

**BEFORE THE INDEPENDENT HEARING COMMISSIONERS
APPOINTED BY THE HAMILTON CITY COUNCIL**

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of an application for subdivision and land use consent
for the Amberfied development

BETWEEN **WESTON LEA LIMITED**
Applicant

AND **HAMILTON CITY COUNCIL**
Consent authority

**STATEMENT OF EVIDENCE OF ROBIN RAWSON ON BEHALF OF HAMILTON CITY
COUNCIL**

Dated 23rd April 2019

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INTRODUCTION

1. My full name is Jenefer Robin Rawson, and I work for Xyst Limited, a consultancy that provides planning and management services in the parks and recreation sector.
2. I hold the qualification of a Bachelor of Landscape Architecture with Honours from Lincoln University, and a Bachelor of Science from Auckland University. I am a Registered Landscape Architect, having been granted registered membership at the end of 2009 by the NZ Institute of Landscape Architects. My experience in parks and recreation planning consists of seven years working within the Manukau City Council parks department as a Parks Officer and Landscape Architect, and seven years working as a Planner within the infrastructure department at Whangarei District Council where the work for the Council parks department was a larger part of the role. At Whangarei District Council, my role included assessment reports on subdivisions and other resource consents on behalf of the parks department, reports on possible land purchases and divestments and a 2018 draft of the parks chapter of the Council Environmental Engineering Standards. At Manukau City Council, my work included project management of facilities including a sports park, and establishing a strategic playground network.
3. I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance with it and I agree to comply with it. This evidence is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.
4. In October 2018, Xyst Ltd was contracted by Hamilton City Council to provide a report to inform preliminary open space planning processes for the Peacocke Structure Plan area. The following brief was provided by

Hamilton City Council staff:

An assessment / report (informed by best practice / benchmarking / HCC Level of service) that assesses the need for the two sports parks (on a general provision for sports field and facilities, and community park and facilities basis), and ideally guidance on the land area requirements in the Peacocke Structure Plan area.

5. While the Xyst report was largely complete in November 2018, it was not finalised until April 2019. At the request of Hamilton City, a minor punctuation error was corrected, and a clarification made that Hamilton sports clubs had no significant concerns about the availability of fields rather than about sports fields in general, (Section 2.3). In addition, the report was amended to clarify that the 'Yardstick' data used in the report related to the 2012/13 territorial authority financial year and the 2016/17 financial year.

EVIDENCE

6. I refer to the following in my evidence:
 - a) Provision of Sports Parks within the Peacocke Structure Plan area (prepared by Xyst Limited on behalf of Hamilton City Council), Attached as Appendix A.
 - b) Hamilton City Winter Sports Fields: Capacity and Demand 2013 prepared by Momentum Research and Evaluation Limited on behalf of Hamilton City Council), Attached as Appendix B.
7. My evidence provides an overview of the report prepared by Xyst which I wrote and which was reviewed by Paul Wilson, Xyst Director.
8. I visited the Peacocke Structure Plan area in October 2018, and information available to me prior to the assessment included a

topographic map of this area, and Hamilton City Council policies and reports listed in the report.

9. The 'Hamilton City Winter Sports Fields: Capacity and Demand 2013' report provides valuable information on how clubs experienced the availability of sports fields during the 2012 winter season, and the report notes that while there was sufficient winter field capacity overall, the difficulty in level of servicing fields for renovation indicates that winter field capacity was marginal in some areas and for some codes.
10. Demand for sports fields is consistently greater in winter than in summer, so consideration of summer sports field use was not needed for a preliminary planning assessment.
11. The Xyst report uses information from 'Yardstick'; a benchmarking database operated by Xyst Limited and supported by a collaborative partnership of industry organisations including the New Zealand Recreation Association (NZRA), and World Urban Parks (WUP). 'Yardstick' data is collected from many Territorial Authorities (numbering 20 in 2012/13 and 25 in 2016/17) and allows comparison on a range of criteria including park and park asset provision.
12. 'Yardstick' data from 2012/13 shows that the level of service for provision of sports fields and sports parks at the time of the 'Hamilton City Winter Sports Fields: Capacity and Demand 2013' report was 0.6 hectares per 1000 population, indicating that this corresponds with the marginally adequate provision identified in the 2013 report. 2016/17 'Yardstick' data, which is the latest data available to include Hamilton City, shows that this level of service for sports park provision is also 0.6 hectares per 1000 population.
13. 2016/17 provision is compared with 'Yardstick' data for other 'Yardstick' cohort Territorial Authorities; defined as Territorial Authorities with populations in 2017 within 50% (plus or minus) of the population of

Hamilton City Council that were medium growth or high growth in the National Policy Statement on Urban Design Capacity, and for which 2016/17 'Yardstick' data was available. Data from areas with similar growth pressures is expected to be more relevant than areas that may, for example have negligible or negative population growth. The 'Yardstick' cohort consisted of Palmerston North, Tauranga, Whangarei, Lower Hutt, Wellington and Dunedin City Councils.

14. Although the areas of sports parks in the Hamilton City Council area was above the average for the 'Yardstick' cohort, the numbers of sports fields per 1000 population were below the cohort average of 0.78 hectares per 1000 population.
15. 'Yardstick' data indicates that the relationship between sports park area and the area of sports fields contained within the park is approximately double, and this relationship is used to provide preliminary values for sports park land requirements to meet the demand of future residents in the Peacocke Structure Plan area and the Amberfield subdivision area.
16. The report concludes that 1.2 hectares of sports park per 1000 population, being double the sports field provision in 2012/13 and 2016/17 is a relevant benchmark for initial planning. 1.56 hectares of sports park per 1000 population, being double the area of the cohort average of 0.78 hectares of sports fields is expected to provide sports fields at a level of standard consistent with the 'Yardstick' cohort. These benchmarks are preliminary figures only for the purposes of planning.

CONCLUSION

17. The Xyst report provides preliminary values to quantify the areas of sports park required to provide levels of service for sports field provision that are consistent with provision by Hamilton City Council in 2012/13 and 2016/17, and areas of sports park to provide for sports fields provision that are consistent with the 'Yardstick' cohort for 2016/17.

Dated this 23rd day of April 2019

A handwritten signature in cursive script, appearing to read 'Robin Rawson'.

R Rawson

APPENDIX A

**PROVISION OF SPORTS PARKS WITHIN THE PEACOCKE STRUCTURE PLAN
AREA' APRIL 2019 REPORT, XYST LIMITED.**



April 2019

Hamilton City Council

Provision of Sports Parks within the Peacocke Structure Plan area



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1 Introduction

This report was prepared by Xyst for Hamilton City Council, (HCC) to assess appropriate provision of land for the organised sport and recreation needs of the future community of the Peacocke Structure Plan area. This assessment was requested to inform development processes for subdivision, including the current 'Amberfield' subdivision application.

The Peacocke Structure Plan includes approximately 720 hectares of green-fields land on the south-east edge of Hamilton City, and allows for urban intensification and an estimated future population of 20,000 people, which will significantly increase the existing HCC population of over 160,000. The Peacocke Structure Plan includes two 'Active Recreation' areas which are also described as 'major sports parks' within the structure plan text, (refer Figure 1 below). The area of these active recreation areas is not defined. A current subdivision application, (the Amberfield subdivision), covers the area of the eastern 'Active Recreation' area, and the proposal does not include a sports park.

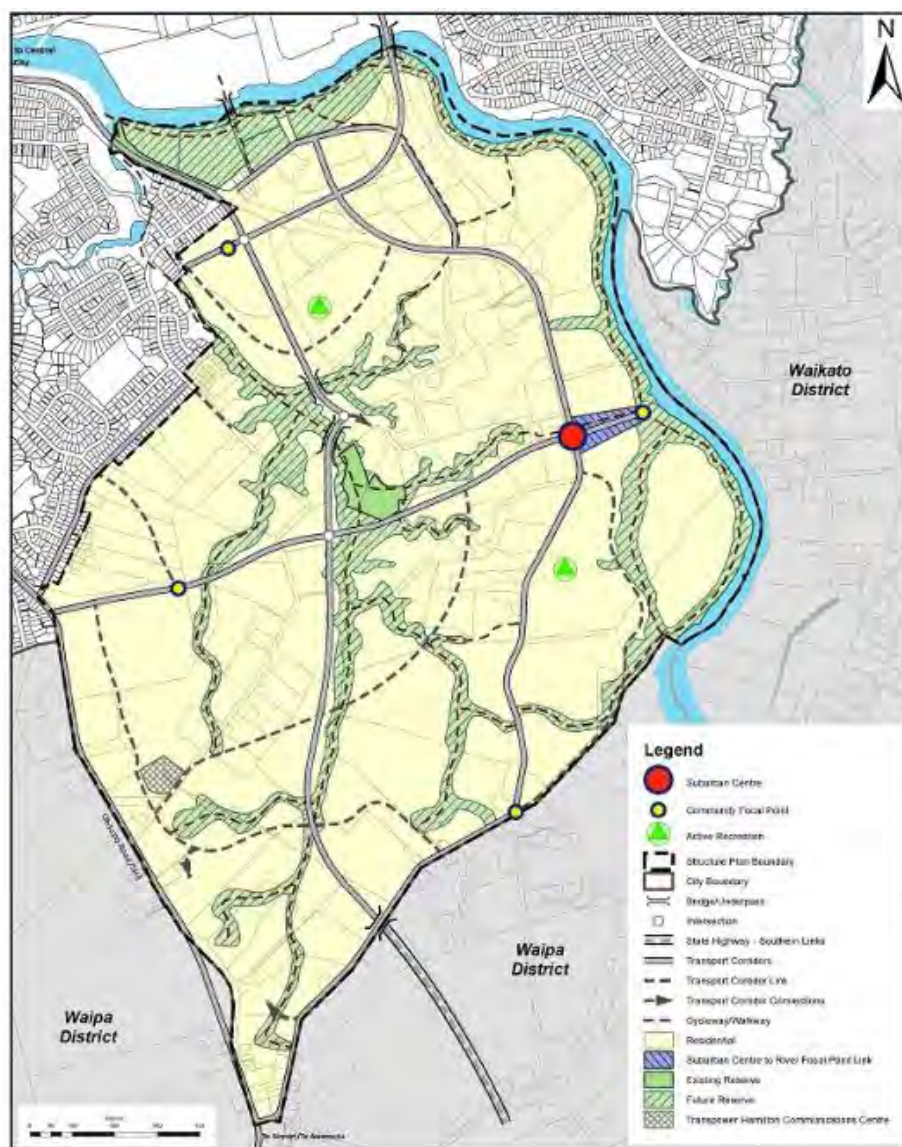


Figure 1 Peacocke Structure Plan

The most relevant content on the provision of sports facilities in the Peacocke Structure Plan is found in Nodes: Community and Recreation Facilities (3.4.3.1.d.):

The two major sports parks will contain a number of sports pitches (suitable for senior grade play, junior fields and training areas) and an area that serves a neighbourhood park function. Whilst they will primarily serve the local population, they will also form part of the city-wide network of sporting facilities. Two general locations have been shown, the northern park and the eastern park. The need for large, level, well-drained areas that are accessible will be significant factors in determining their precise location. Consideration will also need to be given to amenity issues with adjacent properties.

The Objectives and Policies for the Peacocke Structure Plan area include provision of 'a range of well-connected, functional public open spaces', and that 'The location and size of public open spaces is provided in accordance with Council's Open Space Plan'.

Other documents relevant to this assessment include

- HCC Open Space Provision Policy 2018
- HCC Open Space Plan 2013
- Hamilton City Winter Sports Fields: Capacity and Demand 2013.

The HCC 'Open Space Plan' 2013 notes that a key challenge and opportunity for open space is the provision of 'the appropriate quantity and quality of open spaces for Hamilton's increasing population'.

HCC is a high growth urban area¹, and has a slightly higher than national average of both 0-14 and 15-39 age groups². The Peacocke Structure Plan area is largely located within a 6 km radius from the centre of Hamilton, and this proximity will support development to the proposed densities.

1.1 Project brief

An assessment / report (informed by best practice / benchmarking / HCC Level of service) that assesses the need for the two sports parks (on a general provision for sports field and facilities, and community park and facilities basis), and ideally guidance on the land area requirements in the Peacocke Structure Plan area.

1.2 Methodology

For the purposes of this report, a 'sports field' corresponds to a single winter sports field. The demand for sports fields is greater in winter than summer, and summer sports fields usually overlay winter fields, so that consideration of summer sports codes is not usually required for preliminary planning. A 'sports park' is a park that will include the sports fields, setbacks, and associated buildings and carparks. A sports park may include facilities for other park functions including informal recreation.

The level of service for active sport and recreation can be assessed as the number of winter sports fields as a ratio of the population. The area of sports parks for the population is another useful measure. The adequacy of the existing capacity of sports fields is reflected in field quality and management requirements, and the satisfaction with the fields from winter sports clubs and players. Territorial Authorities will aim to respond to shortfalls in field requirements by increasing the provision of sports parks and fields to meet the needs of sports club and other formal recreation users.

¹ Summary of the NPS on Urban Development Capacity 2017

² Statistics NZ Dataset: Subnational Population Estimates extracted November 2018

“Yardstick” is a benchmarking database used by many New Zealand and Australian Territorial Authorities to quantify and compare the level of service that they provide in parks infrastructure and services. ‘Yardstick’ data from a cohort of Territorial Authorities with similar population and growth provides the most relevant information for comparisons. For the purposes of this report, the ‘Yardstick’ cohort is defined as Territorial Authorities with populations in 2017 within 50% (plus or minus) of the population of Hamilton City Council that were medium growth or high growth in the National Policy Statement on Urban Design Capacity³. The ‘Yardstick’ cohort consists of Palmerston North, Tauranga, Whangarei, Lower Hutt, Wellington and Dunedin City Councils.

‘Yardstick’ sports fields areas are assumed to be one hectare, which is equivalent to one winter sports field and half of a cricket field, although fields may be marginally larger than this, and junior or training fields are generally smaller. While it is acknowledged that sand and artificial turfs will give higher playing hours than grass, grass fields remain the significant percentage of the total numbers of fields (96.4% of cohort Councils), and there is no standard factor to allow for increased use in a range of fields.

In this report, the provision of sports fields and sports parks in Hamilton is assessed in 2012/13, which relates to a comprehensive report on HCC winter sports fields, and 2016/17. 2016/17 provision is compared with ‘Yardstick’ data for cohort Territorial Authorities. On the advice of Statistics New Zealand staff subnational population estimates have been used to compare data.

2 Sports park provision

2.1 Size of sports parks

The HCC ‘Open Space Provision Policy’ notes that parks providing for sports fields and facilities for organised recreation should have a minimum area of four hectares in association with a ‘Community Park’ with a recommended size of three hectares, (which provides informal recreation, socialising and event space for the wider community). The recommended size for a sports park with a Community Park is between seven and ten hectares. The areas quoted suggest that there is no anticipated overlap of areas for active and informal recreation, however combining these functions is expected to reduce the overall area requirements. The characteristics of these park functions have different development drivers, as sports fields require large open spaces whereas appealing informal recreation areas generally have spatial definition provided by tree planting and other development, and the amount of overlap cannot be accurately assessed in early planning, and may relate to existing features and topography.

Greater efficiencies in sports field layout can be obtained from sports parks that are larger than four hectares, as less area is lost to buffers and other setbacks including for ball activity, lighting and buildings, and for the establishment of associated tree planting. Other benefits include the ability to provide for more sporting codes on one site and greater shared use of facilities and increased flexibility for future uses. Disadvantages of larger sports parks relate to higher car parking needs because of higher travel distances and the inability of the local street parking to absorb visitors. The observed New Zealand trend is towards larger sports parks, including Foster Park in Selwyn District and Saxton Fields in Nelson in Nelson City.

³ Summary of the NPS on Urban Development Capacity 2017

The current NZRA 'Parks Categories Framework' document⁴ gives the following description for 'Sports and Recreation Parks', otherwise known as 'Sports' or 'Active' parks: '*Parks (often quite large areas), set aside and developed for organised sport and recreation activities, recreation facilities and buildings, often multi-use*'. This document does not comment on the area requirements for Sport and Recreation Parks. The following statement from the 2011 NZRA Parks Categories and Levels of Service still has relevance:

It is recommended that the minimum future provision for Sports and Recreation parks that contain playing fields be of a size that accommodates three winter fields, and also provides suitable land for onsite car parking, facility development and off-field training grounds. Useable flat land to meet the above requirement will equate to a minimum parcel of land of five hectares and ideally up to at least 20 hectares to cater for multi-use activities and the sharing of facilities'.

2.2 Distribution of sports parks

The HCC 'Open Space Provision Policy' direction for sports fields and facilities to be located with 'Community Parks' is a robust recommendation, as the benefits of co-locating a park providing for informal recreation with a sports park include efficient use of space from overlap of activity areas, a higher level of spaciousness and amenity, and better public use throughout the week resulting in reduced vandalism.

In the HCC 'Open Space Provision Policy', the anticipated catchment for a Community Park is a walking -distance of 1500 metres, Over a wider area, and for a traditional grid road system, this roughly equates to a circular catchment area of 350 hectares around the park, indicating that two parks meeting the function of a Community Park are required in the Peacocke Structure Plan area. The Structure Plan area is bounded by the Waikato River which forms a significant geographic barrier to the north and east, and has an irregular shape crossed by gullies, so that even if ideal park locations are available, a third Community Park may be required to provide an ideal distribution network to meet the needs of future residents as outlined in the policy.

There is no requirement for Community Parks to be located with sports parks. Sports parks are ideally located on sites with low slopes so that development is cost-effective. The shape of sports parks can also be critical to fit large sports fields and appropriate setbacks, and this will limit where sports parks can be located within the Peacocke Structure Plan area.

2.3 Level of service Hamilton sports parks and fields 2012/13 and 2016/17

The 2013 HCC Winter Sports Fields report assessed winter sports field use and demand in 2012. The report considered HCC fields as well as club, school and university fields. At this time there were 44 sports parks, 35 of which were owned and managed by HCC. This report notes that while there was sufficient capacity overall, the difficulty in level of servicing fields for renovation indicates that capacity was marginal in some areas and for some codes.

⁴ New Zealand Recreation Association Parks Categories Framework 2017

Table 1 Hamilton City Council Sports Park Level of Service 2012/13⁵ ('Yardstick' data)

Measure	Area	Provision (148,100 pop)
HCC Sports park area	329.0 ha	2.22 ha per 1000
Areas of sports fields	(Grass) 85.6 ha (Other) 3.2 ha	0.60 ha per 1000

Table 2 Hamilton City Council Sports Park Level of Service 2016/17 ('Yardstick' data)

Measure	Area	Adjusted provision (165,400 pop) ⁶
HCC Sports park area	498.0 ha	3.01 ha per 1000
Areas of sports fields	(Grass) 96.0 ha (Other) 2.5 ha	0.60 ha per 1000

Comparison of data in 2012/13 and 2016/17 (Tables 1 and 2 above), shows that the numbers of sports fields has increased 11% from 88.8 to 98.5 fields and the population estimate for HCC has increased by nearly 12%, so that 2016/17 provision of sports fields is marginally less than 2012/13, but still has the same value per 1000 population. The area of sports parks has increased by 51%, or 36% per 1000 population, but not all of this land has yet been developed as sports fields.

HCC does not have recent sports field satisfaction survey information to assess the level of service of current sports field provision, however staff advise there are no significant concerns being raised by Hamilton sports clubs with regard to the availability of fields. Provision of sports fields marginally decreased between 2012/13 and 2016/17, and the conclusions of the 2013 report that sports field provision is adequate are considered to retain relevance.

2.4 Comparison of provision of sports parks and fields

'Yardstick' data from 24 contributing Councils in 2016/17 provides a comparison between HCC and other Territorial Authorities. The data has a wide range in total sports park areas (1-8.8 hectares per 1000 population), and a wide range in the provision of numbers of sports fields (0.43-3.48 per 1000 population). The three areas with the highest sports field provision are lower population growth areas.

To provide a more meaningful comparison, 2016/17 data from a cohort of six Territorial Authorities as defined in section 1.2 provides the following information (cohort data excludes Hamilton): The 2016/17 data has been adjusted using NZ Statistics 2017 sub-regional estimates.⁷, (Table 3).

Table 3 Comparison 'Yardstick' cohort Councils 2016/17

2016/17	Range (ha)	Mean (ha)	Median (ha)	Hamilton (ha)
Sports park area per 1000 pop. ('Yardstick')	1.08-2.33	1.60	1.52	3.01
Sports fields grass per 1000 pop. ('Yardstick')	0.43-1.23	0.78	0.77	0.60

The area of HCC sports parks per 1000 people is relatively high compared with other cohort Territorial Authorities, however the area of sports fields is less than both the mean and the median figures from the cohort, suggesting that HCC sports fields are generally associated with larger areas of land that is

⁵ Note: Yardstick data is collected near the end of the Territorial Authority financial year, and data recorded in 2013 is relevant to the 2012 winter sports season

⁶ NZ Stats Subnational Policy estimates extracted November 2018

⁷ Statistics NZ Dataset: Subnational Population Estimates extracted November 2018

either undeveloped or used for more general recreation or biodiversity purposes. The ratio between sports park areas and sports field areas in HCC is an outlying figure compared to the cohort Territorial Authorities, and, the current HCC area of sports parks per 1000 people is not considered to be a useful comparison for predicting sports park needs.

2.5 Discussion

Information from the 2013 report on winter sports fields indicates that the level of provision of sports fields in 2012 was sufficient overall for winter sports but marginal for some areas and codes, and for renovation and other closures. The numbers of sports fields per 1000 population is almost unchanged between 2012/13 and 2016/17, with a very marginal decrease.

'Yardstick' data indicates that the median NZ sports park area is approximately double the median sports field grass area. A ratio of 2:1 between the area of Sports Park and area of sports fields will provide better buffers and amenity for larger parks. Without detailed site specific information and design requirements including associated facilities, it is reasonable to use a rough benchmark in initial analysis for a sports park as double the sports field area.

For initial planning, the required area of sports park to provide adequate numbers of sports fields for future residents of the Peacocke area is estimated at 1.20 hectares per 1000 population.

Where the sports parks are associated with informal recreation areas such as Community Parks, there are likely to be efficiencies of land use with informal recreation activities extending into areas of buffers or areas that cannot be developed as sports fields, however concept design is required to more accurately predict overlaps. Sports parks may need to incorporate areas for ecological services, drainage or similar.

As Territorial Authorities aim to respond to the demand for active sport requirements, the average provision of sports fields by cohort Territorial Authorities is also relevant. A demand for sports fields of 0.78 hectares per 1000 population is another relevant benchmark. This figure, when doubled, suggests that 1.56 hectares of sports park per 1000 population would be appropriate provision. A higher level of service than Hamilton currently provides would improve management flexibility, and potentially give greater flexibility in the future for changing recreational needs and demographic changes.

3 Conclusions

To retain the existing adequate level of sports field provision in HCC, 1.20 hectares of sports park per 1000 population is assessed as a relevant benchmark for initial planning for the Peacocke area. This benchmark indicates that 24.0 hectares of sports parks is needed within the Peacocke area, including 2.76 hectares to meet the needs of future residents in the Amberfield subdivision area, (refer Table 4 below).

Table 4 Future provision of Sports Parks in Peacocke Structure Plan area

Development area	1.20 hectares per 1000	1.56 hectares per 1000
Peacocke (est. 20,000 additional population)	24.00 ha	31.2 ha
Amberfield (est. 2300 additional population)	2.76 ha	3.59 ha

Provision of 1.56 hectares of sports park per 1000 population would improve the existing level of service to a level that is in line with that of other Territorial Authorities in the 'Yardstick' cohort, and this level of provision would require 31.2 hectares of sports parks within the Peacocke area, including 3.59 hectares within the Amberfields subdivision area.

The recommended figures are estimates to assist in planning processes. While the recommended areas are in addition to the requirement for areas of Community Parks, concept design will determine whether combining these functions will reduce the overall area requirements.

While there are advantages in providing one large sports park centrally in the Peacocke area, the topography of the site including gullies and severance by planned transport links and other development requirements does not easily provide for an area of this size. Co-location of the sports parks with Community Parks is supported, and two sports parks could be associated with two of the Community Parks in the Peacocke area. On current information, including larger scale topographic maps, the location of the two major sports parks indicated in the Peacocke Structure Plan is supported.

Further investigation including more detailed topographic assessment and engineering estimates will further refine the area of parks required to provide for sports fields in association with other complementary activities for future residents of the Peacocke Structure Plan area.

APPENDIX B

**HAMILTON CITY WINTER SPORTS FIELDS: CAPACITY AND DEMAND
2013' FEBRUARY 2013 REPORT, MOMENTUM RESEARCH AND
EVALUATION LIMITED.**

HAMILTON CITY WINTER SPORTS FIELDS: CAPACITY AND DEMAND

Report Prepared for
Community Development and Leisure
Hamilton City Council
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February 2013



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Citation: Momentum Research and Evaluation Limited., (2013)., *Hamilton City Winter Sports Fields: Capacity and Demand*. Report prepared for Hamilton City Council, Hamilton, New Zealand.

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EXECUTIVE SUMMARY

The aim of this research was to use an already established Sports Field Methodology¹ to analyse the demand for field space for winter sports codes, in Hamilton, including sub-areas, during the winter, and as well to scope potential fields and undertake a stocktake of the facilities that are available on current fields and establish what the requirements are for this kind of infrastructure amongst the different sports codes and grades. The methodology included interviews with representatives of Regional Sports Organisations (RSOs) and Hamilton City Council (HCC) staff, a survey of football, rugby and rugby league clubs, and information from seasonal draws, a range of HCC, RSO and other documents and plans.

The overall finding is that the City had sufficient total capacity in 2012 to meet the total demand for the three winter codes, Football, Rugby, and Rugby League. However, when further analysed by Code, by sub-area, and by competition (weekend) versus training (weekday) capacity, there were some key areas where capacity was insufficient. These were:

- When analysed by Code, Football was reasonably well-served with a surplus of hours for both competition and training, but both Rugby and Rugby League had insufficient capacity for training, although there was sufficient capacity for competition play;
- When analysed by sub-areas, overall capacity was insufficient in the East Ward which had a deficit of 34 hours, compared to the West Ward with a surplus of 121 hours;
- When analysed by weekend (competition) and weekday (training) there was sufficient overall capacity to meet the competition demand, but not the training demand.

Further analysis, allowing for closures due to adverse weather, diminished the overall capacity however results showed that there was still sufficient overall capacity to meet the total demand. Future projections show that if the capacity remains the same (i.e. there is no further fields added or upgrading of current fields to increase their capacity) then the City will not by 2021, be able to meet the projected demand for the winter sports codes.

In 2012 there were 165 fields from 44 Sports Parks in Hamilton utilised by the winter sports codes for training and/or competition. Of these 44 parks, 35 were Council-owned and managed and the remainder were club or school-owned fields. The research identified a number of factors relevant to field capacity in Hamilton. These were:

- In Hamilton the fields are soil-based and whilst some have been upgraded with slit-drainage, most have not. As noted in the recent report, *Sport NZ Guidance Document for Sport Field Development Options*², soil-based fields generally have a lower capacity, than sand-carpet and/or artificial fields, as they become more waterlogged in wet conditions and conversely get overly hard in dry conditions. Issues of drainage and resultant field closures were raised by some of the clubs who participated in this research, particularly from those whose home grounds are particularly susceptible³.
- Currently the HCC is not always able to close fields for between-season maintenance and renovation, due to extended seasons for various sports. This is particularly an issue for the Autumn closure. Regular and

¹ The methodology that was to be used was developed by Longdill and Associates Ltd., for Sport New Zealand and was available on the Sport New Zealand website.

