site Analysis

2.1 Context and Current Uses

This master plan focuses primarily on the Flirtation Hill Mudgee reserve with minor reference to the Mudgee showground.

Flirtation Hill is a public reserve located in the south western portion of Mudgee, and was gazetted for public purpose of public recreation in 1886. The site is bounded by the streets Douro, Nicholson and Madeira. The site is Crown Land and is approximately 14.8 hectares (ha) in area.

As a result of the site's elevation above the town it has a reservoir and lookout near its apex. Otherwise the site is largely undeveloped with the reserve is mainly used by dog walkers, joggers and mountain bike riders, with many people also visiting the site to appreciate the view from the lookout. There is also a war memorial at the apex of the site. Over recent times the site has been subjected to anti-social behavior and development pressures.

The location of the site within Mudgee is shown in Figure 1. Figure 2 identifies the main elements within the site whilst Figure 3 reveals site contour lines.

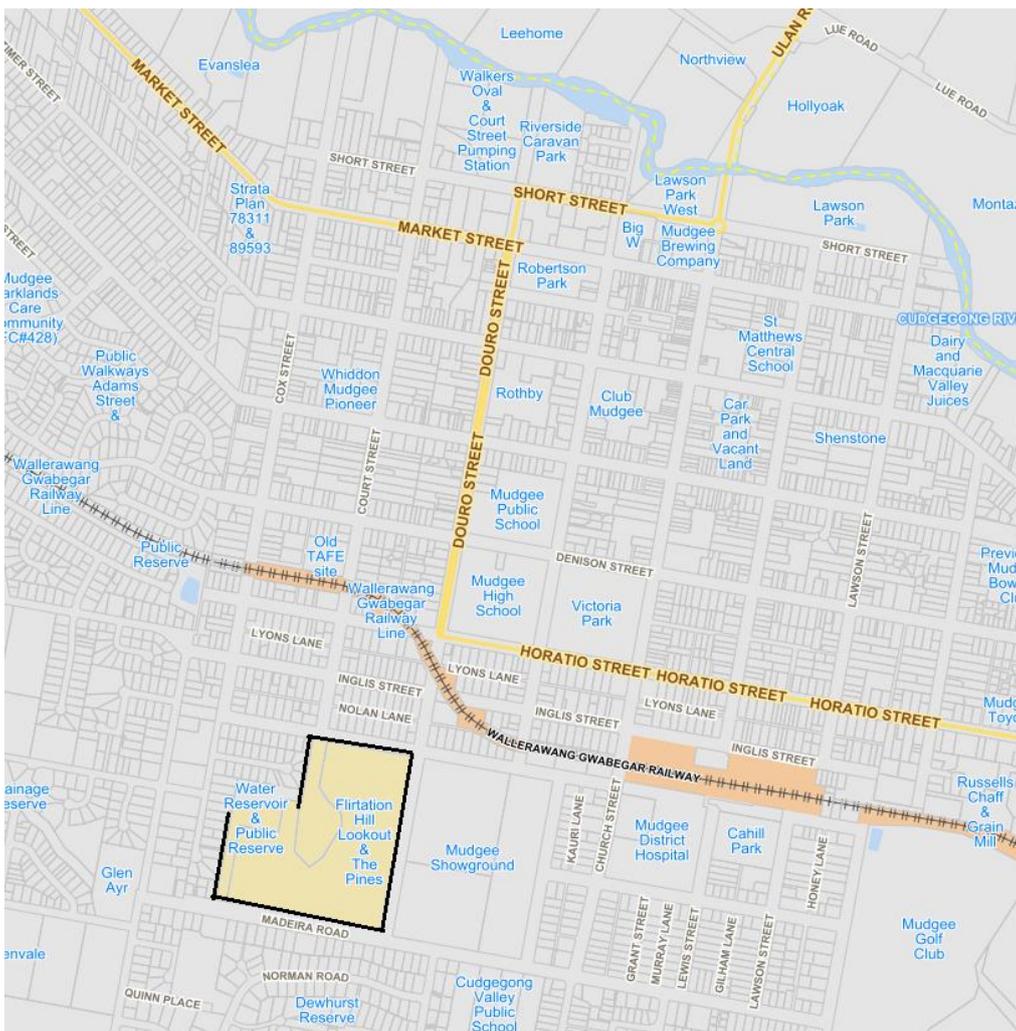


Figure 1. Location of Flirtation Hill Mudgee



Figure 2: Flirtation Hill Mudgee layout

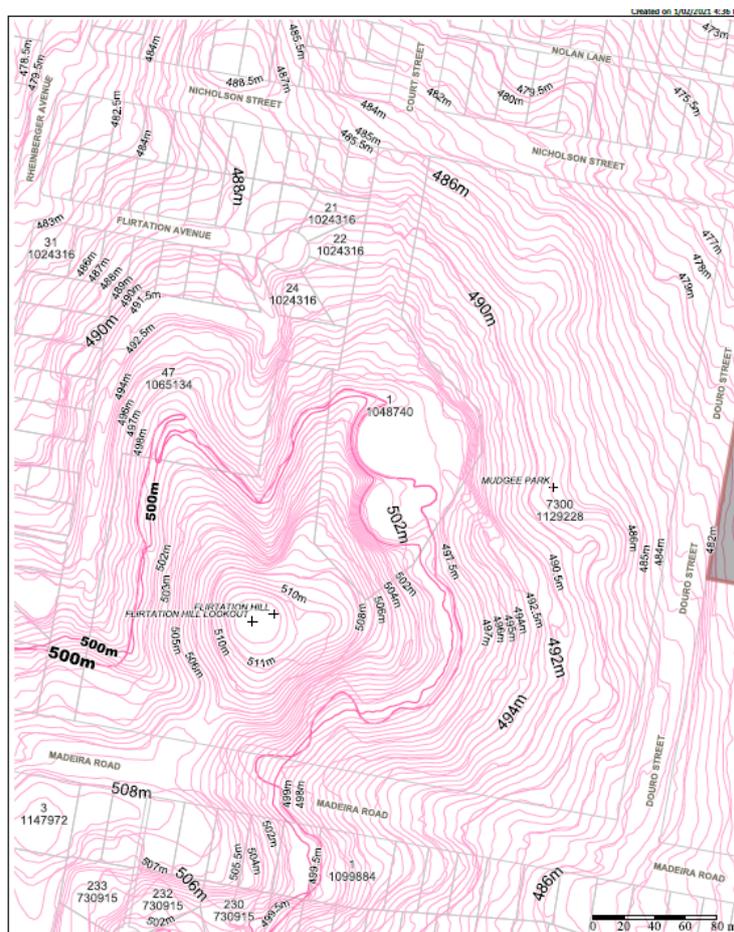


Figure 3: Contour map of Flirtation Hill

2.2 Indigenous Heritage

Searches of the Aboriginal Heritage Information Management System (AHIMS) revealed no registered sites of indigenous cultural heritage and the site has a history of disturbance. Consultation with indigenous community representatives as part of planning processes will ensure opportunities for inclusion and input into desirable spaces and functioning at the redeveloped Flirtation Hill.

2.3 Existing Biodiversity

Previous flora and fauna surveys (Eco Logical Australia (ELA), Ecological Assessment 2019 and 2020) have ascertained that the site predominantly consists of exotic vegetation mainly Aleppo pines (*Pinus halepensis*) or introduced grasses. Small areas of native vegetation exist, identified as white box shrubby open forest (Plant Community Type (PCT) 273) in either a good condition or a derived (predominantly grassy) state. This remnant native vegetation has a selection of typical species including white box (*Eucalyptus albens*), mugga ironbark (*E. sideroxylon*) trees; shrubby hop bush (*Dodonaea* spp.), hickory wattle (*Acacia implexa*) and cough bush (*Cassinia laevis*); and sparse ground covers such as purple wiregrass (*Aristida ramosa*), threeawn speargrass (*A. vagans*) and kidney weed (*Dichondra repens*).

There are patches of planted native vegetation with tree species consisting of yellow box (*E. melliodora*), Blakely's red gum (*E. blakelyi*), sugar gum (*E. cladocalyx*), mugga ironbark (*E. sideroxylon*) and Belah (*Casuarina cristata*) (Figure 4). The majority of the site, approximately 80%, consists of exotic vegetation, with a breakdown of the various types of vegetation shown in Table 1 and Figure 4.

Table 1: Flirtation Hill – Broad vegetation classification (data: ELA 2019)

Vegetation Type	Area (ha)	Proportion of site (%)
