CITY OF RYDE

SPORT AND RECREATION STRATEGY 2016 - 2026

Synthetic Surface Action Plan (2016 - 2026)

Draft Strategy 2016

Through its role in sport and recreation planning and management, the City of Ryde will contribute to the lifestyle, health and wellbeing and social cohesion of Ryde.

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Synthetic Surface Action Plan (2016 - 2026)

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Document Control:

Issue	Date	Status
A- Draft	November 2015	For Review
B- Final Draft	February 2017	For Exhibition
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CITY OF RYDE

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Synthetic Surface Action Plan (2016-2026)

CITY OF RYDE
SPORT AND RECREATION STRATEGY 2016-2026

Supporting Resources Document: Volume 2 | February 2016
Synthetic Surface Action Plan (2016-2026)

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1 STUDY FRAMEWORK

1.1 STUDY PURPOSE

As an extension to the completion of the City of Ryde Sport and Recreation Strategy, Strategic Leisure Group was asked to prepare a specific action plan for the provision of synthetic sports fields in the City of Ryde.

The continuing over utilisation of sports fields in Ryde is leading to poor surface quality of many of the City's most significant facilities impacting on availability and functionality. This issue has been previously addressed from varying perspectives by the following studies:

- Best Value Review: Allocation and Management of Sportsgrounds (2011)
- Synthetic Sports Surfaces Study (2013)
- Sports Field Assessment Report (2015 May and August)

This study aims to develop a specific action plan for the provision of synthetic sportsfields over the next ten years.

1.2 STUDY TEAM AND PROCESS

The purpose of this study was to:
Provide key objectives, principles and policy recommendations on the provision of synthetic surfaces over the next ten (10) years.

Key elements of the scope included:

- Identify immediate and future needs for synthetic surfaces
- Outline specific guidelines and policy directions for future provision and management
- Provide a basis for future decision making incorporating the following:
  - Meeting needs – support new or redeveloped facilities that meet the needs of sport and the community
  - Capacity and quality – increase the capacity of existing surfaces and ensure provision and maintenance of high quality surfaces
  - Funding contributions – ensure fair and equitable contributions from Council, associations, clubs and other users towards management and redevelopment of existing facilities
  - Targeted provision – Prioritise the renewal of existing facilities based on need, sustainability and ability to increase participation in sport and physical activities
  - Specific recommendations for policy, enhancing existing facilities, new provision, and management

1.3 STUDY APPROACH

The study process comprised the following:

- Integration of research and consultation with the Christie Park Master Plan and monitor any Council intentions regarding the synthetic surface at ELS Hall Park
- Review of NSROC Regional Plan for Synthetic Sports Fields
- Review of current/ planned synthetic surface provision in neighbouring NSROC Councils
- Detailed analysis of current seasonal allocation and usage of playing fields.
- Analysis of condition of existing playing fields (from recent reports and discussions with Council officers)
- Analysis of current and historic participation levels in relevant field sports (ie AFL, football, rugby league, rugby union, cricket, hockey, touch)
- Preparation of notional demand projections for relevant sports to cater for predicted population growth over the next 10 years
- Assessment of the notional impact of projected demand on existing sports fields.
- Assessment of options for addressing projected demand (e.g. synthetic surfaces, installation of lighting, changed uses)
- Estimation of the number, and indicative cost, of synthetic surfaces required to address projected demand in the City of Ryde over the next 5 years initially, and subsequent 5 years
- Review of site selection criteria contained in the City of Ryde Synthetic Sports Surfaces Study, and considerations that need to be undertaken prior to selecting a site for a synthetic surface
- Meetings with Council officers

2 REGIONAL CONTEXT

As of November 2015 there are ten (10) existing rectangular synthetic playing fields in the Northern Sydney Region of Councils area (NSROC) that are used for multiple sports. Two of these are located at private schools in Ku-ring-gai and Hornsby Council areas. There are five (5) existing synthetic fields dedicated for hockey use only, two of which are situated at schools in the Ku-ring-gai Council area. Eight (8) multi-use synthetic surfaces are planned within the NSROC region.

Current and proposed provision of multi-use synthetic surfaces are outlined at Table 1 and Table 2 and illustrated at Map 1.

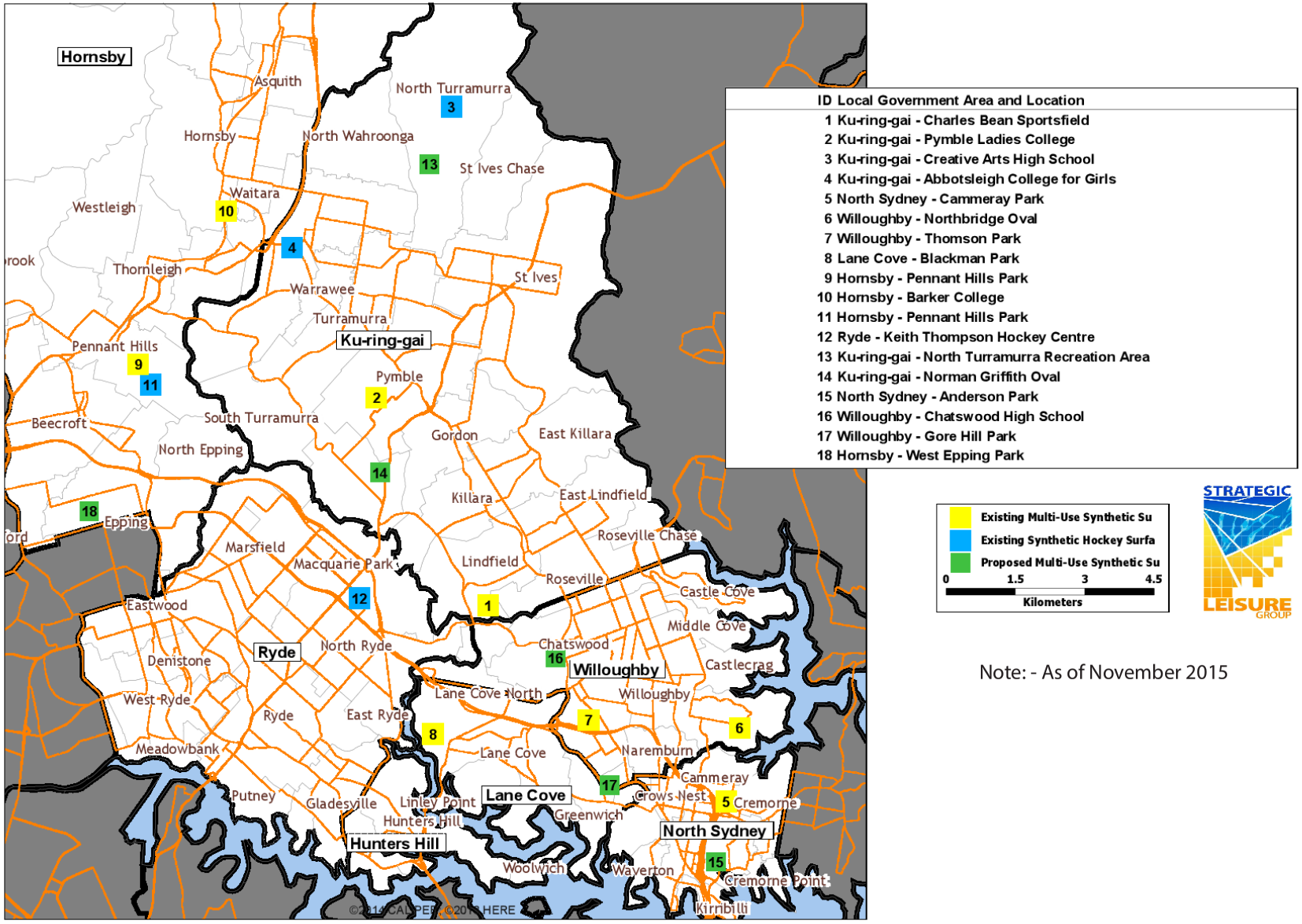
Table 1: Existing synthetic surfaces in NSROC area

