FREE REFORMED SCHOOL ASSOCIATION

*My heart I offer to You Lord - **promptly and sincerely***

2040 VISION

CAMPUS CONFIGURATION AND INFRASTRUCTURE

DISCUSSION PAPER - JUNE 2021

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1.0 Introduction

This paper is presented by the Board to the Association as a discussion paper. The Board is keen to hear the views of the Association on the topics outlined in this discussion paper. Any final position regarding campus configurations will be subject to adoption by the Association.

1.1 Looking back

Just over two (2) decades ago the FRSA Board prepared a draft strategic plan, and at that time the late brothers J Mulder and M Eikelboom, Board Chairman and Board Secretary respectively, wrote the following foreword to that document;

It was at a meeting held on 20th December, 1954 that the members of the adults association established the FRSA. Already then, in its infancy, two needs were very evident. One; the need for a school where 'the fear of the Lord is the beginning of wisdom' would permeate all facets of education, and Two; the need to facilitate this concept by planning for staffing and accommodation. Planning which had to be subservient to the faithful obedience to God's Word.

Since those humble beginnings, planning has been and still is continually with us. It was often done ad-hoc and in weakness, even so, notwithstanding these weaknesses, the Lord has richly blessed us. With the increase and growth of our schools there is a greater need to evaluate and assess what we have done, are doing, and what we plan to do for the future development of Reformed Education in conformity with the aims of the Constitution of the FRSA.

Indeed, the Lord richly blessed us already in late 1957 when 70 covenant children could attend Armadale John Calvin School to learn the fear of the Lord as the beginning of wisdom permeating all facets of education. And the Lord continues to richly bless us, so that today some 1,030 covenant children attend five (5) John Calvin Schools to learn the fear of the Lord as the beginning of wisdom permeating all facets of education.

1.2 Looking forward

It is such a blessing that time and again we may be planning for growth, and we do so mindful that it is all under the blessing of the Lord, which can only be expected if we remain faithful and obedient to Him.

This particular planning project has been referred to as 'The 2040 Vision Project', quite simply because it seeks to vision what our Association and Schools might look like in 2040 and beyond. This 2040 Vision Project is one of several large projects and 'building blocks' for the FRSA that will influence and direct our Association and Schools for many years to come, the Lord willing.

These significant 'building blocks' are part of a spiritual building, part of God's Kingdom building, and hence these 'building blocks' are not firstly about a new plan for the future of our schools, a new campus, or a new curriculum project.

1 Corinthians 3 provides us with Godly instruction and some deep foundational truths that underpin all Kingdom building work. Whilst this part of Scripture focuses on the work of ministers and the Church, there is wisdom here for all Kingdom building work, including large projects and 'building blocks' planned for the FRSA, namely;

- We have received the spirit of God, and hence we don't act like the people of the world. This will become evident in the manner in which we plan, collaborate and seek to implement some of these large building blocks for the future of the FRSA;

- The Lord wants His people to focus their work and energy on things that will stand forever, and not be too consumed about things that will ultimately be burned with the refining fire on the last day;

- We can be instrumental in planting and watering, also as we plan and execute planning for the future of our schools, but we cannot make it happen. Success on our work depends on His blessing alone, so that all praise might remain His.

- There is only one foundation for the Church, namely Jesus Christ, and if we do not build on Him then it is not a Church (or a school of the Church). We must not attempt to lay another foundation, or raise a super structure that is out of keeping with the foundation. There is also a danger of building in a wrong way on the right foundations.

- We must build with the same materials that God builds with (1 Cor 3:12). The tested building materials and work of gold, silver and precious stone signify a temple building, a building where God dwells among His people. That is contrasted with unworthy materials like wood, hay and straw. We cannot mix worthy building materials with unworthy building materials. Human wisdom, fleshly and worldly attractions don't have a place in the building of the Church, or the school of the Church; and

- Our work will be tested on the last day. If it was worldly, fleshly, or human wisdom it will vanish eternally. If our work in training and nurturing the next generation of the Church in the fear of His name is according to His Word and Will, then by grace alone the next generation of the Church will stand in the last day. A new Future-Schools Plan, a new school campus, and a new school Curriculum will all disappear in the refining fire, however, God's covenant children will, through His grace and blessing, stand before Him and give Him praise and glory on that last day.

1.3 Looking upward

Our Lord is establishing for Himself a spiritual house, an eternal Kingdom where He will dwell in perfect communion with His people. His Kingdom building work is happening among us, in a very real and visible way. The wonder of His love is that as His chosen and redeemed people, we are part of His eternal Kingdom, we are part of His great work, and we may also be His instruments in that work. It is with this tremendous assurance that we look forward and upwards as we make plans for the FRSA and John Calvin Schools.. Yes, we may be instruments in God's Kingdom building work, but thankfully we cannot make it happen, we cannot bless it, we cannot give the increase… only the Lord can do that. All honour, thanks, and praise to Him alone!

Henry Dykstra

Board Chairman

2.0 Executive Summary

2.1 Background

Since the Armadale John Calvin School opened its doors to 70 Primary School children almost 65 years ago, much has changed under the blessing, guidance and care of our heavenly Father. There are now over 1,000 students across five (5) John Calvin Schools; a South West K-10 College, a South Metropolitan 7-12 College, and three (3) Primary Schools located in Kelmscott, Byford, and Rockingham. Under the continued blessing of the Lord the FRSA Board anticipates student numbers could as much as double over the coming 20-30 years.

Expected growth over the coming five (5) years will result in capital works required at all four (4) metropolitan campuses, and the South West campus. Both the Byford Primary School and the Armadale College are approaching their maximum size. Campuses at Rockingham, Kelmscott, and the South West have sufficient land available for expansion.

The declining efficiency (ratio of students to teachers) of smaller schools under today's education requirements is putting increased pressure on the FRSA operating budget. Public schools of 1,000 or more students are common-place, whereas the FRSA currently has five (5) schools to cater for some 1,030 students. A key question for the FRSA is: How many schools do we plan for as we grow towards 2,000 students, the Lord willing, and what is the optimum location for these schools?

2.2 Population

Various population predictions have been contemplated with differing methodologies and data sets. Even based upon a growth scenario where the number of births stabilises, student numbers would be up to approximately 1,100 by 2030 and remain at about that number. A 3.5% growth scenario, based on projected trends, would result in some 1,750 students by 2040. Applying this 3.5% growth scenario to each school catchment results in student numbers in:

- Byford Campus growing from 207 in 2020 up to 370 by 2040;
- Kelmscott Campus growing from 205 in 2020 up to 400 by 2040;
- Rockingham Campus growing from 130 in 2020 up to 240 by 2040;
- Armadale JCCC Campus growing from 360 in 2020 up to 560 by 2040; and
- South West JCCC Campus growing from 93 in 2020 up to 150 by 2040.

The Perth-Peel metropolitan growth plan shows key urban growth areas continuing south along the foothills of the Darling escarpment, notably stopping at Mundijong, with major urban growth adjacent and accessible to the existing and planned Tonkin Highway alignment. The metropolitan growth plan also includes urban expansion areas from Kwinana through Rockingham and to Mandurah.

State Planners and Demographers predict approximately one-third of the additional south metropolitan population growth to be settling near the foothills, and two-thirds near the coast. Given the foothills represents the historical origins of the Free Reformed Church settlement, with seven (7) Churches and three (3) schools in this area, it is somewhat difficult to imagine that two-thirds of the Free Reformed Church future population growth would be directed toward the coast. The past three decades have seen a proportion of Free Reformed Church members shift towards the coast, with three Churches and one school established in the coastal area over that time. With these two trends in mind, a more realistic scenario might be that approximately half of the future Free Reformed Churches member growth may settle in the coastal suburbs, and half in the foothills by 2040-2050.

There is currently no evidence to suggest that Free Reformed Church member growth north of the South Metropolitan Peel sub-region needs to be considered by the FRSA in its future schools planning. Should this situation change, the planning for schooling in new growth areas will need to be re-visited.

Summarising the projected 2040-2050 Free Reformed Churches population growth and settlement, it would be reasonable to suggest the foothills Free Reformed Church population could grow from approximately 2,500 members up to 4,200 members, and the coastal Free Reformed Church population could grow from approximately 900 members up to 2,600 members.

2.3 Current Campuses

2.3.1 John Calvin Christian College Armadale

The Armadale JCCC campus is the original campus where the first John Calvin Primary School opened its doors in December 1957. The 3.2 hectare site currently accommodates 360 students plus Staff and the Administration of the FRSA. As the College grows to the anticipated 560 students between 2040-2050, numerous additional facilities will need to be built, particularly in areas of Science, Technology, Music, Sports, Administration and assembly spaces. There are already constraints in terms of car-parking, traffic flow, open space areas and play spaces, and these will be further exacerbated as more facilities and students are accommodated on the site.

Further developing the Armadale JCCC Campus to meet the needs of the College beyond 2040 would involve purchase of additional land and construction of quite a number of new buildings, many being two-storey construction, with a total estimated cost outlay of approximately $21 Million. The resulting campus would have a very different character to the existing College, with a higher intensity of built form, less open space and play spaces, and increased car parking and traffic constraints.

2.3.2 Byford John Calvin School

The Byford John Calvin School comprises a 2.2 hectare site accommodating facilities for some 207 students plus staff. As this Primary school grows to 450 students (a full two stream school) between 2040-2050, some 11 extra classrooms, four (4) new specialised learning areas, and expanded administration and library facilities will be required. There is no obvious opportunity to increase the land size, and there are some expected traffic constraints and potential neighbouring property development impacts due to its close proximity to the growing Byford town centre precinct. The total estimated cost outlay to develop this campus for up to 450 students is approximately $7.5 Million.

2.3.3 Kelmscott John Calvin School

The Kelmscott John Calvin School Campus comprises a 7.7 hectare site accommodating facilities for some 205 students plus staff. As this Primary school grows to 450 students between 2040-2050, some nine (9) extra classrooms, five (5) new specialised learning areas, and expanded administration and library facilities will be required. There are some constraints associated with internal traffic management and potential requirement for reticulated sewer connection. The total estimated cost outlay to develop this campus for up to 450 students is approximately $9.5 Million.

2.3.4 Rockingham John Calvin School

The Rockingham John Calvin School campus comprises a 5.1 hectare site accommodating facilities for some 130 students plus Staff. As this Primary school grows to 240 students (a full single stream school) between 2040-2050, some five (5) extra classrooms, three (3) new specialised learning areas, and expanded administration and library facilities will be required. There are some constraints associated with site topography and possible requirement to connect reticulated sewerage. The total estimated cost outlay to develop this campus for up to 240 students is approximately $5 Million.

2.3.5 South West John Calvin Christian College

The South West JCCC Campus comprises a 1.9 hectare site accommodating facilities for some 100 students plus staff. As this K-10 college grows to the anticipated 150 students between 2040-2050, some nine (9) extra classrooms, three (3) new specialised learning areas and expanded administration facilities may be required. Connection to the reticulated sewer system may need to be explored as expansion occurs. The total estimated cost outlay to develop this campus for up to 150 students is approximately $5 Million.

2.4 Efficiency

The ratio of students to teachers is a simple measure of financial viability of any school, and for the John Calvin Primary Schools a average class size of 23 students is efficient. The FRSA's unique enrolment system, and the relatively small school sizes, contribute to the

challenge each year again to achieve a high proportion of optimal class sizes. Sub-optimal class sizes also drive the demand for additional staff and facilities. Given that in the state and other private school systems 1,000 students would be a medium sized school, with one Principal, the FRSA model of five (5) campuses for just over 1,000 students can be considered a relatively inefficient duplication of infrastructure, facilities and leadership positions. Improving efficiency and managing educational needs are both important, and need to be managed carefully, with due regard for staff and student well-being and prudent stewardship of finances and resources.

2.5 Campus Planning Priorities

To help develop, consider and evaluate the preferred model for the FRSA beyond 2040, in terms of the optimum number and location of schools, some principles and priorities had been identified and include;

- Campuses to be located accessible to most parents, although less than a 30 minute drive for all parents is unlikely to be achieved;
- A well-managed FRSA bus service with a desired maximum travel time of approximately 45-60 minutes is considered acceptable, although may not always be practical for early years students (K-2).
- Aim for increased Primary School size of approximately 400 students or more, to allow for efficient double steams (i.e. two classes per grade).
- JCCC Middle School (metro) to increase to five (5) streams before contemplating change to this configuration;
- Maintain co-location of middle school with the senior school, and/or Primary school, in order to benefit from reduced duplication of facilities and staff resources;
- Preferred Primary School Campus land size to be minimum of three (3) hectares;
- Early Years Learning satellites could be explored for locations where travel times are not considered acceptable; and
- Value and utilise existing infrastructure where appropriate.

Planning for future and existing school campuses has always provided opportunity for the FRSA to collaborate with other organisations within the Free Reformed Churches, to multi-purpose or co-locate planned infrastructure that serves the broader needs of the Free Reformed Church Members. Such collaborative activity could be further facilitated at all FRSA Campuses, including any newly planned campus.

2.6 Alternative models

2.6.1 Model 1

At one end of the spectrum, it is useful to contemplate an option with all metropolitan campuses consolidated on a single new centrally located campus. A well-managed FRSA bus service would assist in making such a campus more accessible to more families. A single K-12 campus could commence in around 2030 with some 1,350 students, offering

the optimal solution in terms of staff resources, student-teacher ratios, specialist areas, infrastructure, utility and leadership positions. The campus could be planned to accommodate at least 2,000 students, allowing the FRSA to maintain the single-metro-campus model until at least 2050.

Assuming the new consolidated campus was established in proximity to the Tonkin Highway, somewhere between Forrestdale and Mundijong, satellite Early Learning Centres could be explored and offered in Melville and Mandurah for grades K-2. This single-metro-campus option would necessitate sale of all existing metropolitan campuses, with an existing book value of $9.5M (land) $10.1M (buildings). The estimated cost of land and infrastructure for a single new campus is around about $38 to $40M.

2.6.2 Model 2

At the other end of the spectrum, it is useful to contemplate an option whereby two or more new schools are established in the south-metropolitan area. New Primary schools could be established at Mundijong and Darling Downs / Forrestdale areas, and an additional Middle School could be located at either Kelmscott, Mundijong or Rockingham. The new Primary Schools would commence as 0.5 stream schools (i.e. combined grades) of approximately 100 students, and the new middle school would aim to be single stream at approximately 20-30 students per grade. A decision would need to be made about Year 10 either remaining part of the Senior School or being offered at other locations with Middle School. Satellite Early Learning Centres could be explored and offered in Melville and Mandurah for Grades K-2.

Establishing multiple additional new campuses offers the least optimal solution in terms of staff resources, student-teacher ratios, specialist areas, infrastructure utility, and duplication of leadership positions. The multiple additional campus option requires one or two new Primary School sites to be purchased and developed, at an estimated cost of $5.5M for each Primary School Campus. It is estimated that a new Middle School would cost approximately $7M to build (including a Multi-Purpose Hall), assuming co-location at one of the Primary School Sites.

Although this model could provide some added local community connection between the local Churches and the School, there will be additional pressure on Staff resourcing, finding enough leaders, extra regulatory compliance, and reduced efficiency. An additional concern relates to 'splitting the middle school', as one metropolitan Middle School does allow all the metropolitan Free Reformed Church young people to grow together for the teenage part of their schooling years.

2.7 The preferred model

The preferred future schools configuration for the FRSA seeks to balance the advantages and disadvantages from models contemplated at both ends of the spectrum. As the FRSA grows beyond 2040, the Lord willing, establishment of three (3) colleges (including one

Senior School) across the South Metropolitan area is considered most sustainable. Recognising the existing and expected number of Church families living along the foothills of the Darling escarpment, this area would be serviced by two (2) Colleges, and the growing number of Church families trending towards the coast would be served by a single College.

As a priority, a new K-12 Campus would be established in proximity to the Tonkin Highway, within the localities of Oakford, Oldbury or Mundijong for the growing southern end of this foothills urban corridor. The existing Armadale JCCC would relocate to the new campus sometime between 2026 to 2030 and would continue to cater for all the middle and senior school students for the foreseeable future. Travel time would be reduced for many families in the southern end of the foothills corridor and the southern coastal areas, and for the northern foothills and northern coastal areas travel time will only marginally increase given the proximity and use of major higher speed road networks.

The Byford Primary School could relocate to the new K-12 Campus Site sometime between 2030 to 2035, before student growth reaches the threshold where significant additional infrastructure is required. The Rockingham and Kelmscott Primary Schools, and the South West JCCC would continue to expand infrastructure to accommodate on-going growth in student numbers, in accordance with the campus master plans.

Consideration for establishment of a Middle School at Kelmscott or Rockingham is only likely to occur after 2040 and will be driven by student numbers and updated projections. Satellite early learning centres could be explored and offered in Melville and Mandurah for grades K-2.

2.8 Conclusion

It is such a blessing that time and again we may be planning for growth, mindful that it is all under the blessing of the Lord, a blessing that can only be expected if we remain faithful and obedient to Him. This project is one of several large projects and 'building blocks' for the FRSA that will influence and direct our Association and schools for many years to come, the Lord willing. These significant 'building blocks' are part of a Spiritual building, part of God's Kingdom building, and hence these 'building blocks' are not firstly about a new plan for the future of our schools, a new campus, or a new Curriculum project. A new future schools plan, a new school campus, and a new school Curriculum will all disappear in the refining fire on the last day, when our Lord Jesus Christ returns on the clouds of heaven. If our work in training and nurturing the next generation of the Church in the fear of His name is according to His Holy Word and will, then by grace alone the next generation of the Church will stand before Him and give Him praise and glory on that last day!

3.0 Population Growth

3.1 Population Growth – a brief introduction

Population growth when observed over a long period of time typically follows a quadratic model. Simply put, populations grow slowly at first, grow rapidly in the middle, and grow slowly as the population stabilises. This population growth pattern approximates a quadratic growth model. The population grows slowly at first because the population is itself small (i.e., it has a small starting base). As the population base increases the growth becomes exponential (i.e., grows rapidly). The population growth slows as it reaches the carry capacity of the environment (i.e., available jobs, available land, available money, and other resources).

Population growth is calculated using the formula outlined below.

$$P_1 = P_0 \times e^{rt}$$

P_1 = Total population after time (t)
P_0 = Starting population
e = Euler's number
r = % Rate of growth
t = Time (hours, years etc)

Population size is a function of inputs and outputs. Inputs include births and immigration (in). Outputs include deaths and immigration (out).