² Opus International, Ltd., (February 2013). *Sport NZ Guidance Document for Sport Field Development Options* Report prepared for Sport New Zealand. <http://www.sportnz.org.nz/Documents/our%20partners/Sport%20NZ%20Sports%20Field%20Surfaces%20Guidance%20Document%20FINAL.pdf>

³ The extent to which a field will become waterlogged is not just about being soil-based but is also related to the type of soil (e.g. peat) and geographical features (e.g. low-lying, susceptible to run off). Some fields are therefore more prone to being waterlogged than others.

consistent maintenance with annual renovation at least twice per year is vital to ensure that soil-based fields are maintained at optimum levels⁴.

- Although Hamilton may have the capacity for community sport, there was some evidence that higher level games and competitions are not able to be hosted as the quality of the fields and the current facilities are not of a sufficiently high standard.
- There was some evidence that some of the HCC fields are being used for training purposes, by teams (often school, rather than club teams), without being booked. This impacts on capacity as it can mean that fields are over-used during the week making them less available for competition, and as well it can be frustrating for a team who have booked a field to find it in use by another team.
- In terms of facilities, the fields had a range of different facilities and there were identified maintenance issues with some facilities (e.g. substandard changing rooms and toilets). Hamilton has some fields with lights, although these are primarily owned and managed by the clubs; some issues were identified such as other users using the light spill, dim lights at one part, and one request for lighting (and drainage) to increase capacity at one park.
- Although HCC has some spare fields, most of these would need further upgrading and development in order to be able to be used regularly or as surplus fields in the event of closures;
- Clubs currently mark the fields. Some use weedkiller (rather than paint) and as well often use permanent (rather than moveable) goals due to issues with storage; these factors often limit the usage to junior games (particularly for football) and thus decrease the capacity of the fields, as they cannot be played across.
- The current booking system does not allow the Council to accurately track and monitor the use of the fields, as bookings can be seasonal or half-day⁵. Whilst the current research has been undertaken to determine the level of demand in 2012, it would be useful for Council to consider ways that they can utilise in-house systems to track actual usage.

While the research findings show that Hamilton City had sufficient total capacity in 2012 to meet the total demand for the three winter codes, when further analysed there were deficits for training, and for Rugby and Rugby League. The East Ward had more deficits than the West Ward and future projections indicate that the demand will outstrip capacity by 2021.

These findings indicate that the HCC needs to increase field capacity, either by improving existing fields or developing new fields or both, in order to meet both the current and future demand. In terms of where to focus development the East Ward would benefit more than the West Ward, and Rugby League and Rugby are the Codes that have current deficits and therefore should be prioritised.

RECOMMENDATIONS

Based on the findings of the research, it is recommended that the Hamilton City Council:

1. Takes a more active role in managing the usage of their Sports Parks including:
 - a. Developing a more transparent booking system in order to be able to track and monitor actual usage of Hamilton Sports Parks;
 - b. Initiating policies and processes to encourage teams to book fields for training, and not use fields without booking. This may include policies to discourage teams from using the fields without booking (for example, penalties for the school/club who use a field without booking);

⁴ Refer to: Opus International, Ltd., (February 2013). *Sport NZ Guidance Document for Sport Field Development Options* Report prepared for Sport New Zealand. <http://www.sportnz.org.nz/Documents/our%20partners/Sport%20NZ%20Sports%20Field%20Surfaces%20Guidance%20Document%20FINAL.pdf>

⁵ For example, a club may book a park for a Saturday morning (i.e. 8 to 12), however they only use the park for 2 hours from 9 to 11, not for the 4 hours that are booked. Similarly, a club may make a seasonal booking, for every Saturday of the season, but they may not use the park for the whole season.

- c. Identifying which fields are suitable for which Codes and ensuring that the right Codes are booked on these fields.
 - d. Taking responsibility for marking fields, providing storage or moveable goals, and providing or managing lighting, in order to increase the usability of fields and assist with monitoring of the usage.
2. Invest in their field maintenance programme in order to maintain the current Sports Parks to a high standard, including:
 - a. Ensuring that the current Sports Parks have regular and consistent maintenance;
 - b. Ensuring that the Sports Parks are closed between seasons for bi-annual maintenance and renovation, even if this means the Codes have to shorten their seasons or consider alternative venues;
3. Invest in improving, upgrading and increasing the Sports Park facilities (e.g. toilets and changing rooms) as required, by:
 - a. Assessing the state of the current facilities (e.g. toilets and changing rooms) at the Sports Parks and prioritising facilities for upgrading;
 - b. Assessing the provision of facilities at the Sports Parks and prioritising the installation of new facilities.
4. Improve the capacity of the City's Sports Parks over the next ten years including:
 - a. Improving the quality (i.e. drainage, sand carpet), and thus capacity, of current fields, with a priority for the Codes that have current capacity deficits (e.g. Rugby League);
 - b. Allocating parks that can be utilised as 'surplus parks', in the case of cancellations, and ensure these are developed to an acceptable standard;
 - c. Increasing the number of available fields, by developing at least four new full size fields, preferably sand carpet, by 2020, and preferably in the East Ward area, in order to keep up with the projected future demand.
5. Develop grounds that can be used for higher level competitions, for the Codes who do not currently have this facility.

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1.0 INTRODUCTION

1.1 BACKGROUND

Hamilton City Council intends to develop a Sports Field Strategy to ensure that the future of sport in the city is well catered for now and in the future. Momentum Research and Evaluation Limited was engaged to undertake research for the Hamilton City Council regarding the current demand and capacity for winter sports codes.

1.2 SPORTS FIELD DEMAND RESEARCH

The aim of the project was to use an already established Sports Field Methodology⁶ to analyse the demand for field space in Hamilton, including sub-areas, during the winter. The main sports to be included in the methodology were rugby, rugby league, and football. The objectives of the research were to:

1. Determine the number of sports fields that are available for use;
2. Determine the demand for field space;
3. Determine the resulting gaps in field provision from the comparison of field availability with field demand, including accounting for the growth in population and sport popularity, with projected gaps for the following ten years;
4. Scope potential fields that are available and could be utilised as sports fields in the future. This may include school sports fields and undeveloped fields; and
5. Undertake a stocktake of the facilities that are available on current fields (toilets and changing rooms) and establish what the requirements are for this kind of infrastructure amongst the different sports codes and grades.

1.3 METHODOLOGY

1.3.1 PARTICIPANTS

The participants included in the research included representatives of Sports Clubs (n=35⁷); Parks and Open Spaces Unit staff, Hamilton City Council staff (n=4) and staff or volunteers from three Regional Sports Organisations (RSOs) for Football (n=4), Rugby (n=2) and Rugby League (n=3).

1.3.2 PROCESS

The following outlines the process that was undertaken to collect, collate and analyse data from all the sources.

The initial intention of the research was to use the Sports Field Demand (SFD) Methodology, developed for Sport New Zealand by Longdill and Associates Limited. Whilst there were some aspects of the way in which sport is organised in Hamilton which were incompatible with the model, the underlying assumptions of the SFD Model did inform the research, some of the data collection tools provided with the model were utilised and some aspects of the spreadsheet provided with the model were used. The process was as follows⁸:

1. Determine the number of fields available within the City for competitions and training, for each Code;
This data was sourced from: (i) Hamilton City Council documents and plans; (ii) Hamilton City Council staff; (iii) the season's draws for each Code; (iv) RSO staff interviews and spreadsheets; and (v) completed questionnaires from the clubs who reported where they trained.

⁶ The methodology that was to be used was developed by Longdill and Associates Ltd., for Sport New Zealand and was available on the Sport New Zealand website.

⁷ Note that all football, rugby and rugby league clubs were given the opportunity to participate. The majority participated.

⁸ Note that the method used for calculations for each aspect of the research, is described in more detail in the Findings section of the report.

2. Determine the winter capacity (i.e. hours of use) of the fields for competition (i.e. weekend) and training (i.e. weekday);

This data was sourced from Hamilton City Council staff who provided capacity data for each field within each Sports Park, and as well the allocation for weekend and weekday use.

3. Determine the demand (i.e. the number of teams within each code, number of games played on the fields, and the number of hours of competition and training for each grade, within each code and as well the projected number of teams over the next ten years).

This data was sourced from: (i) the RSOs who provided team lists for each grade and the seasons' draws; (ii) the completed questionnaires from the clubs who reported the frequency of training for each grade; and (iii) the Census 2006 population data for the City.

4. Create spreadsheets to enter the data into and formulas to calculate the capacity and demand, and as well to calculate the future demand;

5. Calculate the differences between capacity and demand.

The analysis of the data included calculating the differences between capacity and demand across Codes, Wards, Grades, competition, training and as well determining future need using population projection data.

As well as the above the Hamilton City Council documents were accessed to determine the available facilities at the Sports Parks, and the clubs were also invited via the questionnaire to report on any other issues and concerns. This information was then cross-checked with Hamilton City Council staff, RSOs and clubs and amendments made where needed.

1.4 DOCUMENT LAYOUT

This document reports on the findings of the research and is organised as follows:

- Chapter Two presents the key findings of the research;
- Chapter Three provides overall concluding comments and recommendations.

2.0 FINDINGS

2.1 INTRODUCTION

The following chapter presents the key findings from the research. The first section covers key points about the data followed by information about the number of fields and the facilities at the parks, then the sports field capacity and demand data. A summary of the key findings completes the section.

2.2 ABOUT THE DATA

A range of data is presented in this chapter. The following outlines some key points relevant to the data being presented.

Unless otherwise stated, the data relates to the use of Council-owned fields, or those non-Council owned fields for which a formal agreement exists. A formal agreement is one which involves the club having an agreement for use with the owner, for either training or competition, which is for more than one year. The fields that fit into the ‘non-Council owned fields for which a formal agreement exists’ category may be school fields or they may be privately owned. For the purposes of this report the term ‘community fields’ is used to refer jointly to fields that are either Council-owned or non-Council owned fields for which a formal agreement exists. Where the report refers to one or the other this is stated explicitly (e.g. Council-owned fields or school fields or privately owned fields for which there is a formal agreement).

In terms of school teams, if school sports teams use the Council fields, for either competition games, training or both, then they are included in the numbers. If schools have some teams who use Council fields for either competition games, training or both, and some who do not, then a proportion of the teams are counted. For example, a school may have ten teams, and of these five play competition games on Council fields (as their home field) and five play on school fields (as their home field) and all ten teams train on school fields. Therefore, five teams would be counted in the ‘competition’ figures and zero in the ‘training’ figures, as they do not make use of Council fields for training purposes. This is so that the use of Council (community) fields is accurately captured.

The above example about school teams mainly applies to football. In Hamilton, junior football is played by both club and school teams and these teams play each other in the competition. So, Hillcrest Junior Football Club will play against St Josephs School, for example. However whilst the club may use Council fields for competition and training, the school may use a combination of school and community fields for both competition and training, depending on the available fields they have. As well, with Secondary football, although school-based, there are a number of schools which utilise Council fields for either competition games, training or both, as they do not have sufficient school grounds to accommodate the number of teams they have. One Secondary school for example, has no fields at all, whilst others have some fields, but have more teams than the fields can accommodate.

The data presented only relates to winter seasonal ‘peak time’ play; that is it refers to regular usage over the peak of the season. To this end the pre-season training is not included and as well one-off competitions or tournaments are also not included. Essentially, what this means is that the information presented is not the total number of teams or games or training that occurs between April and September in Hamilton. It is instead about the teams, games and training that occur on Council fields, or fields for which a formal agreement exists, over the peak winter season.

The information presented is divided into the Hamilton City Wards (West Ward and East Ward). This has been calculated based on information received from clubs, about where the majority of their members live, as opposed to where the club is based.

2.3 SPORTS PARKS AND FIELDS

This section presents data in relation to Sports Fields in Hamilton across the three codes, football, rugby and rugby league. The research objectives relevant to this section are: (1) Determine the number of sports fields that are available for use; (4) Scope potential fields that are available and could be utilised as sports fields in the future; and (5) Undertake a stocktake of the facilities that are available on current fields (toilets and changing rooms) and establish what the requirements are for this kind of infrastructure amongst the different sports codes and grades.

2.3.1 NUMBER OF SPORTS PARKS

Hamilton City Council oversees 60 Sports Parks⁹ within the City. Of these, some are hard surfaces (e.g. netball courts, tennis courts), some have specific uses or facilities for specific sports (e.g. St Andrews Golf Course, Waikato Stadium, Hillcrest Bowling Club), and some are leased by other clubs or organisations (e.g. Railway Park, Berkeley Tennis Courts). The remainder are developed to varying levels for use by various sporting codes; that is some have had drainage improvements which enable them to be used more frequently and for higher level competitions whilst others have had limited development and are more suited to informal use or limited training use.

As well as the City Council Parks there are other Sports Parks within the City that have also been included in this research. These include those that are owned by clubs¹⁰ (e.g. Stan Heather Park) or owned by another entity but available for club and/or community use (e.g. Waikato University)¹¹ and, whilst most school fields have been excluded¹², there are some school fields¹³ that are leased or used by clubs for training or competition, and these have also been included.

Overall in terms of Winter Codes, the research identified that there are a total of 44 Sports Parks or grounds that were used for either or both training and competition in 2012 for either football, rugby, or rugby league. Of these 35 were Council-owned Sports Parks that are 'developed', and nine were 'other parks' (two owned by clubs, one by the University and six school fields) that were used by clubs in 2012 for either training, competition or both. In addition there are seven undeveloped Sports Parks that could be considered as 'potential' future fields, if needed, although it must be noted that most of these would require varying levels of development to enable them to be used, and not all would be able to be developed to 'competition' level. As well the City has six other undeveloped sites¹⁴ that could be utilised in future.

As Table 1 shows football has the most parks available and rugby league the least. This is not surprising as there are significantly more football teams in the City than rugby or league teams¹⁵. The Table also shows that some parks are shared by more than one Code (e.g. Swarbrick Park); this is usually for training purposes rather than competition.

⁹ Source: Hamilton City Council, Operative Sports Park Management Plan, 2009.

¹⁰ Note that, one of these parks (Stan Heather) was sold in 2012. The expectation at this stage is that it may be available to the clubs and teams who have traditionally used it, for part or all of the 2013 rugby season although after this it will no longer be available. As well, the extent to which it will be available in 2013 is totally dependent on the goodwill of the new owner, who intends to develop it, and how soon they would be able to start development and/or whether or not they are happy for it to be used in the interim.

¹¹ Club-owned fields and the University are included in the model as whilst the clubs or University own them, they are used for community-based competitions so community based teams play on the fields. As well, if the clubs decide to sell (e.g. as in the case of Stan Heather) or otherwise no longer have use of the fields, then would be looking elsewhere for a venue, with the most likely alternative being an HCC park.

¹² School fields are excluded because most school sport is played on these fields the provision of which is the responsibility of the Ministry of Education (Sports Field Methodology Guidelines, p.6).

¹³ School fields that are used by clubs, for either training or competition, have been included in the model. School fields used by school teams are not included. The reason that 'school fields used by clubs' are included in the demand is they although the fields are not HCC fields, they are being used by a community organisation (not a school) and as such the schools are not obliged to provide facilities for a community club and if the school/s decided (in the future) to not allow a club to use a field, then the club would be looking elsewhere for a venue, with the most likely alternative being an HCC park.

¹⁴ The six sites referred to here are three recreation parks (Mangaiti Park, Te Manatu Park, Minogue Park), and three other land areas (Litt land, North City Rd, and Rotokauri). These sites have not been included in Table 1 as they are not in the Sports Park Management Plan, however they have been included in future calculations (see Section 2.4.7 of this report).

¹⁵ In 2012 there were 301 football teams using community fields, 175 rugby teams and 40 rugby league teams (see Appendices for more detail on each Code).

TABLE 1: NUMBER OF SPORTS PARKS FOR WINTER CODES

Park	Code		
	Football	Rugby	League
HCC Sports Parks (developed) and used in 2012 season			
Ashurst Park	✓		
Beetham Park		✓	
Bremworth Park	✓		
Chartwell Park	✓		
Clyde Park	✓		
Discovery Park	✓		
Dominion Park	✓		
Elliott Park		✓	
Enderley Park			✓
Fairfield Park	✓		✓
Fitzroy Park	✓		
Flagstaff Park	✓	✓	
Flynn Park	✓		
Fraser Tech Park		✓	
Fred Jones Park		✓	
Galloway Park	✓		
Glenview Park	✓		
Gower Park	✓		
Grosvenor Park	✓		
Hillcrest Park	✓		
Hillcrest Stadium	✓		
Innes Common	✓		
Jansen Park	✓		
Kahikatea Park	✓		
Marist Park		✓	
Porritt Stadium	✓		
Railway Park	✓		
Raymond Park	✓		
Resthills Park			✓
St Andrews Park		✓	
Steele Park		✓	
Swarbrick Park		✓	✓
Vardon Park	✓		
Vickery Park	✓		
Willoughby Park		✓	
Other Parks/ Grounds used in 2012 season			
Collins Rd (Melville Rugby Club)		✓	
Stan Heather Park		✓	
Waikato University	✓	✓	
Berkley Middle School	✓		
Hamilton East School	✓		
Knighton School	✓		
Marian School	✓		
St Paul's Collegiate	✓		
Vardon School	✓		
Undeveloped HCC Sports Parks			
Deanwell			
Derek Heather			
Mahoe			
Rhode St			
Te Anau			
Te Kooti			
Tauhara			

2.3.2 NUMBER OF FIELDS

Within the 44 parks, there were a total of 155 fields, across all three Codes, used for competition games in 2012 (Figure 1) and 165 fields, across all three Codes, available for training in 2012. Figure 1 shows the number of fields, by Ward, Code and field size that were used in 2012 for competitions¹⁶, and Figure 2 shows the number of fields used for training. In terms of numbers of fields for training, there are some differences in the numbers, as some fields are only used for training. As well, the competition field numbers were compiled from the draws so only fields that were used in 2012 were included; i.e. there may have been more available fields but if they were not used during 2012 for games, then they were not included.

FIGURE 1: COMPETITION: NUMBER OF FIELDS BY CODE, FIELD SIZE AND WARD (N=155)

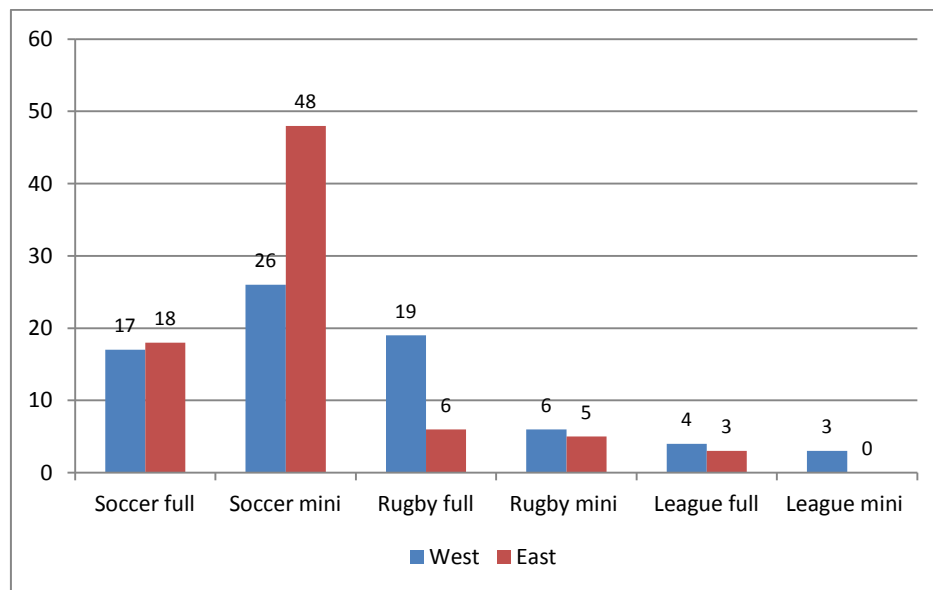
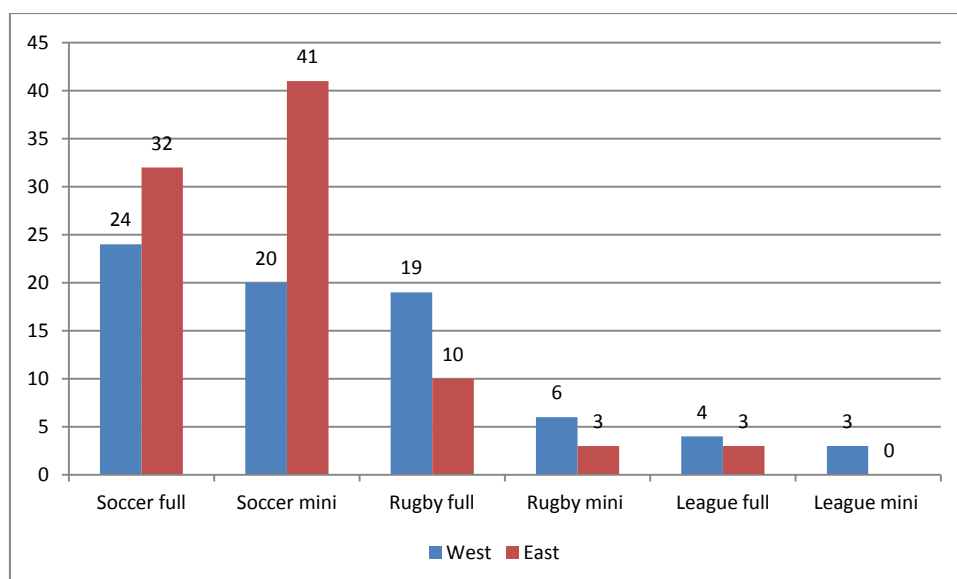


FIGURE 2: TRAINING: NUMBER OF FIELDS BY CODE, FIELD SIZE AND WARD (N=165)



¹⁶ Note that the number of competition fields was determined by accessing the draws for each code and noting from these, the fields in use, by grade. This information was compared to the Hamilton City Council booking information. Two meetings were then held; one with representatives from WaiBOP Football (as football had some specific differences between the draw and the booking information due to the varying size fields that are used in football) and one with the Hamilton City Council Sports Parks representative to cross-check and get agreement on the number and sizes of the fields for each park.

Of note, in relation to the number of fields is that this number changes each year, dependent on need. For example, Discovery Park has three full size football fields; in 2012 these were marked out as one full size field, 9 junior fields (9 per full size field) and one field was marked into 12 for Junior Framework¹⁷. However in 2011, the fields at Discovery Park were marked as two full size fields and 9 junior fields. This makes calculating future projections difficult as the formulae used are based on the fact that the number of fields are static, whereas in Hamilton this number changes each year. As well, the clubs mark the fields¹⁸ and in many cases they use weed killer¹⁹ as opposed to more expensive and time-consuming paint, which may be beyond the budget and time-resource of the club. Weedkiller lasts longer but also 'pits' the ground, making it less able to be played across, particularly for football²⁰. This impacts directly on capacity as while the field may be able to 'handle' more playing time, if it is marked out for Junior football games it is limited, for the season, to Junior games.

2.3.3 FIELD USAGE

As was presented earlier there are 165 fields²¹ and 44 parks included in the research. The information from the draws for each Code, and the training information provided by the clubs was analysed to determine which fields were used in the 2012 season. The following table presents the usage for competition and training by Code.

As the table indicates most fields were used for both training and competition. In general football and rugby clubs train and play home games on the same park, which acts as their 'home ground'. Rugby league only uses two parks for competition but uses five parks around the City for training, and of these shares two with another Code. What this means is that while teams might have a park they train on, they play their home games on another park, either in the City or, in the case of mini and mod league, outside the City.

TABLE 2: COMMUNITY FIELDS USED FOR COMPETITION AND TRAINING, DURING 2012 SEASON, BY CODE

Park	Used for Competition in 2012			Used for Training in 2012		
	Football	Rugby	League	Football	Rugby	League
HCC Sports Parks (developed) and used in 2012 season						
Ashurst Park	✓			✓		
Beetham Park		✓			✓	
Bremworth Park	✓			✓		
Chartwell Park	✓			✓		
Clyde Park	✓			✓		
Discovery Park	✓			✓		
Dominion Park	✓			✓		
Elliott Park		✓			✓	✓
Enderley Park			✓			✓
Fairfield Park	✓			✓		✓
Fitzroy Park	✓			✓		
Flagstaff Park		✓			✓	
Flynn Park	✓			✓		
Fraser Tech Park		✓			✓	
Fred Jones Park		✓			✓	
Galloway Park	✓			✓		
Glenview Park	✓			✓		
Gower Park	✓			✓		
Grosvenor Park	✓			✓		
Hillcrest Park	✓			✓		
Hillcrest Stadium	✓			✓		

¹⁷ Junior Framework is a football development programme.

¹⁸ This differs from some other areas (e.g. Auckland) where the Council marks the fields.

¹⁹ Source: anecdotal information from interviews and conversations with club representatives.

²⁰ Football is played across or on the ground whereas rugby and league are played over the ground and as such a 'smooth' playing field is less of an issue for rugby or league than it is for football where a 'dip' in the ground will alter the way a ball travels.

²¹ Note that this includes both training fields of which there were 165, and competition fields of which there were 155, and includes Council-owned and school or community owned fields that are used by clubs.

Park	Used for Competition in 2012			Used for Training in 2012		
	Football	Rugby	League	Football	Rugby	League
HCC Sports Parks (developed) and used in 2012 season						
Innes Common	✓			✓		
Jansen Park	✓			✓		
Kahikatea Park	✓			✓		
Marist Park		✓			✓	
Porritt Stadium	✓			✓		
Raymond Park	✓			✓		
Railway Park	✓			✓		
Resthills Park			✓			✓
St Andrews Park		✓			✓	
Steele Park		✓			✓	
Swarbrick Park		✓			✓	✓
Vardon Park	✓			✓		
Vickery Park	✓			✓		
Willoughby Park		✓			✓	
Other Parks/ Grounds used in 2012 season						
Collins Rd (Melville Rugby Club)		✓			✓	
Stan Heather Park		✓			✓	
Waikato University	✓	✓		✓	✓	
Berkley Middle School				✓		
Hamilton East School				✓		
Knighton School	✓			✓		
Marian School				✓		
St Paul's Collegiate	✓			✓		
Vardon School	✓			✓		

2.3.4 FACILITIES

In terms of facilities, the parks differ, across the city. Some have clubrooms that are owned by clubs who use the parks (e.g. Resthills Park), some have toilets and changing rooms and others do not. The existence of toilets and changing rooms impacts on the amount of use a park can be put to. For example, adult competition games generally require changing rooms whilst junior games do not. The following table provides a summary of the facilities available at each Park.

