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Central Waikato Region Sports Fields Assessment Hamilton City Report

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rslc.nz



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About RSL Consultancy

RSL Consultancy undertakes projects and offers strategic advice throughout Aotearoa to enable community well-being. We support organisations to make informed decisions when it comes to their people, facilities, places and spaces. RSL carries out a range of pre-planning work from needs assessments and feasibility reports to business cases. We also work on a range of organisational strategic and operational projects.

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1. Introduction

1.1 Goals of this Assessment

Hamilton City, Waikato District and Waipa District Councils are the major providers of sports fields in the central Waikato as part of the open space networks they manage and maintain. Winter sports code participants who benefit from this provision include those playing football, rugby and rugby league, their associated clubs, supporters and volunteers. This participation in organised sport provides benefits, including the overall physical wellbeing of participants and social connectedness.

This purpose of this study is to understand the current provision of (supply), and the current and future requirements (demand) for winter code sports fields in the central Waikato. The study provides this assessment for the Hamilton City, Waikato District and Waipa District Council areas. This study is a high level update the previous study undertaken in 2019 based on updated field information provided by the Councils and team data provided by the RSOs. No engagement has been undertake directly with clubs.

This report outlines the findings for the Hamilton City.

1.2 Scope and Methodology

This study focuses on sports field use by winter codes football, rugby and rugby league.

1.2.1 Current Demand and Supply

Regional sporting organisations have provided data on their teams to understand the current level of demand for sports fields from football, rugby and rugby league across central Waikato. This information has been used to understand the current demand for sports fields in this area.

This demand assessment has then been compared to the current supply of sports fields in the area to identify where there may be either a surplus or shortfall in sports field provision. Opportunities to address shortfalls in adjoining areas where there is surplus supply is also provided.

2.2.1 Future Forecasts of Demand and Supply

Using future projections of changes in the active population (5-59 years in age), and the typical number of football, rugby and rugby league teams (using team generation rates), the projected future demand and supply of sports fields is estimated. Due to the ageing population, growth in the 'active population' (defined for this study as ages 5 to 59) is lower than overall population growth.

An assessment of the likely requirements for future provision is concluded, taking into account where there is known planned future supply changes. Future supply surpluses or shortfalls are identified to inform future planning and decision making for sports field provision in these areas.

It was agreed by the participating Councils and Sport Waikato that the study would assess the current year 2025 and projected demand in 2038.

2.2.2 Key Assumptions

- Achieving a net surplus / shortfall of zero field hours. This implies that supply equals demand. While this approach balances supply and demand it is prudent in future planning to aim to provide a surplus of provision to act as a buffer to factors such as weather-related closures or field maintenance closures.

- Sports fields are considered secured for community use if they are Council owned or secured from other ownership through a formal agreement (lease, partnership etc) for a period of longer than one year.
- Demand for winter fields is predominantly made up of regular competition games and regular training by community-based teams (i.e., not schools) involved in winter competitions. While school teams are usually excluded, a number are now beginning to entering teams as clubs within the community leagues.

Included as demand	Excluded from demand
All regular competition and training use by community based (like a club or community group) teams for the three main winter codes (rugby, league and football).	Any use outside the marked field playing area.
Any school use, both general use and sports team competition and training that is either regularly or intermittently scheduled on community fields.	Any use considered to be 'non capacity' reducing (ie does not impact on the use of the field by teams or groups that are included as demand in this study)
Representative training and games that occur during the season	School use of school fields.
High performance, skills development or academy programmes	
Any 'one-off' demand, such as for the club, regional or national games or tournaments.	
Regular or intermittent use by minority sports	
Regular or 'one-off' community events	

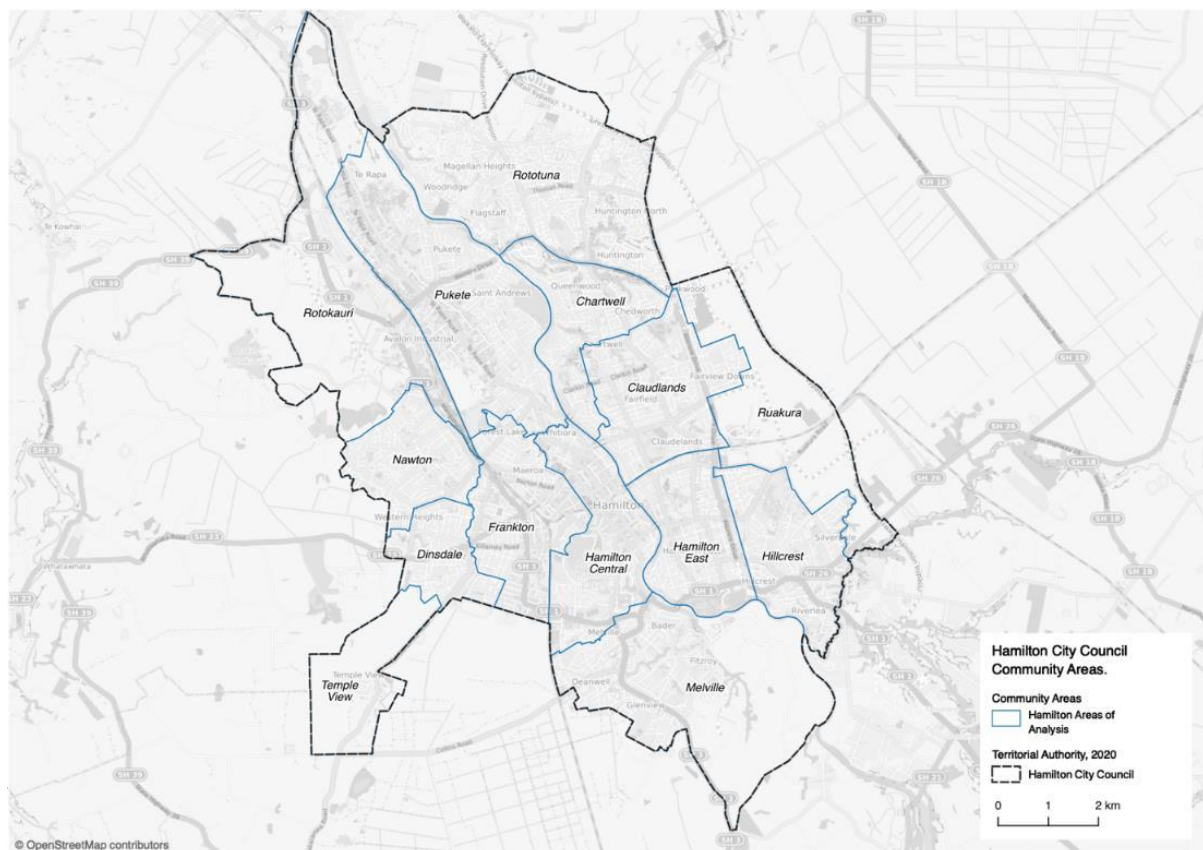
1.3 The Study Area

This study covers the Hamilton City Council area. Hamilton City Council is divided into 14 community areas, the boundaries of which are shown in Figure 1.1.¹

Hamilton City Council is divided into 14 community areas:

- East Area 1 (Sylvester, Flagstaff, Horsham Downs, Rototuna, Huntington)
- East Area 2 (Queenwood, Chedworth, Chartwell)
- East Area 3 (Porritt, Insoll, Fairview Downs, Clarkin, Claudelands, Enderley)
- East Area 4 (Peachgrove, Hamilton East, Naylor)
- East Area 5 (University, Hillcrest West, Riverlea, Silverdale)
- East Area 6 (Ruakura, Puketaha)
- West Area 1 (Pukete, Pukete West, Bryant, Te Rapa, Beerescourt)
- West Area 2 (Nawton, Crawshaw, Grand View, Brymer)
- West Area 3 (Dinsdale North, Dinsdale South)
- West Area 4 (Maeroa, Frankton Junction, Swarbrick)
- West Area 5 (Hamilton Central, Hamilton Lake)
- West Area 6 (Peacocke, Glenview, Bader, Melville)
- West Area 7 (Rotokauri)
- West Area 8 (Temple View)

Figure 1-1 Community Analysis Areas - Hamilton City



¹ These ward names and boundaries have been updated for the 2025 elections including Māori Wards being groupings of electoral wards and are not specifically assessed.

2. Demand Assessment

2.1 Population Trends

Population growth is a key driver of increased demand for sports fields. The NZ Statistics (medium) projections were used as the basis for all future demand projections, which identified:

Hamilton City

- Population is projected to increase by 25% from 2023 to 2038 – from 184,100 (2023) to 230,800.
- Due to the ageing population, growth in the 'playing age population' (defined as 5 to 59 years) is lower, with the 5 to 59 age group projected to increase by 15%, from 120,325 to 138,321.

Table 2-1 Population Change Active Age

	2023		2038	
	5 – 19 Years	20 – 59 Years	5 – 19 Years	20 – 59 Years
East Area 1	2,810	5,090	2,430	5,170
East Area 2	4,870	8,500	3,990	9,040
East Area 3	2,195	4,020	2,120	4,490
East Area 4	4,030	7,400	3,900	8,100
East Area 5	3,230	8,210	2,980	8,790
East Area 6	4,430	9,690	5,290	12,240
West Area 1	3,090	6,530	3,215	7,710
West Area 2	3,505	6,865	5,030	10,250
West Area 3	2,145	4,190	2,150	4,465
West Area 4	2,200	5,765	2,340	6,010
West Area 5	1,235	5,730	1,689	6,335
West Area 6	4,055	9,140	6,340	12,740
West Area 7	500	200	300	700
West Area 8	500	200	300	707
TOTAL	38,795	81,530	42,074	96,747

Population data – Infometrics / Hamilton City

The Active Age population is projected to change in each community analysis area. It highlights where growth in the age groups most likely to participate in winter field sports is expected to be higher or lower. Areas with stronger growth in the active age population are likely to experience greater pressure on sports fields in the future, while areas with static or declining active age populations may see more stable or even reduced demand.

Changes to the active population impact significantly on future growth across the district, with the overall demand projected to fall even in areas projected to experience growth. This is as a result of an ageing population. An ageing population impacts on the projected demand in two ways:

- o A static or declining active population
- o An ageing within the active population. This is significant as approximately 80 – 85% of all participation comes from the 5 to 18 year old age group.

2.2 Winter Sports Fields Codes

This part of the report covers the three main winter sports field codes:

- Football
- Rugby
- Rugby League.

Rugby Union

- There are 13 rugby clubs in the area, fielding 160 teams.

Rugby League

- There are 6 league clubs in the area, fielding 38 teams.
- The majority of regular club league is played on Saturdays.

Football

- There are 19 football clubs in the area, fielding 344 teams.
- There are 25 football clubs in the Waikato Sunday Soccer League fielding 25 teams.
- The majority of football is played on Saturdays with all mini play on Saturday mornings.

2.2.1 Team Numbers by Community Area

Teams are not spread evenly across all of the community analysis areas.

Each club's teams were identified and then distributed across the club's main catchment area and have been allocated to the areas where the team plays home games or trains, and college teams regularly playing on community fields to the area where the college is located.