Remnant native (PCT 273) – derived	0.77	5
Remnant native (PCT 273) – woodland	0.23	2
Planted native	1.04	7
Exotic pines	8.03	54
Exotic grassland	3.57	24

The prevalence of the exotic Aleppo pines (*Pinus halepensis*) has produced a monoculture across the majority of the site, largely excluding the growth of other plant species (Figures 4). The density of the pine trees and relatively closed canopy, limits light infiltration, reducing prospects for diversity underneath the canopy. Some ecologically important species do however utilise the site in its' existing condition. The endangered small purple-pea (*Swainsona recta*) population is probably the most important example (Figure 5). The yellow-tailed black cockatoo (*Zanda funerea*), while not of concern from a conservation status viewpoint, also commonly utilise the site.



Figure 4: Classes of vegetation at Flirtation Hill (ELA 2019).



Figure 5: Small purple-pea (*Swainsona recta*) occurrence and habitat features (ELA 2020).



Figure 6: Areas to be preserved in conjunction with future development.

The site does not contain any endangered ecological communities (EEC) however, a population of small purple-pea (*Swainsona recta*) exist in the reserve’s western and south western zones (Figure 5). The presence of the small purple-peas limits the potential scope of development or disturbance near their location as they are listed as endangered in both NSW (BC Act) and Commonwealth (EPBC Act) legislation and all possible impacts should be avoided.

Based on the Koala Habitat Protection State Environmental Planning Policy (SEPP) 2020, the site does not contain even ‘potential’ koala habitat. White box (*E. albens*) trees are listed as feed tree species, in the SEPP, but they do not exist at the site in numbers large enough to provide potential koala habitat.

Small purple-pea (*Swainsona recta*) originally occurred in the grassy understorey of woodlands and open-forests dominated by Blakely’s red gum (*E. blakelyi*), yellow box (*E. melliodora*), Candlebark gum (*E. rubida*) and long leaf box (*E. goniocalyx*). It often grows in association with understorey plants like Kangaroo grass (*Themeda triandra*), poa tussocks (*Poa* spp.) and spear grasses (*Austrostipa* spp.). Pea plants tend to die back in summer, with a flowering period throughout spring, making that the best time of the year to survey for their presence. Loss and degradation of their habitat, through clearing and grazing, is a major cause of the reduction in their numbers and range.

Impacts from weed invasion, particularly exotic grasses, bridal creeper and St John’s wort - all of which occur at Flirtation Hill, also negatively affect the small purple-pea. Actions that can assist in plant population stability and enhancement are physical and chemical control of major weeds and reducing the frequency and intensity of disturbance. The abundance and condition of the plants in the population should be regularly monitored and if plants exist in a position potentially threatened by erosion then corrective action should be taken to control erosion.

