

DRAFT

Ingleburn Reserve Plan of Management 2017

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Executive Summary

Ingleburn Reserve (also known as Kings Park or Picnic Park), is located in the suburb of Ingleburn approximately three kilometres east of the Ingleburn Central Business District. The inaugural site-specific Plan of Management (POM) for the reserve was enacted in September 2003. The 2003 POM has been revised to reflect amendments to a range of legislation and policies, changes in management issues within the reserve as well as changing community needs. This POM supersedes the 2003 POM.

The reserve has a total area of 9.35 hectares and provides a key access point to the Georges River within the Campbelltown Local Government Area. Ingleburn Weir, located on the Georges River adjacent to the reserve, is a key feature of the area and is accessed from the reserve. The weir has historical value in terms of its sandstone composition and purpose of construction.

Bushland covers approximately 86% of the reserve and has been identified as being comprised of Cumberland Plain Woodland and Shale Sandstone Transition Forest (both listed as Critically Endangered Ecological Communities at the State and Commonwealth level). The steeper terrain within the reserve forms part of a landscape adjacent to the river that is of significance to the local Aboriginal community.

The reserve has a high recreational value that is relatively unique in terms of the diversity of recreational opportunities available at parks and reserves within the Campbelltown LGA. The reserve has an idyllic bushland setting which provides for bushwalking activities while also boasting playground equipment and picnicking facilities. The setting, features and accessibility of the reserve provide ideal and unique opportunities for controlled outdoor and hands-on environmental education activities. With this in mind, the theme of this reserve is an “environmental education place within a natural setting”.

Key aspirations for Ingleburn Reserve are:

- the protection of the natural and cultural values
- addressing threats to these values
- raising community awareness of the value of the reserve as a recreation destination
- encouraging passive recreation use by a broad section of the community.

Based on these identified aspirations, a range of key management issues for the reserve have been identified through discussions with sections of the community and Council staff. Key management issues include:

- Aboriginal heritage
- Ingleburn Weir management
- native flora and fauna
- protection of koala habitat
- noxious and high priority environmental weeds
- feral and domestic animals
- vehicle access
- pedestrian and bicycle access
- bushfire management
- recreational use
- community awareness and participation
- unauthorised use
- reserve maintenance
- land ownership and classification.

The Plan of Management provides a framework to:

- protect, conserve and enhance the values of Ingleburn Reserve in accordance with government policy and statutory frameworks
- provide strategies for the provision of appropriate recreation opportunities and addressing management issues impacting on the quality of the reserve and the experience of visitors to the reserve, with the aim of increased patronage to the reserve
- maintain and enhance flora and fauna in the reserve
- guide the ongoing maintenance and management of the reserve
- promote community awareness of the natural and cultural significance of the reserve and its recreational value
- detail the responsibilities, means of implementation, and performance targets for achieving projected outcomes.
- provide an approach for monitoring, reviewing and achieving the objectives and actions specified in the POM.

This POM contains an Implementation Action Plan (IAP) that will guide implementation and prioritising of management actions and associated expenditure to address key management issues. The aims and objectives of this plan will direct works and programs within the five year period of the IAP. The timetable presented in the IAP should, however, be considered as indicative only, and may be adjusted to reflect Council's resources and funding priorities.

Key actions from the IAP are identified below:

Management Issue	Key Action
Aboriginal heritage	Undertake an Aboriginal archaeological assessment of Ingleburn Reserve
Management of Ingleburn Weir	Register Ingleburn Weir as a local heritage item
Native flora and fauna	Undertake a comprehensive biodiversity survey of Ingleburn Reserve in accordance with applicable guidelines
Protection of koala habitat	Conserve koalas and their habitat in accordance with the recommendations of the Campbelltown Comprehensive Koala Plan of Management
Noxious and high priority environmental weeds	Undertake noxious weed control and bush regeneration activities, particularly within high risk areas
Pests and domestic animals	Conduct activities to control pest and domestic animals within the reserve in partnership with key stakeholders, including the NSW Government and surrounding landholders
Stormwater management	Design a stormwater management system for Ingleburn Reserve, incorporating water sensitive urban design and best practice, to mitigate stormwater runoff impacts
Vehicle access and parking	Construct appropriate barriers restricting indirect and unauthorised access to the reserve from adjoining lands
Pedestrian access	Undertake a review of existing formal and informal tracks within the reserve and recommend opportunities for embellishment, upgrade and/or closure of tracks
Bushfire management	Undertake hazard reduction activities in accordance with the Macarthur Bushfire Risk Management Plan and as part of Council's ongoing hazard reduction program
Recreational use	Review the provision of recreational facilities in the reserve on an annual basis with regard to patronage and community expectations
Community awareness and participation	Explore opportunities for community and school education workshops, activities and associated infrastructure within the reserve highlighting the cultural and environmental significance of the reserve
Unauthorised activities and community safety	Install and maintain regulatory signage at strategic locations within the reserve, advising of the unauthorised activities and associated fines for non-compliance
Maintenance and infrastructure provision	Investigate the provision of animal proof bins incorporating decorative designs that highlight the cultural and natural values of the reserve
Land ownership and classification	Investigate actions to acquire all lands within the reserve boundary from the respective owners to assist in long term protection and management of the reserve

1. Introduction

Ingleburn Reserve (also known as Kings Park or Picnic Grove), is located in the suburb of Ingleburn approximately three kilometres east of the Ingleburn Central Business District (refer to Figure 1: Location of Ingleburn Reserve). The reserve has a total area of 9.35 hectares and is bounded by the Georges River and the Holsworthy Army Reserve to the east, Bensley Road to the west, and NSW Government lands within the Georges River Regional Open Space Corridor to the north and south.

This POM has been prepared in accordance with Section 36 of the *Local Government Act 1993*. The broad purpose of this plan is to provide a management framework that facilitates the conservation and enhancement of the natural and cultural values of the reserve, while providing appropriate recreational opportunities.

This plan recognises the reserve as a key access point to the Georges River within the Campbelltown LGA's. The reserve has provided for a wide variety of recreational opportunities in a bushland setting since the 1920s. A key feature of the reserve is its position adjacent to the Georges River and the inlying Ingleburn Weir, which is recognised by Council and the community as having historical value in the context of the local area. The reserve also contains large stands of bushland, including Cumberland Plain Woodland and Shale Sandstone Transition Forest (both classed as critically endangered ecological communities), providing habitat for a range of fauna and unique opportunities for environmental education.

An inaugural POM for the reserve was enacted in September 2003. This POM has been revised to reflect amendments to a range of legislation and policies, changes in management issues within the reserve as well as evolving community needs and interests. This POM supersedes the 2003 POM.

1.1 Description of the land covered by this Plan of Management

This POM applies to all public land (known as 'Community Land') within the cadastral boundary of the reserve (refer to Figure 2). The reserve is comprised of a high number of individual allotments (84), as well as three road reserves which were created prior to the gazettal of the reserve. This includes 18 lots within the reserve which are owned by the NSW Government.

While the existence of these allotments and road reserves does not have any specific implications for the management of the reserve or implementation of this plan, it does result in some ambiguity about the legal application of the POM to the whole of the lands identified as Ingleburn Reserve. This is discussed further in Section 6.15 Land Ownership and Classification.

This plan does not apply to the Georges River as it is outside the boundary of Ingleburn Reserve and is not classified as 'Community Land'. However, this POM includes reference to the river, given its relevance to aspects of the management of the reserve.

Land use within Ingleburn Reserve is predominately bushland, with a smaller parkland area in the core of the reserve. The reserve also contains an access road, a loop road, car parking spaces and a large car park overflow area within its boundaries. The area and proportion of these land use components within Ingleburn Reserve are described in Table 1.

Table 1: Area and proportion of individual land use components of Ingleburn Reserve

Component	Area (ha)	Proportion of Ingleburn Reserve
Bushland	8.05	86.1%
Park	0.95	10.2%
Roads and car parks	0.35	3.7%
TOTAL	9.35	100%

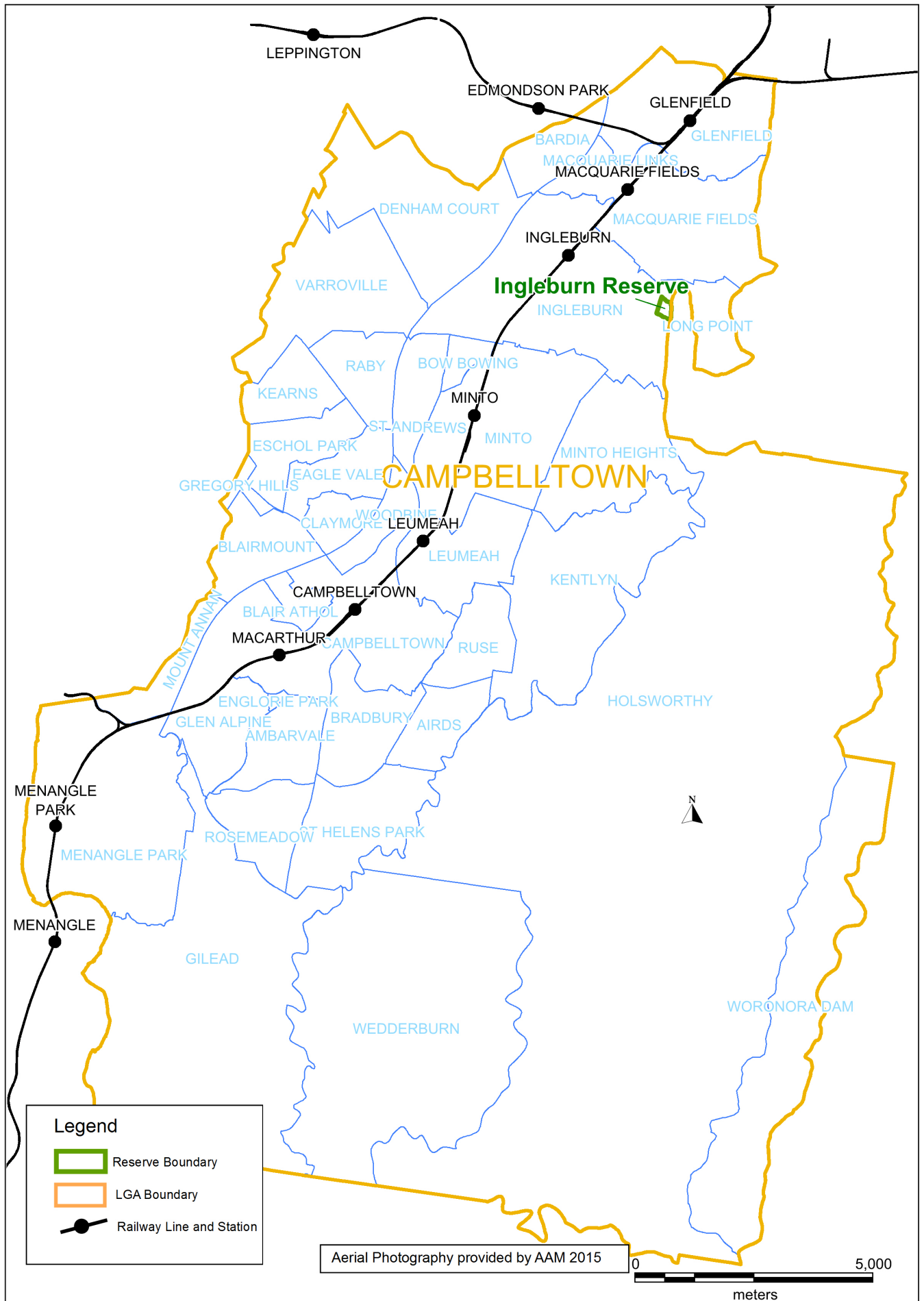


Figure 1: Location of Ingleburn Reserve within the Campbelltown LGA



Figure 2: Land to which this POM applies

(i) Bushland:

Bushland covers the majority of lands within the reserve, and can be divided into two main areas based on terrain and composition. Refer to Figure 3: Vegetation Communities within Ingleburn Reserve.

- The bushland on the steeper terrain on the eastern side of the reserve forms part of an important habitat corridor along the Georges River and has been mapped in full by the Office of Environmental and Heritage (OEH) as containing Shale Sandstone Transition Forest (SSTF) and Sydney Hinterland Apple-Blackbutt Gully Forest. SSTF is listed as a critically endangered ecological community under the NSW TSC Act and the Commonwealth EPBC Act. This eastern bushland area continues to provide access to the Georges River from the reserve and includes landscape features such as rock formations and cliff faces, which have been identified and being of significance to the local Aboriginal community.
- The bushland on the flat terrain in the west of the reserve approximately five hectares has been mapped as containing Cumberland Plain Woodland (CPW) by the OEH. Cumberland Plain Woodland is a critically endangered ecological community under the NSW TSC Act and the Commonwealth EPBC Act. This area has been impacted periodically by unauthorised vehicle access (such as trail bikes) and contains a number of informal tracks. Bush regeneration work was carried out in part of this area by Council in October 2011 to enhance its condition. This area is in relatively good ecological condition, with only minor weed incursion.

The bushland south east of the loop road contains a small recreational area, including several small picnic tables and chairs, and provides connectivity to the secondary car park to be used as required during approved large events, as shown in Figure 4. This bushland has been mapped as containing CPW by the OEH.



Figure 3: Vegetation Communities (SMA, Vegetation Mapping, OEH 2013)

(ii) Parkland:

The parkland area (approximately one hectare in size) is located in the central part of the reserve and is encircled by a loop road. This area is comprised of grassland, remnant trees and landscape plantings, as well as a range of passive recreation facilities such as barbecues, an amenities unit and a children's play area. The parkland area slopes towards the north east in the direction of the Ingleburn Weir and Georges River, and is approximately 91metres in width at the widest point.

An infrastructure upgrade was undertaken between May and June 2016, which saw the installation of new playground equipment within the reserve. Toilet amenities were also upgraded within the parkland area, with the replacing of the toilet block with a new automated toilet facility.



Playground equipment



automated toilet

(iii) Roads and car parks:

Ingleburn Reserve is accessed from Bensley Road by Park Grove, which forms a loop around the recreational parkland area. There are 26 car parking spaces located adjacent to sections of the loop road that were constructed during 2003 (refer to Figure 4: Roads, Road Reserves, and Car Parking). There is an additional informal overflow car parking area near the southern boundary of the reserve that was constructed in the late 1990s. In January 2015, an additional two designated disabled parking spaces were constructed along the western side of the reserve's loop road.



View of park from northern side of loop road

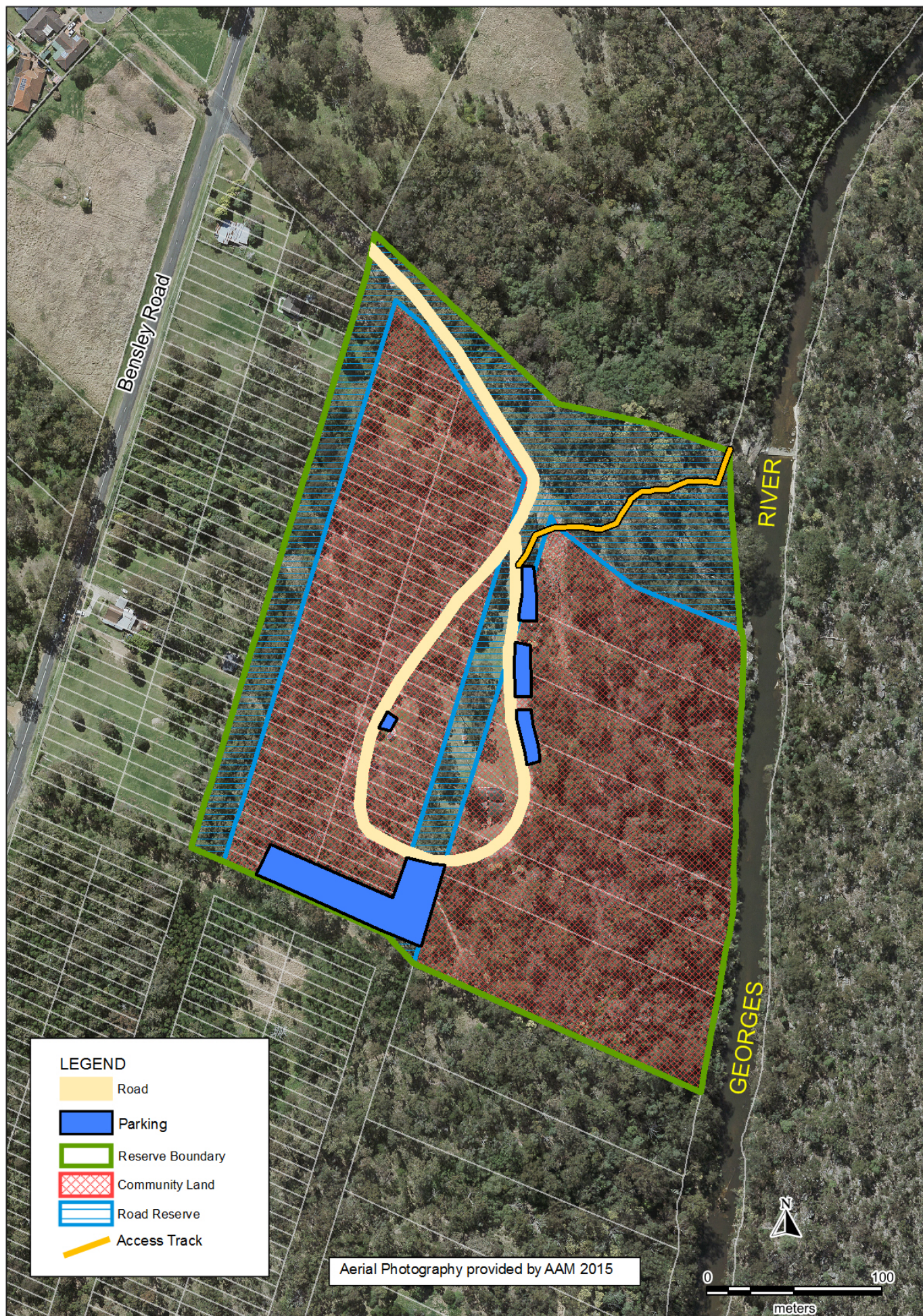


Figure 4: Roads, Road Reserves, and Car Parking

1.2 Land ownership of Ingleburn Reserve and adjoining land

The land ownership of the reserve and the surrounding lands is depicted in Figure 5.

