

Park Island Plan Change

Sport Provision Perspective

Prepared for

Napier City Council

15 March 2017



1. Introduction

The 2013 Master Plan and associated quantum of sport ground was developed through the needs analysis and stakeholder feedback processes reported on in Appendices 2 and 5 of the draft Master Plan. A further issues and options and needs analysis process was undertaken in 2016 and is reported on in Appendix 6 of the draft Master Plan. The Analysis presents information on trends, issues and potential solutions, which have resulted in a view that less land area at Park Island is required for sport now and for the foreseeable future. Key changes to note in relation to the Northern Hub between the original Masterplan and the updated 2016 Masterplan are:

The introduction of floodlit artificial fields is major change in delivery of required field capacity at park island, in particular for the Northern Hub. One artificial field equates to between 3 to 5 natural grass fields depending on type of field, local climate and underlying ground conditions plus use patterns

The removal of the proposed tennis court complex opens up opportunities to reconfigure the Northern Hub and bring it closer to the expanded Tremain Fields (proposed location of the first artificial field for rugby)

The relocation of the proposed residential area on corner of Orotu Drive and Westminster Road to further west and bringing the Northern Hub to the east means it will be much closer to the suburb of Tamatea, the key player catchment area of the Pirates Rugby and Sports Club ("Pirates")

The purpose of this report is to:

1. Summarise key changes in demand,
2. Provide further information on the emergence and advantages and disadvantages of artificial turf
3. Provide comment on the reconfiguration from a sport use perspective,
4. Provide comment on the basis on which the Council can be confident that sufficient facilities will be provided to meet the current and growing needs of the community

2. Changes in demand

Key changes in demand between the original 2011 demand analysis and the 2016 analysis include:

- Tennis has indicated that Park Island is not now part of its future provision plans for the sport.
- HBRU does not anticipate significant growth in player numbers, now in stable state. Growth in juniors is continuing but is slowing. Senior numbers are in decline.
- Pirates has reported no growth of membership since 2011 but has had a significant deficit in provision in 2011 with single field at Tamatea Park. The Club's activities are fragmented with games split between use of Tamatea Park and Park Island (majority of JAB 'home' games played on Bond Fields). This fragmented delivery is difficult to manage. The Club has reluctantly consolidated more on Tamatea Park and the single field now suffers from chronic over-use with Saturday two senior games (3 hours per week) plus training load (close to 20 hours per week). Status quo is not sustainable for the field. Club has indicated 4 dedicated natural turf fields with floodlighting would meet its game and training needs. An artificial turf field could reduce the number of fields needed to two (1 x artificial, 1 x soil) with continued use of other Park Island fields for JAB on Saturday mornings.
- Napier Old Boys Marist Sports Club is the immediate neighbour to Northern Hub and will share an artificial turf field with Pirates and HBRU. The Club reports it has a stable membership with no major change since 2011 and no foreseeable change.

More detailed data is provided in the table in the Appendix.

3. Artificial Turfs

The following information on artificial turf fields is intended to provide context on the major change – the proposed use of artificial turf surfaced fields at Park Island for rugby and football. The changes in the intensity of use between a sports ground involving natural grass turfs and associated use patterns and a sports ground involving artificial turfs and associated use patterns are significant and are commented on as follows:

- One artificial field can increase useable hours from approximately 10-15 hours per week for a well-drained natural grass field to more than 45 hours during the demand periods for community sport as follows:
 - Midweek 3.30 to 9.30pm (up to 30 hrs per week)
 - Weekends 8.00am to 7.00pm (up to 22 hours per weekend)
 - Some practice use now evident at some artificial turf fields in Wellington mid-week 6.30 to 8.00am (up to 7.5 additional hours per week)
- Hockey in New Zealand was originally driven to adopt artificial turf to remain internationally competitive. The use of artificial turf has now cascaded down through all levels of hockey. The high capital cost in combination with the ability to use these surfaces for more hours per week without damaging the surface has meant competition and most practice now use artificial surfaces 7 days a week during the winter and increasingly in the summer season as well. Hockey now uses a fraction of the land area once dedicated to providing natural grass fields for the sport prior to adoption of artificial turf. Over this 30-year period participation in hockey has also increased. Locally, HB Hockey reflects the national journey in use of artificial fields 7-days per week and increased participation.
- Use of artificial fields is now more widely accepted than in 2013 by Local Government for sports other than hockey. Major urban local authorities are investing in artificial turf where demand pressures are evident, particularly Auckland and Wellington. Some smaller centres are also adopting artificial fields e.g. Masterton.
- Uptake by football is now embedded, especially for regional and sub-regional 'home of football' hubs. The Central League (the premier regional competition) has most its games played on artificial turf. Standards for artificial fields is codified in FIFA regulations.
- College Rifles in Auckland pioneered use of artificial turf fields for community level rugby including premier club rugby. Some inter-provincial rugby games are now hosted e.g. at Masterton. Standards for artificial fields is codified in IRB regulations. Locally, HBRU is now adopting artificial fields for training purposes at high performance and academy levels. Clubs are now wanting to adopt artificial turf, mostly for training/ practice purposes.