Future plans for development should consider the existing biodiversity values in conjunction with desirable ecological improvements. Proposals need to maintain as much of the existing native vegetation as possible (Figure 6). There is also a need to preserve all existing trees with hollows as they are very valuable habitat for a variety of wildlife species (Figure 5). Retention of some quantity

of woody debris with site works should also be a significant consideration as many animals require such resources to complete their life cycle.

2.4 Site Photos



Figure 7: Planted native vegetation.



Figure 8: Exotic grassland and monoculture of alepo pines



Figure 9: Ongoing conservation and management of small purple-pea populations



Figure 10: Closed canopy and lack of ground level vegetation.



Figure 11: District views from the apex of Flirtation Hill.



Figure 12: War memorial

3. Masterplan

3.1 Vision

The vision for the Flirtation Hill Mudgee reserve is suggested to be:

‘To create a valued community asset and safe recreation space for all community members to enjoy’.

3.2 Objectives

There are a number of key objectives Council wishes to achieve as a result of the master plan.

Objective	Comments and Implications for Masterplan
<p>Improve the view of the park from within the reserve</p>	<p>Flirtation Hill provides for an elevated view of the town, the Cudgegong Valley, and the ranges. These views are spectacular and change with seasons and time of day. On a clear night the stars and Milky Way are spectacular and lights of town provide an enchanting site.</p> <p>The pines in the plantation have reached a height that impacts the view in several directions. It is proposed to construct a viewing platform at the crest of Flirtation Hill. This will undoubtedly enhance viewing opportunities.</p> <p>Immediate improvement would result from the staged removal of the plantation pines. This action would provide for the first stage of a revegetation process where the pines can be replaced with local and other native species that will directly target and improve the biodiversity on the site.</p> <p>It is recommended that species and mature heights be matched to the topography in order to maintain visibility from the platform. Vegetation colour, texture and flowering will in future add to the experience over time.</p>
<p>Reduce antisocial behaviour, improve the amenity and utilization of the reserve</p>	<p>The reserve presents a unique opportunity to establish a vibrant, targeted recreation area close to Mudgee town centre. Mudgee has become a key tourist destination in NSW and demands on available recreation resources are constantly escalating. Progressive removal of the pines and treatment of environmental and other weeds followed by themed planting and regeneration of local native species will ensure that the reserve becomes increasingly attractive to locals and tourists.</p> <p>The reserve in its current state is deemed to be thoroughly underutilized and current uses and users are in fact a deterrent to visitation and use by the broader community. This is exemplified by the attendance of police to rowdy gatherings, vehicle burnouts and alcohol fuelled anti-social behaviour, particularly at night. Recent</p>

	<p>arrests of the occupants of vehicles exiting Flirtation Hill, for drug possession, trafficking and even firearm offences further exemplify the need for proactive action to expand the social context of the reserve as a whole.</p> <p>It goes without saying that families, groups and individuals, be they local or visitors, are alienated by what has historically been viewed as tolerated behaviour. A decline in standards emanates from past cultural acceptance, historical beliefs and practices and community apathy resulting from previous inaction or investment. An organic factor affecting the culture of current usage is that the reserve was once rural land bordering the town and was where unmitigated behaviour and activities were seen as part of a cultural rite of passage. Contrastingly, the site is now close to being the geographical centre of a growing regional service and tourist locality where modern expected norms directly conflict with the past.</p> <p>This Master Plan will dramatically improve the amenity and utilization of reserve by:</p> <ul style="list-style-type: none"> ■ Developing precincts for varied and non-conflicting activities ■ Securing boundaries and access ■ Providing supporting infrastructure such as amenities buildings and safe parking ■ Declaring the entire reserve to be an alcohol-free zone ■ Developing a community culture that broadens and strengthens the fabric of community ownership and pride
<p>Resolve vehicle movement and parking issues in the reserve and adjacent showground</p>	<p>Access to the Showground and the necessary parking requirements to support major functions in the precinct has been a long-standing issue. The current ad hoc and disorganised parking arrangements present a significant public safety risk.</p> <p>This Master Plan proposes to set aside land on the eastern side of the reserve to address this issue. Primarily, the proposal provides for safe access an egress to a managed surface that is buffered and delineated from the reserve and Douro Street. Design and siting of the carpark will focus on limiting and addressing its visual impact. It will be critical that the context of open space is not compromised by masses of permanent, inert hard surfaces.</p> <p>Additional outcomes derived from this proposal will be the provision of safe access and parking for the use of the reserve precincts providing for children’s play, physical exercise and passive walking tracks.</p> <p>Environmental issues of progressive erosion, sediment control and runoff water quality will be addressed in a designed structured setting. Retention of the Eucalyptus sideroxylon will provide shade and a foundation for the transition to native species and resultant improvements in biodiversity.</p>

Protect and enhance the social, environmental and heritage values of the reserve

Flirtation Hill is a well-recognized location both physically and socially. The concepts of social and community ownership are evident although somewhat secular.

There is a War Memorial located on the crown of the reserve. Whilst it appears that this is not dedicated land it does hold significance within the community. Any impact or potential relocation will require community consultation and to some extent approval.

The site was planted with exotic pine species by the Lions Club many years ago. Investigations have revealed that this has turned out to be a misguided commercial venture and has no cultural or community attachment.