Population predictions are mathematical predictions of future outcomes based on past and present data. Specific population predictions are often inaccurate when based on small populations and long horizons. For this reason, population analysis typical uses scenario planning to bound upper and lower limits for population growth. These scenarios (i.e., high growth or low growth models) give confidence in population trend data. Key to this discussion paper is the overall population trend and not the prediction of a specific number of student enrolments.

From 1954 to 2019 the FRCA population (Perth Metro and South West) grew at the rate of 4.08% annually, rising from 250 to 3692. The FRSA student population from 1958 to 2020 grew at a rate of 4.24% annually rising from 70 to nearly 1000 students.

Population models have been developed for no growth, 1.5%, 2.5% and 3.5% growth. Assuming a no growth model, and 100 births per year (the approximate number of births in recent years) and assuming all births translate into enrolments, no immigration (in or out) and all students attend K-12 the number of students in the FRSA would be 1400 (100

students x 14-year levels). This would represent a 40% increase over current enrolments of 1000 students in 2020.

The population growth models of 1.5%, 2.5% and 3.5% represent potential future growth patterns. While there is interest in the headline numbers that they project, the more important question is "Are enrolments at the FRSA going to increase, decrease or stabilise". In answering this question, it is important to note the trends in the population data and not the variation that occurs from year to year. From year-to-year populations peak up and trough down and this yearly variation can obscure the trend. Total student enrolments at the FRSA are a function of the sum of 14-year levels (K-12). Yearly variation, while important at the local school and class level, is "smoothed" out when we consider the trend data.

3.2 Data sets and data limitations

The bulk of the data that underpins the analysis presented in this discussion paper has been provided by Br G de Vos – we publicly thank him for his generosity and support, particularly in tracking down historical data. This data was provided with appropriate regard for privacy (i.e., no names and no obviously identifiable information). Supplementary data was received from various churches (again anonymous), and the final primary data source was the FRSA's own data sets relating to membership and student enrolments. Based on this data this discussion paper does deal with subjective and qualitative predictions (for example suggestions of additional churches).

Data sets do cover different years, and some historical data was not available. Overall, the small variations between data sets are to be expected and does not invalidate the trends presented.

A key limiting factor that hampers planning for kindergarten enrolments is the FRSA's lack of visibility regarding specific birth data by church and school catchment. To properly plan for staff, infrastructure, and class combinations we will need to seriously explore and implement the practise of pre-enrolment of students shortly after their birth.

3.3 Church Population Growth

3.3.1 1954 to 2019 – the FRCA (Perth Metro and South West)

Over the 65 years from 1954 to 2019 the FRCA population (not including Albany or Tasmania) has grown from 250 to more than 3692. The rate of population growth over this period of time is 4.08% annually. During this period, the number of churches has increased from 1 to 12.

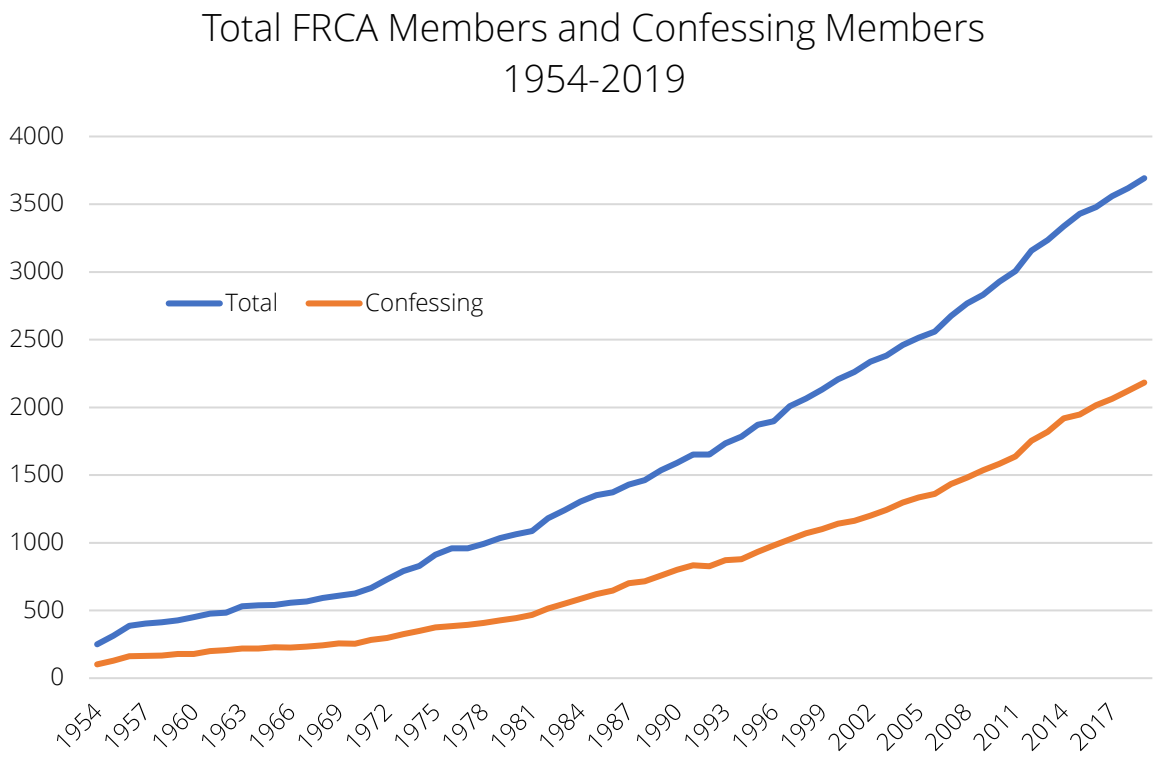

Figure 3.1Total FRCA Members and Confessing Members (1954-2019)

Table 3.1Year of Church establishment and population numbers

Church Name	Year established	Population at institution	2019 Population
Armadale	1954	250	338
Kelmscott	1981	540	315
Byford	1986	191	464
Mt Nasura	1987	250	277
Rockingham	1993	149	356
Southern River	1999	268	440
Bunbury	2000	52	207
Darling Downs	2004	181	294
Baldivis	2008	159	383
Mundijong	2010	185	374
Busselton	2012	98	128
Melville	2014	113	116

A population pyramid allows us to visualise the FRCA population by representing both gender and age. Using 2019 data (i.e., it includes all those born in 2018 but not those born

in 2019) the resulting graphic displays a clear pyramid shape. This classic shape is technically referred to as an "expansive" pyramid. Key features of this expansive pyramid include:

- A church population that is continuing to expand
- Just over 50% of the Church population is under the age of 25
- More than 25% of the Church population is school aged

Implication: The FRCA is a young and growing population that is yet to reach a steady state.

From a population perspective, the numbers of babies born per year is likely to increase because the population is larger (than it ever has been) and has proportionately more young than older people (significantly more than the wider Australian population).

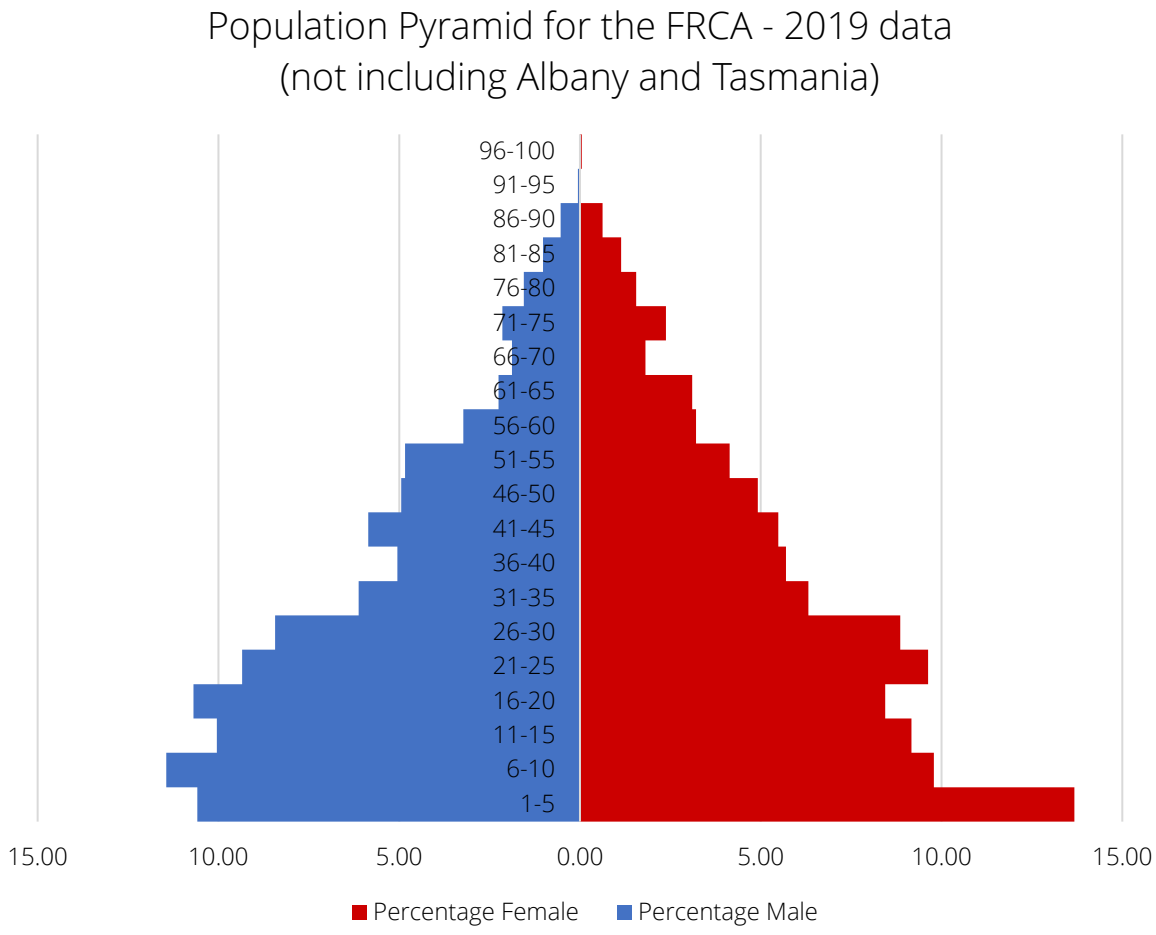

Figure 3.2 Total Population pyramid for the FRCA using 2019 data.

3.4 Movement in member addresses over time

Mapping addresses allows us to visually represent the geographical spread of the FRCA and FRSA populations over time. We were able to generate sufficiently accurate data sets for 2000, 2009 and 2020. When mapped via GIS (Geographic Information System) software we can identify several key trends across the past 20 years. Please note that each dot mapped in the first three figures represents one address not one member. One family of 8 is represented by the same sized dot as a single brother or sister living at a unique address. The heat maps take into account the number of people living at each address.

First, the concentration of the church population within the Armadale area remains. However, the heat map shows that the concentration is expanding south along the scarp into (and south of) Byford. Second the concentration against the scarp is extending south towards Keysbrook. Third the population located in Rockingham and Baldivis continues to grow (evidenced by the 2020 heat map). Fourth this population is also extending south into Mandurah. Finally, the data shows that for the past 20 years there has been addresses north of the Swan river and in the suburbs that make up the catchment area for Melville congregation.

GIS analysis of the FRSA data mapping the addresses of members with children at school versus members with no children at school shows the intuitive trend that members with children at school tend to live closer to the existing campuses than members with no children at school.

The GIS data analysis was undertaken by Br W 't Hart. We are grateful for his time and expertise.