The majority of the reserve is within lands owned by Campbelltown City Council. Small portions along the southern and northwest boundaries are owned by the NSW Department of Planning and Environment (Section A and Section C DP1870). These allotments are classified as 'Community Land' as a result of them being under the care and control of Council.

The western boundary of the reserve adjoins three semi-rural privately owned properties (two hectares in area). The reserve also adjoins land owned by the NSW Government to the south and north, which form part of the Georges River Regional Space Corridor. The land to the east of the reserve (on the opposing side of the Georges River) forms part of the Holsworthy Army Reserve owned by the Department of Defence.

The ownership of land occupied by the Georges River is defined by the adjoining landowners due to the non-tidal nature of this section of the river adjoining the reserve. Consequently, the eastern half of the river is owned by the Department of Defence and the western part of the river is owned by either Council or the NSW Department of Planning and Environment, depending on the ownership of individual allotments directly adjacent to the river.

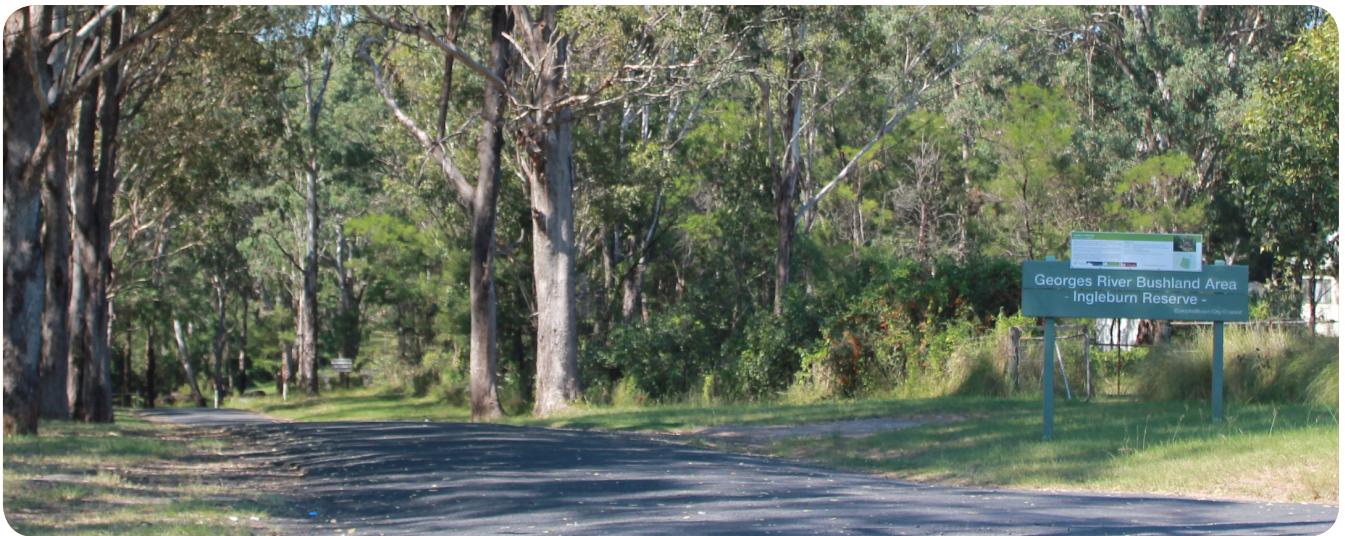




Figure 5: Land Ownership

1.3 Declaration of critical habitat

No critical habitat is present in the reserve.

1.4 Local planning instruments

(i) Current local planning instrument

The current applicable local planning instrument to Ingleburn Reserve is the CLEP 2015, where Ingleburn Reserve is zoned as RE1 - Public Open Space. The corresponding objectives for this zone are:

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.
- To provide for land uses compatible with the ecological, scientific, cultural or aesthetic values of land in the zone.
- To facilitate the multiple use of certain open space areas.
- To facilitate development that is ancillary or incidental to the special land uses provided for in this zone.
- To provide for the sufficient and equitable distribution of public open space to meet the needs of the local community.
- To preserve and rehabilitate bushland, wildlife corridors and natural habitat, including waterways and riparian lands, and facilitate public enjoyment of these areas.
- To provide for the retention and creation of view corridors.
- To protect and enhance areas of scenic value and the visual amenity of prominent ridgelines.
- To preserve land that is required for public open space or recreational purposes.

1.5 Requirements of the Local Government Act 1993

This document has been prepared in accordance with the requirements of Section 36 of the *Local Government Act 1993*. The consistency of this plan with each of the requirements of this Section of the Act is provided in Table 2.

Table 2: Consistency of the draft plan with requirements of the *Local Government Act 1993*

Required to be included in specific Plans of Management	Applicable section of the Plan
Categorisation of community land	Section 1.6 Land Categorisation
A description of the condition of the land and assets	Section 1.8 Condition of the Land
A description of the use of the land	Section 2.1 Current Land Uses
Specification of purposes for which the land will be permitted to be used	Section 3.6 Authorised Activities
Inclusion of objectives and performance targets that are consistent with the objectives of the <i>TSC Act 1995</i> .	Section 6.3 Native Flora and Fauna Section 7.1 Implementation Action Plan
Inclusion of performance targets relevant to these objectives of achieving and monitoring the achievement of these targets	Section 7.1 Implementation Action Plan

An overview of other legislation that relates to this POM of Ingleburn Reserve is provided in Appendix 1.

1.6 Land categorisation of Ingleburn Reserve

The land categorisation within the reserve defines the broad objectives by which the respective land will be managed. The Land Categorisation Map for the reserve is presented in Figure 6. Core Objectives that define principles for the management of these land categories are presented in Section 2 of this document.

The steeper terrain within the reserve has not been categorised as ‘Culturally Significant’ despite being consistent with guidelines for this category contained in the Local Government Regulation 2004 (the Regulation). This approach is consistent with Section 28 of the *Local Government Act 1993 Regulation 2004* which states that “a Council must not categorise community land as an area of Aboriginal Significance unless Council has considered any submissions by Aboriginal people”. In this regard, local Aboriginal groups have expressed the view to Council on a number of occasions that areas of cultural significance must not be publicly identified.

The following categories have been identified in Ingleburn Reserve, consistent with the Local Government Regulation 2003 for the categorisation of land:

- **Bushland**

The land categorised as ‘Natural Area - Bushland’ includes land on the steeper terrain of the reserve as well as flat terrain to the west of the picnic area. Figure 6 indicates that part of the bushland is located on road reserves. These road reserves cannot be categorised as they are not defined as ‘Community Land’ under the *Local Government Act 1993*. However, these parts of road reserve will be managed according to the core objectives of ‘Natural Area - Bushland’ listed in Section 36 of this Act due to their inherent features.

- **Park**

The land categorised as ‘Park’ includes all the parkland section of the reserve that is bounded by the vehicle loop road. Figure 6 shows that part of the parkland component of the reserve is also located on road reserves. Road reserves cannot be categorised as they are not defined as ‘Community Land’ under the *Local Government Act 1993*, however, these sections of road reserve will be managed according to the core objectives of ‘Park’ as listed in Section 36 of this Act.

- **General Community Use**

The land categorised as ‘General Community Use’ includes all road surfaces within the boundaries of the reserve. It also includes existing car parking spaces adjacent to sections of the loop road, as well as the car parking area adjacent to the southern boundary of the reserve.



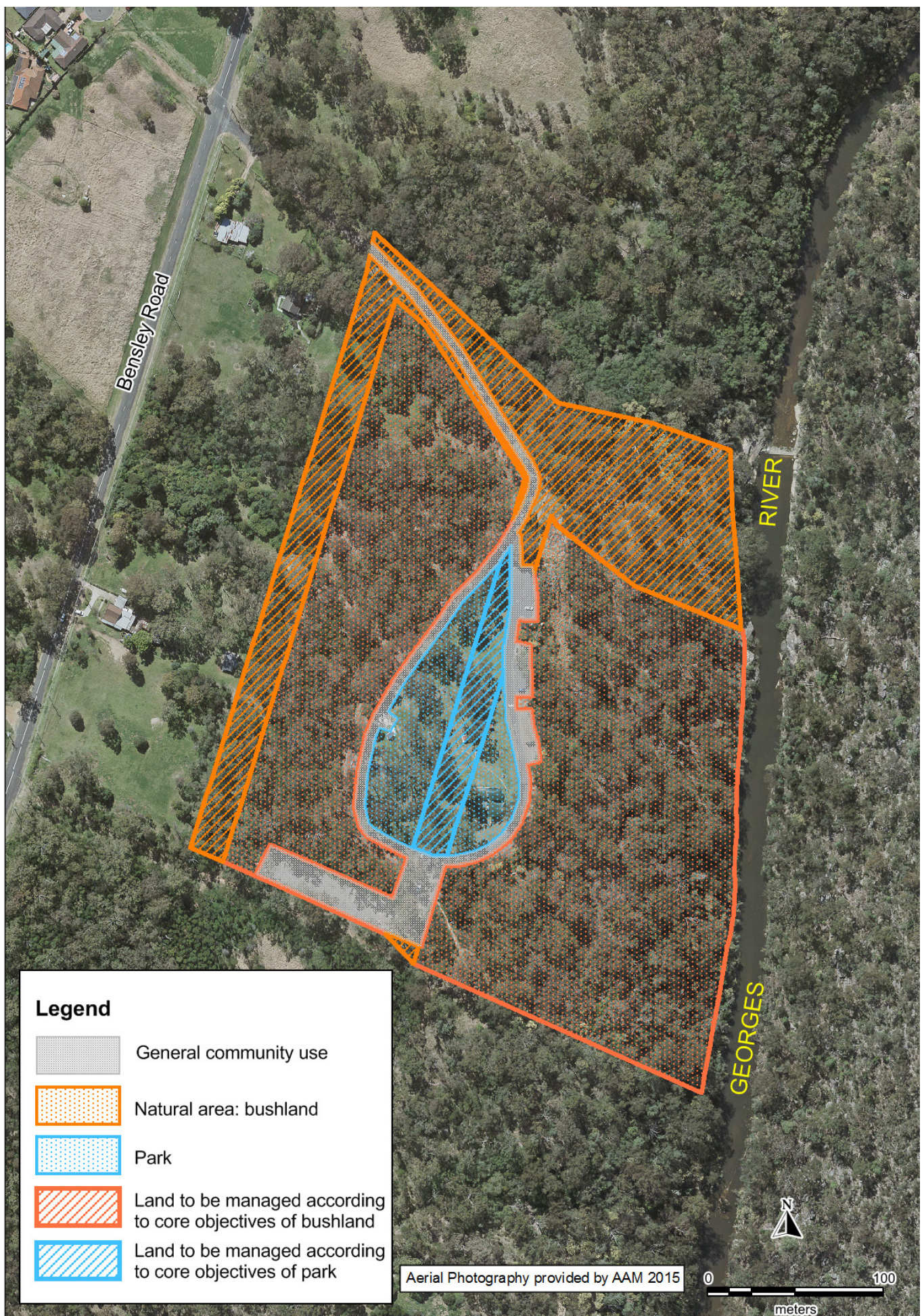


Figure 6: Land Categorisation

1.7 List of leases, licences and events permitted by this Plan of Management

At the time of writing this plan, no leases or licences applied to Ingleburn Reserve. Council is required to manage land in accordance with the *Local Government Act 1993*. The Act clearly defines restrictions and authority with which Council can grant leases, licences and other estates over Community Land, particularly Natural Areas. The Act requires Council to maintain the intended purpose of the land by ensuring any authorised activity is consistent with the core objectives of Natural Areas and the purpose listed in the Act.

In accordance to the *Local Government Act 1993*, this POM authorises Council to:

- Grant easements for authorities, organisations or individuals in favour of private lands over lands identified in the Plan of Management. Council must, however, be satisfied there is no reasonable alternative and that appropriate benefits are obtained for the community land and any adverse impacts on the bushland is remedied at the cost of the holder of the easement.
- Council to consider and to approve or to refuse, as it deems appropriate, the granting of any easements, leases, licences, or other estate (including entering into a biobanking agreement within the meaning of Part 7A of the *TSC Act 1995* with the Minister administering the *National Parks and Wildlife Act 1974* and *TSC Act 1995* to provide for the maintenance of biodiversity values in perpetuity or biodiversity offsetting arrangement) over community land subject to this POM:
 - which would not compromise the nature of the land as a community asset and
 - pursuant to *LG Act 1993* (Sections 45, 46, 46A, 47, 47A, 47AA, 47B & 47C).
- Assess potential impacts (to ecological, cultural, fire hazard and built assets) and ongoing management requirements when approving special uses, leases or licences. Conditions of use may be applied to specify permissible uses and restrictions in use in accordance with the context, ecological values, built assets and fire hazard of the area.
- Adopt the 'user pays' principle for special uses, leases or licences. Where contribution (either cash or in-kind) may be required, including maintenance requirements across the full life cycle of impacts.

This plan requires that the use of the reserve as part of activities associated with any such future lease or licence, or as part of an organised event, be in accordance with Council policies and resolutions, as well as being consistent with applicable core objectives outlined in Section 36 of the *Local Government Act 1993*.

Council currently requires lodgement of an application for an event pursuant to the *Local Government Act 1993*, Chapter 7, Part 1 (Approvals), which may involve the use of a temporary structure (such as a marquee) or a mobile structure (such as a mobile food vending vehicles). The purpose of this application is to enable Council to assess any adverse maintenance or liability issues arising from the event, as well as potential adverse impacts on other visitors and the condition of the reserve. The merits of such applications will be assessed on a case by case basis independently of this POM. Any application involving the use of temporary structures is also required to demonstrate that no adverse impact on the natural and cultural features of the reserve will occur as a consequence of the proposed event.

1.8 Condition of the land and assets

This section of the POM provides a summary of the condition of the individual components of each area within the reserve, as well as assets and infrastructure, in accordance with requirements of the *Local Government Act 1993*.

(i) Condition of the bushland and natural areas

The bushland within the reserve has been broadly assessed in accordance with the National Trust Scheme for Urban Bushland. The bushland on the steep terrain within the reserve is in good condition. The bushland in the west of the reserve on the flatter terrain is in predominantly fair condition, with small sections in poor condition.

Several areas of weed incursion have been identified in areas marked in Figure 7 of this POM. Weed control activities have been undertaken in some of these areas, as guided by the 2003 PoM. Areas of weed infestation remain in small sections of the reserve, in particular in bushland directly adjacent to the entrance roadway.

The bushland areas surrounding the parkland area have been impacted by inappropriate and unauthorised recreational activities such as trail bike use, mountain bike use and the creation of informal access tracks. These access tracks also provide high risk pathways for weeds hindering bush regeneration works in some sections.

(ii) Condition of assets, infrastructure and recreational features

A list of all assets and infrastructure in the reserve and their reported condition as at May 2016 is provided in Appendix 2. A map showing the location of assets in Ingleburn Reserve is provided in Figure 8. Assets are comprised of picnic tables, amenities unit, playground and barbecues, and are located in the mown parkland area of the reserve. The recreational playground equipment is inspected regularly and is in excellent condition, having been installed in June 2015. Car parking spaces in close proximity to this area, established in 2003, are also in fair/good condition. In 2015, the amenities block was replaced with an automated toilet.

There is a car park adjacent to the southern boundary of the reserve that has an unformed, moderately degraded surface. There are also picnic furniture items in close proximity to this car parking area that are currently rarely used and are periodically subject to vandalism and graffiti activities. These facilities will be maintained and upgraded in accordance with Council's maintenance schedule.

The access path to Ingleburn Weir appears stable but in need of some maintenance and repairs. Evidence of vandalism to entrance signage and information signage is present at the access point to the path. Vegetation surrounding the path appears in fair condition.





Figure 7: Areas identified as containing noxious and environmental weed incursions

1.9 Community engagement and consultation

This section details the community engagement and consultation undertaken as a part of the preparation of this plan.

In developing this POM, Council chose to consult local school students with the aim of better understanding how young people in the community perceive the reserve and would be inclined to engage and interact with its natural features and assets. The observations and feedback received has been used to develop new methods and project concepts, aiming for a positive change in perception and increased patronage from within the local community, in particular youth.

Campbelltown Performing Arts High School (CPAHS) was exploring avenues to engage its Year 8 students in a place-based learning program (PBL), which involved students becoming participants in the function of their communities and natural environment, making a difference to environmental quality and to the well being of their local community.

Council and CPAHS were able work in partnership to carry out a Place-based Learning (PBL) project at Ingleburn Reserve that saw students exploring the reserve and developing project ideas to assist in guiding the development of this POM. A report on the consultation process with CPAHS is provided in Appendix 3.

The recreational and access values of the reserve identified through this project have been incorporated into Section 4.4 of this POM. Appropriate and feasible actions proposed by the students have been incorporated into the Implementation Action Plan (IAP).

2. Aims and Core Objectives

2.1 Aims of the Plan of Management

This plan has been prepared in accordance with Section 36 of the *Local Government Act 1993*. The purpose of the plan is to provide a management framework for the reserve that promotes the values of the reserve and encourages recreational opportunities within a distinctive natural bushland setting.