Past photographs of the site indicate it was subject to major earthworks prior to the pines being planted. These works included major contour bank construction. This coupled with the works associated with the Town water reservoir severely limits the likelihood of the discovery of Aboriginal Cultural Heritage material. Nevertheless, it is recommended that an Aboriginal Heritage Impact Permit (AHIP) be sought prior to any works being commenced. This process will require consultation with interested Indigenous representatives and groups.

The site holds significant environmental value due to the existence of a notable population of the plant *Swainsona erecta*. This species is listed as threatened and any works must account or the sustainability of this population.

It is noted that the pines provide a food source for a flock of some 30+ yellow tailed black cockatoos. This species is not listed as threatened on a state or commonwealth level. However local populations are coming under increasing pressure from land clearing and environmental degradation. The birds are somewhat migratory and it is clear that this site is relied upon as a food source when young are fledged. The population was notably evident for longer periods during the recent drought.

Any transition to species replacement must include significant numbers of natural food sources for the cockatoo such a casuarina species. In addition, transition must be over time and provide for maturity of the food resource. These cockatoos are a recognized component of Mudgee urban biodiversity resources.

In broader terms the pine monoculture generally provides for an inert and extremely limited range bird animal and vegetation diversity. There is a notable population of weed species emanating from urban gardens. Privet, cotoneaster, African boxthorn and wild rose are notable throughout the site.

Consult with those that have an interest in the reserve so that community needs and views can be determined and accommodated where possible

Council has for some time been cognizant of the antisocial and other inappropriate behaviour on Flirtation Hill. It has responded to local resident complaints and consulted individually with concerned residents. Council has invested and installed barriers, speed bumps and signage and has increased its active maintenance over the past year.

In response to increased community concern and representations from elected Councillors, Council resolved to develop this Master Plan with the view to establishing a long-term commitment to the upgrading of the site. As a component of the planning process Council advertised and initiated a community consultation process to engage with all interested parties and seek input and take direction in developing the future plans for Flirtation Hill.

Council received a positive response from the community to its open invitation to participate. A working group has been established consisting of a cross section of local residents, Councillors and others with an interest. The group held 3 meetings and has provided valuable and positive input to the planning process.

3.3 Concept Plan

FLIRTATION HILL - MUDGEE DRAFT MASTERPLAN

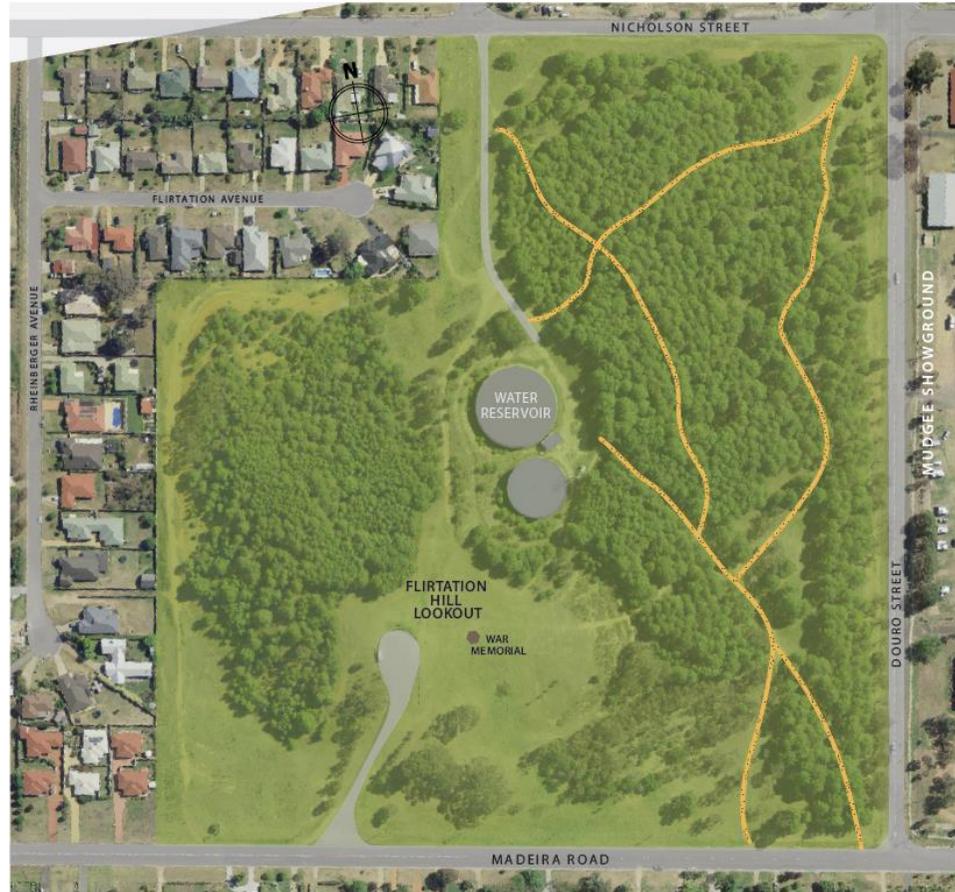
VISION
To create a valued community asset and safe recreation space for all community members to enjoy.

OBJECTIVES

- To enhance the viewing vista at the peak of the reserve
- Reduce anti-social behaviour, improve the amenity and utilisation of the reserve as an access for all facility
- Resolve any vehicular access and parking issues within the reserve and adjacent showground
- To protect and enhance the social, environmental and heritage value of the reserve
- To consult with those that have an interest with the reserve so that community needs and views can be determined and accommodated where possible

KEY

-  'THE PINES' PUBLIC RESERVE
-  EXISTING PATHWAYS



VERSION 2 DATE: 21/04/2021

FLIRTATION HILL - MUDGEE

DRAFT MASTERPLAN

- KEY FEATURES**
- Enhanced viewing area & memorial garden
 - New nature play space and nature trail
 - Passive Park zones including BBQ facilities
 - Dedicated exercise areas
 - Improved pathways for walking and running
 - Designated Conservation Zones
 - Amenities
 - Bollards for user and environmental protection
 - Dedicated parking for both The Flirtation Hill precinct and Mudgee showground.