Table 2-2 Number of Teams Generated within the community analysis areas

Community area	Rugby 2019	Rugby 2025	League 2019	League 2025	Football 2019	Football 2025	Total Teams 2019	Total Teams 2025
Hamilton Total	177	160	52	38	353	369	582	567
East Area 1	36	28	0	0	82	97	118	125
East Area 2	0	0	0	0	8	9	8	9
East Area 3	7	0	15	3	103	89	125	92
East Area 4	25	17	0	0	23	27	48	44
East Area 5	9	4	0	0	31	31	40	35
East Area 6	0	12	0	0	3	3	3	15
West Area 1	18	12	0	0	5	5	23	17
West Area 2	0	13	0	0	0	1	0	14
West Area 3	1	0	0	0	28	54	29	54
West Area 4	36	11	0	0	21	0	57	11
West Area 5	20	41	0	0	18	26	38	67
West Area 6	19	13	37	35	26	27	82	75

Community area	Rugby 2019	Rugby 2025	League 2019	League 2025	Football 2019	Football 2025	Total Teams 2019	Total Teams 2025
West Area 7	6	9	0	0	5	0	11	9
West Area 8	0	0	0	0	0	0	0	0

2.2.2 Field Demand Across the City

Demand hours are based on the field space teams in different codes and at different levels require to play games and train.

Winter fields have a finite capacity for play before the field surface suffers long-term damage. It is acknowledged that many sports fields are utilised by a range of other activities in addition to the competition and training demand identified. It has not been possible to calculate the impact of this 'other use' on the capacity available for community sport. It is therefore considered that the other use impacts on the net surplus or shortfall of community capacity i.e. if a community area is showing a shortfall and 'other use' is identified then the projected shortfall is increased.

Winter Sport - Regular Demand

Winter sport in Hamilton requires 909 hours per week.

Table 2-3: Hamilton – Demand in full field equivalents (FFE) hours per week

	Weekend (Mainly competition)	Weekday (Mainly training)	Full week
Hamilton	345	574	909

The total weekly demand for winter sports fields in Hamilton is broken down into weekend (mainly competition) and weekday (mainly training) use. The figures highlight that weekday training demand is higher than weekend competition demand, which has implications for how fields are allocated and scheduled. Understanding this balance is important for identifying when and where capacity constraints are most likely to occur.

2.3 Future Demand

A Team Generation Rate (TGR) is calculated by dividing the total active population in each grade by the current number of teams, i.e., the TGR is the size of the active population at that particular level that is required to produce 1 team.

Once the TGR is identified at each age grade, this is applied to the population projections for each age band in the estimated population to project the likely number of teams at each grade in the future. Once the projected team numbers are known the future demand is calculated (assuming game lengths, field sizes and training requirements remain constant).

In addition to population growth, it is also possible to consider the changing participation rates within individual codes (sport development factors). These can be positive or negative and account for changes in sport popularity, demographics etc. These factors are assessed using information

from a range of sources, including historic team number trends over and above natural population growth, sport development targets from Regional Sports Organisations, club membership projections and other factors that could affect team numbers, such as sport marketing programmes, local, regional, national and international events, changing sport popularity and changing demographics.

Analysis of the available information indicates that participation rates are unlikely to vary significantly from the population growth rates, therefore, the sports development factors have not been included.

2.3.1 Team Generation Rate (TGR)

In Hamilton, there is 1 team for every 207 people aged 5 to 59, with TGR's varying between codes.

Table 2-4: Team Generation Rates (TGR) by Community Area and Code (1 team per XX people)

	Rugby	League	Football	Overall 2025
Hamilton City	752	3,166	326	207

The Team Generation Rate (TGR) indicates how many people in the active-age population are required to produce one team in each code. Lower TGR values mean that a larger proportion of the population is participating in that sport. Differences in TGRs between codes and areas reflect local preferences, accessibility of clubs and facilities, and the strength of existing competitions. These TGRs are used to project future team numbers based on population changes.

2.3.2 Projections of Future Demand

Projected demand is calculated by applying the Team Generation Rates (TGRs) to the projected active population (ages 5–59) in each community analysis area. As Hamilton's overall population is ageing, the proportion of residents in the active playing age is growing more slowly than total population growth. In some areas, the active population is projected to decline slightly, even where the total population increases. This results in relatively modest increases in team numbers and, in some cases, stabilising or declining demand for winter sports fields. The demand projections therefore, reflect both population change and demographic shifts within the district.

a. City Wide

Current demand is projected to increase by 163 hours in Hamilton by 2038.

Table 2-5: Projected Demand Field Hours per week

	2025	2038	Change 2025 to 2038
Hamilton City	909	1072	+18%

b. By Community Analysis Area

The tables below show the projected demand in each community analysis area until 2038.

Table 2-6 Hamilton District - Projected Demand by Community Analysis Area (FFE hours per week)

Community area	2025	2038	Change 2025 to 2038
Hamilton Total	909	1072	+18%
East Area 1	152	144	-5%
East Area 2	3	3	0%
East Area 3	144	150	+4%
East Area 4	61	65	+7%
East Area 5	120	127	+6%
East Area 6	8	30	+275%
West Area 1	44	51	+16%
West Area 2	31	47	+52%
West Area 3	77	80	+4%
West Area 4	20	22	+10%
West Area 5	141	199	+41%
West Area 6	98	143	+46%
West Area 7	10	11	+10%
West Area 8	0	0	0

3. Supply Assessment

3.1 Current Number and Capacity of Fields

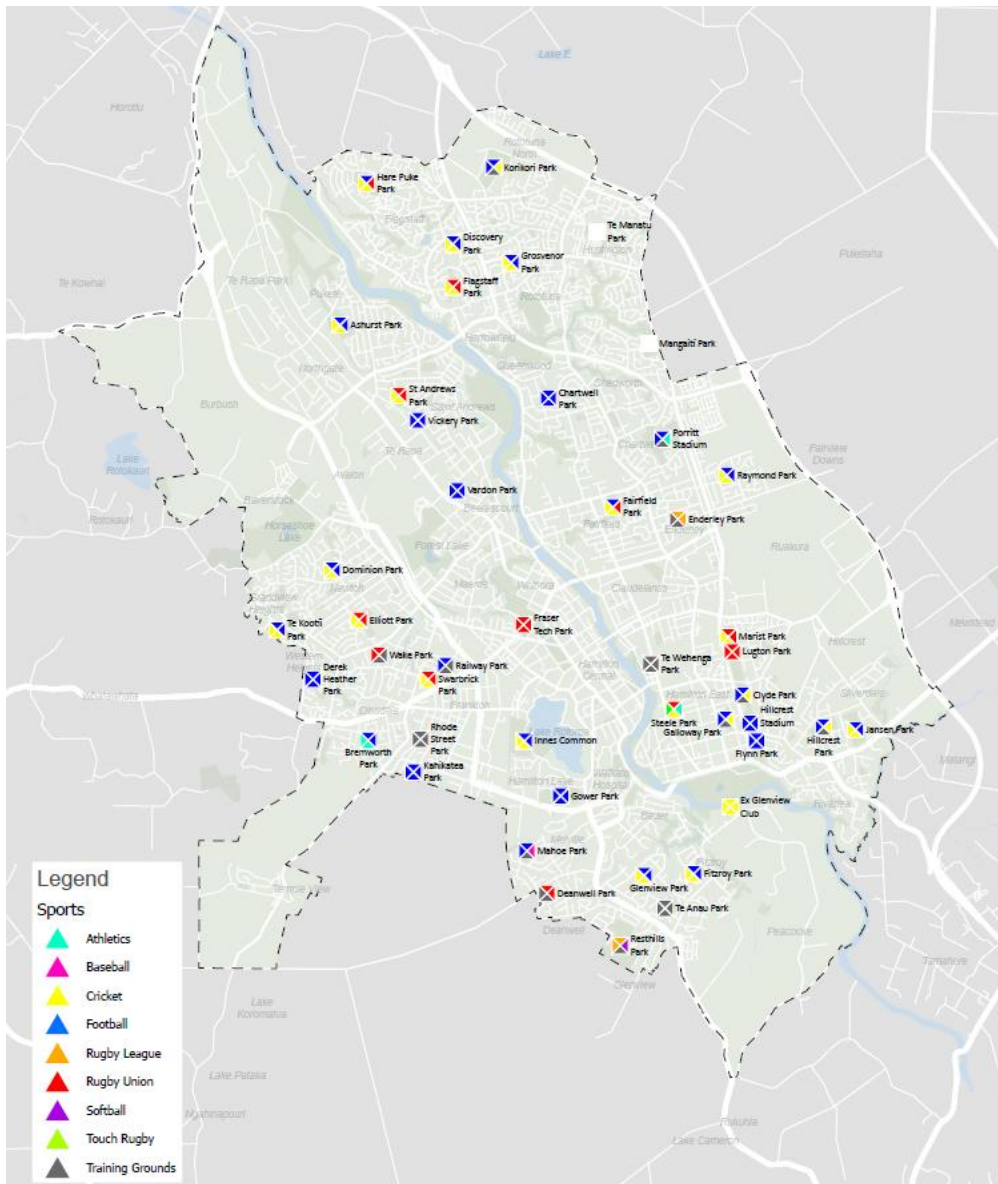
Fields are considered secured for community use if they are Council-owned or secured from other ownership through a formal agreement, for example; lease or partnership, for a period of longer than one year.

Field supply is considered in terms of a Full Field Equivalent (FFE).

In Hamilton district, the 108 secured fields are made up of:

- 33 FFE rugby fields
- 7 FFE league fields
- 68 FFE football fields.

Figure 3-1 Hamilton City Sports Field Map



3.1.1 Capacity of Current Secured Fields

The total weekly capacity is the assessment of how many hours of play each field can withstand before significant damage is caused, which would result in field closure and increased maintenance costs. Associated facilities that impact hours of use, such as irrigation, are included in the assessment.

Field capacity figures have been provided by analysis of previous studies (e.g. HCC Sports Field and Facility Review 2014) and agreed with Hamilton City Council, Waikato District Council and Waipa District Council.

Across Hamilton, the fields have been assessed as providing 918 full-sized field equivalent (FFE) hours per week.

Note that throughout this report, numbers are rounded to the nearest decimal place – this rounding may result in some columns of figures not adding exactly to the totals.

Table 3-1 : Capacity of Secured Fields (FFE hours per week)

Community area	Rugby	League	Football	Total
Hamilton Total	272	58	588	918
East Area 1	24	0	59	83
East Area 2	0	0	24	24
East Area 3	0	16	70	86
East Area 4	22	0	72	94
East Area 5	62	0	67	129
East Area 6	0	8	0	8
West Area 1	24	0	46	70
West Area 2	42	0	8	50
West Area 3	0	0	40	40
West Area 4	34	6	46	86
West Area 5	24	0	77	101
West Area 6	40	28	79	147
West Area 7	0	0	0	0
West Area 8	0	0	59	83

4. Assessing Supply and Demand

Supply and Demand Dashboards have been developed to identify the supply, demand and surplus shortfall of sports fields by code and analysis area. In addition projections have been made to 2038 to consider the potential future surplus / shortfall of sports fields should no changes be made to the available sports field network.

The surplus / shortfall of sports field is identified in the Sports Field Capacity Map and the Supply and Demand Dashboards.