LOCAL GOVERNMENT AREA AND LOCATION	DETAILS
Ku-ring-gai - Charles Bean Sportsfield	One rectangular field
Ku-ring-gai - Pymble Ladies College	One rectangular field
Ku-ring-gai - Creative Arts High School	One synthetic hockey field
Ku-ring-gai - Abbotsleigh College for Girls	One synthetic hockey field
North Sydney - Cammeray Park	One rectangular field (completed 2015)
Willoughby - Northbridge Oval	One sports field with two football pitches and cricket oval with cricket wicket on a hydraulic platform
Willoughby - Thomson Park	One rectangular field (completed 2015)
Lane Cove - Blackman Park	One sports field with two rectangular fields incorporating an AFL and cricket oval, with the cricket wicket installed on a hydraulic platform
Hornsby - Pennant Hills Park	One rectangular field (completed 2015)
Hornsby - Barker College	One sports field
Hornsby - Pennant Hills Park	Two synthetic hockey fields
Ryde - Keith Thompson Hockey Centre	One synthetic hockey field

Table 2: Proposed synthetic surfaces in NSROC area

LOCAL GOVERNMENT AREA AND LOCATION	DETAILS
Ku-ring-gai - North Turramurra	One rectangular field
Ku-ring-gai - Norman Griffith Oval	One rectangular field (scheduled 2016)
North Sydney - Anderson Park	One rectangular field
Willoughby - Chatswood High School	One rectangular field
Willoughby - Gore Hill Park	Oval with two rectangular fields
Hornsby - West Epping Park	Two rectangular fields

Map 1: Existing and proposed synthetic fields in NSROC area



Note: - As of November 2015

2.1 NSROC SYNTHETIC SURFACE PLANNING

A recently completed regional plan for synthetic sportsfields[1] found a strong indication that "…demand for access to consistently available playing areas for field sports outstrips supply of available facilities [in NSROC] and that the gap will widen as population in northern Sydney continues to grow. It also noted that the region does not have large greenfield areas to develop new sports fields to meet forecast demand. Potential strategies to increase the supply of sportsfields included:

1. Developing sports fields on greenfield sites (opportunities limited but examine possible conversion of land to open space eg former tip or industrial sites)
2. Increase community use of existing natural turf or school sports fields
3. Community access to synthetic sports fields in schools, including private schools
4. Increasing the maintenance regime on natural turf sports fields for increased training and competitions (may require significant capital costs on drainage and irrigation)
5. Improving floodlighting to spread the load on natural turf surfaces
6. Convert natural turf to synthetic surfaces

The study notes a number of advantages that synthetic sports fields have over natural turf including:

- Fields are not affected by reduced or increased rainfall
- They can sustain significantly higher use than natural grass
- They require lower ongoing maintenance than natural turf surfaces
- Fields can provide a consistent and safe surface year round

Floodlighting of synthetic fields is imperative to optimise capacity for training and competition use. The report notes that the additional infrastructure required to generate increased use can negatively impact on the local community, and community concerns need to be taken into account in the developmental stage.

While the report notes that the construction of additional synthetic sports fields will satisfy some of the demand pressures, developing a "a large number within a short time frame does not provide the opportunity to assess the regional impact when a facility is opened" and there is a risk that "….a point will be reached if too many synthetic surfaces are established that revenue will be inadequate to cover operating and replacement costs." The report recommends that a detailed feasibility study and business case be undertaken prior to developing a synthetic sports field. Once the synthetic fields already in the planning phase are developed their usage should be evaluated to avoid oversupply.

[1] SGL Consulting Group. "Northern Sydney Regional Organisation of Councils: Regional Plan for Synthetic Sportsfields". 2015

2.2 CITY OF RYDE SYNTHETIC SURFACE PLANNING

Previous work[2] in relation to the provision of synthetic sportsfields in Ryde was conducted in 2013. Key findings included:

1. Key sports that would probably need to accommodate growth over the next two decades were seen as:
   - Football (soccer)
   - Australian Rules Football
   - Hockey
   - Rugby Codes
2. The city would be unlikely to be able to accommodate growth just with the current natural sports turf facilities, and recommended that:
   - Due to the growth in demand, Council consider using the synthetic turf technology in order to satisfy growing demand for sporting facilities and reduce the financial impost on Council due to the additional maintenance and renovation cost that will be needed should natural turf fields continue to be over utilised.
3. By the end of 2013 a new standard called "One Turf Standard" is expected to be adopted by soccer, AFL and rugby/ touch/ tag, and recommended that:
   - Council adopt the Multi-sports standard of "One Turf Standard" for its site chosen at ELS Hall Park Field No 1.
4. Recommended that Council adopt the following strategic focus and principles when considering the case of synthetic surface technology:
   a. Vision (outcome):
      "More people recreating, playing sport more often in Ryde by providing quality, safe and appropriate facilities."
   b. Mission (purpose)
      "To use the technology of synthetic surfaces to allow for greater use by the community who wish to recreation and play sport, by satisfying the demand and encouraging development opportunities."

The following key principles were recommended:

1. Priority alignment – with Council's strategies, policies and plans for assets and participation, and with external stakeholders and legislation.
2. Accessible and promotes social inclusiveness – design, management and positioning encourages participation, particularly amongst key target groups.
3. Environmental integration – environmentally friendly design that integrates into the natural environment.
4. Participation pathway development – meets current demand and provides opportunities for broader participation.
5. Economically Prudent – investment linked to priorities and principles and seeks out partnership opportunities.

A preliminary assessment of all sports fields was undertaken with ten identified for further assessment. From these, four potential sites were identified and assessed.