The aims of this POM are to:

- Protect, conserve and enhance the values of Ingleburn Reserve in accordance with government policy and statutory frameworks.
- Provide strategies to increase the patronage of the reserve through the provision of appropriate passive recreational opportunities, complementary to the land categorisation.
- Maintain and enhance flora and fauna in the bushland area of the reserve.
- Guide the ongoing maintenance and management of the reserve.
- Promote community awareness of the natural and cultural significance of the reserve and its recreational value.
- Detail the responsibilities, means of implementation, and performance targets for achieving projected outcomes.
- Provide an approach for monitoring, reviewing and achieving the objectives and actions specified in the plan.

2.2 Core Objectives

The reserve will be managed according to the core objectives in Division 2 of the *Local Government Act 1993* as per the appropriate sub-categories listed below:

Bushland

- To ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro-organisms) of the land and other ecological values of the land.
- To protect the aesthetic, heritage, recreational, educational and scientific values of the land.
- To promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed to minimising or mitigating any disturbance caused by human intrusion.
- To restore degraded bushland.
- To protect existing landforms such as natural drainage lines, watercourses, foreshores.
- To retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term.
- To protect bushland as a natural stabiliser of the soil surface.

Park

- To encourage, promote and facilitate passive recreational, cultural, social and educational pastimes and activities.
- To provide for passive recreational activities or pastimes and for the casual playing of games.
- To improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management.

General community use

To promote, encourage and provide for the use of the land, and to provide facilities on the land, to meet the current and future needs of the local community and of the wider public:

- a) in relation to public recreation and the physical, cultural, social and intellectual welfare or development of individual members of the public, and
- b) in relation to purposes for which a lease, licence or other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities).

3. Land Use and Authorised Activities

3.1 Current use of the land

The reserve is utilised by a cross section of the community for passive recreation opportunities, particularly during weekends and peak periods such as school holidays. Surveys to identify the level and type of visitation to the reserve and purposes for this visitation have not been undertaken. Based on random observations by field staff however, the mown picnic area and associated infrastructure comprised of playground equipment, barbecues and picnic seating is the dominant area used by visitors to the reserve. The walking track to Ingleburn Weir is also used, however less frequently.

Parts of the reserve have been periodically subject to certain antisocial activities and other unauthorised activities (under the plan) such as dumping and illegal trail bike riding which has affected public perception of the reserve by sections of the community. Council, in association with government agencies, has carried out a range of responses to reduce these activities and begin to alter and improve the image of the reserve to the wider community.

3.2 Existing infrastructure

A map showing the location of assets within the reserve is presented in Figure 8.

A comprehensive list of all assets in the reserve and their reported condition as at May 2016 is provided in Appendix 1. This infrastructure is reviewed on an ongoing basis as part of Council's maintenance program within the context of the Council's open space maintenance schedule for the Campbelltown LGA.

3.2.1 Park infrastructure

The reserve infrastructure and facilities were considered to be in fair condition after an inspection of the reserve in May 2016. Major infrastructure items include:

- automated toilet
- picnic facilities including tables, a BBQ and water fountain
- playground equipment
- park area lighting
- reserve entrance signage
- car park areas
- Ingleburn Weir access track.



Playground equipment



Ingleburn Weir access track



Automated toilet



Picnic facilities

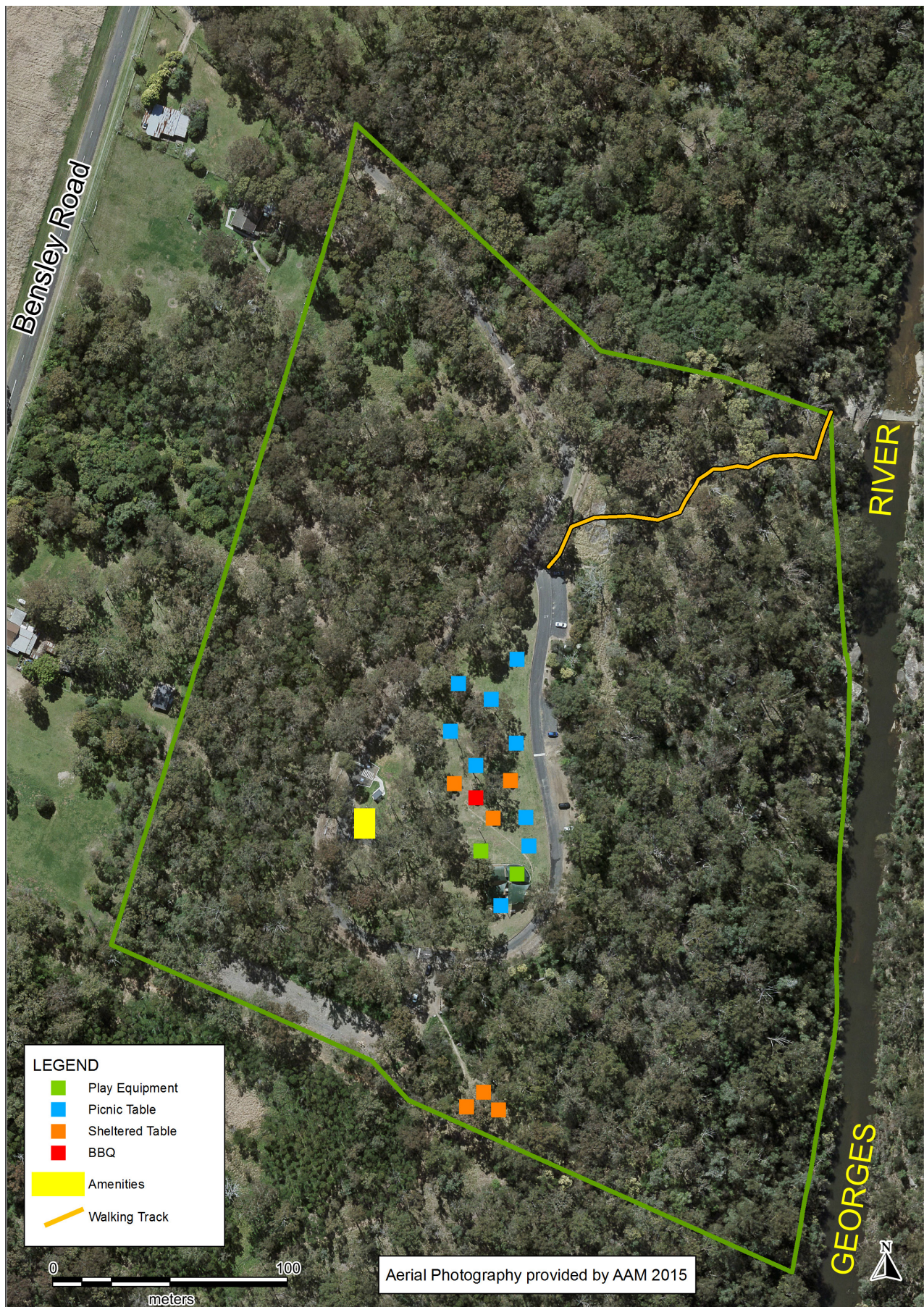


Figure 8: Ingleburn Reserve Infrastructure

3.3 Previous land use

Prior to its use as a public reserve, not much is known about the history of Ingleburn Reserve. It appears the reserve in its current location was dedicated as public lands as early as 1870 and was a popular picnic ground for residents by the 1920s.

The construction of the Ingleburn Weir, along the Georges River, was approved in October 1937 and was completed between March 1939 and January 1940.

Council's resolution to construct the weir stated that "a weir 2'6" (approximately 1 metre) high be constructed across the George's River to provide a swimming pool, subject to the consent of the Defence Department" (Leishman, 1997). Upon completion, Ingleburn Weir was utilised for swimming activities and bushwalking due to the absence of other facilities available within the defined local region (Leishman, 1997). The use of this area as a swimming facility was discontinued in the 1960s following the construction of a number of other swimming facilities across the Campbelltown LGA.

The reserve was the subject of an Open Road article produced by the National Roads and Motoring Service (dated 22 February 1940), which stated that at the time the reserve was utilised for camping and included a small kiosk and was closely associated with the Sydney Scouting Movement.

Following the closure of the weir to swimming, its condition gradually deteriorated. Some improvement works were undertaken in the 1980s on the access track to the weir, however the timber logs utilised to stabilise the track soon became destabilised due to erosion caused by runoff from the reserve loop road. In the mid 1990s, a section of the weir near the western bank became fragmented due to flooding and vandalism and was washed away, creating a partial breach in the structure.

Due to its pre-war construction and distinctive sandstone fabric, the weir is recognised by Council as having local historical value.

3.4 Future land use

The implementation of this POM will ensure the reserve is able to continue to function as both a natural area of significance and as an important public recreation facility. This POM prescribes a range of actions to retain the natural and cultural values of the reserve and ensure the bushland within the reserve will continue to be managed primarily for conservation purposes.

Any future development must be in accordance with the conditions for permitted development for three broad identified zones based on intended land use and terrain within the reserve, as outlined in Section 3.6 Authorised Activities and Development.

3.5 Adjoining land uses

The Georges River separates the eastern boundary of the reserve from the Holsworthy Military Reserve owned by the Commonwealth Department of Defence. This Military Reserve is comprised of bushland of high diversity that is in close to pristine condition and is used for a range of training purposes by the Department of Defence, including the firing of military ordinance. Access into any part of the Military Reserve is strictly prohibited by the Department of Defence and attracts significant fines. The Georges River acts as a definitive boundary for the Military Reserve and signage has been placed along the eastern bank of the river discouraging trespassing.

The boundary of land zoned for residential purposes under the CLEP 2015 within the suburb of Ingleburn extends to within approximately 350 metres of the western boundary of the reserve. There are currently three residential properties adjoining the reserve. Each of these are within a rural setting on large lot land parcels (two hectares).

A power line easement is located in the south west corner of the reserve on land owned by the NSW Government. A low voltage transmission line, which is currently operated by Integral Energy, is present within this easement. This transmission line provides a power source for the amenity block located in the reserve.

An automatic water level recording station is located on the sloped area toward the Georges River. The device functions as a real-time flood monitoring station for Liverpool City Council and the Bureau of Meteorology, providing early warning flood level data directly to the Bureau of Meteorology (BoM) via an Event Reporting Radio Telemetry System (ERTS). The system incorporates a gas purge water level gauging station and ERTS canister.

3.6 Authorised activities and development

The following activities and development are authorised by this POM:

Activities authorised without further approval

- Passive recreation activities such as bushwalking and picnicking, and specific community orientated non-commercial events that are consistent with core objectives of applicable land categories listed in Section 2 of this plan.
- Environmental education activities, including school and community group tours and workshops.
- Activities consistent with the management requirements of the various NSW OEH recovery plans.
- The walking of dogs that are leashed and under effective control in land categorised as 'Park', 'General Community Use' and the Ingleburn Weir track (see Figure 6).
- Access by public utilities in accordance with the provisions of the CLEP 2015.

Activities authorised with Council approval

- Activities permitted with consent under the CLEP 2015.
- Community events that are in accordance with Council policies and resolutions, consistent with core objectives for applicable land categories and run by Council and/or other organisations (which are deemed suitable and approved by Council) including wedding services and group functions, within Area A (see Figure 9).
- Tree planting, bush regeneration and landscaping activities by Council or contractors or community groups authorised by Council.
- Maintenance of existing roads, tracks and trails, including drainage, stormwater and track works on existing infrastructure.
- Construction of new strategic tracks and trails, or asset protection zones (firebreaks), for recreation and/or hazard reduction purposes (pursuant to the *EP&A Act*)
- Hazard reduction activities that are consistent with the Bushfire Environmental Assessment Code and approved by the Macarthur Bushfire Management Committee.
- The maintenance, replacement and upgrading of assets¹, signage and passive recreation facilities in accordance with Council's maintenance schedule for the reserve as well as applicable policies and resolutions.
- Scientific research and specimen collection with appropriate ethics approval, permits or licences where necessary
- Pest animal control and management pursuant to relevant acts or off label permits.
- Installation of structures for the purposes of educating and informing the community.
- Removal of tree limbs and trees that are identified as presenting a public safety risk, in accordance with the controls outlined in the Campbelltown (Sustainable City) Development Control Plan 2014.
- The grant of a lease or licence or other estate (including entering into a biobanking agreement within the meaning of Part 7A of the *TSC Act 1995* or biodiversity offsetting arrangement) in respect of the land to which this plan applies is expressly authorised for any purpose for which the land was used at the date of adoption of this plan. This does not exempt future use review and modifications.
- Filming activities.

¹Assets are defined as any installed structure within the reserve that includes park and stormwater infrastructure, roads, carparks, fencing, earth mounds and the Ingleburn Weir track as well as any additional constructed structure.

Prohibited activities

Any activity not specifically mentioned above is deemed to be a prohibited activity. All activities carried out within the reserve must be in accordance with Council policies and the applicable approval process. Information on unauthorised activities is discussed in Section 6.13. A table showing specific activities prohibited within Ingleburn Reserve, according to land categorisation, is provided in Appendix 7.

Section 47 of the *Local Government Act 1993* contains provisions in regard to permitted development and development that must be authorised by a Plan of Management on 'Community Land'. This plan does not authorise any specific development within the reserve in accordance with this Section of the Act CLEP 2015 regulates development activities.

Each land categorisation area within the reserve has differing restrictions on any future development based on environmental and cultural constraints and existing and intended future use. All future development will be required to comply with the Due Diligence Code of Practice introduced by the OEH in the assessment of any activity or development satisfying definitions in Part 4 or Part 5 of the *EP&A Act* respectively.

The two key land categorisations for Ingleburn Reserve are 'Park' and 'Bushland'. The lands categorised as 'Bushland' have been further divided into two separate parcels for this section of the plan due to the variation in features and suitability for land use and development. Figure 9 depicts the location of each of the identified land use areas. The development controls for any future development within land areas of the reserve are provided in Table 3.

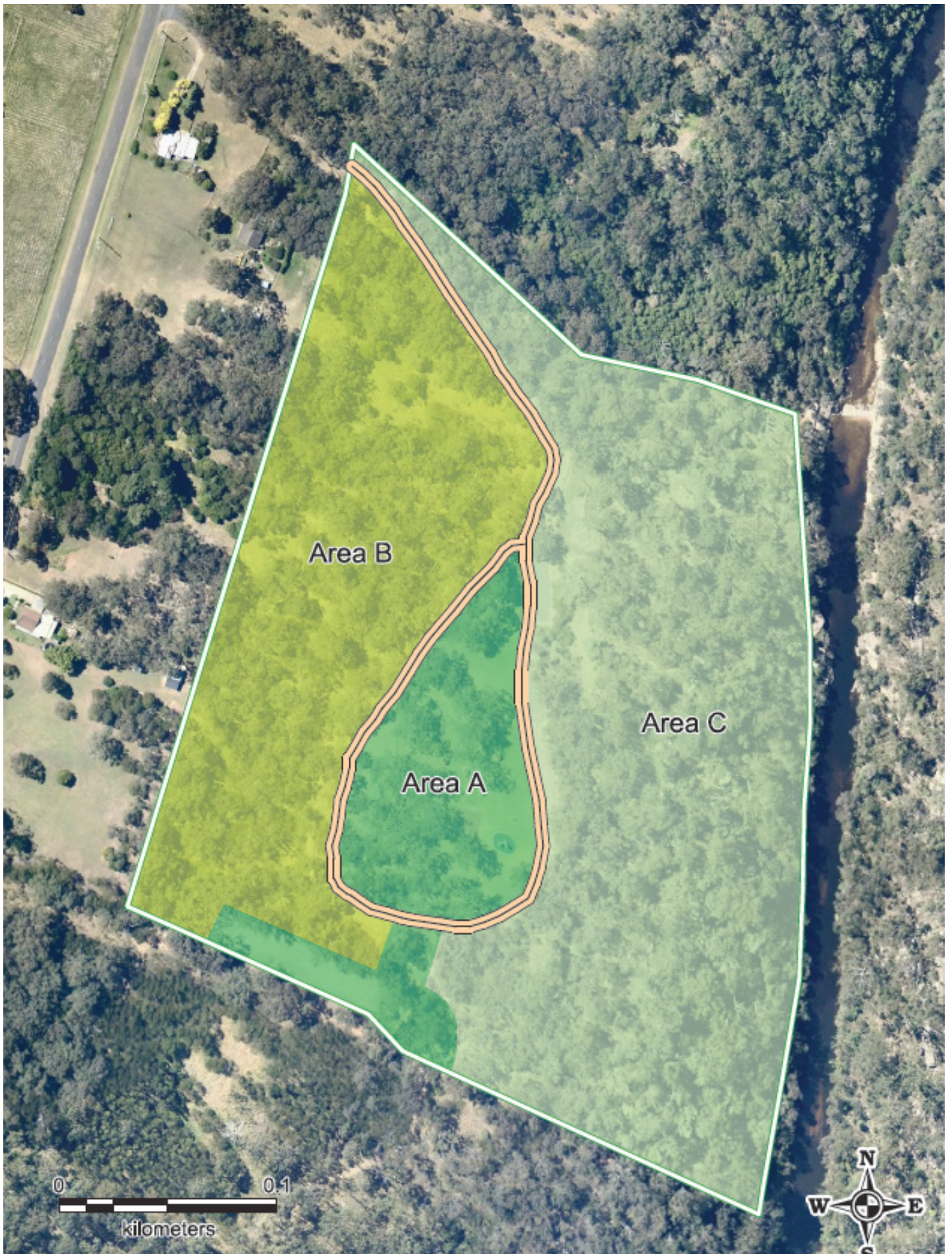


Figure 9: Defined areas for development controls and activities

Table 3: Development controls for areas within the reserve

Area label	Categorisation	Area (ha)	Development Controls
Area A	Park	1.1ha 'Park'.	Consistency with core objectives for land categorised as Assessment of likely potential impacts on land consistent with 'Natural Area' classification due to ecological significance of the reserve.
Area B	Bushland	3.2ha	Consistency with core objectives for land categorised as 'bushland'. Authorised development limited to: bush regeneration, bushfire hazard management, unauthorised access controls, stormwater management and public safety controls.
Area C	Bushland	5.0ha	Authorised development limited to: bush regeneration, bushfire hazard management, upgrade/ remediation work on the Ingleburn Weir track, interpretive/ educational signage, stormwater quality improvement devices, unauthorised access controls and public safety controls. Track closure and habitat rehabilitation

4. Description of Values

The following provides a description of each of the key values of the reserve identified through consultation with key stakeholders, current and historical use of the reserve and associated management issues.