Figure 4-1 Sports Field Capacity Map

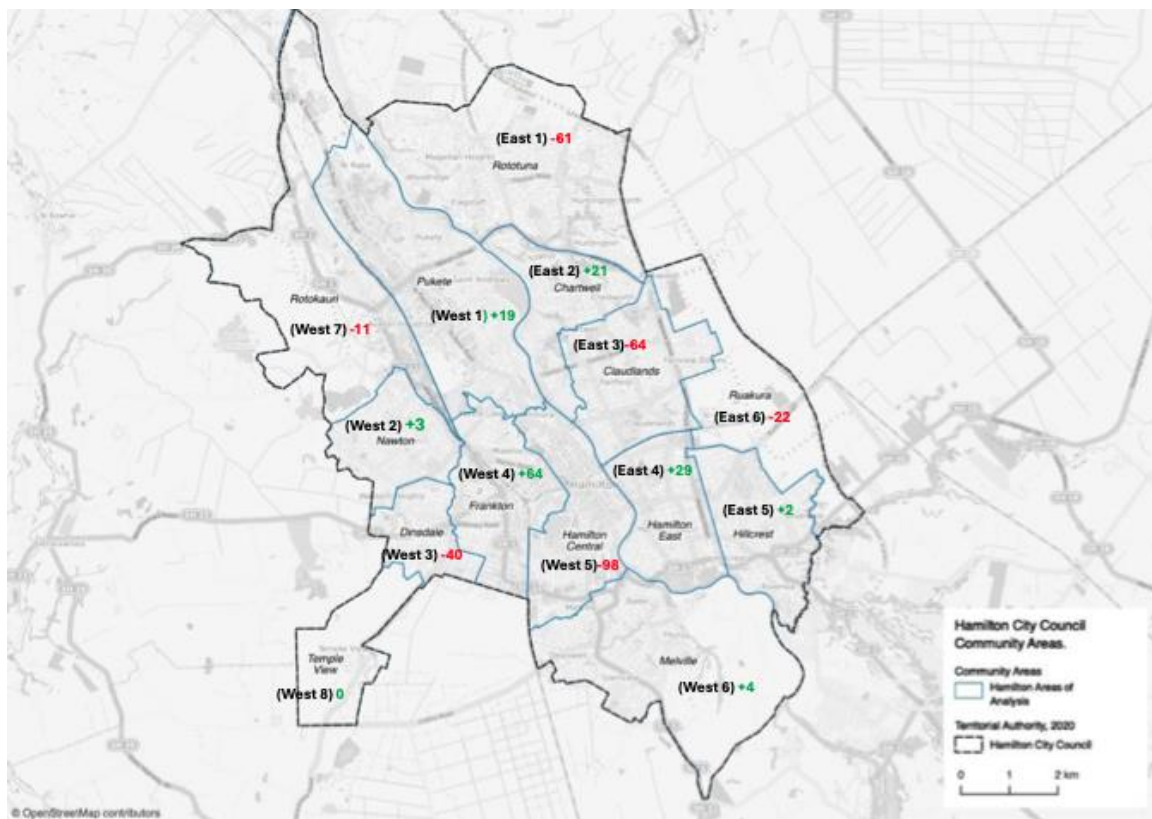


Figure 4.1 Hamilton City Dashboard

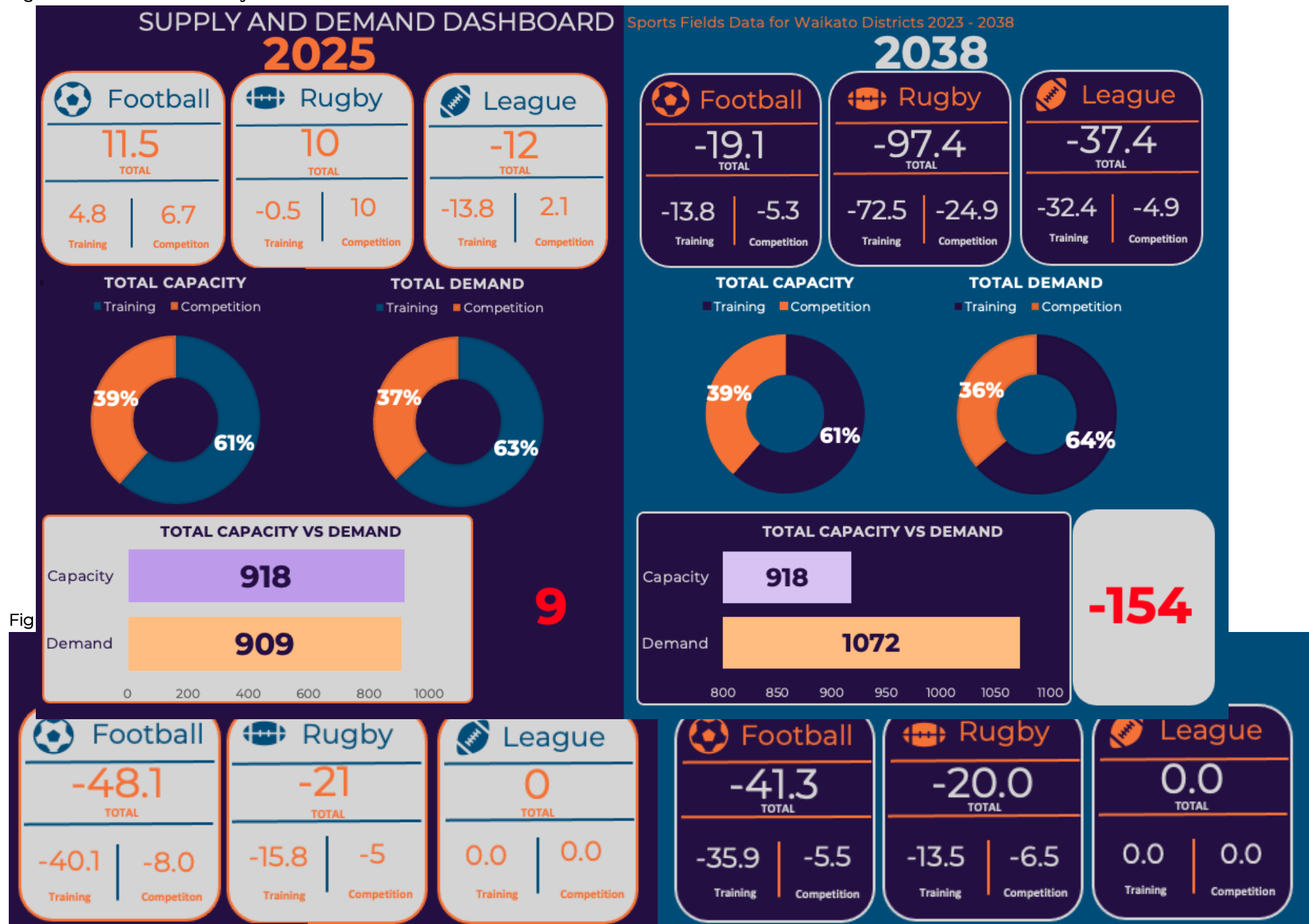


Figure 4.3 East Area 2 (Queenwood, Chedworth, Chartwell)

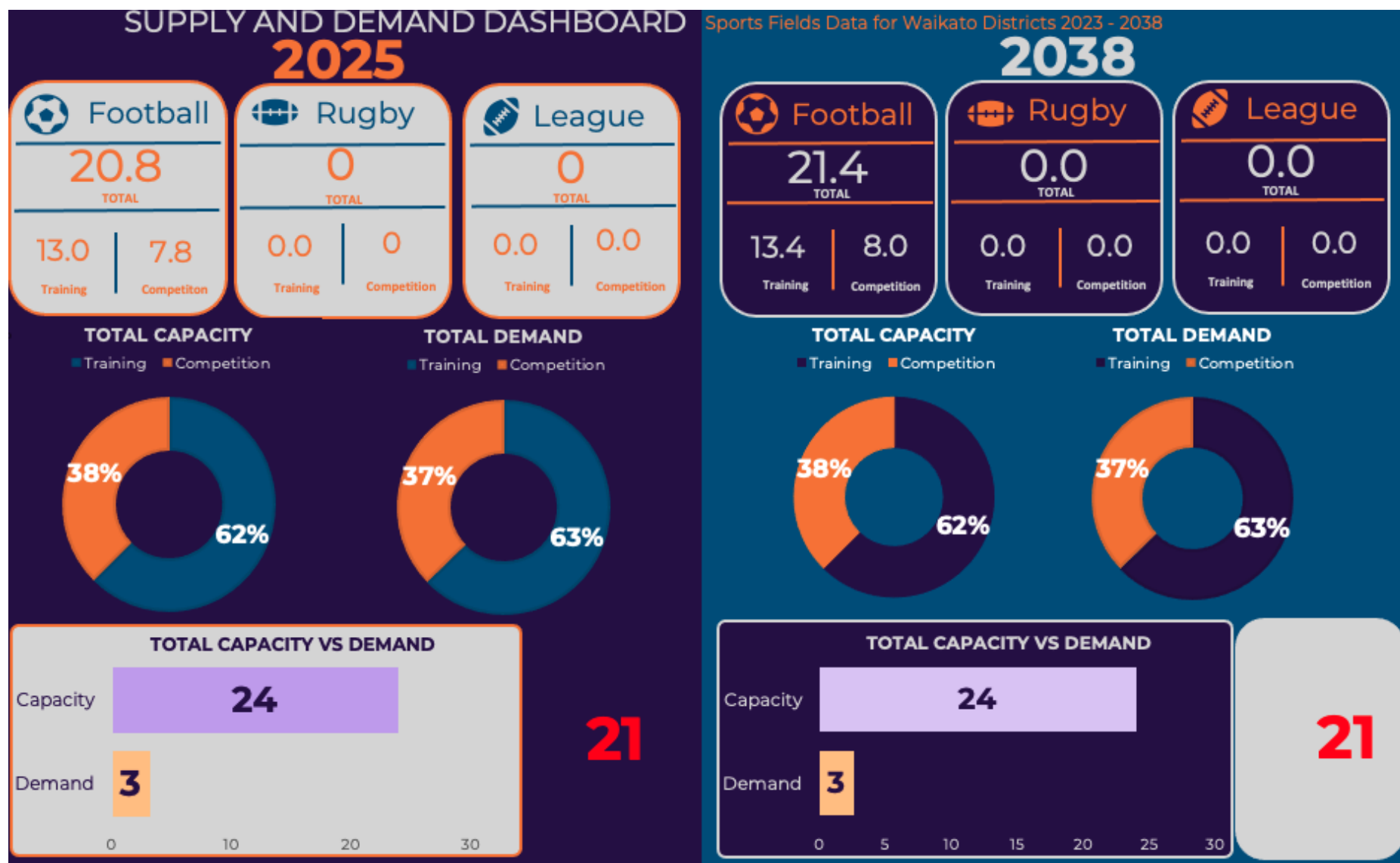


Figure 4.4 East Area 3 (Porritt, Insoll, Fairview Downs, Clarkin, Claudelands, Enderley)

