



foreword

PLAN OF MANAGEMENT

This Plan of Management (PoM) will supersede the Plan of Management for West Epping Park and Oval, which was adopted by Council in November 2004. This Plan of Management has been prepared to comply with the *Local Government Amendment (Community Land Management) Regulations* and associated amendments to the *Local Government Act 1993*, section 42 (LGA), which commenced on 1st January 1999.

COMMUNITY INPUT INTO THE PLANS OF MANAGEMENT

Section 38 of the LGA requires that all Plans of Management covering community land are placed on public display for a minimum period of 28 days. A minimum period of 42 days after the draft is placed on exhibition is allowed for written submissions to be made to council.

Submissions allow the community (including residents, interest groups, sporting clubs and government agencies) to provide information, suggest alternatives and express opinions in relation to the proposed management of community open space within Hornsby Shire.

After consideration of all submissions received, council may decide to amend the draft plan of management, or adopt it without amendment. If council decides to amend the draft plan, it must publicly exhibit the amendments in accordance with the requirements of section 40 of the LGA.

A Public Hearing is required to be held in respect of a draft Plan of Management (PoM) only if the proposed Plan would have the effect of categorising or recategorising the community land in accordance with section 40A of the LGA.



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Part 1

1.0 Introduction

1.1 What is a Plan of Management?

A Plan of Management is a document that provides a means to control the future use, development and maintenance of Community and / or Crown Land under Council's care, control and management. This Plan of Management will identify issues relevant to the future management of West Epping Park (WEP), including the accomodation of various proposed and existing features of the site. The PoM will establish Council's goals, strategies and desired outcomes that will guide the timing, shape and nature of developments.

This PoM is presented in the following two parts to allow review of individual parts as required:

Part 1 of the PoM includes core objectives for the community land categories as determined by the *Local Government Act, 1993*, and Council's management goals. This part looks at issues relevant to WEP to determine broad objectives for management.

Part 2 entiltled **Action Plan** outlines strategies for how the objectives will be achived and actions necessary to fulfil the strategies. This part of the PoM also outlines the standards for Counci's levels of service and identifies the manner in which Council will assess its performance in relation to achieving goals.

The Action Plan is the working section of the document and will require amendment as actions are completed. The Action Plan is proposed to be relevant for a period of five years. From time to time in response to changing community needs and aspirations, the Action Plan may be revised.

1.2 Why Prepare a Plan of Management for West Epping Park?

This PoM is supported by a masterplan which has been developed for the site, accompanied by recommendations for the staged implementation of proposals for the various parkland developments. This PoM has been prepared in accordance with and seeks adoption under the LGA.

The preparation of this PoM is intended to represent the culmination of Council's investigations aimed at determining an appropriate character and scale for the development and management for WEP.

There is a growing need to meet the expectations of existing and potential user groups in the vicinity of WEP where the existing population is set to increase, and where existing open space and recreation opportunities are limited.

The proposals within this PoM aim to deliver additional facilities within WEP in both the short and long term.

The preparation of this PoM also enables Council to strategically address recreation needs in a staged manner. It will enable commencement of the development of open space facilities at WEP, and will help identify a program of development and ongoing maintenance works.

1.3 What Development is Allowable under the Plan of Management?

A Plan of Manegement must define the existing and future uses of community land as required under the *Local Government Act, 1993*. Future uses and development proposed for WEP are oulined in Sections 4.0 and 5.0 of this plan. As Council considers necessary, development allowable under this PoM may include:

- Asset maintenance such as renewal and, or replacement of assets;
- Landscaping and reclamation of surplus areas for storm water detention;
- Provision of sports fields, and associated parking, access roads and amenities buildings, or a provision of existing sports use;
- Provision of playgrounds;
- Provision of facilities ancillary to existing use including seating, picnic and barbeque facilities, shelters, lighting, drainage, irrigation, fencing, pathways, and new signage.

State Environmental Planning Policy (Infrastructure), 2007 enables the above development works be carried out by or on behalf of a council without consent on a public reserve.

Where minor works are undertaken, proposals may still require assessment under Part 5 of the *Environmental Planning and Assessment Act, 1979,* and may require exhibition of the proposal.

If there is any further development of the community land other than that authorised by this PoM, or a change in the categorisation of WEP is proposed, amendment and reexhibition of the PoM is required.

2.0 Local Government Act Requirements

2.1 Classification and Categorisation

The entire WEP site is classified as community land in accordance with Chapter 6, Part 2, Division 1 of the *Local Government Act, 1993.*

2.2 Core Objectives

The LGA establishes core objectives for all categories of community land. The significance of the prescribed core objectives is to ensure that any activities or uses of the land are consistent with the core objectives for the prescribed land categorisation.

Community land within WEP is proposed to be categorised as General Community Use, Park and Sportsground. Categorisation has been determined in accordance with the *LGA*, Division 2, Section 36. The Categorisation Mapping (and the West Epping Masterplan it relates to) reflects a balance of the accomodation of community wants and needs for both passive and active recreation within the area. Section 5.0 of this PoM provides further explanation of the Land Categorisation Mapping for WEP.

The core objectives for management of community land categorised as a sportsground are:

- (a) to encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games, and
- (b) to ensure that such activities are managed having regard to any adverse impact on nearby residences.

The core objectives for management of community land categorised as general community use are 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).

The core objectives for management of community land categorised as a park are:

(a) to encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities, and

- (b) to provide for passive recreational activities or pastimes and for the casual playing of games, and
- (c) to improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management.

Figure 4 on page 18, identifies the separate categories of community land within West Epping Park.

2.3 Environmental Planning and Assessment Act 1979

The Hornsby Local Environment Plan, 2013 (LEP) was made under the Environmental Planning and Assessment Act, 1979 (s.34A). West Epping Park is zoned as Public Recreation (RE1) within the LEP.

As a public reserve under Council ownership, following adoption of a Plan of Management, the most relevant planning instrument governing any proposed development and activities in WEP is the *State Environmental Planning Policy (Infrastructure) 2007* (the Infrastructure SEPP), and the *Hornsby Shire Local Environment Plan 2013*.

2.4 Relevant Legislation

Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act)

http://www.comlaw.gov.au/Details/C2014C00140

NSW Legislation

Local Government Act, 1993

http://www.legislation.nsw.gov.au/maintop/view/inforce/act+30+1993+cd+0+N

Environmental Planning and Assessment Act, 1979

http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N

State Environmental Planning Policy No 19 -- Bushland in Urban Areas

http://www.legislation.nsw.gov.au/maintop/view/inforce/epi+014+1986+cd+0+N

Rural Fires Act 1997

http://www.legislation.nsw.gov.au/maintop/view/inforce/act+65+1997+cd+0+N

Noxious Weeds Act 1993

http://www.legislation.nsw.gov.au/maintop/view/inforce/act+11+1993+cd+0+N

Threatened Species Conservation Act, 1995

http://www.austlii.edu.au/au/legis/nsw/consol_act/tsca1995323/

2.5 Relevant Council Policies

Community Plan

http://www.hornsby.nsw.gov.au/__data/assets/pdf_file/0006/51729/FNL-YourCommunityPlan2013-2023.pdf

Community and Cultural Facilities Strategic Plan (currently in preparation)

Delivery Program and Operational Plan

http://www.hornsby.nsw.gov.au/council/about-council/corporate-documents-and-reports/delivery-program

Epping Public Domain Guidelines (currently in preparation)

Hornsby Local Environmental Plan 2013

http://www.legislation.nsw.gov.au/maintop/view/inforce/epi+569+2013+cd+0+N

Hornsby development Control Plan

http://www.hornsby.nsw.gov.au/property/development-applications/hornsby-development-control-plan

Active Living Hornsby Stategy

http://www.hornsby.nsw.gov.au/council/about-council/ Join-the-Conversation/active-living-hornsby-strategy-alhs

Sports Facility Strategy

http://www.hornsby.nsw.gov.au/media/documents/ about-council/corporate-documents-and-reports/sports-facility-strategy/Sports-Facility-Strategy.pdf

Unstructured Recreation Strategy

http://www.hornsby.nsw.gov.au/media/documents/ about-council/corporate-documents-and-reports/ unstructured-recreation-strategy/Unstructured-Recreation-Strategy-Plan-Report.pdf The Figures below show the location of West Epping Park, in relation to surrounding town centres, roads and infrastructure:

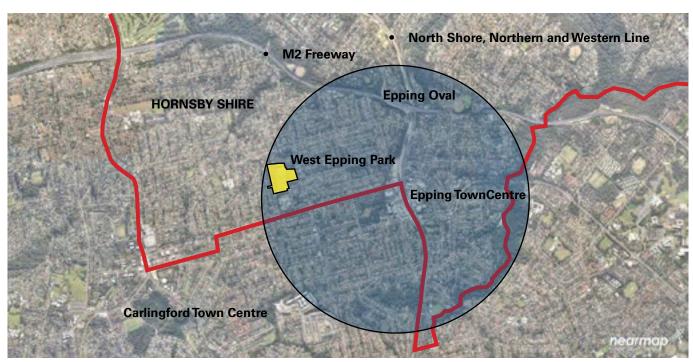


Figure 1: Context Plan, West Epping Park (Near Map, 2014). Park is approximately 1.5km from Epping Town Centre. (Map not to scale)



Figure 2: Local Plan, West Epping Park, (Near Map, 2014). (Map not to scale)

3.0 Site Description

3.1 Context

West Epping Park is located at the southern end of Hornsby Shire. Figures 1 and 2 show the location and surrounding context of the park. It is bordered by West Epping Public School to the south and residential properties on the north, east and western boundaries. The Park has frontages on Ward Street and Lilli Pilli Street, Mountain Street, Grant Close and Downing Street.

The land is comprised of Lot 100 DP 834523, Lot 1 DP 230415 and Lot 101 DP 834523. The site has an area of a approximately 5.52 hectares.

The above land, known as West Epping Park is community land owned in fee simple by Council and is zoned as (RE1) Public Recreation in the *Hornsby Local Environmental Plan (LEP) 2013*. All adjoining land is currently zoned as (R2) low density residential.

3.2 Environment

The site soil is derived from Wianammatta Shale.
Remnant vegetation for the area consists of Blue Gum
Shale forest including species such as Angophora costata,
Eucalyptus paniculata, E. pilularis, E. saligna. WEP also
contains an area of Endangered Ecological Community
(EEC), specifically, an area of remnant vegetation
consistent with Sydney Turpetine - Ironbark Forest.

The site has been heavily modified through various man-made interventions over time. Much of the park has been levelled or terraced to allow for a range of sporting use, and geotechnical investigations indicate that much of the site is built over 'fill'.

The Threatened Species Conservation Act 1995, provides for the protection of native plants and animals identified as threatened species in NSW. Associated with all developments, protection of good quality indigenous vegetation, preservation of buffers to development, retention and development of habitat linkages and vegetation corridors, the enhancement of vegetation communities and fauna habitats with sensitive landscaping using locally indigenous species is proposed for WEP.

3.3 Heritage

The site contains no known Aboriginal relics or listed European Heritage Items (Koettig, 1996, Hornsby LEP 2013). The site was purchased from the Sonter family in 1950, and council sold four acres to Epping West Primary School for their extension. The first building in the park was the West Epping Progress Association Hall followed by the construction of the West Epping Bowling Club.

The community building consist of the West Epping Pre-School (Leased and Licensed) and West Epping Community Centre.

In 2012, Council purchased the area formerly owned by the bowling club, and this now comprises community land as part of the park.

The indoor recreation centre, which is currently leased to the YMCA, was constructed in the early 1960's at the southern end of the park and several additions have been made since.

3.4 Overview of Current Use

The park provides a variety of fomal and informal recreation opportunities including sports grounds for soccer and cricket, plus netball, basketball and tennis courts. The site contains a childrens playground, and an indoor recreation centre as previously mentioned. The community building or hall is leased by West Epping Pre-School. The hall is available for casual use when not used by the Pre-School.

Other periodic licenses for various games, sports training and community uses are consisent with the public recreation zoning.

Current council operations on the land include regular maintenance such as fertilising, garbage collection, tree pruning, mowing, line marking, resurfacing, building maintenance and floodlight maintenance. Other occasional works include spraying for pests and diseases as required, repairs to vandalism and graffiti, upgrades to lighting and water systems and upgrades to playground facilities.

3.5 Key Issues for West Epping Park

3.5.1 Parking and Vehicle Access

In 2013 Thompson Stanbury Associates were commissioned to produce a Parking and Traffic Impact Assessment Report for West Epping Park. The purpose of this report was to review existing parking and traffic conditions, and provide recommendations which could be used to help inform development of the Masterplan.

The findings of the report indicate that the park is serviced by Mountain Street to the north, Downing Street to the west, Grant Close to the east and Ward and Lilli Pilli Street to the south. In 2014 there exists 107 on-street and 92 off-street parking spaces, totalling 199 Spaces. The parking area owned by the former blowling club is currently closed to the public, and the spaces not included as part of the parking survey. The report outlines the following inadequacies and recommendations with the regards to the parking and traffic movement in this area:

- Parking and traffic demand associated with the indoor recreation centre is generally centred around Ward Street and Lilli Pilli Street which, combined with the contrasting periods of traffic and parking demand associated with Epping West Primary School and poor connectivity to the surrounding regional road network results in congested conditions during peak periods;
- Current off-street parking areas servicing the precinct are largely informal and do not meet Australian Standards; and
- The visual and physical interconnectivity between existing Park facilities is poor.
- Parking and traffic conditions should be carefully considered when developing the masterplan.
- Demand for parking within Ward and Lilli Pilli Street should be discouraged, and additional provisions for parking and traffic should be made within the park.

The current masterplan, along with a proposed extension to the indoor recreation centre to accommodate two new additional indoor sports courts, will increase the demand for parking by 65 spaces, and add an additional 130 peak hour vehicle trips to and from the precinct. The report recommends that the design of the masterplan should make allowance for the predicted parking growth requirements, by creating an additional 89 spaces within the precinct on top of existing numbers.

3.5.2 Pedestrian Connections and Legibility

West Epping Park is largely hidden from the major arterial roads in the area, and lacks definitive public frontage or attractive pedestrian entry points. As with vehicles, pedestrian access is via Mountain St, Downing St. Grant Close and Ward/ Lilli Pilli Street. It will be important to establish stronger connections with the surrounding roads and residential streets, including directional signage and possible entry statements or 'gateways' into the park.

Careful consideration will be given to pedestrian circulation within the park i.e.. location of main entries in relation to the placement of new facilities. Pedestrian connections and linkages outside the park, and to local transport hubs should also be carefully integrated as part of the masterplan development.

3.5.3 Limited Range of Recreational Facilities

Organised sports such as soccer in winter, cricket in summer, plus facilities for tennis and netball are the predominant recreational uses for this site. The park offers limited means for informal or passive recreation, and opportunities exist to provide for a wider range of users, and meet the needs of a growing local population.

The existing vacant bowling club site and adjacent car park also requires true integration into the park. The bowling clubhouse was demolished in mid 2012, and the former bowling greens are currently used for junior soccer. The existing level change between the former bowling greens, and existing sports oval requires resolving as part of the overall masterplan approach.

3.6 Key Features and Opportunties

The key features of WEP lie in the park's large areas of open space available for a broad range of use, located at the heart of a growing community. The park comprises a number of levelled areas, the uppermost of which offer significant views towards the east, across Epping and beyond. A small amount of remnant vegetation exists along the westen boundary as mentioned in Section 3.2, but the park is comprised predomninatly of areas cleared and levelled for sports use.

Opportunities exist to:

- Provide improved parking facilities and vehicular access into and within the site;
- Provide mutiple entries into the site, linking major roads with site facilities, whilst assisting to reduce congestion at the indoor recreation centre along Ward and Lilli Pilli Street;

- Provide pedestrian/ cycle links to and from the site, linking the park with existing pedestrian routes, local facilities, Epping Town Centre and Railway Station (Refer Eppin Public Domain Guidelines, currently in preparation);
- Relocate the existing sports oval to the north of the site, onto the former bowling club site, to allow for greater public amenity and a more diverse range of use within the southern area;
- Incorporate a sythetic sports oval to help improve and rationalise existing sports use, and provide for changing user requirements.
- Incorporate a sythetic sports oval to maximise use of the site throughout the year.
- Create a community hub, or public domain which provides informal gathering space for cultural and social activities, in connection with a hirebale community space, for both casual and regular hire.
- Provide informal parkland, additional children's play equipment, and youth orientated games equipment such as table tennis tables, and basketball hoops.
- Reconfigure the indoor recreation centre to allow multiple entry points, actively discuraging parking and traffic on Ward and Lilli Pilli Street.
- Expand the indoor recreation centre to provide for an increased number of cultural and recreational activities which complement existing local activities.
- Improve the parks environmental capacity by retaining remnant vegetation, and incorporating new native vegetation where appropriate.
- Create an urban wetland which helps collect and treat storm-water run-off and helps mitigate down stream flood issues.

This plan provides a basis for Council to proceed with those opportunities as funding and other circumstances suit.

Indicative Masterplan for Development of West Epping Park



KEY:

- 1. Indoor Recreation Centre
- 2. Indoor Recreation Centre Extension
- 3. West Epping Community Centre
- 4. West Epping Pre-School
- Parking and Through Road (116 Spaces)
- 6. Parking (85 Off-Street/ 9 On-Street)
- 7. Synthetic Sports Oval
- 8. Amenities Building + Kiosk
- 9. Public Plaza/ Games Area

- 10. Lawn/ Recreation Area
- 11. Children's Playground
- 12. Community Gathering/ Games Area
- 13. Footpath Circuit
- 14. Existing Netball/Tennis Courts
- 15. Bio-Detention Basin
- Open Area with Informal Parkland/ Shelters/ BBQ's
- 17. Existing Trees Retained
- 18. Proposed Tree Planting

4.0 Masterplan Development

4.1 Introduction

In June 2014, an agreement between the Department of Planning and Hornsby Shire Council identified \$2.5 million dollars in funding to Council to undertake public domain improvements that will support the Epping Town Centre Urban Activation Precinct. As part of this agreement, Council are to include:

- The preparation and adoption of a Plan of Management that shall include a new park masterplan for West Epping Park, prepared in accordance with the Local Government Act, and
- The Design, project management and construction of sportsground improvements including major earthworks to the park, synthetic surfacing to the sportsground, car park construction and development of a small amenities building.