TABLE 3: FACILITIES AT SPORTS PARKS

Park	Facilities						Comment
	Toilets ⁴	Changing Rooms	Storage Facilities	Lights	Car parking spaces	Club rooms	
Ashurst Park	✓	✓	✓	✓	80	X	
Beetham Park	✓	✓	✓	x	50	X	
Bremworth Park	✓	✓	✓	X	25	✓	
Chartwell Park	✓	X	X	X	X	X	
Clyde Park	✓	X	X	X	30	X	
Discovery Park	✓	✓	X	X	30	X	
Dominion Park	X	X	X	X	X	X	
Elliott Park	✓	✓	✓	✓	65	X	
Enderley Park	✓	✓	X	✓	50	X	
Fairfield Park	✓	✓	X	✓	40	X	
Fitzroy Park	✓	✓	X	X	22	X	
Flagstaff Park	✓	✓	✓	✓	60	✓ R	
Fraser Tech Park	✓	✓	✓	✓	X	✓	Clubrooms across the road
Fred Jones Park	✓	✓	✓	✓	✓	✓	

Park	Facilities						Comment
	Toilets ⁴	Changing Rooms	Storage Facilities	Lights	Car parking spaces	Club rooms	
HCC Sports Parks (developed) and used in 2012 season							
Galloway Park	✓	✓	✓	✓	25	✓	
Glenview Park	✓	✓	✓	X	20	✓	
Gower Park	✓	✓	✓	✓	60	✓	
Grosvenor Park	✓	X	✓	X	X	X	
Hillcrest Park	✓	✓	✓	X	43	X	
Hillcrest Stadium	X	X	X	X	X	X	
Innes Common	✓	✓	✓	X	80	✓	
Jansen Park	✓	✓	X	X	60	✓	
Kahikatea Park	✓	X	✓	✓	X	X	
Marist Park	✓	✓	✓	✓	72	✓ R	
Porritt Stadium	✓	✓	✓	✓	146	✓	
Railway Park	✓	✓	✓	✓	30	✓ F/R	
Raymond Park	✓	✓	✓	X	25	X	
Resthills Park	✓	✓	✓	✓	176	✓ RL	
St Andrews Park	✓	✓	✓	✓	80	✓ R	
Steele Park	✓	✓	✓	✓	X	X	
Swarbrick Park	✓	✓	✓	✓	35	✓ R	
Vardon Park	✓	X	X	X	X	X	
Vickery Park	X	X	✓	X	X	X	
Willoughby Park	✓	✓	✓	✓	X	X	
Other Parks/ Grounds used in 2012 season							
Collins Rd (Melville Rugby Club)	✓	✓	✓	✓	80	✓ R	
Stan Heather Park	✓	✓	✓	X	X	✓ R	
Waikato University	✓	✓	X	X	✓	X	
Berkley Middle School	✓	X	X	X	✓	X	
Hamilton East School	✓	X	X	X	✓	X	
Knighton School	✓	X	X	X	✓	X	
Marian School	✓	X	X	X	✓	X	
St Paul's Collegiate	✓	✓	X	X	✓	X	
Vardon School	✓	X	X	X	✓	X	
Undeveloped HCC Sports Parks							
Deanwell	X	X	X	X	X	X	
Derek Heather	X	X	X	X	X	X	
Mahoe	X	X	X	X	X	X	
Rhode St	X	X	X	X	X	X	
Te Anau	X	X	X	X	X	X	
Te Kooti	X	X	X	X	X	X	
Tauhara	✓	X	X	X	45	X	

Notes: 1. TBA: To Be Advised

2. Beetham has access to adjoining facilities at Willoughby Park

3. Clubrooms: R = Rugby; F = Football; RL= Rugby League

4. The toilets noted here are public toilets, not toilets in club rooms

As part of the research, participants were asked to identify any issues in relation to parks or fields. The following points were raised²².

FIELD QUALITY

Field quality was raised by six clubs: one rugby league and five football clubs. Council staff also provided information on field quality issues.

Drainage is an issue for most of Hamilton's fields. As one club representative summarised *'the council owned fields require more attention. They are rough water logged and generally lack the field quality required for sport.'* A few issues were raised in relation to specific parks. For Resthills Park there was the view that draining the lower fields would increase capacity for junior rugby league games. For Gower Park concern was expressed that use was very weather-dependent as fields could quickly become unplayable and have to be closed at short notice, and both Jansen Park and Porritt Stadium were considered to have some drainage issues.

"[Gower Park] is peat-based so the weather can impact. They'll drain quickly but can pack up and be unusable at short notice. You have to be flexible."

"Drainage at Jansen Park is a major concern (beside Morrinsville Rd). However, otherwise Jansen Park is an excellent park."

"The quality of the playing surface at Porritt is appalling and could lead to a player having a serious injury due to the state of the playing surface ... the club has had to move training sessions and games away from Porritt because of grave concerns around players receiving a serious injury."

The quality of the playing surface at Ashurst Park was also considered sub-standard although it was noted that there had been some improvement, in the past three years.

"The quality of the playing surface at Ashurst Park [is a concern to us] although this has improved slightly over the last three years but not to a standard we would like."

Concern was also expressed by football clubs, about fields being over-used, by other codes, for training, with the resulting over usage, rendering the fields unplayable for football.

Raymond Park²³ is where our Junior Teams play and train. The club books the venue with the HCC however we have learnt the HCC has allowed these other codes [Rugby League and Touch] to use the venue which is making the pitches boggy and unplayable ... the fields are unplayable due to the high usage on the fields which we believe is making the quality of the playing fields unacceptable."

Also of relevance to field quality is that whilst this research looked at the peak season usage of the fields in Hamilton, some of the Codes also noted that whilst they could play junior and community level sport, there was a lack of suitable fields for higher level competitions. Football gave examples of competitions that had to be played out of town (e.g. Bay of Plenty) as Hamilton did not have enough quality fields available.

The fields in Hamilton are typically soil fields which is relevant to the quality as *'fields with sand slit drainage and sand carpets have a lot greater tolerance to variations in the winter weather than soil fields.'* While some Parks have fields with slit drainage, most have not. Investing in improving the quality of fields would increase the capacity.

²² Sources for this information include interviews and meetings with RSOs, HCC staff, Club representatives, Club questionnaires and HCC documentation.

²³ Of note regarding this is that the HCC booking sheet for 2012 does not have Rugby League or Touch recorded as being booked to use Raymond Park.

FIELD MAINTENANCE

Related to field quality is field maintenance; i.e. mowing, fertilising, sowing turf. One football club commented on Galloway Park as not being well-maintained during the season.

[Galloway Park] is not well looked after or mowed for soccer. It is well-maintained throughout the cricket season but we struggle to get that same help having to mark and maintain the fields ourselves.

In terms of maintenance, feedback from Council staff indicates that a key issue for maintenance is being able to close the Parks for two to three weeks, in between seasons (i.e. at the end of each season, winter and summer) to undertake maintenance. Currently, due to extended seasons for various sports, there is often an overlap between seasons, and they are not able to undertake as much maintenance as is required; usually managing to close at the end of the winter season, but not at the end of the summer season. This lack of allocated maintenance time, impacts directly on turf quality and therefore capacity.

TOILETS , CHANGING ROOMS AND STORAGE

The toilet and changing room facilities at four parks were commented on by three clubs, one rugby league and three football clubs. At Enderley Park hygiene was a concern, and at Flynn Park the size of the changing rooms and the adequacy of the plumbing were issues. Galloway Park has half-completed changing rooms which are inadequate for the number of teams. At Porritt Stadium there was an issue of available facilities both for visiting teams, and for coping with the number of teams who played there regularly.

"[At Flynn Park] the changing rooms are really small and it's an old water system which doesn't function very well (for showers and toilets)."

"There is a strong odour from the [Enderley Park] toilets."

"Changing facilities at Porritt is [sic] a major concern. Last season we received a complaint from the Northern Federation reminding the club of our obligations to provide a changing room for the visiting premier league side that is private and not shared."

"There are only 3 changing rooms at Porritt but any given Saturday we could have between 8 – 10 teams changing in three changing rooms. Due to the congestion in the changing room, our top team is forced to change in the kitchen." ... "[Our] Club has grown its junior membership considerably over the past 2 years and we are the largest football club in the Waikato. However, the facilities at Porritt cannot cater for the current level of membership."

"[Galloway Park] changing facilities are half-completed. Four changing rooms for 10 teams is a struggle."

Theft and safety issues were raised about Enderley Park.

"Our gear has been stolen from the storage area so we no longer store our gear there, which can be an inconvenience." And "Many people utilise the park and at times we have felt for the safety of our players."

LIGHTING

Lighting²⁴ was mentioned by four clubs; two rugby league and two football clubs. At Swarbrick Park the lighting was considered to be "poor", and at Resthills there was a request for lighting, together with drainage, in order to increase capacity.

²⁴ Note that in Hamilton the lights are owned by the clubs.

“If they could put lights on the top and bottom [at Resthills] and it could be drained and set up and would be perfect for Junior games.”

A football club was concerned that others (e.g. social teams, general public, other clubs) were using the light spill from their floodlights for training and /or recreational use. This has an impact on field capacity as the park is being used by more than just the club that has booked it for that time, thus causing more wear on the turf. Another football club noted that they had fundraised for lights, for Jansen Park, however were unable to pursue installing lights as a neighbour of the park was not supportive of lights going in.

In other TLA areas lights are owned by the Council (for example, Tauranga). Booking for lights works on an hourly basis and on a timer system so that lights are only on for the period they have been booked for, thus limiting the use to the period of time the field is booked²⁵.

MOVEABLE GOALS VS PERMANENT GOALS

One of the ways to maximise field capacity is to be able to play both junior and senior games on one field. That is a full size field can be set up for junior games (played across the field) in the morning and then senior games in the afternoon. In fact the SFD model calculates capacity by converting fields from half to full size and vice versa with the assumption that the same field can be used for different grades. However, this is not always possible for football in particular due to how some of the fields are marked in Hamilton. If the marking issue was removed though, there is also the related need to have moveable goals for the junior games, as using permanent goals also inhibits the field being used for more than one grade. While some clubs in Hamilton do have and use moveable goals, some use permanent goals which are erected at the beginning of the season and removed at the end. The main reason given for not using moveable goals was the lack of storage at the Parks where goals could be kept in between games.

BOOKING SYSTEM

The current booking system for the Council Parks uses half-day booking system; that is clubs can book a field for a half-day (i.e. morning or afternoon). As well clubs can make seasonal bookings. The system does not allow the Council to be able to accurately track or monitor usage as the bookings do not correspond to actual usage. For example, a club may book a park for a Saturday morning (i.e. 8 to 12), however they only use the park for 2 hours from 9 to 11, not for the 4 hours that are booked. Similarly, a club may make a seasonal booking, for every Saturday of the season, but they may not use the park for the whole season (For example they may not have any games or training scheduled in the school holiday period).

2.4 SPORTS FIELD CAPACITY AND DEMAND: ALL CODES

This section presents data in relation to Sports Field Capacity and Demand in Hamilton across the three codes, rugby, football and league. The research objectives relevant to this section are: (3) Determine the demand for field space; and (4) Determine the resulting gaps in field provision from the comparison of field availability with field demand, including accounting for the growth in population and sport popularity, with projected gaps for the following ten years.

2.4.1 FIELD CAPACITY

In terms of determining field capacity there are a number of factors that impact on usage, that need to be taken into account²⁶. These factors are related to grass fields, not artificial turf and include:

²⁵ The club booking the lights is given a code that they use to switch the lights on when they get to the park. The lights stay on for the length of time they have been booked for (e.g. an hour) then automatically switch off once the booked time is up. The information on this system was provided by HCC staff.

²⁶ Source: the information that is discussed here came from a number of sources including email and discussions with HCC staff (Parks and Open Spaces); Hamilton City Council Sports Management Plan, meetings with RSOs and, agronomists at the New Zealand Sports Turf Institute who provided some overview on

- (i) *Season* – fields can tolerate more wear in Spring or Autumn than they can in Summer or Winter when the grass grows more slowly;
- (ii) *Weather* – the duration, quantity and timing of rainfall impacts on surface water levels and essentially the wetter the field the less tolerant it is;
- (iii) *Location*– fields that are, for example, located in wetter, lower lying areas (i.e. where the contour results in more run off) will have a lower capacity than those in dryer, more elevated locations as they will have higher levels of surface water following rainfall;
- (iv) *Quality or quantity* – fields can potentially tolerate any number of hours of play, however the more hours that are played, the more the damage the field sustains, so users may be able to play more but the field quality is less. In practice, this may mean, for example, that clubs have designated fields for training, which get a lot of use and are therefore of poorer quality, and designated fields for competition, which get less use and are therefore better quality. Also related to this is that the higher the level of competition²⁷ the more important quality is, which impacts on whether Hamilton can attract or host higher level competitions.
- (v) *Recovery time* – if fields typically get a lot of play over a short period, for example, 4 to 5 hours on a Saturday, then there is a need to limit the hours for the rest of the week in order to allow the field time to recover. Without recovery time the fields will get progressively worse;
- (vi) *Junior or senior* – as a general rule, children have a lesser impact on a field than adults, so a field that only has junior games will be able to tolerate more use than a field that has senior games;
- (vii) *Turf type* – fields vary in the type of turf they are (e.g. sand carpet, of which HCC has none, compared to turf), whether they have been upgraded (e.g. slit drained), the amount of maintenance that is carried out (e.g. fertiliser, Autumn and Spring renovation).

For the purposes of this research it was important to be able to determine the Winter season capacity of the fields in Hamilton in order to calculate the difference between the demand and the capacity. The Hamilton City Council Sports Park Management Plan (2009) has the following policy guideline (Section 3.3.4, p.19):

1. For winter sports fields Council will set the limit for use to approximately 16 hours per week with a maximum of 4 senior games on any one field and any combination of junior games and training sessions to make up the 16 hours. The use of areas set aside specifically as training grounds will be limited to 4 sessions per week (approximately 16 hours of use per week). These limits allow for the optimum use of the parks.

Also of note is that in terms of turf management, whilst a field may have an average capacity guideline (i.e. a maximum number of playing hours per week) HCC still has the option to close a park; i.e. if there has been heavy rainfall on Thursday and Friday, for example, a field may be closed for competition on Saturday, and this would be determined by visual inspection on a Friday afternoon. To this end there is the following statement in the Hamilton City Council Sports Park Management Plan (2009) (Section 3.3.4, p.20):

Council will control the intensity of use of sports fields and training areas to remain within the capacity of the turf.

The above guideline is a maximum and is applied across all the City's Sports Parks, however the parks differ in turf type, location, and whether they typically have junior or senior games. So HCC provided for this research²⁸, more

factors as part of the process of determining some average usage times for HCC parks. As part of quality assurance processes this information has been provided to the HCC parks and NZSTI for them to check its accuracy, and will be altered as needed for the final report.

²⁷ For example the Waikato Stadium is not used for training, only competitions, and as well its hours of competition usage are strictly regulated so that the field is able to be used for top-level competitions.

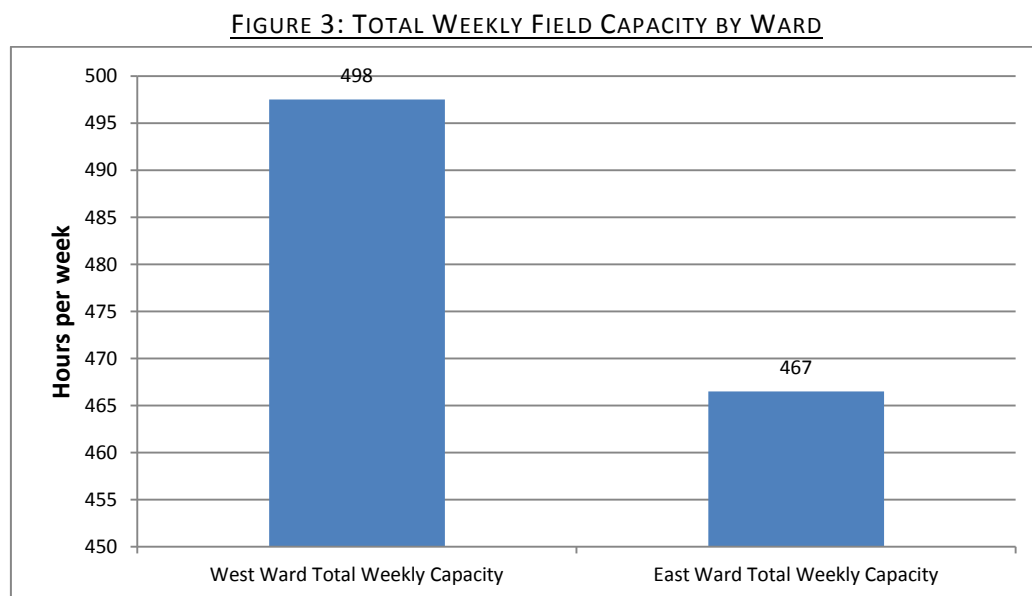
²⁸ HCC staff provided a spreadsheet which had weekly usage hours for each sports park, by field size (i.e. senior or junior) to account for the difference between children's games and adult's games.

specific and realistic guidelines for winter season usage for each sports park and it is these guidelines that were utilised for this research.

Overall the weekly capacity for the fields, in Winter, was calculated to range from 4 hours to 10 hours, with an average capacity of 8 hours per week. For school and other fields that have been included in the research, and for which capacity information was not readily available, the average capacity across the city (i.e. 8 hours) was used to calculate capacity.

Whilst the various constraints noted above (e.g. weather, location, turf type) were considered when determining some realistic capacity levels, they are an average and capacity for individual years could differ. For example, a particularly wet winter would decrease the hours. Conversely a very dry winter could mean a higher capacity. For the 2013 season, there was a summer drought and this will impact negatively on 2013 winter capacity as the grass has suffered from poor growth over the summer, so it will be less resilient.

The total weekly capacity of the 165 fields²⁹ in the 44 parks included in the research was calculated to be 965 hours³⁰ per week; 498 hours in the West Ward and 467 in the East Ward (see Figure 3).



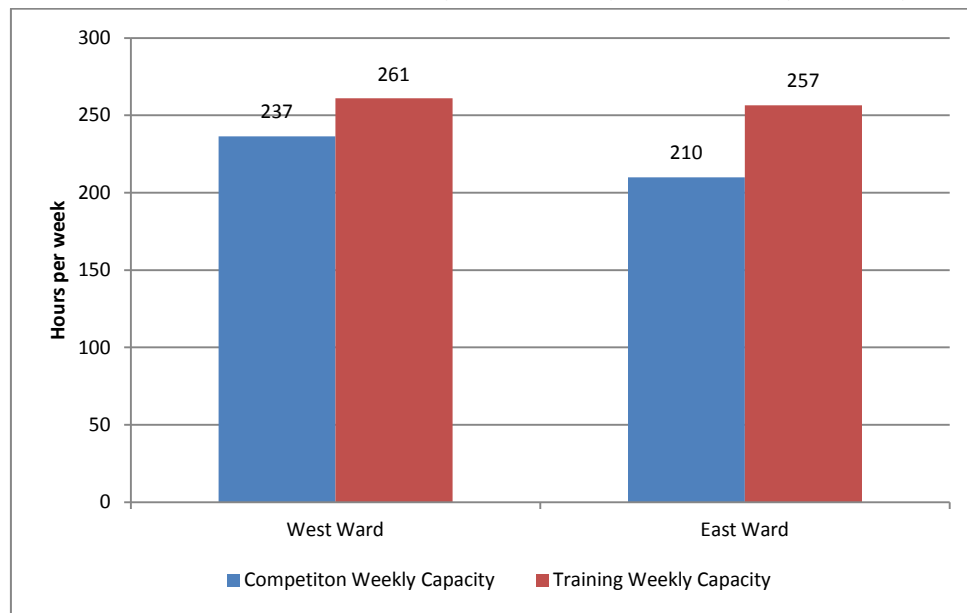
The capacity data was broken down further, in consultation with HCC staff, into capacity for weekend (competition) and weekday (training), and by the number and sizes of fields that were used in the 2012 season as per the competition draws, for each code.

The total capacity of the fields, for the weekend (i.e. competition), across all three codes, was 447 hours per week; 237 hours in the West Ward and 210 hours in the East Ward. The total capacity of the fields, for the weekdays (i.e. training), across all three codes was 518 hours per week; 261 hours in the West Ward and 257 hours in the East Ward (Figure 4)

²⁹ Note that this includes both training fields of which there were 165, and competition fields of which there were 155, and includes Council-owned and school or community owned fields for which there is a formal agreement.

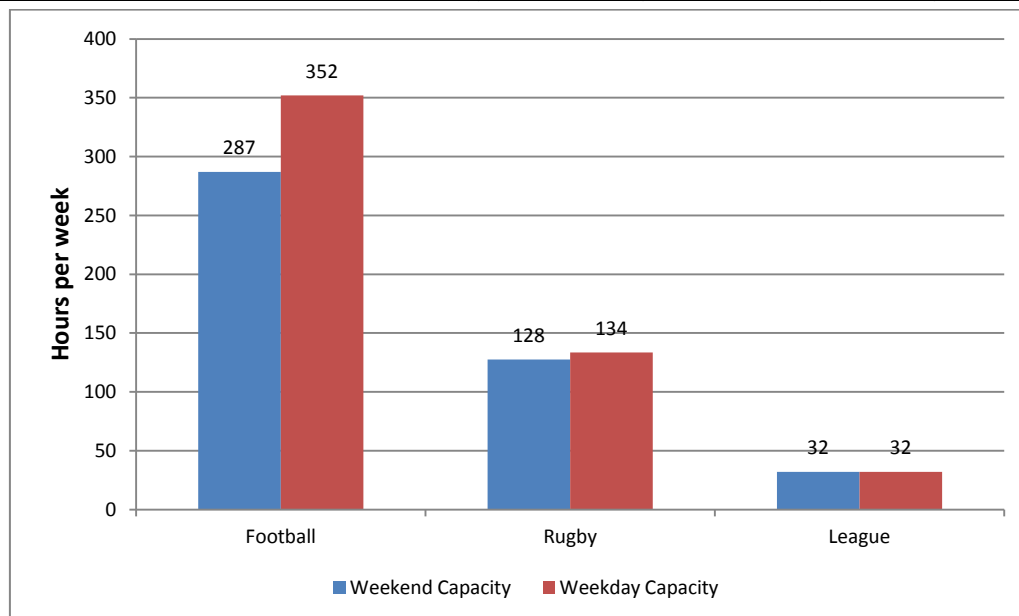
³⁰ Note that numbers have been rounded to whole numbers for ease of reading. This does mean that when the data is analysed into smaller categories (i.e. by Ward or by Codes) the totals may be out by 1 or 2. E.g. West Ward capacity is actually 497.5 and East 466.5, making total of 964; however rounding up causes these numbers to be 498 and 467, giving a total of 965.

FIGURE 4: FIELD CAPACITY PER WEEKEND (COMPETITION) OR WEEKDAY (TRAINING) BY WARD



As Figure 5 shows, Football as a Code has the highest number of hours available (639 hours per week), Rugby the next highest (261 hours per week), and Rugby League, the lowest (64 hours per week), which is to be expected, given that Football has the largest number of fields and Rugby League the lowest number (see Section 2.3.3 for details on numbers of fields and parks).

FIGURE 5: FIELD CAPACITY PER WEEKEND (COMPETITION) OR WEEKDAY (TRAINING) BY CODE



2.4.2 COMPETITION DEMAND

The following sections present information on the competition demand in the 2012 season. The demand hours for home and away³¹ competition are calculated by adding all the teams in the grade and applying a 'game time' requirement based on the length of the game, plus the length of half time, plus five minutes to get on and off the

³¹ The hours are based on 50% of games being played at home by teams playing in a home and away league (% provided by the RSOs).

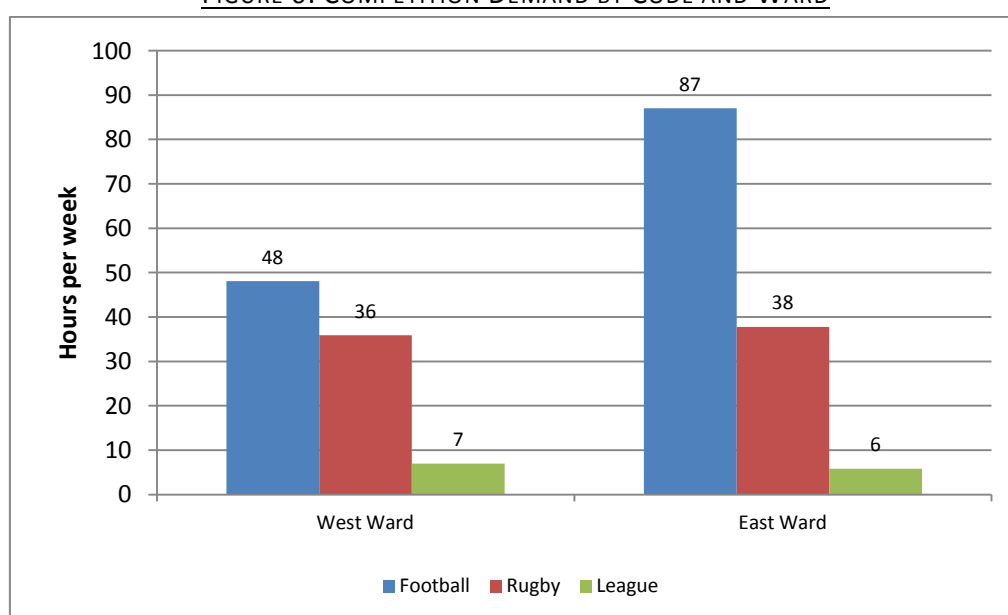
field. As well an additional five minutes was added to senior games to account for injury time (see Table 4³²). These figures were then analysed by Ward, by day, for the season, and by week³³.

TABLE 4: COMPETITION FIELD TIME BY CODE AND GRADE

Code/ Grade	Field Size	Total field time (hours)
Football		
Junior (<11yrs)	Half	1.0
Youth male / female 11 to 14 years	Full	1.1
Youth male/female 15-17 years	Full	1.5
Adult men/women	Full	1.9
Rugby		
Mini (<10 yrs)	Half	1.0
Junior (11-14years)	Full	1.1
Adult men/ women	Full	1.6
League		
Mini (<10yrs)	Half	0.6
Mod (10-12 years)	Full	0.8
Junior (13 to 17 years)	Full	1.2
Adult men/women	Full	1.6

The total competition demand across all codes was calculated to be 222 hours per week; 91 hours in the West Ward and 131 in the East Ward (Figure 6). Football had the highest demand with 135 hours competition demand per week. Rugby demand was 74 hours and Rugby League 13 hours per week.

FIGURE 6: COMPETITION DEMAND BY CODE AND WARD



2.4.3 TRAINING DEMAND

The following sections present information on the hours of training that occurred on community fields in the 2012 season. The information for this section was calculated from the information supplied by clubs about their training needs for the different grades. All training that occurred on Council fields, or fields for which a formal agreement exists were included and training on school fields or out of town was excluded. The training time was calculated by

³² This calculation was developed by Longdill and Associates Ltd, as part of the Sports Field Demand Model. Information for the Table is from p. 20 of the Sports Field Strategy Guidelines document.

³³ Weekly hours were calculated as an average (i.e. seasonal hours were divided by the length of the season; 26 weeks)

averaging the training requirements³⁴ across the codes (see Table 5), then multiplying this by the number of teams who train in each grade and code³⁵.