The use of artificial turf fields will change the occupancy pattern from high peaks on Saturday to spread more through the week. Hockey made this transition successfully to artificial surfaces with use spread across the week. Other field codes could transition to a similar pattern of activity across the week as they adopt use of artificial turf fields. Other sports, particularly those that use indoor spaces such as basketball have operated successfully on several days per week.

There is also more midweek afternoon and evening sport now in response to wider societal trends impacting on traditional use of sports fields including:

- Saturday, the traditional peak day for sport demand on sports fields is now a busy retail day (as is Sunday). Many working age players are no longer able to participate on a Saturday and to an extent on Sundays. This also impacts on availability of team coaches and managers.
- Children have less free play and have more programmed lives outside of school than previous generations. Organised sport practices and games are a key occupation of their after-school time.

- Parents and young people are expecting greater reliability and are less tolerant of cancellations due to wet weather closing sports fields. Hockey has benefited from its all-weather reliability provided by its artificial turf fields.
- Some secondary school students who are old enough to work are seeking more income and are making choices between sport on Saturday or working. Sport is responding by providing alternative timing for sports competition for this age group.

The following summarises key points in relation to the advantages and disadvantages of artificial turfs followed by comments in relation to the advantages and disadvantages for reconfiguring the Sports Ground and Residential Zones in this particular case.

There is a significant improvement in efficiency of land use as artificial fields enable greater use of the same land. On the basis of land use efficiency, an artificial field is the most efficient. In the Park Island situation, the additional land for the Northern Hub can be reduced in area with use of artificial fields. This provides an opportunity for further residential development on land previously earmarked for soil fields, which indirectly will assist with the affordability of implementing superior sport ground facilities for the community.

Indications from operators in the parks sector is that cost per use hour¹ is close to neutral on whole of life comparison between an artificial turf field compared to other sand carpet and hybrid fibre reinforced soil fields. Conventional soil based fields have lower operating and renewal costs but their service reliability (wet weather) and lower carrying capacity 8-15 hours per week mean you require more fields. Cost of cleaning and grooming artificial turf is less than the mowing, irrigation, fertiliser and turf care (e.g. soil aeration) of a larger land area of natural turf.

There are several advantages and disadvantages of the Northern Hub in its draft form compared the characteristics of it in the 2013 Master Plan listed below.

ADVANTAGES	DISADVANTAGES
Pirates will have more home ground capacity than in current location in Tamatea	Pirates will have a smaller number of home ground fields than in earlier MP
Pirates closer to its Tamatea player catchment	Reduced Saturday peak capacity (for junior sport) with smaller number of fields than in 2013 Master Plan
More compact field layout due to replacement of natural grass fields with artificial fields	Likely will require transfer of some practice and possibly games to other times of the week (mid-week evenings and/or Sunday)
Less land needed for sports fields and related costs of turf care, particularly mowing of multiple fields replaced with cleaning and grooming of a single replacement artificial field	If Pirates grows significantly or adds winter codes such as football to its portfolio of sports then may require reallocation of existing adjacent Shrimpton Fields in future
Fields are closer to clubrooms and toilet facilities	
Reduced cancellations of practices and games due to wet weather. Teams could relocate from natural grass fields to the artificial turf field for modified practice using a part of field for each team, particularly for junior age team practices	Pirates will need to share artificial turf field with HBRU and NOP Marist Club requiring partnership management and coordination.

Traffic implications of the preferred option for Northern Hub are:

¹ A 'use hour' is when the field is actually available for use. Different types of field surface can be used for varying amounts of time before they become damaged by wear and ultimately become unusable for sport activity.