The development of a new Masterplan for WEP, and the adoption of this PoM is a key item, in providing appropriate quality public open space within Epping. It represents a valuable opportunity to provide new formal and informal recreation facilities for the benefit of local residents and the wider community alike.

4.2 Objectives and Performance Targets of the Plan

Objectives and Performance Targets for the Plan:

- (a) to encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games,
 - Performance Measure: The development of new main sportsground by 2016, development of extended indoor sports facility by 2020, ongoing availability of current and future facilities to meet growing population of Epping
- (b) to ensure that such activities are managed having regard to any adverse impact on nearby residences.
 - Performance Measure: Licence restriction of hours of operation, design incorporates quieter zones at facility perimeter
- (c) 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:
 - (i) in relation to public recreation and the physical, cultural, social and intellectual welfare or development of individual members of the public

- Performance measure: expansion of indoor facility and auxiliary infrastructure and its availability for recreation and other activities
- (ii) in relation to purposes for which a lease, licence or other estate may be granted in respect of the land

Performance Measure: Leases or licences authorised by this plan in accordance with the plan's objectives.

4.3 Masterplan

The Council prepared Masterplan (Figure 3) for West Epping Park facilitates the redevelopment of the park to enable additional informal and organised recreation use, the creation of a community hub or focal point and rationalisation of the vehicular access and parking arrangements.

4.3.1 Traffic and Parking Considerations

As a direct reponse the recommendations outlined in the *Parking and Traffic Impact Assessment report by Thompson Stanbury (Refer Appendix 1)*, the following changes to parking facilities are proposed as part of the Stage 1 masterplan development:

- Removal of 12 existing off-street parking spaces directly outside the indoor recreation centre, to help discourage parking and traffic movement in Ward and Lilli Pilli Street;
- Removal of 63 informal car park spaces located in the south-west corner of the park, adjacent to the Pre-School. Removal of this informal parking, will improve safety, and decrease conjestion issues within the park during peak periods.
- Removal of the existing former bowling club car park (95 spaces).
- Provision of 113 new off-street car parking spaces along the western boundary of the park. This car park will effectively connect Mountain Street and Downing Street with a new through road, helping to improve traffic movement and easing congestion. The car park will be connected to a designated footpath/ circuit loop providing improved access to the park, pre-school and indoor recreation centre;
- Provision of 9 on-street parking spaces on Grant Close, and 88 off-street car parking spaces in the eastern precinct of the park. This parking will be linked to improved footpaths, providing direct access to the park facilities and indoor recreation centre. The provision of a total of 96 spaces helps alleviate the parking and congestion issues highlighted in the Traffic Report, and make allowance for the predicted demand for 65 more

spaces generated by a proposed expansion to the indoor recreation centre.

The carparking area development will provide additional parking facilities that will be complemented by improved pedestrian connections across the park. Collectively these changes will serve to improve access options for park users and contribute to the creation of a popular park in the local area.

4.3.2 Sportsground facilities

In response to the opportunities highlighted in Section 3.0, and in consultation with the associated stakeholders, the masterplan has been developed to include the following:

- Removal of 3 tennis courts to maximise use of space in the eastern area of the park. The two existing netball courts recently re-surfaced will be retained for public use.
- Removal of the bowling greens, existing water tank and bowling green car park, to allow relocation of the cricket oval, football pitches and cricket nets into the northern end of the park. One synthetic cricket oval is to be provided, plus one senior and one junior soccer field. The sythetic oval will be linemarked to enable its use for 5-a-side soccer in both summer and winter.
- Provision of a synthetic sports surface and sportsground floodlighting to maximise field use during winter and summer, and cater for a wider range of sporting activities throughout the week.
- Development of an amenities block in the northwestern corner of the park, adjacent to the sports oval which provides change facilities and amenities for sports user groups and the public alike.

4.3.3 Expansion of the Indoor Recreation Centre

Since early 2013 Council has been in discussion with the YMCA regarding a possible extension to the existing indoor recreation centre. Early considerations were given as to whether the site could accommodate a new aquatic centre as a part of the indoor centre expansion and as a possible replacement of the existing Epping Aquatic Centre. Due to the excess traffic and parking requirements an aquatic centre would generate, this option was not deemed feasible for West Epping Park.

A number of further options have been considered for an expansion to the building, and the current proposal is to develop an additional 3 indoor courts to the northern side of the building, with 1 existing indoor court reconfigured into new meeting rooms.

The architectural design of the building will need to be developed to promote parking on the western side of the park by the inclusion of a major building entry on the western side. There is also an opportunity to promote the building opening out to the north to activate the adjacent parkland.

Reconfiguration of the main entry, to discourage parking and drop-off on Ward and Lilli Pilli Street, will also be considered as per recommendations outlined in the Traffic Report.

4.3.4 West Epping Pre-School and West Epping Community Centre

The West Epping Pre-School and West Epping Coomunity Centre is located adjacent to the Indoor Recreation Centre, on the southern edge of the West Epping Park. The pre-school leases a portion of the building with an outdoor play area and licenses the West Epping Community Centre and second outdoor area to the north of the building. The pre-school currently operates from 8.30am to 3.30pm during school terms. Outside of these hours, the community centre and northern playground area are available for casual and regular hire.

As the population of Epping is set to increase, Council have an ongoing need to assess the demand for community facilities. Council's Community and Cultural Facilites Plan (Underway) will investigate and address future community needs and requirments.

The masterplan allows for the continuation of this arrangement, but does not exclude the possible redevelopment of this site when proposals for the indoor recreation centre expansion are further developed.

4.3.5 Community Use Facilities

Improved community use facilities, separate from the sports facilities will include the:

Creation of a new footpath circuit, which helps connect the currently disjointed areas of the park, and allows for improved informal recreation such as walking, jogging and cycling. The circuit pathway will also help ensure the park has equitable access to the majority of areas and facilities.

Creation of a public plaza. This space, which is proposed to be located in the area to the north of the expanded indoor recreation centre, will provide an important outdoor community space for the residents of Epping. The space will accommodate improved tree planting for shade, seating, informal play activities such as areas for boules, table tennis, outdoor chess, basketball,

performances or quiet contemplation. This space will also be closely linked to children's play areas.

Provision of improved play facilities to the south-western corner of the park, and creation of new play facilities in the area of the park adjacent to Grant Close. These facilities will incorporate contemporary play equipment, which caters for a range of user age groups engaged in active and challenging play.

Removal of the under-used tennis courts from the eastern side of the park, to incorporate a storm-water detention/ nature area. This area will be designed to increase the park's capacity to detain and treat storm-water run-off,

help mitigate down stream flood issues, and also provide a naturalistic area of the park for informal recreation such as picnics.

Improved ancillary items such as lighting, seating, shade areas, and BBQ's.

Improved planting, tree planting and garden beds providing greater user experience through enhanced amenity value.

4.4 Staged Implementation of the Masterplan

The following table gives an indication of the proposed staging of the masterplan:

Table 1: Staging Plan

Stage	Scope	Timeframe
Stage 1	Major earthworks to create synthetic oval	1 - 3 Years
	Car park	
	■ Circuit paths	
	Amenities building	
	■ Removal of tennis courts in Grant Close and creation of detention basin	
	 Creation of public plaza and playground 	
Stage 2	Expansion of Indoor Recreation Centre	3 - 8 Years
	 Additional parking 	

4.5 Scale and Intensity of Use and/ or Development

4.5.1 Sportsground Facilities

Sportsground facilities are taken to include those occurring within land categorised as 'Sportsground' that includes the proposed synthetic surfaced oval as well as the existing two netball/tennis courts that are identified as being retained in the masterplan.

The synthetic surfaced sports field will have existing uses continuing to operate that include winter soccer training and competition and summer cricket training and competition.

In converting the sportsfield to a synthetic surface, Council is looking to increase the use of the oval by accommodating additional weekday and evening use in both summer and winter. This may involve either additional use by the existing sports clubs utilising the site or usage by other clubs, school groups or alternative operations.

Council intends to call for Expressions of Interest to utilise the site for small sided or 5 a-side soccer competitions. Site planning has identified the potential for up to 9 small sided fields to operate on the synthetic field. The traffic and parking study identifies in detail the projected additional numbers of participants, carparking and traffic requirements from this use. The 5 a-side proposal aims to utilise spare capacity in park infrastructure by programming activities during otherwise low use periods.

The use of the tennis / netball courts is expected to decrease as a consequence of the removal of three tennis courts from the Grant Close (eastern) portion of the park.

It is noted that up until approximately 2011 the former West Epping Bowling Club operated on the site for many years with three lawn bowl greens, a licensed bar and restaurant and a large carpark accessible from Mountain Street.

Overall it is considered the redevelopment of the park to include the synthetic field will lead to an increase in the use of the sportsground that is comparable or less intensive than the past use of the site, particularly when the bowling club was operating successfully.

4.5.3 General Community Use Facilities

Under the masterplan, the sothern area of the park shall be developed to include a new pedestrian plaza to the north of the Indoor Recreation Centre, play facilities near to the pre-school on the southern edge of the site. Play facilities and informal parkland shall be incorporated into the eastern portion of the site, adjacent to Grant Close, along with reconfiguration of vehicle access and carparking facilities.

The new pedestrian plaza area is intended to be used for informal recreation where local families, children and adults can meet socially. The development of the plaza will complement other small scale play equipment and circuit path developments in the park that are intended to encourage locals to access the park by bicycle or by walking.

It is not expected that this will be an intensive use of the parkland, but rather more about encouraging people who visit the park to pickup children from school, use the sports facilities or the indoor centre, to stay longer and enjoy the outdoor park setting.

The masterplan identifies an opportunity for the Indoor Recreation Centre to be extended to the north. Plans prepared by the YMCA and as attached to the traffic and parking study indicate that the extension to the north would allow for the development of three new indoor courts while the existing building would be substantially modified to create additional rooms for a variety of uses.

The YMCA propose that the extension shall allow them to expand their existing programs, with a similar range of activities, ensuring they are able to further promote their centre as a social hub to the local community. An existing indoor court would be changed to a range of alternative spaces. This means that overall there would be a net increase of just two indoor courts and a variety of other meeting and function rooms provided in the new building.

The parking and traffic study evaluates in detail the existing issues around access to the YMCA Indoor Centre and in particular the congestion at Lilly Pilly and Ward Streets and makes recommendations about providing additional parking in redeveloped parking areas to the west (accessed off Dowling and Mountain Streets) and to the north (accessed off Grant Close). The proposed circuit path shall improve linkages across the park with the objective of reducing the attractiveness of accessing and parking in Lilly Pilly and Ward Streets.

The masterplan does not set out any proposals to change the scale or use of the West Epping Pre-School or the public community hall. The proposed expansion of the Indoor Recreation Centre is intended to allow the Centre to increase in size in response to growing population in the local area. It is however recognised that expansion of the Indoor Centre may incorporate a redevelopment of the adjacent pre-school buildings if this was considered appropriate.

Overall it is considered that the implementation of the traffic and parking management recommendations put forward in the traffic and parking report as well as the introduction of an internal circuit path will offset or reduce local congestion points.

Categorisation Map



Figure 4: Land Catagorisation Map (Near Map, 2014)

5.0 Land Categorisation

5.1 Explanation of Categorisation Mapping

For the purposes of this Plan of Management, it is necessary to identify a categorisation of land, as mapped (Figure 4), which reflects Councils' proposed use of the community land for West Epping Park, in accordance with the Local Government Act 1993, Division 2 - Use and Management of Community Land.

The Masterplan (Figure 3) provides an illustration of an intended arrangement of facilities in WEP, which includes the development of both formal an informal recreation activities, new parking, roads and footpaths. The Masterplan layout responds to and enhances existing site conditions, and the proposed recreation facilities are contained within appropriately categorised areas for future management.

The adoption of this PoM will legislatively enable appropriate development works to be carried out within the various catagorisation zones. Adoption would also require commitment to management of the lands in WEP in accordance with the objectives outlined in the Action Plan forming Part 2 of this PoM.

5.2 Land categorised as 'General Community Use'

The areas defi ned as General Community Use refers largely to the pre-school and the indoor recreation centre, plus any proposed future extension to this building. YMCA is the current leaseholder of the indoor centre, and West Eppig Pre-School Association Inc. lease the community building and gardens. As previously mentioned in Section 4.3.4, the community hall is shared between the preschool and other community groups.

5.3 Land categorised as 'Sportsground'

The area devoted to the oval, sports pitches and ancillary facilities in WEP is contained by the area proposed to be categorised as 'Sportsground' on the Categorisation Map.

The area includes space in the northern section of the park, on which the proposed synthetic pitches will be located. The development will impact on the existing embankment to the west, and some earthworks will need to occur to gain a suitable level playing field. An amenities block is proposed within the north-western corner of this zone.

The existing tennis/ netball courts in the lower, eastern section of the park will be retained and also categorised as Sportsground.

West Epping Pre-School Community Centre Leasing Arrangement

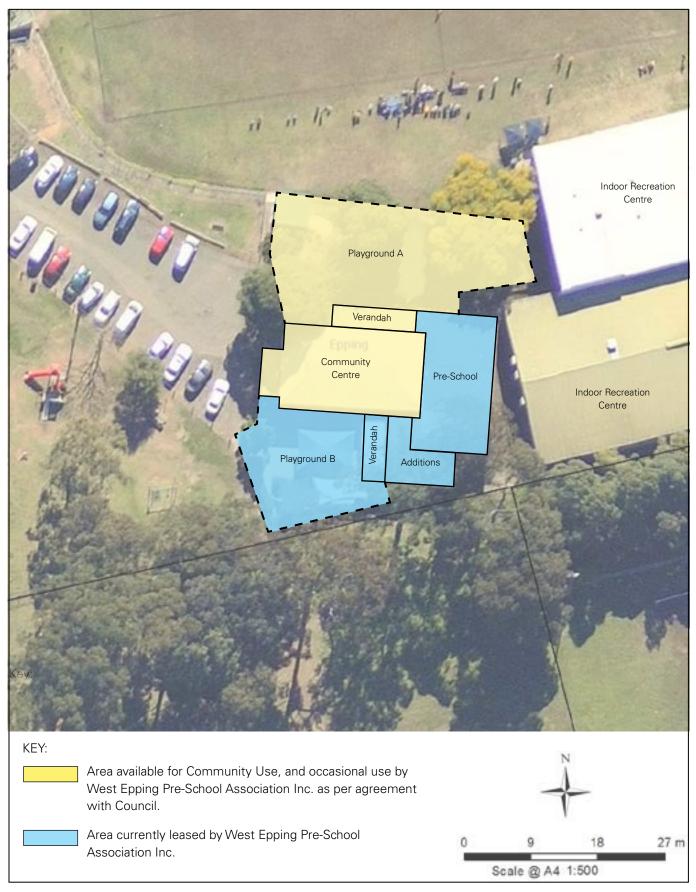


Figure 5: Leasing Diagram, Community Centre and Pre-School

6.0 Operational Proposals

6.1 Maintenance

Council is responsible for maintenance of WEP to a standard that responds to the requirements outlined in this Plan of Management. Part 2 - Action Plan identifies a specific maintenance approach that will be adopted for the upkeep of the asset. Council utilises Council staff, contractors and voluntary resources to assist in meeting the targets identified.

6.2 Leases and Licenses

Pursuant to the provisions of Section 46 Parts (1)(b), (2), (4)(a) and (5) of the Local Government Act 1993, Council may lease or license Community Land in a Plan of Management for purposes that are consistent with the land categorization and with this PoM.

A lease, licence or other estate may be granted for the provision of public utilities and works associated with or ancillary to public utilities, or may be granted, in accordance with an express authorisation in a plan of management.

Schools and Sports Clubs are granted temporary licenses for sports competition and training purposes. These licenses are authorised by this Plan of Management.

At the time of adoption of this Plan of Management, the following lease or license agreements were in place for the pre-school, community hall (refer Figure 5) and recreation centre:

- West Epping Pre-School, including building extension, covered verandah and playground B: Leased to West Epping Pre-School Association Inc.
- Community Hall and Playground A: Agreement with West Epping Preschool Association Inc. for use of Community hall and playground area.
- Indoor Recreation Centre: Leased to YMCA.

Future Uses

When current leases expire, Council will reassess the lease and licensing arrangements. Issues to be considered when reassessing leases or entering into new agreements include:

- Ensuring all leases and licences are based on a sound asset management basis with rents and charges having regard to market values and other social and economic factors;
- Ensuring all leases and licences meet the requirements of relevant State and Local Government Acts and Council town planning controls;

- Ensuring proposed activities are compatible with the core objectives established in the Local Government Act;
- Negotiating greater financial returns which will contribute to management and maintenance of community land; and
- Requiring the lessee to carry out improvement works to the leased facility.

All future lease / licence arrangements entered into shall be in accordance with Council's Policies CSISAS 12 – Delegation of Authority to Grant Lease / Licence Agreements, CSISAS 13-Use of Council Buildings by Kindergartens and CSISAS 14 - Lease/Licence of Council Land and in accordance with requirements of the Local Government Act 1993. Council Policy CSISAS 14 states that the maximum length of lease/ license of Council land will generally be five (5) years. Council may haowever give consideration to granting an additional period of tenure where special circumstances warrant this occuring.

Future use should reposnd to population growth and identified community needs.

Council Policy CSISAS 14 states that the maximum length of lease/licence of Council land will generally be five (5) years. Council may however give consideration to granting an additional period of tenure where special circumstances warrant this occurring.

A lease will be appropriate where exclusive possession of premises is given to a successful organisation. A license will be appropriate where the right to occupy is non-exclusive.

Where a lease arrangement has been entered into with Council for community land, subleasing of the land must be in accordance with the requirements of section 47C of the Local Government Act 1993.