TABLE 5: AVERAGE TRAINING TIME BY CODE AND GRADE

Code/ Grade	Field Size required	Hours per trainings session	Number of trainings per week	Hours per week
Football				
Junior	Half	1hr	1	1hr
Youth male / female 11 to 14 years	Full	1hr	2	2hrs
Youth male/female 15-17 years	Full	1hr	2	2hrs
Adult men/women	Full	2hrs	2	4hrs
Rugby				
Mini (<10)	Half	1hr	1	1hrs
Junior (11-14years)	Half	1hr	2	2hrs
Adult men/ women	Full	1.5hrs	2	3hrs
League				
Mini (<10yrs)	Half	1hr	1	2
Mod (10-12 years)	Half	1.5hrs	1	2
Junior (13 to 17 years)	Full	1.5hrs	2	3
Adult men/women	Full	2hrs	2	4

Across all three Codes most training occurred during weekdays. The weekly demand for training across all three Codes was 656 hours per week; 285 hours in the West Ward and 371 hours in the East Ward.

FIGURE 7: TRAINING DEMAND (WEEKLY), BY CODE AND WARD (N=656 HRS)

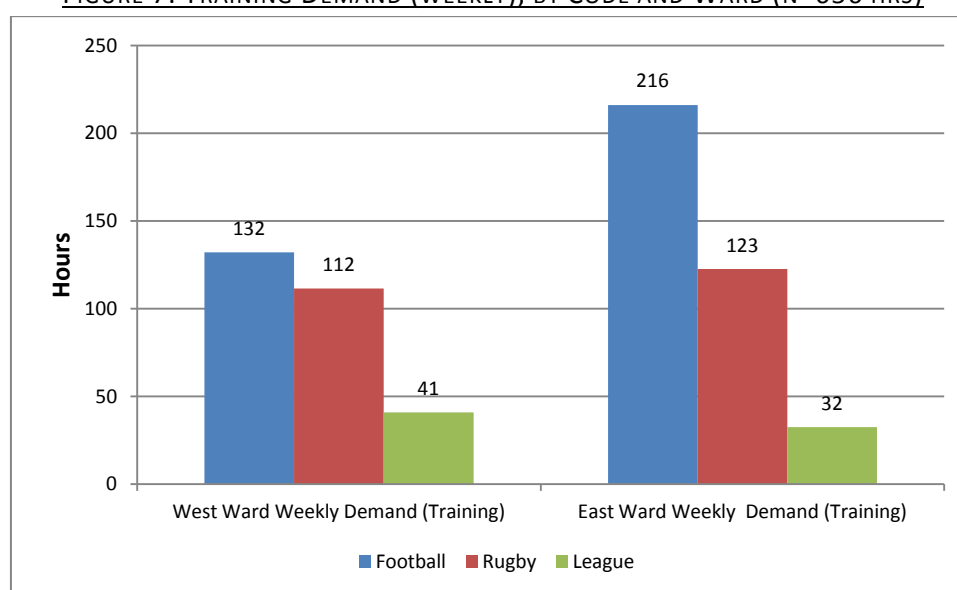


Table 6 presents the training hours by Codes and Grade. As the table indicates football teams averaged 348 hours per week, rugby 237 hours per week and rugby league 73 hours per week.

³⁴ The clubs were asked to indicate their training requirements by grade, including the size of the field required, the number of training sessions per week, and the number of hours per session. Where clubs differed in requirements, frequency was used (e.g. if most clubs indicated that their senior teams needed a full size field then this was the size allocated to that grade).

³⁵ As was noted in previous sections some teams, particularly in the adult social leagues don't train, and so they were not included in the calculations.

TABLE 6: TRAINING ON COMMUNITY FIELDS, DURING 2012 SEASON, BY CODE

Code/ Grade	Number of teams who train	Number of hours (week)
Football		
Junior (5-11yrs)	188	94
Youth male / female 11 to 14 years	18	36
Youth male/female 15-17 years	25	50
Adult men/women	42	168
TOTALS	273	348
Rugby		
Mini (<10)	104	53
Junior (11-14years)	28	56
Adult men/ women	43	126
TOTALS	175	235
League		
Mini (<10yrs)	15	7
Mod (11-14yrs)	8	6
Junior (15-17yrs)	8	24
Adult men	9	36
TOTALS	40	73

2.4.4 TRAINING AND COMPETITION DEMAND

The total demand (training and competition) across all Codes and both Wards was 878 hours per week. Figure 8 provides a summary of the weekly usage by Code for competition (weekend use) and training (weekday use). As can be seen the amount of hours required for training is higher than hours required for competition.

FIGURE 8: TRAINING AND COMPETITION DEMAND BY CODE (N=878)

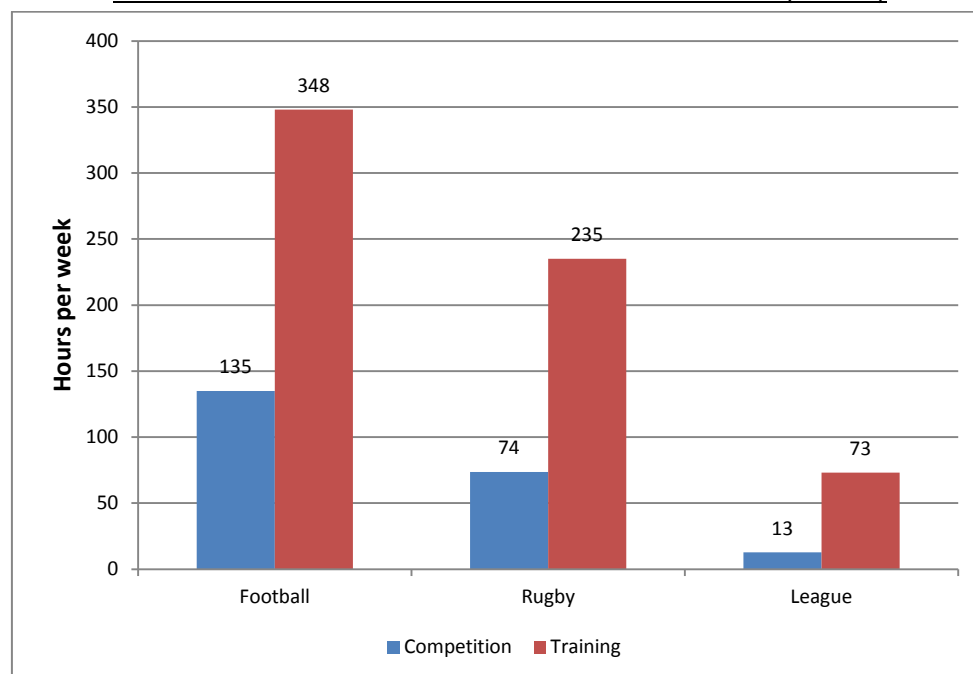
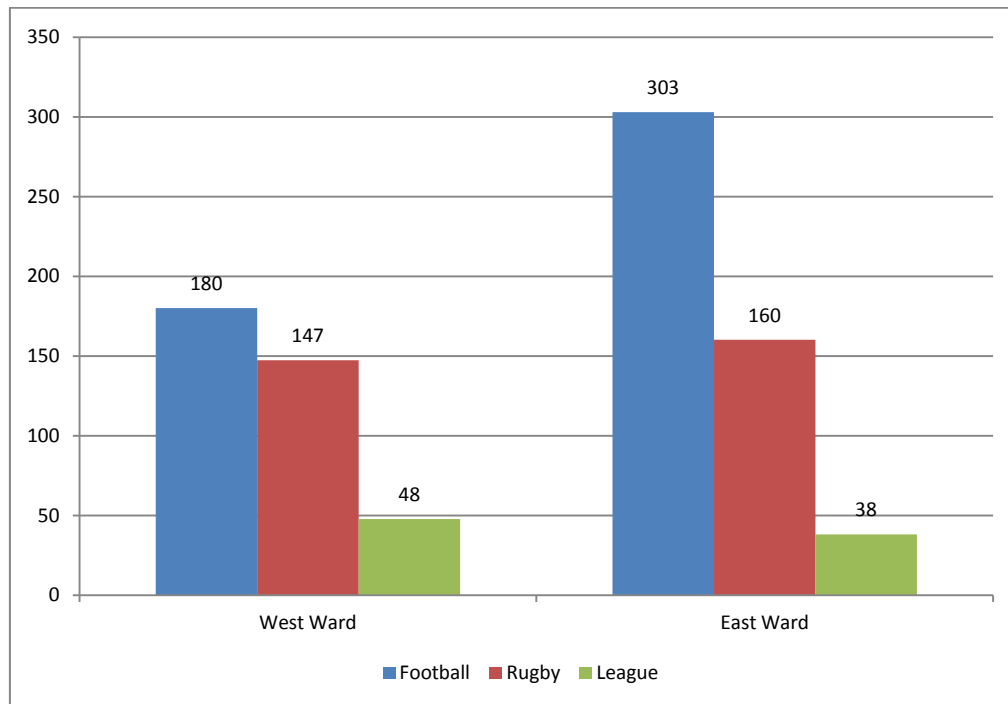


Figure 9 shows total demand for both competition and training for each Code, by Ward. There is a higher demand in the East Ward (501 hours) compared to the West Ward (376 hours).

FIGURE 9: TOTAL DEMAND (TRAINING AND COMPETITION) BY WARD AND CODE (N=878)



2.4.5 ALL CODES CAPACITY AND DEMAND

ABOUT THE FORMULA

The Sports Field Demand model that was used as the basis for this research determines the extent to which an area can meet the demand by working out the difference between the field capacity and the demand. A positive result indicates a surplus of hours (i.e. there are more hours than needed) and a negative result indicates a deficit of hours (i.e. more hours are needed). i.e.

$$\text{Capacity (no. of hours available) - Demand (no. of hours needed)} = \\ + (\text{Surplus hours available}) \text{ or } - (\text{Deficit of hours})$$

Of note with the above formula, is that the 'demand' is calculated from the competition and training usage figures for the three Codes only, so it does not include any other usage of the Parks by any other community groups, organisations (e.g. a school or a community group may book a park for a one off sports event), or casual use by members of the public, nor does it include one-off tournaments that may have occurred during the season. Therefore while the result may indicate a surplus, for example, this does not automatically mean that *all* those hours are available for the Codes, as the fields may be booked or being used casually by other users.

Having said that, it should also be noted that if Council gets a request for a one-off booking for an event that could impact the turf, they do consider the usage level of that Park (e.g. whether it is being used that week already and by whom) and determine whether the field can cope with extra usage, and on that basis a booking is either accepted or declined. This does not apply, of course, to casual use (e.g. friends getting together for a game after work) or clubs

using a field for training, but not having booked it³⁶, or school using it during school hours³⁷, as this does not go through the booking system.

WEEKLY CAPACITY AND DEMAND

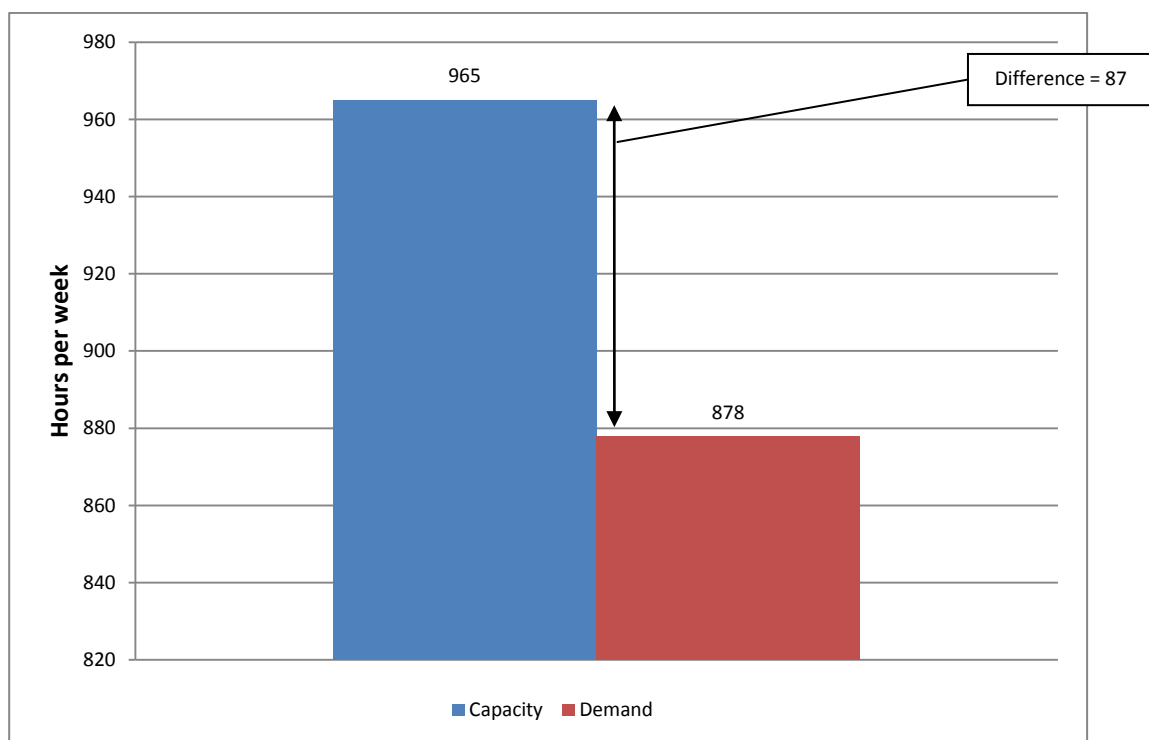
As was presented earlier, the total weekly capacity of the 165 fields³⁸ in the 44 parks included in the research was 965 hours per week. The total weekly demand across all three Codes was 878 hours. Applying the above calculation indicates that overall, the total weekly capacity of the available fields in 2012 exceeded the demand by 87 hours; that is there was a surplus of hours available.

$$965 \text{ hours (Weekly Capacity)} - 878 \text{ (Weekly Demand)} = 87 \text{ (Surplus hours available)}$$

This finding indicates that, overall, in 2012 the City had the capacity within the current fields to meet the peak Winter season demand for the three Codes.

The following graphs show the weekly capacity and demand for the City (Figure 10), the weekly capacity and demand by Ward (Figure 11), and the weekly capacity and demand by Code (Figure 12).

FIGURE 10: TOTAL WEEKLY FIELD CAPACITY COMPARED TO DEMAND



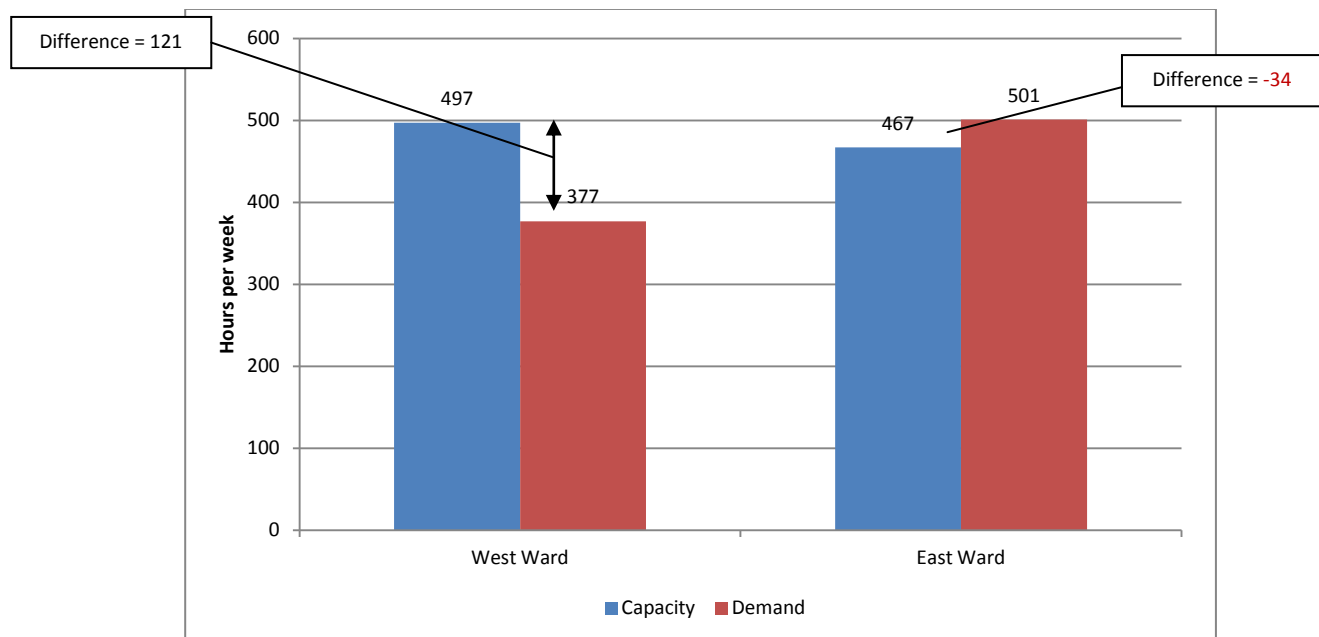
³⁶ There is some anecdotal evidence that some teams are training on Council fields but have not booked these fields. Some of the evidence of this has come from clubs reporting that they have booked a field, turning up for training only to find a team from another club are already using the field. Determining the level that this is occurring is problematic as there is no record of the use, and teams who are doing this were reluctant to specify the extent to which this occurs.

³⁷ Schools do not have to book a park if it is not being used and if it is during school hours. This is meant to apply to casual use, not to for example, a school event (e.g. cross country) for which they would be expected to book the park so as to ensure that maintenance schedules aren't inhibited (e.g. the mower being scheduled to mow that park only to turn up to find a school running an event).

³⁸ Note that this includes both training fields of which there were 163, and competition fields of which there were 143, and includes Council-owned and school or community owned fields that are used for competition.

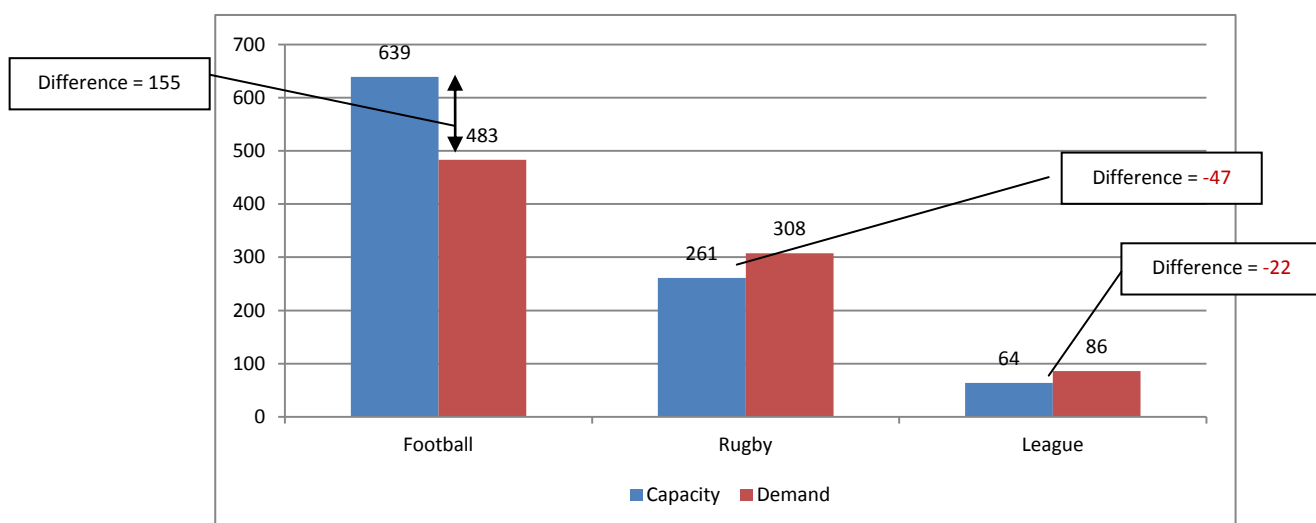
In terms of demand by Ward, the East Ward has a higher demand than the West Ward. In the West Ward there were 121 surplus hours, while in the East Ward there was a deficit of 34 hours.

FIGURE 11: TOTAL WEEKLY FIELD CAPACITY COMPARED TO DEMAND BY WARD



As Figure 12 indicates, when compared across Codes, there are some significant differences. Football has a surplus (155 hours per week), while Rugby and League have deficits (Rugby -47 hours per week and Rugby League, -22 hours per week). Also of relevance to Rugby is that these figures include Stan Heather Park, which had a capacity in 2012, of approximately 40 hours per week. If Stan Heather Park's capacity is removed, then Rugby would have a weekly deficit of 87 hours.

FIGURE 12: TOTAL WEEKLY FIELD CAPACITY COMPARED TO DEMAND BY CODE



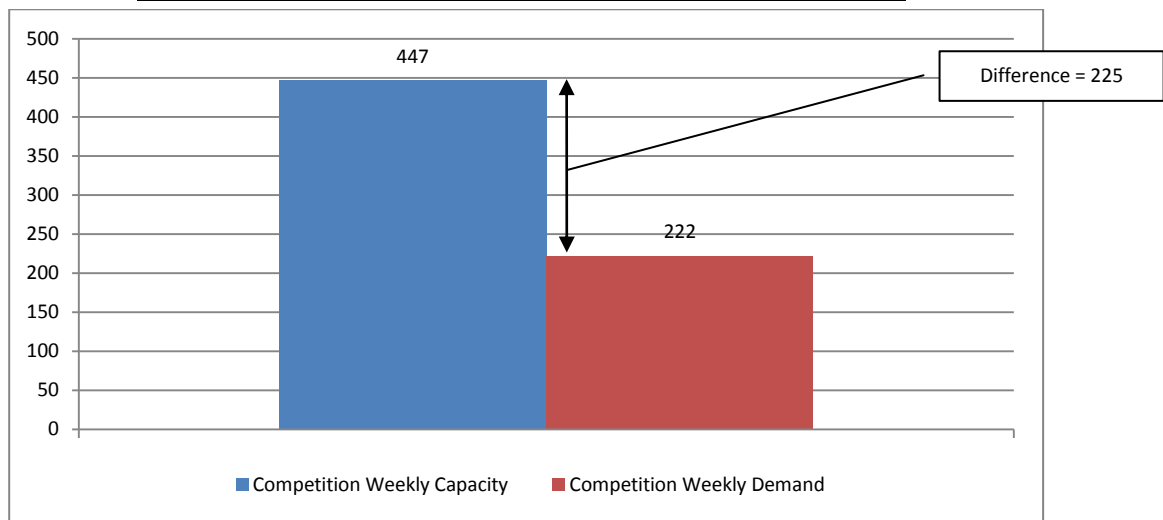
CAPACITY AND DEMAND: COMPETITION

The data was further analysed by competition and training. There was an underlying assumption that competition play took place on weekends³⁹ and training on weekdays. The total capacity of the fields, for the weekend (i.e. competition), across all three codes, was 447 hours per week. The competition (weekend) demand across all three Codes was 222 hours.

Applying the above calculation indicates that overall, the weekly capacity of the available fields in 2012 for competition play, exceeded the demand by 225 hours; that is there was a surplus of hours available.

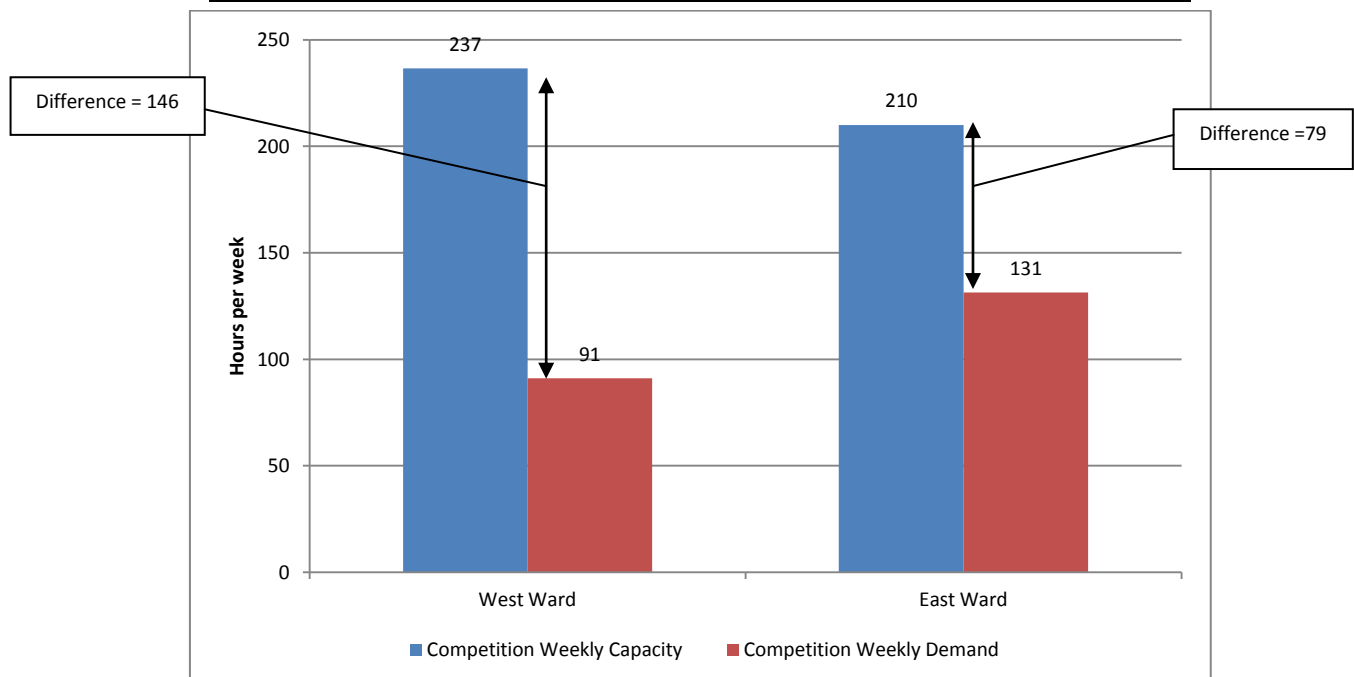
$$447 \text{ hours (Weekly Capacity)} - 222 \text{ (Weekly Demand)} = 225 \text{ (Surplus hours available)}$$

FIGURE 13: COMPETITION: FIELD CAPACITY COMPARED TO DEMAND



When analysed by Ward (Figure 14) the West Ward had a greater surplus (146 hours) than the East Ward (79 hours).