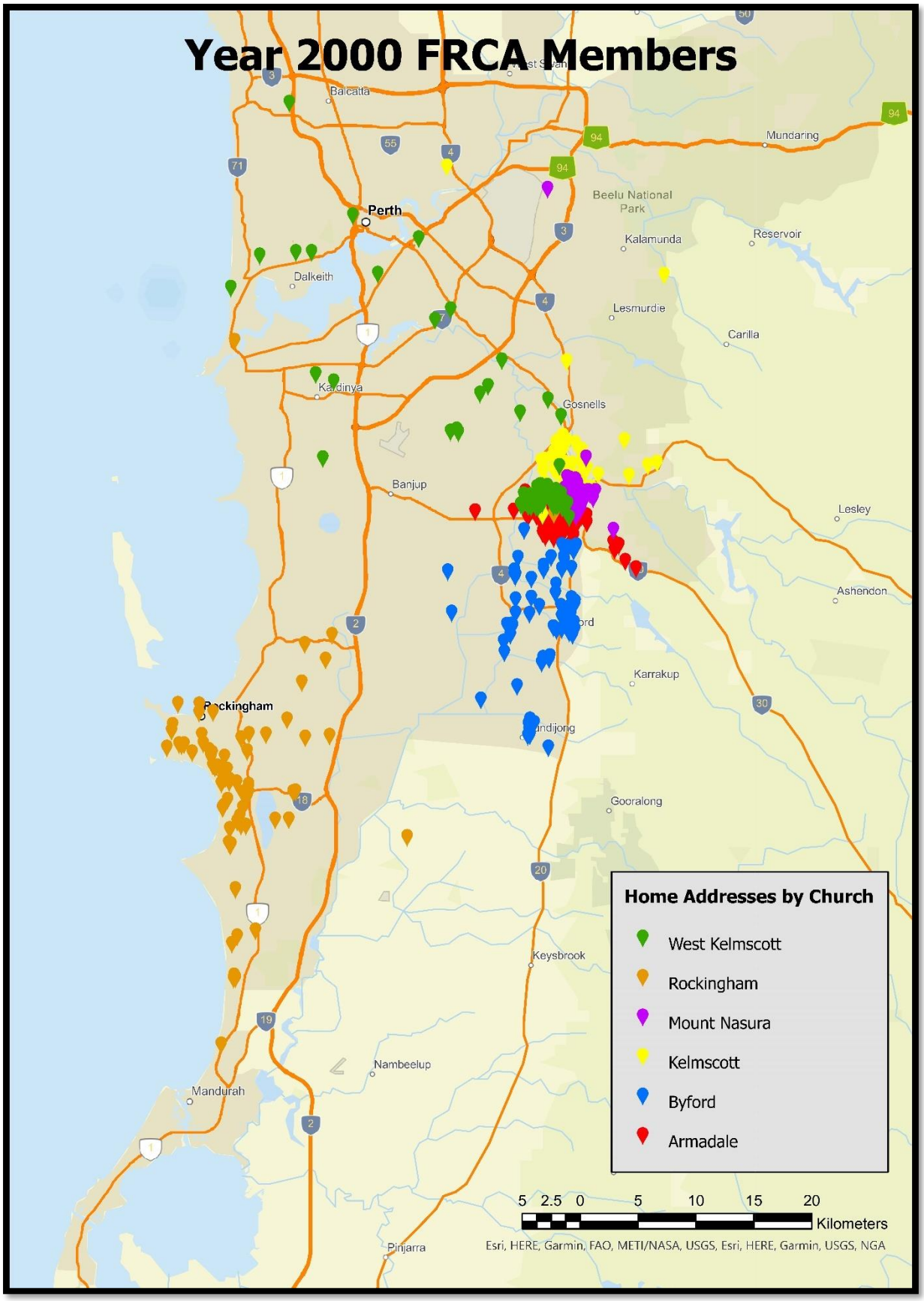

Figure 3.3 Mapping of home addresses by Church – 2000 data

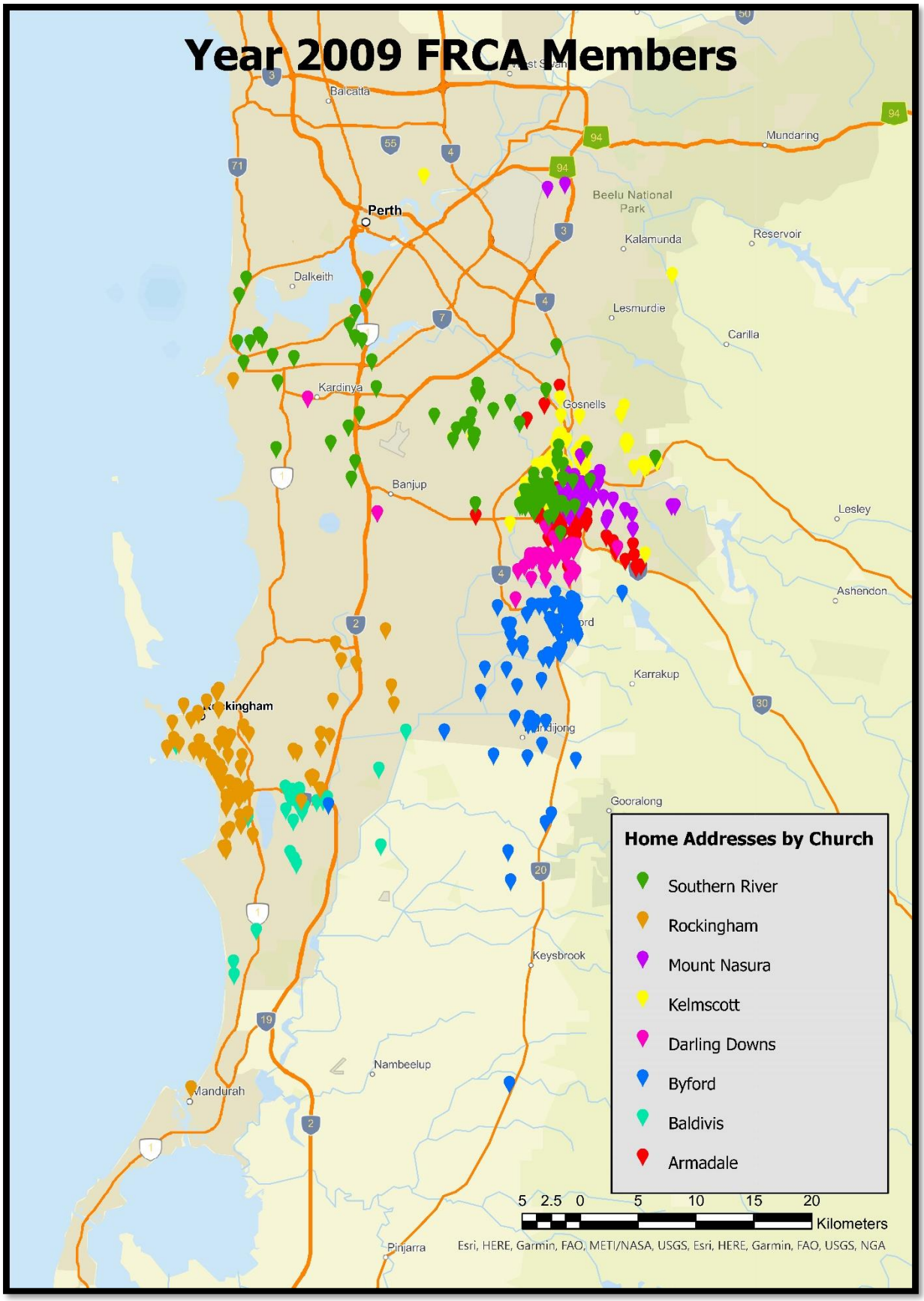

Figure 3.4 Mapping of home addresses by Church – 2009 data

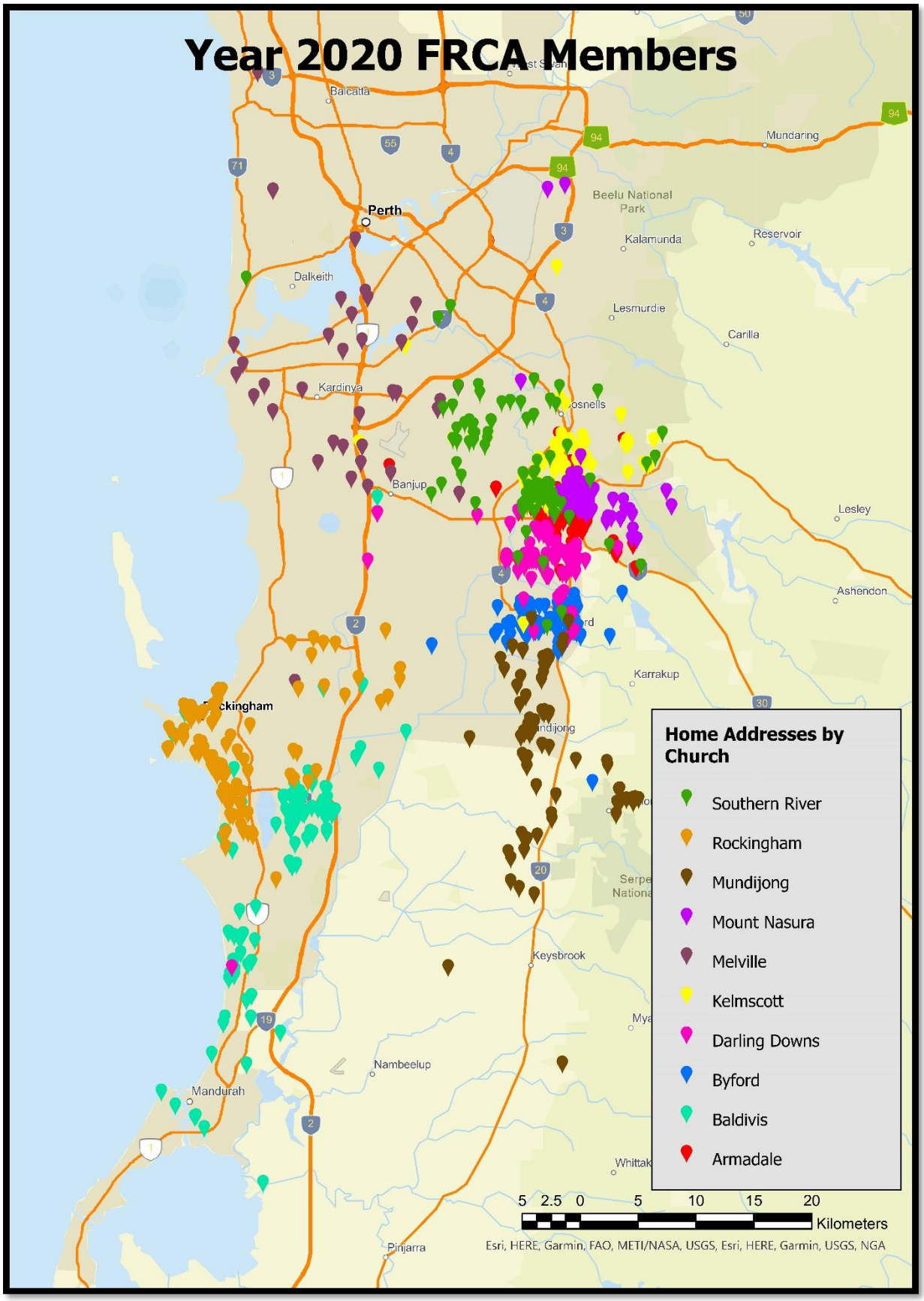

Figure 3.5 Mapping of home addresses by Church – 2020 data

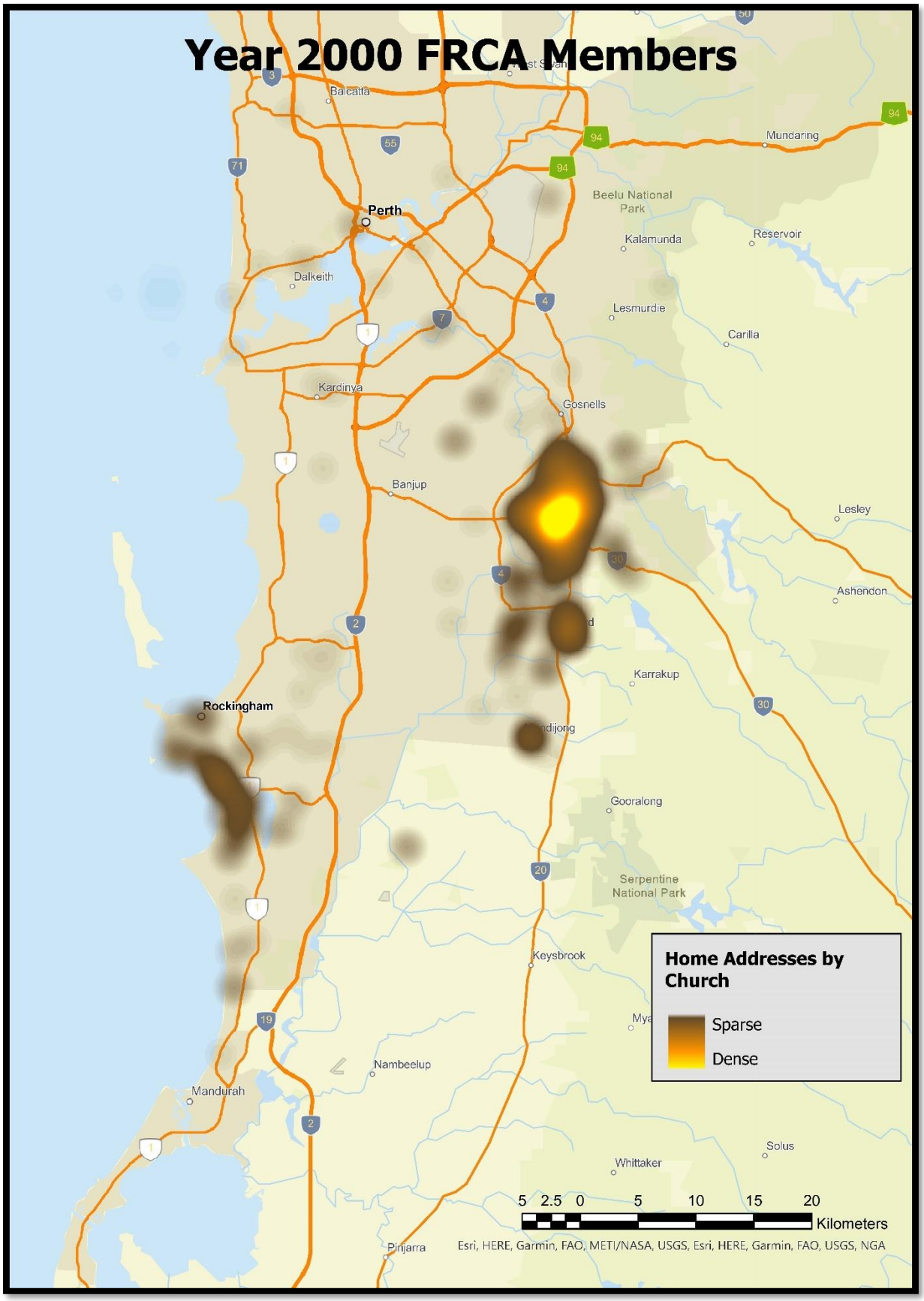

Figure 3.6 Heat map of home addresses by Church – 2000 data

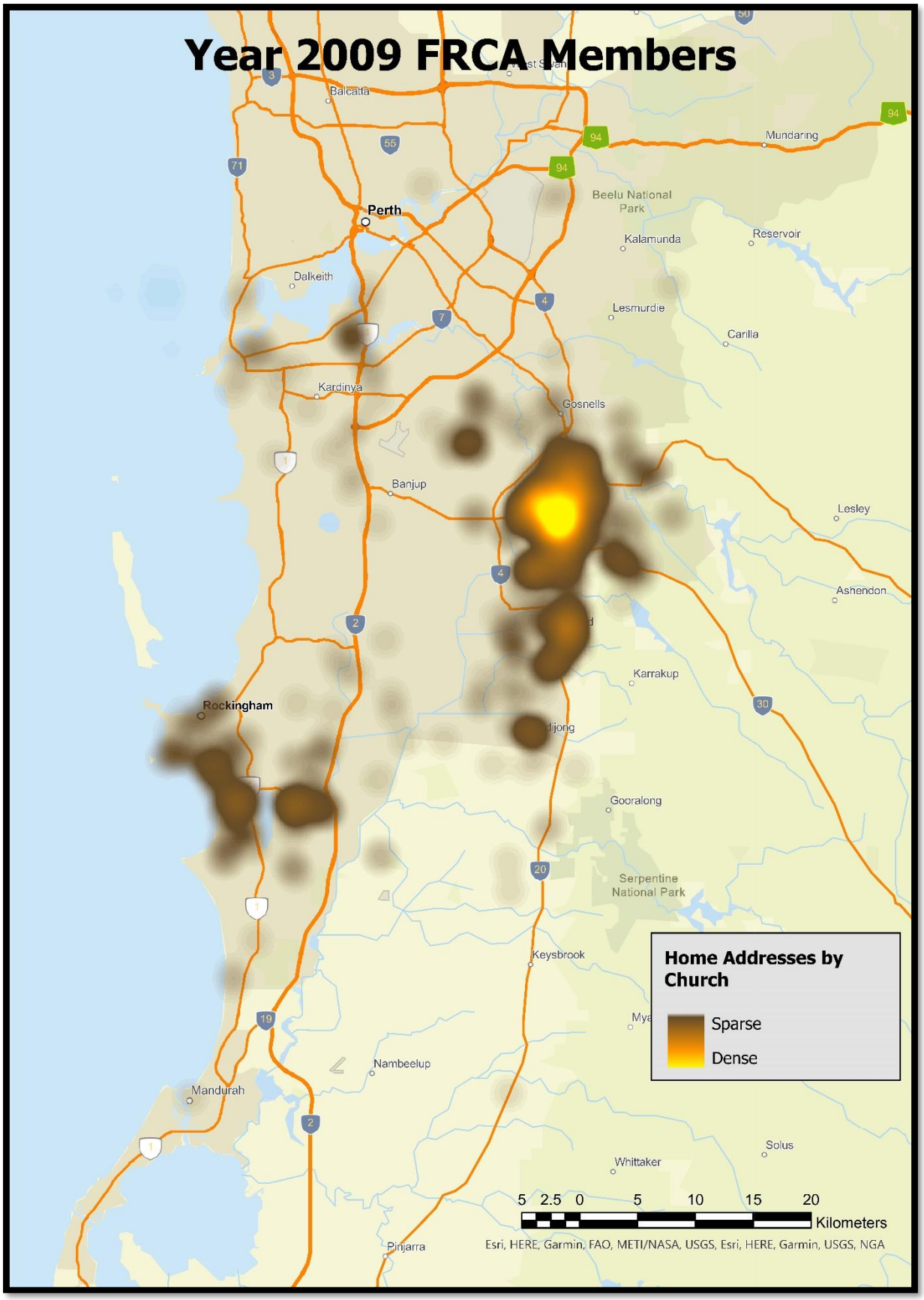

Figure 3.7 Heat map of home addresses by Church – 2009 data

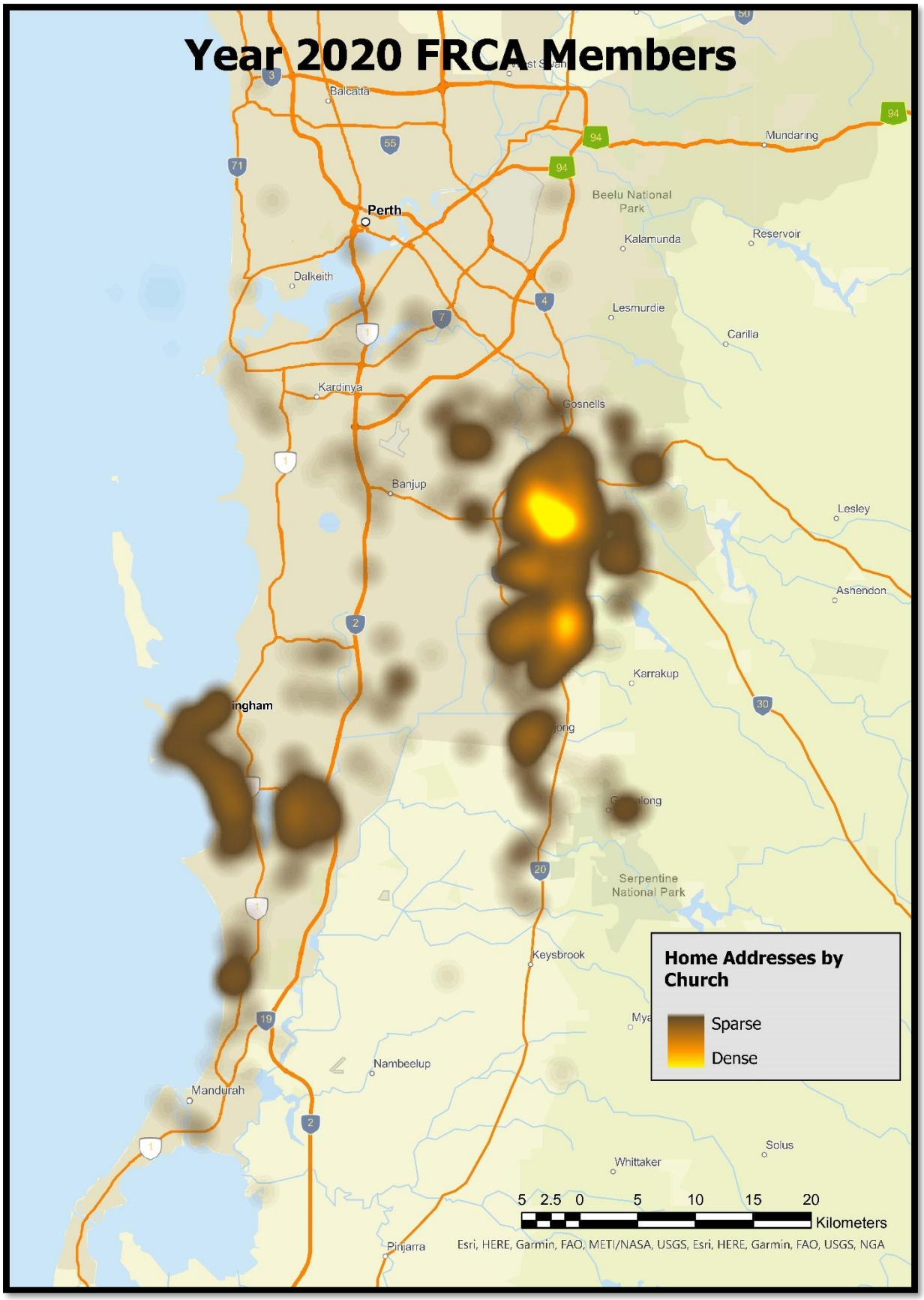

Figure 3.8 Heat map of home addresses by Church – 2020 data

3.5 Churches as feeders of school catchments

Baptism data by church is a good proxy for student enrolment data (with the obvious lag of 4 years). Data sets that record baptisms by church were available to us and their analysis is presented below. In the following section data relating to deaths was not available. Consequently, all population declines are attributed to immigration (out) exceeding births.