This Plan of Management authorises the following types of leases and licences for community land within West Epping Park:

6.2.1 Leasing and Licensing of Facilities

The granting of leases / licences are expressly authorised for use of sportsgrounds and community facilities for activities permissible under this Plan of Management, the Hornsby Shire Local Environment Plan 2013, the Local Government Act 1993 and pursuant to Development Consent if required.

The following types of sports facility licences will be granted for the exclusive use of sportsgrounds (including playing fields, change rooms, and canteen) or courts (including netball, basketball and/or tennis courts) at nominated times.

Licences and Leases for Sportsgrounds and Community Facilities

This Plan of Management authorises the future leases of the existing, and proposed to be expanded Indoor Recreation Centre for a period of up to 30 years to allow for uses consistent with the land categorised as general community use.

Annual licenses in the form of hiring agreements may be granted to regular user groups of the Community Centre. Regular bookings include but are not limited to various forms of recreation classes (dancing, martial arts, and aerobics), educational classes and community group meetings (such as church groups), sports clubs, community organisations).

The pre-shool and associated community use rooms are authorisd by this plan to be leased or licensed for general community use and child care.

The outdoor sportsgrounds are authorised by this plan to be leased or licensed for sports competition and training on a regular basis, and for occasional community events.

Licences for School Use of Sportsgrounds

The granting of licences are expressly authorised by this Plan of Management for Schools for the exclusive use of sports facilities at times during weekdays. The range of sports permissible may include but will not be limited to Australian Rules Football, Rugby League or Rugby Union Football, Soccer, Baseball, Softball, T Ball, Cricket, Athletics, Touch Football, Hockey, Netball, Basketball and Tennis.

Licences for Casual Hire of Sportsgrounds

The granting of licences are expressly authorised by this Plan of Management for casual events including, but not limited to, the playing of Australian Rules Football, Rugby League or Rugby Union Football, Soccer, Baseball, Softball, T Ball, Cricket, Athletics, Touch Football, Hockey, Netball, Basketball and Tennis; for community events including organised fetes, festivals, parades and performances that may include stall holders engaging in a trade or business; and small-scale private sector events including markets, promotional events, parties, weddings, filming and photography.

These events may generally be held between the hours of 8am and 10pm. Specific approval will be required to licence events proposed outside these hours, and in consideration of limits to neighbourhood disturbance, in line with NSW Environement Protection Authority regulations.

Leasing or licensing for the operation of restaurants, cafes, canteens, kiosks or other food outlets are also expressly authorised for a period of up to 30 years.

Casual Hire of Community Facilities

Community Centres area available for casual use at times when they are not being used by regular hirers. Hiring permits are issued on the basis of prior bookings made. Charges for casual use in accordance with the Fees Schedule adopted by Council after public exhibition for twenty eight (28) days as required by the Local Government Act 1993.

Casual bookings include but are not limited to weddings, birthday parties and community functions.

6.2.3 Licences for Special Events

Licences are expressly authorised by this Plan of Management for the staging of special events such as fetes, festivals, fairs, circuses, markets, musicals, theatre, movies, fun runs, art exhibitions, charity or community fund raising performances or events, gala sports carnivals, community carol singing, large picnics, family reunions, private ceremonies, cultural or religious ceremonies, weddings, community education events, pet and animal events, miscellaneous community events, and small scale private sector events such as promotional events, musical or drama performances, art exhibitions, parties, filming and photography.

6.2.4 Leasing and Licensing of sportsground or community facilities for varied uses

The granting of licences are expressly authorised by this Plan of Management for use of certain parks or a portion of those parks for occasional hire. Activities subject to lease or licence may include but will not be limited to community groups using designated parks or a portion of those parks for regular market days, model boat / plane activities, community fund-raising events that may include stall-holders engaging in a trade or business, private sector events including markets, promotional events, parties, filming and photography permissible under the Hornsby Shire Local Environment Plan 2013, and other uses permitted under this Plan of Management. These events may generally be held between the hours of 8am and 10pm. Specific approval will be required to licence events proposed outside these hours, and in consideration of limits to neighbourhood disturbance.

This plan of management expressly authorises leases and licences for the operation of restaurants, cafes, canteens, kiosks or other food outlets, for periods up to 30 years.

6.2.5 Other Leases and Licences

Crossing of Reserves

Section 46 of the Local Government Act prevents councils from granting leases, licences or other estates over community land for private purposes except in the uses described in Section 116 (3 - 5) of the Local Government (General) Regulation 2005. Short term, casual use will only be granted for a purpose consistent with the core objectives for the category of land and for a purpose referred to in section 46 (4) (a) (i) (ii) of the Local Government Act for:

- "(a) The provision of goods, services and facilities, and the carrying out of activities, appropriate to current and future needs within the local community and of the wider public in relation to any of the following:
 - i. public recreation;
 - ii. the physical, cultural, social and intellectual welfare or development of persons."

Such licences are expressly authorised by this Plan of Management.

Easements

In accordance with the requirements of the Local Government Act 1993, this plan expressly authorises Council to grant easements for authorities, organisations or individuals in favour of private lands over lands identified in this POM, providing Council is satisfied there is no reasonable alternative and that appropriate benefits are obtained for the community land. Any adverse impacts on playing surface or drainage is to be remediated at the cost of the holder of the easement. Council will not be responsible for any loss or damage caused through any act or omission of Council to any structures or facilities within the easement.

Liquor Licences

Although granting of liquor licences are subject to other approvals and are not at the sole discretion of Council, this Plan of Management allows for Council to give permission as the landowner for liquor licences on community land subject to other necessary approvals. Applications for liquor licences will be considered on individual merits and will only be considered when Council is satisfied that the licensee can meet legislative requirements for responsible service of alcohol. Such licences are expressly authorised by this Plan of Management.

Casual Liquor Licences

The consumption of alcohol in reserves under the care, control and management of Hornsby Shire Council are expressly authorised by this Plan of Management but only with written council consent under the following conditions:

- People will not be allowed to enter or remain in reserves in an intoxicated state;
- People will not be permitted to consume alcohol in reserves while junior games are in progress; and
- People will not be permitted to consume alcohol within 10 metres of children's play areas, unless written permission is obtained from Police or Council.

The 'Park Rules' Notice contained in Appendix 3 allows for this.

Granting of Estates

This Plan of Management allows Council to grant 'an estate' over community land for the provision of public utilities and works associated with or ancillary to public utilities in accordance with the *Local Government Act 1993*. Estates may also be granted across community land for 'the provision of pipes, conduits or other connections under the surface of the ground for the connection of premises adjoining the community land to a facility of the council or other public utility provider that is situated on the community land. Estates will be granted in accordance with the requirements of the Local Government Act 1993.

An estate in respect of community land is authorised by this Plan of Management for the purpose of a 'public road' are expressly authorised by this Plan of Management under the following conditions (S.47F):

- Where the provision of that road is consistent with the core objectives;
- Where that road is necessary to facilitate enjoyment of the land or any facility on that land; and
- Where other means of access other than public road access have been considered.

Public Utilities

This Plan of Management expressly authorises Council to enter into leases, licenses or other forms of agreement with relevant authorities, organisations or individuals in relation to the provision of services or utilities for a public purpose.



Part 2

6.0 Action Plan

The Action Plan has been developed to support management goals for proposed developments in West Epping Park. It provides statements on how objectives and performance targets will be implemented and outcomes managed into the future. Following are definitions of the terms used in the Action Plan:

Management Statement indicates how the objectives of the PoM will be addressed and implemented and what users and the general public may expect in the provision of the service in West Epping Park.

Actions are the specific statements that elaborate on the strategy contained in the Management Statement.

Management Team (Mgt Team) provides which team within Council will have primary responsibility for the Action.

These are abbreviated as below:

HSC: Various Hornsby CouncilMC: Management Committees

MCC: Manager Corporate and Community

MCS: Manager Community Services
MES: Manager Engineering Services
MF: Manager Financial Services
MHR: Manager Human Resources

MHR: Manager Human ResourcesMPR: Manager Parks and RecreationMRI: Manager Risk and Insurance

MSP: Manager Strategic Planning

MTRS: Manager Traffic and Road Safety

MNR: Manager Natural ResourcesMWM: Manager Waste Management

NL: Neighbouring Landholders

P: Proponent

PAT: Parks Asset Team
PSU: Parks Service Unit
RFS: Rural Fire Service
SU: Sportsground Users

6.1 Time Frame

Definitions of timing for actions are as follows:

ST (Short Term) Action completed within 2 years

MT (Medium Term) Action completed within 2 - 4 years

LT (Long Term) Action commenced after 4 years

O (Ongoing) Action carried out on a regular basis for the term of this Plan of Management

6.2 Performance Measures

Performance Measure are how Council knows what progress is being made relative to the timeframe established for the actions, or whether the final achievement is realised. This section of the Plan will require review to ensure it is an effective working document. It will provide a framework for management consistent with anticipated availability of resources and anticipated community needs.

6.3 Environmental Factors

The Action Plan contains elements that address the need to assess the environmental impacts of an activity. Measures to minimise such impacts are contained in the Action Plan. The timing determined for improvements will be subject to the availability of funds and will require revision if circumstances alter.

6.4 Assessment

Assessment of targets will take place in reviews of the Action Plan at intervals no greater than five years. Monitoring of actions within this Plan of Management will occur on an annual basis. Assessment will include qualitative and quantitative reviews of targets.

7.0 Action Plan for all Categories of Community Land

7.1 Operating Standards

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.1A Environmental Sustainability				
Ensure the adjoining land uses minimise impacts on the natural environment.	 Provide a rear setback to developments on private properties that adjoin bushland. 	MNR MPR	0	The improved condition of bushland edges, core and creeks.
	 Ensure that active uses of Council or Crown land have a minimum impact on bushland. 			
7.1B Maintenance Personnel				
Skilled and experienced labour is used to implement specialist works as specified in the Service Level Agreement.	 Works including traffic control, pesticide applications, pruning of trees and shrubs, 	MPR (PAT / PSU)	O	 Staff carrying out specialist maintenance works specified in the Service Level Agreement, are
	hedges and arboricultural work is to be carried out by suitably qualified and / or trained staff.		0	appropriately skilled and trained.
	Appropriate training is provided for staff involved in the above tasks.			
7.1C Council Staff Health and Safe	ety Standards			
At all times Council employees and contractors will comply with Occupational Health and Safety Standards.	 Train Council staff in Occupational Health and Safety Standards. 	HSC	0	Safe Work Method Statements are regularly prepared, reviewed and communicated to staff.
	 Maintain work practices to comply with Occupational Health and Safety standards. 			
	 Encourage staff to report breaches of Occupational Health and Safety standards to the designated OH&S officers 			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.1D Legislative Standards				
Services are provided to agreed national and industry standards, SEPP Infrastructure,, the HSLEP and policies and standards resultant from public consultation Developments are undertaken with regard to the relevant legislation	 Staff are up to date and familiar with the relevant legislation impacting upon the level and standard of Council services. Awareness of SEPP (Infrastructure), HSLEP, Crown Lands Act and other important legislation is promoted with staff 	MPR	O	 Activities of Council uphold legislative requirements. Business processes incorporate legislative requirements Staff are trained in legislative requirements
7.1E Technical Standards				
The design of any new structures on community land must comply with the relevant Australian standards. Monitoring requirements will comply with those specified in Service Level Agreements.	 New buildings and structures comply with the relevant standards. Work will be monitored to assess compliance with requirements specified in the Service Level Agreement. 	HSC MPR PAT / (PSU)	O	 All new buildings and structures on community land comply with the relevant building standards. Service Level Agreement work is monitored and reports generated to reflect monitoring outcomes.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure		
7.1F Facility development at sportsgrounds						
Sportsgrounds will be developed to a standard consistent with council's economic and budget sustainability objectives Sports facilities will be developed only on suitable reserves and to meet identified needs. Sportsground development will be funded from a variety of sources	 Sportsgrounds are intended to provide primarily for suburban amateur competition level sport Development of elite-standard facilities will not necessarily be funded by Council however council may allow hirers to do so Standards for supporting infrastructure eg canteens, changerooms and storage areas will be basic (where they exist) 	MPR		Council funds are not diverted for the provision of elite-standard sports facilities and supporting infrastructure		
	■ Improved or enlarged canteens, club equipment storage areas, club meeting rooms, covered spectator areas, gymnasiums and the like are outside the responsibility of Council to provide, but may be provided where a level of co-funding is present.					

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.2 Equity and Access				
7.2A Disabled / Stroller Access				
Provide access for disabled users and strollers onto community land where possible.	 Address unsuitable access, providing access paths where appropriate and as 	HSC	M	 Disabled / stroller access is provided into appropriate areas of community land.
	finances allow. Satisfy the requirements of the Disability Discrimination Act 1992 and the Anti-Discrimination Act 1977.		S	Requirements of the Disability Discrimination Act and Anti- Discrimination Act are met as resources and conditions allow.
	Where parking areas are provided for the community on community land, provide appropriate number of parking spaces in accordance with the requirements of the Access and Mobility DCP, to allow access for users with disabilities			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.2B Equity of Access to Council	Reserves and Facilities			
Strive to provide equal opportunity of access to community land for all sectors of the community. Recognise the role of	 Consider historical use and hiring patterns when assessing facilities for allocation. When opportunities 	HSC	0	Equity of access is considered when an opportunity arises to review allocation of use of Council facilities.
community sports clubs in using Council facilities to operate sport.	arise to review allocation of facilities, weighting is to be given to groups with female, disabled, non-English speaking background and other membership bases.			
	 Organisations based in Hornsby Shire and with a high proportion of residents of the Shire shall be favoured. 			
	 Provide access to reserves and buildings within reserves for the disabled where practical and affordable 			
	 When opportunities to redistribute allocation of Council facilities arise, the principle of satisfying the greatest demonstrated recreation or leisure need. 			
	Implement relevant findings of the Leisure Strategic Plan 2003.			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.2C Unauthorised Camping				
Camping will not be allowed in most parks except in support of a special event and with a	 Parks will be patrolled in order to curtail unauthorised 	MPR	0	 Low number of reported cases of unauthorised camping.
licence or other express consent of Council. Council recognises that all	camping.Council will enlist appropriate support	HSC	0	 The support of agencies able to assist the homeless where
people should have access to private or public housing which meets their individual needs,	services to assist in providing alternative accommodation for		0	conflicts between park users and unauthorised campers occur.
and equally that all people have a right to enjoy public reserves for activities that do not impact	homeless people in public reserves when complaints arise.	PAT/ PSU		 Parks are patrolled as resources allow, discouraging
on other users' enjoyment.	Rangers and Parks			unauthorised camping in
People will be encouraged not to camp in public reserves	maintenance staff will patrol parks to discourage or			reserves.
unless in designated camping areas or otherwise use public reserves in ways that impact on	prevent people from unauthorised camping in public			
access by other users.	reserves.			
7.3 Anti-social behaviour				
7.3A Vandalism				
Develop and implement programs to minimise incidents of anti-social behaviour on	 Design future facilities to allow 	MPR	0	■ Facilities within parks and sportsgrounds are
community land.	easy surveillance where possible.	PSU	0	designed to reduce opportunities for
	 Maintain surveillance 		0	vandalism.
	patrols as required.	MPR	0	 Surveillance patrols are
	Provide security lighting as			carried out at known problem times.
	appropriate.			Lighting is provided where required.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.4 Reserve Naming and Dedic	cations			
7.4A Naming of Reserves and Dec	dications			
The naming of reserves and dedications are undertaken according to Council criteria. Dedications on community land comprising of plaques, signs and other structures are made n recognition of substantial contributions to the conservation and maintenance of that land and require written Council permission. Other dedications will be assessed on an individual basis.	 Naming preference is given to geographical names (such as road and suburb), aboriginal names, historical names, or names of deceased persons who have made a major contribution to the reserve or early history of the reserve's locality. Assessment on merits, visual amenity and applicable standards is undertaken prior to approval of any dedication. 	HSC	0	 Integrity and meaning is maintained when naming community land. Dedications within community land have high merit and significance.
7.5 Protecting Fauna and Faun	a Habitats			
1.5A Fauna Impacts				
Native fauna is protected and habitat conserved on community land.	 All work is to minimise impacts on native fauna and habitat. Dead tree hollows retained unless they pose a risk to life or property. Hollows from dangerous trees relocated on public land nearby. Pesticide use is considerate of impacts upon fauna. 	HSC	0	■ Fauna habitat is enhanced and conserved where possible.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.6 Conservation of Resources				
7.6A Reduction of Resource Use a	and Energy Efficiency			
Use of recycled materials and energy reduction programs are implemented in capital works projects and maintenance programs.	 Increase use of recycled materials in capital works projects and maintenance programs. Recycling of green waste. Reduction of electricity and water use 	HSC	0	 Higher percentage of recycled material is used in capital works and maintenance programs. Green waste is recycled. Measures for reducing the use of water derived from dam storages and energy derived from non-renewable fuels are investigated.
7.7 Impacts of Developments	and Activities			
1.8A Impacts of Developments ar	nd Activities			
Identify and address impacts of developments and activities on neighbouring properties where development approval is not required	 Address parking requirements and impacts of additional traffic from proposed developments. Address impacts of noise and lighting from proposed developments and activities on neighbouring properties. 	HSC	0	Potential impacts of proposed developments and activities such as parking, traffic; noise and lighting on neighbouring properties are addressed.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.8 Leases and Licences				
7.8A Leases and Licences				
Leases and licences are granted in accordance with the requirements of the Local Government Regulation and Act.	 Conditions apply to ensure proposed activities on community land comply with core objectives of the LGA. 	HSC	0	 All activities on community land comply with the core objectives of the Local Governmen Act and Regulations. Leases and licences
	Leases and licences are granted in accordance with the requirements of the Local Government Act and Local Government Regulation 1999 and in accordance with Council's policies for development, use, leasing and licensing of Community land as stated in Part 1 of this Plan of Management.			comply with the requirements of the LG, and with Council's policies.
7.8B Use/Sale of Alcohol in Reser	ves			
Applications to Council for use/ sale of alcohol in public reserves are considered	 'Park Rules Notice' permits use / sale of alcohol in public 	MPR	S	Park Rules notice is posted.
individually.	reserves subject to Council approval and approval of other relevant bodies. Council approves / rejects applications for such licences on	MPR	0	Applications for use / sale of alcohol in public reserves are considered on individual merits subject to approval of other relevant bodies.
	individual merits.			
7.8C Reserve Crossings				
Reserve crossings are only granted in accordance with the requirements of the Local Government Act and Regulation, and Crown Lands Act (where relevant).	No reserve crossings for private purposes are approved, except in accordance with the stated legislation and as outlined in this POM.	MPR/MNR	0	No licences for crossing of reserves for private purposes are granted except in accordance with the stated legislation and as outlined in this POM.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.9 Communications Towers				
2.10A Communications Towers or	Community Land			
Allow the lodgement and assessment of Development Applications for communications towers on merit.	If approved, communications towers generate income for the management of community land.	HSC	0	 Council derives income from any approved communications towers and applies it to management of community land.
7.10 Volunteer Insurance				
7.10A Volunteer Insurance				
Volunteer groups working on community land are covered by appropriate insurance as required by Council's Risk and Insurance Manager.	Register volunteer workers with the Risk and Insurance Manager prior to work being undertaken, as required.	HSC/MRI	0	Volunteer workers are registered prior to working on community land.
	 Provide instruction in safe work methods to volunteer groups. 			
7.11 Funding				
7.11A Funds Received from User I	- ees			
Funds derived from use of community land are allocated in accordance with the Local Government Act.	■ Money derived from use of community land is expended on community land acquisition and community land management requirements in accordance with S.409 of the Local Government Act 1993.	HSC	O	■ Funds derived from community land use are allocated to future community land management and acquisition.
7.11B Through Life Costs				
Adopt an appropriate level of funding for maintenance of facilities within a financial year and over the whole life of an asset.	 Determine level of funding required to maintain community land facilities in accordance with the Plan of Management. 	HSC HSC	0	 Facilities are maintained within budget and in accordance with the Plan of Management
	 Annually adopt an appropriate budget to allow for maintenance of reserves 			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
7.11C Fees				
Set and maintain an appropriate level of hire fees for use of facilities on reserves.	■ Fees are set according to community service and cost recovery principles contained in the Fees and Charges volume of Council's annual Management Plan.	HSC	0	Level of fees is determined and adopted by Council annually.