-  PASSIVE ZONE
-  NATURE PLAY ZONE
-  CONSERVATION ZONE
-  FIRE BREAK
-  EXISTING NATIVE VEGETATION
-  ESTABLISHED PINES
-  EXISTING PATHWAYS
-  PROPOSED BOLLARDS
-  LOT BOUNDARY

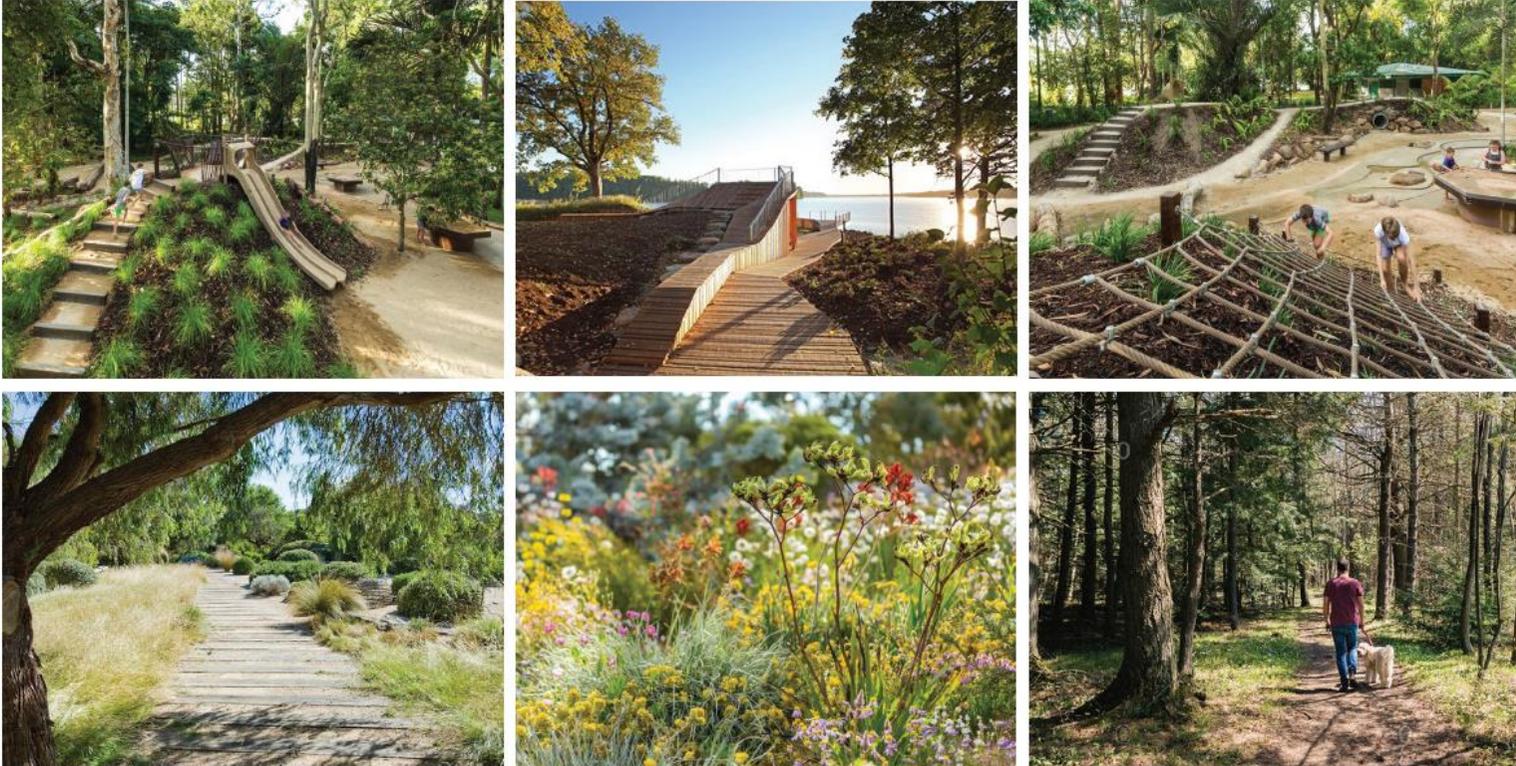


VERSION 2 DATE: 21/04/2021

FLIRTATION HILL - MUDGEES

DRAFT MASTERPLAN

CONCEPT EXAMPLES



CONSERVE EDUCATE SOCIALISE EXERCISE CLIMB BUILD PLAY GET DIRTY



VERSION 2 DATE: 21/04/2021

3.4 Masterplan Notes

Design Intent

Key aspects of the design process include:

- Multi-functional and flexible space, allowing the space to evolve and adapt to meet the changing needs and aspirations of the community
- Promote health and wellbeing and a safe public open space
- Promote design for open space that connect people with the natural environment in all development types and locations
- Perform varying functions beyond simply the recreation area, including integrating stormwater detention during peak storm periods

Potential Biodiversity

To have informed design and planning, biodiversity goals and constraints should be incorporated early in the design process as they will influence both the overall concept and the necessary pathway to achieve the adopted proposal. The proportion of the site that would be dedicated to conservation or biological values will eventually result from community consultation and allocation of land area to satisfy demands of conflicting activities. Many conservation zones will be able to be utilised for passive recreation, walking, bird-watching, sensory exposure and for education purposes. The benefit of conservation zones will be improved environmental outcomes, increased abundance of birds and animals and beautification, augmenting a valuable community asset while encouraging visitors and locals alike to visit Flirtation Hill more frequently.