3.5.1 Feeder Churches for Byford John Calvin School

- Three feeder Churches
  - Byford
    - 2010 to 2019 membership numbers grew from 307 to 464
  - Darling Downs
    - 2010 to 2019 membership numbers grew from 206 to 294
  - Mundijong
    - 2010 to 2019 membership numbers grew from 185 to 374
  - The overall catchment size is approximately 1100.
  - Birth data in recent years varies between 30 and 40 per year with an increasing trend.
  - For all three churches population growth is positive combining both births and immigration (in)

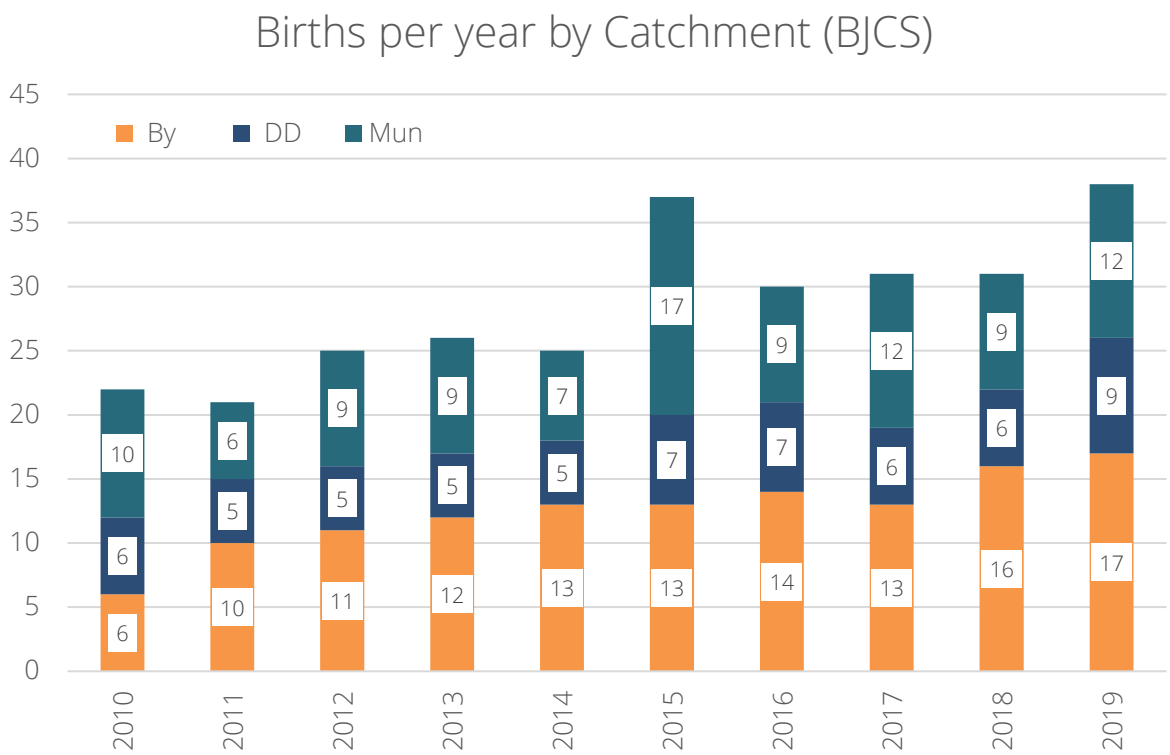

Figure 3.9 Births per year by Church for the BJCS catchment

3.5.2 Feeder Churches for Kelmscott John Calvin School

- Five feeder Churches
  - Armadale
    - 2010 to 2019 membership numbers declined from 415 to 338
  - Kelmscott
    - 2010 to 2019 membership numbers grew from 309 to 315
  - Melville
    - 2014 to 2019 membership numbers grew from 113 to 116
  - Mount Nasura
    - 2010 to 2019 membership numbers grew from 262 to 277
  - Southern River
    - 2010 to 2019 membership numbers declined from 480 to 440
  - The overall catchment size is approximately 1400.
  - Birth data in recent years varies between 20 and 40 per year with a decreasing trend.
  - For all five churches population is broadly stable (small reduction in Southern River) supporting the view that despite increases due to births populations have been "reduced" by immigration "out".

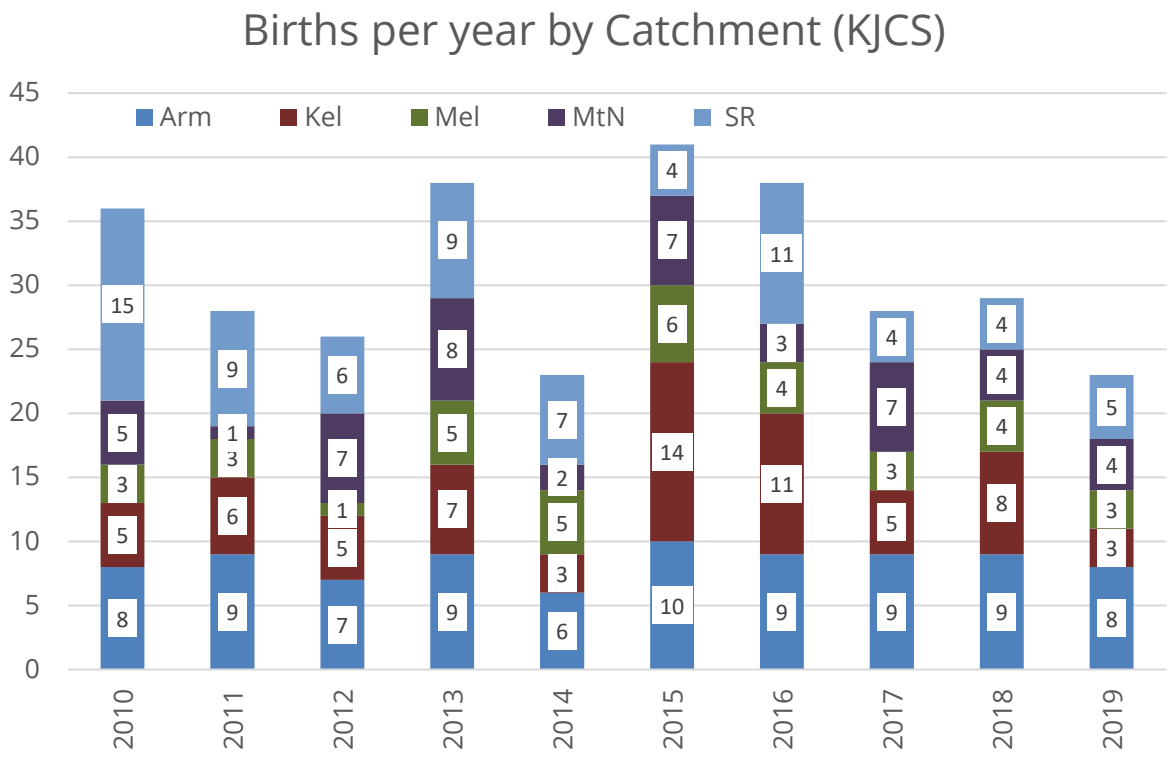

Figure 3.10 Births per year by Church for the KJCS catchment

3.5.3 Feeder Churches for Rockingham John Calvin School

- Two feeder churches
  - Baldivis
    - 2010 to 2019 membership numbers grew from 211 to 383
  - Rockingham
    - 2010 to 2019 membership numbers grew from 332 to 356
  - The overall catchment size is approximately 750.
  - Birth data in recent years varies between 15 and 25 per year with a stable trend.
  - For both churches' population growth has been positive. Baldivis (more than Rockingham) has benefited by immigration "in" in addition to growth from births.

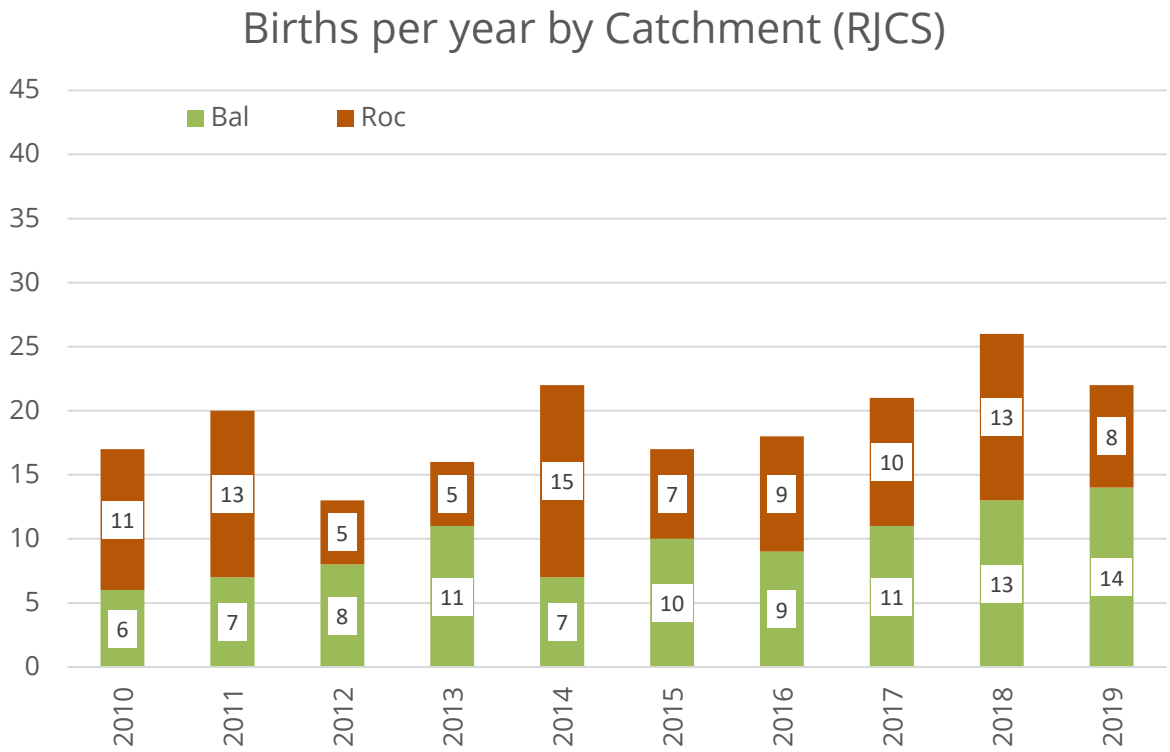

Figure 3.11 Births per year by Church for the RJCS catchment

3.5.4 Feeder Churches for South West John Calvin Christian College

- Two feeder churches
  - Bunbury
    - 2010 to 2019 membership numbers declined from 222 to 207

- Busselton
  - 2012 to 2019 membership numbers grew from 98 to 128
- The overall catchment size is approximately 340.
- Birth data in recent years varies between 5 and 10 per year with a stable trend.
- For both churches' population growth has been broadly stable. Population increases due to births have been offset by immigration "out" for Bunbury and "in" for Busselton.

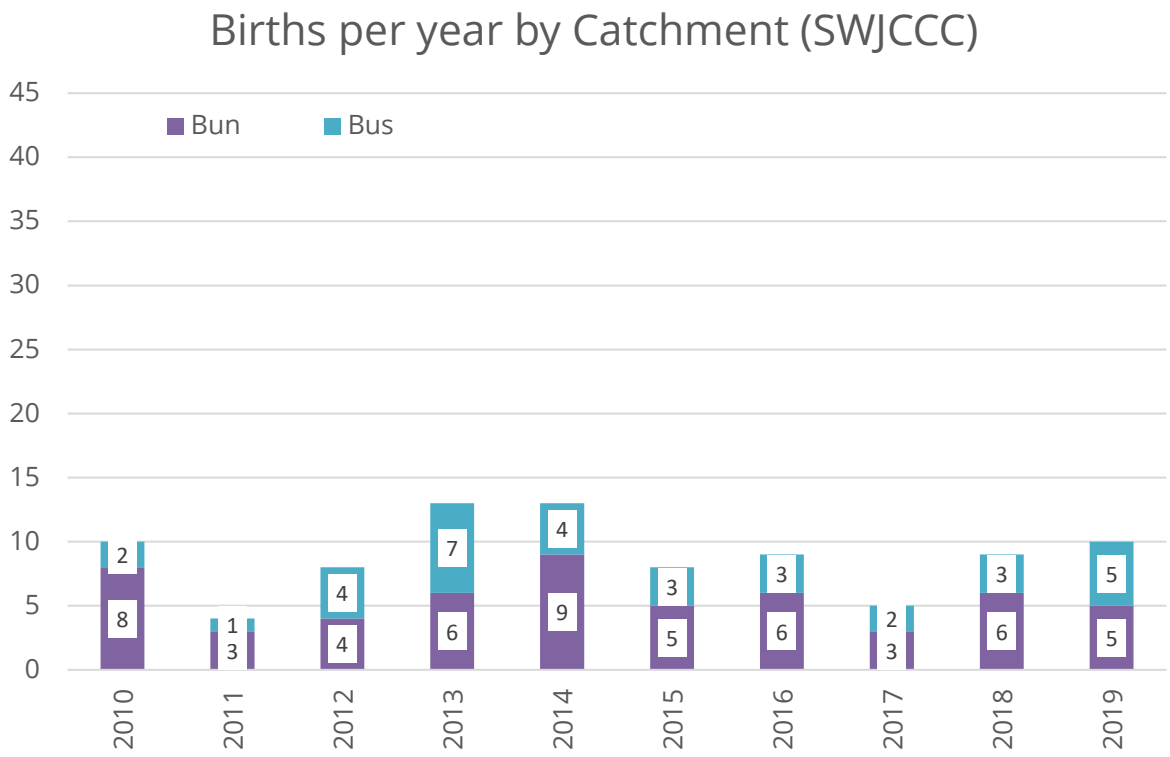

Figure 3.12 Births per year by Church for the SWJCCC catchment

3.5.1 Feeder Churches for John Calvin Christian College

- Within the Metropolitan area all Churches feed into the JCCC. Population growth is best identified by observing student enrolment data for the combined metropolitan primary schools (presented below)

3.6 School Population Growth

3.6.1 1958 to 2020 – the FRSA (Perth Metro and South West)

In 1958, 70 students were enrolled at one campus across two rooms. In 2020 this number reached 1009 (1032 for 2021) across 14-year levels and 5 campuses. The student population growth rate from 1958 to 2020 was 4.24% per annum. From 1958 to 1960 the student population was static with 70 enrolments. From 1964 to 1965 the total student population dropped from 101 to 99. Every other year (i.e., 62 years out of 63) the total number of enrolled students has increased in number from year to year.

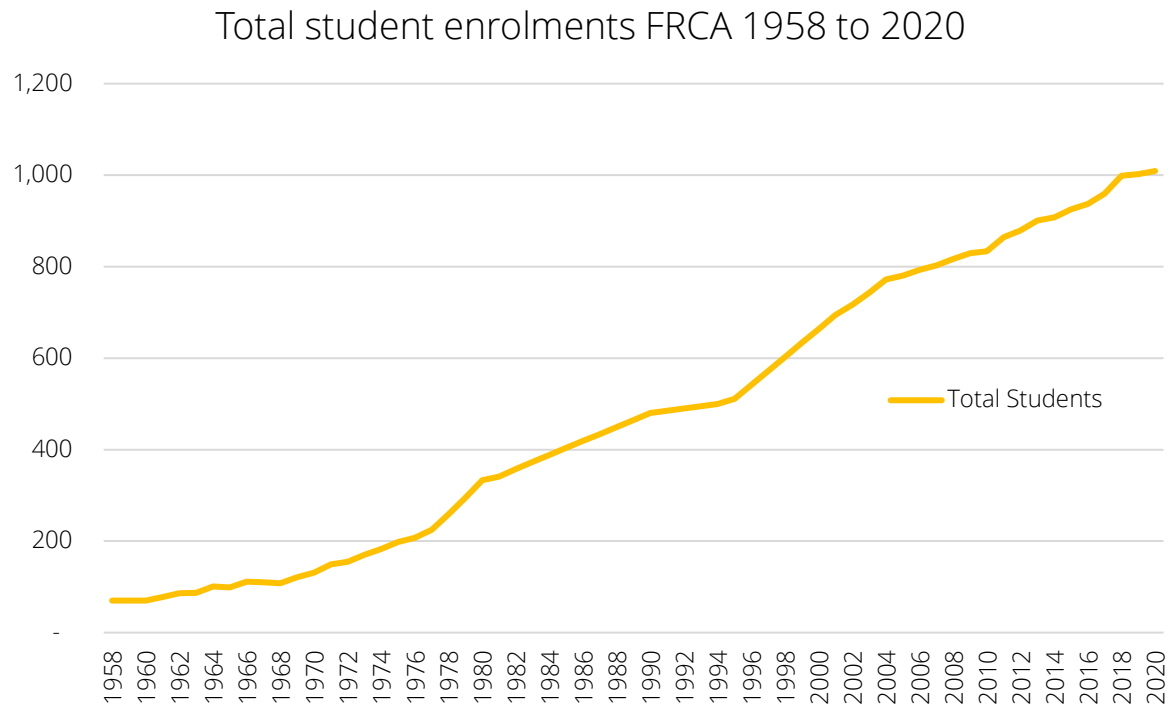

Figure 3.13 Total student enrolments in the FRSA from 1958 to 2020

Student enrolment projections for 2040 were updated early in 2021 using student enrolment data for the first day of school in 2021. Four models are projected 0%, 1.5%, 2.5% and 3.5% growth. The model is highly sensitive to the numbers of students who enrol in Kindergarten and accounts for the "loss of students" as they transition from Year 10 to 11 and to 12. Year 10 students transition to Year 11 at a rate of 85% while Year 11 students transition to Year 12 at 95%. The model also assumes that Pre-Primary student numbers are 101.5% of Kindergarten enrolments reflecting that Kindergarten is not compulsory and some parents choose to keep Kindergarten aged children at home.

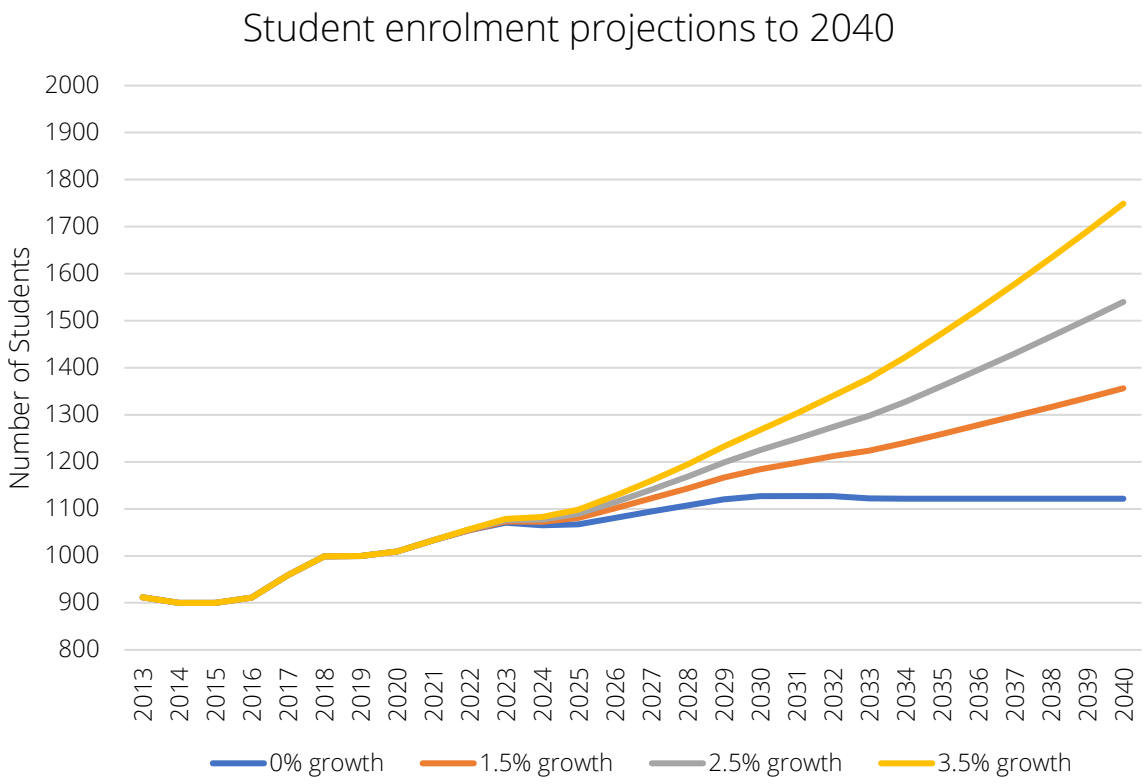

Figure 3.14 Projected student enrolments based on different population growth rates

Earlier in this paper we proposed that a 0% growth model would result in 1400 students across the FRSA. This number was calculated by assuming 100 births per year x 14-year levels. The 0% growth model in the chart above predicts just over 1100 enrolments from 2030 onwards. The difference can be accounted for as follows.