8.0 Action Plan for Parks and Sportsgrounds

8.1 Notifications

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.1A Park and Sportsground Avail	ability			
Council will determine the status of ground closures due to weather for weekend sport by 2pm on Fridays.	 User groups will be notified at the earliest possible convenience of changes to sportsground and park availability due to wet weather in accordance with Hornsby Shire Sports 	MPR (PAT / PSU) MPR	0	 90% satisfaction as measured by the 'to be implemented' end of season user survey. Wet Weather Line 100% accurate at all times.
	Council Adopted Written Procedures.		0	
	■ User groups make a determination as to whether a ground is suitable for weekend play where rain occurs after close of business on Fridays and will be responsible for any resulting ground damage			
	Maintain a 'Wet Weather Line' to allow users 24 hours a day, 7 days a week access to information on ground availability affected by weather.			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.1B Notification of Works				
User groups will be notified of the need to cancel events due to major maintenance or capital works. Residences / businesses / park users will be notified of any proposed works which may impact on them.	 Notify user groups at the earliest possible convenience of changes to sportsground and park availability due to major maintenance or capital works. Give residents / businesses/ park users 48 hours notice in writing of any proposed work that will affect them detailing location, date and time of work, unless otherwise directed. 	MPR (PAT / PSU)	0	 Major user groups are always notified of major maintenance or works that will impact upon the use of the park or oval. Residents / businesses are notified in accordance with the Service Level Agreement.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.2 Protecting the Natural Env	rironment			
8.2A Use of Pesticides				
The use of pesticides in parks and sportsgrounds will be kept to a minimum to comply with the relevant codes of practice	 Use of pesticides will comply with the relevant codes of practice and a safe 	MPR (PAT / PSU)	0	 Pesticide use is minimised and complies with the relevant codes of practice.
and legislation to minimise any health effects and / or impacts on the environment.	work method statement • Undertake		S	 Programme for treating weeds is improved through application
Broad leaf, grass weeds and grass like weeds are effectively kept under control and / or	notification of pesticide applications through a pesticide		0	timing and methods. Appropriate grass species are selected.
eliminated.	 Use minimum toxicity sprays for treating weeds in 		0	 Staff utilising herbicides are suitably qualified and / or trained.
	parks and sportsgrounds and spray when desirable grasses are dormant.		0	 Integrated turf management practices are implemented on sportsgrounds.
	Selection of appropriate grass			Linemarking materials do not damage turf.
	 species Staff utilising herbicides are to be suitably qualified and / or trained. 			Legislation, plans and safe work method statements are followed.
	 Utilise quality integrated turf management practices on sportsgrounds to develop vigorous dense turf to minimise weed infestation and turf pests and diseases. 			
	 Weed control to be implemented as funding allows. 			
	 Selection of low toxicity linemarking products. 			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.2B Use of Fertilisers		_		-
Fertilisers are applied to maintain a safe, wear resistant playing surface.	 Sportsgrounds and gardens are fertilised with appropriate fertiliser at best possible application times. Annual soil analysis tests are carried out for selected sportsgrounds to determine nutrient requirements. Fertilising program is 	MPR (PAT / PSU)	0	Sportsgrounds and gardens are fertilised in an environmentally sustainable manner.
	implemented each year for each sportsground.			
	 Plant species are chosen for low fertiliser requirement where appropriate. 			
8.2C Erosion Control				
Erosion control measures are implemented for works where there is potential for erosion of exposed soil.	 All activities resulting in exposed soil are to be assessed for potential erosion of exposed soil into a watercourse. 	MPR (PAT / PSU)	0	 Activities resulting in exposed soil are assessed.
	 Where potential for erosion is identified, erosion control measures are to be implemented. 			
8.2D Gardens – Species Selectic	n			
Plant species used in parks and sportsgrounds adjoining bushland are to be compatible with the natural areas and habitat requirements.	 Use indigenous plants or other non-invasive species in garden areas of parks and sportsgrounds adjoining bushland. 	MPR	0	 Indigenous plants or other non-invasive species are used in garden areas where adjoining bushland

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.3 Availability of Facilities an	d Grounds	_		
8.3A Parks Booking Service				
During normal business hours a responsive booking service will be available.	■ Ensure a booking officer or other Council staff member will be available between 8.30am and 5.00pm to take booking details and answer enquiries.	MPL	ST	 Booking service is always available during Council's business hours.
8.4 Maintenance of Facilities a	and Grounds			
8.4A General Maintenance of Par	ks and Sportsgrounds			
Sportsgrounds and parks will be maintained in a safe and aesthetically pleasing condition consistent with the type of recreational use.	 Undertake routine safety and suitability inspections and maintenance. Sports grounds are 	MPR MPR	0	 Carry out maintenance operations in accordance with external contract or internal Service Level Agreements.
	marked before the days play to the sporting codes specifications and standards. Maintenance passes include checks of recreational facilities	MPR MPR	0	 Grounds are always correctly marked and ready for the identified sporting code before the day of play. Requests for maintenance are
	 Randomly survey users once per annum to gauge satisfaction with provided services 			responded to or actioned within 12 working days. Turf on sportsgrounds is maintained at a height of 75mm or less, bare areas repaired following the winter season and weeds controlled where budget allows.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.4B Level of Service				
Parks and sportsgrounds will be provided with a level of service treatment consistent with the level of community use.	Level of service grading will be allocated on a reserve by reserve basis as high, medium or low, which is generally daily for high, monthly or fortnightly for medium and quarterly or as requested for low. This frequency may be changed according to weather or budget constraints.	MPR	0	Maintenance is implemented in accordance with Service Level Agreements.
8.4C Upkeep of Amenities				
Amenities, including toilets, showers and change rooms, will be made available at all sportsgrounds in a safe and aesthetically pleasing condition. Amenities will be provided in major Parks where appropriate.	 Monitor amenities to ensure they are available in an acceptable condition. Assess the need for amenities in sportsgrounds and parks that do not provide these services. 	MPR MPR	0	 Facilities are available at all identified major grounds in a safe and acceptable condition at all times. Amenities constructed as required.
8.4D Ball Courts				
Ball courts will be maintained in a useable and safe condition. (NB – no ball courts are currently proposed in OMV).	 Courts are clearly marked for the sporting codes played on them. Damaged surfaces, nets, fencing and poles will be replaced 	MPR (PAT / PSU)	0	 Requests for maintenance are responded to or actioned within 12 working days. Maintenance is implemented in accordance with Service Level Agreements.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.4F Barbecues				
Barbecues in parks and sportsgrounds will be clean and operable.	Barbecues will be cleaned once a week	MPR (PAT / PSU)	O	 Barbecues are operable 95% of the time. Requests for maintenance are responded to or actioned within 12 working days. Maintenance is implemented in accordance with Service Level Agreements.
8.4G Fences				
Park and sportsground fencing will be maintained in a safe condition.	 Replace damaged fencing as required. Council is not required to build, maintain or contribute towards dividing fences between parks or sportsgrounds and adjoining private properties. 	MPR (PAT / PSU)	O	 Requests for maintenance are responded to or actioned within 12 working days. Maintenance is implemented in accordance with Service Level Agreements. Council will not contribute towards dividing fences on park boundaries unless council deems that there is a community interest reason to do so
8.4H Taps and Bubblers				
Taps and bubblers in parks and sportsgrounds will be operational.	Reports of leaking taps or bubblers will be responded to promptly.	MPR (PAT / PSU)	O	 Requests for maintenance are responded to or actioned within 3 working days. Maintenance is implemented in accordance with Service Level Agreements

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.4I Signs		_		_
Signs are legible and are erected in highly visible locations within parks and sportsgrounds.	 Install signs in highly visible locations. Replace damaged / vandalised signs where they have been rendered illegible. 	MPR (PAT / PSU)	0	Signs are visible.Damaged signs are replaced as required.
8.4J Playgrounds				
Council will comply with the Australian Standards for playgrounds and play equipment.	 Design and maintain playgrounds and play equipment to relevant safety standards where possible. Undertake safety inspections and regular maintenance in accordance with Service Level Agreements. Manage playgrounds according to asset 	MPR (PAT / PSU)	0	 Safety in playgrounds and for playground equipment is upheld to Australian Standards (AS 1924, AS 4422 and AS 4486). Maintenance is implemented in accordance with internal Service Level Agreements. Comprehensive inspections are undertaken on a
	management principles			quarterly basis. Ensure that playgrounds are managed through their life cycle and replaced at the end of it only if the replacement best meets community needs and council's economic viability.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.4L Floodlight Standards				
Sportsground floodlights will be upgraded according to Australian Standards and to the most energy efficient means of operation	 Floodlights not meeting Australian Standards will be progressively upgraded as funding permits 			 Floodlights are 90% operational and progress is made within any five-year capital funding period towards upgrading lights not meeting standards
	 Floodlight luminaires will be the most energy efficient fittings capable of meeting standards 			mooning standards
	 Control systems will be manual switch -on, timer switch-off, or remotely controlled, and adjusted seasonally according to ground allocations 			
	 Lights will be checked, cleaned and aimed annually 			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.4M Irrigation system standards				
Irrigation systems will be maintained to maximise water efficiency	 Irrigation systems will be checked and repaired regularly for leaks and malfunctioning 			 Irrigation systems will be upgraded to a minimum 75% efficiency standard as funding permits
	fittings Control systems will be adjusted for prevailing weather patterns			 Progress will be made towards reducing reliance upon potable water supplies for irrigation
	 Remote controls will be extended where funding permits 			
	Stormwater harvesting systems and other independent water supply systems will be provided as funding permits			
	 Subsurface irrigation systems will be considered where new systems are installed 			
	 Park and oval construction methods aimed at reducing water reliance will be used in designs 			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.5 Risk Management				
8.5A Sportsgrounds				
Parks and Recreation Team and sportsground users are responsible for checking the risk management aspects of sportsgrounds.	 Parks and Recreation to check sportsgrounds on a regular basis in accordance with the internal Service Level Agreement. Users are required to check grounds immediately prior to use to determine if appropriate for play as part of their licence conditions. 	MPR (PAT / PSU) SU	0	 Sportsgrounds are checked regularly by Parks and Recreation Team in accordance with the Service Level Agreement. Users are aware of their responsibility to check sportsgrounds for safety prior to play.
8.5B User Groups Public Liability				
Sports clubs, school and other organised groups using parks and sportsgrounds have appropriate public liability cover as required by Council.	 Appropriate levels of cover are determined through consultation with the Risk and Insurance Manager. Ensure user groups have appropriate insurance cover as required, before grounds allocation. 	MPR / MRI	0	 Risk and Insurance Manager is consulted. Organised user groups have appropriate insurance cover prior to using facilities in parks and sportsgrounds.
8.6 General Use: Dogs, Firewo	rks, Fairs			
8.6A Dogs				
Encourage responsible exercising of dogs within parks and sportsgrounds and provide	 Notices are erected in parks and sportsgrounds 	MPR	S	 Reserves notices are erected in parks and sportsgrounds.
leash free dog runs where appropriate.	regarding responsibility of dog owners. Provide a number of	MPR	М	 Council consider provision of leash free dog runs in appropriate parks.
	 leash free dog runs in appropriate parks and sportsgrounds. Following investigations, Reserves notices are amended if required to allow for provision of leash free dog runs. 	MPR	M	Reserves notice is amended if required to allow for leash free dog run.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.6B Use of Fireworks in Reserve	es			
Use of fireworks within parks and sportsgrounds comply with Council and Work Cover requirements for such activities.	 Proposals for fireworks displays have Council's development consent where necessary and Work Cover Authority consent. 	P/HSC	0	 Proposals have approved Development Applications and approval from Work Cover Authority as required.
8.6C Circuses, Fetes and Fairs				
Circuses, fetes and festivals within parks and sportsgrounds comply with Council's requirements for certification and insurance.	 Ensure any circus, fete or festival has the appropriate certification for amusement 	MPR	0	 Licences for circuses, fetes and fairs are only granted to applicants with appropriate certification and
	equipment and insurance as required by Council's Risk and Insurance Manager.	MPR / MRI	0	insurance.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.7 Use for Access or Storage	for unrelated purposes			
8.7A Aircraft and Vehicular Access	and material storage			
Restrict access into parks and sportsgrounds to maintenance and emergency vehicles as required.	 Prevent general aircraft and vehicular access to unauthorised areas of parks and 	MPR	0	 General vehicular and aircraft access into parks and sportsgrounds is restricted.
	sportsgrounds by use of fencing and gates.	MPR	O	 Emergency and maintenance vehicle and aircraft access is provided as required.
	 Provide opportunities for access of maintenance and emergency vehicles as required. 	MPR		 Use of parks and sportsgrounds for temporary storage of materials for a public utility or road purposes
	 Aircraft landings restricted to emergency services and occasional approved community fundraising events. 			will be infrequent, only where no practical alternative exists, and done so as to manage all impacts.
	■ Use of parks and sportsgrounds for temporary storage of materials for construction or maintenance of public utilities and roads may be permitted in the absence of practical alternatives and where the impact upon the parks and reserve or adjoing land and waters is addressed			

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
8.8 Community and Neighbou	r Issues			
8.8A Boundary Management				
Encourage good neighbour relations with surrounding properties while ensuring private use of community land only occurs in accordance with	 Respond promptly to complaints from adjoining properties where complaints relate to use of parks 	MPR MPR	0	 Adjoining properties are informed of legal limitations regarding private use of community land.
the guidelines established in the Local Government Act.	 and sportsgrounds. Inform adjoining landholders of requirements of 	IVIFN	S	 Sporting groups are given opportunity to address problems internally before Council
	Local Government Act to prevent private use of community land.	MPR	Ο	considers reallocation of ground.
	Consult with sporting groups where negative impacts are directly associated with their use. If negative impacts associated with a particular group continue, consider reallocating fields to other sports.			
8.8B Community Advertising				
Allow opportunity for community advertising within parks and sportsgrounds.	 Comply with requirements of Exempt and 	MPR	0	 Only complying signs and banners are displayed in parks and
	Complying Development DCP for signs, sign displays, community banners and notices.	MPR MPR	0	 sportsgrounds. Advertising signage complies with the Outdoor Advertising DCP as required.
	 Ensure signage complies with the Outdoor Advertising DCP in relation to Community Advertising where required. 			 Illegal signs are removed.
	 Remove signage which does not comply with the DCP. 			

9.0 Action Plan for Areas of General Community Use

are inclusive.

strollers.

Removal of barriers

to access by people

with disabilities and

9.1 Standard of Community Centres

community.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
9.1A Halls and Equipment				
Centres / facilities will be available for use by the community at an acceptable standard.	 Council will ensure that halls and equipment are inspected on a regular basis 	MC / MCS	0	 Regular asset inspections by Council.
9.2 Equity and Access to Com	munity Centres/ Other Co	mmunity Ass	ets and Facilit	ies
9.2A Access				
Centres / facilities are available for use by all sections of the	Hiring policies of Centres / facilities	MCS	0	No restrictive clauses in hiring conditions.

MCS

Ο

Centres / facilities and

amenities are wheel

chair accessible.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
9.2B Equity		Ü		
Council will provide fair and equitable opportunities to community facilities for community groups	■ Leases and licences are considered where activities comply with the core objectives of the Local Government Act (s.36E – 36N) and the zoning as set out in the Hornsby Shire LEP.	MCS / MCC MCS / MCC	0	 Leases and licences are granted only where activities comply with the core objectives of the Local Government Act and with the Hornsby Shire LEP. Leases and licences are granted in accordance with Council Policies
	 Leasing and licensing of community facilities will be in accordance with Council's Policies CSISAS 12 – Delegation of Authority to Grant Lease / Licence Agreements, CSISAS 13 – Use of Council Buildings by Kindergartens and CSISAS 14 – Lease/ Licence of Council Land), and/or any relevant, adopted strategic plan or policy. Council will call for Expressions of Interest for leasing and licensing where appropriate. 	MCS / MCC		with Council Policies CSISAS 12, CSISAS 13 and CSISAS 14, and/or any relevant, adopted strategic plan or policy. Expressions of Interest are called for by Council where appropriate.
9.3 Fees and Audit				
9.3A Fees and Charges				
Fees charged are fair and reasonable.	■ Fees charged for the use of Community Centres / facilities are equivalent to those charged for similar facilities.	MC/ MCS	0	Fees are submitted for review by Council each year.