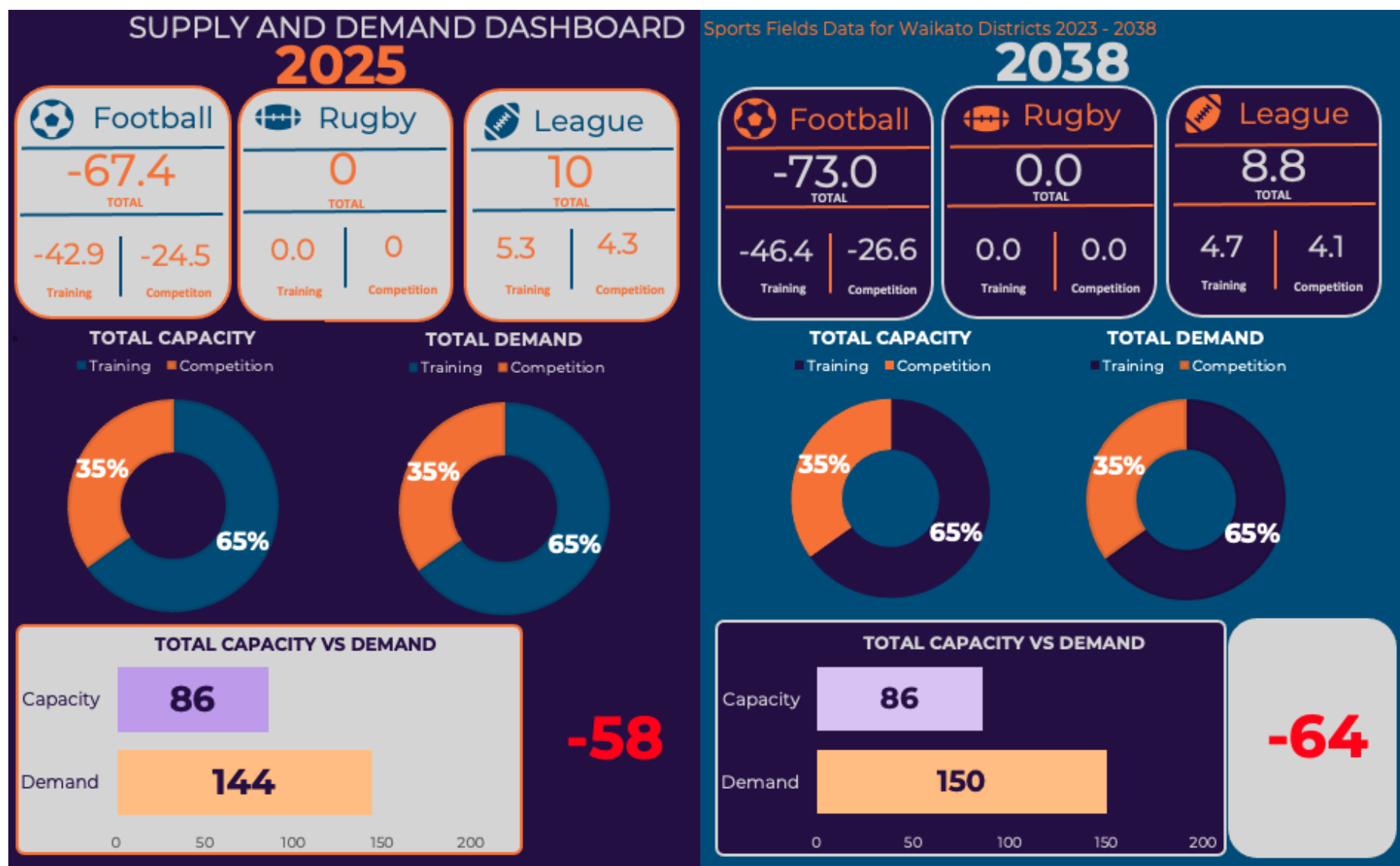


Figure 4.5 East Area 4 (Peachgrove, Hamilton East, Naylor)

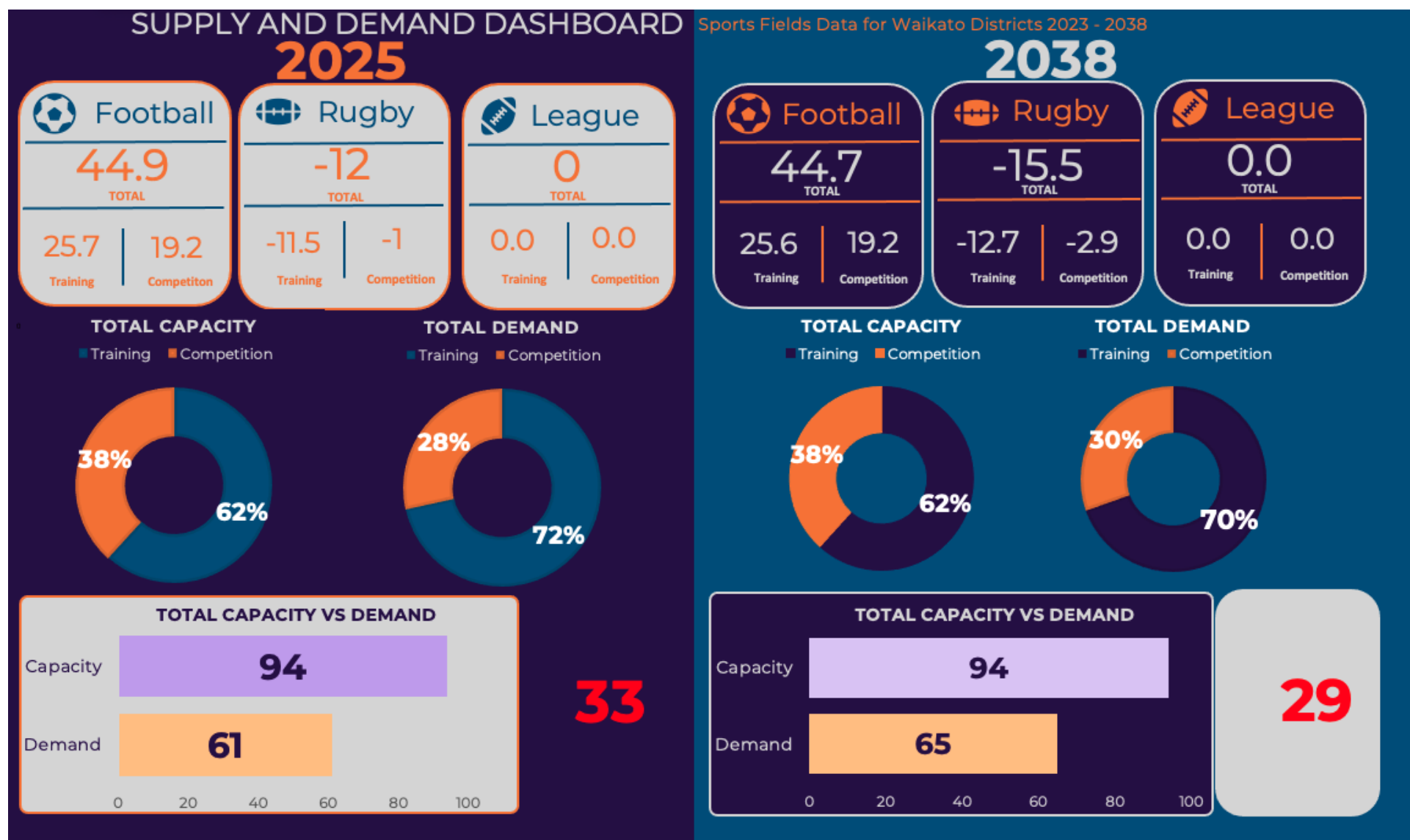


Figure 4.6 East Area 5 (University, Hillcrest West, Riverlea, Silverdale)

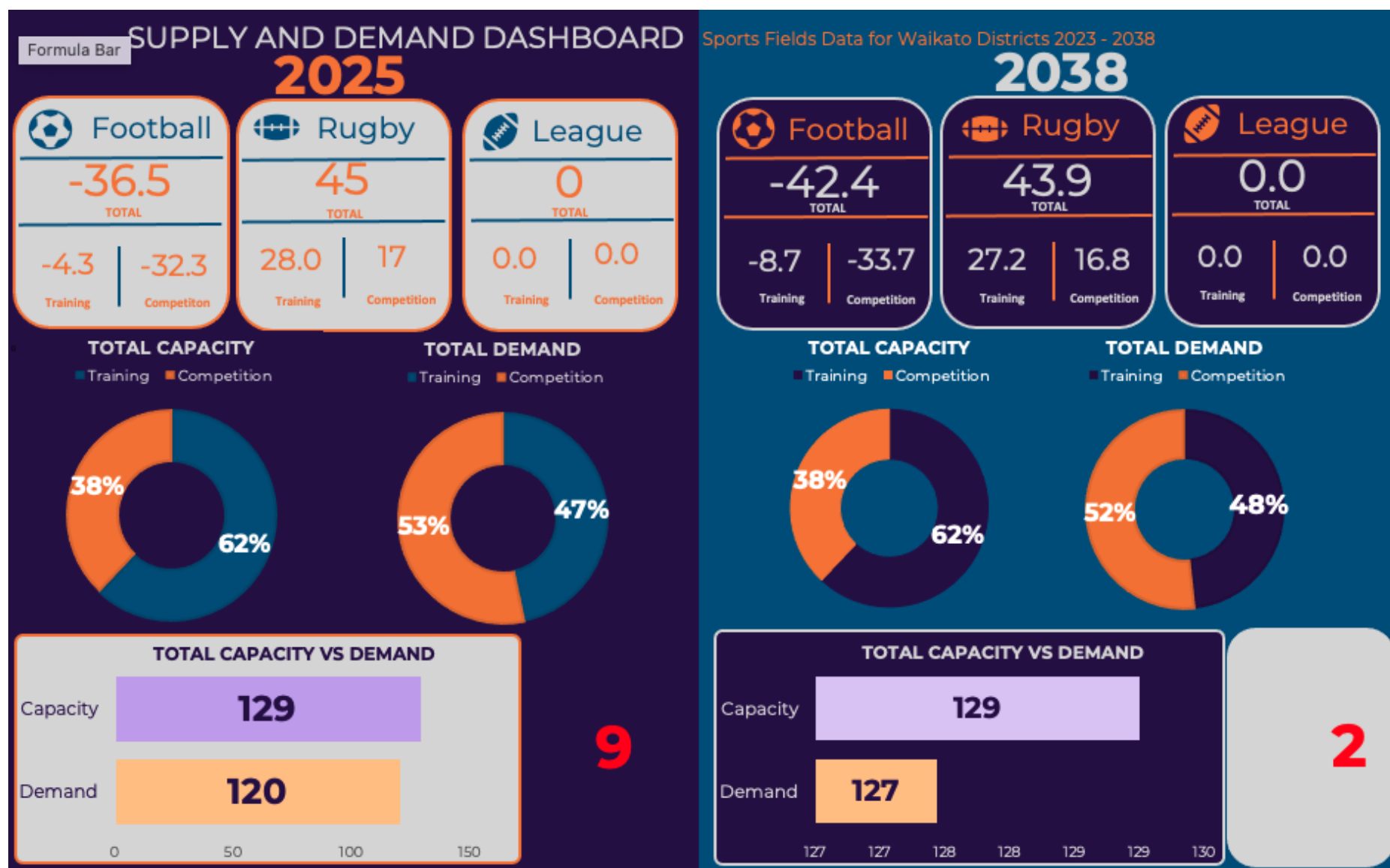
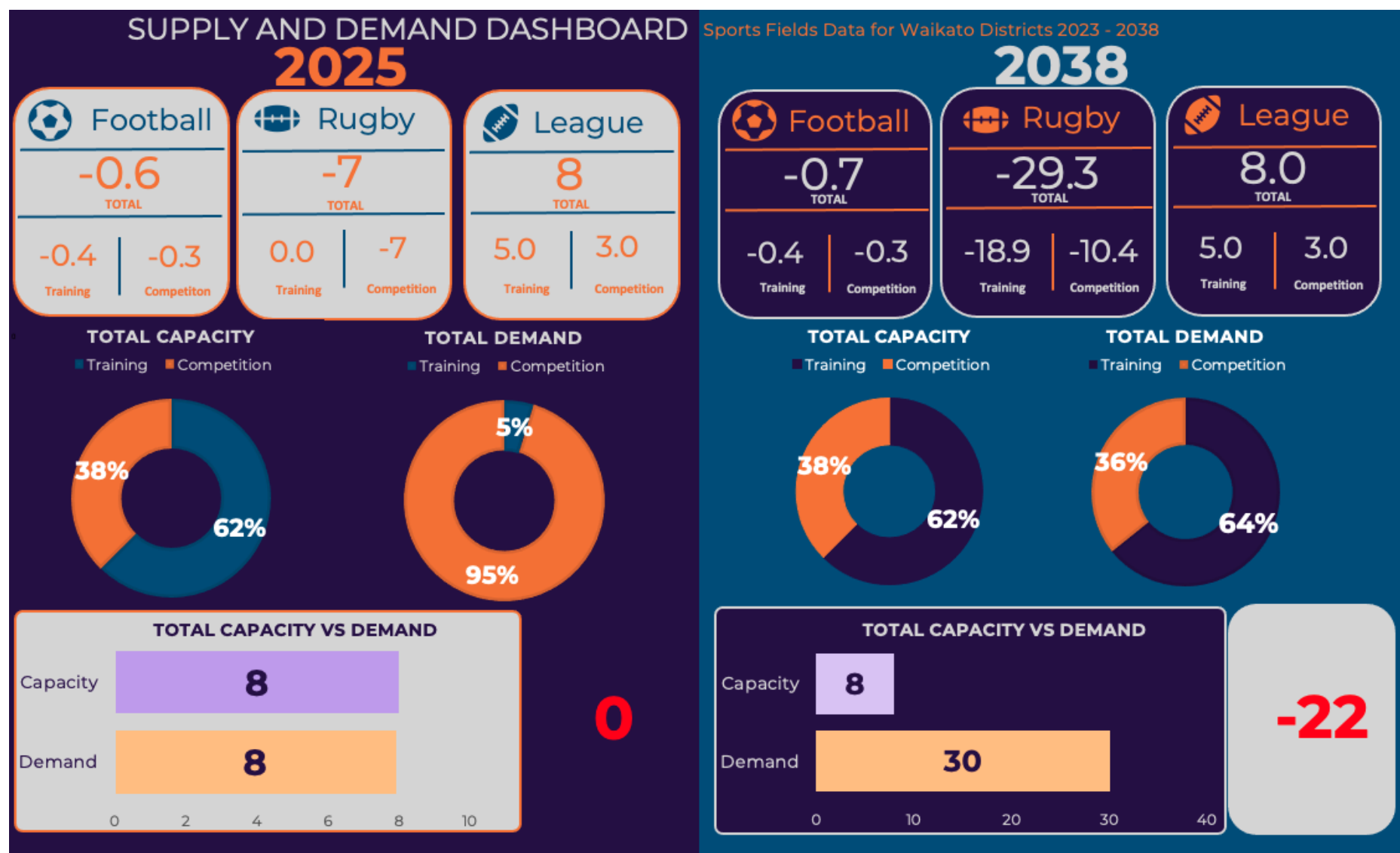