1. 100 births have never translated into 100 student enrolments. Parents migrate to other locations (Albany, Tasmania, overseas), home school or leave the FRCA.
2. The model above is based on historical student enrolment data and actual enrolments as of the first day of school in 2021. (K enrolments in 2021 on the first day of school are actually 81 students – this will rise throughout the year)
3. The model above more accurately reflects the transition of students from Years 10 to Year 11 and Year 12 (i.e., some students leave school to commence work).

The 0% growth predictions in the chart above are a reasonable prediction for approximately 80 student enrolments per year in Kindergarten and no immigration into or out of the system. However, it is unreasonable to assume that there will be no increase in the birth rate of the FRCA given the birth rate data presented earlier. From 1991 to 2000 the (simple) average number of births per year was 71.5. From 2001 to 2009 the (simple) average number of births per year was 74.7. From 2010 to 2019 the (simple average number of births per year was 87.1.

The 1.5%, 2.5% and 3.5% growth models are mathematical predictions. While valid as mathematical projections the trend is more important than the predicted number. All the population data and its analysis support the view that the FRCA continues to grow. Consequently, the FRSA student enrolments will continue to grow. The important question then becomes how can our existing infrastructure cope with growth, and is our current campus configuration suited to responding to the expected growth over the coming decades?

3.6.2 Current and predicted populations for individual Campuses

Population predictions for the JCCC (middle school and senior school) are highly reliable over the forward estimates as the numbers of students who are about to enter Grade 7 (typically aged 12) can be accurately predicted for the coming 8 years since those students are currently enrolled in K-6 classes at one of the metropolitan primary schools. This means that JCCC enrolments can be predicted with a high level of confidence till 2029. After 2029 enrolment numbers are modelled.

Population predictions for the Primary Schools are more difficult as students are enrolled in Kindergarten in the year that they turn 4 (provided their birthday is before June 30th). Current practise is for parents to enrol their children for Kindergarten 6 months prior to starting school. Future predictions are based on baptism data published by each church. However, not all baptisms are published in the district bulletin and families with young children tend to be more mobile (i.e., move from one school catchment to another) than families with older children. The current population modelling does account for the fact that K is optional and that some parents choose to keep their children home for K and enrol them for Pre-Primary (PP) as their first year.

As the school population grows the impacts are first observed in K and PP (in the primary schools) and flow year by year to each subsequent grade. Small increases across the three metropolitan primary schools aggregate into larger increases for the JCCC – Grade 7.

3.6.3 BJCS – Current and predicted population

Student numbers at BJCS were 207 in 2020 up from 193 in 2013 (182 student in 2015). In our no growth model student numbers stabilise around 2020 till 2040. In our high growth (3.5%) model student numbers reach approximately 374 by 2040.

3.6.4 KJCS – Current and predicted population

Student numbers at the KJCS were 205 in 2020 up from 92 in 2013. In our no growth model student numbers stabilise around 235 till 2040. In our high growth (3.5%) model student numbers reach approximately 400 by 2040.

3.6.5 RJCS – Current and predicted population

Student numbers at the RJCS were 130 in 2020 up from 103 in 2013. In our no growth model student numbers stabilise around 130 till 2040. In our high growth (3.5%) model student numbers reach approximately 240 by 2040.

3.6.6 JCCC – Current and predicted population

Student numbers at the JCCC were 374 in 2020 up from 334 in 2013. This will rise to 420 by 2029. Student enrolments hover around 360 to 370 from 2020 to 2026. After 2026 the student numbers rise from 371 to 420, rising by between 10 and 20 students per year. In our no growth model student numbers stabilise around 420 till 2040. In our high growth (3.5%) model student numbers reach approximately 560 in 2040.

Table 3.2 Student enrolment at the JCCC (2020 to 2029)

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Students	374	378	380	371	358	365	371	396	409	420

3.6.7 SWJCCC – Current and predicated population

Student numbers at the SWJCCC were 93 in 2020 up from 90 in 2013. In our no growth model student numbers stabilise around 100 till 2040. In our high growth (3.5%) model student numbers reach approximately 150 by 2040.

3.7 Population Growth and Settlement – Perth-Peel context

As we plan for the future and for growth it is good to try and understand what that growth might look like. Based upon the planning and demographic data and information that is available, both in terms of the State and in terms of the bond of Churches, this section of the report outlines a picture of population growth and settlement at three (3) broad levels, namely;

- Whole of Perth and Peel metropolitan region;
- South metropolitan and Peel sub-region; and
- Free Reformed Church growth and settlement.

3.7.1 Perth-Peel metropolitan growth

By 2050 the Perth-Peel region population is anticipated to grow from 2.0 million up to 3.5 million people (Perth-Peel 3.5 Planning Framework). This represents a growth of an extra 1.5 million people for the Perth-Peel region. Through better urban amenities and design it is anticipated that approximately 47% of this growth will occur by way of infill development within existing urban areas, and 53% of this growth by way of new "greenfield" subdivisions. State planning policies are increasingly aimed at containing the urban sprawl, and hence the existing urban corridors of Perth and Peel are unlikely to simply continue expanding and extending into the future. It is worth noting that the 47% infill development target relates to the whole metropolitan Perth and Peel region, and that the South metropolitan and Peel sub-region have their own infill target, as will be seen in the next section. The anticipated growth of the Perth-Peel region is also expected to be accompanied by improved and more connected rail and bus services.

Growth is already becoming most evident in the Urban renewal projects across the city, and development within the Peel region, which includes some of WA's fastest growing suburbs. The Perth-Peel metropolitan growth plan shows urban growth areas continuing south along the Darling escarpment, but notably stopping at Mundijong. The plan also includes expansion areas at Mandurah and through to Ravenswood, but no further south.

3.7.2 South Metropolitan – Peel sub region

The South metropolitan – Peel sub-region planning framework focuses on an area generally defined by a line from Coogee to Cannington, and then extending south to Mandurah and Pinjarra. This sub-region is expected to experience relatively strong population growth from 523,000 people up to 1.26 million people by 2050, representing more than a doubling of population in the next 30 years. Putting that in context, almost half of the entire Perth-Peel population growth is anticipated to be within this sub-region.

Factors influencing growth within this sub-region include; affordable housing; employment opportunities; and lifestyle opportunities. The key urban growth areas within this sub-region are illustrated on the map at Figure 3.15 and include; continued development between Kwinana – Rockingham – Mandurah and Pinjarra; the Champion Lakes to Wungong areas; and the large expanding towns of Byford and Mundijong.

Of the 737,000 new people expected within this sub-region by 2050, only 23% are expected to occupy and infill existing urban areas, with 77% expected to occupy new 'greenfield' housing areas. Regional road networks are expected to be the focus of urban growth, services, and public transport within this sub-region. Notably, the Tonkin Hwy and its ultimate extension includes the majority of urban growth along the foothills of the escarpment in four (4) defined cells of: Champion Lakes; Wungong; Byford; and Mundijong.

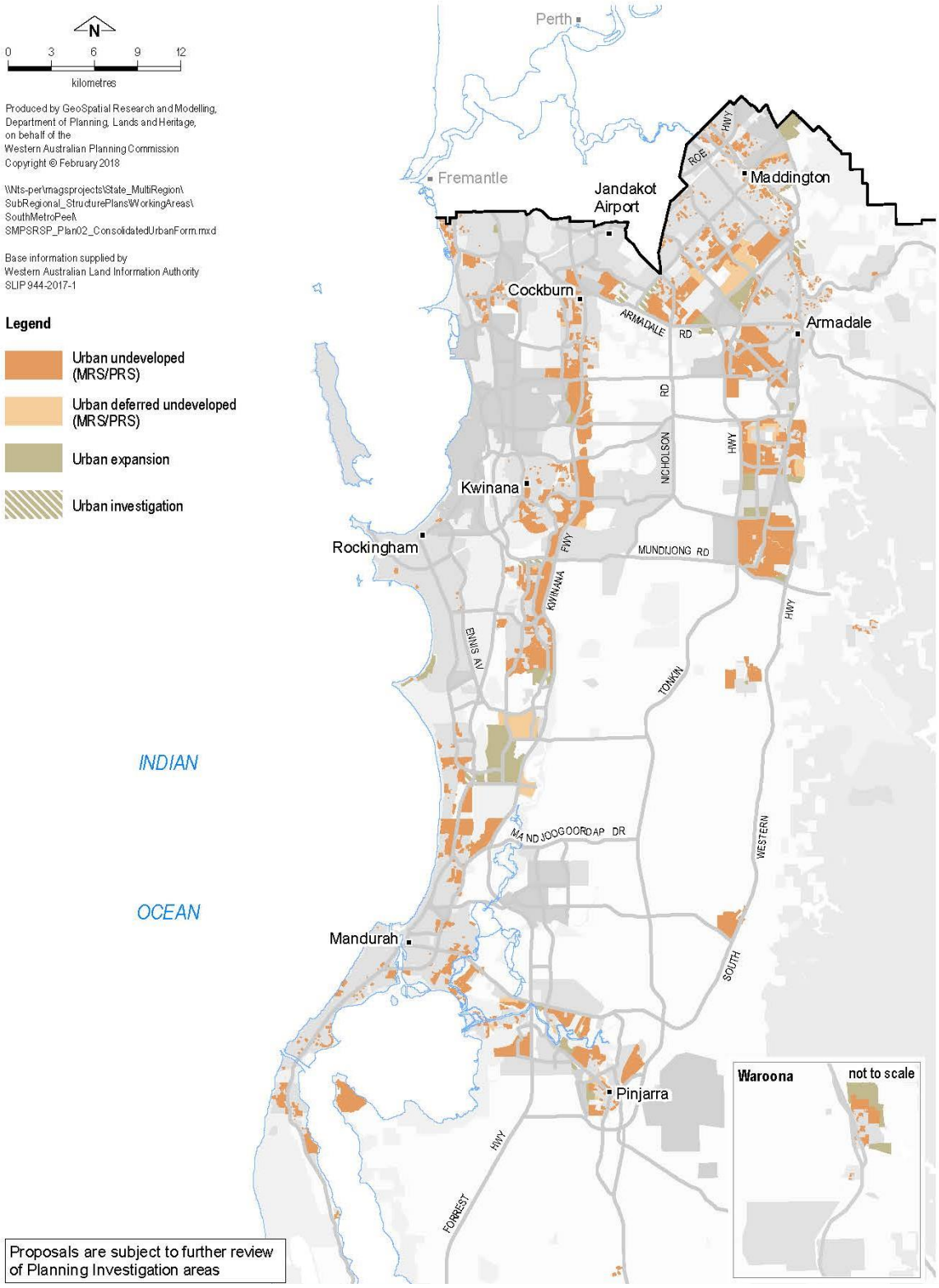

Figure 3.15 Urban Growth Patterns. South Metropolitan Peel Sub Region (Source: Perth and Peel @ 3.5 Million South Metropolitan Peel Sub-Regional Planning Framework March 2018)

In the Perth-Peel @ 3.5 Planning Framework (report available online), State Planners anticipate that by 2050, of the 737,000 additional people planned for the South Metropolitan Peel sub-region, the distribution will be as follows;

- Armadale – Gosnells: 165,000 additional people;
- Byford – Mundijong: 95,000 additional people;
- Cockburn – Kwinana: 116,000 additional people;
- Rockingham: 126,000 additional people; and
- Mandurah – Ravenswood – Dawesville: 224,000 additional people.

In summary, this means approximately one-third of the additional population growth is expected to be in the foothills area, and two-thirds is expected to be in the coastal area.

3.7.3 Free Reformed Church Members Growth and Settlement

Whilst State Planners and Demographers predict approximately one-third of the additional population growth, to be settling near the foothills and two-thirds near the coast, the question remains whether Free Reformed Church members will settle in this same manner and proportion. The foothills represents the historical origins of the Free Reformed Church settlement, and with seven (7) churches and three (3) schools in this area, it is likely that this area will still attract relatively strong growth with Free Reformed Church members. Whist the past three (3) decades have seen a proportion of Free Reformed Church members shift towards the coastal suburbs, it is somewhat difficult to imagine that two-thirds of the future Free Reformed Church member growth will trend towards the coast. Perhaps a more realistic scenario might be that half of the Free Reformed Church members future growth may settle in the coastal suburbs, and half in the foothills over the coming 30 years.

Before looking at what the settlement pattern for Free Reformed Church membership growth might look like in 30 years' time, it would be useful to zoom out for a moment at the whole Perth-Peel metropolitan region. State planners and demographers predict that about half Perth-Peel metropolitan growth will occur in the South metropolitan Peel sub region. Whilst we do not have Free Reformed Church demographers as such, it is worthwhile asking the question as to whether we expect any Free Reformed Church member growth north of the South Metropolitan-Peel sub-region (i.e. central Perth and North of the River). The evidence does not support this notion, with only minimal population growth among Free Reformed Church members north of Armadale Road over the past several years.

So, what might Free Reformed Church member growth and settlement look like in approximately 30 years' time? Currently, approximately 2,500 Free Reformed Church members reside in the foothill's areas, and some 900 members in the coastal areas. With a doubling of Free Reformed Church member population sometime between 2040 and 2050 and with approximately half settling in the foothills and half in the coastal areas;

a. The foothills Free Reformed Church population could grow from 2,500 members up to 4,200 members; and
b. The coastal Free Reformed Church population could grow from 900 members up to 2,600 members.

In terms of Church growth and development, these anticipated Free Reformed Church member growth and settlement scenarios could potentially result in the existing seven (7) foothills Churches growing to approximately 12 Churches, and the three (3) coastal Churches growing to approximately eight (8) Churches by 2050. (Refer to FRC member growth distribution map – 2050 - at Figure 3.15).

4.0 Campus planning (Student Numbers, Infrastructure & Masterplans)

4.1 John Calvin Christian College

Situated on Robin Hood Avenue, the JCCC provides middle and senior school education for all the Metropolitan students. The site also houses the FRSA Administration and the Teaching and Learning Team.

The current student population is approximately 360 and is predicted to increase to more than 560 by 2040. The total size of the existing site is just under 8 acres. The guidelines published by the Capital Grants Association (Federal Government body responsible for funding School related infrastructure) recommend a minimum size of 13 acres for 360 students and 16 acres for 600 students.

The current site needs additional specialist science and technology rooms. The current facilities for music are sub-optimal (neither large enough nor properly designed). The space available for sports / physical activity is insufficient resulting in students being bused to other campuses to make use of their Multi-Purpose Halls. The current site has no drama facilities and no performance spaces (music, drama, public speaking etc). The current facilities for students with special needs and learning needs and the library facilities will need to be expanded and updated to cater for the additional student numbers. Existing under cover spaces will be too small for assemblies and the Armadale Church can only just cater for the total number of existing students.

The total number of staff offices will need to be increased in the next few years. The number of car parking bays for staff is less than needed and current area used for student parking is sub-optimal.

Additional infrastructure at the site will likely result in need for onsite specialist firefighting equipment (tanks and pumps).

The site does have historical significance in that it is the site of the original school. Equally, some of the facilities are over 60 years old and difficult to renovate and maintain.

Traffic flow at morning drop off and afternoon pickup is becoming increasingly complex (as student numbers increase). This is a common problem for schools as a high number of vehicles access a concentrated space during a short space of time (30-40 minutes). Other campuses have the ability to mitigate some of these concerns by hosting the vehicles on the actual site (i.e. off the road and onto the campus property) as BJCS, KJCS and RJCS are able to do. JCCC needs to keep all the traffic on Robin Hood avenue. At present this is a manageable but not comfortable arrangement.

Finally, the location of the campus does present its own unique challenges. The surrounding areas are relatively low value housing which brings associated problems that are mitigated, in part, by the fence. The campus is not on a major transport route so access from Armadale Road is convoluted.

Given the level of investment at the site over many years it is important to consider the possibility of expanding the site and using the existing infrastructure.

Figure 4.1 Aerial photograph of existing JCCC and adjacent land (source Google Photos)

Section A (the current Robin Hood Avenue property is approximately 33,000 m^2. Section B is approximately 11,500 m^2. The current soccer/football oval is approximately 5000 m^2.

A conservative estimate (obtained in February 2021) to purchase the properties in section B indicated a starting price of $3.86 million. Several of the properties are owned by the State Government. Purchasing these properties would require the FRSA to negotiate with the Department of Communities as several of the properties are Public Housing. The five units at 40 Dale Road are likely to be expensive to purchase and represent high cost for relatively low square meters of land. Integrating these properties within the existing infrastructure would cost more than $400k. This would cover the costs of demolishing and clearing the existing facilities, amalgamating titles, and fencing the area.

Adding additional land to the JCCC site by purchasing the FRC Armadale has been explored only at a conceptual level. The land is approximately 7500 m^2 and separated from the existing campus by Fifth Road. Integrating the site into the existing campus would be difficult from the perspective of student safety. No attempt has been made to estimate a potential purchase price for this parcel of land.

In 2019 work was completed to explore the question "what would the site look like in 2025, 2030 and 2040" if we stay at the existing Robin Hood site? Concept drawings were developed based on projected student numbers. These numbers were then translated into numbers of classrooms, specialists teaching spaces, staff areas, carparking bays etc.

The concept plans, shown on the following pages assume the purchase of one additional property - 88 Dale Road.

The concept drawings demonstrate that the FRSA's metropolitan middle school and senior school can stay at the current site but there would be substantial disadvantages and cost implications.

If we stay at the existing site, the significant number of additional buildings (many of which will be double storey) will result is a very crowded campus – fundamentally different to the current campus "feel". The existing undersized sports oval would be further reduced (even though student numbers would increase). Issues previously identified regarding the traffic management, levels of anti-social behaviour, and distance from a main transport route remain unresolved and would be expected to continue to be problematic.