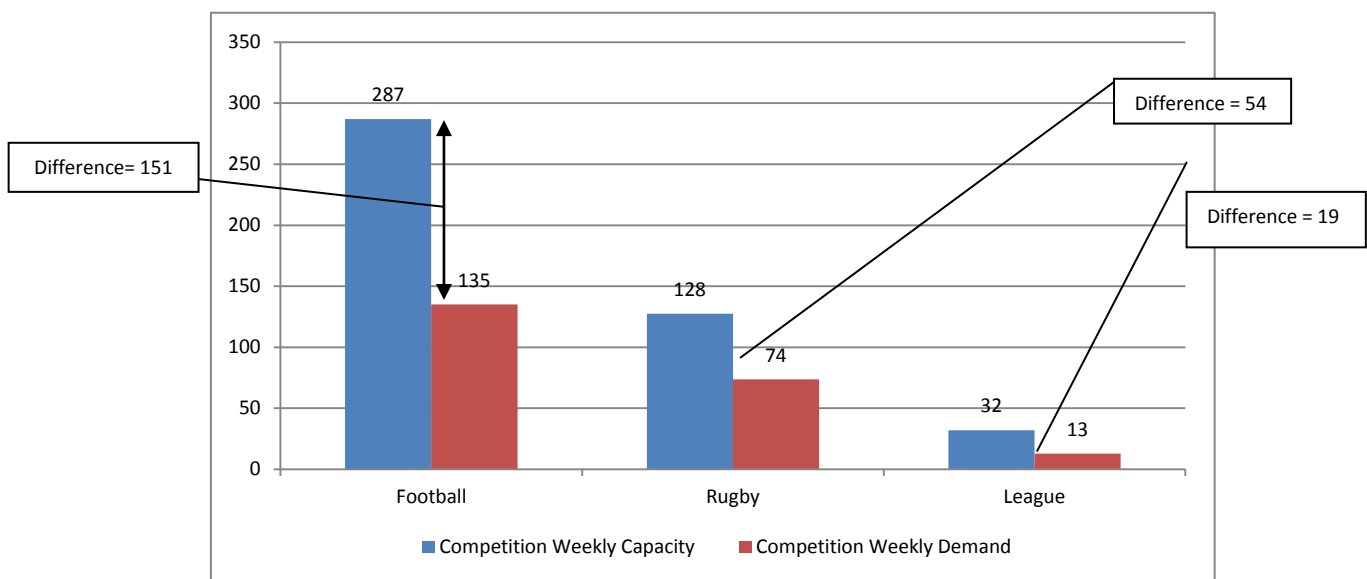
FIGURE 14: COMPETITION: WEEKLY FIELD CAPACITY COMPARED TO DEMAND BY WARD



³⁹ Some competition games were scheduled for weekdays; specifically Thursday nights (rugby) and Friday nights (rugby league). However the vast majority of competition play does occur on weekends and to simplify the calculations all competition hours were assumed to be taking place on weekends.

When analysed by Code (Figure 15) there was a surplus of hours for competition for all Codes; Football 151 hours; Rugby 54 hours; and Rugby League 19 hours per week.

FIGURE 15: COMPETITION: WEEKLY FIELD CAPACITY COMPARED TO DEMAND BY CODE



The findings indicate that in 2012, the City had the capacity within the current fields to meet the peak Winter season competition demand for the three Codes.

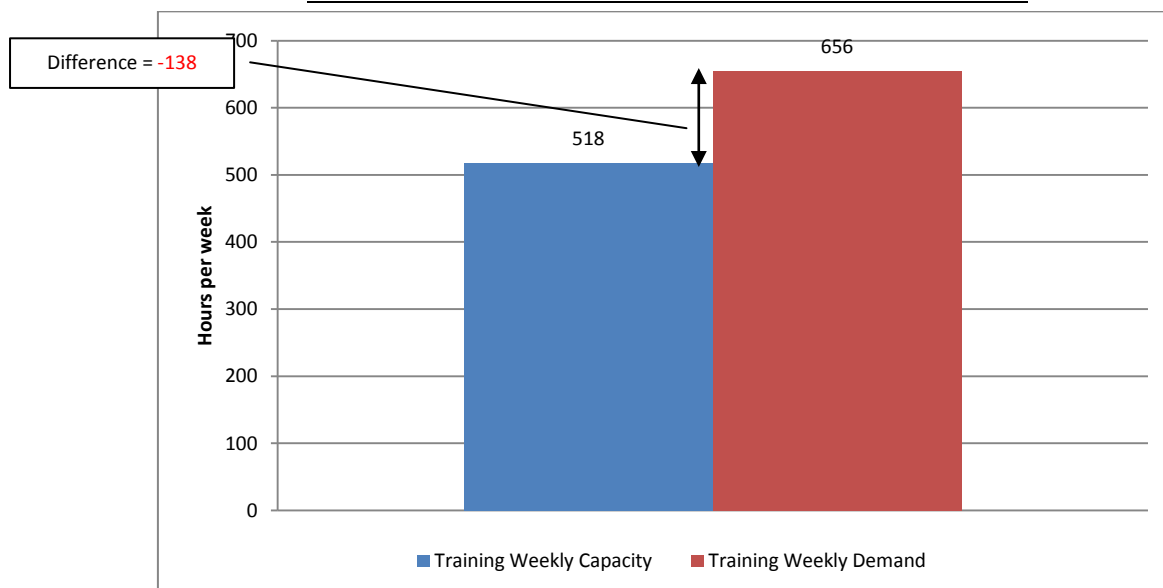
CAPACITY AND DEMAND: TRAINING

The total capacity of the fields, for the weekdays (i.e. training), across all three codes was 518 hours per week. The training (weekday) demand across all three Codes was 656 hours.

Applying the above calculation indicates that overall, the weekly capacity of the available fields in 2012 for training did not meet the demand, by a deficit of 138 hours per week.

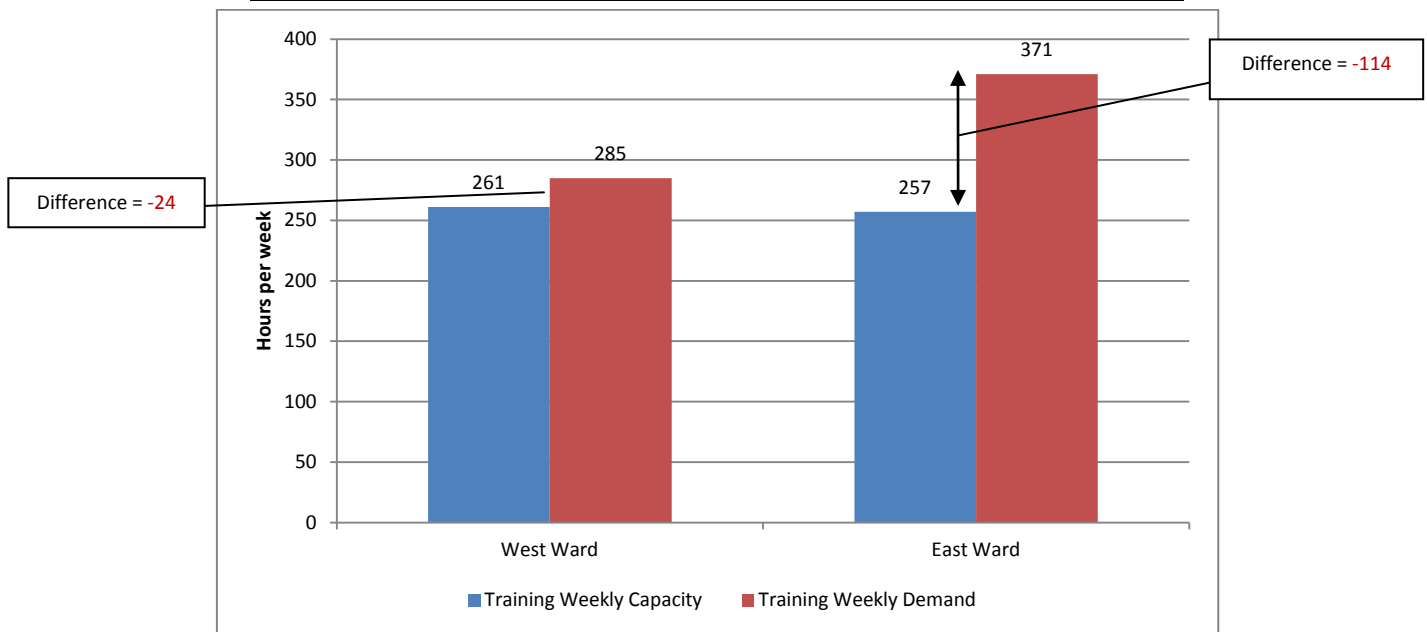
$$518 \text{ hours (Weekly Capacity)} - 656 \text{ (Weekly Demand)} = -138 \text{ (Deficit)}$$

FIGURE 16: TRAINING: FIELD CAPACITY COMPARED TO DEMAND



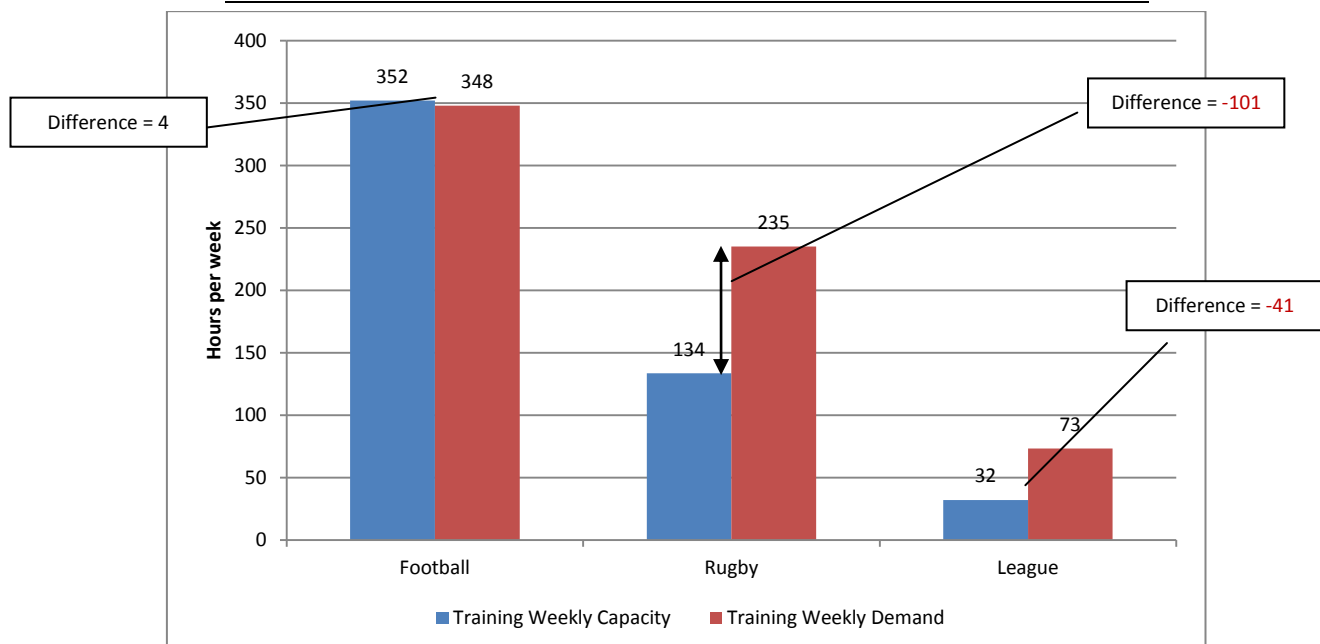
When analysed by Ward (Figure 17) the West Ward deficit was lower (-24 hours) than the East Ward deficit (-114 hours).

FIGURE 17: TRAINING: WEEKLY FIELD CAPACITY COMPARED TO DEMAND BY WARD



When compared across Codes (Figure 18) Football had just enough hours (4 hours surplus) whilst Rugby had a deficit (-101 hours), as did Rugby League (-41 hours).

FIGURE 18: TRAINING: WEEKLY FIELD CAPACITY COMPARED TO DEMAND BY CODE



The above finding suggests that the City did not have adequate capacity for training needs in 2012. Although Football had a surplus of hours, this was very small (only 4 hours).

Table 7 provides a summary of the current capacity and demand data.

TABLE 7: CAPACITY AND DEMAND: SUMMARY

	Weekly Capacity (hours)	Weekly Demand (hours)	Difference (hours)
Total Capacity	965	878	+87
By Ward			
West Ward	498	377	+121
East Ward	467	501	-34
By Code			
Football	639	483	+155
Rugby	261	308	-47
Rugby League	64	86	-22
Competition (Weekends only)			
Competition total	447	222	+225
By Ward			
West Ward	237	91	+146
East Ward	210	131	+79
By Code			
Football	287	135	+151
Rugby	128	74	+54
Rugby League	32	13	+19

	Weekly Capacity (hours)	Weekly Demand (hours)	Difference (hours)
Training (Weekdays only)			
Training total	518	656	-138
By Ward			
West Ward	261	285	-24
East Ward	257	371	-114
By Code			
Football	352	348	+4
Rugby	134	235	-101
Rugby League	32	73	-41

2.4.6 CAPACITY AND DEMAND: IMPACT OF WEATHER –RELATED CLOSURES

In determining capacity and demand there needs to be an allowance for closures, due to adverse weather conditions⁴⁰. When fields are closed at weekends the RSO will try to transfer games to other available fields. If few other fields are available then the RSOs are forced to cancel games. There is a need to have some surplus fields in order to avoid widespread cancellations.

In terms of weekday closures the clubs in Hamilton make their own call on whether a ground can be used for training and they will close them themselves on a weekday in order to preserve them for the weekend competition. Therefore there is currently no accurate way to measure the weekday closures that occur in Hamilton.

For competition (i.e. weekend) closures, the HCC Sports Management guidelines indicate that HCC will not close competition grounds for more than six days per season. In practice the closure rate varies from season to season. In

⁴⁰ E.g. heavy rain rendering surfaces unplayable.

2012 for example there were no HCC enforced closures of competition grounds, whereas in 2011 there were closures.

In order to calculate the possible impact of closures, a closure rate of 3 days per season for competition games was chosen, in consultation with HCC staff. The capacity rate for competition was re-calculated and came to 421 hours per week; 223 in the West Ward and 198 in the East Ward. As Figure 19 shows, whilst this does reduce the available hours, when compared to demand, there is still sufficient capacity overall (199 hours per week).

FIGURE 19: COMPETITION CAPACITY COMPARED TO DEMAND WITH ALLOWANCE FOR CLOSURES BY WARD

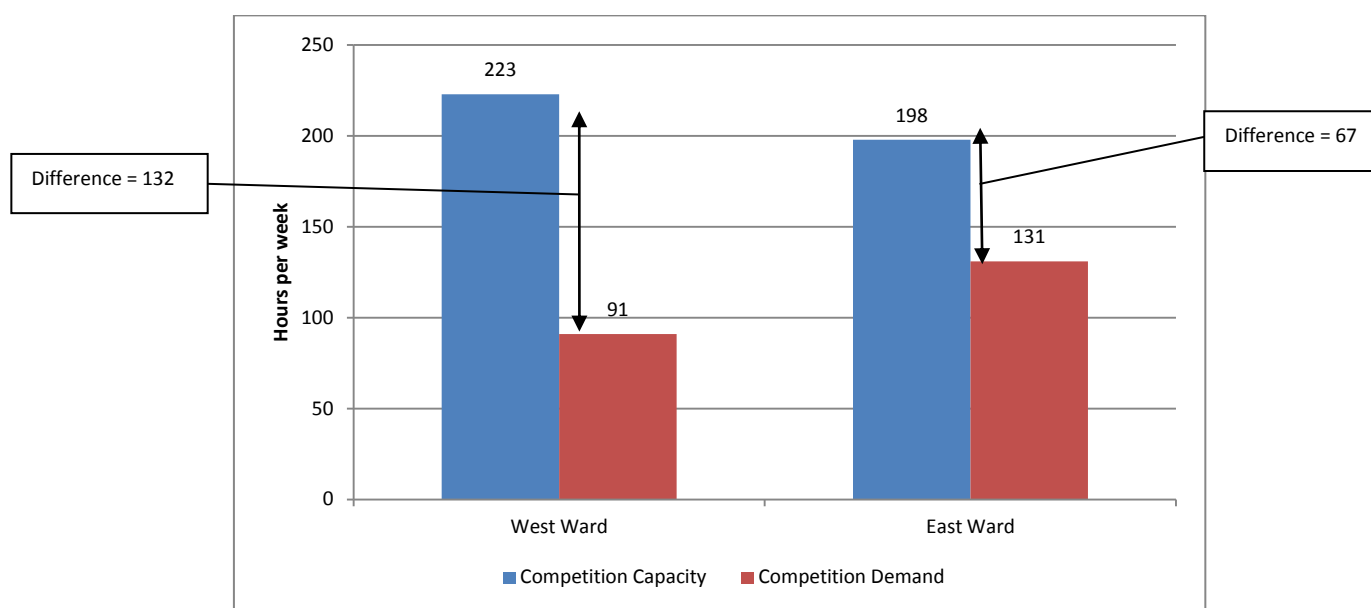


TABLE 8: COMPETITION CAPACITY AND DEMAND WITH ALLOWANCE FOR CLOSURES

Competition (Weekends only)	Weekly Capacity (hours)	Weekly Demand (hours)	Difference (hours)
Competition total	421	222	+199
By Ward			
West Ward	223	91	+132
East Ward	198	131	+67
By Code			

2.4.7 FUTURE PROJECTIONS - 2022

The Sports Field Demand model uses Census population data⁴¹, together with information gathered for this research about the number of teams within each Code, in order to work out how many teams within each code and grade there are likely to be in ten years time (this is the team generation rate or TGR). These figures are then used to calculate future demand⁴². Any future projections can only be extrapolated from current data and do not take into account any future unforeseen trends. For example the emergence of a new sport; changes to policies such as

⁴¹ Note that Census projections data uses low, medium or high rates. The HCC was contacted to determine which rate they typically used for future projections, so that the rate in this research would be comparable. The researcher was advised to use the low rate.

⁴² This TGR method was chosen as it is an accepted method and is consistent with other research in this area that has been undertaken for other Councils. As well, whilst it would be useful to utilise past trend data on numbers of teams from each Code (e.g. data for the past 5 to 10 years, projected forward), not all the Codes collect this data, therefore for consistency, the TGR method was used.

allowing secondary school students to play for club teams⁴³; events that increase popularity of a particular sport code; or increases in funding allowing codes to promote, recruit and support more players and teams.

CAPACITY AND DEMAND

As was noted in an earlier section, Stan Heather park which has three rugby fields has been sold and will no longer be available from at least 2014 onwards. Therefore for future projection calculations Stan Heather's capacity has been removed from the figures, therefore reducing the future capacity of the community fields from 965 to 932 hours per week. The total demand for both competition and training hours in 2022 was calculated to be 935 hours; 417 hours in the West Ward and 518 hours in the East Ward. These figures indicate that with the future capacity (i.e. 932 hours) there would be, in 10 years time, an overall deficit of 3 hours per week⁴⁴ (Figure 20). Therefore, the City in 2022 would not have the field capacity to meet the demand.

FIGURE 20: FUTURE PROJECTIONS: CAPACITY AND DEMAND 2022

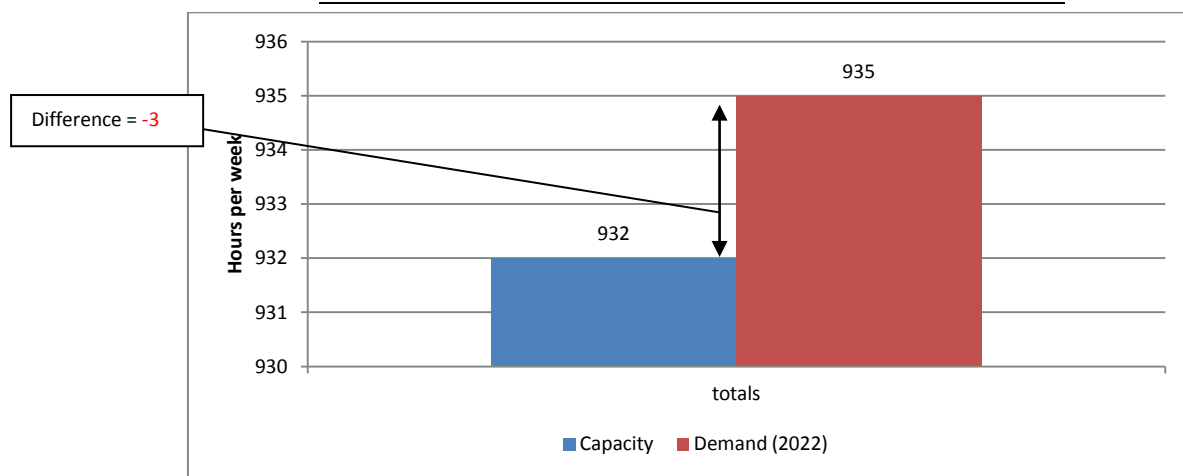
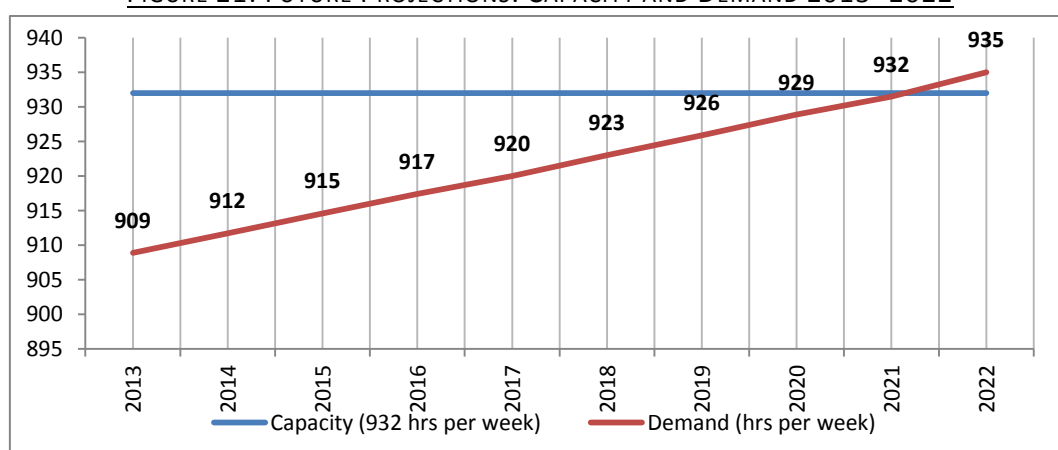


Figure 21 shows an estimated trend⁴⁵ for demand from 2012 to 2022, compared to the capacity of 932 hours. As the figure shows the demand will match capacity in 2021, not allowing for closures. This means that the City would need to invest in further development (i.e. more fields or improve current fields or preferably, both) to be completed before 2021.

FIGURE 21: FUTURE PROJECTIONS: CAPACITY AND DEMAND 2013 -2022



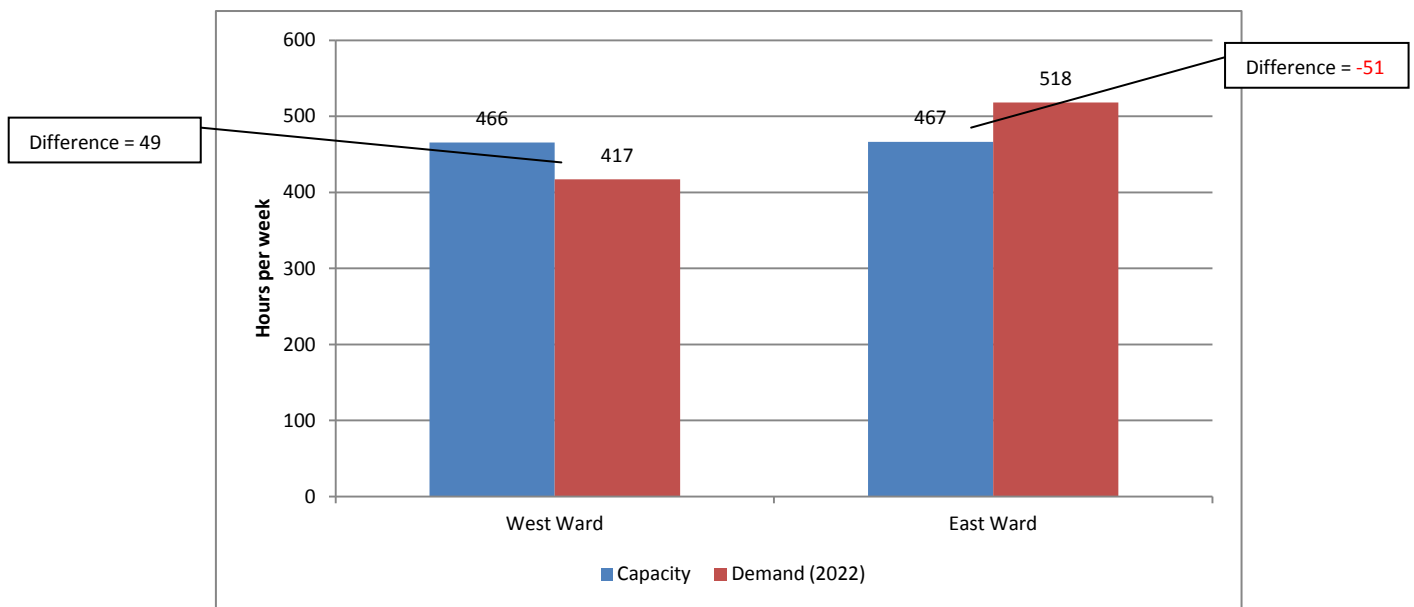
⁴³ Currently few schools in Hamilton allow students to play for clubs; they are expected to play for their school. If their school does not have a team for a particular code (e.g. league), then player numbers for those codes will tend to drop off in the post-primary years, and increase in the codes the schools do offer.

⁴⁴ Note that these figures do not allow for closures.

⁴⁵ Note that these figures have been reverse extrapolated from the predicted population for 2022, and as well assume that the trend will be linear. That is that the difference between the 2012 and 2022 population was calculated, divided by the number of years (i.e. 10) and this figure added on each year as an estimate of the population for that year. This was used to determine team numbers and thus demand for each year. It was calculated in this manner as there was no available Census population data for less than a ten year period, at the sub-national (i.e. TLA) level.

When analysed by Ward there would be a deficit in the East Ward of 51 hours and a surplus of 49 hours in the West Ward (Figure 22). It must also be noted that these figures are modelled on a uniform increase across the City and do not take into account area-specific developments that may result in higher density populations in specific areas. For example, higher density housing plans for central city and the Peacockes Rd development could result in more residents in the West Ward than this modelling allows for.

FIGURE 22: FUTURE PROJECTIONS: CAPACITY AND DEMAND, BY WARD 2022



When analysed separately by competition and training, there is a surplus of 212 hours for competition (Figure 23) and a deficit of 181 hours for training (Figure 24).