- ELS Hall Park Field #1 - recommended as a multi-sports field incorporating a One-Turf Standards so that Football (soccer), Rugby (Tag and Touch), Australian Rules and Cricket be played there.
- Christie Park Field #2 - recommended to be considered as a second site, subject to the repositioning of the complex as a community football centre with a clear strategic focus on being more community inclusive.
- Eastwood Park Upper Oval - not recommended due to issues associated with late night use and impacts on surrounding residents
- Magdala Park #1 - not recommended due to issues associated with former use as a tip site

[2] Smart Connection Company and SLS One Eighty. "City of Ryde Synthetic Sports Surfaces Study". October 2013

3 FIELD USAGE AND SUSTAINABILITY

An analysis of the existing usage of sportsfields was undertaken. This analysis incorporated the following key elements:

- Main focus was placed on the winter sports season. This is due to higher participation levels, field demand, the subsequent impact on the fields and the lack of natural recovery (natural turf is largely dormant during this period).
- To ensure a consistent measure was used to assess current utilisation, a standard field was assumed to be equivalent to one full sized football field (football/ league/ union). Therefore, an oval large enough to accommodate two football fields (e.g. ELS Hall) was considered to be two fields rather than one.
- Council's booking system was interrogated to establish the number of hours booked per field. One 'field hour' is equivalent to the use of one full sized football field used for 1 hour.

Council has commissioned a number of recent studies into the condition and management of its sports fields. The most recent of these was completed by Labosport in May and August 2015. Key findings of the Labosport studies include:

- Fields with over 30 hours per utilisation per week "would be expected to produce a surface of very poor, and most likely unacceptable, quality by the latter part of the football season" (May report, p23)
- 22.5hrs per week is regarded as the maximum effective usage (May report, p4)
- Areas of high utilisation and subsequent impacts were identified
- Poor surface quality at specific grounds studied was observed
- Surface quality is impacted at some grounds by localised high wear areas, generally penalty boxes and "significant improvement could be achieved by focussing on remedying these localised areas" (May report, p57)
- Overall usage of Council fields is very high and "realistically above the maximum usage capacity of several fields" (August report, p4)
- It appears that the City of Ryde "invests less in in sports field maintenance on the whole than what we believe is optimum…better (more cost effective) strategy to limit damage done to a playing surface through intensive maintenance than it is to call upon a capital investment every few years to remedy the problem" (May report, p58)
- Several maintenance and/ or drainage improvement recommendations were made

The conclusions of the Labosport reports in relation to the carrying capacity of playing fields reinforce an earlier audit of five Council sports grounds undertaken by LivingTurf[3] which noted that once use of a sportsground exceeds 20 hours per week in winter, the laying surface will deteriorate; and if a field receives more than 30 hours per week usage then severe surface damage is expected.

3.1 USAGE VS SUGGESTED GUIDELINES

After interrogating Council's current booking system and applying the guidelines developed by Labosport, it was found that of Council's 51 winter sportsfields, 45% were utilised for more than the recommended 22.5hrs per week. One third (33%) were used for more than 30hrs per week beyond which severe damage is expected. This is illustrated at Figure 1.

Figure 2 summarises all facilities equal to or above the 22.5 hour per week usage threshold as well as those above the 30 hour per week threshold. Columns with red edging indicate facilities that have been rated as having a poor surface either by Labosport or sporting groups. This does not mean that other facilities are necessarily considered to have a good surface as were not assessed. However, it is a useful to note that six out of the eight fields rated as poor had usage hours at, or above, 30 hours per week.

[1] Reported in @leisure. "Best Value Review: Allocation and Management of Sportsgrounds, Volume 1, p9".