It was estimated that to achieve the JCCC concept master plan would cost approximately $21 Million dollars (including the purchase of the land).

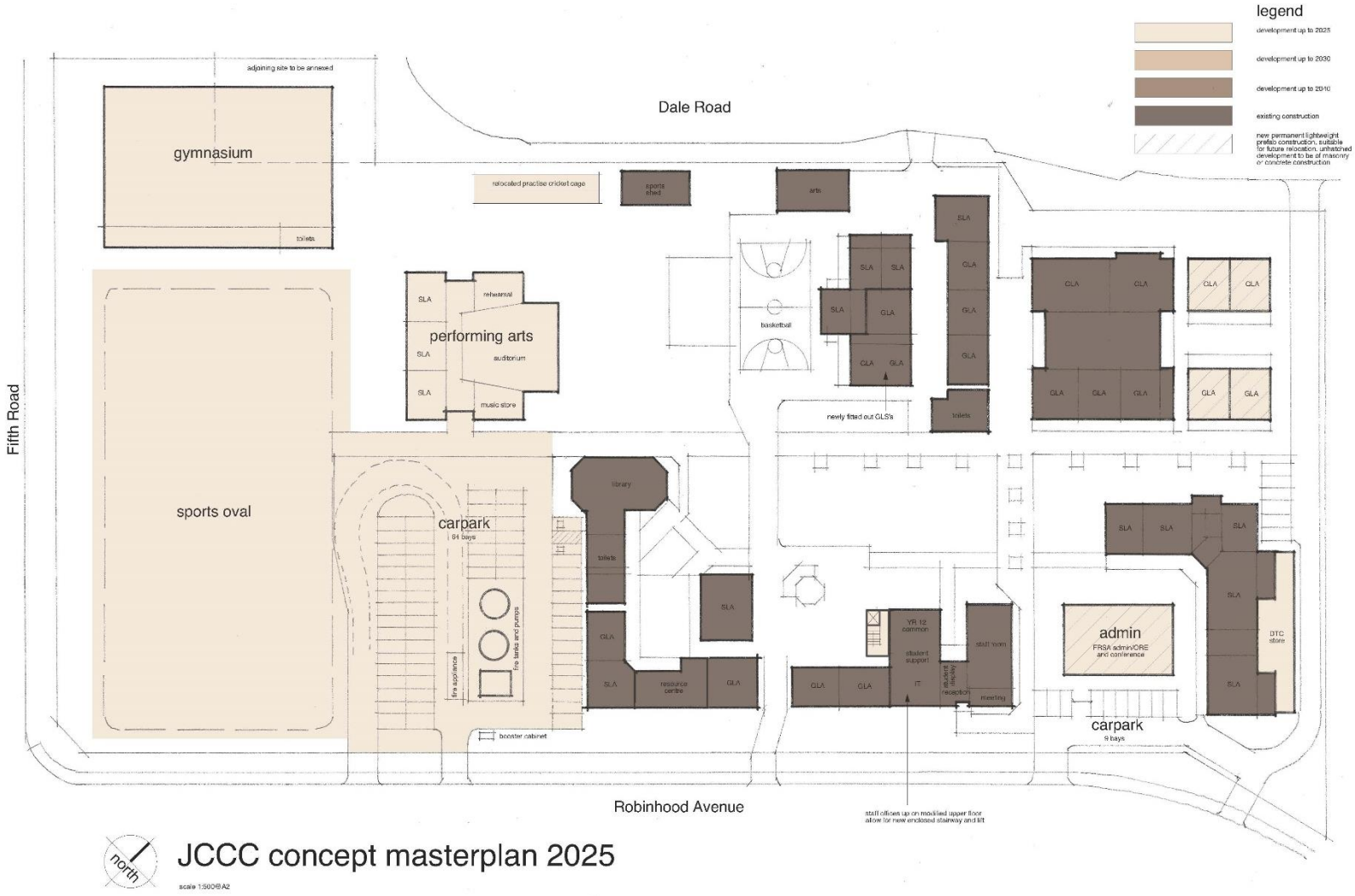

Figure 4.2 JCCC concept masterplan 2025

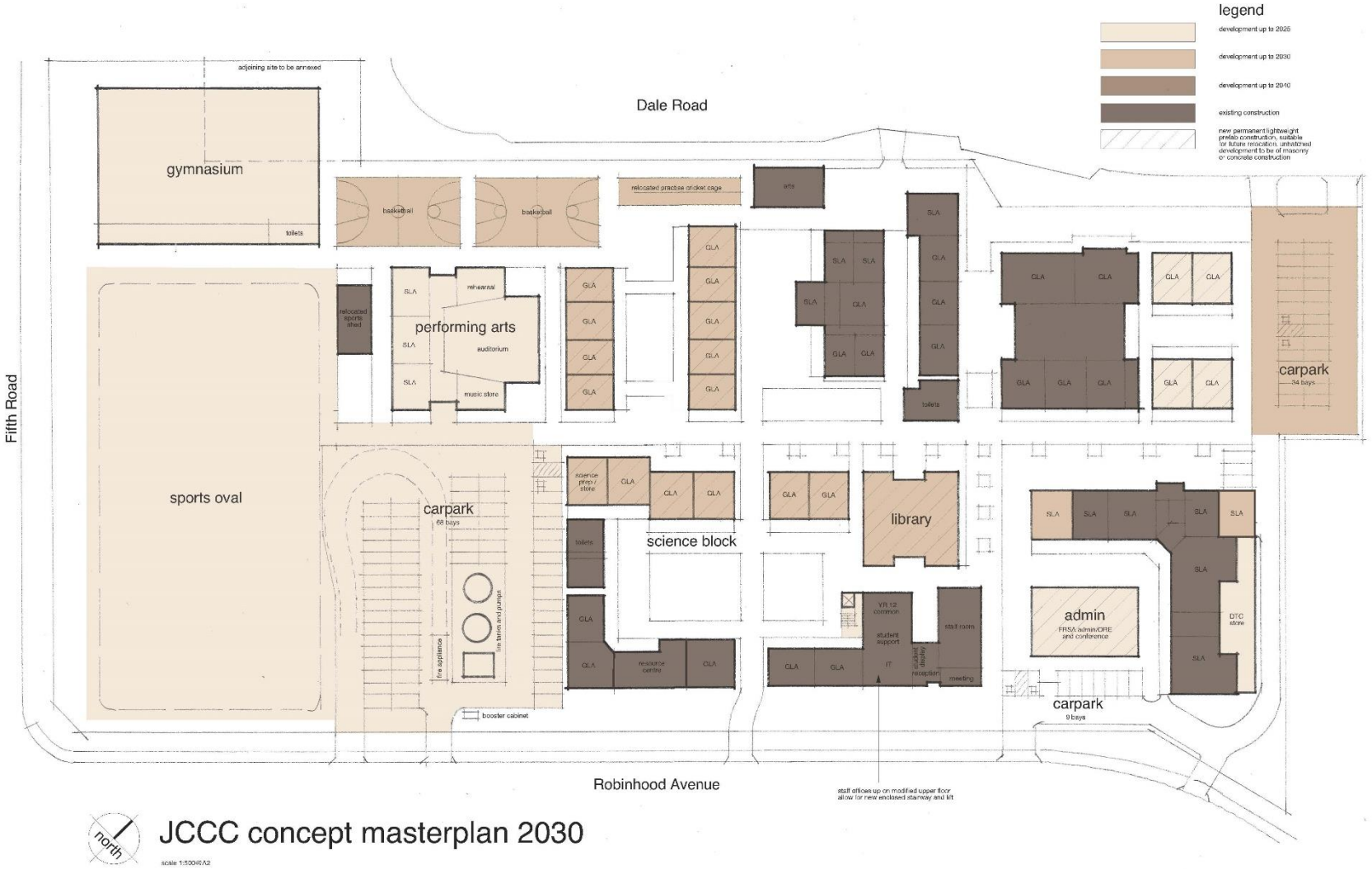

Figure 4.3 JCCC concept masterplan 2030

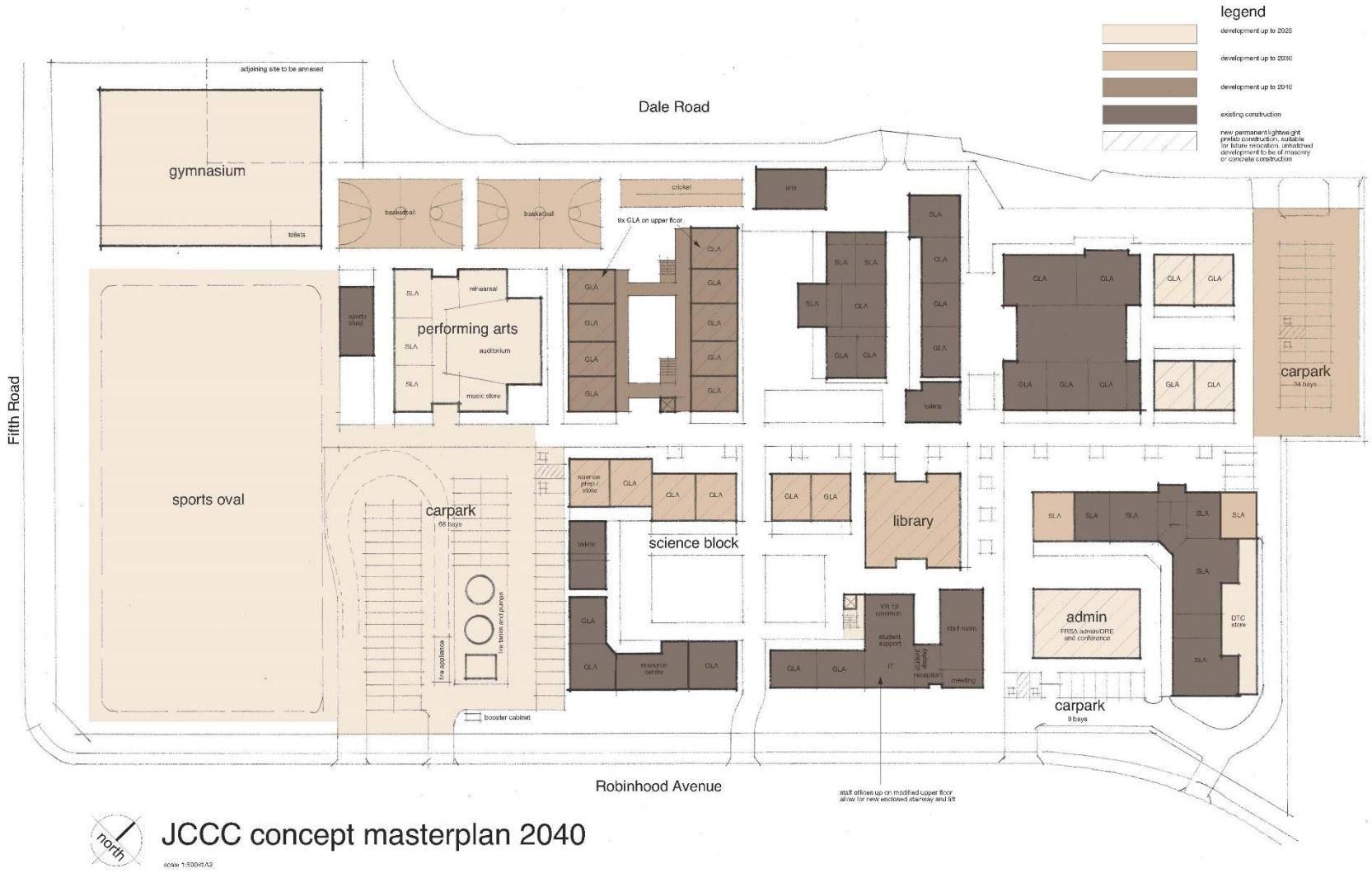

Figure 4.4 JCCC concept masterplan 2040

4.2 Byford John Calvin School

Situated on the corner of Soldiers Road and Mead Street in Byford this campus provides K-6 education for approximately 230 students. By 2040 total student enrolments are predicted to be about 370.

The current site shares access and parking with the FRC Byford, traffic management at morning and afternoon drop offs and pickups will become increasingly complex as student numbers increase.

The current campus is just under 2.2 ha. The Capital Grant guidelines recommend a minimum of 3.0 ha. for a school of 450 students. There is no obvious opportunity to expand the sites size (other than purchasing the Byford Free Reformed Church).

Commercial and residential infill around the site has resulted in more complex traffic issues around the site and resulted in increased adjacent development all around the site.

The current masterplan allows for the addition of up to 10 classrooms and 4 specialised learning areas (music, STEAM etc). The current covered areas will be expanded and upgraded while the MPH will be renovated to improve the acoustics. The administration area will have to be expanded and additional facilities built/renovated to support the work of the Education Support staff. The Library will need to be expanded and tanks and pumps are likely to be installed to comply with fire regulations.

The two ovals on the masterplan are significantly smaller than a traditional soccer oval being approximately 40 meters wide and 60 meters long. A typical oval could be approximately 90 meters long by 45 meters wide.

Total expenditure to achieve the masterplan is estimated at $7.5 Million.

Figure 4.5 BJCS masterplan

4.3 Kelmscott John Calvin School

Situated on Lake Road in Kelmscott this campus provides K-6 education for approximately 220 students. By 2040 total student enrolments are predicted to be about 400.

The current site shares access and parking with the FRC Kelmscott, traffic management at morning and afternoon drop offs and pickups will become increasingly complex as student numbers increase.

The current campus is just under 7.7 ha. The Capital Grant guidelines recommend a minimum of 3.0 ha. for a school of 400 students. The campus size is sufficiently large for the foreseeable future.

Residential infill around the site has resulted in significantly more complex traffic around the site and resulted in residential neighbours on the eastern boundary.

The current masterplan allows for the addition of up to 9 classrooms and 5 specialised learning areas (music, STEAM etc). The current covered areas will be expanded and upgraded while the MPH will be renovated to improve the acoustics. The administration area will have to be expanded and additional facilities built/renovated to support the work of the Education Support staff. The Library will need to be expanded and tanks and pumps are likely to be installed to comply with fire regulations.

The Early Years classrooms (specifically K and PP) will need to be extensively renovated or rebuilt to cater for student numbers and the demands of play based learning. (The masterplan shows a new K/PP facility).

Connection to the reticulated sewerage system will have to be explored as student numbers increase.

Total expenditure to achieve the masterplan is estimated at $8.5 Million.

Figure 4.6 KJCS masterplan

4.4 Rockingham John Calvin School

Situated on Mandurah Road in Baldivis this campus provides K-6 education for approximately 130 students. By 2040 total student enrolments are predicted to be 240.

The current site shares access and parking with the FRC Rockingham, traffic management at morning and afternoon drop offs and pickups will become increasingly complex as student numbers increase.

The current campus is just under 5.1 ha. The Capital Grant guidelines recommend a minimum of 2.4 ha. for a school of 240 students. The campus size is sufficiently large for the foreseeable future; however, the block has difficult topography that severely limits the available function space. Significant site works are likely to be required in the future.

The current masterplan allows for the addition of up to 2 classrooms and 3 specialised learning areas (music, STEAM etc). The current covered areas will be expanded and upgraded while the MPH will be renovated to improve the acoustics. The administration area will have to be expanded and additional facilities built/renovated to support the work of the Education Support staff. The Library will need to be expanded and tanks and pumps are likely to be installed to comply with fire regulations.

Connection to the reticulated sewerage system will have to be explored as student numbers increase – this has not been investigated in recent years.

Total expenditure to achieve the masterplan is estimated at $5 Million.

Figure 4.7 RJCS masterplan

4.5 South West John Calvin Christian College

Situated on Widdeson Road in Capel this campus provides K-10 education for approximately 100 students. By 2040 total student enrolments are predicted to be 150.

The current campus is just under 1.9 ha. The Capital Grant guidelines recommend a minimum of 3 ha for a school of 150 students (composite of primary and middle school). The campus size is sufficiently large for the immediate future; however, the opportunity to purchase additional land to the east of the site should be explored to support future growth. The masterplan has not considered a Multi-Purpose Hall due to the limited available space. While this is likely to be acceptable in the short term, in the medium to long term an appropriate MPH facility will be an important addition to the site.

The current masterplan allows for the addition of up to 9 classrooms and 3 specialised learning areas (music, STEAM etc). The number of additional classrooms is much higher than the primary schools due to the use of elective subjects in middle school. The current covered areas will be expanded and upgraded. The administration area will have to be expanded and additional facilities built/renovated to support the work of the Education Support staff.

Connection to the reticulated sewerage system will have to be explored as student numbers increase. The current sewerage system is appropriate and sufficient for the immediate future.

Total expenditure to achieve the masterplan is estimated at $5 Million.

masterplan South West John Calvin Christian College lot 53 (#2) Widdeson Road Capel

January 2021

Figure 4.8 SWJCCC masterplan

4.6 Summary

To achieve the masterplans by 2040, which assumes no relocation of campuses it is estimated that the total cost will be approximately $47 Million (just for the buildings).

Table 4.1 Capital expenditure by campus

Campus	Capital Expenditure
JCCC	$21 M
BJCS	$7.5 M
KJCS	$8.5 M
RJCS	$5 M
SWJCCC	$5 M
Total	$47 Million

The masterplans were developed by Br A Schiebaan, we are grateful for his time and expertise.

5.0 Efficiency

5.1 Finances

If efficiency is defined in terms of the ratio of students to teachers, this key performance indicator is the simplest predictor of the financial viability of any school. At its most basic the single biggest source of revenue for the FRSA is the per student contribution made by the Government and the single biggest expenditure is the teaching salaries. A currently valid rule of thumb for the Primary Schools operated by the FRSA is that classes with an average of 23 students are efficient. Student numbers greater than 23 increase the efficiency while student numbers less than 23 decrease the efficiency.

In the primary schools, when the student class size is above 23 (i.e., 23 or more students per year/class), the revenue received for the students offsets the expenditure incurred to pay for the class teacher, DOTT (duties other than teaching) and a percentage of the other teaching related overheads (Principal, Deputy Principal, CES coordinator, EYC coordinator). This means that classes with less than 23 students must be offset by classes with more than 23 students to balance the budget – or additional income secured from the Association.

Unlike other schools and school systems the FRSA does not advertise student places or explicitly mange the enrolment numbers. The FRSA operates on the implicit assumption that every member can enrol their child(ren) at the school of their choice. (In years past, enrolments were managed more closely to shift/encourage enrolments away from the Armadale Primary School to the Kelmscott Primary School.)