4.1 Aboriginal heritage

A site inspection was held with representatives of local Aboriginal groups during the preparation of this plan to assist in identifying the Aboriginal heritage values of the reserve and appropriate management measures for the protection of these values.

The steep terrain adjacent to the Georges River was identified as having Aboriginal significance due to its location adjacent to the river and possible presence of rock shelter sites. The flat terrain in the parkland area and western bushland is recognised as having potential to contain artefacts and subsurface deposits. Soil disturbances in the western part of the reserve associated with unauthorised access may however have disturbed artefacts or subsurface deposits.

Any proposed development or activities that have the potential to result in soil disturbance within these sensitive areas is required to comply with the Due Diligence Code of Practice introduced by the OEH in the assessment of any activity or development satisfying definitions in Part 4 or Part 5 of the EP&A Act respectively. A comprehensive Environmental Impact Assessment (EIA), including Aboriginal heritage impact assessment, must also be completed for Council activities undertaken under Part 5 of the EP&A Act.

The views of the local Aboriginal groups are consistent with the findings of the following studies:

- The Aboriginal Heritage Study for the Campbelltown LGA prepared by Navin Officer Consultants in 2002) identified the steeper terrain within the reserve as being “archaeologically sensitive and likely to contain rock shelters”.
- Aboriginal Cultural Heritage Management Plans prepared for Keith Longhurst Reserve and Simmos Beach Reserve (Oliver Brown Consultants 2006 and 2008), both of which have similar settings to Ingleburn Reserve, acknowledge Aboriginal significance in regard to steep terrain adjacent to the Georges River.

4.2 European heritage

Ingleburn Weir, which is located within the Georges River along the north eastern corner of the reserve, is the prime feature of historical significance associated with the reserve.

An initial analysis of this significance was detailed in a discussion paper independently produced by Alan Leishman in 1997 (held by Council). Subsequently a HIS was prepared as part of Council's involvement in NSW DPI Bring Back the Fish Project in 2007. The HIS included an assessment of the heritage value of the structure in accordance with the Australian International Committee on Monuments and Sites Burra Charter (1999). The HIS concluded the weir had heritage significance at a local level due to “its pre-war creation as a recreation facility and the uniqueness of its sandstone structure for such a facility”. The findings are presented in Table 4.

Table 4: Summary of the heritage significance of Ingleburn Weir

Significant forms and fabric	Level of significance to the heritage of the community	Justification	Policy implications
The fabric of the weir	High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Aim to preserve, restore and maintain all items and record relevant processes. Opportunity for adaptive reuse to preserve the ongoing viability of the place provided that significance is retained or revealed. All intervention should be archival recorded.
The overall form of the weir	High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Aim to preserve, restore and maintain all items and record relevant processes. Opportunity for adaptive reuse to preserve the ongoing viability of the place provided that significance is retained or revealed. All intervention should be archival recorded.
The setting - views of the weir and approach from the reserve via the sandstone steps	Moderate	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.	Aim to preserve, restore and maintain most items and record relevant processes. There is opportunity for adaptive reuse or partial removal may be permitted to preserve ongoing viability of the place, particularly if it reveals significance of a higher level.

In addition, a Heritage Study was prepared for Council during 2011 to inform the CLEP 2015. This study identified Ingleburn Weir as a potential heritage item. The weir is not currently listed as a local heritage item, however, in response to the Heritage Study, it is proposed to be included through a future amendment to this planning instrument.

4.3 Natural Values

Ingleburn Reserve has significant natural values due to the presence of unique and valuable ecological communities and habitat for a number of significant flora and fauna species as described below.

(i) Ecological communities

The bushland within Ingleburn Reserve forms part of a habitat corridor, traversing both sides of the Georges River, extending from Appin (within the Wollondilly LGA) in the south to Simmos Beach (Campbelltown LGA) in the north. Council's Biodiversity Study has identified this corridor as warranting classification as regionally significant due to the linkage it provides to large native vegetation remnants (OEH 2014) and the habitat it provides for important species such as the koala. A Rapid Fauna Habitat Assessment of the Sydney Metropolitan Catchment Management Authority Area prepared by the NSW OEH in June 2008 also identified this corridor as having regional significance.

The distribution of ecological communities within the reserve based on available broad scale mapping undertaken by OEH in 2013 is depicted on Figure 3. The conservation status of each of these ecological communities at both the State and Commonwealth level based on this mapping is provided in Table 5.



Table 5: Conservation status of mapped ecological communities in Ingleburn Reserve

Ecological community	NSW conservation status	Commonwealth conservation status
Cumberland Plain Woodland (CPW)	Critically Endangered	Critically Endangered
Shale Sandstone Transition Forest (SSTF)	Critically Endangered	Critically Endangered
Sydney Hinterland Apple Blackbutt Gully Forest	Not listed	Not listed

(ii) Threatened flora and fauna species

Comprehensive flora and fauna surveys have not been undertaken within the reserve, and according to current data sources, no threatened species have been identified within the reserve.

However, the flora species *Gyrostemon thesoides*, which is listed as endangered in the *TSC Act 1995*, has previously been recorded in bushland adjoining the southern boundary of the reserve. This species typically inhabits steep terrain and river beds.



Gyrostemon thesoides

Ingleburn Reserve has been identified as preferred Koala habitat under Campbelltown Council's draft Comprehensive Koala Plan of Management (CKPoM) (Phillips, 2015), as it supports vegetation that is categorised as both Secondary Class A and Secondary Class B Koala habitat. The vegetation at the reserve constitutes two critically endangered ecological communities (CEEC), including both representations of Cumberland Plain Woodland and Shale Sandstone Transition Forest.

Koalas have been observed in various locations surrounding the reserve, and these observations are supported by historical records on the OEH Bionet database. However to date, there have been no Koala sightings reported from within the reserve. The closest records of Koalas to the reserve are from the Symonds Reserve creekline (<250m north-west of the reserve), and from Long Point (<1km north-east and south-east of the reserve).

As a consequence of the surrounding historical records, the reserve is situated immediately adjacent to an area that has been identified as core Koala habitat under the CKPoM.

4.4 Community appeal and recreational access

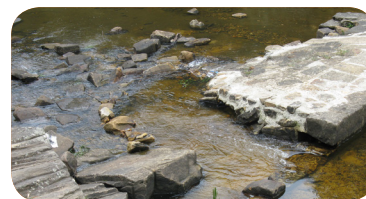
Ingleburn Reserve is one of five locations within the Campbelltown LGA where the distinctive, rugged terrain within the gorge adjacent to the Georges River can be accessed by the community. The track to Ingleburn Weir across this terrain is only suitable for people of at least a moderate level of fitness, as it contains 195 steps. Vistas of the Georges River, the weir and surrounding bushland are however available from upper sections of this track.

The CPAHS PBL project provided an insight into the key values held by the local community, in particular the youth sector, towards the reserve. The results indicated that there was a strong interest in the reserve, particularly for recreational and educational purposes.

The following provides a summary of the recreational and access values identified through the PBL project and historical use of each land category of the reserve:

Parkland

- aesthetics of the open space areas and connections to adjoining bushland
- barbecues, picnic and playground facilities in a bushland setting
- open space play area for informal games and family style activities
- sufficient parking close to open space
- a destination for formal or informal community events and workshops within a bushland setting.



Bushland

- walking in a native bushland setting
- short, accessible bushwalks with scenic vistas for persons of moderate fitness
- views of the Georges River and Ingleburn Weir
- mountain bike riding within a scenic bushland setting
- aesthetics of the bushland and opportunities to learn about Cumberland Plain Woodland and flora and fauna species that inhabit this area through educational programs.

The values listed above mean the reserve is relatively unique in terms of the recreational opportunity spectrum available at parks and reserves within the Campbelltown LGA. Moreover, its setting, easy access and features make it an ideal space for environmental education.

5. Implementation of the 2003 Plan of Management

A list of management actions contained within the 2003 POM is provided in Appendix 4, along with an outline of their status; completed, partially completed or amended, and incorporated into this POM.

A summary of the key management actions implemented under the initial plan is provided below.

5.1 Remedial work on Ingleburn Weir

Key Management Action (2003 POM) - *Liaise with the Department of Fisheries regarding future management options for weir.*

The NSW DPI Bring Back the Fish (BBTF) Project, launched in 2006, identified Ingleburn Weir as having a high priority for investigation and remediation work to enhance fish passage along the Georges River. This classification was based on a range of qualities and features including the location of the structure on the Georges River in a relatively undeveloped part of the catchment.

Council was awarded funds for these works through the BBTF project and consequently engaged a heritage consultant to prepare a HIS to recommend remediation and conservation works sympathetic with the heritage value of the structure. Remediation works were carried out in August 2009 by a specialist consultant with experience in operating in sensitive waterways.

The works were determined effective by both the heritage consultant and NSW DPI in enhancing fish passage and preserving the heritage significance of the weir. In addition, the works also enable the community to access and enjoy the weir and provide a unique interaction with the river.



Ingleburn weir prior to remediation works



Ingleburn weir after works

5.2 Weed removal

Key Management Action (2003 POM) – *Undertake bush regeneration initially involving target weeding of noxious weeds and high priority environmental weeds.*

Weed removal and bush regeneration works were carried out in areas of bushland suffering from weed incursions during 2011 and 2012.

The weed species targeted included woody weeds (Privet and African Olives), climbers (such as Blue Morning Glory) and invasive grass species (African Love Grass). The works were successful in reducing the level of infestation of the targeted weed species and improving the long-term condition of the bushland in these areas. Areas continue to be monitored.

5.3 Southern car park closure

Key Management Action (2003 POM) – *Construct appropriate fencing to restrict access to the southern car park and close except for high usage events.*

The large car park area adjacent to the southern boundary of the reserve was constructed in the late 1990s and contains approximately 40 parking spaces. This overflow car parking area is in a moderately degraded condition and has historically been the site of numerous incidents of illegal dumping and a range of other antisocial activities.

In 2003, 26 car parking spaces were constructed adjacent to the eastern side of the loop road. These spaces are in a more user-friendly location and have been identified as sufficient to meet the current patronage demand during both weekend and weekday periods, allowing for the overflow car park area to remain closed during normal operation of the reserve.

A gate and several sandstone boulders were placed across the entrance to the overflow car park preventing access during normal demand periods. The overflow carpark allows for additional patronage during high demand periods such as community events held in the reserve.

5.4 Restriction of unauthorised vehicle access

Key Management Action (2003 POM) – *Install kerbing/barriers/fencing to restrict vehicles to designated areas.*

The land to the south of the reserve, owned by the NSW Government, was identified as an access point for trail bike riders into the reserve. Trail bike activities result in negative impacts to the natural environment and the recreational experience of reserve users. Consequently, steel cable fencing was installed in June 2010 along identified sections of the southern boundary of the reserve. This fencing has been successful in significantly reducing unauthorised vehicle access into the reserve.

5.5 Production of a brochure for Ingleburn Reserve

Key Management Action (2003 POM) – *Produce brochure on natural and cultural significance of reserve and adjoining areas that mentions the reserve's former name, King's Park.*

In 2010, Council prepared an updated brochure on Ingleburn Reserve as part of the Ingleburn Weir BBTF Project. The brochure provides an overview of the historical significance of the weir as well as remedial work carried out to enhance fish passage and the heritage value of the structure. The brochure also provides information on the overall features and attractions of the reserve.

The brochure was approved by Council's Heritage Protection Sub Committee at its meeting on 17 June 2010 and was formally endorsed by Council at its meeting on 27 July 2010.

In 2014, Council prepared a bushwalking guide for the Georges River corridor and the Ingleburn Weir track is included in this guide.

6. Management Issues and Objectives

A range of management issues for Ingleburn Reserve have been identified through site inspections and discussions with Council staff and other stakeholders. These management issues are categorised in Table 6 and objectives for addressing these issues are specified.

Table 6: Objectives for management issues

Management Issue	Objectives
Aboriginal heritage	<ul style="list-style-type: none"> To provide protection for Aboriginal heritage within the reserve and to enhance community awareness of this heritage To inform management decisions regarding impacts from activities to Aboriginal heritage and take appropriate actions to avoid or mitigate these impacts
Ingleburn Weir	<ul style="list-style-type: none"> To maintain and promote the heritage value of the weir
Native flora and fauna	<ul style="list-style-type: none"> To protect and enhance the biodiversity of Ingleburn Reserve and maintain ecosystem function through appropriate management of the reserve To protect threatened flora and fauna habitat, including connectivity To increase community awareness of the natural values of the reserve
Protection of koala habitat	<ul style="list-style-type: none"> To provide protection of known koala habitat from identified threats within and adjoining the reserve To involve the Campbelltown community in the protection and management of this species
Noxious and high priority environmental weeds	<ul style="list-style-type: none"> To control and reduce noxious and high priority environmental weeds in the reserve To protect the reserve and its environmental assets from weed and nutrient inputs from surrounding lands
Pests and domestic animals	<ul style="list-style-type: none"> To minimise the impact from pests and domestic animals on native flora and fauna within the reserve To educate and engage the community in controlling impacts from domestic animals
Stormwater	<ul style="list-style-type: none"> To reduce the impact of stormwater flow on the condition of bushland within the reserve and the Georges River To educate and engage the community in the prevention of stormwater pollution To provide a safe traffic and parking network that is sufficient to meet the current and future demands of visitors to the reserve and does not compromise the reserve's natural and cultural values
Pedestrian and cycle access	<ul style="list-style-type: none"> To maintain adequate pedestrian access to Ingleburn weir and other key points within the reserve To minimise impacts from informal pedestrian access
Bushfire management	<ul style="list-style-type: none"> To manage the fire risk within the reserve for the protection of life and property within an ecologically sound fire regime To mitigate opportunities for arson and accidental fires originating from or spreading to the reserve
Recreational use	<ul style="list-style-type: none"> To provide recreational facilities and promote passive recreation opportunities that complement the environmental and cultural values of the reserve
Community awareness and participation	<ul style="list-style-type: none"> To encourage community awareness of the values of the reserve and community participation in its care and management
Unauthorised activities	<ul style="list-style-type: none"> To reduce and prohibit activities that impact on the recreational, natural and cultural values of the reserve
Reserve maintenance and infrastructure	<ul style="list-style-type: none"> To maintain the reserve to a standard that meets community provision needs and is consistent with its open space classification as a 'District Park'
Land ownership and classification	<ul style="list-style-type: none"> To consolidate land ownership and cadastral boundaries of Ingleburn Reserve

6.1 Aboriginal heritage

(i) Current status

An Aboriginal Heritage Study for the Campbelltown LGA (Navin Officer and Associates 2002), provides a broad assessment of the Aboriginal heritage of the Campbelltown LGA. Detailed archaeological surveys and investigations to accurately identify the Aboriginal heritage significance of the reserve have not been undertaken. Due to this lack of site specific study, available information is largely restricted to the Aboriginal Cultural Heritage Management Plans (ACHMP) for nearby Keith Longhurst and Simmos Beach Reserve, which both have landscape similarities to Ingleburn Reserve. A key finding of the Simmos Beach Reserve ACHMP was that the biodiversity and cultural significance of the landscapes should be managed as one landscape.

A description of the Aboriginal Heritage value of the reserve based on this available information is provided in Section 4.1 of this Plan.

(ii) Legislative and policy framework

The protection and management of Aboriginal heritage within NSW is the responsibility of the NSW OEH in accordance with the requirements of the *National Parks and Wildlife Act 1974*. Significant reforms in the form of amendments to the *National Parks and Wildlife Act 1974* were introduced in July 2010 that centred on principles associated with due diligence. The Act provides that a person which “*exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (AHIP)*”.

A commitment is made within this plan to ensure the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales is applied for any future proposed developments assessed under both Parts 4 and 5 of the EP&A Act.

Management objectives

- To provide protection for Aboriginal Heritage within the reserve and to enhance community awareness of this heritage
- To inform management decisions regarding impacts from activities to Aboriginal heritage and take appropriate actions to avoid or mitigate these impacts

Management actions

- a. Undertake an Aboriginal archaeological assessment of Ingleburn Reserve
- b. Due Diligence Code of Practice applied for proposed developments within Ingleburn Reserve are assessed under both Parts 4 and 5 of the EP&A Act
- c. Modify works or implement preventative measures where necessary to mitigate potential impact on areas of heritage significance
- d. Comprehensive EIA undertaken prior to commencing works for all developments within Ingleburn Reserve undertaken under by Council under Part 5 of the EP&A Act
- e. Incorporate Indigenous design and artwork elements into new infrastructure and equipment such as new bin designs and educational signage.