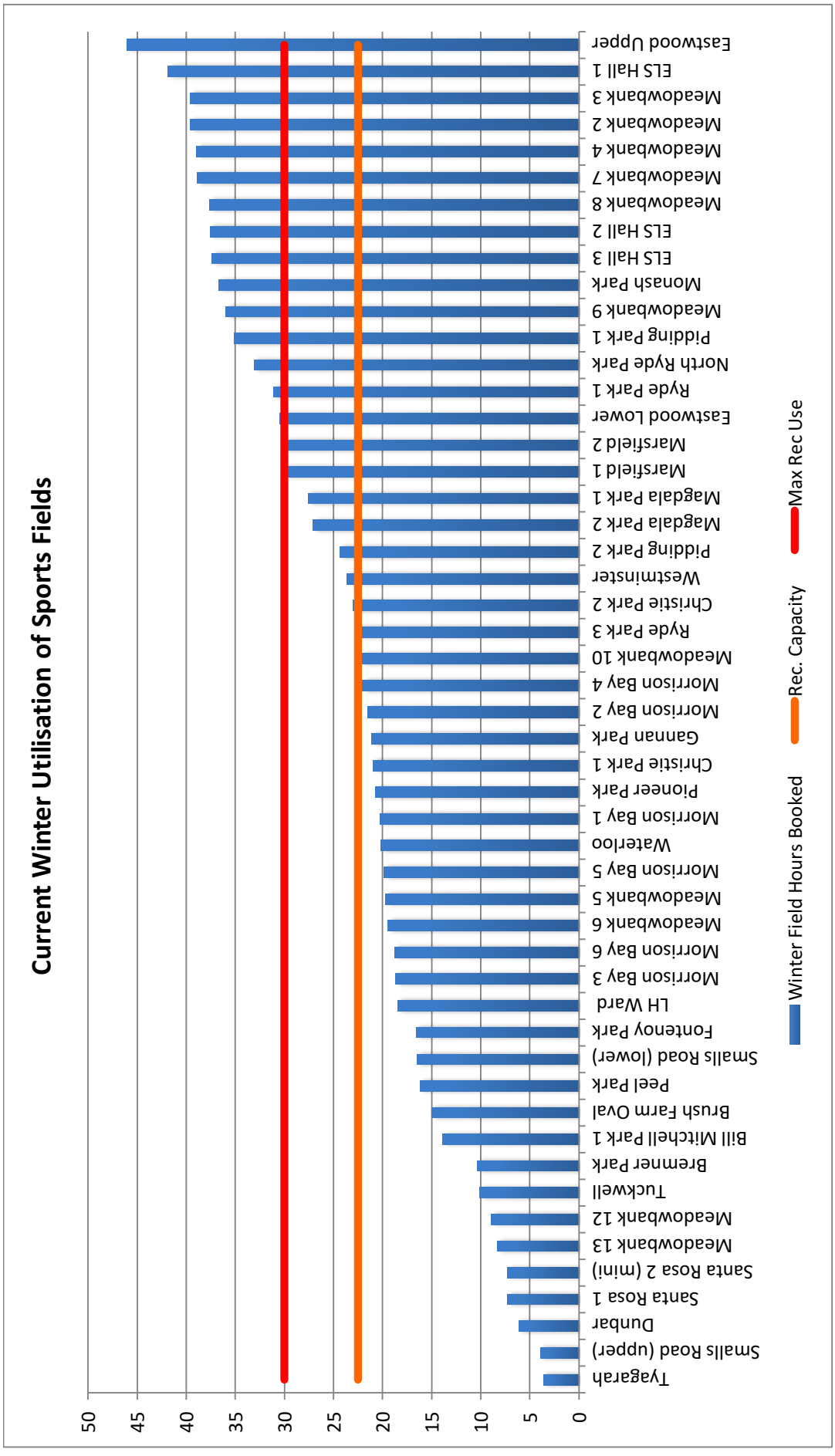

Current Winter Utilisation of Sports Fields
Winter Field Hours Booked
Rec. Capacity
Max Rec Use
0
5
10
15
20
25
30
35
40
45
50
Tyagarah
Smalls Road (upper)
Dunbar
Santa Rosa 1
Santa Rosa 2 (mini)
Meadowbank 13
Meadowbank 12
Tuckwell
Bremner Park
Bill Mitchell Park 1
Brush Farm Oval
Peel Park
Smalls Road (lower)
Fontenoy Park
LH Ward
Morrison Bay 3
Morrison Bay 6
Meadowbank 6
Meadowbank 5
Morrison Bay 5
Waterloo
Morrison Bay 1
Pioneer Park
Christie Park 1
Gannan Park
Morrison Bay 2
Morrison Bay 4
Meadowbank 10
Ryde Park 3
Christie Park 2
Westminster
Pidding Park 2
Magdala Park 2
Magdala Park 1
Marsfield 1
Marsfield 2
Eastwood Lower
Ryde Park 1
North Ryde Park
Pidding Park 1
Meadowbank 9
Monash Park
ELS Hall 3
ELS Hall 2
Meadowbank 8
Meadowbank 7
Meadowbank 4
Meadowbank 2
Meadowbank 3
ELS Hall 1
Eastwood Upper

Figure 1

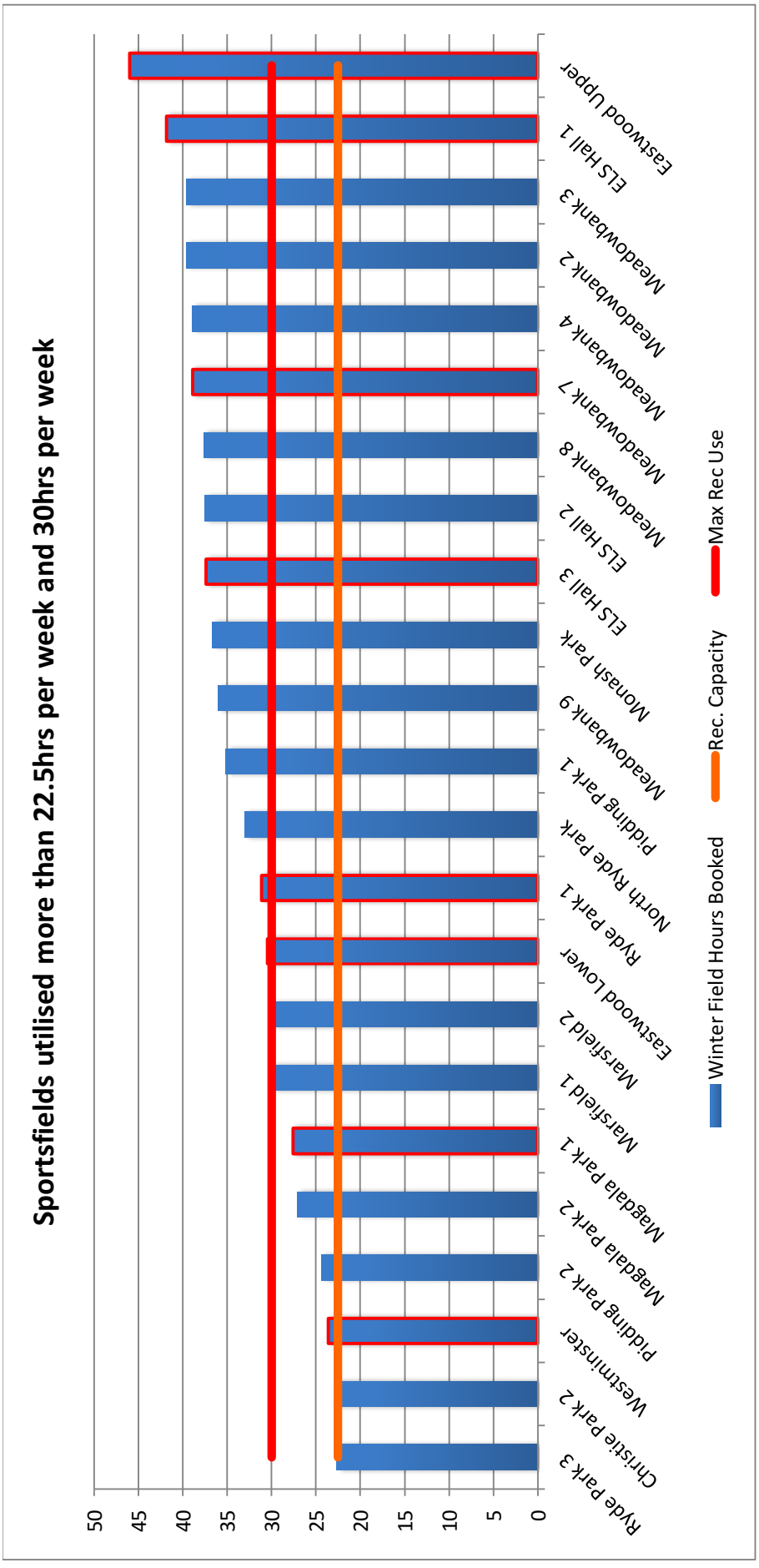

Sportsfields utilised more than 22.5hrs per week and 30hrs per week
0
5
10
15
20
25
30
35
40
45
50
Ryde Park 3
Christie Park 2
Westminster
Pidding Park 2
Magdala Park 2
Magdala Park 1
Marsfield 1
Marsfield 2
Eastwood Lower
Ryde Park 1
North Ryde Park
Pidding Park 1
Meadowbank 9
Monash Park
ELS Hall 3
ELS Hall 2
Meadowbank 8
Meadowbank 7
Meadowbank 4
Meadowbank 2
Meadowbank 3
ELS Hall 1
Eastwood Upper
Winter Field Hours Booked
Rec. Capacity
Max Rec Use

Figure 1

4 PARTICIPATION DEMAND FORECAST

In addition to current utilisation levels it is necessary to estimate the future demand for sports fields. Given that this study is focused on traditional outdoor winter sportsfields, this analysis has concentrated on football, rugby league, rugby union, AFL, touch/ oztag and baseball. This has been carried out for both children's and adult participation. To estimate participation rates among children aged 5 – 14 years, ABS data on children's participation in sport and leisure was accessed[4]. Forecasts of adult participation were derived by analysing ERASS survey data for persons aged 15 and over compiled under the auspices of the Australian Sports Commission[5]. City of Ryde population forecast data[6] to 2026 was then analysed in order to calculate an estimate of future participation.