Figure 4.7 East Area 6 (Ruakura, Puketaha)



Football

-0.7
TOTAL

-0.4 Training | -0.3 Competition

Rugby

-29.3
TOTAL

-18.9 Training | -10.4 Competition

League

8.0
TOTAL

5.0 Training | 3.0 Competition

TOTAL CAPACITY

Training Competition

38% 62%

TOTAL DEMAND

Training Competition

36% 64%

TOTAL CAPACITY VS DEMAND

Capacity: 8

Demand: 30

0 10 20 30 40

-22

Figure 4.8 West Area 1 (Pukete, Pukete West, Bryant, Te Rapa, Beerescourt)

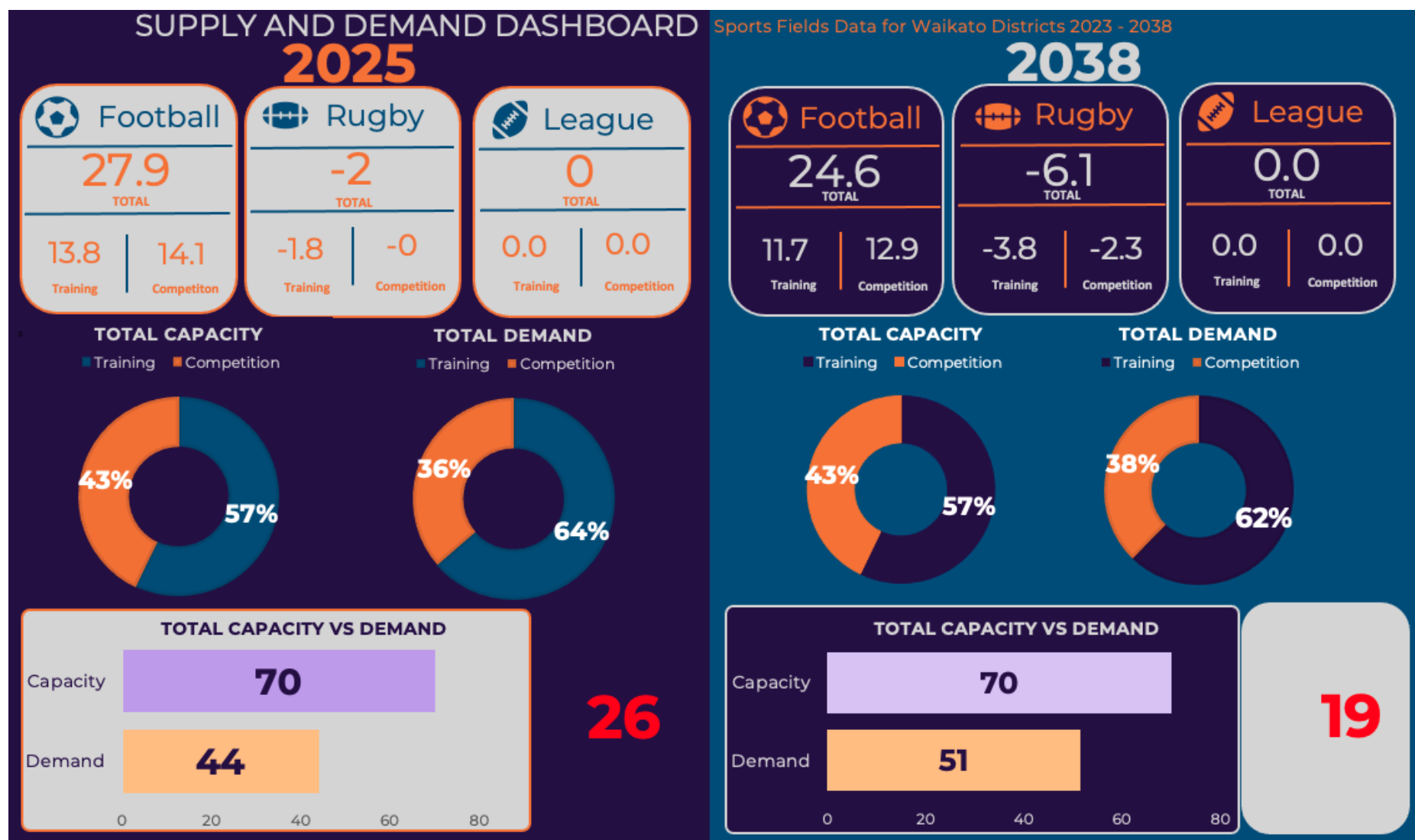


Figure 4.9 West Area 2 (Nawton, Crawshaw, Grand View, Brymer)

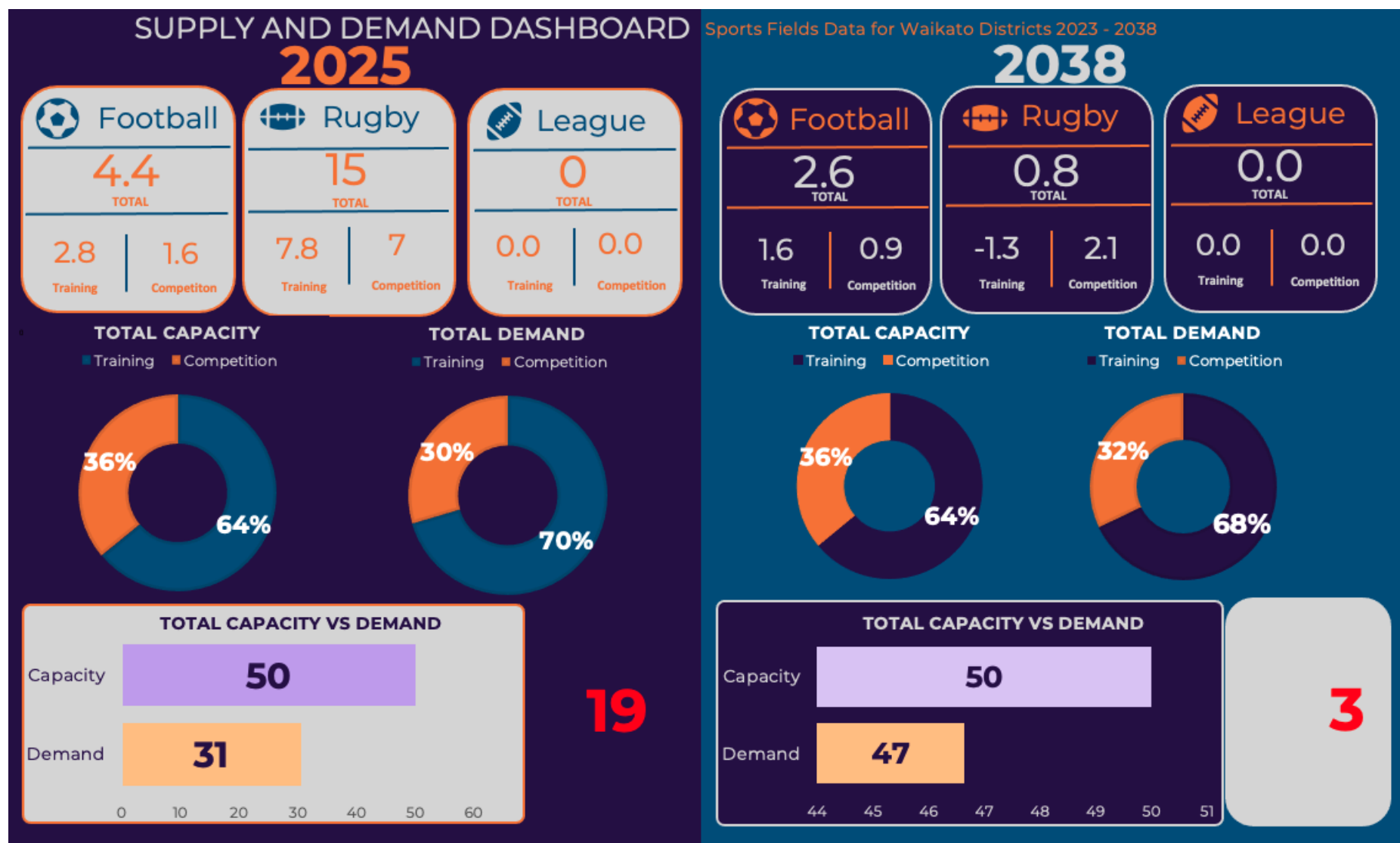


Figure 4.10 West Area 3 (Dinsdale North, Dinsdale South)