Management Statement	Action	Mgt. Team	Timeframe	Performance Measure
9.3B Auditing				
No profits shall be made from the operation of Centres / facilities.	Income and expenditure of Community Centres are reviewed on a regular basis by Council and accounts forwarded to the Finance Branch.	MC / MCS / MF	0	 Audit of Income and Expenditure
9.4 Risk Management				
9.4A Community Centres/ Facilities	es			
Centres / facilities are maintained at legally prescribed safety standards.	 Periodic review and inspection of Community Centres by Council. 	MC / MCS / MRI	0	Risk and safety audits completed successfully.
9.4B Other Community Assets				
Other community assets / facilities are maintained at legally prescribed safety standards	 Periodic review and inspection by asset managers. 	MA	0	 Risk and safety audits completed successfully.

10.0 Appendix 1

Parking and Traffic Impact Assessement, West Epping Park, Epping, March 2014

Prepared by Thompson Stanbury Associates

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PARKING & TRAFFIC IMPACT ASSESSMENT WEST EPPING OVAL MASTERPLAN WARD STREET **EPPING**

Ref: 13-011

MARCH 2014

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1. <u>INTRODUCTION</u>

1.1 Background

Hornsby Shire Council (herein referred to as 'Council') is in the process of developing a Masterplan for the West Epping Oval Precinct comprising West Epping Oval, Mountain Street, Downing Street, Grant Close, Ward Street and Lilli Pilli Street, Epping. The Masterplan process was initiated following an assessment of the indoor sports and recreation needs of the Local Government Area recently undertaken for Council by Strategic Leisure Group. This assessment identified that recent rezonings of land within the Epping and Carlingford town centres are likely to contribute to an increased demand for recreation facilities in the local area. The West Epping Oval precinct is seen as a key site to respond to this demand.

Council has prepared a preliminary Masterplan for the redevelopment of the entire precinct with a view to expanding the range of recreation facilities available for use. The Masterplan includes an additional informal district or specialty park, improved sports grounds, additional indoor recreation facilities, altered parking and vehicular access arrangements and improved pedestrian access and internal circulation within the precinct.

The initial Masterplan process identified a number of key considerations which were investigated in order to determine the most appropriate way to arrange vehicle access and parking within and adjoining the precinct. These considerations included but were not limited to:

- The Park is serviced by a number of lower order local roadways (a majority of which form cul-de-sacs at the Park) which also provide access to Epping West Primary School and low density residential development;
- Current off-street parking areas servicing the precinct are largely informal and do not meet Australian Standards;
- The visual and physical interconnectivity between existing Park facilities is poor; and
- Parking and traffic demand associated with the YMCA indoor recreation facility is generally centred around Ward Street and Lilli Pilli Street which, combined with the concentrated periods of traffic and parking demand associated with Epping West Primary School and poor connectivity to the surrounding regional road network, results in congested conditions during peak periods.

It was accordingly determined that the redevelopment of the precinct needs to consider traffic and parking constraints as a key step towards establishing the Masterplan.

1.2 Assessment Scope

The Practice of Thompson Stanbury Associates was engaged by Council to undertake a parking and traffic impact assessment for the Masterplan. The purpose of this assessment was to assess and document existing limitations of the precinct, likely parking and traffic impacts resulting from the Masterplan and to recommend, where appropriate, treatments to ameliorate such impacts. This report presents the methodology and findings of this assessment. In this regard, this report assesses the following

- The existing supply and demand of the on and off-street car parking areas servicing the precinct;
- The existing precinct public road access arrangements and conditions;
- The operational limitations and potential of the overall precinct from a parking and traffic viewpoint;
- The likely parking and traffic generating potential of the Masterplan;
- The ability of the precinct and existing surrounding infrastructure to accommodate additional parking demand and traffic movements projected to be generated by the Masterplan; and
- The provision of parking and traffic management initiatives which can be implemented to assist in the accommodation of the subject proposal.

The report should be read in conjunction with a preliminary Masterplan for the precinct prepared by Council, a reduced copy of which is provided as **Appendix 1**.

2. PRECINCT DETAILS

2.1 Precinct Location

The West Epping Oval precinct is serviced by Mountain Street to the north, Downing Street to the west, Grant Close to the east and Ward and Lilli Pilli Streets to the south, Epping. This location is illustrated overleaf as **Figure 1** being an extract of UBD's *Australian City Streets – Version 4*.

2.2 Existing Uses

West Epping Oval currently contains the following:

- A large centralised sports ground containing a senior sized and a junior sized sports ground utilised for soccer during the winter months and cricket during the summer months;
- An indoor recreations facility located within the southern portion of the precinct with a frontage to Ward Street / Lilli Pilli Street containing a gymnasium, indoor courts, recreation rooms, cafeteria, and public amenities operated by the YMCA;
- A pre-school facility to the west of the YMCA accessed via Downing Street;
- A tennis / netball facility within the eastern portion of the precinct fronting Grant Close comprising three paved tennis courts and two synthetic netball courts; and
- A vacant bowling club and car park site within the northern portion of the precinct traditionally accessed via Mountain Street.

The existing Oval facilities are serviced by a combination of on and off-street parking areas (formal and informal) accessed or contained within Mountain Street, Downing Street, Grant Close, Ward Street and Lilli Pilli Street.

2.3 Surrounding Uses

The precinct is surrounded by the following:

- Detached residential dwellings fronting Ward Street and Lilli Pilli Street to the south-east, Midson Road to the east, Mountain Street to the north and Downing Street to the west; and
- Epping West Primary School to the south.

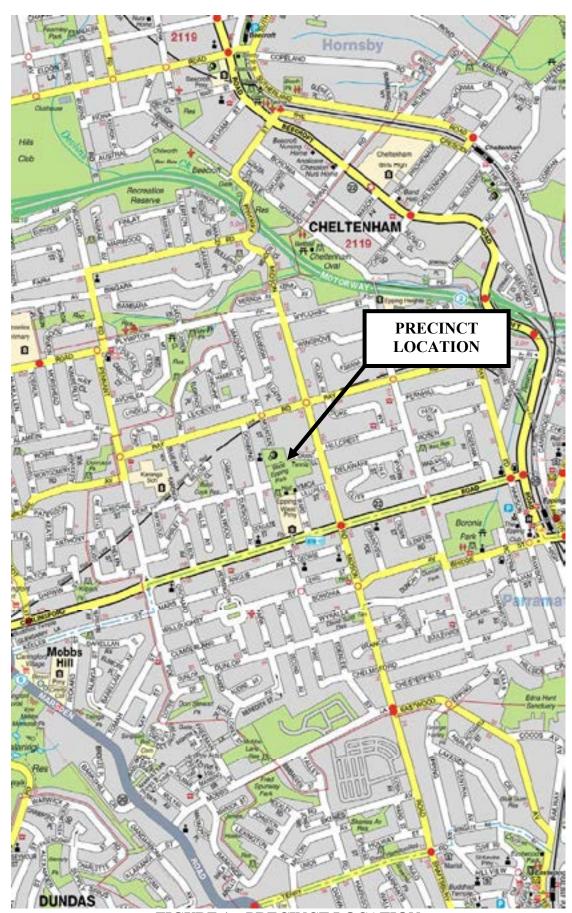


FIGURE 1 – PRECINCT LOCATION

3. <u>EXISTING PARKING CONDITIONS</u>

3.1 Existing Parking Provision

The existing West Epping Oval Precinct is serviced by a combination of on and offstreet parking areas (formal and informal) accessed or contained within Mountain Street, Downing Street, Grant Close, Ward Street and Lilli Pilli Street, as follows:

On-Street Parking

- Ward Street provides a maximum capacity to accommodate 49 parked vehicles as follows:
 - 17 unrestricted parallel parking spaces along the eastern side between Lilli Pilli Street and Carlingford Road;
 - 25 unrestricted angled parking spaces along the western side approaching Lilli Pilli Street; and
 - 7 parallel parking spaces along the western side approaching Carlingford Road which combine to provide a Bus Zone and No Parking area during weekdays between 9.00am 9.30am and 3.00pm 4.00pm (unrestricted at other times).
- Lilli Pilli Street provides a capacity to accommodate 28 unrestricted parallel parking spaces between Ward Street and Midson Road; and
- Grant Close provides a capacity to accommodate 30 unrestricted parallel parking spaces between West Epping Oval and Midson Road.

Off-Street Parking

- A small parking area containing 14 parking spaces is located to the north of and serviced by the junction of Ward and Lilli Pilli Streets;
- A small parking area containing 15 parking spaces is located to the south of and accessed via Grant Close; and
- A large informal parking area capable of accommodating 63 parked vehicles is located to the east of and serviced by Downing Street.

The precinct is therefore serviced by 107 on-street and 92 off-street parking spaces.

Further to the above, a large parking area containing approximately 95 spaces is located to the south of and serviced by Mountain Street. This parking area originally formed part of the previous bowling club and currently closed to the public through the provision of boundary fencing.

An aerial photograph illustrating the abovementioned parking areas with respect to the precinct is provided overleaf as **Figure 2**, being an extract of Google Earth.

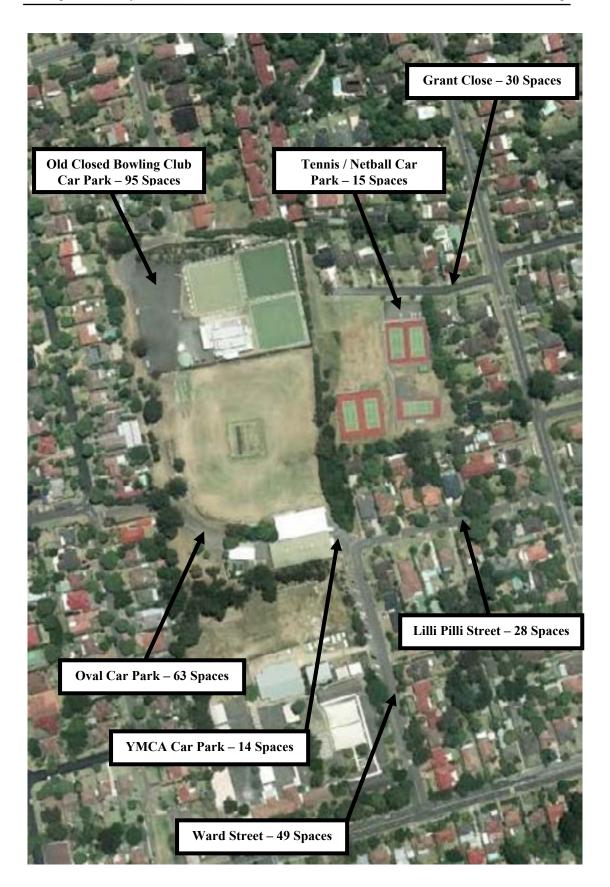


FIGURE 2 – EXISTING PARKING PROVISION

3.2 Activities Contributing to Parking Demand

Parking demand within and surrounding the precinct is generated by various community, recreational and sporting activities. The following sub-sections provide a summary of these activities contributing to parking demand.

3.2.1 Epping West Primary School

Epping West Primary School accommodates approximately 765 students and is serviced by an off-street parking area capable of accommodating approximately 45 vehicles accessed via Carlingford Road. The on-site parking area however primarily accommodates staff parking demand with parent / visitor parking demand being largely accommodated within Ward Street (and to a lesser extent, Lilli Pilli Street) and the oval car park accessed via Downing Street during school start and finish periods being 8.00am – 9.30am and 2.30pm – 4.00pm weekdays.

The school also accommodates some community activities (adult education and worship services) outside of school periods being weekday evenings and weekends. Demand for these out of school activities is however largely accommodated within the off-street school parking area accessed via Carlingford Road.

3.2.2 Epping YMCA

Epping YMCA comprises an indoor recreation facility incorporating a gymnastics training arena, multi-purpose program rooms, a single indoor sports court and a gymnasium, housed within a single building. The YMCA also governs the use of the existing five external tennis courts (two of which are capable of being utilised as netball courts) located to the north-east of the building, fronting and accessed via Grant Close.

The YMCA use generates demand for parking throughout the week, with peak attendances occurring during weekday afternoons / evenings (4.00 pm - 8.00 pm) and Saturday mornings. Parking demand associated with the YMCA is primarily accommodated within the YMCA off-street car park, Ward Street, Lilli Pilli Street and to a lesser extent, the Oval car park. A survey of existing visitors to the YMCA found a small proportion of people arriving by bus or as pedestrians.

3.2.3 West Epping Pre-School

West Epping Pre School accommodates approximately 40 students per day and provides pre-school education for children aged three to five. The pre-school also occupies a community hall, attached to the pre-school buildings. This complex is located to the west of the YMCA building. The pre-school operates between 9.00am – 3.00pm on weekdays during normal school terms. The community hall is hired by community groups / organisations during out of hours periods on weekday evenings and weekends.

Demand for parking peaks between 9.00am – 9.30am and 2.30pm – 3.30pm associated with the setting-down and picking-up of children. Staff and visitor parking demand associated with the pre-school is primarily accommodated within the oval car park.

3.2.4 West Epping Oval

West Epping Oval, located to the north of the YMCA building accommodates a senior sized sports ground and a junior sized sports ground primarily utilised for soccer during the winter months and cricket during the summer months. In this regard, it accommodates sports club training activities on weekday afternoons / evenings between 4.00pm – 8.00pm and game fixtures on weekends between 8.00am – 5.00pm. Parking demand for the oval activities is accommodated within the oval car park, Ward Street, Lilli Pilli Street and Grant Close.

West Epping Oval also accommodates the previously presented five external tennis courts (two of which are capable of being utilised as netball courts) located to the east of the sports oval. These courts accommodate casual bookings during weekdays and more formal sports club bookings during weekday evenings and weekends. Parking demand associated with the courts is primarily accommodated within the adjoining off-street car parking area accessed via Grant Close and Grant Close itself.

The oval also provides an informal children's playground to the west of the preschool, which accommodates causal and ancillary use associated with the primary and pre-schools as well as the oval activities. Demand for parking associated with this playground is largely accommodated within the oval car park.

The oval also accommodates a disused bowling club site, which comprised a parking area containing approximately 95 spaces, a club building and three bowling greens. The club building was demolished in 2012. The greens have been removed and partially replaced with the abovementioned junior sized sports ground. The car parking area, accessed via Mountain Street, has been intermittently fenced off from public use.

3.2.5 Residential Demand

The precinct is primarily surrounded by low density residential dwellings. Most dwellings accommodate limited off-street resident parking however some resident and visitor parking demand is accommodated on-street, within Ward Street, Lilli Pilli Street, Grant Close, Mountain Street and Downing Street.

3.3 Existing Parking Demand

3.3.1 Surveys of Parking Demand

In order to obtain an indication of the existing operation of the car parking areas within and surrounding the precinct, surveys of existing parking demand were undertaken during the summer and winter periods in November and April / May / August respectively in 2012 and 2013, as follows:

Summer

- Monday 26th of November 2012 between 2.30pm 8.30pm;
- Tuesday 27th of November 2012 between 2.30pm 8.30pm;
- Wednesday 28th of November 2012 between 2.30pm 8.30pm;
- Thursday 29th of November 2012 between 2.30pm 8.30pm; and
- Saturday 15th of December 2012 between 8.30am 5.00pm;

Winter

- Tuesday 7th of August 2012 between 3.00pm 8.30pm;
- Wednesday 8th of August 2012 between 3.00pm 8.30pm;
- Thursday 9th of August 2012 between 3.00pm 8.30pm;
- Friday 10th of August 2012 between 3.00pm 8.30pm;
- Saturday 11th of August 2012 between 8.00am 5.00pm;
- Monday the 8th of April 2013 between 2.30pm 8.30pm; and
- Sunday 12th of May 2013 between 8.00am 5.00pm

Sunday during the summer was not surveyed as the oval does not accommodate any organised sporting fixtures.

The surveys captured all on and off-street parking areas described in Section 3.1 and illustrated within **Figure 2** of this report.

Table 1 overleaf provides a summary of the survey results whilst full details are available upon request.

			SUMMA	TAB RY OF EXISTI	TABLE 1 SUMMARY OF EXISTING PARKING DEMAND	EMAND			
	Capacity		Summer	mer			Winter	iter	
		Weekday A	Afternoon	Weekend	Weekend Morning	Weekday	Weekday Afternoon	Weeken	Weekend Morning
		Spaces	% of Spaces Occupied	Spaces	% of Spaces Occupied	Spaces	% of Spaces Occupied	Spaces	% of Spaces Occupied
Ward Street	64	42	%98	46	100%	40	82%	49	100%
Lilli Pilli Street	28	21	75%	18	9689	19	%899	28	100%
Grant Close	30	9	20%		17%	. 5	17%	61	64%
Total On-Street	107	99	26%	89	64%	09	56%	16	85%
Oval	63	21	33%	25	40%	27	43%	63	100%
Nethall Courts	15	3	20%	12	80%	00	53%	14	%16
YMCA	14	12	%98	10	72%	14	100%	14	100%
Total Off-Street	92	30	33%	44	48%	43	47%	18	988%
Total Precinct	661	98	43%	112	26%	91	46%	168	85%

Table 1 indicates the following:

Summer Weekday Afternoons / Evenings

- Demand within Ward Street, Lilli Pilli Street and the YMCA car park approaches capacity (between 75% 86%);
- Demand within the oval car park, the tennis / netball car park and Grant Close is low (between 20% 33%);
- Total on-street parking demand is 56% of capacity;
- Total off-street parking demand is 33% of capacity; and
- Total parking demand is 43% of capacity.

Summer Weekend

- Demand within Ward Street is at capacity;
- Demand within Lilli Pilli Street, the YMCA car park and the tennis / netball car park approaches capacity (between 65% and 80%);
- Demand within Grant Close and the oval car park is low (between 17% 40%);
- Total on-street parking demand is 64% of capacity;
- Total off-street parking demand is 48% of capacity; and
- Total parking demand is 56% of capacity.