FIGURE 23: FUTURE PROJECTIONS: COMPETITION CAPACITY AND DEMAND 2022

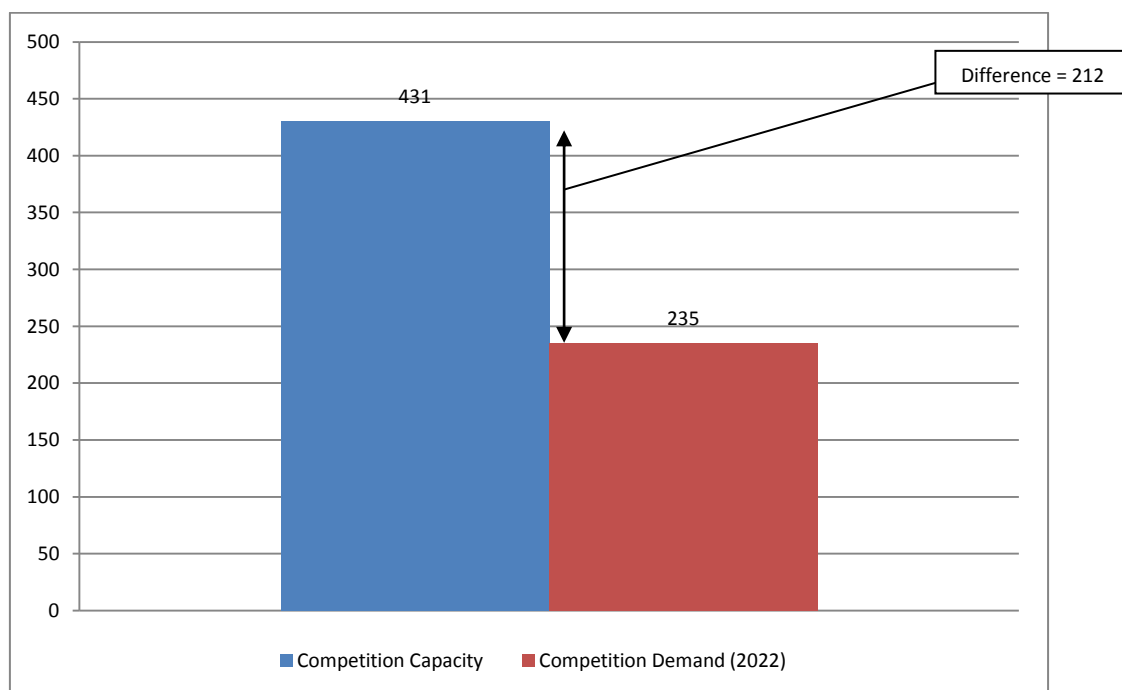
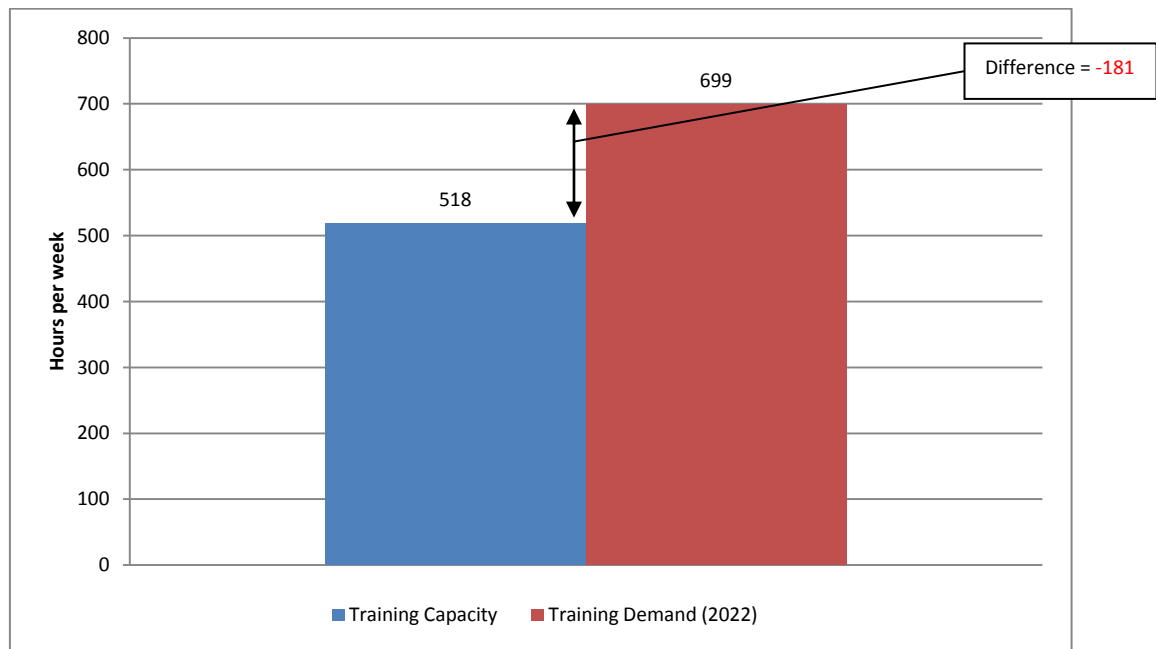


FIGURE 24: FUTURE PROJECTIONS: TRAINING CAPACITY AND DEMAND 2022

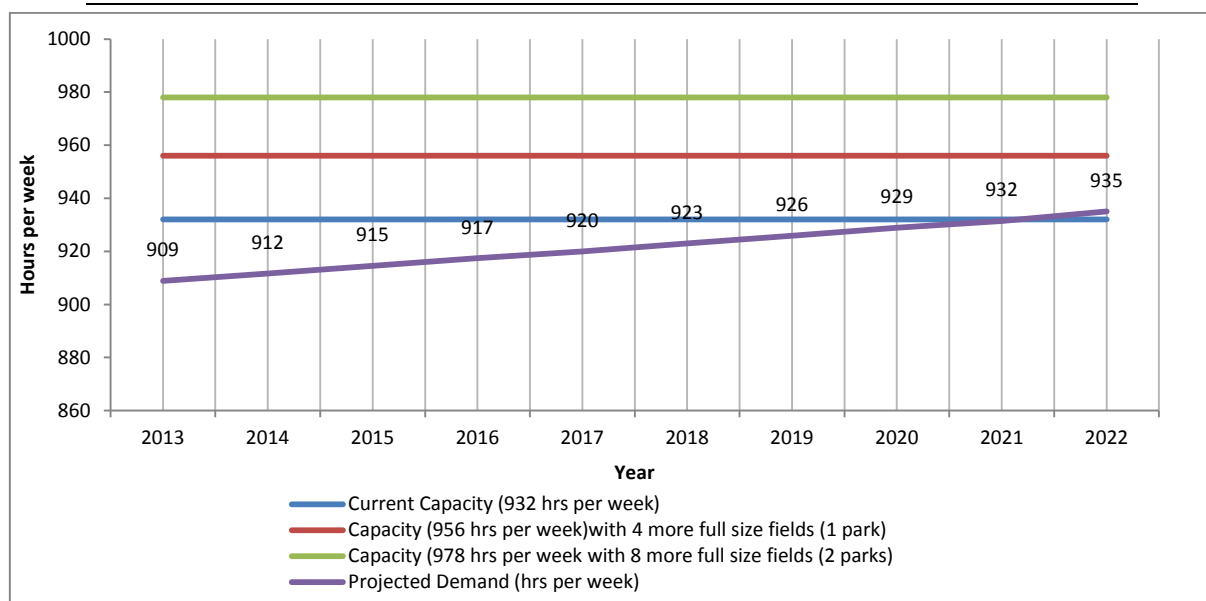


IMPACT OF FUTURE DEVELOPMENT ON CAPACITY

As was noted earlier the City has a number of undeveloped sports parks and other 'landbanked' sites which could be developed into sports parks in the future. Each of these sites can have between 3 to 5 full size fields. In terms of capacity, if the sites are developed with standard (soil-based) fields their weekly capacity would be up to 8 hours per field per week. If they were developed with sand carpet and slit drainage the capacity would be higher; up to 15 hours per field per week.

The following graph gives an indication of how the development of one park or two parks⁴⁶ would impact on future capacity, compared to projected demand. As the graph shows if there were four more fields (one park) added, capacity would be 956 hours per week (i.e. higher than demand). If there were 8 more fields capacity was calculated to be 978 hours per week. This would also provide some surplus parks which could be utilised if there were closures.

FIGURE 25: FUTURE PROJECTIONS: CAPACITY AND DEMAND 2012 -2022 WITH EXTRA PARKS



⁴⁶ Each park has been estimated to have 4 full sized, soil-based fields.

Table 9 provides a summary of the future projections data.

TABLE 9: FUTURE PROJECTIONS: CAPACITY AND DEMAND 2022

	Weekly Capacity (hours)	Weekly Demand (hours)	Difference (hours)
Total Capacity	932	935	-3
By Ward			
West Ward	466	417	+49
East Ward	467	518	-51
Competition (Weekends only)			
Competition total	447	235	212
By Ward			
West Ward	237	100	+137
East Ward	210	135	+75
Training (Weekdays only)			
Training total	518	699	-181
By Ward			
West Ward	261	317	-56
East Ward	257	382	-125

Overall in terms of future projections the results indicate that if no further development occurs in the next ten years, then the City will not have sufficient capacity for the Winter Sports Codes by 2022, with demand overlapping capacity by 2021. Also of note is that the above figures do not allow for closures, so the deficit will be higher when closures are included.

2.5 SUMMARY OF FINDINGS

SPORTS PARKS AND FIELDS

- The research identified a total of 44 Sports Parks or grounds that were used in 2012 for either or both training and competition.
- Of these 44 parks, 35 were Council-owned Sports Parks that are ‘developed’, two were owned by clubs, one by the University and six were school fields that were used by clubs in 2012 for either training, competition or both.
- Within the 44 parks, there were a total of 155 fields, across all three Codes, used for competition games in 2012 and 165 fields, across all three Codes, available for training in 2012.
- Due to the fact that the clubs mark the fields each year, depending on how many teams they have, the number of fields changes each year, dependent on need.
- A number of issues were identified by participants including: field quality, maintenance scheduling and overlap between seasons; lack of, or sub-standard facilities (toilets, changing rooms, storage); lighting; moveable vs permanent goals; and the current booking system.

SPORTS FIELD CAPACITY AND DEMAND: ALL CODES

- Capacity
 - The weekly capacity, for Winter peak season, of the 165 fields⁴⁷ in the 44 parks included in the research, was calculated to be 965 hours per week; 498 hours in the West Ward and 467 in the East Ward.
 - The weekly capacity of the competition fields⁴⁸ was calculated at 447 hours per week.

⁴⁷ Note that this includes both training fields of which there were 165, and competition fields of which there were 155, and includes Council-owned and school or community owned fields for which there is a formal agreement.

- The weekly capacity of the training fields was calculated at 518 hours per week.
- Demand
 - The weekly demand across all three Codes was calculated at 878 hours; 222 hours for competition play and 656 hours for training.
 - There was a greater demand in the East Ward (501 hours) than the West Ward (376 hours).
- Capacity and Demand
 - The weekly capacity of the available fields in 2012 exceeded the demand by 87 hours; that is there was a surplus of hours available.
- Competition
 - The weekly capacity of the available fields in 2012 for competition play, exceeded the demand by 225 hours; that is there was a surplus of hours available.
 - When analysed by code there was a surplus for all codes for competition play.
- Training
 - The weekly capacity of the available fields in 2012 for training did not meet the demand, by a deficit of 138 hours per week.
 - When analysed by Ward the deficit was greater in the East Ward (-114 hours) than the West Ward (-24 hours).
- Closures and Future Projections
 - When closures are allowed for, there is a weekly surplus of 199 hours for competition play.
 - In terms of future capacity there would, in 10 years time, be an overall deficit of 3 hours per week. Therefore, the City in 2022 would not have the field capacity to meet the demand.
 - Further analysis suggests that by 2021 the capacity and demand would overlap. This means that the HCC needs to invest in further development (i.e. develop more fields or improving existing fields or both), to be completed before the 2021 season.

⁴⁸ As explained in the previous section competition fields are those that were used for competition in the 2012 season. There were 155 of these. Training fields are those that were used for training in the 2012 season. There were 165 of those, 155 of which are the same as the competition fields.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 INTRODUCTION

The aim of this research was to use an already established Sports Field Methodology⁴⁹ to analyse the demand for field space for winter sports codes, in Hamilton, including sub-areas, during the winter, and as well to scope potential fields and undertake a stocktake of the facilities that are available on current fields and establish what the requirements are for this kind of infrastructure amongst the different sports codes and grades. This chapter draws together the key findings from the research.

3.2 CAPACITY VS DEMAND

The overall finding is that the City had sufficient total capacity in 2012 to meet the total demand for the three winter codes, Football, Rugby, and Rugby League. However, when further analysed by Code, by sub-area, and by competition (weekend) versus training (weekday) capacity, there were some key areas where capacity was insufficient. These were:

- When analysed by Code, Football was reasonably well-served with a surplus of hours for both competition and training, although Rugby and Rugby League had insufficient capacity for training, although there was sufficient capacity for competition play;
- When analysed by sub-areas, overall capacity was insufficient in the East Ward which had a deficit of 34 hours, compared to the West Ward with a surplus of 121 hours;
- When analysed by weekend (competition) and weekday (training) there was sufficient overall capacity to meet the competition demand, but not the training demand.

Further analysis, allowing for closures due to adverse weather, diminished the overall capacity however results showed that there was still sufficient overall capacity to meet the total demand. Future projections show that if the capacity remains the same (i.e. there is no further fields added or upgrading of current fields to increase their capacity) then the City will not by 2021, be able to meet the projected demand for the winter sports codes.

These findings indicate that the HCC needs to consider ways to increase field capacity, either by improving existing fields or developing new fields or both, in order to meet both the current and future demand. In terms of where to focus development the East Ward would benefit more than the West Ward, Rugby League and Rugby are the Codes that have deficits and so would require more input.

3.3 CITY SPORTS FIELDS

In 2012 there were 165 fields from 44 Sports Parks in Hamilton utilised by the winter sports codes for training and/or competition. Of these 44 parks, 35 were Council-owned and managed and the remainder were club or school-owned fields. The research identified a number of factors relevant to field capacity in Hamilton. These were:

- In Hamilton the fields are soil-based and whilst some have been upgraded with slit-drainage, most have not. As noted in the recent report, *Sport NZ Guidance Document for Sport Field Development Options*⁵⁰, soil-based fields generally have a lower capacity, than sand-carpet and/or artificial fields, as they become more water-logged in wet conditions and conversely get overly hard in dry conditions. Issues of drainage and

⁴⁹ The methodology that was to be used was developed by Longdill and Associates Ltd., for Sport New Zealand and was available on the Sport New Zealand website.

⁵⁰ Opus International, Ltd., (February 2013). *Sport NZ Guidance Document for Sport Field Development Options* Report prepared for Sport New Zealand. <http://www.sportnz.org.nz/Documents/our%20partners/Sport%20NZ%20Sports%20Field%20Surfaces%20Guidance%20Document%20FINAL.pdf>

resultant field closures were raised by some of the clubs who participated in this research, particularly from those whose home grounds are particularly susceptible⁵¹.

- Currently the HCC is not always able to close fields for between-season maintenance and renovation, due to extended seasons for various sports. This is particularly an issue for the Autumn closure. Regular and consistent maintenance with annual renovation at least twice per year is vital to ensure that soil-based fields are maintained at optimum levels⁵².
- There was some evidence that some of the HCC fields are being used for training purposes, by teams (often school, rather than club teams), without being booked. This impacts on capacity as it can mean that fields are over-used during the week making them less available for competition, and as well it can be frustrating for a team who have booked a field to find it in use by another team.
- Although Hamilton may have the capacity for community sport, there was some evidence that higher level games and competitions are not able to be hosted as the quality of the fields and the current facilities are not of a sufficiently high standard.
- In terms of facilities, the fields had a range of different facilities and there were identified maintenance issues with some facilities (e.g. substandard changing rooms and toilets). Hamilton has some fields with lights, although these are primarily owned and managed by the clubs; some issues were identified such as other users using the light spill, dim lights at one part, and one request for lighting (and drainage) to increase capacity at one park.
- Although HCC has some spare fields, most of these would need further upgrading and development in order to be able to be used consistently.
- Clubs currently mark the fields. Some use weedkiller (rather than paint) and as well often use permanent (rather than moveable) goals due to issues with storage; these factors often limit the usage to junior games (particularly for football) and thus decrease the capacity of the fields, as they cannot be played across.
- The current booking system does not allow the Council to accurately track and monitor the use of the fields, as bookings can be seasonal or half-day⁵³. Whilst the current research has been undertaken to determine the level of demand in 2012, it would be useful for Council to consider ways that they can utilise in-house systems to track actual usage.

3.4 CONCLUSION

While the research findings show that Hamilton City had sufficient total capacity in 2012 to meet the total demand for the three winter codes, when further analysed there were deficits for training, and for Rugby and Rugby League. The East Ward had more deficits than the West Ward and future projections indicate that the demand will outstrip capacity by 2021. These findings indicate that the HCC needs to increase field capacity, either by improving existing fields or developing new fields or both, in order to meet both the current and future demand. In terms of where to focus development the East Ward would benefit more than the West Ward, and Rugby League and Rugby are the Codes that have current deficits and therefore should be prioritised.

3.5 RECOMMENDATIONS

Based on the findings of the research, it is recommended that the Hamilton City Council:

1. Take a more active role in managing the usage of their Sports Parks including:

⁵¹ The extent to which a field will become waterlogged is not just about the being soil-based but is also related to the type of soil (e.g. peat) and geographical features (e.g. low-lying, susceptible to run off). Some fields are therefore more prone to being waterlogged than others.

⁵² Refer to: Opus International, Ltd., (February 2013). *Sport NZ Guidance Document for Sport Field Development Options* Report prepared for Sport New Zealand. <http://www.sportnz.org.nz/Documents/our%20partners/Sport%20NZ%20Sports%20Field%20Surfaces%20Guidance%20Document%20FINAL.pdf>

⁵³ For example, a club may book a park for a Saturday morning (i.e. 8 to 12), however they only use the park for 2 hours from 9 to 11, not for the 4 hours that are booked. Similarly, a club may make a seasonal booking, for every Saturday of the season, but they may not use the park for the whole season.

- a. Developing a more transparent booking system in order to be able to track and monitor actual usage of Hamilton Sports Parks;
 - b. Initiating policies and processes to encourage teams to book fields for training, and not use fields without booking. This may include policies to discourage teams from using the fields without booking (for example, penalties for the school/club who use a field without booking);
 - c. Identifying which fields are suitable for which Codes and ensuring that the right Codes are booked on these fields.
 - d. Taking responsibility for marking fields, providing storage or moveable goals, and providing or managing lighting, in order to increase the usability of fields and assist with monitoring of the usage.
2. Invest in further field maintenance in order to maintain the current Sports Parks to a high standard, including:
 - a. Ensuring that the current Sports Parks have regular and consistent maintenance;
 - b. Ensuring that the Sports Parks are closed between seasons for bi-annual maintenance and renovation, even if this means the Codes have to shorten their seasons or consider alternative venues;
3. Invest in improving, upgrading and increasing the Sports Park facilities (e.g. toilets and changing rooms) as required, by:
 - a. Assessing the state of the current facilities (e.g. toilets and changing rooms) at the Sports Parks and prioritising facilities for upgrading;
 - b. Assessing the provision of facilities at the Sports Parks and prioritising the installation of new facilities.
4. Improve the capacity of the City's Sports Parks over the next ten years including:
 - a. Improving the quality (i.e. drainage, sand carpet), and thus capacity, of current fields, with a priority for the Codes that have current capacity deficits (e.g. Rugby League), and for training;
 - b. Allocating parks that can be utilised as 'surplus parks', in the case of cancellations, and ensure these are developed to an acceptable standard;
 - c. Increasing the number of available fields, by developing at least four new full size fields, preferably sand carpet, by 2020, and preferably in the East Ward area, in order to keep up with the projected future demand.
5. Develop grounds that can be used for higher level competitions, for the Codes who do not currently have this facility.

APPENDIX 1: FOOTBALL DATA

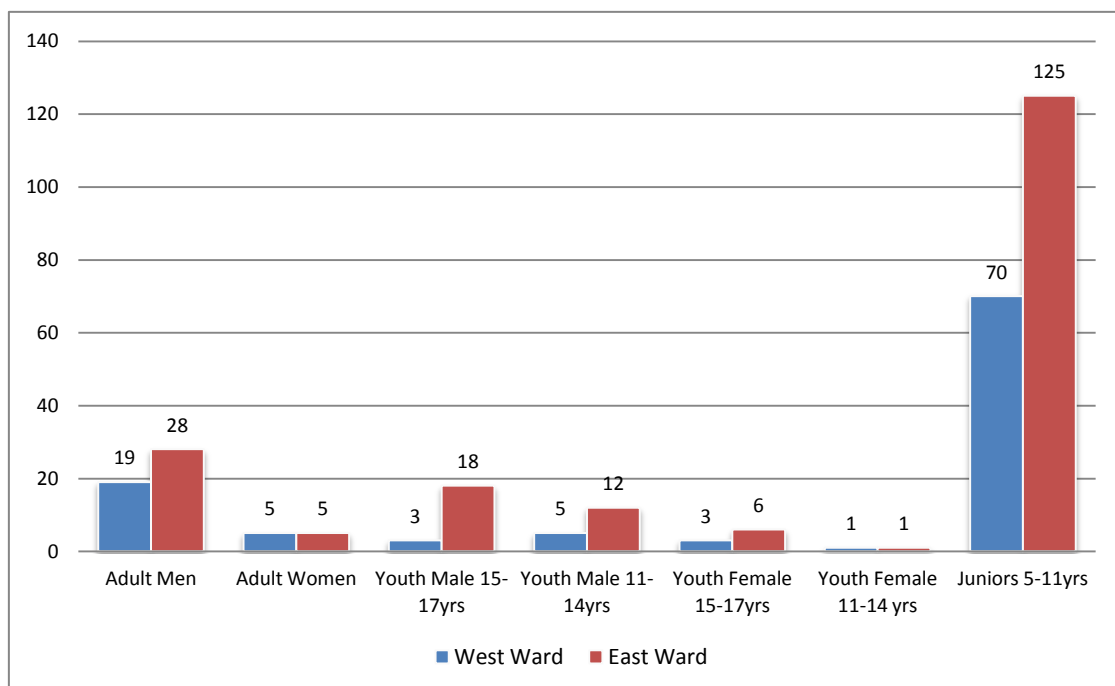
FOOTBALL: SUMMARY OF DATA

- The total number of football teams who played competition games on Council fields, or fields for which a formal agreement exists, in 2012, was 301.
- The total number of football teams who trained on Council fields, or fields for which a formal agreement exists, in 2012, was 273.
- The weekly competition demand was 135 hours.
- The weekly competition capacity of the football fields was 287 hours per week.
- The weekly competition capacity exceeded the demand by 151 hours.
- The weekly training demand was 348 hours.
- The weekly training capacity of the football fields was 352 hours per week.
- The weekly capacity for training exceeded the demand by 4 hours.
- The total weekly demand was 483 hours.
- The total weekly capacity of the football fields was 639 hours per week.
- The total weekly capacity exceeded the demand by 155 hours.

FOOTBALL: NUMBER OF TEAMS

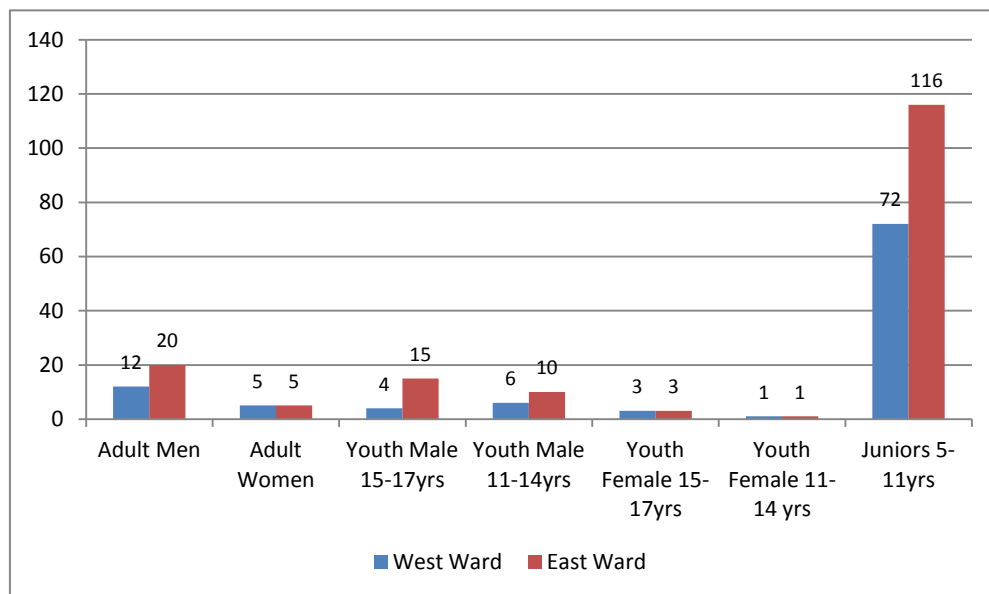
There were 24 Hamilton-based football clubs included in the research. The total number of football teams who played competition games on Council fields, or fields for which a formal agreement exists, in 2012, was 301. Of these, junior teams were by far the largest group, with a total of 195 teams, 125 in the East Ward and 70 in the West Ward. Youth 11-17 years teams have the smallest numbers however this is primarily a reflection of the fact that Secondary football is school-based and most schools use school fields.

FIGURE A1: FOOTBALL: NUMBER OF COMPETITION TEAMS BY WARD (N=301)



The total number of football teams who trained on Council fields, or fields for which a formal agreement exists, in 2012, was 273. Of these, junior teams were by far the largest group, with a total of 188 teams, 116 in East Ward and 72 in the West Ward. The two main reasons why there are less teams training than competing on community fields are (i) some of the men's social teams do not train and (ii) some of the junior and youth teams train on school grounds even though they may use a community field as their home ground for competition play.

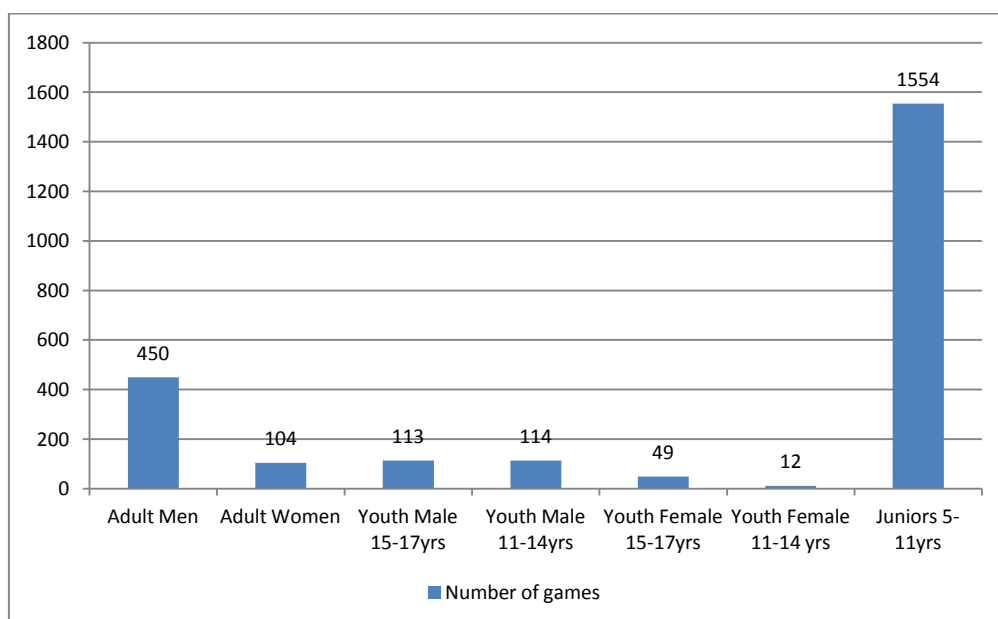
FIGURE A2: FOOTBALL: NUMBER OF TRAINING TEAMS BY WARD (N=273)



FOOTBALL: COMPETITION DEMAND

There were a total of 2396 football games played on community fields, over the 2012 season. Of these the majority (1554) were junior grade games. As was discussed previously, most youth grade games (i.e. 11-14 years and 15-17 years) are played on school fields, however there were 288 youth grade games played on community fields in the 2012 season.

FIGURE A3: FOOTBALL: NUMBER OF GAMES ON COMMUNITY FIELDS BY GRADE



As Table A1 shows, the Junior football games all took place on a Saturday, with the majority (1514, 97%) scheduled for the morning. For the Youth grade games, the Secondary School competition games were scheduled for Saturday morning and the Federation Boys' competition games were scheduled for Sunday. The Adult grade games were scheduled for Saturday afternoon (men's competition only) and Sunday morning and afternoon.