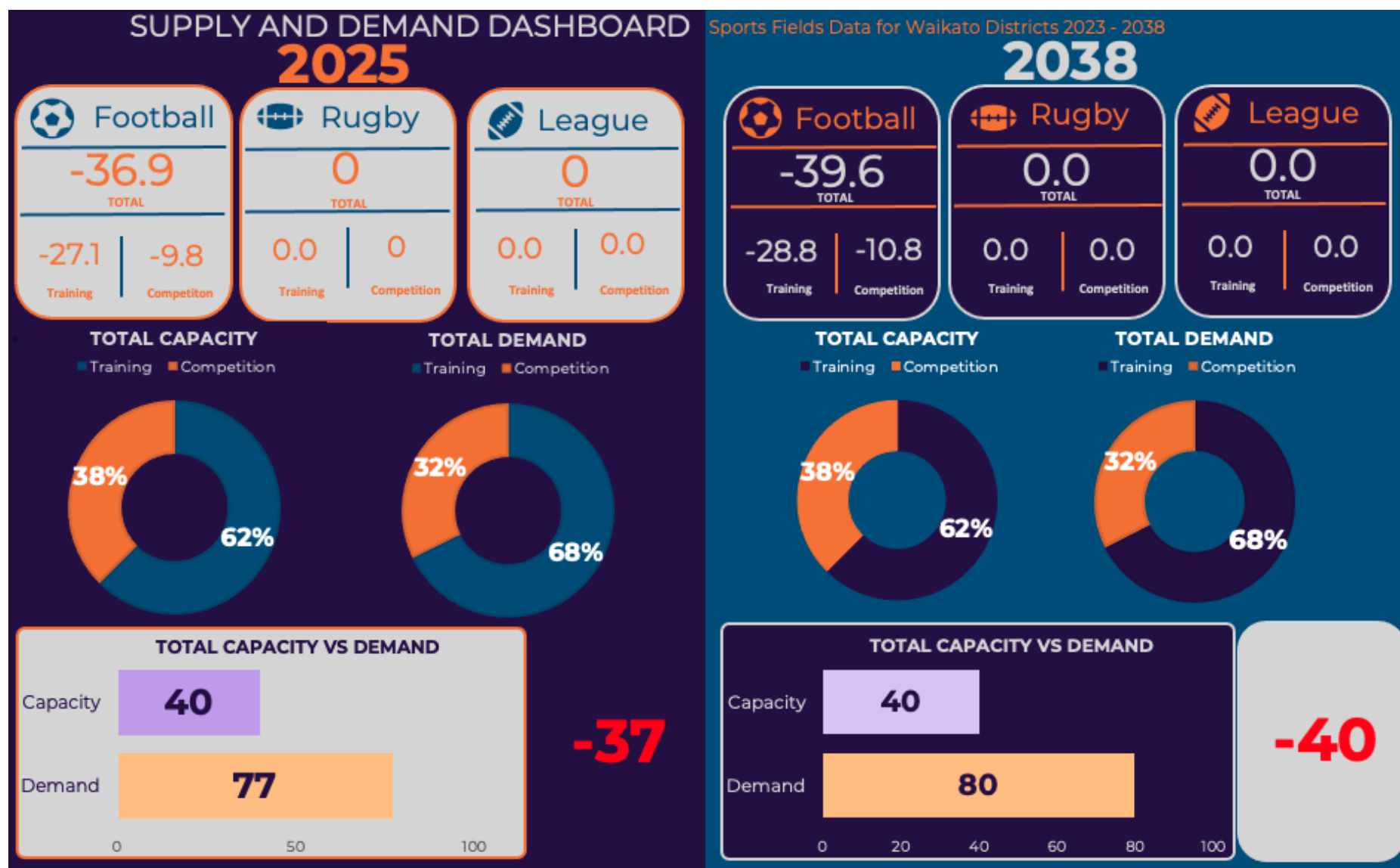
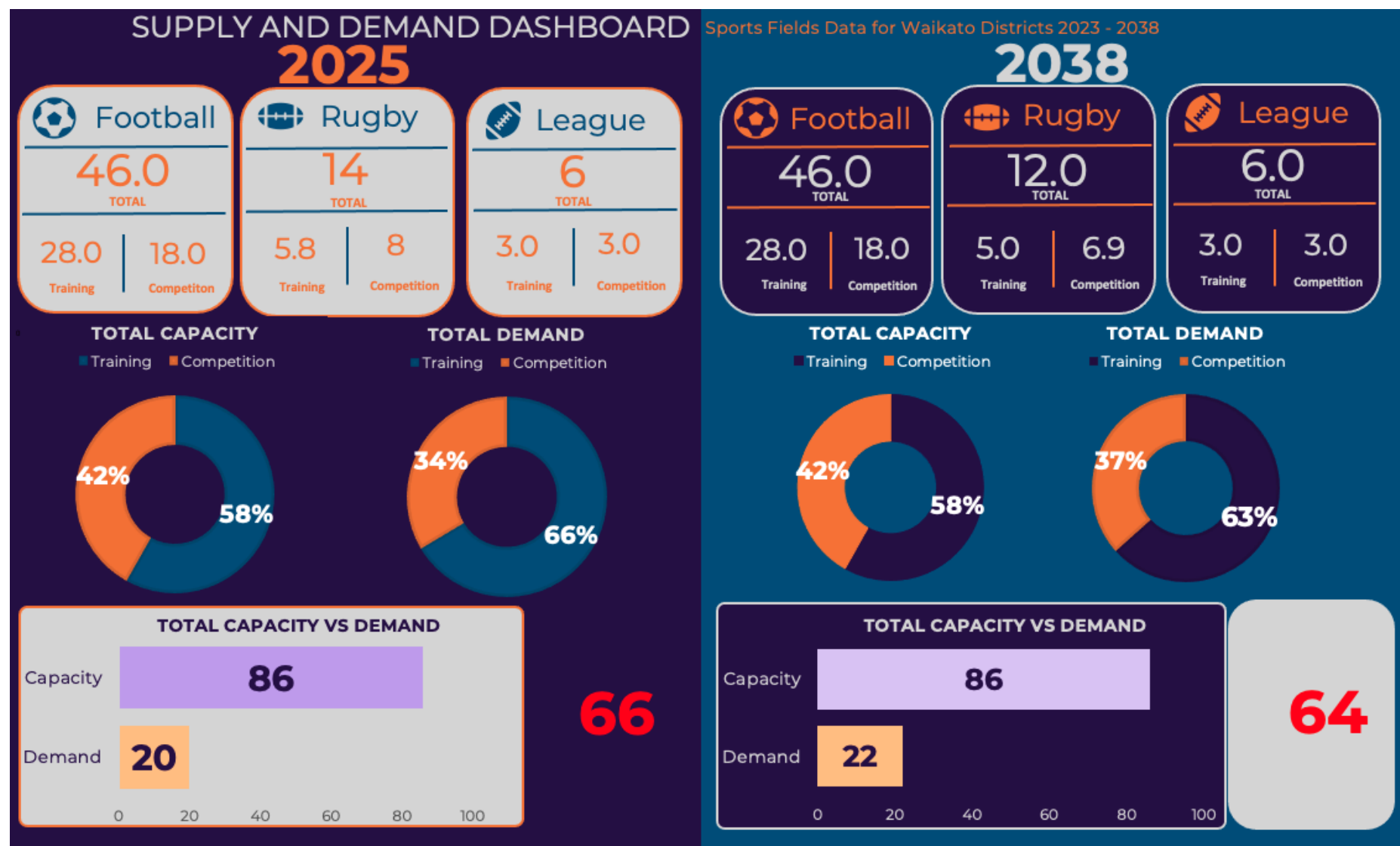


Figure 4.11 West Area 4 (Maeroa, Frankton Junction, Swarbrick)



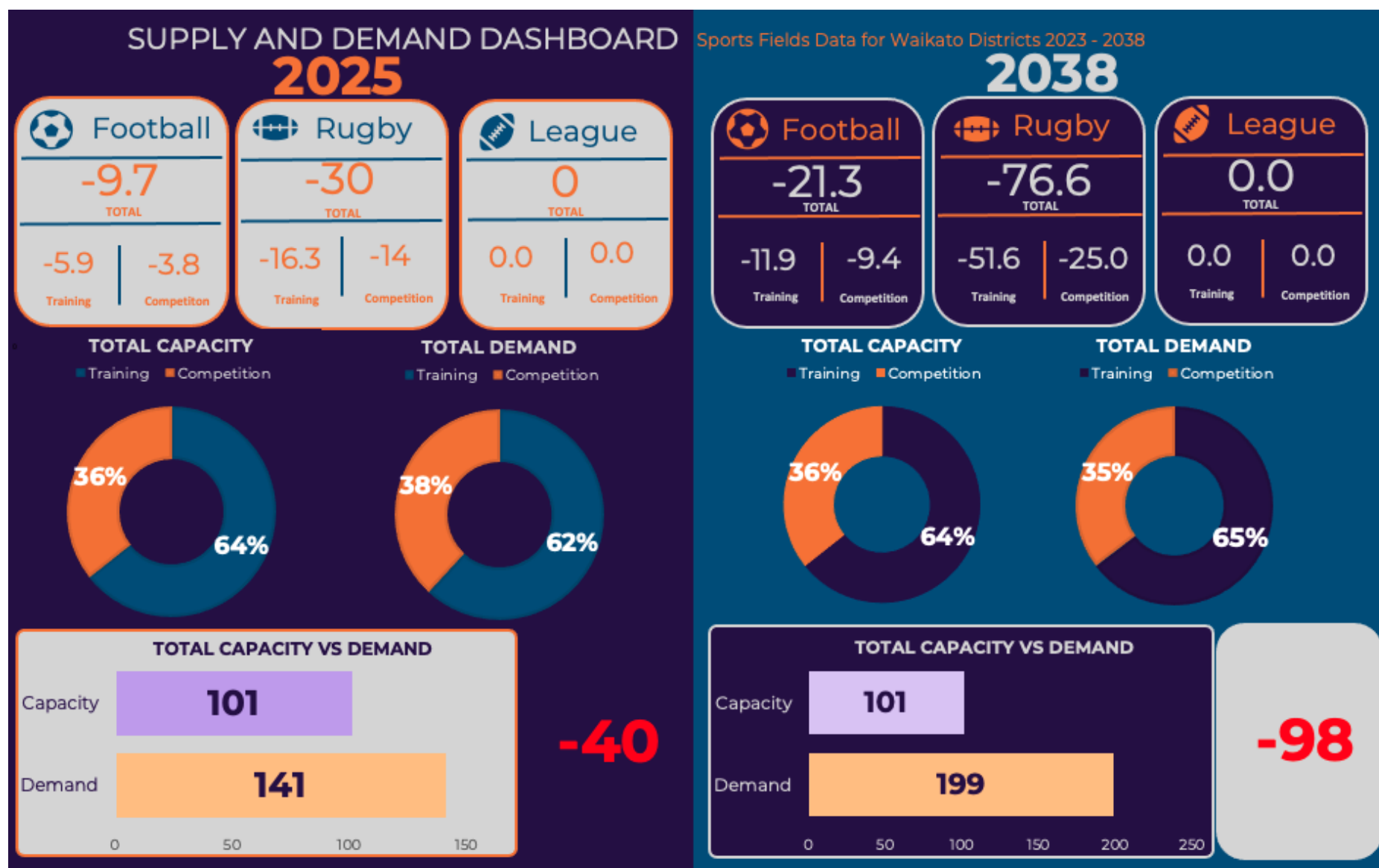


Figure 4.13 West Area 6 (Peacocke, Glenview, Bader, Melville)