Class sizes are constantly changing as students join Kindy/Pre-primary and Year 6 students leave from the primary school into the combined metropolitan middle school. Student numbers also vary at the local primary school when parents move and enrol their children at another JCS primary school. Finally, student numbers vary when special enrolments and new members "migrate" in or existing members immigrate out of the system.

The FRSA seeks to optimise efficiency across the Primary Schools by balancing student numbers and ensuring that class configurations are educationally sound.

Scenario 1 – the current SWJCCC experience.

In a situation where there are 10 students in Grade 1 and 12 students in Grade 2 it is both efficient and educationally sound to offer a combined Grade 1/2 with 22 students. Note that this combination still results in less than 23 students in one class.

In the SWJCCC the student numbers in the grades K-6 are such that combining K/PP, 1/2, 3/4 and 5/6 is both (more) efficient and educationally sound and likely to be so for the next ten plus years.

Scenario 2.

In a situation where there are 15 students in Grade 5 and 17 students in Grade 6 it is efficient to offer a combined Grade 5/6 with 32 students. This combination may also receive additional support in the form of Education Assistant time due to the large number of students. The Principal in consultation with ESG will decide if this class configuration is educationally sound. In making this decision the Principal would consider the capabilities of the teacher and their experience (something may be appropriate for a teacher with five or more years of experience but not appropriate for a recent graduate) while also considering the individual needs of the students.

Scenario 3 - the current RJCS experience.

In a situation where there are 18 students in Grade 4 and 19 students in Grade 5 it is more difficult to balance the desire for efficient delivery with the need for an educationally sound outcome. Running a combined 4/5 with 37 students while efficient is unlikely to be educationally sound (it is also unlikely that we would have a classroom sufficiently large to cater for a single class of 37 students).

It is possible that some students could be shifted into the year above (Grade 6) and below (Grade 3) however the effectiveness of this as an option would depend on the numbers of students in Grade 3 and 6. Additionally, there are social and developmental considerations that need to be consider before concluding that this would be an appropriate solution. Various other solutions are also possible and the Principal and ESG interrogates these options vigorously each year.

In the RJCS the student numbers are such that composite grades are difficult to achieve in a way that is educationally sound. As student number per year level increase the class configurations will become less inefficient and will approach efficient. Current modelling suggests that RJCS is predicted to enrol 23 students per year level no earlier than 2026.

Scenario 4 - the current BJCS and KJCS experience.

In a situation where there are 26 students in Grade 3, 35 students in Grade 4 and 27 students in Grade 5 it is very difficult to balance efficiency and educational appropriateness. In this scenario Grades 3 and 5 are efficient but Grade 4, although efficient, is too large for a single class. Splitting Grade 4 into 4A and 4B results in 17 and 18 students per class well below the benchmark of 23.

Both the Principal and ESG would consider alternative combinations. One alternative could be to run two 3/4 composite classes with one 4/5 composite. The 3/4 composite class would include 13 grade three students and 15 grade 4 students while the 4/5 composite class would include 5 grade four students and 27 grade five students. While this solution is efficient it does pose some challenges from an educational perspective.

In both BJCS and KJCS the numbers of students per year level are such that they equal more than can be accommodated in a single class (i.e., more than 30 and less than 50). These enrolment numbers are not a bulge or a one-off anomaly but a trend that naturally is first experienced in K and PP.

BJCS and KJCS have moved past efficient single stream enrolment numbers and are experiencing inefficient single stream plus enrolment numbers. Current modelling suggests that both BJCS and KJCS will not achieve 50 enrolments per year level (i.e., efficient two stream school) until after 2040.

5.2 Staffing

Class configurations, based on student numbers, drives the need for Teachers (and other education support staff). The FRSA is constantly busy and striving to meet its staffing needs and often relies on mothers (with teaching qualifications) to meet its staffing needs each year.

At a systemic level, the FRSA is experiencing a disproportionate increase in the demand for teachers relative to the increase in student enrolments. Put another way, the ratio of students to teachers is declining across the FRSA system. The sub-optimal student teacher ratio drives a need for additional staff.

Duplicating resources across multiple small inefficient campuses also results in the need for duplicate leadership and support positions.

Attracting and retaining staff across the FRSA is a strategic priority for the Board of the FRSA.

5.3 Existing infrastructure and campus configurations

The existing configuration of the JCS also contributes to the duplication of positions and inefficient student teacher ratio. Each school requires a specific number of positions to operate. In general terms each school needs a Principal, Deputy Principal, Early Years Coordinator and Coordinator of Education Support (or equivalents in the Middle and Senior schools). Due to the size of our schools, these positions tend to be part time appointments.

By way of further elaboration, across the FRSA our current campus configuration requires us to have 5 Principals, deputy principals and a range of coordinator positions to support 1000 student enrolments. In the state school system or in other private school systems, 1000 students would be a medium sized school with one Principal (albeit with additional leadership positions including deputy principals and coordinators).

Having five campuses also requires the FRSA to duplicate infrastructure (i.e., libraries, specialist STEAM laboratories, Multi-Purpose Halls), which because of relatively low student numbers results in inefficient usage.

These observations do not mean that the decision to establish five campuses were wrong, they are simply meant to highlight that there are financial (i.e., staffing costs), staffing (i.e., employment) and infrastructure implications. As we consider the best model for the future, the recurrent, capital and recruitment implications need to be appropriately considered.

5.4 Conclusion

Our current enrolment policy and five campus model results in duplication of infrastructure and leadership positions and limits the ability of the FRSA to maximise efficient student teacher ratios across the system.

Because of the link between church membership, school membership and student enrolment the FRSA will always experience challenges in maximising student teacher ratios.

The solution is for the FRSA leadership to ensure that the tension between financial efficiency and educational need is managed in the best interests of the Association with due regard to the well-being of staff and students and prudent stewardship of the Association's money.

However, the issues associated with student teacher ratios, staffing and duplication of infrastructure does raise concerns about the stewardship of maintaining the existing five campus model and its potential expansion to support growth in student enrolments over the next twenty years.

6.0 School Campus planning priorities

6.1 Introduction

As we explore different options for the future the only initial limit is our imagination. To create a manageable sample for discussion and exploration it is helpful to articulate principles or priorities that will allow for the evaluation and assessment of the potential models.

The principles are likely to compete and ultimately the resolution of the tension between the different principles and the adoption of a final plan will involve extensive discussion and input from the Association.

6.2 Priority 1 - Location

Campuses must be located so that they are accessible to most parents.

In relative terms the FRCA members are more geographically diverse in 2020 than they were in 2000. Expansion is occurring south along the scarp into Cardup, Whitby, Mundijong, and Serpentine and south along the coast into Golden Bay, Singleton down into Mandurah. To a much lesser extent growth is occurring into the "northern most" suburbs south of the Swan River (i.e., Fremantle, South Perth, Como, Applecross)

The trend is likely to continue. This results in greater distances between home addresses and the school campuses. Far fewer students can ride their bikes to school in 2020 than in years past.

It is not practicable to provide a campus within 30 minutes' drive of all the members.

Accessible needs to be defined in terms of clear transport corridors (i.e., along, or adjacent to major transport routes) and FRSA managed bus services with a maximum desirable travel time of approximately of 45-60 minutes.

6.3 Priority 2 – School sizes

School sizes (student enrolments) must increase to resolve the issues relating to efficiency.

Primary schools of approximately 400 students allow for efficient double streams (i.e., 2 classes per grade). Once primary schools have approximately 400 student enrolments across K-6 they have much greater capacity to manage fluctuations in student enrolments per grade level.

The current JCCC middle school moves between 2 and 3 classes or streams per year level. In 2025 the JCCC middle school will move to consistent 3 streams per grade (starting with Grade 7).

The current JCCC middle school configuration is efficient and significantly offsets some of the inefficiencies associated with the JCCC senior school delivery.

It is recommended that the JCCC Middle School be retained in its current configuration until student numbers cause there to be 5 streams per grade level – expected to be beyond the scope of this planning exercise (i.e., beyond 2040). The JCCC middle school is expected to reach 4 streams per grade in the early 2030's (starting with grade 7).

Grades 10-12 which comprise the senior school in the Metropolitan area are less efficient (as explained earlier). The co-location of the Middle and Senior school allows for more efficient use of facilities, reduced duplication of facilities and allows for staff to teach across Grades 7 to 12 more easily. Student numbers across Grades 10-12 are unlikely to reach 4 streams until the late 2030's. (It should be noted that predicted year 11 and 12 student numbers are impacted by students leaving the school to undertake employment – the modelling accounts for this using trend data – 85% of Year 10 students transition to Year 11 and 95% of Year 11 students transition to Year 12).

It is recommended that the JCCC Senior School be retained in its current configuration and at a single location for the foreseeable future (i.e., up to 2040)

6.4 Priority 3 – Campus size

Campus sites need to be sufficiently large to provide the FRSA with growth options into the future. It is difficult to provide a specific figure but as a guideline a primary school site should be a minimum of 3 ha. for 400 students and a middle school site should be a minimum of 6 ha. for 400 students.

6.5 Priority 4 – K-2 Early Years Learning satellites

A future study needs to consider the viability of offering Early Years learning (K-2) in emerging growth areas such as Melville or Mandurah.

Some parents have shown that they are reluctant to send their young children (4 to 7-year old's) on bus service particularly if these routes are in lengthy (i.e. 45-60 minutes)

It may be possible to offer Early Years education in satellite locations however there are regulatory and financial viability challenges to be resolved.

6.6 Priority 5 – Existing Infrastructure

Existing infrastructure has both financial and historical value. Where appropriate we should leverage existing infrastructure.

6.7 Priority 6 – Connection between local church and local catchment school

The connection between the local church and the local catchment school is important. For much of the history of the FRSA there has been a strong connection (e.g. a single church and a single school). In the past twenty years this has changed, with a small number of churches aligned with a single school (at least at the primary school level).

- BJCS draws from Byford, Mundijong, and Darling Downs
- KJCS draws from Armadale, Kelmscott, Southern River, Melville, Mt Nasura, and Darling Downs
- RJCS draws from Rockingham, Baldivis, and Melville* (* at present one family)

As the number of churches increases, we need to redefine the connection between the local church and their local catchment school.

7.0 Alternative and preferred plans

Before introducing the preferred plan, it is good to consider the two extreme options available to the FRSA and to review their individual strengths and weakness and to evaluate their performance against the previously outlined priorities.

7.1 Consolidation of all Metropolitan Campuses

Under this hypothetical model a new parcel of land would be purchased, and a new campus built. Given the growing geographical spread of the Association it would be impossible to identify a location that would be close to all members. To some extent a well-planned and managed FRSA operated bus service could mitigate the concerns of families living more distant from the new campus location.

Assuming the new campus is opened in 2030, total student numbers would be approximately 1350. In terms of efficiency, this model offers the optimal staffing and financial solution while providing the most efficient use of (new) infrastructure. Consolidating the existing students and staff onto one site provides the optimal environment to manage class sizes (student teacher ratio) while reducing the duplication of specialist and leadership positions.

Future growth would be catered for as the site would be planned from the beginning to accommodate 1500 students with future expansion zones planned to accommodate 2000 plus students. For the foreseeable future the FRSA would be committed to single campus model (at least until 2040/2050).

Satellite early learning centres would be explored and offered in geographically "distant" locations for grades K-2. Presumably, these could be based in Melville and Mandurah assuming a hypothetical new JCS campus in the wider Mundijong/Darling Downs area.

All existing infrastructure would be liquidated, and revenues achieved used to offset the cost of building a new campus. The existing book value of the FRSA land and buildings is $19.55 million. The estimated cost of new land and new infrastructure is approximately $1 to $2 million for 20 Ha of land, and $38 to $40M for a new campus (infrastructure).

This model results in all the churches being affiliated with a single site. In such a situation to promote a real connection between the local churches and their school would need to be done differently.

Amalgamating all existing metropolitan schools into a single campus alters the risk profile of the FRSA. Consolidation results in a single point of potential failure which increases the risk profile should there be a disaster (fire, flood, etc) or personnel issue (failure in leadership or school culture).

Table 7.1 Model 1: Campus consolidation - evaluation

Priority	Evaluation
1. Location	Difficult to achieve an outcome that would achieve widespread Association support (even with a comprehensive FRSA managed bus solution)
2. Efficiency	Optimal
3. Capable of future growth	Maximised
4. Satellite K-2 learning centres	Potential remains
5. Leveraging existing infrastructure	Negative – all existing infrastructure liquidated (although this would provide revenue that would offset the cost of building)
6. Connection with the local church	All churches affiliated to one campus

7.2 Adding more campuses

Under this hypothetical model one, two or more new schools are established. Given the pressures on the Byford primary school it would be appropriate to consider a new Darling Downs/Mundijong/Serpentine Primary school. Given the pressures on the JCCC (particularly the middle school) it would be appropriate to consider a new middle school either located at a new Darling Downs/Mundijong/Serpentine site or at one of the existing sites (KJCS or RJCS).

Under this scenario a new primary school would be built around 2030 to accommodate growth in the existing Mundijong, Byford, and Darling Downs churches. In 2030 total enrolments at the current BJCS are expected to be 250 (plus). The new primary school would start as a 0.5 stream school (i.e. combined K & PP, 1 & 2, 3 & 4, and 5 & 6) with approximately 100 students reducing pressure on the existing BJCS.

Under this scenario a new middle school would be built at either the new Primary School site or KJCS or RJCS. Depending on the location, student numbers would vary but would be in the range of 20-30 per Grade – so a single stream middle school. A decision about Year 10 would have to be made – specifically do we offer Year 10 in two locations or do we consider Year 10 part of senior school and offer it in only one location.

In terms of efficiency this model offers the worst staffing and financial solution while duplicating existing infrastructure resulting in a further decrease in the levels of infrastructure usage. Managing optimal class sizes across 5 (or more) metropolitan schools would be more difficult than under the current arrangement. This model also results in additional leadership and specialist positions that are currently difficult to staff.

Future growth would be catered for as the new site would be planned from the beginning for up to double stream in the primary school and double stream in the new middle school. This would accommodate all potential growth till 2040 (new classrooms and other facilities

would have to be built at the existing sites). The existing JCCC could be retained as student numbers in Grades 7-9 (or 7-10) would be reduced by approximately 200 due to the 2nd middle school. By 2040 student numbers at the existing JCCC would be approximately 400 (50 more than current (2020) student numbers).

Satellite early learning centres would be explored and offered in geographically "distant" locations for grades K-2. Presumably, these could be based in Melville and Mandurah assuming a hypothetical new JCS campus in the wider Mundijong/Darling Downs area.

This model requires significant additional infrastructure to be built and land to be purchased. At a minimum, an entire new primary school and middle school needs to be built. Specialist facilities including library, education support, multi-purpose hall, science, technology (food sciences), design technology need to be duplicated.

It is estimated that the new primary school would cost approximately $5.5 million to build. It is estimated that the new middle school would cost $7M to build (no land costs assuming it is located at the new primary school site or RJCS or KJCS).

This model maintains a stronger sense of local community connection between a local church and their local primary school and depending on the location of the new middle school between a group of local churches and the new middle school.

Adding additional campuses will result in additional regulatory and compliance obligations (Government registration), will result in significant extra costs due to duplication of staffing positions (Principals and specialist staff) and will result in reduced efficiency. Realistically it is unlikely that the FRSA could staff this model particularly the requirement for additional Principals and specialist teachers. An additional concern is regarding the appropriateness of splitting the middle school. Having one middle school does allow all the FRCA youth to be together for three years (followed by three years in Senior School). The benefit of this to the church community in terms of shared experiences, promoting interaction amongst the churches needs to be considered.

Table 7.2 Model 2: Campus proliferation - evaluation

Priority	Evaluation
1. Location	New campus site would support the majority growth trend (moving towards Mundijong)
2. Efficiency	Sub-optimal (significantly worse than present configuration)
3. Capable of future growth	Suitable till 2040
4. Satellite K-2 learning centres	Potential remains
5. Leveraging existing infrastructure	Positive – all existing infrastructure remains
6. Connection with the local church	Retained and potentially promoted

7.3 Preferred Plan - Three Metropolitan Colleges Model

The preferred model recognises that not all the priorities can be satisfied equally. This model aims to navigate between the two previous "extreme" solutions and provide a coherent vision for campus configuration that will be sustainable (efficient) beyond 2040. This model aims to deliver on the campus vision in stages which allows the Association to move key subsets of the project backwards or forwards in time as student numbers require.

This model proposes that over time the FRSA establish three colleges (including one senior school) across the south Metropolitan area. Recognising the significant number of people who live along the Darling Scarp this area would eventually be serviced by two colleges. In response to the growing numbers of people living towards the coastal fringe this area will be serviced by a single college. Full achievement of this model will be well after the 2040 timeframe of this document.

To support parents living in the "southern" areas of the Darling scarp (i.e., south of Armadale Road) a new campus would to be built and the existing BJCS and JCCC (middle and senior school) are co-located and migrated to this new site. The potential general location is discussed later in this paper.

To support parents living in the "northern" areas of the Darling scarp (i.e., north of Armadale Road) the KJCS is expanded to support a double stream primary school and later expanded to include a middle school.

To support parents living in the coastal areas the RJCS is expanded to support a double stream primary school and later expanded to include a middle school. (Note: the current location of the RJCS may not be optimal and a future study could consider the appropriateness of the existing location and the feasibility of moving the site).

An integral part of the success of this proposal remains the development and implementation of a comprehensive FRSA managed bus transport solution (see elsewhere in this paper).

7.3.1 Potential Timeline

Across the next twenty years the implementation of this proposal comprises three distinct phases. While these phases are described as distinct it is likely that they could (or will) occur concurrently. Keeping the phases separate does reduce the complexity of the building projects and may have cash flow implications.

Phase 1. Relocate existing JCCC to new site (window of 2026 to 2030). Additional infrastructure at the JCCC planned for 2021/2022 will allow the JCCC to accommodate predicted student numbers till 2027. In 2027 student numbers are predicted to reach 410 (up from the current 363). From 2026 student numbers at the JCCC increase by

approximately 25 each year. All these students have already been born and the majority are already enrolled in the JCS's (i.e., we have high confidence in this data).

Phase 2. Relocate existing BJCS to new site (window of 2030 to 2035). Additional infrastructure at the BJCS planned for 2021 will allow the BJCS to accommodate student numbers till 2030. In 2030 student numbers are predicted to exceed 250 (up from the current 210). Student numbers at BJCS do not account for migration within the FRCA and approximately half the students predicted are not yet born.