6.2 Ingleburn Weir

(i) Current status

While Ingleburn Weir is not located within the boundaries of Ingleburn Reserve and is not on lands owned by Council, it is still considered appropriate to address its long-term management and value to the community under this plan. As highlighted previously in the plan, the weir holds local heritage significance and is a point of interest for visitors to the reserve. In this regard, Ingleburn Reserve is the only point of access to the weir and it is a high priority that this access be maintained. Moreover, Council will look for further opportunities to promote and The heritage value of the weir has been determined based on various heritage assessments over the course of the past decade. The HIS undertaken as part of the BBTF project concluded the weir had heritage significance at a local level due to “its pre-war creation as a recreation facility and the uniqueness of its sandstone structure for such a facility”.

A Heritage Study prepared for Council during 2011 to inform the CLEP 2015 for the Campbelltown LGA identified the Ingleburn Weir as a potential heritage item. The weir is not currently listed as a local heritage item however in response to the Heritage Study it may be included through a future amendment to this planning instrument.

(ii) Legislative and policy framework

Council is required to comply with the requirements of the NSW DPI and the *Fisheries Management Act 1994* in maintaining fish passage within waterways. In this regard, the retention of fish passage through the fragmented section of Ingleburn Weir must be retained.

The overall management and protection of heritage items within NSW is the responsibility of the NSW Office of Heritage in accordance with the requirements of the *Heritage Act 1997*. Under this Act, local government has responsibility for the protection and management of items of local heritage significance, for which Ingleburn Weir is identified.

Management objective

- To maintain and promote the heritage value of the weir

Management actions

- a. Register Ingleburn weir as a local heritage item under a future amendment of CLEP 2015
- b. Review and maintain signage at the track entrance to Ingleburn Weir highlighting its heritage significance
- c. Reference to the heritage significance and features of Ingleburn Weir be included in promotional resources for the reserve
- d. Explore opportunities for community and school education workshops, activities and associated infrastructure within the reserve highlighting the cultural and environmental significance of the reserve
- e. Inspect Ingleburn Weir approximately every six months and conduct maintenance activities where required to ensure integrity and longevity of structure
- f. Issues associated with discernable deterioration in Ingleburn Weir structure reported to Council's Heritage Protection Subcommittee for advice on remediation actions.

6.3 Native flora and fauna

(i) Current status

The current available information on vegetation communities is restricted to broad scale mapping carried out by the (former) Sydney Metropolitan Catchment Management Authority (released during 2009) and subsequent mapping by the OEH (released during 2013).

A detailed site-specific flora and/or fauna survey (either targeted or comprehensive) within Ingleburn Reserve had not occurred at the time of preparing this plan to confirm the existence and distribution of species and ecological communities. Available information is limited to opportunistic sightings, this includes a sighting of the plant species, *Gyrostemon thesiodes* (Broom wheelfruit) a small undershrub, which is listed as Vulnerable under the TSC Act.

A targeted survey (and associated habitat assessment) was undertaken in nearby Simmos Beach Reserve during November 2010 as part of the preparation of a Fire Management Plan. These surveys provide a suitable initial basis for the identification of those threatened species that may potentially occur within Ingleburn Reserve, given the close proximity and similar types of terrain within Simmos Beach Reserve. Species include:

- Koala *Phascolarctos cinerus*
- Sydney Plains Greenhood *Pterostylis saxicola*
- Nodding Geebung *Persoonia nutans*
- Small-flower Grevillea *Grevillea parviflora subsp parviflora*
- Cumberland Plain Land Snail *Merdolum corneovirens*
- Little Lorikeet *Glossopsitta pusilla*

Actions under this plan will seek to protect and enhance the biodiversity values of Ingleburn Reserve native habitat. A list of plant species suitable for revegetation at Ingleburn Reserve is provided in Appendix 5. These species are consistent with the endemic vegetation communities, in accordance with Council's Sustainable Planting Policy.

(ii) Legislative and policy framework

Management of native flora and fauna is regulated under the *National Parks and Wildlife Act 1974* and the TSC Act. Council is required to comply with the requirements of the TSC Act in managing and addressing threats to listed threatened species and ecological communities that occur within the reserve.

The NSW OEH has prepared a number of strategies and plans that are of relevance to the management of biodiversity within the reserve in carrying out its responsibilities. These include the NSW Biodiversity Strategy, Priority Action Statement for NSW, Recovery Plans for listed threatened species and ecological communities, as well as Threat Abatement Plans for individual listed Key Threatening Processes.

The Commonwealth Department of Environment also has responsibility for the protection and management of species and ecological communities of identified national significance listed under the EPBC Act. This includes the two critically endangered ecological communities, occurring in the reserve, as well as threatened species that potentially occur on site (subject to site specific surveys).

Management objectives

- *To protect and enhance the biodiversity of Ingleburn Reserve and maintain ecosystem function through appropriate management of the reserve*
- *To protect threatened flora and fauna habitat, including connectivity*
- *To increase community awareness of the natural values of the reserve*

Management actions

- a. Provide training to Council's operations staff on the identification and management of threatened flora and fauna and any requirements in relevant Recovery Plans or Threat Abatement Plans
- b. Undertake a comprehensive biodiversity survey of Ingleburn Reserve in accordance with applicable guidelines
- c. Update records on the Atlas of NSW Wildlife for threatened species found in Ingleburn Reserve
- d. Identify key habitat features and location of significant flora and fauna within Ingleburn Reserve and ensure that they are protected from recreation and management activities
- e. Review Plan of Management in response to changes in relevant government policy, legislation and plans such as Recovery Plans for threatened species which may inhabit Ingleburn Reserve
- f. Limit access within bushland areas to defined paths through the installation of barriers such as plantings and fencing
- g. Construct appropriate barriers restricting indirect and unauthorised access to Ingleburn Reserve from adjoining lands
- h. Explore opportunities for community and school education workshops, activities and associated infrastructure within the reserve, highlighting the cultural and environmental significance of the reserve
- i. Comprehensive EIA undertaken prior to commencing works for all developments within Ingleburn Reserve undertaken under by Council under Part 5 of the EP&A Act
- j. Install and maintain signage at strategic locations within Ingleburn Reserve, advising of the unauthorised activities and associated fines for non-compliance
- k. Produce advisory material for Ingleburn Reserve that highlights the cultural and environmental values of the reserve and highlights the recreational opportunities. Make the material available through the Campbelltown Visitor Information Centre and Council's website
- l. Provide informational and directional signage highlighting key aspects of Ingleburn Reserve, including biodiversity features
- m. Undertake noxious weed control and bush regeneration activities, particularly within high risk areas
- n. Investigate opportunities for grant funding for the installation of nesting boxes within Ingleburn Reserve.

6.4 Protection of koala habitat

(i) Current status

Koalas have been observed in various locations surrounding the reserve, and these observations are supported by historical records in the NSW Wildlife Atlas. However, to date, there have been no koala sightings reported from within the reserve. The closest records of koalas to Ingleburn Reserve are from the Symonds Reserve creekline (<250m north-west of the reserve), and from Long Point (< 1km north-east and south-east of the reserve).

Ingleburn Reserve has been identified as preferred koala habitat under Council's draft Comprehensive Koala Plan of Management (CKPoM) (Phillips, 2015), as it supports vegetation that is categorised as both Secondary Class A and Secondary Class B koala habitat. The vegetation at Ingleburn Reserve constitutes two critically endangered ecological communities, including both representations of Cumberland Plain Woodland and Shale Sandstone Transition Forest.

Ingleburn Reserve is situated immediately adjacent to an area that has been identified as core koala habitat under the CKPoM, due to generational persistence modeling as evidenced by the presence of one or more koala records for each of the three most recent koala generations 1994 – 2012.

(ii) Legislative and policy framework

The koala (*Phascolarctos cinereus*) is listed as 'Vulnerable' to extinction under both the TSC Act and EPBC Act because of declining numbers and habitat. SEPP 44 – Koala Habitat Protection came into effect in 1995, with the aim of reversing trends in koala population decline by encouraging better management of habitat that supports the species. SEPP44 is a prescribed consideration under the EP&A Act for all development applications (DAs) that may impact on koalas or their habitat.

SEPP 44 – Koala Habitat Protection principally aims to ‘encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.’ It applies to development on lands over one hectare within listed LGAs, which includes Campbelltown. Under the SEPP, consent for development on respective lands containing core koala habitat may be granted subject to a Koala Plan of Management (KPoM) being prepared for the lands. A KPoM may be prepared for specific lands (subject of a DA) or for the whole of a LGA.

In 2008, the NSW Government approved the NSW Recovery Plan for the koala under Part 4 of the TSC Act. The plan prescribes actions for government and the community to ensure the long-term viability of the species. Campbelltown has one of the last known koala populations in the Sydney region and was identified in the approved Recovery Plan as a priority area for the preparation of a Comprehensive Koala Plan of Management (CKPoM), that is, a whole of LGA KPoM. In 2016, Council prepared a draft CKPoM for the Campbelltown LGA in accordance with the provisions of SEPP44, which provides a strategic approach to the protection, restoration, and management of the local koala population and a consistent framework for the assessment of development applications in core koala habitat within the Campbelltown LGA.

Under the CKPoM, Ingleburn Reserve is identified as supporting both preferred and core koala habitat (refer to Figure 5.1 of the CKPoM) and as such, any development within the reserve, that involves the removal of native vegetation, is required to be consistent with the provisions of the draft CKPoM, alternatively a site-specific KPoM may be prepared.

Management objectives

- To provide protection of known koala habitat from identified threats within and adjoining the reserve
- To involve the Campbelltown community in the protection and management of this species

Management Actions

- a. Ensure all development is compliant with the requirements of SEPP44 – Koala habitat protection
- b. Conserve koalas and their habitat in accordance with the recommendations of the Campbelltown Comprehensive Koala Plan of Management
- c. Restore koala habitat by undertaking targeted revegetation in cleared areas identified as not suitable for recreational use
- d. Install and maintain signage at strategic locations within the reserve, advising of the unauthorised activities and associated fines for non-compliance, including the requirement for dogs to be managed on leads
- e. Conduct regular patrols of the reserve to deter unauthorised activities and respond to reports as required
- f. Educate local residents about the potential threats to local koala populations such as dog attacks and vehicle strikes and recommended mitigation measures
- g. Undertake community education activities on koala management in accordance with actions outlined in the Campbelltown Comprehensive Koala Plan of Management, such as erection of signage and website information.

6.5 Noxious and high priority environmental weeds

(i) Current status

Small pockets of weed infestation have been observed throughout the reserve, particularly in or adjacent to high risk pathways such as roads, drainage lines and walking tracks. A range of weed species have been identified including noxious and environmental weed species. A list of noxious weed species known to occur within Ingleburn Reserve and their associated classifications under of the *Noxious Weeds Act 1993* is provided in Appendix 6. The main weed threats to bushland include: *Eragrostis curvula* (African Lovegrass), *Lonicera japonica* (Japanese Honeysuckle) and *Araujia senicifera* (Moth Vine). The groundcover on the flat terrain to the west of the picnic area and platforms (flat terrain within the gorge) is dominated by exotic grasses, however, the mid and canopy layers are in good condition.

The locations of the major areas of weed infestations within the reserve are depicted on Figure 7. These infestations have been identified as priority management areas. Weed incursions are predominately located in the north and south-west corner of the reserve, reflecting stormwater influence. This plan contains actions to improve the quality of stormwater entering the reserve and therefore reduce the potential for further weed infestation.

Monitoring of weed incursions is required to determine the extent of populations, prompt management action and gauge its effectiveness.

(ii) Legislative and policy framework

The control of noxious weeds within NSW is regulated and managed in accordance with the requirements of the *Noxious Weeds Act 1993*. Weeds are declared noxious under this Act by the Minister for Agriculture if they are considered to pose a threat to agriculture, the environment or community health, and there is a public benefit from such declaration. Noxious weeds are classified according to the threat they pose and ensuing control requirements for land managers.

The management framework for the control of pests, disease and weeds in NSW was amended during 2013 by the NSW Department of Primary Industries through development of the NSW Biosecurity Strategy 2013-2021. The strategy is an overarching document to guide management of pests, disease and weeds based on a shared responsibility context.

Council undertakes works in accordance with its Noxious Weed Management Strategy, which provides clear principles and guidelines for Council and the community on how noxious weeds within the Campbelltown LGA are to be prioritised and managed. Council prioritises works targeting high risk weeds, containment of incursions, protection of environmental assets and removal of pest animal harbour.

Management objectives

- To control and reduce noxious and high priority environmental weeds in the reserve
- To protect the reserve and its environmental assets from weed and nutrient inputs from surrounding lands

Management actions

- a. Undertake weed control works in accordance with Council's Noxious Weed Management Strategy
- b. Undertake noxious weed control and bush regeneration activities, particularly within high risk areas
- c. Seek volunteer resources to supplement Council's weed control activities
- d. Develop and implement a monitoring program to determine the extent of weed infestation within the reserve and evaluate the effectiveness of weed management activities
- e. Ensure compliance of development proposals with pollution control measures contained within the Campbelltown (Sustainable City) Development Control Plan
- f. Ensure Work Method Statements and Pesticide Notification Plans are complied with for all work by Council, contractors and volunteers
- g. Comprehensive EIA undertaken prior to commencing works for all developments within the reserve, including appropriate erosion and sediment control.

6.6 Pest and domestic animals

(i) Current status

The pest animal species known or assumed to inhabit the reserve include the European Red Fox (*Vulpes vulpes*), Feral Cat (*Felis catus*), European Deer (*Cervus spp*) and European Rabbit (*Oryctolagus cuniculus*). The domestic cat is also likely to visit the reserve given its proximity to urban areas. All of these species impact on the bushland, damage habitat and prey on native animal species.

(ii) Legislative and policy framework

Pest animals in NSW are primarily regulated under the *Local Land Services Act 2013* (an amalgamation of the former *Rural Lands Protection Act 1998*, the *Rural Lands Protection Amendment Act 2008* and the *Catchment Management Authorities Act 2003*). In addition, some species have been determined as key threatening processes to native biodiversity under the TSC Act and/or the EPBC Act, and threat abatement plans have been developed to address their impacts.

Under the *Local Land Services Act 2013*, all land managers in NSW, whether on public or private land, have an obligation to control declared pest species on their land.

Given the varied land tenure through out the Campbelltown LGA, control programs implemented across a single land tenure are generally ineffective particularly in the medium-long term. To achieve effective management of these species, collaboration between land managers on a broad scale is necessary. Council will monitor pest animal species within the reserve and endeavour to work with Local Land Services to develop regional plans to target key areas within the Campbelltown LGA.

Domestic animals are primarily regulated under the *Local Government Act 1993* and the *Companion Animals Act 1998*. Under this legislation animal owners must manage their animals in public places and prevent dogs from escaping their enclosures. Offences also exist for animals that damage or harm persons, other animals or property. The Koala Recovery Plan and the Campbelltown Koala Plan of Management both identify domestic dogs as a threat to Koala populations. This plan requires that dogs be kept on leads at all times in the reserve. It does not permit cats in the reserve and promotes responsible ownership of cats and dogs by adjoining residents.

The effective control of pest species within the reserve requires an integrated approach including public education, regulatory action and direct control such as baiting and trapping where determined necessary.

The impact of pest and domestic animals on the reserve and its biodiversity will be monitored through patrols by local compliance officers and management actions such as education, signage, trapping and fencing may be pursued where impacts are considered detrimentally significant.

Management objectives

- To minimise the impact from pest and domestic animals on native flora and fauna within the reserve.
- To educate and engage the community in controlling impacts from domestic animals.

Management actions

- a. Monitor the presence and impact of pest and domestic animals within the reserve
- b. Conduct an education campaign focused on nearby residents highlighting the impacts of domestic cats and dogs on native biodiversity and encouraging practices to reduce and mitigate their impacts
- c. Comply with any requirements of Threat Abatement Plans and Recovery Plans prepared by the NSW and Commonwealth governments
- d. Conduct activities to control pest and domestic animals within the reserve in partnership with key stakeholders, including the NSW government and surrounding landholders
- e. Install and maintain regulatory signage at strategic locations within the reserve, advising of the unauthorised activities and associated fines for non-compliance, including the requirement for dogs to be managed on leads.

6.7 Stormwater

(i) Current status

The impact of stormwater within the reserve is relatively low and localised due to the flat terrain that exists above the gorge and absence of watercourses that are either within or enter the reserve. The main source of stormwater flow within the reserve is from the road. There is a close correlation between the areas of bushland impacted by stormwater flow and areas of weed infestation.

Localised erosion from stormwater flows is evident adjacent to the north eastern section of the loop road (near the head of the Ingleburn Weir track) and on the eastern boundary of the southern (overflow) car park. Damage and erosion resulting from stormwater runoff from the loop road has been recorded in the past. During the 1980s, damage to the Ingleburn Weir access track was incurred due to excessive runoff from the reserve loop road over an extended period of time.

Ingleburn Reserve is situated downstream of the confluence of O'Hares Creek and the Georges River. Punchbowl Creek, Peter Meadows Creek and Myrtle Creek are the main tributaries that meet the Georges River upstream of Ingleburn Reserve. The Georges River upstream of the O'Hares confluence is relatively urbanised and is the source of pollutants. Downstream of this point, development along the Georges River proper is limited to large rural properties, generally considered to have comparatively minor impacts on water quality.

Land directly adjoining the reserve and Georges River can become inundated during significant flooding events resulting in increased stormwater flows within the reserve. These waters are a transmission path for weed seeds and can create favourable conditions for the establishment of weed species due to the high level of nutrients contained within these flood waters. Stormwater flow has the potential to result in erosion, weed distribution and degradation of water quality within the Georges River.

(ii) Legislative and policy framework

Council is required to comply with the requirements of the EP&A Act when carrying out activities within the reserve. These activities include the carrying out of road maintenance and improvement of the drainage of road surfaces. In undertaking these activities, Council must undertake an EIA and implement associated controls and risk management protocols as required.