Potential biodiversity goals may include:

- Creation of conservation zones
- Small purple-pea protection
- Improving habitat
- Incorporating wetlands
- Transition in stages

Potential Biodiversity Goal	Comments and Implications for Masterplan
Creation of conservation zones	<p>Conservation zones will assist in maintenance of the small purple-pea population. They would be areas where native vegetation predominates and where there is little ongoing disturbance. All existing native vegetation should be conserved in this semi urban landscape as its maturity makes it relatively more valuable than regenerating areas, with newly planted vegetation. Passive, non-destructive, recreational activities could be undertaken in these areas.</p> <p>Some areas could also be set aside to potentially keep pines, especially where the existing small purple-pea plants are established (an area that should not be disturbed). There could be an avenue of pines or perimeter walking track with pines bordering it. This would maintain links to the history and heritage of the site and would justify still calling it 'The Pines'.</p> <p>The process of creating new conservation areas should use selective felling of pine trees and small equipment rather than large earthmoving equipment, to limit damage to soil structure and existing vegetation.</p>

	<p>This will also allow greater discrimination as to which pines are removed with the capacity to reserve some pines, while other native trees and understorey plants are establishing. Gradual pine removal will help to smooth transition stresses for animals that have grown accustomed to using existing site resources, to satisfy their needs.</p>
<p>Sustain and bolster small purple-pea population</p>	<p>To protect the small purple-pea plants, areas where they exist should be fenced off from vehicular traffic. There should be no ground disturbance and no removal of pines in the vicinity of the small purple-pea plants.</p> <p>Mowing and grounds maintenance activities should only be undertaken when the plants are not actively growing, flowering or fruiting (March to June). Careful weed management should be undertaken, to reduce competition from exotic perennial grasses and other priority weeds.</p> <p>Consultation with a botanical organisation and or the NSW Saving Our Species (SOS) program may be able to assist with research or activities to protect and preserve the small purple-pea plants. Botanical specialists may be able to harvest seeds, keep some in long term cold storage and also develop propagation programs. Permanent monitoring plots should be established and checked at least every five years to track the condition of the population.</p>
<p>Improve habitat for other potentially threatened species</p>	<p>Replacing a large number of the exotic Aleppo pines with native vegetation will make habitat more suitable for use by native fauna. The site has been identified as potentially suitable for four threatened plants:</p> <ul style="list-style-type: none"> ■ Ausfeld’s wattle (<i>Acacia ausfeldii</i>), ■ Small purple-pea (<i>Swainsona recta</i>), ■ Silky Swainson-pea (<i>Swainsona sericea</i>) and ■ Hoary sunray (<i>Leucochrysum albicans</i> var <i>tricolor</i>). <p>and eight threatened animals:</p> <ul style="list-style-type: none"> ■ Regent honeyeater (<i>Anthochaera phrygia</i>), ■ Dusky woodswallow (<i>Artamus cyanopterus cyanopterus</i>), ■ Spotted harrier (<i>Circus assimilis</i>), ■ Little lorikeet (<i>Glossopsitta pusilla</i>), ■ Painted honeyeater (<i>Grantiella picta</i>), ■ Barking owl (<i>Ninox connivens</i>), ■ Powerful owl (<i>Ninox strenua</i>) and ■ Koala (<i>Phascolarctos cinereus</i>). <p>Flora surveys have revealed a population of small purple-pea (<i>Swainsona recta</i>) plants but no Ausfeld’s wattle (<i>Acacia ausfeldii</i>) and no sighting, to date, of Silky Swainson-pea (<i>Swainsona sericea</i>) and Hoary Sunray (<i>Leucochrysum albicans</i> var <i>tricolor</i>).</p> <p>To increase the potential for threatened fauna species to utilise the site, habitat objectives should be designed to suit the Regent honeyeater. The Regent honeyeater is a critically endangered species, both under NSW (BC Act) and Commonwealth (EPBC Act) legislation, with an extremely high risk of extinction in the wild. It is a</p>

flagship species and efforts to regenerate habitat for it will also result in better habitat provision for numerous other threatened and declining woodland fauna. Numerous sightings have been recorded around the Mudgee, Cooyal/Munghorn Gap area, with a key breeding area in the Capertee Valley.

The Regent honeyeater is a generalist forager, feeding mainly on eucalypts that produce abundant volumes of nectar. Key eucalypt species include mugga ironbark, yellow box and white box. Flowering of associated species like stringybark and broad-leaved ironbark can also contribute to important nectar sources, as do mistletoes (*Amyema miquelii*, *A. pendula* and *A. cambagei*) which are also utilised.

Planning for regeneration of areas at Flirtation Hill should focus on plant species that will support feeding and foraging behaviours of the Regent honeyeater. The appropriate species suitable to enhance habitat features are those that would come from box-ironbark woodlands or grassy white box – yellow box woodlands:

Common name	Scientific name
Mugga ironbark	<i>E. sideroxylon</i>
Red ironbark	<i>E. tricarpa</i>
Inland grey box	<i>E. microcarpa</i>
White box	<i>E. albens</i>
Yellow gum	<i>E. leucoxylon</i>
Yellow box	<i>E. melliodora</i>
Blakely's red gum	<i>E. blakelyi</i>
Box mistletoe	<i>Amyema miquelii</i>

As it currently uses the site, the needs of yellow-tailed black cockatoos should also be considered in tree species selection for regeneration / conservation areas. They feed on seeds of native trees like she-oaks (*Allocasuarina* and *Casuarina* spp.), Acacias, Banksia and Hakea species. They have also become accustomed to introduced pine species, including the Aleppo pine, which is why retention of some of the pine trees and staged replacement with the native species is recommended.