- Less additional fields at Park Island than previous MP will result in less traffic at peak times Saturday game day, Tuesday and Thursday practice days. This will be particularly so on Orotu Drive with the smaller number of fields at the Northern Hub accessed via this street.
- Artificial fields will result in change in use patterns and traffic flows as more use at previously 'off-peak times' (mid-week early mornings and evenings and Sundays) due to increased useable hours per week. This in combination with smaller number of fields will flatten the Saturday peak demand on roads and parking.
- More constant use of roads and parking as no wet weather related ground closures with artificial fields

4. Reconfiguration of Zones

The new location for the Northern Hub facility, at a higher level, is relatively neutral from a sport perspective because its relationship to its fields and other activity spaces is relatively unchanged. At a lower level however, the reconfiguration:

- Will improve connectivity with the Central Sports Hub,
- Will bring the Northern Hub facility closer to Tamatea (the key catchment). In this regard, Pirates is a 'local' club drawing most of its players from the Tamatea area (NOB Marist in contrast draws its players from a much wider catchment). This is a significant improvement in connecting Pirates with its traditional catchment,
- Will achieve slightly greater separation from residential activities

5. Future Proofing

The basis on which the Council can be confident that sufficient facilities will be provided to meet the current and growing needs of the community include:

1. Any foreseeable growth in demand can be accommodated through conversion of natural turf to artificial turf fields. Provision of more floodlit artificial provision on existing footprint will increase useable hours by 3 to 5 times therefore foreseeable demand at Park Island from current users and Pirates at Northern Hub can be met.
2. Also, this same strategy of introducing artificial turf can be applied to other parks in the NCC network to increase overall capacity

6. Appendix: Participation Profile of Sports Organisations

The table below lists the participation profile of each organisation. Data was collected from the clubs during the consultation meetings in 2016. The 2009-10 data was supplied by Sport Hawke's Bay from its annual data monitoring.

Sport Club/Code	Participation Numbers - 2011 (RSO data supplied by Sport HB)	Participation Numbers – 2015-16 (data supplied by RSOs and Clubs)	Trends
Napier Pirates Rugby and Sports Club	<p>TOTAL = approximately 550 club members in 2011 (380 in 2006), an increase of 44.7%</p> <p>2011 membership is:</p> <p>200 senior players across codes (up from estimated 160 in 2006)</p> <p>235 junior players across codes (180 players in 2006)</p> <p>Approximately 100 non-playing senior members (40 in 2006)</p> <p>Participation profile is:</p> <p>RUGBY- 4 senior rugby teams including a women's team (projected to have 5 teams next year), 15 junior rugby teams</p> <p>RUGBY LEAGUE- 1 senior rugby league team playing in spring competition (mostly players from senior rugby teams)</p> <p>NETBALL - 5 senior netball teams</p> <p>CRICKET – 1 team</p>	<p>TOTAL = approximately 550 club members in 2015 is unchanged from 2011:</p> <p>200 senior players across codes</p> <p>235 junior players across codes</p> <p>Approximately 100 non-playing senior members</p> <p>Participation profile is:</p> <p>RUGBY- 4 senior rugby teams including a women's team (projected to have 5 teams next year), 14 junior rugby teams</p> <p>RUGBY LEAGUE- 1 senior rugby league team playing in senior competition (mostly players from senior rugby teams)</p> <p>NETBALL - 4 senior netball teams</p> <p>CRICKET – 1 team</p>	<p>No change over past 5 years.</p> <p>Grew at average of about 9.0% per year over 2006-2010</p>
Hawkes Bay Rugby Union (HBRU)	<p>HBRU had experienced strong growth between 2006 and 2010. Only team data was available.</p> <p>In 2010 there were 312 teams, up 60% from 195 teams in 2006. Junior teams have increased from 134 in 2006 to 262 in 2010, a 95% increase since 2006. However, senior</p>	<p>HBRU has 6,651 players in 2015 (1,744 seniors, 1,600 secondary school and 3,307 juniors)</p> <p>In 2015 there were 279 teams, down 11% from 312 teams in 2010. Junior teams have decreased from 262 in 2006 to 227 in 2015 (including 68 secondary school teams), a 13% decrease since 2010.</p> <p>However, senior teams have increased slightly from</p>	<p>Team numbers have declined at an average of 2.2% per year between 2010 and 2015. However, this followed strong growth at average of about 15%</p>