Council must also undertake its works so as to control erosion and sediment pollution, guiding literature includes 'Managing urban stormwater: soils and construction vol 1' (known as the bluebook) published by Landcom, and 'Erosion and Sediment Control – A resource guide for local councils', published by the Department of Environment and Conservation NSW. Environmental harm and/or water pollution caused by a lack of or ineffective erosion and sediment control is an offence under the *Protection of the Environment Operations Act 1997*.

Council actively undertakes regular water quality monitoring throughout the Georges River catchment within the Campbelltown LGA under the Campbelltown Council Water Quality Monitoring Strategy. Monitoring is currently undertaken in locations downstream and upstream of Ingleburn Reserve, with comparable data available to determine impacts from activities within Ingleburn Reserve on the Georges River and the localised health of the river. This helps to determine appropriate community activities and identify issues of concern.

Management objectives

- *To reduce the impact of stormwater flow on the condition of bushland within the reserve and the Georges River.*
- *To educate and engage the community in the prevention of stormwater pollution*

Management actions

- a. Monitor stormwater runoff, pollution and associated erosion from the car parking areas and loop road to determine any impacts on the surrounding bushland and Georges River
- b. Design stormwater management system for Ingleburn Reserve, incorporating water sensitive urban design and best practice, to mitigate stormwater runoff impacts and implement as funding becomes available
- c. Conduct an education campaign focused on nearby residents highlighting the sources of stormwater pollution and encouraging practices to reduce and mitigate its impact
- d. Provide adequate bins for rubbish disposal and encourage reserve users not to litter through the installation of signage
- e. Ensure compliance of development proposals with pollution control measures contained within the Campbelltown (Sustainable City) Development Control Plan
- f. Comprehensive EIA undertaken prior to commencing works for all developments within Ingleburn Reserve undertaken under by Council under Part 5 of the EP&A Act and preparation and implementation of Construction Environmental Management Plan (CEMP) incorporating appropriate sediment and erosion control.

6.8 Vehicular access and parking

(i) Current status

Vehicular access to the reserve is only permitted from sunrise to sunset, access outside of this time period is prohibited by a locked gate at the entrance to the reserve. The Park Grove access road and loop road surrounding the picnic area are routinely maintained as part of Council's overall maintenance schedule. The surfaces of both these roads are in good condition (at the time of exhibition of this plan) however on-going maintenance is required to prevent deterioration in condition and prevention of environmental impacts on adjoining bushland.

The earth mounds and strategically placed logs adjacent to sections of the loop road are reasonably effective in restricting unauthorised access into the adjoining bushland by trail bikes and motor vehicles. However, periodic remediation work is required to maintain these mounds to the most effective form for this purpose.

Trail bike access is managed through fencing around some of the boundary of the reserve, however the issue of unauthorised vehicular access, although minor, remains an issue within the reserve. Evidence of these types of activities within the bushland area to the west of the recreational picnic area is of apparent. There is opportunity for additional fencing, upgrades to current fencing and the installation of barriers such as boulders and bollards.

The southern car park, constructed in the late 1990s, provides additional parking space in times of high/ peak use. The surface of the car park is in moderate condition and has sporadically been subject to littering, dumping of illegal materials and a range of antisocial activities. Access to the carpark has been restricted as part of the implementation of the 2003 Plan of Management due to the existing spaces adjacent to the loop road being identified as sufficient to meet current routine demand.

The power line easement directly adjacent to the southern boundary of the reserve can be informally accessed from Bensley Road, approximately 220 metres south of the Picnic Grove entrance to the reserve. The installation of steel cable fencing in June 2010 has been effective in restricting trail bikes using this easement to enter the reserve. The power line easement is also periodically utilised by the NSW Rural Fire Service (RFS) to access the fire trail to the south of the reserve.

Management objective

- *To provide a safe traffic and parking network that is sufficient to meet the current and future demands of visitors to the reserve and does not compromise the reserve's natural and cultural values.*

Management actions

- a. Audit perimeter fencing/ barriers to identify potential points of access for unauthorised activities
- b. Construct appropriate barriers restricting indirect and unauthorised access to the reserve from adjoining lands based on outcomes of audit
- c. Lock designated vehicle access points to the reserve between dusk and sunrise
- d. Undertake car park resurfacing as part of Council's overall road maintenance schedule pending funding availability
- e. Maintain access barriers adjacent to the vehicle loop road to a sufficient standard that significantly restricts unauthorised vehicle access (including trail bikes) into bushland and recreational areas.
- f. Monitor traffic movements within reserve and install traffic calming devices where required

- g. Conduct periodic patrols to ensure vehicle access on non-public roads is restricted to service, maintenance and emergency vehicles only
- h. Conduct regular inspections of fencing and barriers adjacent to access roads and address any breaches.

6.9 Pedestrian Access

(i) Current status

There is a range of formalised and informal tracks that provide access to the features of the reserve. This plan of management recommends a review of these tracks to determine opportunities for embellishment, upgrade and rationalisation. Following a review of the tracks, it is recommended that the tracks be signposted and the recreational opportunities they present be promoted.

(a) Ingleburn Weir access track

The Ingleburn Weir track was upgraded by Council in 2003 and is a key recreation destination within the reserve. As of January 2016 this track is in an average condition. However the potential exists for future erosion to occur on steep sections of the track during significant rainfall events.

There is potential to use the access track and Ingleburn Weir to cross the Georges River and access the Holsworthy Army Reserve owned by the Department of Defence. Access into the Holsworthy Army Reserve is illegal, dangerous and the use of the weir for this purpose is prohibited by this Plan.

Despite this security issue the access track has potential to become a major recreational and attraction feature of the reserve. Consultation with CPAHS identified several potential upgrades and modifications to the track which would enhance its value as both a recreational and educational feature within the reserve.

(b) Pedestrian and cycle access in the south of Ingleburn Reserve

A fire trail, which adjoins the southern boundary of the reserve, extends approximately 300 metres south into adjoining bushland that forms part of the Georges River Regional Open Space. This fire trail is used periodically by mountain bike enthusiasts and pedestrians as well as unauthorised vehicles on occasion.

Access to this area by unauthorised vehicles is an ongoing issue which must be monitored and managed by Council.

(c) Established informal tracks

A number of informal tracks within the reserve have been established from periodic use. In some cases these tracks encourage unauthorised access, illegal activities such as dumping and can result in environmental degradation. Erosion is evident on the two informal tracks on the steep terrain to the east of the reserve and has the potential to cause significant impact through sedimentation in to the river located down slope. A number of informal tracks are also evident in the western and southern part of the reserve. The presence of these tracks should be reviewed and opportunities for closure and remediation explored.

An informal track is evident along the river bank parallel to the reserve, the possibility of this being linked up back to the reserve should also be investigated as it poses potential interest for sightseers.

Management objectives

- *To maintain adequate pedestrian access to Ingleburn weir and other key points within the reserve*
- *To minimise impacts from informal pedestrian access*

Management actions

- a. Undertake a review of existing formal and informal tracks within the reserve and recommend opportunities for embellishment, upgrade and/or closure of tracks
- b. Inspect walking tracks annually and identify necessary maintenance work to be undertaken
- c. Maintain Ingleburn Weir walking track to a standard suitable for use by people of moderate mobility
- d. Provide informational and directional signage highlighting key aspects of the reserve and discouraging off-trail activities
- e. Produce advisory material for the reserve that highlights the cultural and environmental values of the reserve and highlights the recreational opportunities. Make the material available through the Campbelltown Visitor Information Centre and Council's website
- f. Promote pedestrian activities within the reserve through actions delivered under the Macarthur Destination Management Plan.

6.10 Bushfire management

(i) Current status

The Campbelltown Bushfire Prone Lands Map shows the vegetation within the reserve as bushfire prone (vegetation category 1). The bushland in the reserve presents a moderate bushfire risk to adjoining private properties to the west and south west. The bushland within the reserve is vulnerable to bushfire attack that may originate from bushland to the north and north east (Holsworthy Army Base).

The most recent wildfire occurred during 2007, within the Holsworthy Army Base on the opposite side of the Georges River to the reserve. Ingleburn Reserve and adjoining lands have also experienced small fires over recent years, which the NSW RFS determined to have been deliberately lit. Comprehensive records of every arson activity are not maintained, however, the most recent fire of note occurred in the vicinity of the Ingleburn Weir track in 2010. Fire activity is an integral component of the natural ecosystem, however, fire regimes can have negative impacts if they occur too frequently. The natural fire regimes and conditions relating to the Endangered Ecological Communities that occur in the reserve as per the Cumberland Plain Recovery Plan are presented in Table 7.

Table 7: Natural fire regimes and conditions for mechanical hazard reduction for ecological communities found within the reserve

Community	Listing	Conditions for use of fire	Restrictions of mechanical hazard
Cumberland Plain Woodland	TSC Act EPBC Act	Fire frequency 5-12 years	No slashing, trittering or tree removal
Shale Sandstone Transition Forest	TSC Act EPBC Act	Fire frequency 7-30 years	No slashing, trittering or tree removal

(ii) Legislative and policy framework

The management of fire risk within the reserve and adjoining land is determined under the *Rural Fires Act 1994*. The Act was amended in 2001 to be linked with aspects of the EP&A Act. 'Planning for Bush Fire Protection' (2006) is a revised NSW RFS publication outlining the required bush fire protection measures for development applications located on land that has been designated as bush fire prone. This legislation also outlines considerations for proponents of development in residential, rural residential, rural and urban areas when development sites are in close proximity to areas likely to be affected by bushfire events.

Fire management within the reserve also has relevance to a number of other pieces of legislation including the TSC Act, the *National Parks and Wildlife Act 1974* and the EPBC Act. In this regard, a Bushfire Assessment Code of Practice prepared by the NSW RFS outlines requirements for hazard reduction activities to ensure consistency with these Acts.

Council is responsible for hazard reduction within the boundaries of the reserve. Hazard reduction activities are subject to environmental assessment.

Management objectives

- To manage the fire risk within the reserve for the protection of life and property within an ecologically sound fire regime
- To mitigate opportunities for arson and accidental fires originating from or spreading to the reserve

Management actions

- a. Undertake hazard reduction activities in accordance with the Macarthur Bushfire Risk Management Plan and as part of Council's ongoing hazard reduction program
- b. Conduct an education campaign, focused on nearby residents, highlighting bushfire risks and appropriate land management practices
- c. In consultation with the RFS, restrict access to the reserve on all declared total fire ban days and days of extreme or catastrophic fire danger
- d. Use non-flammable and vandal-proof materials for the replacement and construction of equipment and infrastructure wherever possible
- e. Rapidly suppress any unmanaged fire outbreaks, particularly during bushfire danger periods.

6.11 Recreational use

(i) Current status

This plan aims to continue to provide opportunities for recreational use of the reserve by the general public, while recognising the importance of protecting the cultural and ecological sensitivity of the area. The focus for recreational use within the reserve is therefore on passive recreation activities.

Council utilises the AUS SPEC standards scheme to provide guidance, direction and priorities for the management and installation of facilities in all areas of open space in the Campbelltown LGA. Under this scheme, Ingleburn Reserve has been classified a 'District Park' due to its size and facilities (BBQ and picnic).

Recreational equipment and facilities within the reserve were recently upgraded in early to mid-2015; and the playground consists of modular play equipment. However, there remains scope to further enhance these facilities to complement the quality and setting of the reserve, with the preparation of a masterplan to guide future works and activities.

Consultation with CPAHS has resulted in recommendations for several strategic actions and initiatives aimed at increasing patronage and use of the reserve, not only as a recreational facility, but also as an educational and community resource. Recommendations included the provision of specialised play equipment in keeping with the natural values of the reserve, such as a flying fox and natural playground equipment, directional and information signage and picnic facilities to cater for larger families and/or groups.

The central recreation area consists of a large island, predominately of mown grass, interspersed with large eucalypt trees. This landscape is open and offers significant opportunity for enhancement and installation of community facilities/features. CPAHS have identified that the space could be enhanced by the installation of the aforementioned recreational opportunities along with complementary native landscaping. Any planting undertaken in the reserve is to be restricted to species endemic to the area. A list of plant species suitable for revegetation at Ingleburn Reserve is provided in Appendix 5.

In addition, the reserve offers an ideal education space given its natural setting, ease of access, relatively safe environment and small scale. Opportunities for community and school education workshops and associated infrastructure within the reserve should be explored to encourage stewardship and understanding of the cultural and environmental significance of the area.

Current issues within the recreational areas of the reserve include antisocial behaviour, illegal dumping, and some level of vandalism and anecdotal evidence suggests that this has impacted on the patronage of the reserve. It is hoped that the initiatives developed through consultation with CPAHS will begin altering the perception of the reserve and create a sense of ownership within the broader community.

Management objective

- *To provide recreational facilities and promote passive recreation opportunities that complement the environmental and cultural values of the reserve*

Management actions

- a. Produce advisory material for the reserve that highlights its cultural and environmental values and recreational opportunities. Make the material available through the Campbelltown Visitor Information Centre and Council's website
- b. Provide informational and directional signage highlighting key aspects of the reserve
- c. Maintain, upgrade and replace infrastructure in accordance with Australian standards and Council's asset management strategy, consistent with the aims and objectives of this POM and the Draft Disability Action Plan wherever possible
- d. Review the provision of recreational facilities in the reserve on an annual basis with regard to patronage and community expectations
- e. Explore opportunities for recreational equipment upgrade or embellishment, to complement the natural values of the reserve, such as the installation of a flying fox and natural playground equipment
- f. Investigate the potential for installation of additional picnic facilities and shelters to accommodate larger families and/or groups
- g. Investigate the potential for creation of a native/bush tucker garden and complementary native landscaping within the central or secondary recreation area
- h. Explore opportunities for community and school education workshops, activities and associated infrastructure within the reserve, highlighting the cultural and environmental significance of the reserve
- i. Promote recreational activities within the reserve through actions delivered under the Macarthur Destination Management Plan
- j. Consider authorised community events and activities through an application process and merit assessment in relation to impacts on reserve infrastructure, facilities and the natural and cultural environment.
- k. Prepare and implement a masterplan for the reserve to increase community patronage and enhance the recreational value of the reserve.

6.12 Community awareness and participation

(i) Current status

Community perception and the level of awareness of the natural, cultural and recreational significance and value of the reserve has evidently diminished over time, evidenced by low patronage of the reserve. This has been largely as a result of lack of community engagement and increased anti-social activity within the reserve. Community participation in the management of the reserve has generally occurred in association with activities organised by Council, such as tree plantings. There are currently no community groups active within the reserve.

This POM, in part, aims to facilitate community participation in the care and management of the reserve and encourage a culture of stewardship through increasing awareness of the cultural and environmental values of the reserve. The natural setting, easy access and ecological features of Ingleburn Reserve, along with the large amount of unused open space make it ideal for an environmental education facility for use by a broad cross-section of the community. With this in mind, a prime objective of this is to facilitate the use of Ingleburn Reserve for this purpose.

Consultation with the community at the Ingleburn Reserve playground opening in July 2015, and with CPAHS, has identified that there is enormous scope and potential for increased community patronage, ownership and creation of sense of place within Ingleburn Reserve, which can be done through the preparation and implementation of a masterplan.

As mentioned in Section 6.11, there are opportunities to encourage use of Ingleburn Reserve for delivery of community and school education workshops/activities, particularly given the reserve's close proximity to urban areas and educational institutions. Ingleburn Reserve is also suitable for the establishment and operation of a community bushcare group to assist in maintenance and care of the reserve. In addition, given the Aboriginal heritage of the area and open space, the establishment of a bush tucker garden is also fitting and would serve as a drawcard to the reserve.

As highlighted in sections 6.9 and 6.11, signage and informational material should be developed that highlights the cultural and environmental significance of the reserve and encourages its sustainable use. The present signage at the entrance is understated and easy to overlook. It is therefore recommended that opportunities for enhancement to the entrance to the reserve be explored. This signage should incorporate and complement the natural and cultural features of the reserve and seek to encourage visitation.

Management objective

- *To encourage community awareness of the values of the reserve and community participation in its care and management*

Management actions

- a. Investigate the formation of a bushcare group to operate within the reserve
- b. Produce advisory material for the reserve that highlights its cultural and environmental values and recreational opportunities. Make the material available through the Campbelltown Visitor Information Centre and Council's website
- c. Provide informational and directional signage highlighting key aspects of the reserve
- d. Utilise social media applications and other digital media in the promotion of the reserve and community events
- e. Explore opportunities for community and school education workshops, activities and associated infrastructure within the reserve highlighting the cultural and environmental significance of the reserve
- f. Promote the suitability of the reserve as an educational resource for schools and other educational institutions
- g. Conduct continued consultation with the community on the management of the reserve through reserve open days and community events
- h. Explore opportunities for enhancement to the signage at the entrance to the reserve that complements the natural and cultural features of the reserve and encourages visitation
- i. Investigate the potential for creation of a native/bush tucker garden and complementary native landscaping within the central recreation area to enhance aesthetic appeal and reduce mowing operations.
- j. Prepare and implement a masterplan for the reserve to increase community patronage and enhance the recreational value of the reserve.

6.13 Unauthorised activities and community safety

(i) Current status

Ingleburn Reserve is situated on the interface between peri-urban development and bushland. Medium density residential development is also in close proximity to the reserve. The reserve is therefore prone to inappropriate activities and use such as dumping, arson, trail bike riding, and antisocial activities. The reserve is situated in an area which has a history of arson activity, with numerous events reported per year over the last ten years. There are also a number of issues related to safety and fear of crime of visitors to Ingleburn Reserve. The impacts associated unauthorised activities can have the effect of discouraging visitors to the reserve.