Stepped and staged wetlands/reservoirs

The establishment of swales and small reservoirs could both moderate and improve the quality of stormwater moving across and potentially leaving the site. Small reservoirs of water could also enhance the habitat value of the site.

Topography and slope dictate the movement of water on land. The steeper the terrain, the faster draining it will be, and the more difficult it will be for water to infiltrate into the ground. Drainage can be

	<p>provided on the top and bottom of slopes, and can be supplemented with terraces, to slow the path of water.</p> <p>Careful planning and implementation would be required to ensure the existing hydrology of the site is not drastically altered or established native trees may have diminished access to water and suffer premature disease and death. Other potential hazards include damage from erosive forces if check structures and ponds are poorly positioned or implemented. Swales are only suitable on moderate slopes not steep slopes like the main drainage line, draining to the north from the Flirtation Hill apex (Figure 9), which has a slope in excess of 10°.</p>
<p>Staged transition</p>	<p>Changing site use and remodelling large tracts of land and vegetation should take place over time, allowing gradual replacement of exotic pines with desirable native vegetation.</p> <p>It is essential to maintain some of the existing biodiversity value, while transitioning to improved native species, so that animals that have come to rely on current ecological resources are not left unsupported. This means removal of pines should take place in discrete parcels allowing establishment of replacement native tree species before any further removal of pines continues, at a later stage.</p>

Nature Play- playground

Nature Play playgrounds encourages children to interact with nature, to explore and learn about their surroundings.

Manly families do not have easy access to naturally unstructured play activities within their communities- such as rocks, logs and tunnels. A nature playground would provide children with the opportunity to engage in unstructured play activities in an outdoor setting that comprises of natural features, as opposed to convectional manufactured play equipment. It would also provide a point of difference as a destination playground for the Mid-West area.

In recent times there has been an increase in research into the benefits of nature play space. Potential benefits to the community that a nature play space would bring include:

- Encourages unstructured outdoor play, building resilience and creativity through ‘risky’ play
- Promotes health benefits, including cognitive, social and emotional development
- Improving children’s physical developmental skills leading to improved self-confidence
- Focuses on enjoying the outdoors and exploring the simple wonders of the surroundings
- Leads to children having environmental awareness



Figure 13 : Example of Nature Play space- Centenary Lakes nature play

Reserve and Showground Car Parking

Flirtation hill reserve and the adjacent showground have little designated or formal vehicle parking spaces. In most instance during minor events the showground is able to accommodate designated carparks within the precinct however for major events (such as the Mudgee show) there are insufficient carparks for patrons. The Flirtation hill precinct is therefore often utilised for informal ad-hoc parking.

The Mudgee Showground master plan highlights the need for additional formal car parking arrangements to which would compliment the need for formal carparks with increased infrastructure at the Flirtation hill precinct.



Figure 14 : Mudgee showground master plan (2009).

4. Implementation Plan

4.1 Staging

The option exist to stage the implementation of the master plan. This will be considered further in an implementation/management plan which will be prepared following community consultation and masterplan adoption. Indicative options are presented in the preliminary cost estimates (as at 2021).

4.2 Preliminary Cost Estimates (2021)

Stage One

Element	Estimate (\$)
Viewing Platform	100,000
Carpark	150,000
Security Infrastructure	100,000
Exotic tree removal and replacement (staged process)	100,000
Drainage Upgrades	70,000
Sensory and Indigenous Food Garden	80,000
Water Supply- potable and raw	50,000

Stage Two

Element	Estimate (\$)
Amenities (per unit)	120,000
Exotic tree removal and replacement (staged process)	100,000
Nature Play Playground	500,000
Park Furniture and BBQ (up to 2)	75,000
Fitness Equipment	20,000
Retention Basin- wetland	50,000
Signage	10,000

4.3 Financing the Masterplan

In Councils 2020/21 Operation Plan funding was committed for minor upgrades to the pathway network, tree removal/lifting and site security infrastructure that included bollards and regulatory signage improvements. These works are to be recognised as the initial steps towards achieving the desired outcomes of this masterplan.

Moving forward Council is to consider allocating funding to the masterplan as part of Councils long-term strategic outlook for community projects and capital works. This includes considering the recommendations detailed in this reports when prioritising Councils overall strategic objectives and future opportunities for public recreation and open space assets.