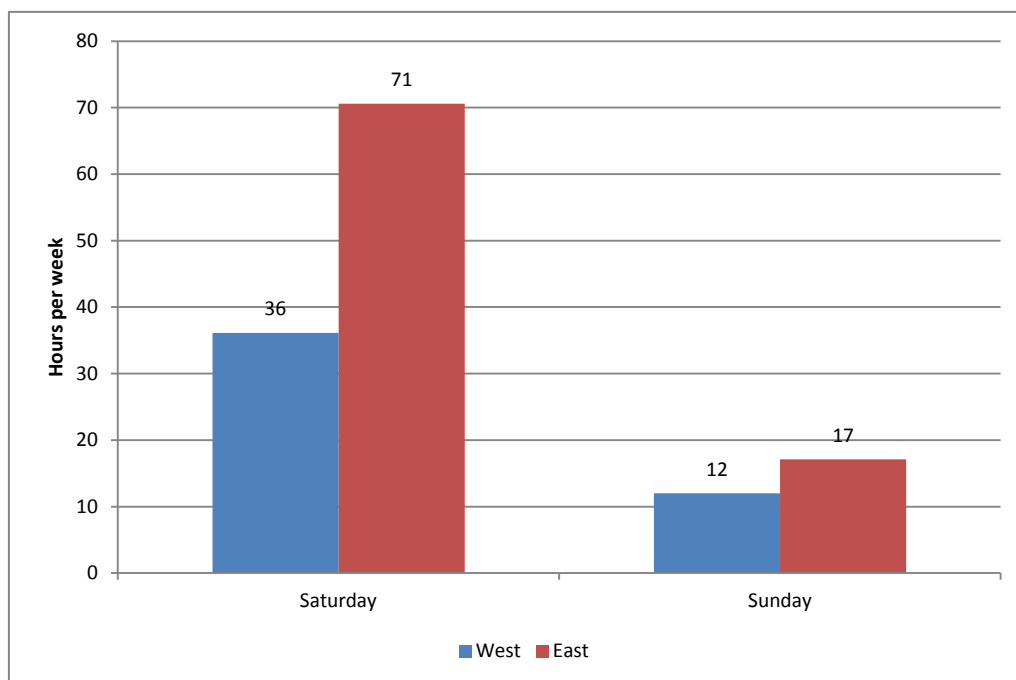
TABLE A1: FOOTBALL; NUMBER OF GAMES ON COMMUNITY FIELDS, DURING 2012 SEASON, BY GRADE AND DAY

Day/Time	Grade						Juniors (5-11yrs)	All grades
	Adult Men	Adult Women	Youth Male (15-17yrs)	Youth Male (11-14yrs)	Youth Female (15-17yrs)	Youth Female (11-14 yrs)		
Sat AM	0	0	108	85	49	12	1514	1768
Sat PM	297	0	0	0	0	0	40	337
Sun AM	52 ¹	94	5 ²	0	0	0	0	151
Sun PM	101 ¹	10	0	29 ³	0	0	0	140
TOTAL	450	104	113	114	49	12	1554	2396

Notes: 1. Sunday League
2. Federation Boys Under 17 Competition
3. Federation Boys Under 15 Competition

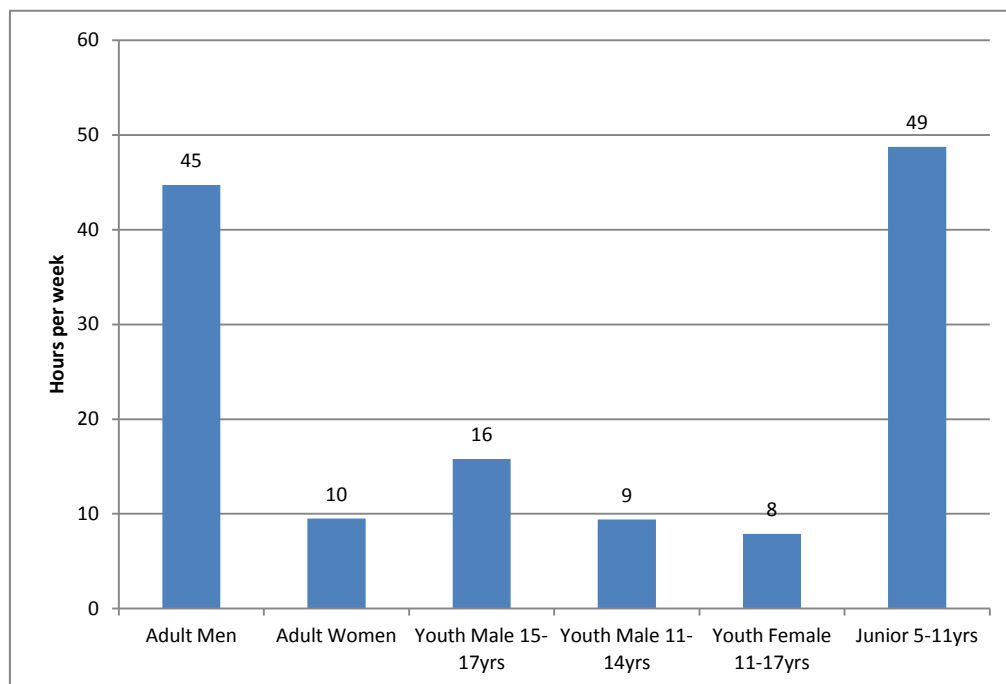
As Figure A4 shows, Saturday is the peak day for the football competition play. The weekly competition demand was 135 hours; 48 hours in the West Ward and 88 hours in the East Ward

FIGURE A4: FOOTBALL: WEEKLY COMPETITION DEMAND BY WARD



Analysis by Grade shows that the Junior grade had the highest competition demand (49 hours per week), followed by the Adult Men's teams with 45 hours a week.

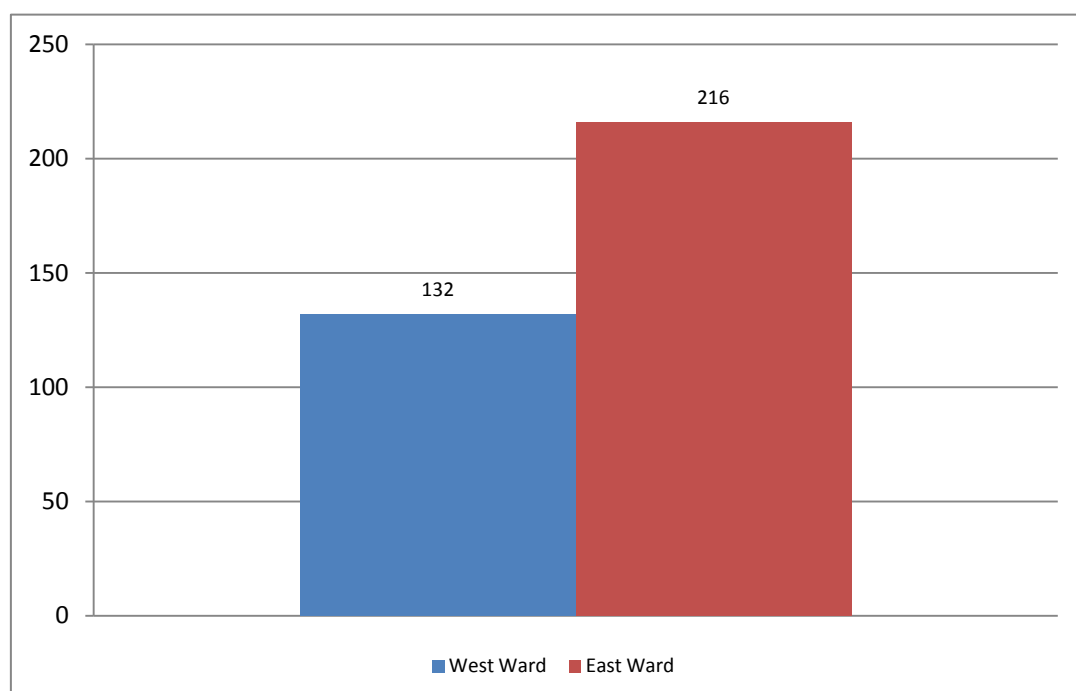
FIGURE A5: FOOTBALL: COMPETITION DEMAND BY GRADE



FOOTBALL: TRAINING DEMAND

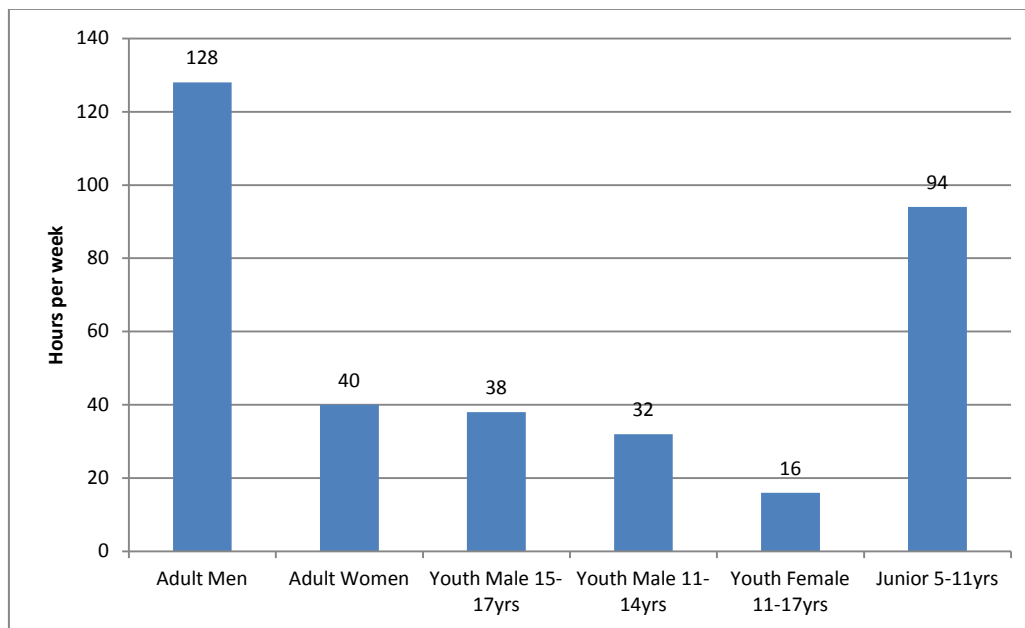
The training demand for football was 348 hours per week; 132 hours in the West Ward and 216 hours in the East Ward.

FIGURE A6: FOOTBALL: WEEKLY TRAINING DEMAND BY WARD



Analysis by Grade shows that the Adult men's grade had the highest training demand (128 hours per week), followed by the Junior teams who trained 94 hours a week.

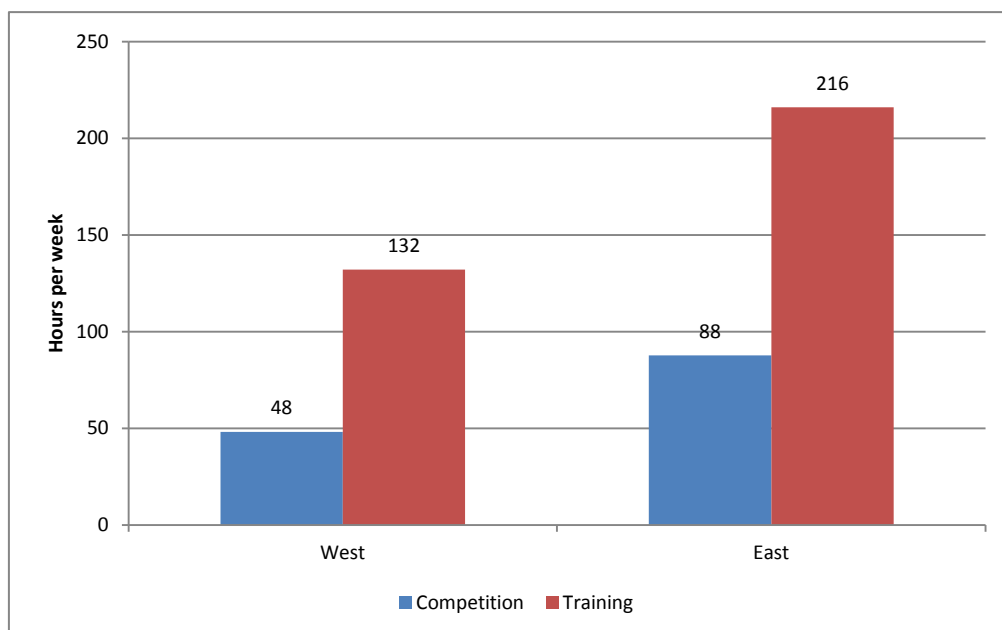
FIGURE A7: FOOTBALL: TRAINING DEMAND BY GRADE



TOTAL DEMAND

The total demand was 483⁵⁴ hours per week; 180 hours in the West Ward and 304 hours in the East Ward.

FIGURE A8: FOOTBALL: TOTAL DEMAND BY WARD



⁵⁴ Due to rounding, the totals for East and West add to 484, rather than 483; however for consistency with the data presented in other sections of the report, 483 is considered the overall total demand for football.

FOOTBALL: CAPACITY AND DEMAND

The total weekly capacity of the football fields was 639 hours per week. The total weekly demand for football was 483 hours. Therefore the total weekly capacity of the available football fields in 2012 exceeded the demand by 155 hours.

$$639 \text{ hours (Weekly Capacity)} - 483 \text{ (Weekly Demand)} = 155 \text{ (Surplus)}$$

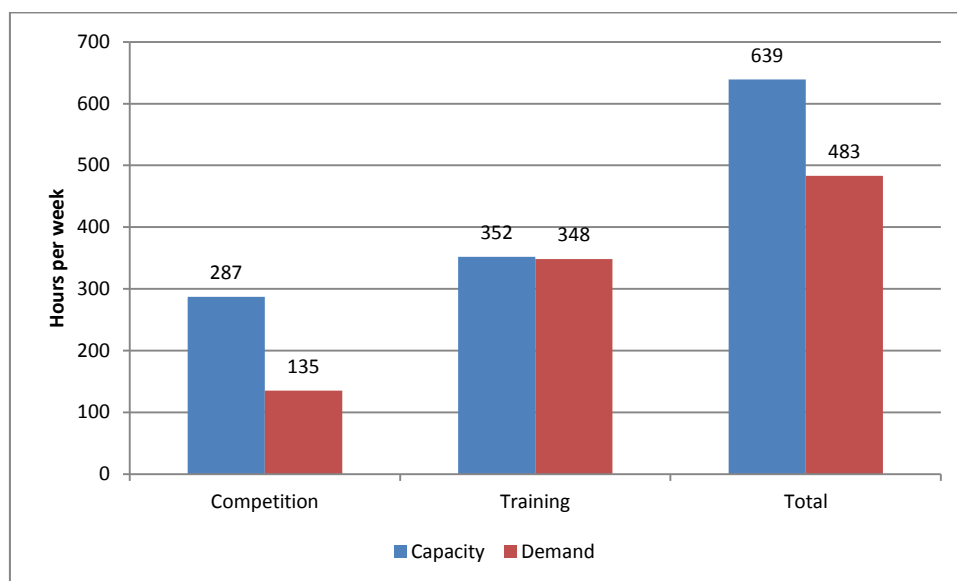
When analysed separately by competition and training, the total capacity of the football fields, for the weekend (i.e. competition), was 287 hours per week, and the demand was 135 hours. Therefore the capacity of the available football fields in 2012 for competition exceeded the demand by 151 hours.

$$287 \text{ hours (Weekly Capacity)} - 135 \text{ (Weekly Demand)} = 151 \text{ (Surplus)}$$

The total capacity of the football fields, for the weekdays (i.e. training) was 352 hours per week, and the demand was 348 hours. Therefore the capacity of the available football fields in 2012 for training exceeded the demand by 4 hours per week.

$$352 \text{ hours (Weekly Capacity)} - 348 \text{ (Weekly Demand)} = 4 \text{ (Surplus)}$$

FIGURE A9: FOOTBALL: WEEKLY FIELD CAPACITY COMPARED TO DEMAND



APPENDIX 2: RUGBY DATA

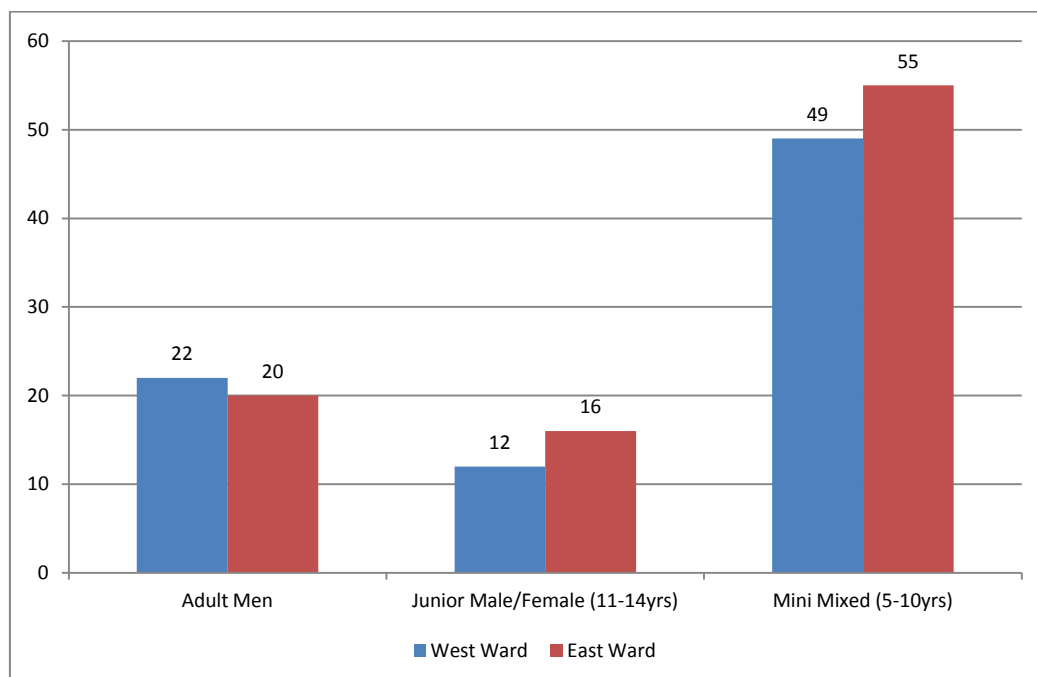
RUGBY: SUMMARY OF DATA

- The total number of rugby teams who played competition games on Council fields, or fields for which a formal agreement exists, in 2012, was 174.
- The total number of rugby teams who trained on Council fields, or fields for which a formal agreement exists, in 2012, was 175.
- The weekly competition demand was 74 hours.
- The weekly competition capacity was 128 hours per week.
- The weekly competition capacity of the rugby fields exceeded the demand by 54 hours.
- The weekly training demand was 235 hours.
- The weekly training capacity of the rugby fields was 134 hours per week.
- The weekly capacity for training did not meet the demand, by a deficit of 101 hours per week.
- The total weekly demand was 308 hours.
- The total weekly capacity of the rugby fields was 261 hours per week.
- The total weekly capacity did not meet the demand by a deficit of 47 hours.

RUGBY: NUMBER OF TEAMS

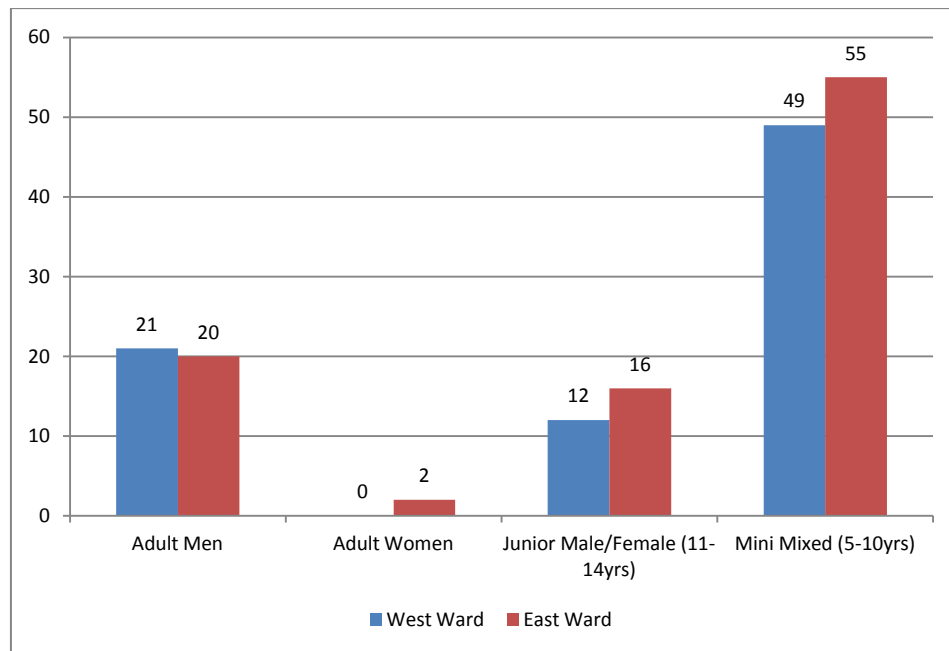
There were a total of 11 Hamilton-based rugby clubs included in the research. The total number of rugby teams who played competition games on Council fields, or fields for which a formal agreement exists, in 2012, was 174. Of these, Mini teams were by far the largest group, with a total of 104 teams, 55 in East Ward and 49 in the West Ward. Of note is that there are no Adult Women's teams or 15-17 year old youths who play competition games on Council fields; the two Hamilton-based women's teams play their competition games in the Auckland competition and the 15-17 year olds play for their schools and use school grounds.

FIGURE A10: RUGBY: NUMBER OF COMPETITION TEAMS BY WARD (N=174)



The total number of rugby teams who trained on Council fields, or fields for which a formal agreement exists, in 2012, was 175. Of these, Mini teams were by far the largest group, with a total of 104 teams, 55 in East Ward and 49 in the West Ward.

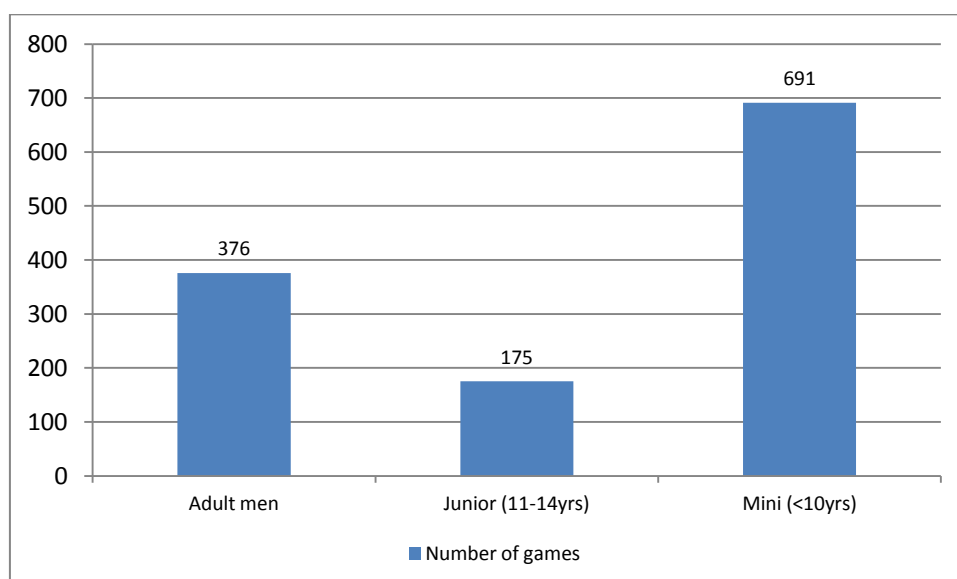
FIGURE A11: RUGBY: NUMBER OF TEAMS WHO TRAINED BY WARD (N=175)



RUGBY: COMPETITION DEMAND

There were a total of 1242 rugby games played on community fields, over the 2012 season. Of these half (691, 55%) were Mini grade games, a third (376) were Men's grade games and 175 Junior (11-14yrs) grade games. As was discussed previously, Adult Women's teams play in the Auckland competition and Secondary School rugby is played on school fields.

FIGURE A12: RUGBY: NUMBER OF GAMES BY GRADE



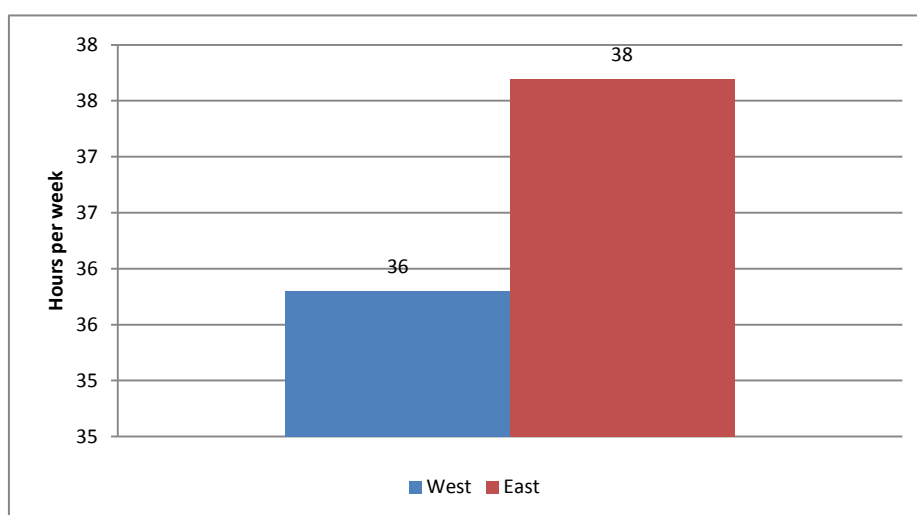
As Table A2 shows, all Mini and Junior rugby games were scheduled for Saturdays, with the majority occurring in the morning. For the adult grade games most were scheduled for Saturday afternoons (355 games) with a minority occurring on Saturday morning (10 games) or a weekday afternoon (11 games).

TABLE A2: NUMBER OF RUGBY COMPETITION GAMES ON COMMUNITY FIELDS, DURING 2012 SEASON, BY GRADE AND DAY

Day/Time	Adult Men	Adult Women	Grade Youth (11-14yrs)	Mini (5-11yrs)	All grades
Sat AM	10	0	170	690	870
Sat PM	355	0	5	1	361
Thurs / Fri PM	11	0	0	0	11
TOTAL	376	0	175	691	1242

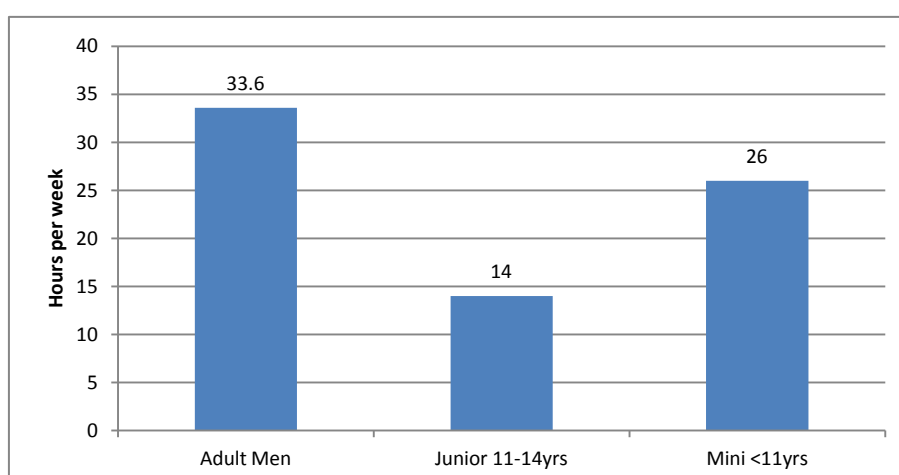
Saturday was the peak day for the rugby competition play. No games were played on Sundays, although some games were scheduled for weekdays (Thursday and Friday) evenings. In terms of usage by week, Figure A13 shows that competition demand was 74 hours per week across both Wards; 36 hours in the West Ward and 38 hours in the East Ward.