The forecast population increase in the City of Ryde from 2016 to 2026 indicates that the number of people aged between 5 and 14 will increase by approximately 1,534. Table 3 shows the expected number of new participants based on the participation rate for each sport. This is then converted into an estimated number of new teams based on assumptions of number of participants per team.

Table 3: City of Ryde - Forecast additional children's participation in selected sports (2016-2026)

SPORT	PARTICIPATION RATE	ESTIMATED PARTICIPANTS	PARTICIPANTS/ TEAM	ESTIMATED NO OF TEAMS
Baseball	0.7%	10.7	9	1.2
Australian rules football*	8.1%	124.3	14	8.9
Rugby league	3.9%	59.8	12	5.0
Rugby union	2.1%	32.2	12	2.7
Football (soccer)	14.3%	219.4	12	18.3
Touch/ Oztag	1.8%	27.6	10	2.8
Total		474.0		38.8

Between 2016 and 2026 it is expected that the number of people aged 15 years and over will increase by 12,070. Using the same methodology for 5 to 14 year olds, the estimated number of new participants and teams for each sport is calculated based on the projected population increase.

Table 4: City of Ryde - Forecast additional adult participation in selected sports (2016-2026)

SPORT	PARTICIPATION RATE	ESTIMATED PARTICIPANTS	PARTICIPANTS/ TEAM	ESTIMATED NO OF TEAMS
Baseball	0.2%	24.1	12	2.0
Australian rules football*	1.5%	181.1	22	8.2
Rugby league	1.6%	193.1	17	11.4
Rugby union	1.1%	132.8	19	7.0
Football (soccer)	4.8%	579.4	15	38.6
Touch/ Oztag	3.7%	446.6	12	37.2
Total		1,557.0		104.4

Based on this methodology, in the selected sports there would be, over the next 10 years:

- An additional 474 participants aged between 5 and 14 forming approximately 39 teams
- An additional 1,557 participants aged 15 years and over forming approximately 104 teams
- Total participants of 2,031 or 143 teams

[4] ABS. Children's Participation in Cultural and Leisure Activities, October 2012

[5] Australian Sports Commission. "Participation in Exercise, Recreation and Sport Survey ERASS). Annual Report 2011." NSW tables.

[6] Id. Forecast 2016 -2026 Population Change by 5 Year Age cohorts

4.1 CURRENT DEMAND

Using the threshold of a maximum of 30 hours use per field per week, the following facilities have been identified as over-allocated during the winter season of 2015.

Table 5: Over allocation of fields (winter 2015)

SPORTSFIELD	HOURS OVER THRESHOLD (30 HRS)
Ryde Park 1	1
North Ryde Park	3
Pidding Park 1	5
Meadowbank 9	6
Monash Park	7
ELS Hall 3	7
ELS Hall 2	8
Meadowbank 8	8
Meadowbank 7	9
Meadowbank 4	9
Meadowbank 2	10
Meadowbank 3	10
ELS Hall 1 (a)	12
ELS Hall 1 (b)	12
Eastwood Upper	16
Total	122

As shown at Table 5, the total combined 'over-allocation' is currently 122 hours per week which, as outlined at section 3, is clearly impacting on the quality of these facilities.

Whilst there are a number of playing fields that may have some spare capacity (i.e. below 30 and or 22.5 hours) they are likely to require some form of upgrade (e.g. lighting) to accommodate additional use. This aspect is explored further in Section 6.

Nevertheless as it stands, without any change, the present over-allocation of 122 field hours per week represents a 'shortfall' in current supply to meet current demand.

4.2 FORECAST FUTURE DEMAND

By utilising the estimated number of new teams over the next ten years (refer Table 6 and Table 7) and applying assumptions in regard to game and training requirements, an estimate of future field hour demand can be calculated.

Table 6 and Table 7below show the forecast demand for field hours for both children and adults based on an assumed area (of a full field) required multiplied by the number of hours the area is required for games and training. Whilst this varies greatly between clubs, teams and age groups/ level of competition, the assumptions are viewed as a 'reasonable average' developed in consultation with Council staff.

Table 6: Forecast additional field hours generated by children aged 5 – 14 years (2016-2026

SPORT	ESTIMATED TEAMS	GAME AREA/TEAM	ASSUMED GAME TIME (HRS)	TRAIN AREA/TEAM	ASSUMED TRAIN TIME (HRS)	FIELD HOURS
Baseball	1.2	0.5	3	0.25	1	2.1
Australian rules football	8.9	0.7	1	0.35	1	9.3
Rugby league	5.0	0.4	1	0.2	1	3.0
Rugby union	2.7	0.4	1	0.2	1	1.6
Football (soccer)	18.3	0.4	1	0.2	1	11.0
Touch/ Oztag	2.8	0.25	1	0.13	0.5	0.9
Total Field Hours						27.8

Table 7: City of Ryde - Forecast additional field hours generated by adults 15 years & over (2016-2026)

SPORT	ESTIMATED TEAMS	GAME AREA/TEAM	ASSUMED GAME TIME (HRS)	TRAIN AREA/TEAM	ASSUMED TRAIN TIME (HRS)	FIELD HOURS
Baseball	2.0	1	5	0.5	2	12.1
Australian rules football	8.2	1	1.5	0.66	2	23.2
Rugby league	11.4	0.5	1.5	0.33	2	16.0
Rugby union	7.0	0.5	1.5	0.33	2	9.9
Football (soccer)	38.6	0.5	1.5	0.33	2	54.5
Touch/ Oztag	37.2	0.25	1	0.13	1	14.1
Total Field Hours						129.7

Based on this model, an additional 158 field hours per week would need to be provided to meet projected demand. This is equivalent to 5 new rectangular football fields.

4.3 GAP ANALYSIS SUMMARY

Without any action taking place, the 'over allocation' of current facilities (122 field hours) represents a short term gap between supply and demand which needs to be addressed as soon as practicable to improve the quality and availability of sportsfields. Meanwhile, the forecast demand (158 field hours) represents a medium to long term gap which should be addressed over the coming 10 year period.

5 OPTIONS FOR IMPROVING SUPPLY

A number of options to address the supply gap outlined at section 4.3 were developed and discussed with Council staff. These included:

1. Increasing supply by creating 'new facilities' (e.g. using school facilities)
2. Installing lighting and upgrading ancillary facilities to accommodate more use of under utilised fields
3. Installing 'hybrid' (natural turf/ synthetic) surfaces to maintain surface quality
4. Installing full synthetic sportsfields.