The extent of these activities has decreased in recent years as a result of Council compliance, capital works and education programs. This POM builds on these programs and also includes new measures to further reduce the impact of these activities and consequently improve the quality of the reserve and recreational experience for visitors. A full list of activities prohibited within the reserve is provided in Appendix 7, with key issues discussed below.

(a) Trail bike riding

Ingleburn Reserve is recognised by both Council and the NSW Police as an area prone to unauthorised trail bike use. Trail bikes are a significant issue in terms of erosion, damage to bushland, noise pollution as well as a safety risk and deterrent to visitors of the reserve. Trail bike riding is not consistent with the broad aim of this plan of providing recreational opportunities that complement the natural and cultural values of the reserve and is a prohibited activity within the reserve. Trail bike riders are known to gain access to the reserve from adjacent bushland.

(b) Arson

The recreation facilities within the reserve are prone to vandalism and arson, which are costly to replace and render them unusable to visitors. Arson can also result in a reduction in level of biodiversity due to the fire frequency being higher than natural fire regimes.

(c) Dumping

Littering and dumping of rubbish is particularly evident along the entrance to the reserve and the southern cleared area. The presence of rubbish and dumped items attracts rodents and pest animals, contributes to pollution, impacts on native habitat and the aesthetic appeal of the area.

(d) Dogs off leads

When dogs are off their leads within the reserve, they can impact on native fauna directly by approaching or attacking native wildlife or indirectly by disturbing habitat. Uncontrolled dogs are also a risk to visitors to the reserve. This POM requires that dogs be kept on leads at all times throughout the reserve.

(e) Bush rock removal

This activity, which is listed as a Key Threatening Process in the TSC Act, occurs predominately on the boundaries of the reserve and adjacent to tracks. The removal of bush rock can remove habitat for native fauna, impact upon vegetation and contribute to soil erosion.

(f) Anti-social activities

Anti-social activities in the reserve can lead to safety concerns for visitors and impact the recreational, natural and cultural values of the reserve. They can also result in the damage or inappropriate use of facilities. Council discourages the consumption of alcohol within the reserve and is currently reviewing regulations in this regard.

(g) Vandalism

Common incidents of vandalism experienced in the reserve include graffiti, broken seats and burnt infrastructure. Vandalism can create an unsafe and unappealing image for visitors to the reserve and result in the diversion of resources from management activities to conducting repairs.

(h) Community perception

A sense of insecurity in visiting the reserve among sections of the community has developed as a consequence of the activities referred to above. The reduction in visitation to the reserve can in turn create safety concerns. As outlined above in Section 6.12 - the participation of a broad range of community stakeholders and groups in the management of Ingleburn Reserve will be encouraged. Through the implementation of this POM it is envisaged that incidents of illegal and antisocial activities can be reduced.

This POM recognises that a cross-divisional Council approach, in association with stakeholders such as State and Federal Government agencies and the community, is required to effectively address issues associated with unauthorised activities and encourage long-term sustainable use of the reserve. The addressing of impacts associated

with unauthorised activities therefore requires a combined education, monitoring and deterrent approach within the context of broader plans/strategies.

Accordingly, this POM includes measures consistent with and linked to other relevant Council documents such as the Crime Prevention Plan 2015-2018 which aims to prevent and reduce crime within the Campbelltown Local Government Area through the implementation and coordination of a number of crime prevention and reduction activities conducted by a wide variety of organisations.

Management actions recommended under this POM will include a range of education, monitoring, surveillance and deterrent measures to address the impacts of unauthorised activities and encourage sustainable usage of the reserve, including patrols by Council staff in association with local police and fencing installation. A regulatory sign was installed at the entrance to the reserve in mid-2016, however there remains opportunity to install further signage at high traffic locations throughout Ingleburn Reserve.

The fencing of all the boundaries on the urban interface of the reserve would detract from the aesthetic appearance of the reserve and is not economically feasible. This POM therefore proposes a strategic approach that utilises a range of barrier options at key locations that will protect the areas of highest environmental sensitivity and is cost effective.

Management objective

- *To reduce and prohibit activities that negatively impact on the recreational, natural and cultural values of the reserve*

Management actions

- a. Install and maintain regulatory signage at strategic locations within the reserve, advising of the unauthorised activities and associated fines for non-compliance
- b. Encourage the local community to notify Council of unauthorised activities and community safety issues such as dumping and trail bike activity
- c. Conduct regular patrols of the reserve to deter unauthorised activities and respond to reports as required
- d. Monitor the reserve for illegally dumped items, remove items as reported and pursue prosecution of offenders
- e. Use non-flammable and vandal-proof materials for the replacement and construction of equipment and infrastructure wherever possible
- f. Infrastructure monitored for graffiti and incidents actioned by Council's Graffiti Action Team as required
- g. Lock designated vehicle access points to the reserve between dusk and sunrise
- h. Audit perimeter fencing/barriers to identify potential points of access for unauthorised activities
- i. Construct appropriate barriers restricting indirect and unauthorised access to the reserve from adjoining lands based on outcomes of audit
- j. Maintain access barriers adjacent to the vehicle loop road to a sufficient standard that significantly restricts unauthorised vehicle access (including trail bikes) into bushland and recreational areas.

6.14 Maintenance and infrastructure provision

(i) Current status

Maintenance at Ingleburn Reserve is funded through existing City Delivery and Regional Approvals and Planning budgets. This largely involves mowing of the parkland area, toilet cleaning, removal of illegal dumping, playground maintenance, general maintenance, track maintenance and patrols. Other occasional maintenance includes the installation or replacement of signage, maintenance of restricted access points, repairs from erosion and storm damage and replacement or upgrades to recreational facilities.

Located in the southern section of the reserve is a secondary picnic area with tables and BBQ facilities. Observations suggest that usage of this area is low, in addition, passive surveillance is difficult. With this in mind it is recommended that the provision of assets within this area be reviewed and potential consolidation be investigated. If it is determined that these assets are no longer required, the purpose and function of this area should be analysed in consultation with the community with a view to revitalising the area.

Walking tracks should be maintained to clearly define and guide pedestrians along set pathways, and as much as possible designed to discourage straying from the main pathway to limit the formation of unmanaged, informal tracks, which can cause erosion problems and promote the invasion of weed species.

As outlined in Section 6.12 the provision of a bush tucker garden and/or a landscaped area within Ingleburn Reserve will be investigated with the aim of encouraging community participation in the management of the reserve, providing a point of interest for visitors and enhancing the look and feel of the reserve. Depending on the scale of the garden, its establishment may also reduce mowing operations.

Open-lid litterbins are provided in the central recreational area of the reserve, and these are prone to scavenging by wildlife. It is therefore recommended that the provision of animal-proof bins is investigated. The surface of these bins would also provide an opportunity to promote the cultural and natural values of the reserve.

Council will continue to undertake maintenance of the grounds and garbage removal within the reserve under the direction of its onground maintenance schedule. In addition, asset condition, use and need will be monitored through Council's asset management program. Council will fund routine and projected maintenance and asset upgrades through its budget process. Funding for additional enhancements or embellishments to the reserve will be pursued through grant program opportunities.

Management objective

- *To maintain the reserve to a standard that meets community needs and is consistent with its open space classification as a 'District Park'*

Management actions

- a. Ensure landscape maintenance, including mowing, remains suitable for recreational use within the parkland sections and entrance to the reserve
- b. Investigate the potential for creation of a native/bush tucker garden and complementary native landscaping to enhance aesthetic appeal and reduce mowing operations
- c. Review use of secondary recreation area and provision of assets in consultation with the community
- d. Investigate the provision of animal proof bins incorporating decorative designs that highlight the cultural and natural values of the reserve
- e. Undertake maintenance of grounds and assets in accordance with maintenance schedule
- f. Undertake periodic asset audit to determine condition of assets and allocation commensurate with usage and community expectations under the auspice of Council's asset management program
- g. Inspect weir approximately every six months and conduct maintenance activities where required to ensure integrity and longevity of structure
- h. Inspect walking tracks annually and identify necessary maintenance work to be undertaken
- i. Ingleburn Weir walking track maintained to a standard suitable for use by people of moderate mobility.

6.15 Land ownership and classification

(i) Current status

As shown in Figure 5 (Land Ownership), Council is not the owner of all the lots within the reserve. Lands within the reserve are comprised of 66 lots of which Council is the owner, 18 lots owned by the NSW Government (Planning and Environment Commission) and three road reserves.

Logical and efficient management of the reserve would be best achieved by the consolidation of these lots and sole ownership by Council. With the exception of the road reserves, Council would need to secure the transfer of the respective lots (lots 1-3, lots 34-44 and lots 75-77 Section D and lot 9 Section E) from the Planning and Environment Commission, prior to submitting an application to the Registrar General to consolidate these parcels.

With regard to the road reserves, a search of records held by the Registrar General revealed that the roads, identified on title as Helder Street and Georges River Promenade, were created by a paper subdivision, formed as part of Deposited Plan 1870, dated 6 April 1886. However these roads have never been formally dedicated as public roads, the lands comprising them remains as a residue in certificate of title 818-234. While Council is shown as the registered proprietor on the current title, the schedule of lots shown on this title does not appear to include the residue land comprising these roads. Consequently, it appears that the ownership of these unformed roads remains in the name of the land owner at the time of the primary application in 1886. This land is likely part of the estate now managed by the NSW Trustee and Guardian (since 1932).

Council will need to investigate this issue further and potentially negotiate the purchase and/or reclassification of these lands.

The road reserve identified as Picnic Grove was created under an earlier subdivision and its current ownership is unclear. As road works within this reserve have been undertaken, Council may be able to apply to have it dedicated as a public road under the *Roads Act 1993* prior to applying to the Minister to close it and reclassify it as community lands.

Management objective

- *To consolidate land ownership, lot boundaries and land classification within Ingleburn Reserve*

Management Actions

- a. Investigate actions to acquire all lands within the reserve boundary from the respective owners to assist in long term protection and management of the reserve
- b. Investigate actions to reclassify road reserves as community lands.

7. Implementation of the Plan

The Implementation Action Plan (IAP) for the POM for Ingleburn Reserve provides a framework for the implementation of the management actions recommended by the POM to address management issues within the reserve. Implementation of these actions will be subject to Council's priorities from year to year and available funding. A number of the key management actions specified in the IAP are presented spatially in Figure 10.

The IAP includes the following components:

- Management actions identified during the preparation of the POM that address identified issues and are consistent with management objectives
- Performance targets for each action
- A priority level based on importance and need for action (see Table 8)
- The designated section of Council responsible for implementation of each management action.

Table 8: Priority schedule for implementation of IAP

Level of Priority	Timeframe
High	Action completed within 2 years
Medium	Action completed within 2-5 years
Long-term	Action commenced after 5 years
To be determined (TBD)	Action depends on funding availability and/or further consultation
Ongoing	Action carried out on a regular basis for the life of the Plan of Management

The timeframes specified for priorities should be considered as indicative only, and may have to be adjusted to reflect Council's resources and funding priorities. The implementation of this plan will occur within the framework of Council's Delivery and Operation Plan.

The *Local Government Act 1993* requires that POM include the means for monitoring the achievement of objectives through specified performance targets. The delivery of this plan will be determined by an annual review of the action plan and five yearly reviews of the POM.

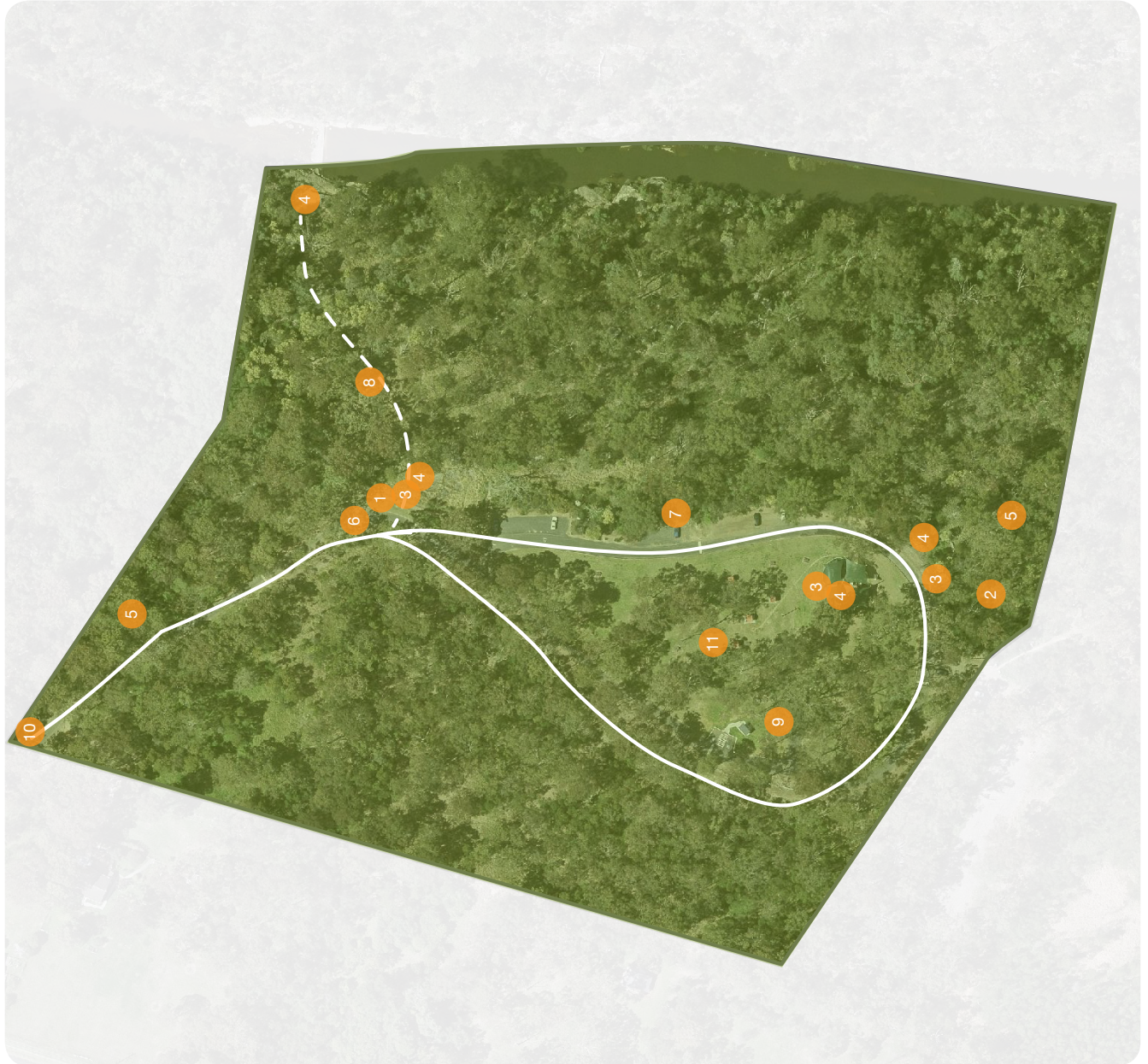
Key documents and policies prepared by Council and government agencies that are linked to the implementation of this plan are presented in Appendix 1.

As indicated in Section 1.9, students at CPAHS undertook a comprehensive place-based learning exercise focusing on Ingleburn Reserve to determine and recommend a range of management actions designed to improve the appeal and functionality of the reserve while respecting its values. A full list of the management actions developed by the students is provided within the report on the PBL project in Appendix 3 of this POM. Those actions that have been determined by Council as feasible and appropriate have been incorporated into the IAP, and are indicated by a CPAHS icon.