Given the constraints around funding towards the masterplan, it is proposed that (as funds allow) the project be undertaken in two stages. High priority developments to include:

- Installation of a viewing platform at the apex of the precinct
- Security improvement to the site such as perimeter bollards and gates
- Securing water supply to the precinct
- Commencement of stage exotic tree removal and replacement
- Reviewed site drainage plan and subsequent upgrades

4.4 Scope of Components

#	Item	Action/ Comments
1	Viewing platform	<ul style="list-style-type: none"> ■ Lookout to be placed in position that maximises view to Mudgee CBD and the surrounding Cudgegong ranges ■ Built elements to be durable and where possible provide maintenance free service
2	Car parking	<ul style="list-style-type: none"> ■ Onsite parking to be made available to along eastern side of the precinct <ul style="list-style-type: none"> ○ It is envisaged that a one-way circulation road be permitted, allowing for existing native vegetation to remain ○ Accessibility carpark sections to be incorporated ○ Appropriate pedestrian crossing to showground to be included in works ■ Provision for a smaller carpark out the front of the proposed sensory garden section is also to be considered ■ Carparks to be sealed material
3	Site security- Site entry and perimeter Fencing/bollards	<ul style="list-style-type: none"> ■ Entire perimeter of the precinct is to have bollards installed to prevent unauthorised access into the site. The bollards are to be of timber material to fit into the natural landscape theme ■ Highlighted vehicle entry points are at the reservoir access road at the corner of Douro and Madeira street. Entry points are to be gated (including Nicholson St, service access to sensory garden) ■ Install street and access lightning to carparks and amenities buildings
4	Amenities Building	<ul style="list-style-type: none"> ■ Preference for two amenities building (consisting of one unisex toilet) be available within the precinct, this is to assist with precinct usage and length of stay at the park <ul style="list-style-type: none"> ○ One being around the lookout and picnic areas at the apex ○ The other around the proposed nature play playground and carpark (priority building)
5	Key Landscape Areas- Sensory Aboriginal Food War Memorial	<ul style="list-style-type: none"> ■ Sensory for Alzheimer’s and other dementia/memory issues- at least two raised garden bed sections (with low height). To consist of low maintenance and drought resistant sensory plantings. Plantings to also engage and stimulate the five senses and prompt memories with plants to touch, smell and look at ■ Advise to be sought from local Indigenous members to design, layout and plantings for Aboriginal food area ■ Raised beds are to be easily accessible by people in wheelchairs and who uses walkers ■ Low maintenance and drought resistance plantings to be positioned around the war memorial to assist with making the memorial a prominent feature

6	Water Supply	<ul style="list-style-type: none"> ■ Investigate water supply to the reserve, including raw water from nearby showground precinct ■ Potable water sources required for amenities and drinking water stations ■ Raw water to be utilised from landscaped areas
7	Path network	<ul style="list-style-type: none"> ■ Aim for all paths to be accessible and of gravel material to fit in with surrounding landscape ■ Path network to follow existing informal tracks- allowing for gentle exercise and potentially seating for longer path sections ■ Stairs and/or handrails to be considered to allow connecting proposed Douro St carpark and the apex of the hill
8	Conservation zones and improved habitat	<ul style="list-style-type: none"> ■ Designated conservation zones to be created throughout the precinct that protect existing populations of the small purple-pea population ■ Other identified areas to consist of predominately native vegetation with small pockets of existing pine populations to maintain some existing biodiversity ■ Establish planned native plant resources that support biodiversity and become acknowledged local and tourism asset ■ New conservation zones to consist of select felling of pine trees over stage process with new desirable native species selection (as highlighted in this masterplan) ■ Stage transition action plan to be developed and executed
9	Site Drainage Retention Basins- stepped and staged wetlands	<ul style="list-style-type: none"> ■ Develop precinct drainage plan to ensure existing hydrology on site is not drastically altered and appropriate erosion controls are in place ■ Establish swales and small reservoirs to improve quality of stormwater moving across site
10	Nature Play playground	<ul style="list-style-type: none"> ■ Construction of a nature play playground that promotes children to interact with nature, to explore and learn about their surrounding ■ Unstructured play activities to include feature such as rocks, logs and tunnel ■ Natural features to be utilised as opposed to convectional manufactured play equipment ■ Location of playground as highlighted on concept map
11	Picnic and BBQ facilities- Seating and tables	<ul style="list-style-type: none"> ■ Highlighted essential amenities- 2 x drinking stations, 6 x combination of sheltered and open seating that consist of a min. of 2 places for wheelchairs ■ Seating to encourage and facilitate social gatherings (where possible) ■ Provisions for up to two BBQ's are proposed to compliment playground/ passive park areas
12	Signage	<ul style="list-style-type: none"> ■ Main entrance signs at the apex, cnr Douro and Nicholson and cnr Douro and Madeira

		<ul style="list-style-type: none"> ■ Create interpretation resources and other signage that support and informs reserve users <ul style="list-style-type: none"> ○ Look to consider naming of the precinct, where possible incorporate Indigenous language ○ Consider appropriate wayfinding signage throughout infrastructure developments ○ Consider information and plant signage within reserve ■ Ensure that signage is suitable height and in large font to cater for any vision impaired ■ Promote alcohol free zone through appropriate signage locations
13	Shade	<ul style="list-style-type: none"> ■ It is important that seating and tables for sun-smart weather protection and age friendly are provided throughout designated sections of the park. Most notably the lookout area and highlighted passive park zone (provide up to 6 table shelters) ■ Mix of natural shade (importance of mature tree planting) and build shelters for instant shade protection
14	Lighting	<ul style="list-style-type: none"> ■ Lighting to be considered around major infrastructure, including amenities building, carparks and platform access ■ Solar lighting to be utilised where possible
15	Weed Removal	<ul style="list-style-type: none"> ■ Establish and commence an on-going exotic weed management program for the site
16	Waste	<ul style="list-style-type: none"> ■ Cater for bins to be installed at various focal locations through precinct ■ Bins type to ensure that excludes access by birds and other scavenging animals
17	War memorial	<ul style="list-style-type: none"> ■ Review location of war memorial in relation to planned developments to ensure that memorial remains within a prominent position at the apex
18	Exercise Equipment	<ul style="list-style-type: none"> ■ Assortment of relevant exercise equipment to be installed as highlighted on concept map (min. of 4 units)