Given the high capital cost of installing synthetic sportsfields, an initial focus on other 'upgrade' options was undertaken as these could potentially increase existing supply at a relatively lower capital cost compared to full synthetics with less disruption to existing use. Once this analysis was completed options for developing synthetic sportsfields were considered.

5.1 EXISTING FIELD UPGRADE OPTIONS

Using Council's sportsfield data and discussing issues with Council staff, options to upgrade facilities and increase capacity/ utilisation were identified. The following priorities were adopted:

- Fields that had under 30 hours allocated
- Fields that had no significant site constraints
- Fields that had potential for lighting
- Fields that are of a reasonable size to accommodate higher use

This review resulted in the upgrade options outlined in the table below. The amount of yield (potential additional field hours) provided by each facility upgrade was based on the difference between current utilisation and the maximum capacity of 30 field hours per week.

Table 8: Potential additional field usage hours from lighting upgrade options

SITE	POTENTIAL UPGRADE	INDICATIVE ADDITIONAL FIELD HOURS	COMMENT
Morrison Bay 2	Field lighting – as per scheduled program	+8	
Morrison Bay 4	Field lighting – as per scheduled program	+8	
Gannan Park	Relocate winter baseball to ELS Hall 2 and convert Gannan Park into two full size football pitches with lighting. Upgrade ancillary facilities to accommodate new use.	+39	This would enable a permanent home to be created for baseball and football at respective facilities and reduce changeover/ maintenance issues. Some training use of ELS Hall 2 for football would be possible
Smalls Road (upper)	Negotiate increased utilisation with DEC and install lighting	+26	Possibly considered in association with synthetic facility if the site is to be developed for education purposes
Meadowbank 12	Field lighting	+21	Underutilised area in major complex that could have multiple users
Tuckwell	Field lighting	+20	
Pioneer Park	Field lighting	+9	Small area
Santa Rosa 1	Field lighting	+23	Small area
Dunbar	Field lighting	+24	Potential issues/ conflict with athletics
Smalls Road (lower)	Field lighting	+14	Small area

Note: The potential upgrades outlined in this table are for planning purposes only. Consultation with sporting groups and surrounding residents has not been undertaken in relation to these items.

Along with existing high use fields (ie 30 hours plus), the impact of increased utilisation of these fields would need to be monitored. If the impact cannot be managed through traditional maintenance techniques, the utilisation of 'hybrid turf technology' could be implemented in 'high wear areas' (e.g. goal mouths) and/ or across an entire field if required.

5.2 SYNTHETIC SPORTSFIELD OPTIONS

In order to identify and assess potential sites for the installation of synthetic sportsfields, a two-step process was initiated. An initial cull of sites considered unsuitable due to factors such as inadequate size, ground conditions etc was made (refer Appendix A). This resulted in fifteen remaining sites for which further consideration was warranted. These sites were then assessed against the following selection criteria:

1. Size of the site
Is the site of sufficient size to accommodate field(s) and car parking?

2. Accessibility to main roads and public transport
Access to/ from major roads and public transport. Should have main road frontage not residential street access.

3. Suitable topography
The site should be relatively flat, have suitable stable soil conditions and be able to be protected from floods, high water table and not have a previous landfill or fill site history.

4. Lighting
Is the site currently floodlit or capable of being floodlit?

5. Parking/ internal access
Does the site have the capability to accommodate car parking (assume 80-90% of users will come by car), bus parking and group drop off /pick up.

6. Impact on current users
Will the development impact or displace current site users?

7. Neighbourhood impact
Would development create adverse neighbourhood impacts (eg noise, traffic, lighting and amenity) that could not be mitigated.

8. Future facility expansion capability
Can the site accommodate additional synthetic surfaces in the future?

9. Capital cost savings
Does the site offer substantial capital cost savings to Council (eg partnership with school, university, association)

A summary of site assessments is outlined at Appendix B. The most suitable sites for the potential development of synthetic surfaces are summarised at Table 9.

Table 9: Ranking of potential synthetic sportsfield sites

SPORTSFIELD	HOURS OVER THRESHOLD (30 HRS)
Ryde Park 1	1
North Ryde Park	3
Pidding Park 1	5
Meadowbank 9	6
Monash Park	7
ELS Hall 3	7
ELS Hall 2	8
Meadowbank 8	8
Meadowbank 7	9
Meadowbank 4	9
Meadowbank 2	10
Meadowbank 3	10
ELS Hall 1 (a)	12
ELS Hall 1 (b)	12
Eastwood Upper	16
Total	122

For the purpose of this study, the potential available hours for a synthetic sportsfield were conservatively estimated at 54 hours per week ie 30 hours mid-week (6 hours per evening) and 24 hours over a weekend (12 hours per day). The potential additional yield from installing a synthetic surface is therefore 54 hours minus current hours of utilisation.

[7] Note: As actions are progressively implemented to reduce existing over-utilisation of fields (whether by way of lighting fields or installing synthetic surfaces) the current rates of over-utilisation will reduce. No field should be utilised for more than 30 hours per week.

6 IMPLEMENTATION PLAN

The Implementation Plan has been structured so as to address current over-utilisation issues, and over the next decade, address forecast demand brought about by population growth.

6.1 ONGOING ACTIONS

1. Given their high capital cost, the development of each synthetic sportsfield should be subject to the completion of a detailed business case. This study has undertaken a preliminary assessment of priority sites, but variables may emerge through the completion of the business case (eg planning/ zoning constraints, adverse geotech conditions, or cost/ availability of services). For this reason it is recommended that Council adopt a flexible approach to the implementation of the Action Plan.
2. It is strongly recommended that Council monitor the impact on demand of each new synthetic field development – whether with the City of Ryde or neighbouring Councils. Installation of synthetic sportsfields in other areas has been found to dramatically influence patterns of utilisation and demand.
3. It is recommended that Council adopt a maximum of 30 hours per week usage of natural turf fields as severe damage can be expected beyond these levels.
4. In addition to the short, medium and long term actions in this Action Plan, Council should consider the utilisation of 'hybrid turf technology' in high wear areas (e.g. goal mouths).

6.2 SHORT TERM ACTIONS

Table 10 outlines proposed short term actions to address the existing over-allocation of sportsfields of 122 hours.

Table 10: Short Term Actions

LOCATION	DEVELOPMENT	ADDITIONAL FIELD HOURS	COMMENT
Morrison Bay #2	Install field lighting	+8	
Morrison Bay #4	Install field lighting	+8	
Gannan Park	Redevelop into two football fields with field lighting Upgrade ancillary facilities to accommodate new use.	+39	This could create a home for both baseball and football.
Christie Park #1	Develop synthetic football field in line with master plan.	+33	Requires resolution of planning issues before proceeding and possibly amended Plan of Management
Christie Park #2	Develop synthetic football field in line with master plan.	+31	
ELS Hall #1	Revise design package and develop synthetic football field	+24	Added by Council to Short Term actions due to delay in ability to develop Christie Park (refer over page)
Total Field Hours		+143	

Council wishes to proceed with the development of a synthetic surface at ELS Hall #1 as a Short Term action due to the delay in being able to develop synthetic surfaces at Christie Park resulting from the need to resolve planning and environmental issues at this location plus the fact that ELS Hall #1 can be developed comparatively quickly. A proposed design layout is illustrated at Appendix C. Council proposes to develop a new turf wicket between Marsfield fields #1 and #2 to accommodate the relocation of cricket from ELS Hall #1. Design layout options for Christie Park are illustrated at Appendix D.