Key

1. Weir track signage
2. Access barriers
3. Regulatory signage
4. a) Directional signage
b) Informational signage
5. Weed control/bush regeneration
6. Stormwater management
7. Car park/road maintenance
8. Walking track review and management
9. Eco children's playground
10. Entry upgrade
11. Facilities for large groups



Appendix 6

Noxious and Environmental weeds
identified within Ingleburn Reserve

Scientific Name	Common Name	Control Class for noxious weeds	Weed type
<i>Lycium ferocissimum</i>	African Boxthorn	4	W
<i>Eragrostis curvula</i>	African Lovegrass		G
<i>Olea europaea subsp. cuspidata</i>	African Olive	4	W
<i>Thunbergia alata</i>	Black Eyed Susan		V
<i>Rubus fruticosus agg</i>	Blackberry	4	V
<i>Solanum nigrum</i>	Blackberry Nightshade		W
<i>Vinca major</i>	Blue Periwinkle		V
<i>Asparagus asparagoides</i>	Bridal Creeper	4	V
<i>Ligustrum lucidum</i>	Broad Leaf Privet	4	W
<i>Cinnamomum camphora</i>	Camphor Laurel		W
<i>Senna pendula</i>	Cassia		W
<i>Macfadyena unguis-cati</i>	Cats Claw Creeper	4	V
<i>Bidens pilosa</i>	Cobblers Peg		H
<i>Ageratina adenophora</i>	Crofton Weed		H
<i>Chenopodium album</i>	Fat Hen		W
<i>Conyza spp</i>	Fleabane		H
<i>Asparagus aethiopicus</i>	Ground Asparagus		H
<i>Phytolacca octandra</i>	Inkweed		W
<i>Solanum pseudocapsicum</i>	Jerusalem Cherry		W
<i>Pennisetum clandestinum</i>	Kikuyu		G
<i>Lantana camara</i>	Lantana	4	W
<i>Ageratina riparia</i>	Mist Flower		H
<i>Araujia hortorum</i>	Moth Vine		V
<i>Hirschfeldia incana</i>	Mustard Weed		H
<i>Xanthium occidentale</i>	Noogoora Burr	4	S
<i>Sida rhombifolia</i>	Paddys Lucerne		W
<i>Cortaderia selloana</i>	Pampas Grass	3	G
<i>Erharta erecta</i>	Panic Veldt Grass		G
<i>Myriophyllum aquaticum</i>	Parrots Feather		A
<i>Paspalum dilatatum</i>	Paspalum		G
<i>Setaria incrassata</i>	Pigeon Grass		G
<i>Polygala myrtifolia</i>	Polygala		W
<i>Opuntia spp</i>	Prickly Pear	4	W
<i>Ipomoea purpurea</i>	Purple Morning Glory	4	V
<i>Verbena bonariensis</i>	Purple Top		H
<i>Chloris gayana</i>	Rhodes Grass		G
<i>Ligustrum sinense</i>	Small Leaf Privet	4	W
<i>Senna septemtrionalis</i>	Smooth Senna		W
<i>Tradescantia albiflora</i>	Wandering Trad		H

A: Aquatic Species V: Vine species W: Woody weed species G: Grass species H: Herb

7.1 Implementation Action Plan (IAP)

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
USC 6.13(h) VP 6.8(a)	Audit perimeter fencing/barriers to identify potential points of access for unauthorised activities	Observations/evidence of unauthorised vehicle access	2	High	City Delivery
PDA 6.6 (b)	Conduct an education campaign focused on nearby residents highlighting the impacts of domestic cats and dogs on native biodiversity and encouraging practices to reduce and mitigate their impacts	# education activities		High	City Development
VP 6.8(h)	Conduct regular inspections of fencing and barriers adjacent to access roads and address any breaches	# inspections Observations/evidence of unauthorised vehicle access % breaches addressed		High	City Delivery
KH 6.4(e)	Conduct regular patrols of the reserve to deter unauthorised activities and respond to reports as required	# of patrols Observations/evidence of unauthorised activities		High	City Development
KH 6.4(b)	Conserve koalas and their habitat in accordance with the recommendations of the Campbelltown Comprehensive Koala Plan of Management (KPOM)	% compliance of activities with the KPom # of actions recommended under KPOM undertaken within the reserve		High	City Development/City Delivery
RU 6.11(j)	Consider authorised community events and activities through an application process and merit assessment in relation to impacts on reserve infrastructure, facilities and the natural and cultural environment	#event applications		High	City Development/City Lifestyles
FF 6.3(g) USC 6.13(i) VP 6.8(b)	Construct appropriate barriers restricting indirect and unauthorised access to the reserve from adjoining lands based on outcomes of audit	# barriers installed # observations/evidence of unauthorised access Condition of key habitat features	2	High	City Delivery
KH 6.4(f)	Educate local residents about the potential threats to local koala populations (dog attacks and vehicle strikes) and recommended mitigation measures	# education activities		High	City Development

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
CP 6.12(h)	Explore opportunities for enhancement to the signage at the entrance to the reserve that complements the natural and cultural features of the reserve and encourages visitation CPAHS	Signage upgraded	11	High	City Development/City Lifestyles
FF 6.3(d)	Identify key habitat features and location of significant flora and fauna within Ingleburn Reserve and ensure that they are protected from recreation and management activities	% of vulnerable assets addressed Condition of key habitat features		High	City Development/City Delivery
BM 6.10(c)	In consultation with the RFS, restrict access to the reserve on all declared total fire ban days and days of extreme or catastrophic fire danger	Reserve access restricted during extreme or catastrophic conditions		High	City Delivery
AH 6.1(e)	Incorporate Indigenous design and artwork elements into new infrastructure and equipment such as new bin designs and educational signage CPAHS	# of Aboriginal artwork designs incorporated into the reserve	4(b)	High	City Development/City Delivery
FF 6.3(j) USC 6.13(a) KH 6.4(d) PDA 6.6(e)	Install and maintain regulatory signage at strategic locations within the reserve, advising of the unauthorised activities and associated fines for non-compliance, including the requirement for dogs to be managed on leads	# of signs installed at strategic locations Observations/evidence of unauthorised activities	3	High	City Delivery
MIP 6.14(d)	Investigate the provision of animal proof bins incorporating decorative designs that highlight the cultural and natural values of the reserve CPAHS	# animal-proof bins installed Observations/ evidence of animal scavenging		High	City Development/City Delivery
FF 6.3(k) CP 6.12(b) PA 6.9(e) RU 6.11(a)	Produce advisory material for Ingleburn Reserve that highlights the cultural and environmental values of the reserve and highlights the recreational opportunities. Make the material available through the Campbelltown Visitor Information Centre and Council's website CPAHS	# materials produced # websites visits		High	City Development/City Lifestyles
SWM 6.7(d)	Provide adequate bins for rubbish disposal and encourage reserve users not to litter through the installation of signage	Observations of litter within reserve	3	High	City Development

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
CP 6.12(c) FF 6.3(l) PA 6.9(d) RU 6.11(b)	Provide informational and directional signage highlighting key aspects of the reserve including biodiversity features and discouraging off-trail activities CPAHS	# signs installed Observations/evidence of off-trail pedestrian access	4(a) 4(b)	High	City Development/City Delivery
FF 6.3(a)	Provide training to Council's Operations staff on the identification and management of threatened flora and fauna and any requirements in relevant Recovery Plans or Threat Abatement Plans	# training programs delivered		High	City Development/City Delivery
BM 6.10(e)	Rapidly suppress any unmanaged fire outbreaks, particularly during bushfire danger periods	Area burnt by wildfire		High	City Delivery
IW 6.2(a)	Register Ingleburn Weir as a local heritage item under a future amendment of CLEP 2015	Ingleburn Weir listed on local heritage register		High	City Development
IW 6.2(b)	Review and maintain signage at the track entrance to Ingleburn Weir, highlighting its heritage significance CPAHS	# of signs erected/upgraded Condition of sign	1	High	City Delivery
FF 6.3(e)	Review Plan of Management in response to changes in relevant government policy, legislation and plans such as Recovery Plans for threatened species which may inhabit Ingleburn Reserve	% of reviews undertaken in response to changes in legislation and policy framework Currency of PoM		High	City Development
MIP 6.14(c)	Review use of secondary recreation area and provision of assets in consultation with the community	# and condition of assets in secondary recreation area Usage of assets in secondary recreation area Consultation feedback		High	City Development/City Delivery
PA 6.9(a)	Undertake a review of existing formal and informal tracks within the reserve and recommend opportunities for embellishment, upgrade and/or closure of tracks CPAHS	Review undertaken and actioned New tracks to be constructed in accordance with Australian Standard 2156		High	City Development/City Delivery
AH 6.1(a)	Undertake Aboriginal archaeological assessment of Ingleburn Reserve	Assessment undertaken Aboriginal Heritage Information Management System updated with outcomes of assessment		High	City Development

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
KH 6.4(g)	Undertake community education activities on koala management in accordance with actions outlined in the Campbelltown Comprehensive Koala Plan of Management, such as erection of signage and website information	# education activities	4(b)	High	City Development
NW 6.5(b) FF 6.3(m)	Undertake noxious weed control and bush regeneration activities, particularly within high risk areas	Area of weed infestation Condition of key habitat features # activities undertaken	5	High	City Development
LOC 6.15(a)	Investigate actions to acquire all lands within the reserve boundary from the respective owners to assist in long term protection and management of the reserve	Actions identified		High	City Development/City Governance
LOC 6.15(b)	Investigate actions to reclassify road reserves as community lands	Actions identified		High	City Development/City Governance
RU 6.11 (k) CP 6.12 (j)	Prepare and implement a Master Plan for the Reserve to increase community patronage and enhance the recreational value of the Reserve	Master Plan prepared/implemented		High	City Development/City Delivery
SWM 6.7(c)	Conduct an education campaign focused on nearby residents highlighting the sources of stormwater pollution and encouraging practices to reduce and mitigate its impact	# education activities		Medium	City Development
CP 6.12(g)	Conduct continued consultation with the community on the management of the reserve through reserve open days and community events	# community events Community feedback		Medium	City Development/City Lifestyles
VP 6.8(g)	Conduct periodic patrols to ensure vehicle access on non-public roads is restricted to service, maintenance and emergency vehicles only	# patrols		Medium	City Development
CP 6.12(e) FF 6.3(h) IW 6.2(d) RU 6.11(h)	Explore opportunities for community and school education workshops, activities and associated infrastructure within the reserve, highlighting the cultural and environmental significance of the reserve <i>CPAHS</i>	# of activities/events delivered Participant feedback		Medium	City Development

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
CP 6.12(a)	Investigate the formation of a Bushcare group to operate within the reserve	# volunteer hours		Medium	City Development
CP 6.12(i) MIP 6.14(b) RU 6.11(g)	Investigate the potential for creation of a native/bush tucker garden and complementary native landscaping within the central recreation area to enhance aesthetic appeal and reduce mowing operations	Garden established and maintained		Medium	City Development
FF 6.3(f)	Limit access within bushland areas to defined paths through the installation of barriers such as plantings and fencing	% of identified access points addressed Condition of key habitat features	2	Medium	City Development/City Delivery
VP 6.8(f)	Monitor traffic movements within reserve and install traffic calming devices where required	# traffic incidents reported		Medium	City Delivery
PA 6.9(f)	Promote pedestrian activities within the reserve through actions delivered under the Macarthur Destination Management Plan	# actions promoting Ingleburn Reserve		Medium	City Development/City Lifestyle
RU 6.11(i)	Promote recreational activities within the reserve through actions delivered under the Macarthur Destination Management Plan	# actions promoting Ingleburn Reserve		Medium	City Development/City Lifestyle
CP 6.12(f)	Promote the suitability of the reserve as an educational resource for schools and other educational institutions	# promotional activities Usage by schools and other groups		Medium	City Development
KH 6.4(c)	Restore koala habitat by undertaking targeted revegetation in cleared areas identified as not suitable for recreational use	Area revegetated # plants		Medium	City Development
RU 6.11(d)	Review the provision of recreational facilities in the reserve on an annual basis with regard to patronage and community expectations	Community feedback Patronage of the reserve		Medium	City Delivery
FF 6.3(b)	Undertake a comprehensive biodiversity survey of Ingleburn Reserve in accordance with applicable guidelines	Survey undertaken NSW Wildlife Atlas updated where required		Medium	City Development
AH 6.1(b)	Apply Due Diligence Code of Practice applied for proposed developments assessed under both Parts 4 and 5 of the EP&A Act	# breaches detected		Ongoing	City Development/City Delivery
PDA 6.6 (c)	Comply with any requirements of Threat Abatement Plans and Recovery Plans prepared by the State and Federal governments	# breaches detected		Ongoing	City Development/City Delivery

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
NW 6.5(g) AH 6.1(d) FF 6.3(i) SWM 6.7(f)	Comprehensive EIA undertaken prior to commencing works for all developments within Ingleburn Reserve undertaken under by Council under Part 5 of the EP&A Act, and preparation and implementation of Construction Environmental Management Plan (CEMP) incorporating appropriate sediment and erosion control	# breaches detected Record of EIAs for Council works Record of CEMPs		Ongoing	City Delivery
BM 6.10(b)	Conduct an education campaign focused on nearby residents highlighting bushfire risks and appropriate land management practices	# education activities		Ongoing	City Development/City Delivery
USC 6.13(c)	Conduct regular patrols of the reserve to deter unauthorised activities and respond to reports as required	# of patrols Observations/evidence of unauthorised activities		Ongoing	City Development
USC 6.13(b)	Encourage the local community to notify Council of unauthorised activities and community safety issues such as dumping and trail bike activity	# reports Observations/evidence of unauthorised activities		Ongoing	City Development
KH 6.4(a)	Ensure all development is compliant with the requirements of SEPP44 – Koala habitat protection	% compliance of development		Ongoing	City Development/City Delivery
NW 6.5(e) SWM 6.7(e)	Ensure compliance of development proposals with pollution control measures contained within the Campbelltown (Sustainable City) Development Control Plan	# breaches detected		Ongoing	City Delivery
MIP 6.14(a)	Ensure landscape maintenance, including mowing, remains suitable for recreational use within the parkland sections and entrance to the reserve CPAHS	Condition of open space		Ongoing	City Delivery
NW 6.5(f)	Ensure Work Method Statements and Pesticide Notification Plan are complied with for all work by Council, contractors and volunteers	# breaches detected		Ongoing	City Development/City Delivery
USC 6.13(f)	Infrastructure monitored for graffiti and incidents actioned by Council's Graffiti Action Team as required	Condition of assets		Ongoing	City Delivery
MIP 6.14(i) PA 6.9(c)	Maintain Ingleburn Weir walking track to a standard suitable for use by people of moderate mobility	Condition of walking track	10	Ongoing	City Delivery

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
IW 6.2(e) MIP 6.14(g)	Inspect Ingleburn Weir approximately every six months and conduct maintenance activities where required to ensure integrity and longevity of structure	Condition of structure of weir		Ongoing	City Development/City Delivery
MIP 6.14(h) PA 6.9(b)	Inspect walking tracks annually and identify necessary maintenance work to be undertaken	# inspections Condition of walking tracks	10	Ongoing	City Delivery
VP 6.8(c) USC 6.13(g)	Lock designated vehicle access points to the reserve between dusk and sunrise	Access gates locked daily		Ongoing	City Delivery
USC 6.13(j) VP 6.8(e)	Maintain access barriers adjacent to the vehicle loop road to a sufficient standard that significantly restricts unauthorised vehicle access (including trail bikes) into bushland and recreational areas	Observations/ evidence of unauthorised vehicle access		Ongoing	City Delivery
RU 6.11(c)	Maintain, upgrade and replace infrastructure in accordance with Australian Standards and Council's asset management strategy, consistent with the aims and objectives of this POM and the draft Disability Action Plan wherever possible	Condition of assets		Ongoing	City Delivery
AH 6.1(c)	Modify works or implement preventative measures where necessary to mitigate potential impact on areas of heritage significance	Condition of heritage items		Ongoing	City Development/City Delivery
SWM 6.7(a)	Monitor stormwater runoff, pollution and associated erosion from the car parking areas and loop road to determine any impacts on the surrounding bushland and Georges River	Condition of key habitat features	7	Ongoing	City Development/City Delivery
PDA 6.6 (a)	Monitor the presence and impact of pest and domestic animals within the reserve	Observations/evidence of feral/domestic animal impact on the reserve and its environment		Ongoing	City Development
USC 6.13(d)	Monitor the reserve for illegally dumped items and remove items as reported, pursue prosecution of offenders	Timeframe for removal of dumped items # prosecutions		Ongoing	City Development/City Delivery
IW 6.2(c)	Reference to the heritage significance and features of Ingleburn Weir included in promotional resources for the reserve	# of references in materials		Ongoing	City Development
IW 6.2(f)	Report issues associated with discernable deterioration in Ingleburn Weir structure to Council's Heritage Protection Subcommittee for advice on remediation actions	# issues detected # of reports to HPSC		Ongoing	City Development/City Delivery

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
NW 6.5(c)	Seek volunteer resources to supplement Council's weed control activities	# volunteer hours	5	Ongoing	City Development
BM 6.10(a)	Undertake hazard reduction activities in accordance with the Macarthur Bushfire Risk Management Plan and as part of Council's ongoing hazard reduction program	Compliance with Macarthur Bushfire Risk Management Plan for activities within reserve Incidence of wildfire		Ongoing	City Development/City Delivery
MIP 6.14(e)	Undertake maintenance of grounds and assets in accordance with maintenance schedule	Condition of open space		Ongoing	City Delivery
MIP 6.14(f)	Undertake periodic asset audit to determine condition of assets and allocation commensurate with usage and community expectations under the auspice of Council's asset management program	Condition of assets Community feedback		Ongoing	City Delivery
NW 6.5(a)	Undertake weed control works in accordance with Council's Noxious Weed Management Strategy	Area of works Condition of key habitat features	5	Ongoing	City Development
FF 6.3(c)	Update records on the Atlas of NSW Wildlife for threatened species found in Ingleburn Reserve	% of updates undertaken in response to sightings		Ongoing	City Development
BM 6.10(d) USC 6.13(e)	Use non-flammable and vandal-proof materials for the replacement and construction of equipment and infrastructure wherever possible	Condition of assets	-	Ongoing	City Delivery
CP 6.12(d)	Utilise social media applications and other digital media in the promotion of the reserve and community events <i>CPAHS</i>	# promotional activities		Ongoing	City Development/City Lifestyles
PDA 6.6 (d)	Conduct activities to control pest and domestic animals within the reserve in partnership with key stakeholders, including the NSW Government and surrounding landholders	# control activities undertaken Observations/evidence of feral/domestic animal impact on the reserve and its environment		TBD	City Development
SWM 6.7(b)	Design stormwater management system for Ingleburn Reserve, incorporating water sensitive urban design and best practice, to mitigate stormwater runoff impacts and implement as funding becomes available	# strategies implemented % applications submitted to available funding streams	7	TBD	City Development/City Delivery

Action #	Description	Performance indicator	Map ref	Priority	Responsibility
NW 6.5(d)	Develop and implement a monitoring program to determine the extent of weed infestation within the reserve and evaluate the effectiveness of weed management activities	Condition of key habitat features		TBD	City Development
RU 6.11(e)	Explore opportunities for recreational equipment upgrade or embellishment, to complement the natural values of the reserve, such as the installation of a flying fox and natural playground equipment <i>CPAHS</i>	# equipment upgrades/embellishments		TBD	City Development/City Delivery
FF 6.3(n)	Investigate opportunities for grant funding for the installation of nesting boxes within Ingleburn Reserve	% applications submitted to available funding streams		TBD	City Development
RU 6.11(f)	Investigate the potential for installation of additional picnic facilities and shelters to accommodate for larger families and/or groups <i>CPAHS</i>	# new facilities	12	TBD	City Development/City Delivery
VP 6.8(d)	Undertake car park resurfacing as part of Council's overall road maintenance schedule pending funding availability	Condition of car park surface	8	TBD	City Delivery



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