Winter Weekday Afternoons / Evenings

- Demand within Ward Street and Lilli Pilli Street approaches capacity (between 68% 82%);
- Demand within the YMCA car park is at capacity;
- Demand within the oval car park, the tennis / netball car park and Grant Close is low (between 17% 53%);
- Total on-street parking demand is 56% of capacity;
- Total off-street parking demand is 47% of capacity; and
- Total parking demand is 46% of capacity.

Winter Weekend

- Demand within Ward Street, Lilli Pilli Street, the YMCA car park and the Oval car park is at capacity;
- Demand within the tennis / netball car park approaches capacity (94%);
- Demand within Grant Close is moderate to high (64%) of capacity;
- Total on-street parking demand is 85% of capacity;
- Total off-street parking demand is 88% of capacity; and
- Total parking demand is 85% of capacity.

Summary

- Parking demand within Ward Street, Lilli Pilli Street and the YMCA car park is high at most times;
- Parking demand within the oval car park is high during school finish periods and Saturday mornings but low at other times;
- Parking demand within Grant Close and the tennis / netball court car park is high during Saturday mornings but negligible to low at other times;
- The peak parking demand of the total precinct was surveyed to be 168 spaces, or 85% of capacity, occurring at 9.00am on the winter Saturday surveyed.

3.3.2 Analysis of Parking Demand Surveys

The parking demand surveys indicate that higher parking demand occurs during the winter months, compared to the summer months. The following provides an analysis of the parking demand characteristics of the various contributing uses based on the worst case winter months:

- The existing peak school / pre-school parking demand is approximately 150 spaces (outside the school grounds). This peak is however short lived and does not coincide with the other primary precinct uses, which generate peak parking demand later in the weekday afternoon / evening or on weekends.
- The existing peak weekday parking demand of the precinct occurs during the afternoon between 4.00pm and 8.00pm (ignoring the earlier school peak when the YMCA / oval uses are less utilised), whereby a demand of approximately 90 spaces is generated, comprising the following:

- 50 spaces generated by the existing YMCA;
- 20 spaces generated by the surrounding residents; and
- 20 spaces generated by the existing oval uses.
- The existing peak weekend parking demand of the precinct occurs on Saturday mornings, whereby a demand of 170 spaces is generated, comprising the following:
 - 70 spaces generated by the existing YMCA;
 - 40 spaces by the surrounding residents; and
 - 60 spaces generated by the existing oval.

3.3.3 Assessment of Existing Conditions

The previous analysis indicates that the YMCA is the most significant generator of parking demand within the precinct, outside of school periods. The peak parking demand of the YMCA is approximately 70 spaces. This facility however only provides 14 off-street parking spaces. This results in demand for parking associated with the YMCA to be accommodated elsewhere throughout the precinct.

Conversely, the oval and residential parking demands are sustainable.

Whilst there is adequate capacity throughout the precinct to accommodate existing demand, it is clear that the various uses, primarily the YMCA, place demand on public streets, in preference to off-street parking demands. There are various reasons for this, as follows:

- The YMCA provides a street address and front door to Ward and Lilli Pilli Streets;
- The YMCA provides for limited off-street parking within the immediate vicinity of the front door of the building;
- There is poor connectivity between the other parking areas (the oval car park, the tennis / netball car park and Grant Close to the YMCA building; and
- The existing off-street parking areas are either informal (not sealed and / or marked) and / or non-compliant with respect to parking and manoeuvring dimensions.

4. EXISTING TRAFFIC CONDITIONS

4.1 Traffic Function & Controls

The West Epping Oval precinct is serviced by a series of local access roads, being Ward Street, Lilli Pilli Street, Downing Street, Grant Close and Mountain Street. These local roads provide connectivity between the precinct and the surrounding regional and state road network in Carlingford Road, Midson Road and Ray Road. The following sub-sections provide a description of these local, regional and state roads.

4.1.1 Carlingford Road

Carlingford Road is a State Road under the care and control of the Roads & Maritime Services. It provides an important arterial east-west function between Beecroft Road at Epping and Pennant Hills Road at Carlingford to the east and west respectively. It provides a four lane undivided carriageway, providing two through lanes of traffic in each direction. Traffic flow is governed by a sign posted speed limit of 60km/h, however a 40km/h school zone speed limit applies in the vicinity with Epping West Primary School.

In the vicinity of the precinct, Carlingford Road forms junctions with Duntroon Avenue and Ward Street under major / minor priority control (with Carlingford Road forming the priority route) and Midson Road under traffic signal control. Right turn movements from Carlingford Road to Duntroon Avenue and Ward Street are prohibited. All turning movements at Midson Road are facilitated, with right turn movements from Carlingford Road being assisted by the provision of exclusive turning lanes.

4.1.2 Midson Road

Midson Road performs a collector function under the care and control of Hornsby Shire Council and Parramatta Council to the north and south of Carlingford Road respectively. Midson Road provides a north / south connection between Murray Farm Road / Kirkham Street, Cheltenham in the north and Victoria Road (with Shaftsbury Road), Denistone West in the south.

In the vicinity of the subject precinct, Midson Road provides a 10m wide carriageway providing one through lane of traffic in each direction. Traffic flow is governed by a sign posted speed limit of 50km/h. Traffic calming devices in the form of speed humps are provided at regular intervals. Midson Road is also sign posted with a three tonne load limit.

With the exception of traffic signal control at Carlingford Road and single lane roundabout control with Ray Road, Midson Road forms priority controlled junctions with all intersecting streets in the general vicinity of the precinct, with Midson Road forming the priority route.

4.1.3 Ray Road

Ray Road performs a collector function under the care and control of Hornsby Shire Council. It provides an east / west connection between Carlingford Road and Rawson Street at Epping in the east and Pennant Parade, Epping West to the west. It provides an 11m wide carriageway providing one through lane of traffic in each direction in conjunction with marked parallel parking lanes along both kerb alignments. Traffic flow is governed by a sign posted speed limit of 50km/h.

Ray Road forms a signalised intersection with Carlingford Road and Rawson Street at its eastern extremity. Roundabout intersection control is provided at junctions with Kent Street, Midson Road, Mountain Street / Magnolia Avenue and Pennant Parade. All other junctions are governed by priority signage conditions whereby Ray Road forms the priority route.

4.1.4 Ward Street

Ward Street performs a local access function providing a north-south connection between Lilli Pilli Street in the north and Carlingford Road in the south. It provides a wide carriageway providing one through lane of traffic in each direction in conjunction with 60 degree angled parking along the western alignment and parallel parking along the eastern alignment. Traffic flow is governed by a sign posted speed limit of 50km/h, however a 40km/h speed limit applies during the prescribed school start and finish periods associated with Epping West Primary School.

4.1.5 Lilli Pilli Street

Ward Street curves to the east at its northern extremity to form Lilli Pilli Street. Lilli Pilli Street continues the abovementioned Ward Street local access function to the east to connect with Midson Road, operating under major / minor priority control.

Lilli Pilli Street provides an 8m wide carriageway providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. The limited carriageway width however does not allow for two way traffic flow when vehicles are parked on both sides of the pavement. Two raised thresholds are provided in combination with road narrowing treatments, also locally reducing traffic flow to a single direction.

4.1.6 Grant Close

Grant Close performs a local access function extending approximately 140m to the west of Midson Road, with which it intersects under major / minor priority control, prior to forming a terminating cul-de-sac. It provides a 7m wide pavement providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. Similarly to Lilli Pilli Street, the limited pavement width does not allow for two way traffic flow when vehicles are parked on both sides of the pavement.

4.1.7 Mountain Street

Mountain Street performs a local access function extending approximately 160m to the south of Ray Road, with which it intersects under roundabout control, towards West Epping Oval, at which point it provides direct connectivity to the previous bowling club car parking area with the oval.

Mountain Street provides an 8m wide carriageway providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. The limited carriageway width however does not allow for two way traffic flow when vehicles are parked on both sides of the pavement.

4.1.8 Downing Street

Downing Street performs a local access function providing a north-south connection between Ray Road, with which it intersects under priority control, in the north and Duntroon Avenue (with Dengate Street) in the south, which continues to the south to link with Carlingford Road.

Downing Street provides a 9m wide carriageway providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. A series of raised thresholds are provided in combination with road narrowing treatments, locally reducing traffic flow to a single direction.

Downing Street provides a vehicular access to the oval car parking area, as an off-set cross intersection with Dent Street, which continues to the west to link with Pennant Parade. Raised channelisation is provided at the intersection of Downing Street, Dent Street and the oval car park access road to govern the off-set nature of the junction.

4.2 Traffic Volumes

In order to obtain an indication of the existing traffic volumes in the vicinity of the subject precinct, manual traffic surveys were undertaken on behalf of this Practice at the following intersections:

- The junction of Carlingford Road with Duntroon Avenue;
- The junction of Carlingford Road with Ward Street;
- The junction of Midson Road with Lilli Pilli Street;
- The junction of Midson Road with Grant Close;
- The intersection of Midson Road, Mountain Street and Magnolia Avenue;
- The junction of Ray Road and Downing Street;
- The intersection of Downing Street, Dent Street and the oval access road; and
- The junction of Pennant Parade and Dent Avenue.

Surveys were undertaken on Thursday the 2nd of May 2013 between 2.30pm and 8.30pm to capture the weekday evening afternoon period and Saturday the 4th of May 2013 between 8.00am and 12.00pm to capture the weekday morning period.

The peak hour volumes obtained from this survey are represented overleaf diagrammatically as **Figure 3** whilst original survey data available upon request. There are gains / losses at adjoining intersections as the peak hour periods varied from intersection to intersection. Notwithstanding this, the peak periods displayed within **Figure 3** were primarily surveyed between 4.45pm and 6.15pm on the weekday and 10.45am – 12.00pm on the weekend.

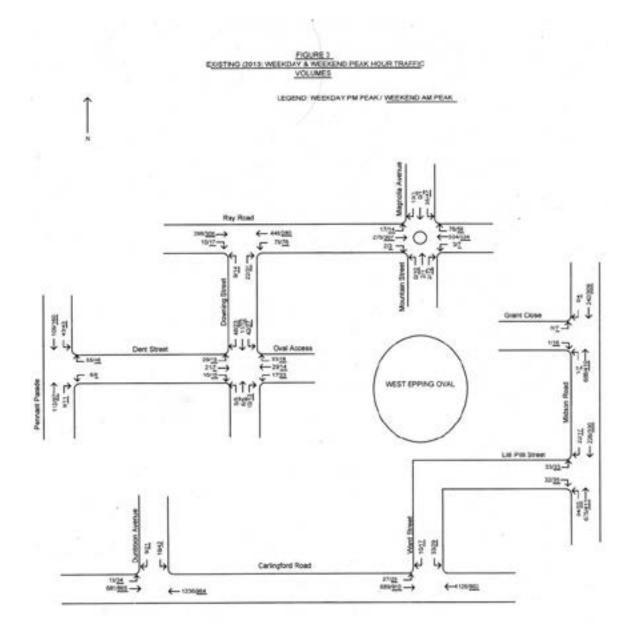


Figure 3 indicates the following:

- Carlingford Road accommodates two directional hourly flows of approximately 2,000 and 1,850 during the weekday evening and weekend morning peak hours respectively;
- Midson Road accommodates two directional hourly flows of approximately 950 and 800 during the weekday evening and weekend morning peak hours respectively;
- Ray Road accommodates two directional hourly flows of approximately 950 and 750 during the weekday evening and weekend morning peak hours respectively;
- Carlingford, Midson and Ray Roads directional traffic flows are tidal during weekday peaks but reasonably even during weekend peaks;

- Ward Street accommodates two directional traffic flows of approximately 70 vehicles per hour during weekday and weekend periods;
- Lilli Pilli Street accommodates two directional traffic flows of approximately 150 vehicles per hour during weekday and weekend periods;
- Grant Close and Mountain Street accommodates negligible traffic flows (less than 50 vehicles per hour during weekday and weekend periods; and
- Downing Street accommodates two directional hourly flows of approximately 170 and 100 during the weekday evening and weekend morning peak hours respectively.

4.3 Existing Intersection Operation

The existing operation of the road network surrounding and servicing the subject precinct has been analysed utilising SIDRA. SIDRA is a computerised traffic management program that, when intersection geometrics and traffic volumes are inserted, provides a quantifiable assessment of isolated intersection efficiency. Key indicators of SIDRA include level of service which is a summary indicator ranging from A to F with A representing optimum performance, and degree of saturation which represents a ratio of the demand of an approach to its capacity.

SIDRA provides analysis of the operating conditions that can be compared to the performance criteria set out within **Table 2** (adopted from the Roads & Maritime Services' *Guide to Traffic Generating Developments*).

LEVEI	TABLE 2 LEVELS OF SERVICE CRITERIA FOR INTERSECTIONS				
Level of Service	Average Delay Per Vehicle (secs/veh)	Traffic signals & Roundabouts	Give Way & Stop Signs		
A	Less than 14	Good operation	Good operation		
В	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity		
C	29 to 42	Satisfactory	Satisfactory, but accident study required		
D	43 to 56	Operating near capacity	Near capacity & accident study required		
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode	At capacity, requires other control mode		

SIDRA output is summarised within **Table 3** whilst full input and output is available upon request for verification.

TABLE 3				
SIDRA OUTPUT – EXISTING INTERSECTION EFFICIENCY				
ROAD NETWORK SURROUNDING WEST EPPING OVAL PRECINCT				
Intersection	Weekday PM	Weekend AM		
	Peak	Peak		
Carlingford Road & Ward Street				
Average Vehicle Delay	69.8	130.0		
Degree of Saturation	0.46	0.72		
Level of Service	F	F		
Carlingford Road & Duntroon Avenue				
Average Vehicle Delay	146.9	256.0		
Degree of Saturation	0.61	1.00		
Level of Service	F	F		
Downing Street, Dent Street & Oval Access Road				
Average Vehicle Delay	8.2	7.8		
Degree of Saturation	0.10	0.06		
Level of Service	A	A		
Pennant Parade & Dent Street				
Average Vehicle Delay	10.9	11.4		
Degree of Saturation	0.10	0.12		
Level of Service	В	В		
Ray Road & Downing Street				
Average Vehicle Delay	21.5	16.7		
Degree of Saturation	0.30	0.21		
Level of Service	C	C		
Ray Road, Magnolia Avenue & Mountain Street				
Average Vehicle Delay	6.5	6.7		
Degree of Saturation	0.34	0.22		
Level of Service	A	A		
Midson Road & Grant Close				
Average Vehicle Delay	24.7	19.2		
Degree of Saturation	0.40	0.24		
Level of Service	C	C		
Midson Road & Lilli Pilli Street				
Average Vehicle Delay	31.8	20.2		
Degree of Saturation	0.42	0.27		
Level of Service	D	C		

4.3.1 Analysis of Road Network Operation

The following provides a summary of the existing road network operation, based on the previously presented SIDRA analysis in conjunction with extensive observations:

 Vehicles exiting the Ward Street / Lilli Pilli Street precinct incur significant delays during peak operational periods associated with high demands within Carlingford Road and Midson Road and the non-existence of positive intersection control at the access locations;

- The right turn restriction at the junction of Carlingford Road and Ward Street limit accessibility;
- Significant traffic demands within Carlingford Road operationally prohibit right turn movements from Ward Street to the State Road. This, combined with the limited sight distance along Carlingford Road limits the safety afforded to motorists exiting Ward Street;
- Sight distance at the junction of Midson Road and Lilli Pilli Street is less than desirable, particularly to the south;
- Traffic calming measures within Lilli Pilli Street limit parking and traffic capacity;
- The existing level of safety and efficiency at the junction of Midson Road and Grant Close is satisfactory;
- Mountain Street provides the most positive oval precinct access control via the roundabout at Ray Road and Magnolia Avenue; and
- Whilst a high level of service is provided at the intersection of Downing Street, Dent Street and the oval access road prevails, the level of safety at the junction is currently reduced by the off-set nature of Dent Street and the access road.

The above analysis of traffic conditions, in conjunction with the previously presented analysis of existing parking conditions (Section 3 of this report), indicate that traffic and thus parking demand associated with the precinct uses should be discouraged within Ward and Lilli Pilli Streets as much as is practicable. Further, parking (and thus traffic) demands should be encouraged within the oval and Grant Close precincts. This can be achieved through the following:

- Any redevelopment of the YMCA Indoor Centre incorporates the relocation of the YMCA front door to the oval car park or western side of the building;
- The removal and further restriction of the existing public YMCA car park by reinstatement of kerb and gutter through the 90 degree curve between Ward Street and Lilli Pilli Street and reducing available parking in this area;
- The provision of additional parking for the oval accessed via Mountain Street;
- The upgrading / expansion of the oval parking area accessed via Downing Street;

- The connection of oval parking areas accessed via Mountain Street and Downing Street;
- The provision of improved intersection control at the intersection of Downing Street, Dent Street and the oval access road;
- The expansion of the existing parking areas within and adjoining Grant Close parking;
- The provision of improved pedestrian connectivity between the Grant Close parking areas and the primary precinct uses, particularly the YMCA and the large oval area; and
- The provision of directional signage to the Oval and YMCA from Midson Road (via Grant Close), Ray Road (via Mountain Street and Downing Street) and Pennant Parade (via Dent Street).