From discussion with Council officers the likely time frames for developing synthetic surfaces at ELS Hall #1 and Christie Park are outlined at Table 11.

Table 11: Likely implementation time frame for synthetic surfaces at ELS Hall #1 and Christie Park

LOCATION	INDICATIVE COST	COMMENT
ELS Hall #1	Re-tender design package	Feb 2016
	Award tender	May 2016
	Commence construction (end of winter season)	Sept 2016
	Completion and ready for use in winter season	Mar 2017
Christie Park #1 & #2	Approval of master plan, consultation with community, sporting groups and National Parks and Wildlife for revised Plan of Management	Feb to July 2016
	Design documentation (including review of environmental factors)	Aug to Oct 2016
	Award tender	Mar 2017
	Commence construction (end of winter season)	Sept 2017
	Completion and ready for use in winter season	Mar 2018

If all of the developments above can be realised, they will yield a combined total of approximately 143 field hours. It is noted that the two Morrison Bay field lighting projects are already scheduled for the 2015/ 16 Financial Year.

Through the preparation of a Master Plan and Feasibility Report for Christie Park, the development of two synthetic sportsfields has revealed existing demand from local football bodies could completely utilise all available peak hours for 38 weeks a year (January to September) and over 50% of peak hours for 12 weeks (October – December).

Research for the Christie Park Feasibility Study shows that at least 50% of this use will be reallocated from other facilities including ELS Hall, Magdala Park and Peel Park. This will contribute directly to addressing the overall over-allocation issue by reducing the use of ELS Hall (currently over-used) and/ or indirectly by providing an opportunity to re-allocate use from other over used facilities to Peel Park and/ or Magdala Park. The increased carrying capacity of the fields will also enable the Gladesville-Hornsby Football Association to schedule more local youth and senior games on the facility, once again reducing the impact on existing fields and creating greater capacity. Finally, concentration of 'pre' and 'post' season activities at Christie Park will also enable other fields to have a longer period to recover from, and be prepared for, the winter season.

6.3 MEDIUM TERM ACTIONS

Proposed medium term actions are outlined at Table 12.

Table 12: Medium term actions

LOCATION	DEVELOPMENT	ADDITIONAL FIELD HOURS	COMMENT
Monitor impact on demand of Short Term actions. If demand warrants, proceed with Medium Term actions.			
Smalls Road (upper)	Develop synthetic football field	50	Potential for part funding by DEC. Subject to successful negotiations with DEC and implementation of acceptable community use agreement.
Meadowbank #12	Field lighting	21	

Given that capital funding is likely to be a concern for Council, the opportunity to partner with DEC should be investigated as soon as practicable. If a joint funding arrangement with DEC does not eventuate or does not align with the timing of future demand, then one of the Long Term options should be brought forward. Medium term

6.4 LONG TERM ACTIONS

Table 13: Long term actions

LOCATION	DEVELOPMENT	ADDITIONAL FIELD HOURS	COMMENT
Council should monitor impact on demand of Medium Term actions. If demand still indicates a need for additional synthetic surfaces, further investigate the following locations to develop two additional football fields.			
Meadowbank #3	Potential synthetic football field	24	Could be primary alternative if Smalls Road negotiations stall.
Meadowbank #2	Potential synthetic football field	24	
Christie Park #3 (new)	Potential synthetic football field	54	Requires specialist analysis due to site constraints. Likely higher capital cost should be analysed against the benefit of greater reduction in over-use hours compared to other options as this would be a greenfield site.

It is critical that ongoing demand be monitored prior to implementing Long Term actions. Depending on which of the potential locations is adopted, the development of two additional synthetic fields would contribute between 24 hours and 54 hours toward the forecast remaining long term short fall of 63 hours.

A report to Council was prepared in December 2015.

The outcome of this report was the following resolution; (b) That Council endorse the Draft Synthetic Action Plan (2016 - 2026). Fields to be converted as listed below in preference order as per the plan - Christie Park No1, Christie Park No2, ELS Hall Park No1, Meadowbank Park No2, Magdala Park and Meadowbank Park No3.

As noted in the Draft Sport and Recreation Strategy, the ongoing provision of synthetic sports fields needs to be assessed after the completion of ELS Hall Park 1 and Christie Park 1 and 2. Both Meadowbank and Magdala Park are located on former tip sites and will require a further feasibility assessment prior to the consideration of their viability.

6.5 MANAGEMENT

In order to ensure that the development of synthetic surfaces most effectively reduces over-utilisation of natural turf fields, and these assets are appropriately maintained, it is recommended that Council manage these facilities. This does not preclude Council from accepting a capital contribution from third parties toward the cost of the facility, for which preferential access under a licence agreement could be made. Once developed, user fees should be allocated to a sinking fund to recoup all or part of the net development cost (ie capital costs in excess of S94 contributions or external grants) and to fund the future replacement of the surface. Capital contributions from third parties should not entitle users to a waiver or reduction in hire fees.

6.6 FUNDING

It is noted that some internal funding for the development of synthetic sportsfields may be available through Section 94 funds. Where this is applicable, it may be possible to match this funding with external grants from state and/ or federal levels. Partnerships with schools/ Macquarie University in developing future facilities should be explored where possible.

If Council wishes to ensure that new facilities are 'cost neutral' (i.e. revenue meets the ongoing costs of maintaining and renewing synthetic surfaces), then the timing of development will need to be linked to demonstrated demand to ensure that available hours are used at or close to capacity.