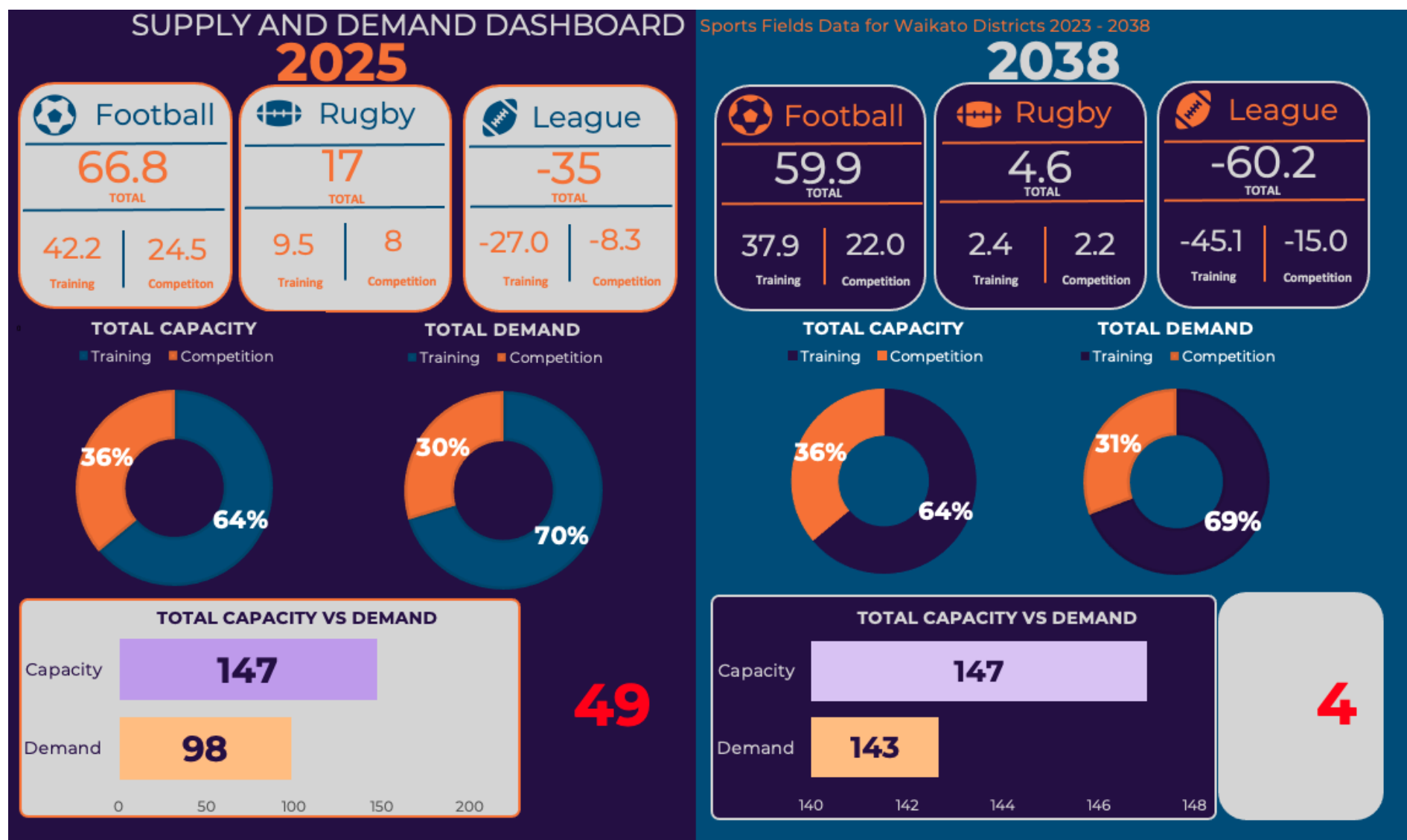


Figure 4.14 West Area 7 (Rotokauri)

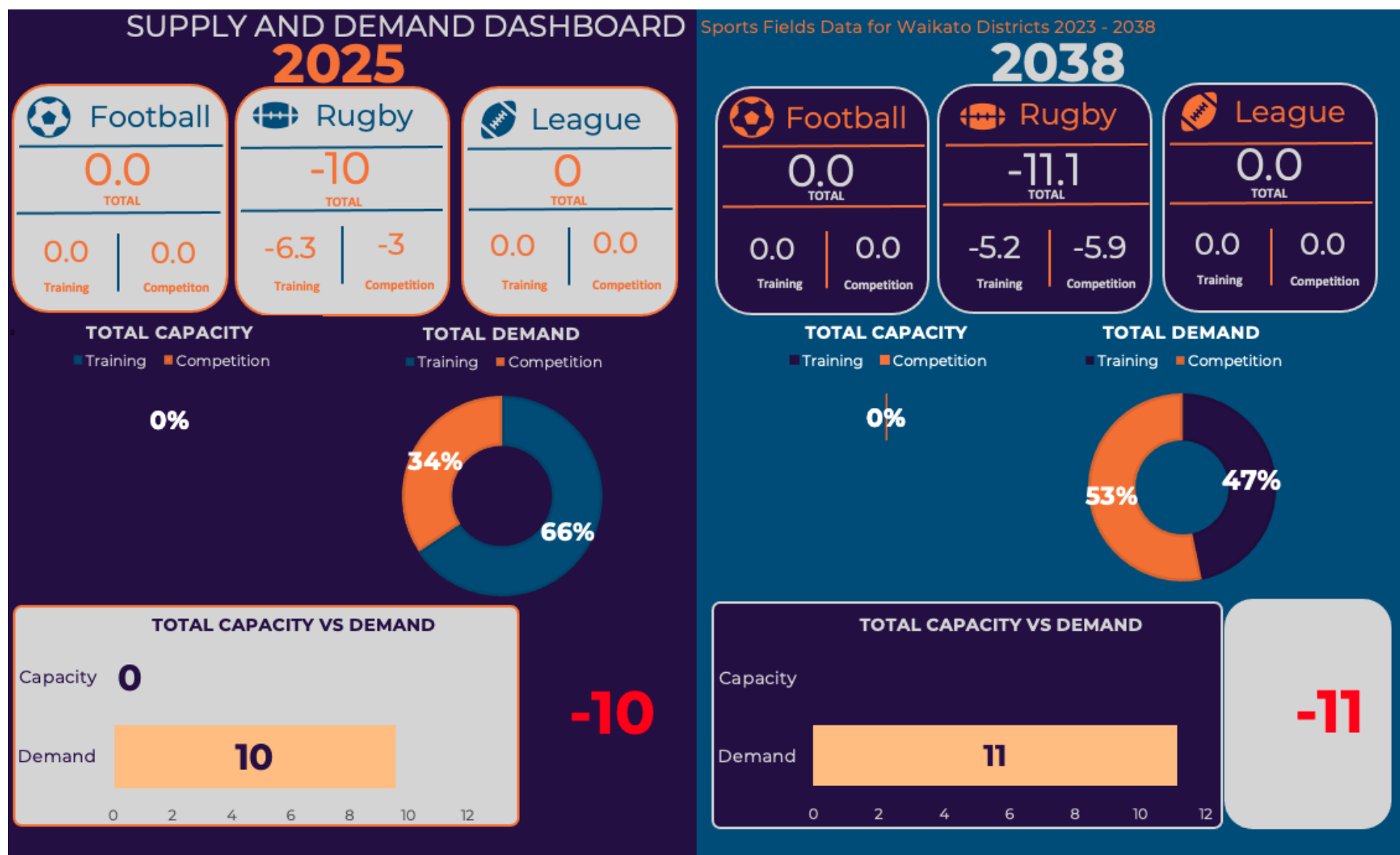
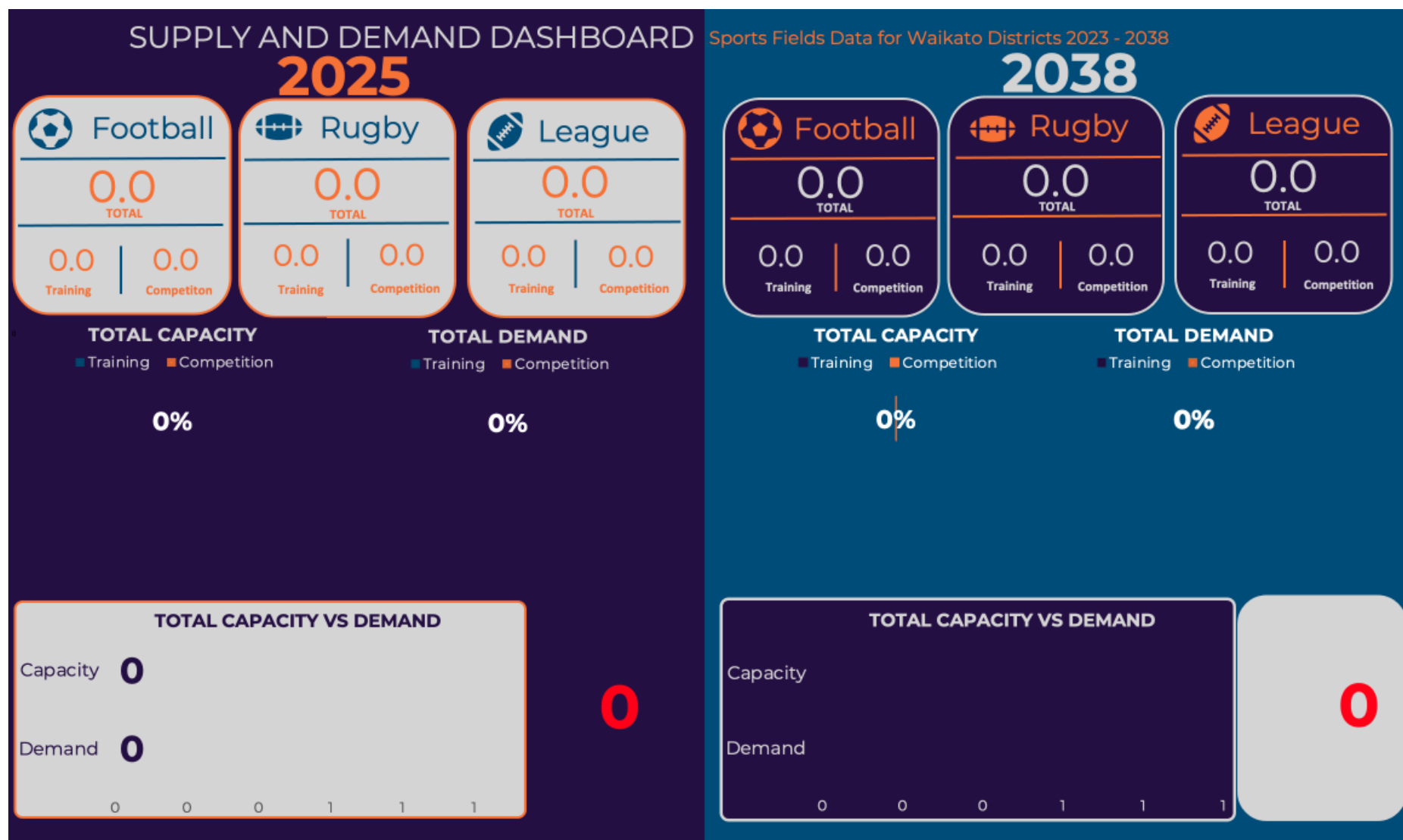


Figure 4.15 West Area 8 (Temple View)



5. Options to Meet Shortfall in Field Capacity

There are three main options to meet the shortfall in field capacity:

- More effective use of existing fields through code allocation and use schedules
- Increasing the capacity of existing fields
- Expanding the supply of fields.