5. PROPOSED MASTERPLAN

5.1 Built Form

A preliminary Masterplan for the West Epping Oval precinct has been formulated by Council, taking into consideration the findings of the parking and traffic analysis contained within Sections 3 and 4 of this report. The following provides a summary of the primary characteristics of the Masterplan, whilst full details are contained within the preliminary Masterplan, a reduced copy of which is contained within **Appendix 1**:

- The expansion of the YMCA to accommodate two new indoor sports courts;
- Alterations and additions to the YMCA building to provide primary pedestrian access via the oval car park to the west, in preference to the existing access via Ward / Lilli Pilli Streets;
- Alterations to the existing YMCA off-street parking area to provide a reduced function, only accommodating two disabled parking spaces and a set-down facility, resulting in a net reduction in 12 off-street parking spaces;
- The removal of the existing three paved tennis / netball courts to the south of Grant Close the provision of a net additional 14 on and off-street parking spaces as well as a new children's playground and natural parkland;
- The removal of the existing oval parking area and children's playground resulting in a net reduction in 63 off-street parking spaces and the provision of a public plaza adjoining the western side of the expanded YMCA / pre-school;
- The provision of a new public plaza / informal open space to the north of the expanded YMCA building;
- The removal of the previous and currently unused bowling club car parking area;
- The relocation and improvement of the existing sports fields to the north, partially over the previous bowling club car park land to account for the YMCA expansion and new public plaza / informal open space;
- The provision of a new off-street car parking area in the western portion of the precinct to contain 140 spaces, being serviced by a new through site vehicular link connecting with the existing Downing Street and Mountain Street accesses; and
- The provision of a well graded and generous paved walking circuit around the perimeter of the oval, linking all facilities and parking areas.

It is important to note that the relocation of the sports fields will not deliver any more sporting fields. It will simply involve the relocation of the fields to the north and the

improvement of the surface to a synthetic material to accommodate all weather activities.

5.2 Parking Provision

Table 4 below provides a summary of the existing and proposed on and off-street parking provision within the subject precinct.

TABLE 4 SUMMARY OF EXISTING / PROPOSED PRECINCT PARKING PROVISION							
	Existing Proposed Alteration						
On-Street							
Ward Street	49	49	-				
Lilli Pilli Street	28	28	-				
Grant Close	30	30	-				
Total	107	107	-				
Off-Street							
YMCA	14	2	-12				
Netball / Tennis	15	29	+14				
Oval	63	140	+77				
Total	92	171	+79				
Total Precinct	199	278	+79				

The Masterplan is therefore expected to result in a net increase in the overall precinct parking provision of 79 spaces, whereby all additional parking will be located in off-street areas. The improvements to pedestrian connectivity are expected to contribute to increased flexibility for visitors to walk across the site. This will also promote access to the site by walkers / cyclists with the effect of off-setting any increase in parking and traffic demand.

6. **PROJECTED PARKING CONDITIONS**

6.1 Projected Alterations to Precinct Parking Demand

A large portion of the Masterplan is primarily envisaged to relocate existing demand from one location to another, rather than alter (increase or decrease) existing demand for parking, as follows:

- The relocation of the children's playground from the south-western portion of the precinct is likely to relocate demand from the existing oval car park to those parking areas within and adjoining Grant Close. Notwithstanding this, it is considered that the children' playground is largely ancillary to the other primary precinct uses such as the YMCA and the oval sports grounds;
- The alterations to the YMCA building to provide primary pedestrian access via the oval car park to the west is likely to relocate parking demand from Ward and Lilli Pilli Streets to the new expanded oval car park;
- The reduction in the capacity of the existing YMCA car parking area is likely
 to relocate parking demand from this car parking area, and in general the Ward
 Street / Lilli Pilli Street precinct, to either the Grant Close precinct or the new
 oval car parking area;
- The relocation and improvement of the existing sports fields to the north are likely to increase the propensity of oval visitors to park within the new oval car park, rather than the Ward Street / Lilli Pilli Street precinct; and
- The provision of additional off-street parking capacity within the new oval car
 parking area and increased accessibility of this new parking area to both
 Mountain and Downing Streets is likely to increase the propensity of precinct
 visitors to utilise the new oval car park.

Notwithstanding the above, there are a small number of components of the Masterplan which are likely to alter existing parking demand of the precinct in terms of demand quantum, as follows:

- The proposed expansion of the YMCA indoor recreation facility;
- The removal of three paved tennis courts; and
- The provision of two new public plazas; and an area of open space and natural parkland.

The following sub-sections of this report investigate the extent of the alterations to existing parking demand with respect to the abovementioned three Masterplan components.

6.1.1 YMCA Expansion

The YMCA expansion is proposed to incorporate a number of alterations and additions to the existing indoor recreation facility, but essentially result in the provision of two new indoor sports courts and additional indoor meeting rooms approximately equal in area to a single court, as set out in concept plans for the YMCA Indoor Centre, copies of which are contained within **Appendix 2**. The new sports courts are proposed to accommodate a similar function to the existing single indoor sports court as follows:

- Various basketball training and gaming fixtures;
- Various netball training and gaming fixtures; and
- Various badminton training and gaming fixtures.

The normal procedure to estimate the likely parking demand of the proposed two new sports courts would be to assess the operation of the existing single sports court within the YMCA facility, in terms of peak patronage and the travel characteristics of this patronage. This is however difficult in the subject instance as the YMCA building provides a series of other facilities including the gymnastics training arena, multipurpose program rooms, and a gymnasium.

The likely operational characteristics of the proposed two new indoor sports courts has therefore been estimated based on the existing operation of the existing Thornleigh Brickpit Sports Stadium, located at Dartford Road and the Hills Basketball Stadium located within Fred Caterson Reserve, Castle Hill. These facilities both provide four multi-purpose sports courts accommodating very similar sporting activities as that currently provided within the single YMCA sports court and that proposed to occur within the proposed two new sports courts (eg basketball, netball and badminton training and gaming fixtures). The Thornleigh Brickpit facility provides 130 parking spaces whilst the Fred Caterson Reserve facility accommodates 110 spaces.

Information received from Hornsby Shire Council officers indicates that the existing Thornleigh Brickpit facility accommodates a maximum of 160 people over four courts at any one time. Based on a worst case assumption that the car parking area servicing the Brickpit facility is full at peak times (130 spaces), the average number of people for parked vehicle is approximately 1.23 during peak attendances.

Application of the Brickpit operational characteristics to the proposed provision of two new indoor sports courts, the expanded YMCA could be expected to generate up to 80 additional people at any one time. Based on an average vehicle occupancy of 1.23, equates to a likely additional parking demand of 65 spaces, over and above that currently generated.

Surveys of parking demand associated with the Fred Caterson Reserve facility undertaken in 2009 (details of which can be provided upon request), indicate a peak parking demand of 103 spaces, upon full occupation of the four court Stadium.

Application of this peak parking demand to the proposed two new additional courts results is a likely additional parking demand of 52 additional parking spaces, over and above that currently generated.

For the purposes of this assessment and in order to create an absolute worst case scenario, the YMCA expansion is projected to result in an additional parking demand to the overall West Epping Oval precinct of 65 spaces, over and above that currently generated. This number could be assumed to cover additional parking demand associated with indoor meeting room area expansion.

6.1.2 Removal of Tennis Courts

The Masterplan involves the removal of three existing tennis courts from the Grant Close precinct. Parking demand associated with these uses is generally low, given the low peak occupancy (a maximum of 12 people based on four people per court). Accordingly, for the purposes of this assessment, any minor reduction in parking associated with the removal of these courts has been disregarded.

6.1.3 New Public Plazas, Open Space and Natural Parkland

The Masterplan involves the provision of two new public plazas and some open space adjoining the expanded YMCA building. In addition, an area of new natural parkland is to be provided in place of the abovementioned tennis courts to be removed. These public facilities are envisaged to be primarily ancillary to the primary precinct uses in the YMCA facility and the sports fields. They are therefore most unlikely to result in any significant volume of additional people visiting the precinct. Any minor specific additional destinational trips (and therefore parking demand) associated with these uses is considered to be off-set by the abovementioned minor reduction in parking demand associated with the removal of three tennis courts from the precinct.

6.2 Suitability of the Masterplan Parking Provision

The existing precinct parking provision is 199 on and off-street spaces excluding the former bowling club car park which is currently closed to public access. Extensive surveys of existing operations have indicated that the peak operational precinct parking demand is currently 168 spaces, or approximately 85% of the total capacity.

The Masterplan involves the provision of an additional 79 off-street parking spaces, increasing the total precinct parking provision to 278 spaces. Analysis of the proposed Masterplan projects demand for an additional 65 parking spaces over and above that currently provided. The peak parking demand of the precinct is therefore anticipated to be 233 spaces. This represents approximately 84% of the Masterplan parking provision. Accordingly, the Masterplan is projected to provide adequate additional parking to accommodate the envisaged peak demand, providing the precinct with a minor level of additional capacity to accommodate further increases in demand in the future if so required. In addition, the masterplan proposes to improve access for people walking and cycling to the site via the development of internal and external pathway connections aimed at providing better connectivity.

7. PROJECTED TRAFFIC CONDITIONS

7.1 Projected Alterations to Traffic Generation / Assignment

It has previously been presented that a large proportion of the Masterplan is primarily envisaged to relocate existing parking demand from one location to another, rather than alter (increase or decrease) existing demand for parking. The same philosophy applies to the overall precinct traffic generation. In this regard, the Masterplan is expected to largely result in a redistribution of traffic movements from one location to another, rather than generate new movements. In summary, the Masterplan is likely to relocate some existing vehicular trips from the Ward Street / Lilli Pilli Street precinct to the oval precinct, being accessed via Mountain Street and Downing Street, and to a lesser extent, the Grant Close precinct. This approach of relocating parking will be complimented by improved pedestrian and cycle connectivity to and through the parkland, encouraging more visitors to walk or cycle to the site.

Notwithstanding the above, the proposed expansion of the YMCA indoor recreation facility has the capacity to generate new trips to and from the overall precinct. The most effective way of estimating the likely additional traffic generation associated with the YMCA expansion is based on the parking demand. Section 6.1.1 of this report presented that the YMCA expansion is projected to generate an additional parking demand of 65 spaces to the precinct. For the purposes of simplicity and based on this Practice's experience with assessments of similar uses, the average length of stay of people visiting the new YMCA sports courts is assumed to be one hour. The proposed YMCA expansion is therefore projected to generate up to 65 additional vehicles to and from the precinct during peak hours, that is, 65 ingress trips and 65 egress trips.

Given the previously described Masterplan objective of relocating demand from the Ward Street / Lilli Pilli Street precinct to the oval and Grant Close precincts, the abovementioned additional traffic generation is projected to be assigned to the oval precinct, accessed via Mountain Street and Downing Street, and to a lesser extent, the Grant Close precinct. To generate an absolute worst case scenario, traffic demands within the Ward Street / Lilli Pilli Street have not been projected to alter, despite a recommendation to reduce available parking in this area.

The additional traffic projected to be generated by the Masterplan has been assigned to the oval and Grant Close precincts based on the quantum of parking spaces provided within those precincts, as follows:

- 36% of additional traffic, or 23 ingress and 23 egress trips are projected to access / vacate the precinct via Mountain Street;
- 36% of additional traffic, or 23 ingress and 23 egress trips are projected to access / vacate the precinct via Downing Street; and
- 28% of additional traffic, or 19 ingress and 19 egress trips are projected to access / vacate the precinct via Grant Close.

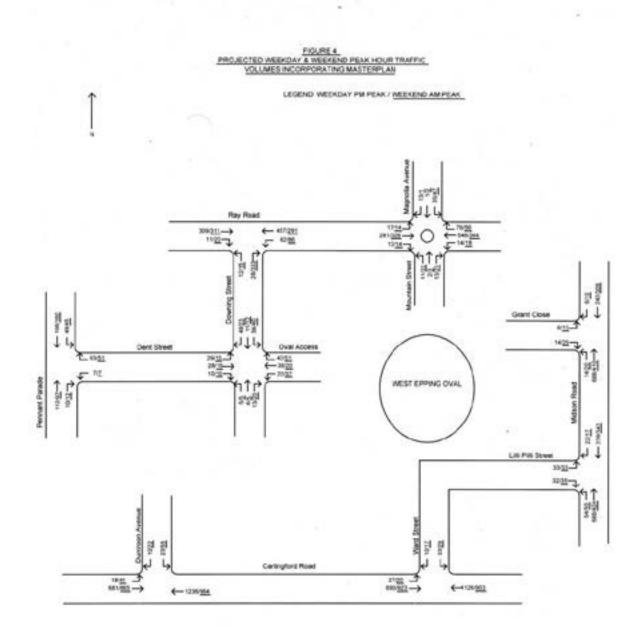
7.2 Projected Traffic Volumes

Based on the discussion provided previously on likely traffic generation and trip assignment, the projected weekday and weekend peak hour traffic volumes have been formulated by adding the trip assignment presented in Section 7.1 to the existing volumes surveyed and illustrated within **Figure 3**. **Figure 4** overleaf provides an estimation of the future traffic volumes associated with and adjoining the subject precinct.

Table 5 below provides a summary of the existing and projected mid-block route traffic volumes.

TABLE 5				
EXISTING & PROJECTED MID-BLOCK ROUTE TRAFFIC VOLUMES				
SURROUNDING WEST EPPING OVAL PRECINCT				
	Existing Conditions Projected Condition			Conditions
Route	Weekday	Weekend	Weekday	Weekend
	PM Peak	AM Peak	PM Peak	AM Peak
Carlingford Road				
West of Duntroon Ave	1,941	1,884	1,945	1,892
Between Duntroon Ave & Ward Street	1,952	1,894	1,956	1,907
East of Ward Street	1,848	1,845	1,852	1,855
Midson Road				
South of Lilli Pilli St	997	831	1,023	857
Between Lilli Pilli St and Grant Cl	937	764	963	790
North of Grant Cl	930	730	942	742
Ray Road				
West of Downing St	763	611	789	637
Between Downing St & Mountain St	810	680	850	714
East of Mountain St	927	746	967	797
Ward Street	70	69	70	69
Lilli Pilli Street	151	140	151	140
Grant Close	2	34	40	72
Mountain Street	8	36	54	82
Downing Street				
South of Dent St	59	68	67	89
Between Dent St & Ray Rd	132	107	155	123
Duntroon Avenue	43	97	51	118
Dent Street	121	82	137	91
Pennant Parade				
South of Dent St	235	274	237	276
North of Dent St	318	346	332	353

Table 5 indicates that whilst the Masterplan is projected to result in increases to a majority of surrounding routes, the existing and projected mid-block volumes are and remain commensurate with the arterial, collector and local functional order of the roads.



7.3 Projected Road Network Operation

In order to estimate the future operational efficiency of the intersections servicing and surrounding the subject precinct, a secondary SIDRA analysis has been undertaken utilising the projected traffic volumes illustrated by **Figure 4**. **Table 6** overleaf provides a summary of the most pertinent results whilst more detailed summaries or full details are available upon request.

TABLE 6
SIDRA OUTPUT -INTERSECTION EFFICIENCY
ROAD NETWORK SURROUNDING WEST EPPING OVAL PRECINCT

ROAD NETWORK SURROUNDING WEST EPPING OVAL PRECINCT					
	Existing (Conditions	Projected Conditions		
Intersection	Weekday	Weekend	Weekday	Weekend	
	PM Peak	AM Peak	PM Peak	AM Peak	
Carlingford Rd & Ward St					
Average Vehicle Delay	69.8	130.0	70.7	137.2	
Degree of Saturation	0.46	0.72	0.46	0.75	
Level of Service	F	F	F	F	
Carlingford Rd & Duntroon Ave					
Average Vehicle Delay	146.9	256.0	155.5	236.0	
Degree of Saturation	0.61	1.00	0.67	1.00	
Level of Service	F	F	F	F	
Downing St, Dent St & Oval Access Rd					
Average Vehicle Delay	8.2	7.8	8.4	8.3	
Degree of Saturation	0.10	0.06	0.13	0.13	
Level of Service	A	A	A	A	
Pennant Pde & Dent St					
Average Vehicle Delay	10.9	11.4	11.0	11.5	
Degree of Saturation	0.10	0.12	0.11	0.12	
Level of Service	В	В	В	В	
Ray Rd & Downing St					
Average Vehicle Delay	21.5	16.7	22.5	17.5	
Degree of Saturation	0.30	0.21	0.31	0.22	
Level of Service	C	C	C	C	
Ray Rd, Magnolia Ave & Mountain St					
Average Vehicle Delay	6.5	6.7	6.8	7.0	
Degree of Saturation	0.34	0.22	0.35	0.23	
Level of Service	A	A	A	A	
Midson Rd & Grant Cl					
Average Vehicle Delay	24.7	19.2	28.3	20.0	
Degree of Saturation	0.40	0.24	0.40	0.24	
Level of Service	C	C	D	C	
Midson Rd & Lilli Pilli St					
Average Vehicle Delay	31.8	20.2	33.5	21.2	
Degree of Saturation	0.42	0.27	0.43	0.27	
Level of Service	D	C	D	C	

The SIDRA analysis indicates that the Masterplan is projected to have very little impact on the existing operation of the surrounding road network with all surveyed intersections are projected to operate with unchanged levels of service, with the exception of the junction of Midson Road and Grant Close, where the level of service is projected to reduce from C to D during the weekday evening peak. An appropriate junction upgrade treatment to mitigate this decrease in level of service is discussed in the following section of this report.

7.4 Recommended Alterations / Improvements to the Surrounding Network

The route mid-block traffic volume and SIDRA intersection analyses contained within Section 7.2 and 7.3 of this report indicate that the surrounding road network is generally capable of accommodating the additional and altered traffic generation / assignment associated with the Masterplan. Notwithstanding this, the following alterations / improvements to the surrounding road network are recommended to assist in the efficient integration of the Masterplan into the precinct:

- A mini roundabout control be provided at the off-set intersection of Downing Street, Dent Street and the oval access road;
- A mini roundabout control be provided at the junction of Midson Road and Grant Close; and
- Directional signage to the oval and YMCA be provided at the intersection of Carlingford Road and Midson Road, the junction of Midson Road and Grant Close, the intersection of Ray Road and Mountain Street, the junction of Pennant Parade and Dent Street.

Incorporating the implementation of the above measures, the surrounding road network is projected to be suitably capable of accommodating the additional / altered traffic demands associated with the West Epping Oval Masterplan.