Sport Club/Code	Participation Numbers - 2011 (RSO data supplied by Sport HB)	Participation Numbers – 2015-16 (data supplied by RSOs and Clubs)	Trends
	teams have declined from 61 in 2006 to 50 teams in 2010, an 18% decrease since 2006.	50 in 2010 to 52 teams in 2015 stabilising after the decline between 2006 and 2010. However, senior teams now include 7 women's teams).	per year over 2006-2010 period.
Napier Old Boys Marist (NOBM)	TOTAL = 914 playing members in 2011, 607 in 2007, an increase of 50.6% Participation profile is: RUGBY - 4 senior teams, 18 junior teams (350 players in 2011, 180 in 2007) NETBALL - 10 teams (100 players in 2011, 60 in 2007) FOOTBALL - 6 senior teams, 22 junior teams (340 players in 2011, 219 in 2007) CRICKET - 6 teams (84 players in 2011, 98 in 2007 in 7 teams) SOFTBALL – 40 players in 2011, 50 players in 2007 in 5 teams	TOTAL = 935 playing members in 2015, was 914 in 2011, an increase of 2.3% over the 4 years Participation profile is: RUGBY - 5 senior teams (4 men's & 1 women's), 130 players, 18 junior teams, 320 players, total players in 2015 is 450 (350 players in 2011) NETBALL – 10 teams (120 players in 2015) FOOTBALL – 6 senior teams (5 men's & 1 women's), 250 junior players, total players in 2015 is 370 CRICKET – 5 teams (4 men's & 1 women's) total players SOFTBALL – 3 teams (2 men's & 1 women's) total players in 2015 is 45	Grew at average of about 0.5% per year over 2011-2015 period. During 2007-2011 grew at average of about 12.6% per year.
Hawke's Bay Hockey	HB Hockey had fluctuated over the period 2001 to 2010. HB Hockey had experienced steady growth of 10.9% from a base of 1,917 players in 2001 and 2,126 players in 2010. Player numbers peaked 1.8% above 2010 levels in 2006 at 2,164 players.	HB Hockey has experienced growth of 15% over the past 5 years from a base of 2,126 players in 2010 and 2,445 players in 2015 (319 additional payers). In 2015, there were 2,383 players registered with Hockey NZ and this number was used in the national analysis against a suite of Turf Provision Indicators. The Indicators show the current capacity of full-size turfs is sufficient to meet current and projected demand through to 2033.	Grew at average of 3.0% per year in 5-year period to 2015. During 10-year period 2001-2010 hockey grew at average of about 1% per year.
Central Football Federation (Hawke's Bay one of five regions within the Federation and the	The HB Region had had growth year on year for the period data is available (2006 to 2010). No secondary school data was available in 2010. In 2009, there were 4,268 players up 18.5% from 3,603 in 2006. In 2009, there were 3,206	In 2015, there were 5,256 players up 23.5% from 4,268 in 2009 playing in Hawkes Bay. In 2015, there were 4,428 juniors (up 38.0% or 1,222 players since 2009), and 828 senior players (a decline of 22.0% or 234 players since 2009).	Grew at average of about 3.9% per year (juniors by 6.3%) over 2009-2015 period. However, since 2013 growth has slowed to 2.1% average per year.

Sport Club/Code	Participation Numbers - 2011 (RSO data supplied by Sport HB)	Participation Numbers – 2015-16 (data supplied by RSOs and Clubs)	Trends
statistics relate only to Hawkes Bay)	juniors (up 8.8% since 2006) playing in 278 teams (257 teams in 2006), and 1,062 seniors (up 61.9% since 2006) playing in 59 teams (52 teams in 2006).	Futsal participation has grown from 360 players in 2011 to 960 players in 2015 or about 165% growth in 4 years.	Futsal has grown at an average of about 41% per year between 2011 and 2015. During 2006-2009 football grew at average of about 6.2% per year
Napier City Rovers (NCR)	In 2011 NCR had 317 members compared to 274 in 2007 an increase of 15.7% over the past four years.	In 2015 NCR had 294 members compared to 317.in 2011 a minor decrease of 3.2% over the past four years. FOOTBALL – in 2015 had 6 senior teams (102 players), 12 junior teams (104 players)	Slight decline in membership at average of 0.6% decline per year over 2011-2015 period. Grew at average of about 3.9% per year over 2007-2010