7 APPENDIX A:

Sites considered unsuitable for synthetic surface location

SITE LOCATION	REASON FOR EXCLUSION
Bill Mitchell Park 1	Drainage issues. Lack of parking.
Bill Mitchell Park 2	Drainage issues. Lack of parking.
Bremner Park	Former landfill
Brush Farm Netball (Hard courts)	Heritage issues. Existing uses.
Brush Farm Netball (Grass courts)	Heritage issues. Existing uses.
Brush Farm Oval	Heritage issues. Existing uses.
Cleves Park	Too small
Darvall Park	Too small
Eastwood Lower	Flooding. Lack of parking. Used for major events.
Meadowbank – LH Waud	Former landfill
Magdala Park 2	Too small. Former landfill.
Magdala Park 3	Too small. Former landfill.
Marsfield 1	Former landfill
Marsfield 2	Former landfill
Meadowbank 1	Former landfill
Meadowbank 4	Former landfill
Meadowbank 5	Former landfill
Meadowbank 6	Former landfill
Meadowbank 7	Former landfill
Meadowbank 8	Former landfill
Meadowbank 9	Former landfill
Meadowbank 10	Former landfill
Meadowbank 11	Former landfill
Meadowbank 12	Former landfill
Meadowbank 13	Former landfill
Meadowbank Netball	Former landfill. Existing use.
Morrison Bay 1	Former landfill. Inundated at high tides.
Morrison Bay 2	Former landfill. Inundated at high tides.
Morrison Bay 3	Former landfill. Inundated at high tides.
Morrison Bay 4	Former landfill. Inundated at high tides.
Morrison Bay 5	Former landfill. Inundated at high tides.
Morrison Bay 6	Former landfill. Inundated at high tides.
Peel Park	Too small
Pidding Park 1	Too small. Former landfill.
Pidding Park 2	Too small. Former landfill.
Pioneer Park	Former landfill
Ryde Park 1	Existing premier turf wicket
Ryde Park 3	Too small
Santa Rosa 1	Lack of parking. Proximity to residents.
Santa Rosa 2 (mini)	Too small
Tyagarah	Too small
Waterloo	Drainage issues. Detention basin.

8 APPENDIX B:

Assessment of sites considered suitable for synthetic surface location

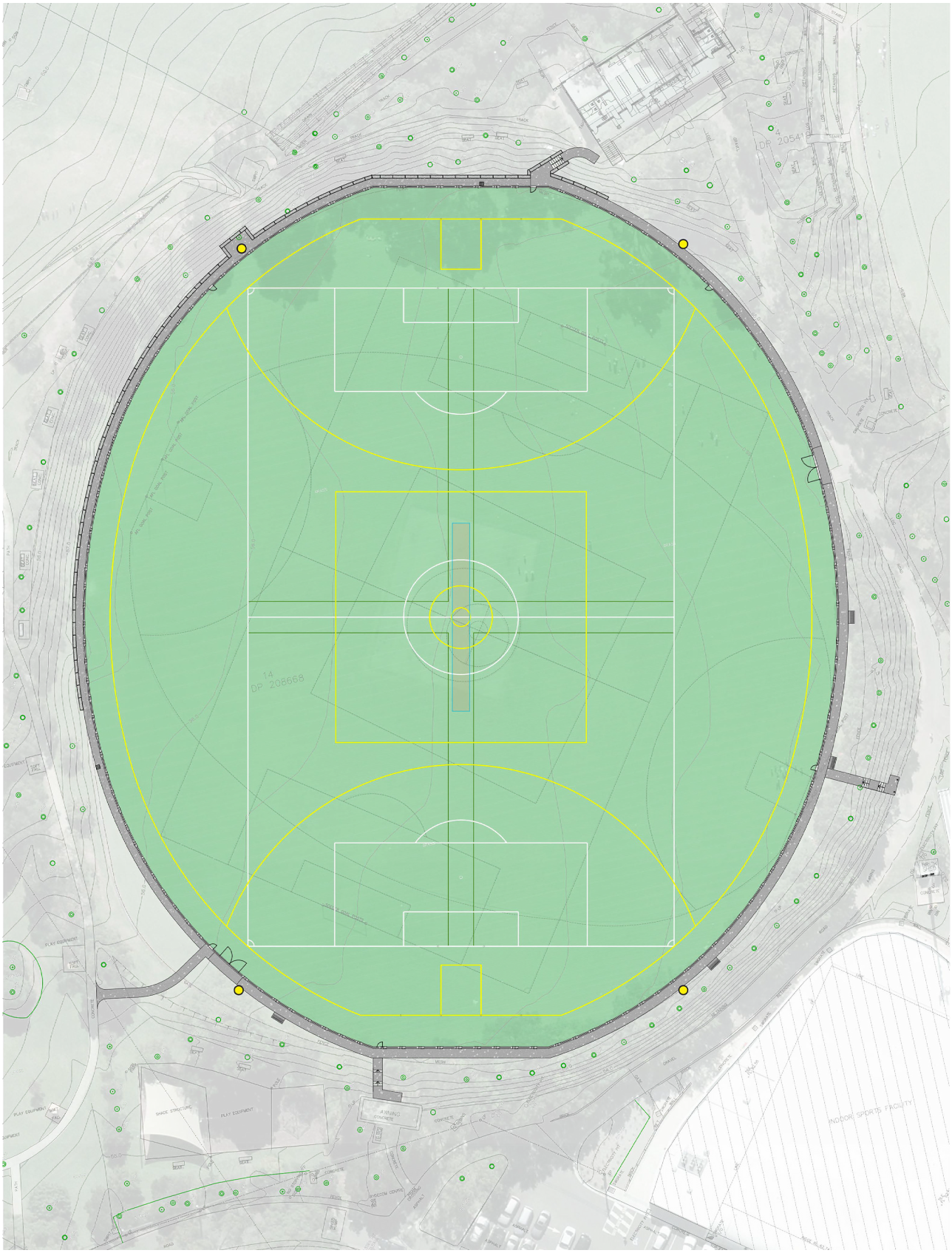
Location	Site Size	Accessibility	Topography	Lighting	Parking/ Internal Access	Impact on Users	Neighbour-hood Impact	Future Ex-pansion	Capital Cost Savings
Christie Park 1	3	3	3	3	3	3	3	3	1
Christie Park 2	3	3	3	3	3	3	3	3	1
Smalls Road (upper)	3	1	3	2	2	3	2	3	6
Christie Park 3	3	3	3	3	3	3	3	3	1
Meadowbank 3	3	3	3	3	2	3	3	3	1
Meadowbank 2	3	3	3	3	2	3	2	3	1
ELS Hall 1	3	2	3	3	2	1	3	1	1
ELS Hall 2	3	2	3	3	2	1	3	1	1
ELS Hall 3	3	2	3	3	2	1	3	1	1
North Ryde Park	3	3	3	3	2	1	2	1	1
Gannan Park	3	2	1	3	2	1	2	3	1
Monash Park	3	2	3	3	1	2	2	1	1
Smalls Road (lower)	2	1	3	2	2	2	2	1	6
Tuckwell	2	2	3	2	3	1	3	1	1
Magdala Park 1	3	2	1	3	2	1	2	1	3
Dunbar	3	2	1	2	3	1	2	1	1
Eastwood Upper	3	1	3	3	1	1	1	1	1
Westminster	2	2	3	1	1	1	1	1	1

Scoring:
3 = Strong compliance or opportunity
2 = Moderate compliance or opportunity
1 = Low or no compliance or opportunity

Capital cost savings score weighted by a factor of 2

9 APPENDIX C:

Proposed design layout for ELS Hall #1 (per City of Ryde)



10 APPENDIX D:

Design layout options for Christie Park (per City of Ryde)