Phase 3. Concurrent with these two significant relocations would be the further expansion of the RJCS and KJCS sites to accommodate ongoing growth in student numbers (consistent with their Campus masterplans). Student data modelling suggests that this new infrastructure will only be for primary school classes (i.e., the establishment of middle school at KJCS or RJCS will occur after 2040).

Post 2040, and driven by revised and updated student modelling, decisions can be made regarding the timing of the development of middle school at the KJCS and RJCS.

7.3.2 Critique of the Three Metropolitan Campus Model

This model allows the FRSA to reposition its key infrastructure assets in response to the significant movement in member addresses.

Relocating the existing BJCS to a new site within the same approximate area is unlikely to result in significant transport challenges for the catchment. Relocating the JCCC will result in new transport patterns for the catchment both positive and negative depending on the address. To some extent these can be mitigated by the implementation of a FRSA managed bus service.

In terms of efficiency this model makes no changes to the current configuration in the short term. However, it has the advantage of articulating a vision for the future that could hold as the FRSA model well beyond 2040. Consequently, it provides an infrastructure vision that will guide FRSA development and expenditure for the next 20 plus years.

This model provides flexibility to cope with future growth. Liquidating the two most space constrained sites and replacing them with a single future proofed site affords the FRSA with a range of options to manage growth into the future.

Satellite early learning centres would be explored and offered in geographically "distant" locations for grades K-2. Presumably, these could be based in Melville and Mandurah assuming a hypothetical new JCS campus in the wider Oakford, Oldbury, Mundijong area.

It is estimated that a new site would cost approximately 2 million to purchase. Building a new JCCC would cost approximately 15M while building a new BJCS would cost an estimated $7.5M.

The Three College model maintains a sense of connection between the local churches and their local primary school with all churches connected to a single middle and senior school.

Having one middle school does allow all the metropolitan FRCA youth to be together for three years (followed by three years in Senior School). The benefit of this to the church community in terms of shared experiences, promoting interaction amongst the churches needs to be considered.

Table 7.3 Model 3: Three Metropolitan College model - evaluation

Priority	Evaluation
1. Location	Three metropolitan sites located in Kelmscott, Rockingham, and the Oakford, Oldbury, Mundijong area
2. Efficiency	No change in the short term (10-15 years) but positive in the longer term
3. Capable of future growth	Suitable for 50 years (or more)
4. Satellite K-2 learning centres	Potential remains
5. Leveraging existing infrastructure	Mixed – some infrastructure retained and some infrastructure liquidated.
6. Connection with the local church	Retained broadly as per current arrangement

7.3.3 Other opportunities

The Three campus model also affords the broader FRCA with significant opportunities which are well beyond the specific remit of the FRSA yet are worthy of consideration.

Developing a new campus allows the FRSA to work in collaboration with other FRCA organisations to leverage planned infrastructure to serve the boarder needs of the FRCA. It could be possible that specific facilities to support other FRCA organisations could be co-located on the new site.

It would be possible to develop a masterplan that includes a multipurpose venue that could operate as a Church building on Sundays, a performance venue during the week (music, drama etc) and as a community hall/graduation venue/lecture theatre during weeknights.

The FRSA could partner with other church organisations to explore potential mutually beneficial infrastructure opportunities. Such partnerships could be developed over time and would be reviewed on their individual merits.

The site could be designed from the very beginning with safety and security as a priority. This could allow some buildings to be used as classrooms during the day and meeting rooms in the evening.

Ultimately the new site, which could be expected to exist for a significant period (potentially more than 50 years), could act as a hub for many FRCA related activities.

8.0 Potential location for a (relocated) JCCC and BJCS

The data presented to date can be summarised into the following key themes:

1. Student numbers are increasing.
2. Church growth is predominately south of Armadale Road.
3. The JCCC and BJCS campuses are significantly constrained in terms of available space and are unable to cater for additional growth (without further significant compromises).

Any new campus needs to have

1. Good vehicular access along major transport corridors
2. Sufficient space for future growth and development
3. Opportunity to exist and support the FRCA community in the long term

8.1 Darling Downs land bank

The FRSA owns a parcel of land adjacent to the Darling Downs church. This block is approximately 4Ha acres in size – designated with a B in Figure 8.1. If it were possible to purchase the adjacent block of Br and Sr J Swarts (C in Figure 8.1) and land from the FRC Darling Downs (A in Figure 8.1) the total size would be approximately 10 ha. This is triple the size of the current JCCC site but only double the size of the combined JCCC and BJCS sites. While the site would be of a sufficient size for the immediate and mid-term it would not be sufficiently large for longer term growth and for a genuine exploration of combined facilities for the FRSA and other church organisations.

The Darling Downs site also presents other challenges. The site is not on a major transport corridor. Although proximal to the Tonkin Hwy, the current plan is to make no direct link between Hopkinson Road and Tonkin Hwy. This means access to the site will require navigating through multiple minor roads once leaving the major corridor of Tonkin Hwy. A further consideration is the zoning of the existing land and its future land use as designated by the Shire of Serpentine Jarrahdale. South of Rowley Road remains dominated by large acreage lots with no high-density urban infill (as seen immediately north of Rowley Road). This area is being left as acerage lots, to support lifestyle living,

semi-rural properties suitable for horses and hobby farms. A large independent school complex catering for 1000 students is likely to result in complex negotiation with the residents and the Shire of Serpentine Jarrahdale.

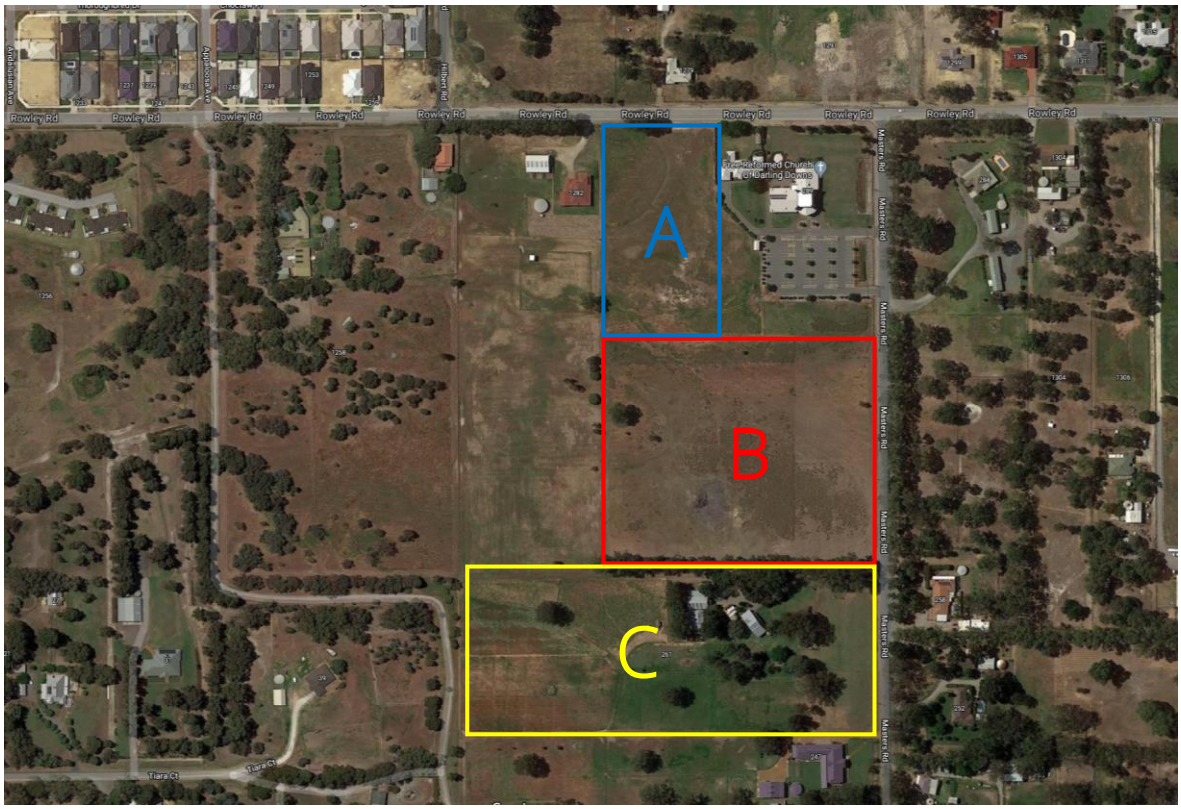

Figure 8.1Darling Downs landbank and potential additional land (source: Google maps)

8.2 Alternate site

It is proposed that the FRSA consider the potential benefits of purchasing 20Ha (or more) with good access to the proposed Tonkin Hwy extension in the proximity of Oakford, Oldbury, Mundijong. The Tonkin Hwy extension (Figure 8.2) is planned to be completed by 2024 and will extend south of Thomas Road running parallel to Kargotich Road. It will intersect with Mundijong Road before crossing Wright Road (north of FRC Mundijong) before joining the South West Hwy just south of Jarrahdale Road. This major transport corridor will facilitate significantly easier and faster access to these areas from Southern River, Kelmscott, Armadale, and Mount Nasura etc. The physical proximity and major road connections to Rockingham, Baldivis, Byford, and Mundijong are also an advantage Figure 8.3.

No single site is going to be optimal for all members of the FRSA, however, a well-managed and planned FRSA bus service could significantly offset concerns for those families likely to experience an increase in school drop off and pick up commute times.

Figure 8.2 Tonkin Hwy Extension (source: mainroads.wa.gov.au)

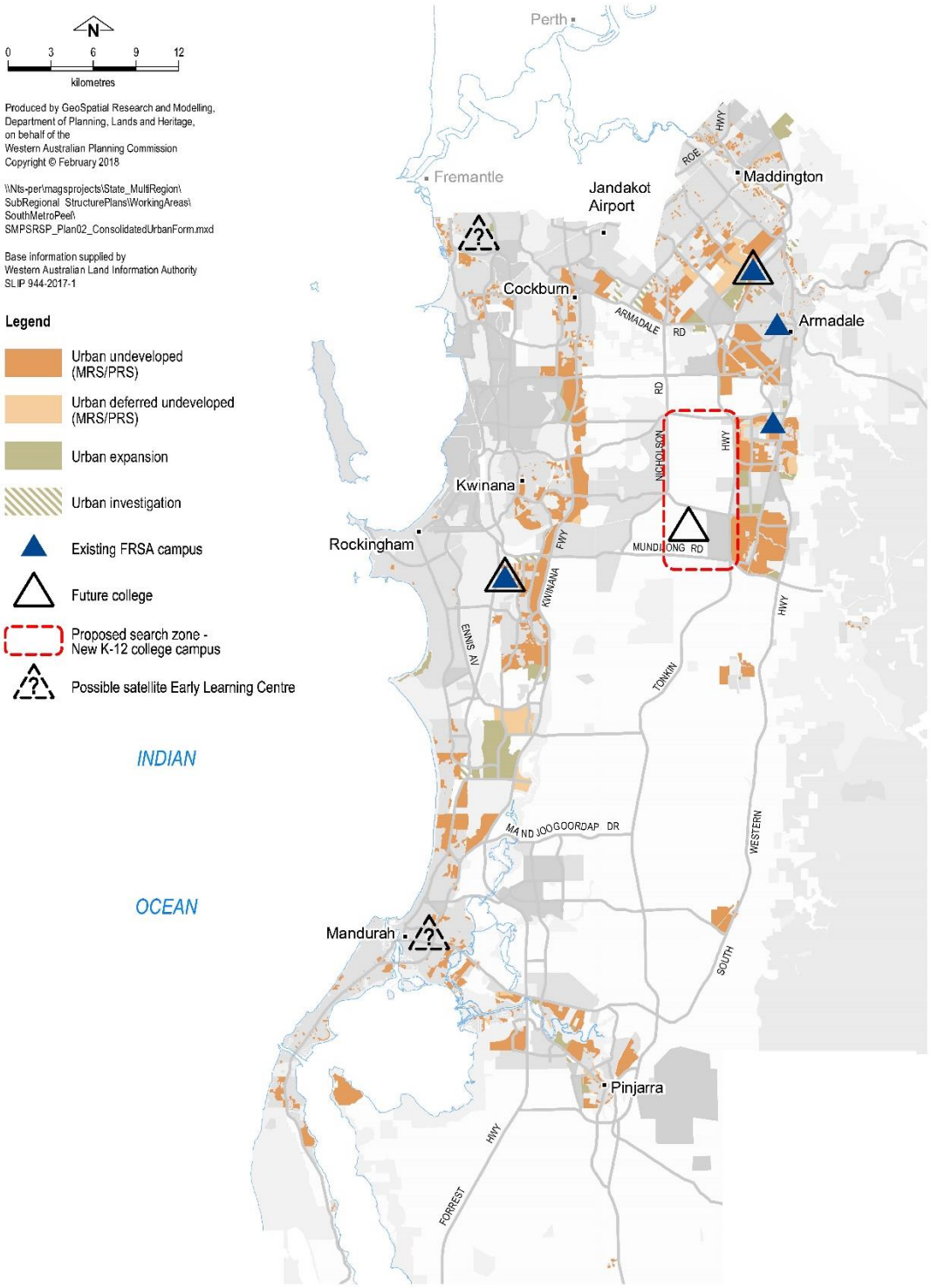

FIGURE 8.2: *The Preferred Plan & Initial Search Zone (Source: Perth & Peel @ 3.5 million - DPLH)*

Figure 8.3 Proposed initial search zone (approximate)

8.3 Capital Costs of the three different models

Duplication of land and infrastructure will influence overall efficiency, with fewer larger campuses being more efficient than a proliferation of smaller campuses. This is further evidenced in the capital cost of land and buildings detailed for the various campus configurations described earlier in this report.

Providing comparative costs for the different models is difficult and the following numbers are shared as indicative and qualified numbers. It is particularly difficult to calculate the further costs to be incurred to manage the growth from 2021 to 2040. These numbers have been calculated with an abundance of caution and are likely to be overestimates, however they broadly reflect the actual costs being incurred for current infrastructure development.

Model 1. Consolidated metropolitan campus.

This model assumes the sale of existing metropolitan campuses and the development of one new campus. Costs are estimated to be:

Table 8.1 Model 1 indicative costs

Purchase of land for new site	$2 M
Cost of replacing existing buildings and infrastructure	$40 M
Less proceeds of sale of existing campuses and land	($8.85 M)*
Further costs anticipated to cater for growth to 2040	$25 M
Total Cost	$58.15 M

(* Note: sale price calculated on 2020 land values only and includes sale of Darling Downs land bank)

Model 2. Retain existing metropolitan sites plus a new Primary School plus a new Middle School.

This model assumes the retention of all existing FRSA sites plus the addition of a new Primary School located in the Mundijong area, plus a new Middle School co-located with KJCS. Costs are estimated to be:

Table 8.2 Model 2 indicative costs

Land and buildings for new Primary School	$5.5 M
Buildings and infrastructure for new Middle School (co-located with KJCS)	$7 M
Further costs anticipated to cater for growth to 2040	$52 M
Total Cost	$64.5 M

Model 3. Relocation of JCCC and BJCS to a new single site

This preferred model assumes the retention of SWJCCC, KJCS and RJCS while relocating JCCC and BJCS to a new co-located site. Costs are estimated to be:

Table 8.3 Model 3 indicative costs

Purchase of land	$2 M
Infrastructure development and relocation of JCCC	$15 M
Infrastructure development and relocation of BJCS	$7.5 M
Less proceeds of sale of existing JCCC and BJCS campuses	($5.4 M)*
Further costs anticipated to cater for growth to 2040	$44 M
Total Cost	**$63.1 M**

(* Note: sale price calculated on 2020 land values only and includes sale of Darling Downs land bank)

Status Quo - Retain existing sites and build additional infrastructure on existing sites

This option is described in section 4 and costs are summarised in Table 4.1 (repeated here in Table 8.4).

Table 8.4 Status Quo indicative costs

Further costs anticipated for growth to 2040 – JCCC	$21 M
Further costs anticipated for growth to 2040 – BJCS	$7.5 M
Further costs anticipated for growth to 2040 – KJCS	$8.5 M
Further costs anticipated for growth to 2040 – RJCS	$5 M
Further costs anticipated for growth to 2040 - SWJCCC	$5 M
Total Cost	**$47 M**

9.0 FRSA Bus Service

The FRSA currently provides three bus service solutions. One in the South West and two servicing Baldivis, Rockingham and to a limited extent Byford.

Parents located in the catchments of Armadale, Mt Nasura, Kelmscott, Southern River, and Melville are likely to experience increased travel times (to varying degrees) by the relocation of JCCC to a site within the proposed search zone.

The FRSA could explore the viability of offering parents a single drop off and pickup solution. If the FRSA operated a bus service between campuses (in addition to other planned and managed routes) parents could drop-off and pick-up their Middle School and Senior School aged children at KJCS or RJCS and have the FRSA organise their transport to

the new Middle and Senior School site. Many operational matters would need to be resolved including timings, logistics, before and after school care.

Additionally, the FRSA will need to consider the most appropriate solution to assist members of school aged students living within Melville. Potentially a specific service for K-2 aged students supervised by a driver and an EA could be explored to mitigate against the fact that parents are geographically distant from their young children.

10.0 Conclusion

It is such a blessing that time and again we may be planning for growth, mindful that it is all under the blessing of the Lord, a blessing that can only be expected if we remain faithful and obedient to Him. This project is one of several large projects and 'building blocks' for the FRSA that will influence and direct our Association and schools for many years to come, the Lord willing. These significant 'building blocks' are part of a Spiritual building, part of God's Kingdom building, and hence these 'building blocks' are not firstly about a new plan for the future of our schools, a new campus, or a new Curriculum project. A new future schools plan, a new school campus, and a new school Curriculum will all disappear in the refining fire on the last day, when our Lord Jesus Christ returns on the clouds of heaven. If our work in training and nurturing the next generation of the Church in the fear of His name is according to His Holy Word and will, then by grace alone the next generation of the Church will stand before Him and give Him praise and glory on that last day!

This paper is presented by the Board to the Association as a discussion paper. The Board is keen to hear the views of the Association on the topics outlined in this discussion paper. Any final position regarding campus configurations will be subject to adoption by the Association.

It is proposed that the masterplans and population modelling will be updated as needed and on a five-year cycle.