8. SUMMARY & RECOMMENDATIONS

This Practice has undertaken an assessment of the potential parking and traffic related impacts resulting from a Masterplan for the alterations and additions to the West Epping Oval precinct centred around Ward Street, Lilli Pilli Street, Grant Close, Mountain Street and Downing Street, West Epping. Based on this assessment, the following conclusions are now made:

Existing Oval Inadequacies

- The existing oval precinct incorporates the following inadequacies:
 - Parking and traffic demand associated with the YMCA indoor recreation facility is generally centred around Ward Street and Lilli Pilli Street which, combined with the concentrated periods traffic and parking demand associated with Epping West Primary School and poor connectivity to the surrounding regional road network results in congested conditions during peak periods;
 - Current off-street parking areas servicing the precinct are largely informal and do not meet Australian Standards; and
 - The visual and physical interconnectivity between existing Park facilities is poor.

Existing Parking Conditions

- The precinct is currently serviced by 107 on-street and 92 off-street parking spaces, totalling 199 spaces;
- Extensive surveys of the existing parking demand throughout the precinct have indicated the following:
 - Parking demand within Ward Street, Lilli Pilli Street and the YMCA car park is high at most times;
 - Parking demand within the oval car park is high during school finish periods and Saturday mornings but low at other times;
 - Parking demand within Grant Close and the tennis / netball court car park is high during Saturday mornings but negligible to low at other times;
 - The peak parking demand of the total precinct was surveyed to be 168 spaces, or 85% of capacity, occurring on the winter Saturday morning surveyed.
- The parking survey analysis indicates that the YMCA facility is the most significant generator of parking demand within the precinct, outside of school periods. The peak parking demand of the YMCA is approximately 70 spaces. This facility however only provides 14 off-street parking spaces. This results in demand for parking associated with the YMCA to be accommodated elsewhere throughout the precinct.
- Conversely, the oval and residential parking demands are sustainable.

- Whilst there is adequate capacity throughout the precinct to accommodate existing demand, it is clear that the various uses, primarily the YMCA, place demand on public streets, in preference to off-street parking demands. There are various reasons for this, as follows:
 - The YMCA provides a street address and front door to Ward and Lilli Pilli Streets;
 - The YMCA provides for limited off-street parking within the immediate vicinity of the front door of the building;
 - There is poor connectivity between the other parking areas (the oval car park, the tennis / netball car park and Grant Close to the YMCA building; and
 - The existing off-street parking areas are either informal (not sealed and / or marked) and / or non-compliant with respect to parking and manoeuvring dimensions.

Existing Traffic Conditions

- The following provides a summary of the existing road network operation, based on SIDRA intersection analysis in conjunction with extensive observations:
 - Vehicles exiting the Ward Street / Lilli Pilli Street precinct incur significant delays during peak operational periods associated with high demands within Carlingford Road and Midson Road and the non-existence of positive intersection control at the access locations;
 - The right turn restriction at the junction of Carlingford Road and Ward Street limit accessibility;
 - Significant traffic demands within Carlingford Road operationally prohibit right turn movements from Ward Street to the State Road. This, combined with the limited sight distance along Carlingford Road limits the safety afforded to motorists exiting Ward Street;
 - Sight distance at the junction of Midson Road and Lilli Pilli Street is less than desirable, particularly to the south;
 - Traffic calming measures within Lilli Pilli Street limit parking and traffic capacity;
 - The existing level of safety and efficiency at the junction of Midson Road and Grant Close is satisfactory;
 - Mountain Street provides the most positive oval precinct access control via the roundabout at Ray Road and Magnolia Avenue; and
 - Whilst a high level of service is provided at the intersection of Downing Street, Dent Street and the oval access road prevails, the level of safety at the junction is currently reduced by the off-set nature of Dent Street and the access road.

Proposed Masterplan

- The analysis of existing parking and traffic conditions indicate that traffic and thus parking demand associated with the precinct uses should be discouraged within Ward and Lilli Pilli Streets as much as is practicable. Further, parking (and thus traffic) demands should be encouraged within the oval and Grant Close precincts. The Masterplan aims to achieve this through:
 - The relocation of the YMCA front door to the oval car park as part of a redevelopment of the centre;
 - The removal of the existing public YMCA car park and the reinstatement of kerb and gutter through the 90 degree curve between Ward Street and Lilli Pilli Street;
 - The provision of additional parking for the oval accessed via Mountain Street
 - The upgrading / expansion of the oval parking area accessed via Downing Street;
 - The connection of oval parking areas accessed via Mountain Street and Downing Street;
 - The provision of improved intersection control at the intersection of Downing Street, Dent Street and the oval access road;
 - The expansion of the existing parking areas within and adjoining Grant Close parking; and
 - The provision of improved pedestrian connectivity between the Grant Close parking areas and the primary precinct uses, particularly the YMCA.
- Notwithstanding the above, the Masterplan is projected to result in the following additional parking and traffic demands, essentially as a result of the proposed expansion of the YMCA facility to accommodate two new indoor sports courts:
 - Demand for an additional 65 car parking spaces; and
 - An additional 130 peak hour vehicle trips to and from the precinct.

Assessment of Projected Conditions

- The net additional 79 parking spaces to be provided throughout the precinct in association with the Masterplan is projected to be suitably capable of accommodating the additional demand generated by the proposed expansion of the YMCA facility;
- Route mid-block traffic volume and SIDRA intersection analyses indicate that
 the surrounding road network is generally capable of accommodating the
 additional and altered traffic generation / assignment associated with the
 Masterplan.

Recommendations

- The following alterations / improvements to the surrounding road network are recommended to assist in the efficient integration of the Masterplan into the precinct:
 - A mini roundabout control be provided at the off-set intersection of Downing Street, Dent Street and the oval access road;
 - A mini roundabout control be provided at the junction of Midson Road and Grant Close; and
 - Directional signage to the oval and YMCA be provided at the intersection of Carlingford Road and Midson Road, the junction of Midson Road and Grant Close, the intersection of Ray Road and Mountain Street, the junction of Pennant Parade and Dent Street.

Incorporating the implementation of the above measures, the surrounding road network is projected to be suitably capable of accommodating the additional / altered traffic demands associated with the West Epping Oval Masterplan.

APPENDIX 1

public plaza

DOWLING STREET

140

DOWLING STREET

Existing YMCA YMCA expansion

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pre-school netball courts building entry

CARPARKS

OPTION 1

APPENDIX 2

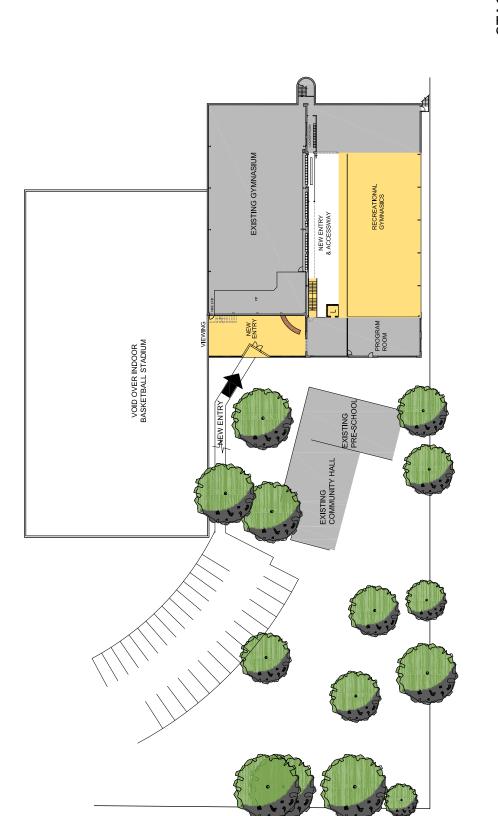




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STAGE ONE OPTION ONE

Desking Tills OPTION 1 UPPER FLOOR PLAN

Date

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Date 13-11-12

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NORTH

Proposed Masterplan Proposed Masterplan 1YMCA Epping 15 Ward St., Epping Gert YMCA of Sydney

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ADDENDUM PARKING & TRAFFIC IMPACT ASSESSMENT WEST EPPING OVAL MASTERPLAN WARD STREET EPPING

BACKGROUND

Hornsby Shire Council (herein referred to as 'Council') is in the process of developing a Masterplan for the West Epping Oval Precinct comprising West Epping Oval, Mountain Street, Downing Street, Grant Close, Ward Street and Lilli Pilli Street, Epping.

In early 2014, Council prepared a preliminary Masterplan for the redevelopment of the entire precinct with a view to expanding the range of recreation facilities available for use. The Masterplan included an additional informal district or specialty park, improved sports grounds, additional indoor recreation facilities, altered parking and vehicular access arrangements and improved pedestrian access and internal circulation within the precinct.

This Practice was commissioned by Council to prepare a Parking & Traffic Impact Assessment of the Masterplan, dated 2014. The following provides a summary of the assessment conclusions:

- The existing oval precinct incorporates a number of inadequacies, including but not limited to the following:
 - Parking and traffic demand associated with the YMCA indoor recreation facility is generally centred around Ward Street and Lilli Pilli Street which, combined with the concentrated periods of traffic and parking demand associated with Epping West Primary School and poor connectivity to the surrounding regional road network results in congested conditions during peak periods;
 - Current off-street parking areas servicing the precinct are largely informal and do not meet Australian Standards; and
 - The visual and physical interconnectivity between existing Park facilities is poor.
- Extensive surveys of the parking demand throughout the precinct indicated that whilst there is adequate capacity throughout the precinct to accommodate existing demand, it is clear that the various uses, primarily the YMCA, place demand on public streets, in preference to off-street parking demands.

- The Masterplan aimed to discourage parking (and thus traffic demand) demand associated with the precinct uses within Ward and Lilli Pilli Streets as much as is practicable, with preference to the oval and Grant Close precincts through the (but not limited to) implementation of the following:
 - Provision of a further pedestrian access to the YMCA in the vicinity of the oval car park as part of a redevelopment and expansion of the centre;
 - Provision of additional parking for the oval accessed via Mountain Street;
 - Upgrading / expansion of the oval parking area accessed via Downing Street;
 - Connection of oval parking areas accessed via Mountain Street and Downing Street;
 - Expansion of the existing parking areas within and adjoining Grant Close parking; and
 - Provision of improved pedestrian connectivity between the Grant Close parking areas and the primary precinct uses, particularly the YMCA.
- The net additional parking to be provided throughout the precinct was projected to be suitably capable of accommodating the additional demand generated by the proposed Masterplan.
- The surrounding road network is generally capable of accommodating the additional and altered traffic generation / assignment associated with the Masterplan, incorporating the following improvements / upgrades:
 - A mini roundabout control be provided at the off-set intersection of Downing Street, Dent Street and the oval access road;
 - A mini roundabout control be provided at the junction of Midson Road and Grant Close; and
 - Directional signage to the oval and YMCA be provided at the intersection of Carlingford Road and Midson Road, the junction of Midson Road and Grant Close, the intersection of Ray Road and Mountain Street, the junction of Pennant Parade and Dent Street.

RECENT ALTERATIONS TO PRECINCT

Since the preparation of the March 2014 Assessment, a number of alterations to the operational management of the precinct have occurred, as follows:

- The previously fenced disused bowling club car parking area containing 115 formal and informal car parking spaces located in the northern portion of the precinct (serviced by Mountain Street) has been opened for public use.
- The disused bowling club greens have been transformed to accommodate junior five-a-side soccer (futsal) games on Saturday mornings.

Whilst the introduction of the additional junior futsal operation on Saturday mornings has increased demand within the precinct, the opening of the disused bowling club car parking area has effectively increased the parking capacity of the precinct from 199 spaces to 314 spaces.

AMENDED MASTERPLAN

Further to the presented altered operational management of the precinct, Council has also slightly amended the Masterplan for the precinct since the preparation of the March 2014 Assessment. The previously stated general aims and objectives of the Masterplan remain however, the amendments result in the total precinct parking provision increasing from 278 spaces to 310 spaces. The increase in parking provision has largely been achieved through expansion of the off-street car parking area accessed via Grant Close.

Further to the above, the Masterplan has been embellished to include an increased use of the sports fields for futsal whereby up to nine games could be accommodated at any one time. The current proposal involves the holding of futsal game fixtures on weekday and weekend evening periods during both the Summer and Winter seasons.

A copy of the amended Masterplan prepared by Council is attached as **Appendix 1**.

SCOPE OF ADDENDUM ASSESSMENT

This Addendum Report has been prepared to address the following:

- The altered parking (and traffic) distribution of the precinct following the opening of the old bowling club car parking area and the use of the old bowling greens for junior under 6 and 7 small sided soccer / futsal use on Saturday mornings.
- The likely operational demands generated by the proposed futsal operation within the oval, based on surveys of current on and off-site futsal operations.

This Addendum Report should be read in conjunction with the amended Masterplan.

CURRENT PRECINCT DEMANDS

In order to obtain an indication of the parking demands associated with the current operational characteristics of the precinct, surveys of the precinct parking demand were undertaken during the following periods:

- Saturday 2nd of August 2014 between 8.00am 12.00pm.
- Saturday 2nd of August 2014 between 5.00pm 9.00pm.
- Sunday 3rd of August 2014 between 5.00pm 9.00pm.

These surveys were undertaken to supplement the previously undertaken extensive surveys of the precinct during both Summer and Winter weekday and weekend periods.

The following provides a summary of the results of the parking surveys, whilst full details are available upon request:

- The peak precinct parking demand was surveyed to be 225 spaces occurring on Saturday morning, being approximately 55 spaces over and above that previously surveyed following the use of the disused bowling greens for junior futsal games.
- The opening of the previously fenced old bowling club car parking area has resulted in a shift in off-street parking demand from the southern to the northern portion of the precinct, thereby reducing demand for parking within the oval car park and within and adjoining Grant Close.
- The precinct parking demand during weekend evenings was surveyed to be low, being approximately commensurate with that previously surveyed weekday evening periods.

FUTSAL OPERATION

Likely parking demand associated with the futsal operation has been assessed as follows:

- Comparison of the recent August 2014 Saturday morning precinct parking demand surveys incorporating the recently commenced junior under 6 and 7 small sided soccer / futsal use with those undertaken in 2012 and 2013, when small sided soccer / futsal was not in operation.
- Surveys of an existing separate standalone futsal operation at Dural Leisure Centre.

The above assessment has indicated that futsal operations generate a peak parking demand of approximately 25 spaces per operational game (full details of surveys and analysis can be provided upon request).

PROJECTED PARKING CONDITIONS

Application of the previously presented peak futsal operational demand of 25 spaces per operational game to the amended Masterplan proposal, which incorporates up to nine games at any one time, results in a peak parking demand of 225 spaces.

Whilst the amended Masterplan precinct parking provision of 310 spaces is capable of accommodating this demand, the precinct also needs to accommodate demands from other local generators including West Epping Primary School, Epping YMCA, West Epping Pre-School and the surrounding residents.

The proposed scheduling of the futsal use to weekday and weekend evening periods when parking demand being generated by West Epping Primary School and West Epping Pre-School is negligible, suggests that the competing uses during the proposal futsal operation will be limited to the YMCA and the surrounding residents. The March 2014 Assessment estimated the following precinct parking demands associated with these competing uses:

- The surrounding residential parking demand was estimated to be approximately 20 during evening periods.
- The expanded YMCA parking demand was estimated to be approximately 115 spaces during evening periods.

The total peak parking demand of the precinct incorporating the proposed futsal use is therefore projected to 360 spaces during evening periods. Such a demand is greater than the amended Masterplan precinct parking provision of 310 spaces. Accordingly, operational management initiatives are likely to be required to be implemented in order to ensure that the precinct parking demand does not exceed the supply. The following provides a summary of potential initiatives:

- Limiting the number of operational futsal games at any one time. The precinct would be capable, based on this assessment, to accommodate five operational games at any one time in conjunction with other precinct uses.
- Staggering futsal games throughout the operational period to provide intervals of approximately 20 30 minutes between games to reduce instantaneous parking demand. Recent experience with other sporting fixtures has indicated that the staggering of games is likely to reduce instantaneous parking demand by approximately 40%, thereby indicating that the proposed nine futsal games could reasonably be accommodated, in combination with other precinct uses.

PROJECTED TRAFFIC CONDITIONS

The traffic analysis undertaken associated with the March 2014 Assessment identified that the road network adjoining the precinct to the east, north and west comprising Grant Close, Mountain Street and Downing Street, incorporating some minor improvements to existing traffic management arrangements, has sufficient capacity to accommodate the additional demand associated with the Masterplan.

Since the March 2014 Assessment, the traffic assignment to / from the precinct has altered as the old bowling club car parking area accessed via Mountain Street was closed to the public. The more recent alteration in assignment involving opening the old bowling club car park is generally in accordance with the objectives of the Masterplan to encourage the use of Mountain Street, Grant Close and Downing Street to access / egress the precinct, in preference to those roads to the south of the precinct, being Ward Street and Lilli Pilli Street.

It is noted that the original traffic analysis supporting the March 2014 Assessment needs to be supplemented with additional detailed assessment to ensure that the assessment accurately reflects current (and future) operational demands of the precinct and surrounding road network. It is understood that this detailed assessment may be undertaken as part of a Review of Environmental Factors that will deal with approval of a specific proposal for redevelopment of the park.

CONCLUSION & RECOMMENDATIONS

This Practice has undertaken an addendum assessment of the potential parking and traffic related impacts resulting from an amended Masterplan for the alterations and additions to the West Epping Oval precinct centred around Ward Street, Lilli Pilli Street, Grant Close, Mountain Street and Downing Street, West Epping.

The amended precinct parking provision is capable of accommodating the peak instantaneous demand of the amended Masterplan whereby operational management initiatives are implemented with respect to the proposed futsal operation. These initiatives may include one or a combination of the following:

- Limiting the number of operational futsal games at any one time.
- Staggering futsal games throughout the operational period to provide intervals of approximately 20 30 minutes between games.

Preliminary road network analysis indicates that the surrounding road network, incorporating the recommended improvements / upgrades identified within the March 2014 Assessment, is projected to be capable of accommodating the altered traffic demands associated with the amended Masterplan. This will however be verified as part of the Review of Environmental Factors, which will address specific proposals for the redevelopment of the park.

Submitted for your consideration.

David Thompson

Principal

Transport Planner

13 August 2014

APPENDIX 1



WEST EPPING PARK Proposed Parking and Sportsfield Configuration

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