The carrying capacity of a sports field (hours per week) varies as a result of a number of factors, including surface type and maintenance schedules. While a field can potentially be open and accessible throughout the week, individual fields have a capacity based on the hours of use that a field can accommodate before the usage has an adverse impact on the field quality, restricting its ability to recover, leading to increased field closures and maintenance costs.

When considering options to meet demand, individual field capacities have been calculated to be:

- Soil Field 8 hours per week
- Sand Carpet 18 hours per week
- Artificial Turf 40 hours a week.

Sub-Regionwide

Across the region the unmet demand is being absorbed in the current network by fields being used over their capacity, which increases the degradation of the field surface, resulting in increased field closures and more regular and intensive maintenance.

In addition, the clubs rely on a network of unsecured fields to meet the demand, e.g. school fields for junior training. Should the situation change at any of these fields, they could be closed to community use with little or no notice, placing an increased demand on the Council networks.

It is recognised that a number of clubs have developed and own facilities, clubrooms and floodlights, which can restrict the ability to reallocate between codes. Where clubs have developed clubrooms and established use of fields over a number of years, the club often develops a sense of ownership of the fields, which can restrict the ability of other codes (winter and summer) to access and use fields that may be underutilised.

It is recommended that, where opportunities arise, for example, new field development, lease renewals, investment in facilities, agreements are reviewed and that Council should take a lead role in the management and operation of the fields network.

Demand is projected to change across the district, with the overall demand projected to fall even in areas projected to experience growth. This is a result of an ageing population. An ageing population impacts the projected demand in two ways:

- o A static or declining active population
- o An ageing within the active population and lower participation rates within the 18+ population.

6. Appendix One

6.1 Definitions

Term	Short definition	Additional explanation
Active population	Ages 5 to 59	The age groups most likely to be playing winter code sports.
Capacity	Field hours per week	The number of hours of play per week that a sports field can withstand before sustaining long term damage. Capacity is determined by both the type and standard of field surface and availability of flood lighting allowing use after daylight hours.
Demand	Field / turf / court hours per week	The number of field/turf / court hours per week needed for play.
FFE	Full field equivalent	There are a number of small-sided fields/turfs used by junior players. These fields are defined in terms of full field equivalents, e.g. a half-sized field is ½ full field equivalent.
Full field	A full field is one suitable for senior games.	Field measurements vary between codes.
Module	Activity where multiple teams come together to play on a single location	Usually junior-based training or casual/commercial activities – touch, tag
RSO	Regional Sports Organisation	The regional body running the sport in the district. In general they manage some or all the competitions and act as the link between sports clubs and the National Sports Organisation.
Secure sports fields	Secure fields are those where ongoing use is secured through ownership (e.g. council fields) or a formal agreement (lease, partnership etc) for a period of longer than one year.	

Term	Short definition	Additional explanation
Surplus/shortfall	The balance when demand is matched against supply.	Defined in terms of field hours per week.
TGR	Team Generation Rate	The TGR is calculated by dividing the number of people in the age group by the number of teams in the area in that age group.
Unsecured fields	Fields where use could be terminated at very short notice.	
Weekend and weekday use	Refers to use at the weekend or during the week.	For the three sports field using codes, weekend demand is predominantly for games and weekday use for training.
Active population	Ages 5 to 49	The age groups most likely to be playing winter code sports.
Capacity	Field hours per week	The number of hours of play per week that a sports field can withstand before sustaining long term damage. Capacity is determined by both the type and standard of field surface and availability of flood lighting allowing use after daylight hours.

Hamilton	Competition Capacity (Hours per Week)	Training Capacity (Hours per week)	Total Capacity (Hours per week)
Grade 1	3	12	15
Grade 2	3	7	12
Grade 3	3	5	8
Grade 4	3	3	3
Grade 5	3	0	3

Waikato / Waipa	Competition Capacity (Hours per Week)	Training Capacity (Hours per week)	Total Capacity (Hours per week)
All Fields	3	5	8

Projections for the future have been based on the following key assumptions:

- Population growth will be in line with current NIDEA projections.
- The population will age in line with Statistics New Zealand age projections.
- Winter sport will be played in the same manner as currently, i.e. field sizes, game lengths, training requirements and the timing of each code's playing season will continue as now.
- Clubs will continue to draw most of their players from their existing geographic catchment areas.
- The growth or decline in participation rates due to changing ethnicity within the population will change the balance of demand between the current codes. It is assumed that growth in one code will be matched by a decline in another.
- Demand from any new winter code is matched by a drop in demand from an existing code
- School demand for use of community fields will continue at the current level.
- Demand for winter fields for non-sport or irregular use will be managed through the booking system and not significantly exceed current levels.
- There will be a small increase in participation rates across all three codes until 2028 – the increase will vary across the different grades and be in line with recent trends.
- There will be no further increase in participation rates between 2038 and 2063 – growth in demand will be solely from population growth.
- There will be no new clubs formed in areas where a code does not already have a presence
- There will be no unexpected changes to field supply.

6.2 Key Assumptions for Recommendations

The recommendations outlined in the body of the report assume:

- significant imbalances between codes are addressed through field re-allocation.
- some surplus capacity should be provided. It is very difficult to ensure optimal allocation of fields between codes due to fluctuations in club team numbers year on year and historic ties to certain sports parks. A small capacity surplus enables council to better meet demand. It also provides some flexibility should fields need to be closed to protect the playing surface from long term damage, provides opportunities for Central Waikato sub-region to host further one off events, and for some use by emerging sports. There is very limited information regarding the “ideal” level of additional capacity however other studies indicate that this is in the region of 15 – 20% space capacity.

The recommendations in the report are based on projections based on current knowledge. The projections need to be updated regularly to ensure planning is based on the best possible information.

6.2.1 Sports Field Methodology

This study into the supply and demand for sports fields in the Central Waikato Sub-Region has been carried out using the Sports Field Model developed in 2008 by Longdill and Associates in conjunction with Auckland City Council. The Model was peer reviewed by representatives from large and small Territorial Authorities across New Zealand. Since development the Model has undergone a number of refinements.

The model is a “peak demand” model aimed to determine the surplus or shortfall of fields for regular week by week community use.

What is meant by a peak demand model?

- the methodology focuses on comparing the highest period of demand (peak) with the availability of field supply at that time
- peak demand is defined as the time of the season when there is greatest demand, that is, when all competitions are at their peak and demand for field space is highest
- peak demand is also defined as the time of day of greatest demand - eg, if the greatest demand for adult rugby is on a Saturday afternoon, the methodology will compare demand against supply on a Saturday afternoon to see if the ‘peak’ demand can be accommodated within that time period

6.3 Model Development Stages

The model is based on a 7 stage process:

- Stage One: Identification of all teams
- Stage Two: Determining current field demand
- Stage Three: Identification of all fields
- Stage Four: Determining current field capacity
- Stage Five: Identification of current surpluses and shortfalls (hours per week)
- Stage Six: Identification of future surpluses and shortfalls (hours per week)
- Stage Seven: Analysis and development of options.

Stage	Description
Stage One: Identification of all teams	For each code all teams, based in the Central Waikato sub-region, or playing in a Central Waikato sub-region based module (centralised competition), have been identified as follows: • 2025 team lists from the Regional Sports Organisations (RSO) and updated with club information • Secondary school teams regularly using community fields from the RSOs and draws • Teams in competitions outside the RSO sourced from competition organisers.
Stage Two: Determining current field demand	The competition field hours required for each team, based on field size and length of game, were agreed with RSOs and both councils for the 2014 study and reconfirmed for this 2016 study.

Stage	Description
	Provision has been made for both home and away competitions (teams usually only play at home 50% of the time) and module type competitions where all teams gather in a central location. Training field hours requirements are based on averages calculated from information provided by the Central Waikato sub-region's clubs and have been accepted by both councils. They are calculated from the amount of field space required (full, half, quarter field), whether that space can be shared with other teams, the length of a training session and the number of training sessions per week.
Stage Three: Identification of all fields	Both Councils provided field lists including field size and capacity for both weekend and midweek play. Fields owned by other providers have been included where there is a formal agreement for community use for more than one season.
Stage Four: Determining current field capacity	The capacity for each individual field is calculated as the hours the field can be used each week without sustaining long term damage, and divided into weekend and weekday use. The capacity of the fields has been assessed by Council staff or, if privately owned, based on information provided by the club using the field or allocated an 'average' capacity figure. These capacity figures take account of the type and condition of surface and the presence of lighting.
Stage Five: Identification of current surpluses and shortfalls	The total current demand has been matched against the current supply and any surpluses or shortfalls identified. This has been carried out in each analysis area on a code by code basis and aggregated to determine the Central Waikato sub-region wide situation.
Stage Six: Identification of future surpluses and shortfalls	Demand for future years is based on the number of teams produced by the current population factored up by population growth and sport development growth. A Team Generation Rate (TGR) is calculated by dividing the total population in each grade by the current number of teams. The TGR is the size of the population in that particular grade that is required to produce 1 team.

Stage	Description
	This Team Generation Rate, together with population projections, is used to predict the likely number of teams in the future and hence future demand (assuming game lengths and field sizes remain constant) based on predicted population growth. Population growth figures used in the model are the projections provided by NIDEA. Infometrics population projections do not provide an age breakdown. As the active participation age range for winter field sports is defined as being from age 5 to 49 the effect of an ageing population needs to be accounted for in the projections. In addition to population growth, sport development factors are used (these can be positive or negative) to account for changes in sport popularity, demographics etc. These factors have been assessed in association with Council staff, using information from a range of sources including historic team number trends over and above natural population growth, feedback from Regional Sports Organisations, club membership projections and other factors that could affect team numbers such as sport marketing programmes, local, regional, national and international events, changing sport popularity and changing demographics.
Stage Seven: Analysis and development of options	The resulting data is assessed at community analysis area level, as well as city level and sub-regional level and options developed to ensure supply keeps up with demand.



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