FIGURE A13: RUGBY: WEEKLY COMPETITION DEMAND BY WARD



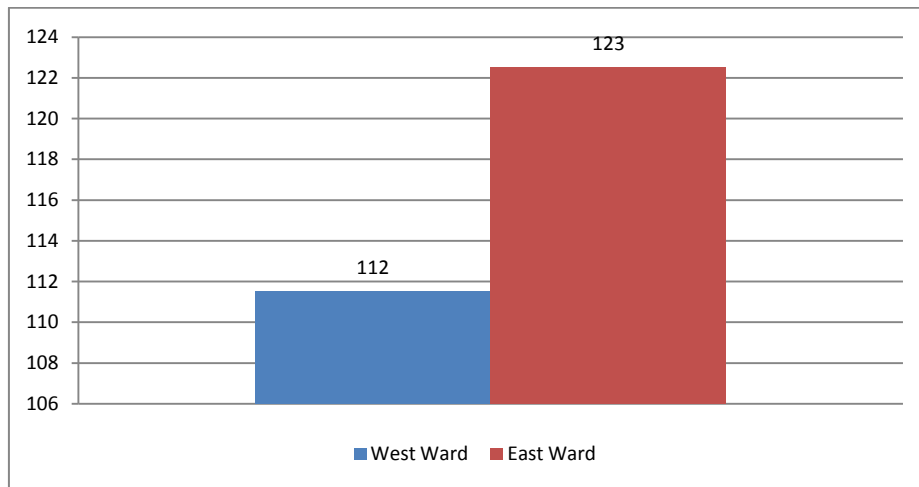
Analysis by Grade shows that the Adult Men's grade had the highest competition demand (34 hours).

FIGURE A14: RUGBY: WEEKLY COMPETITION DEMAND BY GRADE

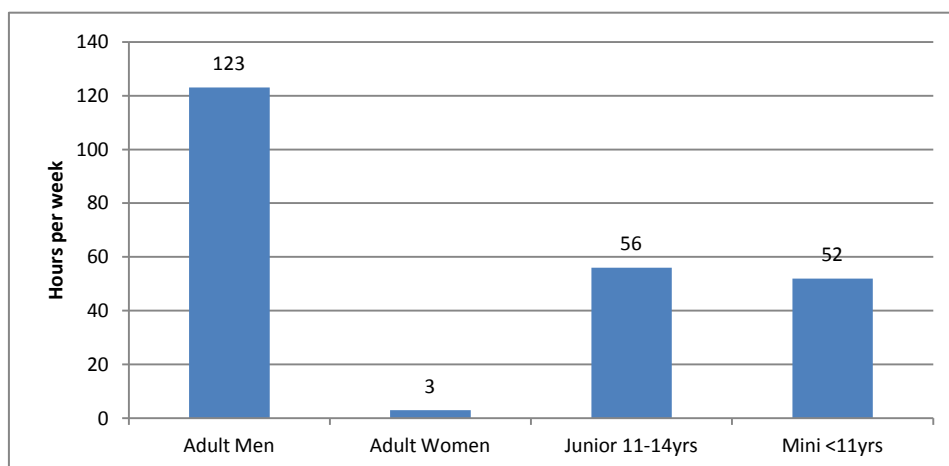


RUGBY: TRAINING DEMAND

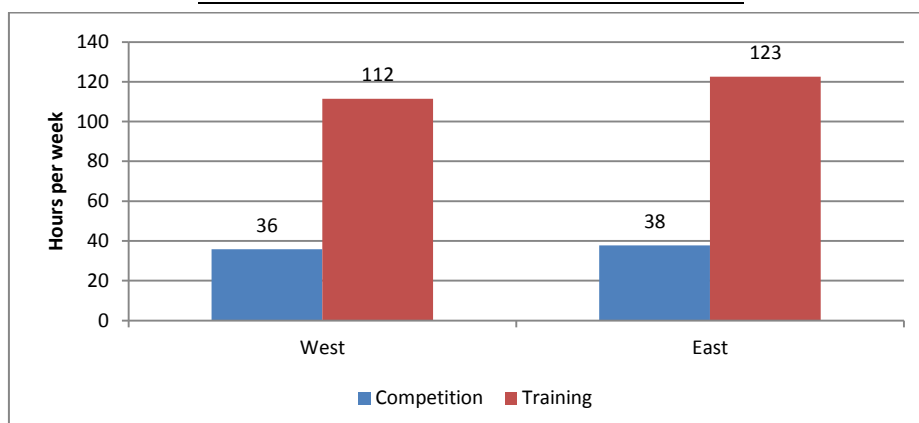
The training demand was 235 hours per week; 112 hours in the West Ward and 123 hours in the East Ward.

FIGURE A15: RUGBY: WEEKLY TRAINING DEMAND BY WARD

Analysis by Grade shows that the Adult Men's grade had the highest training demand (123 hours).

FIGURE A16: RUGBY: WEEKLY TRAINING DEMAND BY GRADE**TOTAL DEMAND**

The total demand was 308 hours per week; 148 hours in the West Ward and 161 hours in the East Ward.

FIGURE A17: RUGBY: TOTAL DEMAND BY WARD

RUGBY: CAPACITY AND DEMAND

The total weekly capacity of the rugby fields was 261 hours per week. The total weekly demand for rugby was 308 hours. Therefore there was a deficit of 47 hours per week.

$$261 \text{ hours (Weekly Capacity)} - 308 \text{ (Weekly Demand)} = -47 \text{ (Deficit)}$$

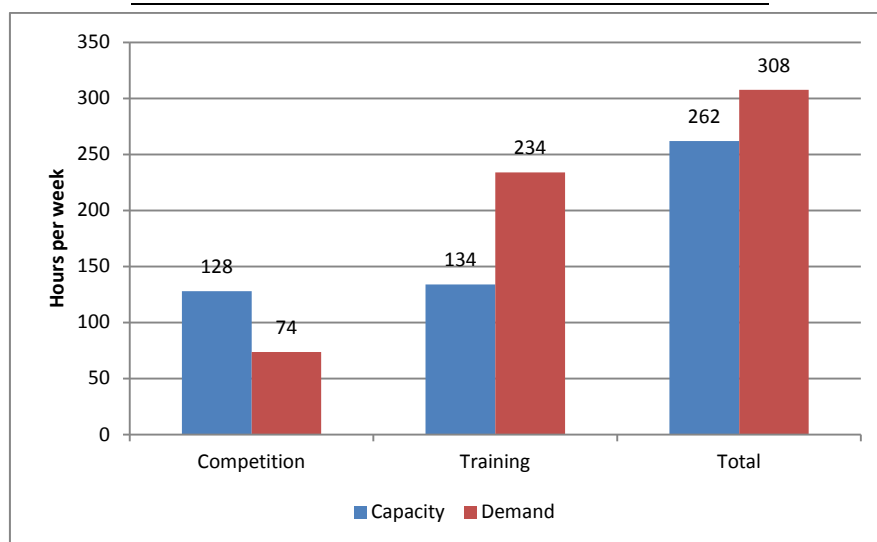
When analysed separately by competition and training, the total capacity of the rugby fields, for the weekend (i.e. competition), was 128 hours per week, and the demand was 74 hours. Therefore the capacity of the available rugby fields in 2012 for competition exceeded the demand by 54 hours.

$$128 \text{ hours (Weekly Capacity)} - 74 \text{ (Weekly Demand)} = 54 \text{ (Surplus)}$$

The total capacity of the rugby fields, for the weekdays (i.e. training) was 134 hours per week, and the demand was calculated to be 235 hours. Therefore there was a deficit of 101 hours per week.

$$134 \text{ hours (Weekly Capacity)} - 235 \text{ (Weekly Demand)} = -101 \text{ (Deficit)}$$

FIGURE A18: RUGBY: CAPACITY COMPARED TO DEMAND



APPENDIX 3: RUGBY LEAGUE DATA

RUGBY LEAGUE: SUMMARY OF DATA

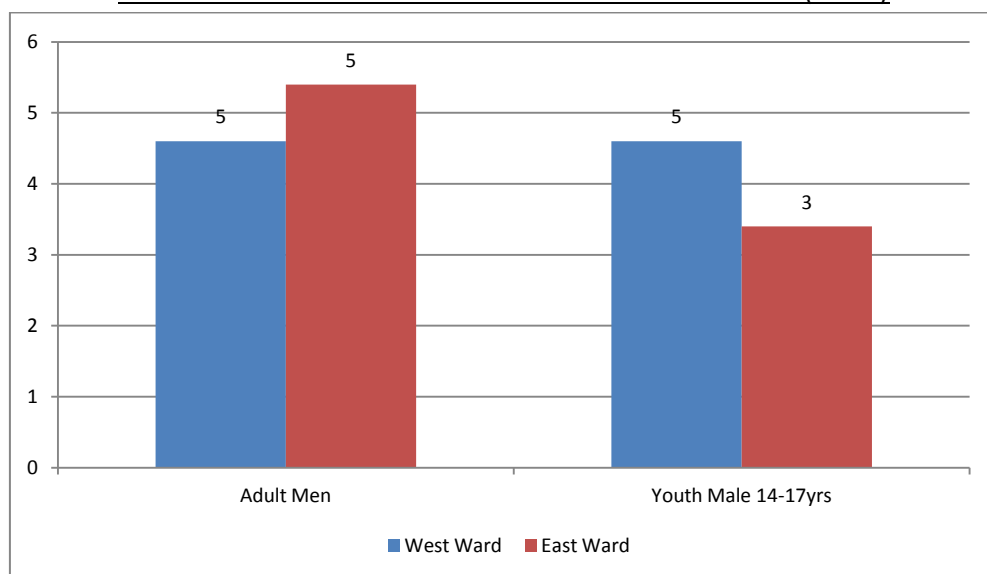
- Available information from rugby league indicates that there are seven Hamilton-based clubs, who between them have 41 teams across the junior and senior grades.
- The weekly competition demand was 13 hours.
- The weekly competition capacity of the rugby league fields was 32 hours per week.
- The weekly competition capacity exceeded the demand by 19 hours.
- The weekly training demand was 73 hours.
- The weekly training capacity of the rugby league fields was 32 hours per week.
- The weekly capacity for training did not meet the demand, by a deficit of 41 hours per week.
- The total weekly demand was 86 hours.
- The total weekly capacity of the rugby league fields was 64 hours per week.
- The total weekly capacity did not meet the demand by a deficit of 22 hours.

RUGBY LEAGUE: NUMBER OF TEAMS

Available information from rugby league indicates that there are seven Hamilton-based clubs, who between them have 41 teams across the junior and senior grades. The clubs play in a draw with clubs from across the Waikato Region, and competition games are typically played on one of two Parks in Hamilton, Enderley and Resthills⁵⁵, with the remainder played on fields outside the City. According to the available information, the total number of rugby league teams who played competition games on Council fields, or fields for which a formal agreement exists, in the 2012 season, was 18.

According to information from a couple of the clubs, a minority of junior competition games were played at Resthills Park in 2012, with the majority played out of the City at Hopuhopu, Ngaruawahia. However, at the time that this report went to print the rugby league clubs had not been able to confirm the number of junior games that were played in the City, and as such they have been left out of the following graph.

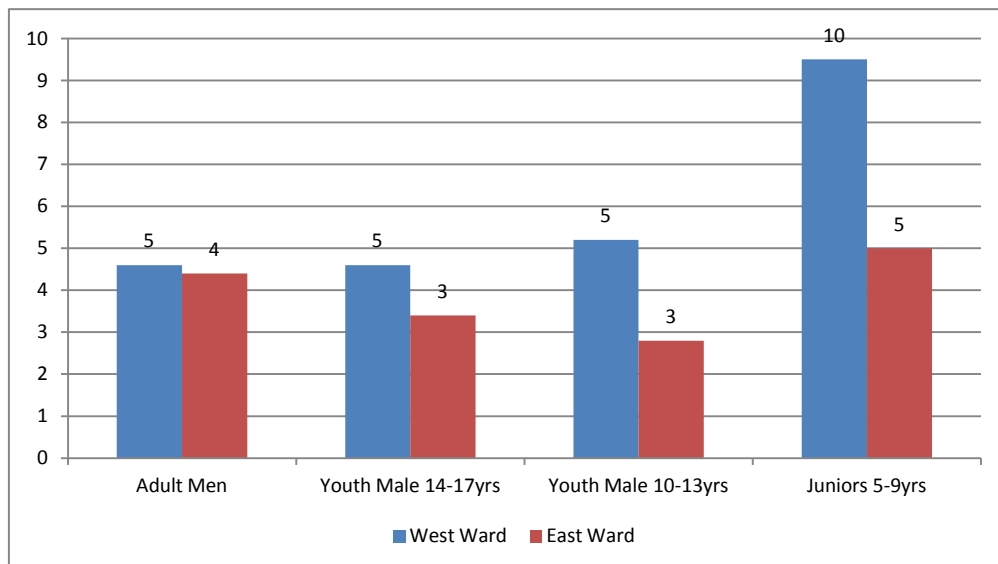
FIGURE A19: RUGBY LEAGUE: NUMBER OF TEAMS BY WARD (N=18)



⁵⁵ Note that some tournaments may be played on other fields, however as was noted earlier the research is a peak time model and as such one off tournaments are not included in the calculations.

The total number of rugby league teams who trained on Council fields, or fields for which a formal agreement exists, in 2012, was 40. The difference between the competition and training numbers is primarily a result of the junior and mini teams being included in the training numbers as they train on fields in the City. As well, one of the adult teams trains outside of the City, although has a home ground in the City for competitions.

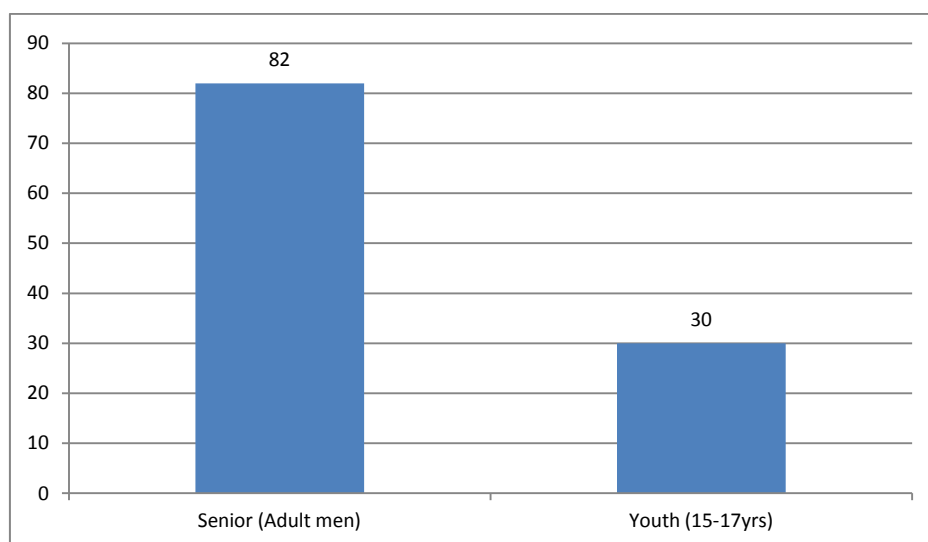
FIGURE A20: RUGBY LEAGUE: NUMBER OF TEAMS WHO TRAIN, BY WARD (N=40)



RUGBY LEAGUE: COMPETITION DEMAND

The available information for rugby league⁵⁶ indicated that there were a total of 118 rugby league games played on community fields⁵⁷, over the 2012 season; 82 adult men's games and 30 in the U17 competition.

FIGURE A21: RUGBY LEAGUE: NUMBER OF GAMES, BY GRADE (N=118)



⁵⁶ Rugby League was asked if they could provide a copy of the Seasons' Draw for all the grades (Senior and Junior). They were able to provide a copy of the Season's Draws for the following competitions: WRL Reserves Div 1 and Div 2; Premiers, and Under 17s. This information has been analysed and it is the data from these draws that is presented here. At the time this report went to print, we were still waiting on the Junior draw, although we were informed that the Juniors mostly played out of town.

⁵⁷ Note that the most up to date draw available from rugby league did not have the teams or venues for any of the semi or grand final games and as such, we were unable to accurately confirm where these games occurred. They have been included in the model however, as they could all *potentially* have been played in Hamilton; i.e. if the Hamilton-based teams dominated the competition and therefore all semi-final and final games were between Hamilton based teams the games would have been likely to have occurred in Hamilton.

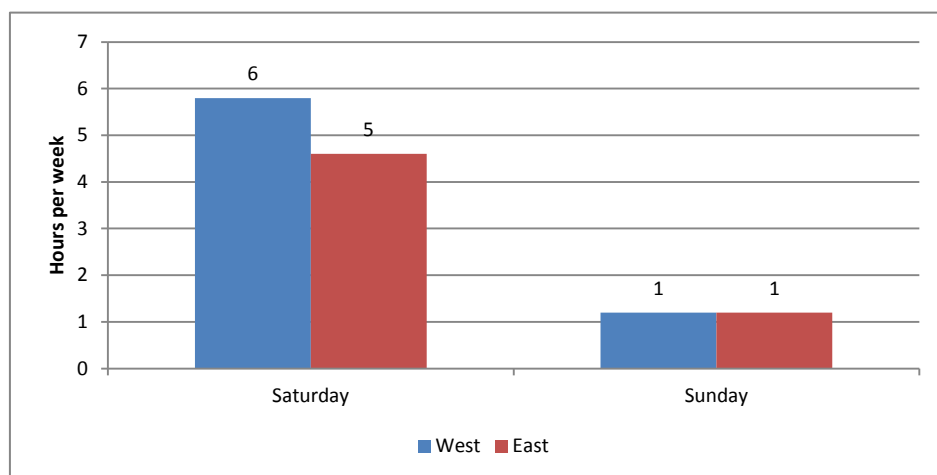
As Table A3 shows, all rugby league competition games occurred in the afternoon or evening. All adult men's games were played on Saturday afternoon, with the Under 17 competition games spread across three days, Friday, Saturday and Sunday.

TABLE A3: RUGBY LEAGUE: NUMBER OF GAMES ON COMMUNITY FIELDS, DURING 2012 SEASON, BY GRADE AND DAY

Day/Time	Adult men	Grade Youth (15-17yrs)	All grades
Fri pm		14	14
Sat PM	82	4	86
Sun PM		12	12
TOTAL	82	30	112

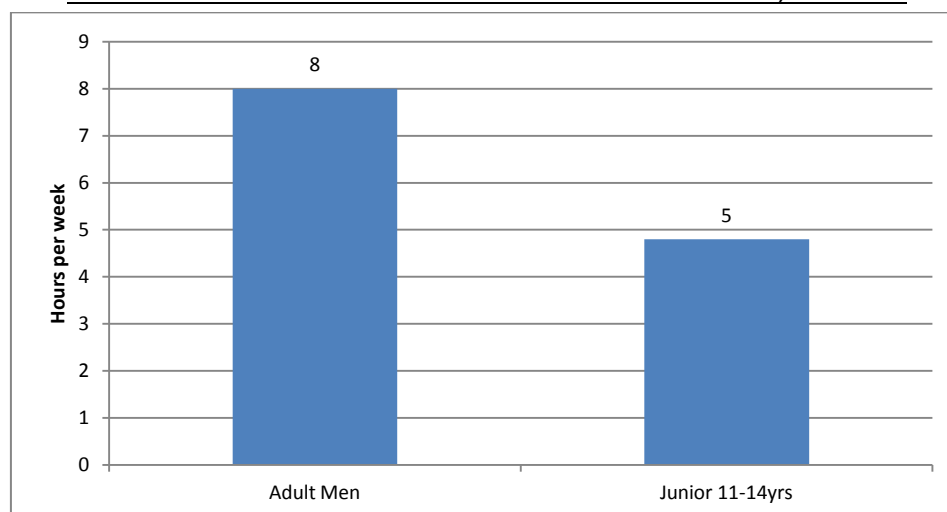
Saturday was the peak day for the rugby league competition play. In terms of usage by week, competition demand was 13 hours per week across both Wards; 7 hours in the West Ward and 6 hours in the East Ward.

FIGURE A22: RUGBY LEAGUE: WEEKLY COMPETITION DEMAND, BY WARD



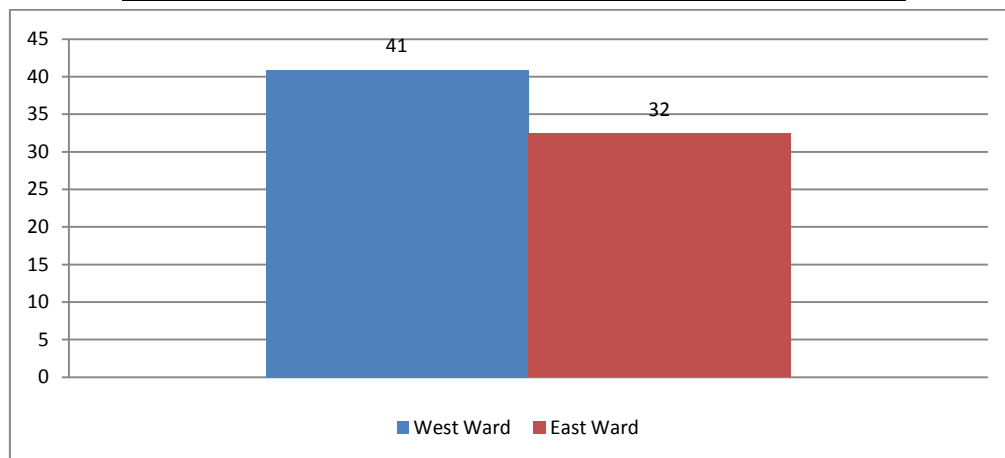
Analysis by Grade shows that the Adult Men's grade had the highest competition demand (8 hours).

FIGURE A23: RUGBY LEAGUE: WEEKLY COMPETITION DEMAND, BY GRADE

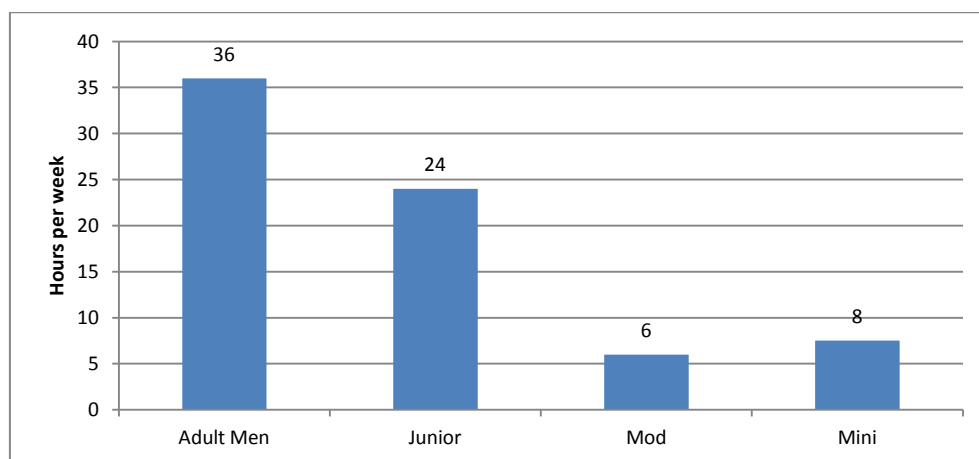


RUGBY LEAGUE: TRAINING DEMAND

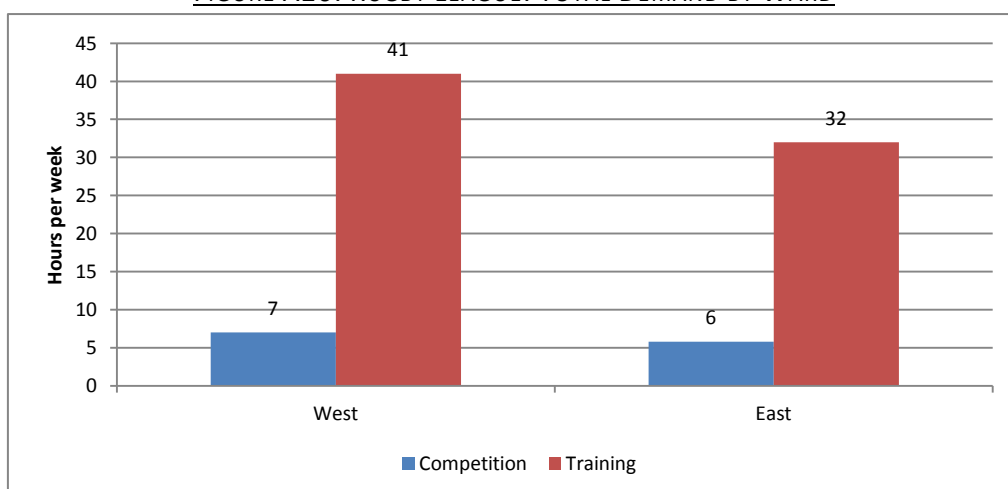
The training demand was 73 hours per week; 41 hours in the West Ward and 32 hours in the East Ward.

FIGURE A24: RUGBY LEAGUE: WEEKLY TRAINING DEMAND, BY WARD

Analysis by grade shows that the Adult Men's grade had the highest training demand (36 hours).

FIGURE A25: RUGBY LEAGUE: WEEKLY TRAINING DEMAND, BY GRADE**TOTAL DEMAND**

The total demand was 86 hours per week; 48 hours in the West Ward and 38 hours in the East Ward.

FIGURE A26: RUGBY LEAGUE: TOTAL DEMAND BY WARD

RUGBY LEAGUE: CAPACITY AND DEMAND

The total weekly capacity of the rugby league fields was 64 hours per week. The total weekly demand for rugby league was 86 hours. Therefore there was a deficit of 22 hours per week.

$$64 \text{ hours (Weekly Capacity)} - 86 \text{ (Weekly Demand)} = -22 \text{ (Deficit)}$$

When analysed separately by competition and training, the total capacity of the rugby league fields, for the weekend (i.e. competition), was 32 hours per week, and the demand was 13 hours. Therefore the capacity of the available rugby league fields in 2012 for competition exceeded the demand by 19 hours.

$$32 \text{ hours (Weekly Capacity)} - 13 \text{ (Weekly Demand)} = 19 \text{ (Surplus)}$$

The total capacity of the rugby league fields, for the weekdays (i.e. training) was 32 hours per week, and the demand was calculated to be 73 hours. Therefore there was a deficit of 41 hours per week.

$$32 \text{ hours (Weekly Capacity)} - 73 \text{ (Weekly Demand)} = -41 \text{ (Deficit)}$$

FIGURE A27: RUGBY LEAGUE: CAPACITY COMPARED TO DEMAND

